



ASSESSING THE POTENTIAL

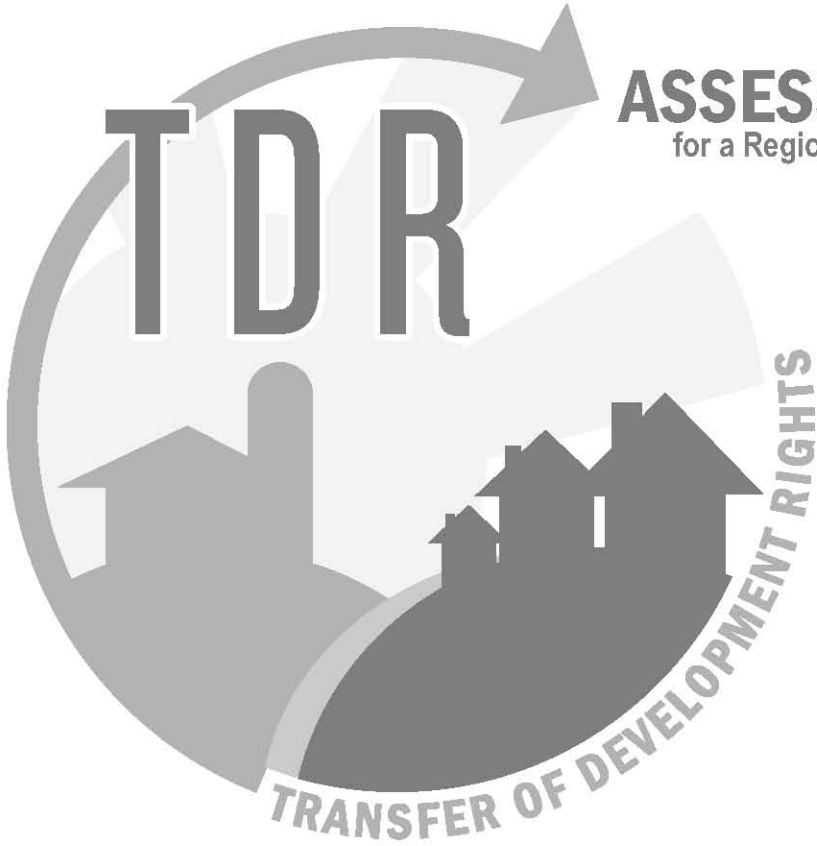
for a Regional Transfer of Development Rights Program

in SALEM COUNTY, NJ

A report of the Salem County Regional Task Force



JUNE 2011



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The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.



The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

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TABLE OF CONTENTS

Acknowledgements	i
Executive Summary	1
Chapter 1: Introduction.....	5
1A) Study Background.....	5
1B) The New Jersey State TDR Act.....	6
Challenges to Creating TDR Programs.....	7
New Jersey TDR Statewide Policy Task Force – Meeting the Challenges	9
Chapter 2: Transfer of Development Rights.....	11
2A) What is TDR?	11
Other Benefits of TDR Programs	11
TDR – Mandatory or Voluntary?	12
Difficulties and Successes.....	13
Municipal TDR Programs in New Jersey.....	14
Municipal TDR Programs in Burlington County	14
Municipal TDR in Woolwich Township, Gloucester County	14
2B) Innovations in TDR Program Design	16
Warwick Township, Lancaster County, PA – Campus Industrial Zone	16
Rural Land Stewardship.....	16
Impervious Surface Cap and Trade	17
2C) Components of TDR Program Success	18
Chapter 3: SALEM COUNTY	21
3A) Overview	21
Salem County	21
3B) Municipal Profiles	22
Municipal Descriptions	23
Alloway Township	23
Carneys Point Township.....	23
Elmer Borough.....	24
Elsinboro Township	24
Lower Alloways Creek Township.....	24
Mannington Township	24
Oldmans Township.....	25

Penns Grove Borough.....	26
Pennsville Township.....	26
Pilesgrove Township.....	26
Pittsgrove Township.....	27
Quinton Township.....	27
Salem City.....	27
Upper Pittsgrove Township.....	28
Woodstown.....	28
3C) Infrastructure in Salem County	28
Gloucester Salem Regional Alternative.....	30
3D) Current Planning Initiatives in Salem County	32
Smart Growth Plan.....	32
Salem County Open Space and Farmland Preservation Plans	33
Open Space Specific Plan.....	34
Farmland Preservation Specific Plans.....	35
Transfer of Development Rights (TDR) in the Farmland Preservation Plan.....	36
3E) Experiences with TDR in Salem County.....	37
Alloway, Quinton, and Elsinboro Townships.....	37
Mannington Township	38
Chapter 4: Exploring a TDR Program for Salem County	39
4A) An Idea Whose Time Has Come?.....	39
4B) Program Goals	40
4C) Options for Organization.....	41
4D) Potential Sending Areas.....	43
4E) Potential Receiving Areas.....	46
County-wide Option:.....	46
New Receiving Area(s) Options.....	49
4F) Clustering and Noncontiguous Clustering	50
Cluster Development.....	50
Noncontiguous Clustering.....	51
Challenges to Noncontiguous Clustering.....	51
4G) Financial Considerations in a Regional TDR Program.....	52
Shared Revenues – The New Jersey Meadowlands	52
Other Financial Incentives.....	53
Chapter 5: Summing Up and Future Directions.....	55
5A) Municipal Perspectives	55
5b) Options for Salem County	56
Changes to TDR at the State Level	56
Encouraging Municipalities to Reconsider TDR – Incentives	57
Final Considerations	59
5C) Next Steps	60
Sources.....	63

APPENDIX A: Example TDR Programs

Collier County, Florida’s Rural Land Stewardship Area (RLSA) ProgramA-1
Pinelands Development Credit ProgramA-2
Smart Growth Through the Transfer of Development Rights. A selection of TDR case studies with relevance for the preservation of farmland, open space and other natural resources in New Jersey. Prepared by Katherine Otto for New Jersey Future [with permission]..A-5

APPENDIX B: SALEM COUNTY MAPS

- 1. Salem County
- 2. Salem County 2007 Generalized Land Cover
- 3. Salem County Protected Lands
- 4A. Salem County Proposed Sewer Service Areas
- 4B. Salem County Potential Future Sewer Service Areas
- 5. Salem County Water Purveyor Areas (1998)
- 6. Salem County Policy Map of the NJ State Development & Redevelopment Plan
- 7. Salem County Agricultural Quality of Soils
- 8. Salem County Farmland [Agricultural Development Area]
- 9. Salem County Farm Project Areas [County and Municipal]

APPENDIX C: MUNICIPAL PROFILES

FIGURES

Figure 1: Gloucester-Salem Regional Alternative..... 31
Figure 2: Salem County School Districts..... 42
Figure 3: Salem County High School Districts..... 43

TABLES

Table 1: Domestic Permit Flow Data for Salem County Wastewater Treatment, 2002, 2007, 2009... 29
Table 2: Public Water Allocations in Salem County..... 30
Table 3: Potential Sending Area Acres & Units (break-down) 45
Table 4: Potential TDR Sending Municipalities (summed)..... 45
Table 5: Potential TDR Receiving Municipalities 47



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New Jersey Future’s organization and development of the New Jersey TDR Statewide Policy Task Force, chaired by Chris Sturm of NJ Future and Phil Caton of Clarke Caton Hintz, was instrumental in addressing the broad, state-level issues that are critical to regional programs. Their individual assistance is also greatly appreciated.

The impetus for the Salem regional investigation came initially from the American Littoral Society, along with Salem County Freeholder Beth Timberman, through a meeting in January 2008 of representatives of all Salem County’s municipalities to discuss regional Transfer of Development Rights (TDR). The Delaware Valley Regional Planning Commission was part of that meeting. Subsequently, Susan Payne, Director of the State Agriculture Development Committee, advanced efforts to organize further discussions of regional TDR possibilities in Salem.

Members of the Salem County Regional TDR Task Force gave major assistance and advice directly and through their participation on the Task Force. The contributions of all these knowledgeable and thoughtful individuals are greatly appreciated.

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EXECUTIVE SUMMARY

This study is an analysis of the feasibility of developing a regional Transfer of Development Rights (TDR) program in Salem County, New Jersey. It assesses land use patterns and the views of municipal officials within Salem’s 15 municipalities and looks at existing TDR programs in other states for innovative ideas that could be utilized in Salem. It also estimates the relative amounts of land that could be protected as sending zones and transferred into receiving zones in the county, and where those areas might be located.

TDR is a tool used by governments to transfer the land ownership “rights” to develop – the density – from a “sending area” designated for preservation or limited density to a “receiving” area targeted for growth. Its primary purpose is to protect farmland and/or open space lands and foster growth in appropriate areas, while also compensating landowners through market mechanisms for the transferred value. TDR simultaneously helps communities curb sprawl and promote the development/redevelopment of compact, livable communities, especially in areas with infrastructure. With TDR, land preservation occurs through private market transactions and does not require the expenditure of public funds.

This study was conducted by the Delaware Valley Regional Planning Commission (DVRPC), with funding support from the William Penn Foundation. A Salem County Regional TDR Task Force was convened, made up of county and local officials and representatives of nonprofit organizations and state government agencies that are involved with development and approval of TDR programs in New Jersey.

The Salem Task Force was complemented by a similar TDR Statewide Policy Task Force that looked at the barriers to TDR programs throughout New Jersey, especially at the municipal level. That task force was also funded by the William Penn Foundation and was convened by New Jersey Future. Its analysis led to several recommendations for legislative and regulatory changes that are much needed, especially in order for a Salem regional TDR program to go forward. A report, ***Realizing the Promise: Transfer of Development Rights in New Jersey. A Report of the New Jersey TDR Statewide Policy Task Force***, was issued in July 2010.

Preservation of farmland is a priority for Salem County, New Jersey, which has an agricultural industry that dominates its economy and occupies 53 percent of its land. To protect this industry, Salem County has preserved over 28,000 acres of farmland over the past 20+ years, largely through purchase of development rights. Funding has come from the county's Open Space and Farmland Trust Fund, supported by a tax of two cents per \$100 of assessed value, and from the Garden State Preservation Trust via the State Agriculture Development Committee and other agencies. In the long term, these funds will never be sufficient to protect all the lands of value. Legislation enacted in 2004 permitted use of TDR throughout New Jersey. However, local adoption of TDR programs has been exceedingly difficult, and there are no towns in Salem County that have successfully developed a TDR program.

Among its 15 municipalities, Salem County has several that are designated in county and state plans as areas for future growth. These include Salem City, the county seat, and the riverfront communities of Oldmans Township, Carneys Point Township, Penns Grove Borough, and Pennsville Township. These are also the areas with sewer and water infrastructure, with the exception of Oldmans Township, which has only small areas of sewer service.

The Salem regional study includes a preliminary analysis of the buildout of Salem's municipalities. This indicates that there are approximately 74,000 acres of buildable land within the rural zoning districts in the 10 towns that are predominantly agricultural in nature. This translates to roughly 11,259 developable units, based on current zoning and incorporating the nitrate dilution standards of the Water Quality Management Rules. These standards will be part of the Salem County Wastewater Management Plan, which is currently being developed.

Preliminary analysis of potential receiving areas in the municipalities with water and sewer infrastructure indicates that existing residential zones have the land available to accommodate the transfer of sending area credits to these locations. Further analysis of these areas as real estate markets is needed for a TDR program to be considered fully. Expanding sewer capacity through the partial conversion of the DuPont Company's industrial treatment plant in Carneys Point Township is being considered by Salem and Gloucester counties together. Expansion would potentially enable accommodation of TDR growth areas.

Nearly all Salem municipal representatives who were interviewed or served on the Salem Task Force favored continuing the assessment of Salem County's potential for a regional TDR program. All towns identified specific needs to make this happen, such as:

- Simplification of the requirements for TDR;
- Funding to carry out the planning and development that a TDR program requires; and
- Establishing a mechanism to share costs between municipalities working together on a regional TDR program.

A Salem County regional TDR program could benefit from incorporating features of innovative programs that are utilized elsewhere. This report includes information on the Warwick Township, Lancaster County, Pennsylvania, TDR program, which uses credits within an industrial receiving area. An impervious surface cap-and-trade program, modeled on the Lake Tahoe basin of California and Nevada, also provides ideas for use in Salem County. The Collier County, Florida Rural Land Stewardship Area program provides protection of both open space resources and farmland and may be a useful example for Southern New Jersey.

The Salem County Regional TDR Task Force supports further exploration and communication about a Salem regional program. Specific recommendations include:

- Focusing initial efforts on developing a small regional program involving a limited number of municipalities;
- Developing information for town officials and residents on how regional TDR could work;
- Expanding the Salem Task Force to include full representation by interested municipalities;
- Incorporating protection of open space into a regional TDR program;
- Conducting an analysis of real estate market conditions;
- Working for favorable treatment in funding and permitting of infrastructure development for towns that enter into a regional TDR agreement; and
- Linking discussions of wastewater planning in Salem County, including the Gloucester-Salem Regional Alternative, to advancing the recommendations in this report.

The economic downturn has removed some of the pressure for development that was affecting Salem communities. That pressure will return. The Salem Regional TDR Task Force believes that the time is right to assist all of Salem County in planning for that future growth. Strengthening municipal knowledge and use of mechanisms for local management, including possible TDR programs, will be a valuable part of that assistance.



CHAPTER 1: INTRODUCTION

1A) Study Background

As the least densely populated county in the nation’s most densely developed state, Salem County boasts one of the most unique landscapes and some of the richest resources in New Jersey. Salem is home to the largest concentration of contiguous and prime farmland in the state. Described as “The Garden Spot of the Garden State,” Salem boasts 126,245 acres of land under farmland assessment, of which 97,824 acres were active farmland. In 2007, Salem’s approximately 759 farms produced \$79,962,000 in farm products.¹

Preservation of Salem’s agricultural heritage, livelihood, and lifestyle is a priority for the county. Farmland located near major roadways, including US 40, NJ 45, and NJ 77, is under pressure for conversion to low-density, sprawl-style development. While these rural areas face development pressure, Salem County’s riverfront communities are experiencing population and job loss. Salem’s comprehensive plan supports a balanced development pattern, with rural areas complemented by a smart-growth plan for redevelopment in mostly post-industrial river communities and underutilized industrial areas along the Delaware River, Interstate 295, and the New Jersey Turnpike.

Transfer of Development Rights (TDR) programs are a planning tool used in combination with zoning to create a market for the sale or transfer of development rights associated with privately owned land. Based on the concept of the landowner’s bundle of rights, TDR programs allow development rights to be transferred from parcels designated for preservation to parcels designated for development. In 2004, passage of the *State of New Jersey Transfer of Development Rights Act* (TDR Act) authorized municipalities throughout New Jersey to use TDR programs in local land use planning. However, most communities in New Jersey have found it difficult to consider adopting a local TDR program due to financial, planning, and administrative challenges.

The function of TDR – to transfer development rights – suggests that the tool may be an effective way to support preservation of Salem County’s agricultural base, while simultaneously promoting

¹ 2008 Salem County Farmland Plan

economic development and smart-growth development goals. The Salem County Board of Freeholders has indicated its support for development of a regional or countywide TDR program through its planning documents and through direct approval of this regional TDR study for Salem.

In September 2009, the William Penn Foundation awarded the Delaware Valley Regional Planning Commission (DVRPC) a grant to undertake the organization of two interrelated task force groups to work in coordination to enhance the viability of TDR programs in New Jersey and Salem County. The task force groups are:

- The New Jersey State-Level TDR Policy Task Force
- The Salem County Regional TDR Task Force

Following a one-year effort, each task force group was charged with producing a final report summarizing their work.

This report represents the final product of the Salem County Regional TDR Task Force. The primary goal of the Salem County Regional TDR Task Force is to create consensus about whether a TDR program should be pursued for Salem County, and, if so, to identify the key issues that must be addressed to foster municipal participation in a Salem County TDR program.

Beyond this overarching goal, the Salem Task Force, through this study and associated quarterly meetings, identified some of the basic components of what a TDR program might look like in Salem County. DVRPC worked with the task force to produce this study to assess the viability of and vision for a regional TDR program for Salem County. The study was produced with the support of the Board of Chosen Freeholders of Salem County and the assistance of Louis Joyce, Salem County's planner. New Jersey Future, the American Littoral Society (ALS), and the New Jersey Conservation Foundation (NJCF) provided assistance from the start. The preparation of this study also drew upon state agency support, including the New Jersey Office of Smart Growth, the New Jersey State Agriculture Development Committee, the New Jersey Department of Environmental Protection, and the New Jersey Department of Transportation.

Members of the Salem County Regional TDR Task Force are listed in the **Acknowledgements Section**.

1B) The New Jersey State TDR Act

In March 2004, New Jersey adopted the State Transfer of Development Rights Act (State TDR Act), N.J.S.A. 40:55D-137, et seq. New Jersey is the first state in the nation to authorize statewide comprehensive TDR legislation establishing specific guidelines for local TDR program adoption. The State TDR Act authorizes municipalities to establish intramunicipal TDR programs by ordinance, as well as enter into intermunicipal agreements with other municipalities to establish a joint program.

The act formalizes the planning process required to enact TDR and mandates a list of planning documents required prior to adopting a TDR development transfer ordinance. Municipalities are required to:

- Adopt a development transfer plan element of their master plans
- Adopt a capital improvement program for the receiving zone
- Adopt a utility service plan element of their master plans
- Prepare a real estate market analysis
- Either receive approval of: (1) their initial petition for endorsement of its master plan by the state planning commission, or as part of a county or regional plan, or (2) the development transfer ordinance and supporting documentation as an amendment to a previously approved petition for master plan endorsement by the state planning commission.

While these required components undoubtedly contribute to New Jersey's state goal of ensuring sound and integrated planning and implementation statewide, each requires a very high level of resources, including staff time, financing, and administrative capacity. For example, the Real Estate Market Analysis must be prepared according to rules established by the New Jersey Office of Smart Growth, and must include detailed data on land use, zoning, and real estate values for the sending and receiving areas, as well as a description of associated program costs and an evaluation of proposed transfer ratios. The plan endorsement process requires municipalities to adopt more than a dozen planning documents, including a Natural Resource Inventory, Conservation Plan, and Community Facilities Plan, each of which represents a significant local effort. TDR programs are considered challenging to design, implement, and administer on their own, and the additional requirements—while valuable from a planning perspective—present practical challenges to municipalities with limited resources.

Challenges to Creating TDR Programs

In addition to meeting the requirements of the State TDR Act, New Jersey municipalities seeking to adopt TDR programs must carefully consider the coordination of TDR program planning with other state-fostered planning efforts. For example, Council on Affordable Housing (COAH) plans and Wastewater Management Plans (WMP) require municipalities to develop plans and zoning that accommodate projected growth while ensuring adequate affordable housing (COAH) or natural resource protection (WMP). Since TDR plans require similar build-out analyses and growth management planning, careful coordination is necessary to ensure that the many programs' goals are integrated and that unnecessary or conflicting plan and zoning changes are avoided.

Adding to these significant regulatory and administrative challenges, there are a number of financial and legal hurdles to implementing TDR programs in New Jersey. Municipalities are unlikely to support intermunicipal TDR programs or designate adequate receiving areas without incentives to help defray the costs of accommodating increased growth. Such incentives might include the ability to leverage

impact fees, the ability to designate Revenue Allocation Districts (RADs), opportunities to receive dedicated grant funding, and participation in a special state infrastructure financing program. Likewise, intermunicipal TDR programs may require cost-sharing mechanisms to help balance the burden of receiving-area development if disproportionate in certain municipalities. Additional development that is transferred “in” must be revenue neutral or revenue positive, from the receiving municipality’s perspective. The viability of these options must be assessed, both from a legal and financial perspective, and any practicable programs must be authorized legislatively.

Although the State TDR Act is an important step in empowering New Jersey municipalities to create TDR programs, only one municipality, Woolwich Township, has adopted a TDR ordinance pursuant to the act. Moreover, the New Jersey Chapter of the American Planning Association (NJ APA) found that several municipalities tried to circumvent the act with “almost” TDR ordinances. Adoption of TDR programs has, for the most part, been limited to unique situations where special funding, endorsement, and technical support were provided, such as the Pinelands Development Credit Program, the Burlington County Transfer of Development Rights Demonstration Program, and the Highlands TDR Program.

Courtney Mercer, President of the New Jersey Chapter of the American Planning Association, in a 2008 *New Jersey Planner* article, identified institutional changes that need to occur to facilitate implementation of TDR programs in New Jersey. These included:

- Raise the statutory \$40,000 cost-share planning grant from the state TDR bank to at least \$100,000.
- Provide an exemption to the municipal budget cap for state plan endorsement, which would also cover the costs associated with TDR.
- Prioritize state infrastructure funds to support Plan Endorsed communities, and TDR receiving zones in particular.
- Various state entities should provide for more flexibility in the review of projects in TDR receiving areas.
- Incentive programs, similar to those associated with Urban Enterprise Zones and redevelopment areas, should be created for TDR receiving areas. These programs could provide funding for needed infrastructure and services without additionally burdening the municipality or developers.
- Property tax relief and extraordinary aid should be prioritized to plan-endorsed communities.
- In recognition of the savings that TDR affords to state preservation funding, such as the Garden State Preservation Trust (GSPT), TDR communities should have access to a dedicated pot of funding for open space acquisition and park development that supports the TDR receiving area. The funding should be automatic and be some percentage of the value of the TDR credits purchased by private interests.
- Similar to Maryland and Massachusetts, there should be a state entity that has jurisdiction

- Similar to Maryland and Massachusetts, there should be a State entity that has jurisdiction over all of the State’s land use agencies to ensure that there is a real and coordinated effort to promote sustainable land use practices. The State Planning Commission (SPC), already populated with the Commissioners of these agencies, seems most appropriate. Accordingly, the SPC and the Office of Smart Growth should be empowered to coordinate any regulatory changes necessary to make the above happen.

New Jersey TDR Statewide Policy Task Force – Meeting the Challenges

Although there is consensus among many New Jersey planning organizations that state-level institutional changes are needed to make TDR a viable option for New Jersey municipalities, a coordinated effort to address such changes had not been undertaken until the organization of the New Jersey TDR Statewide Policy Task Force under the 2009-2010 William Penn Foundation grant. Under the grant provisions, DVRPC engaged New Jersey Future to coordinate this task force and produce a state-level policy agenda for improving the viability of TDR programs in New Jersey. This agenda assesses the state-level policy changes required for TDR program viability, including as necessary: legislative changes, COAH compliance, cost-sharing program authorization, incentive program development, and financing opportunity development.

Recommendations of the TDR Statewide Policy Task Force were issued in August 2010 as a report, *Realizing the Promise: Transfer of Development Rights in New Jersey*, available from New Jersey Future and the Delaware Valley Regional Planning Commission and located on the websites of both organizations (www.njfuture.org and www.dvrpc.org). Those recommendations include statutory, regulatory, programmatic, and policy changes to facilitate the use of TDR at the municipal level and set a direction for addressing obstacles to regional TDR programs. They include the following:

1. Empower local governments with a full spectrum of planning tools to transfer growth and preserve resources. This recommendation addresses making planning tools that transfer development simpler and less expensive to use. It recommends having less complicated (and thus less expensive) requirements for TDR programs that are voluntary, versus mandatory; strengthening non-contiguous clustering for small-scale transfers; clarifying municipal authority to mandate contiguous clustering; making TDR easier to use in urban areas; easing redundant notification requirements; and ensuring that developers can find development rights to purchase, when they are ready to build in receiving areas.
2. Provide a streamlined planning review and collaborative partnership with state government. TDR efforts have been stalled by government requirements, such as plan endorsement, that are burdensome, unclear, and/or fail to deliver support. This recommendation addresses the need for a more productive, supportive relationship with state government. It suggests streamlining the state’s plan endorsement requirements or providing an alternative state

approval process that will: limit requirements to those needed for a successful TDR program that is not inconsistent with state policies; align affordable housing requirements and TDR programs to be mutually supportive; offer greater state benefits commensurate with the local planning effort; provide a single point of contact for municipalities within state government; ensure state agency follow-through on commitments and approvals; and maintain adequate state staff support for TDR implementation.

3. Support well-planned receiving districts through regulatory reform. Successful TDR programs must have workable plans for development in a receiving zone, which requires appropriate infrastructure, especially for water, wastewater and roads. This recommendation addresses the need for certainty over a multi-year time period in the planning and implementation process, including wastewater planning, the state's Water Supply Master Plan, habitat protection requirements, transportation plans, and permitting in those areas by the state. It suggests integrating water and wastewater planning with TDR planning; providing state priority permitting for infrastructure and development in approved TDR programs; providing a stable regulatory environment via a sector permit/General Development Plan for the receiving district; establishing clear regulatory standards for small-scale wastewater treatment systems that could be used for small receiving areas at the hamlet scale; facilitating DOT transportation access permits for approved TDR receiving districts; and other specific ideas.
4. Make TDR a sound fiscal choice for local government. The financial benefits of TDR programs may be unobtainable due to the upfront costs of establishing such a program, especially for smaller or more rural communities. This recommendation covers issues of needed state support for planning, design and market analysis; state tools to fund, finance, and recover costs for infrastructure development in the receiving area; and expenses related to the accelerated need for municipal services in receiving areas. Specific suggestions include raising the amounts of Planning Assistance Grants and allowing increased dedicated municipal taxes for TDR planning; directing state financing sources and agencies to prioritize additional funding for TDR municipalities; offering additional legal protections by establishing a strong legal "presumption of validity" for TDR master plan elements and ordinances; identifying incentives for developers; and providing educational and planning assistance materials.
5. Explore ways to make regional TDR programs viable. Regional programs have the same hurdles as municipal TDR programs but they are further hindered by the need for financial resources for those municipalities that would serve as the location of receiving zones. This recommendation suggests greater review of: 1) possible incentives for the receiving municipalities such as additional state aid for education, regional tax-based sharing, and regionalization of schools and 2) facilitating the purchase of development credits on a much wider scale by requiring their purchase in new situations such as for increases in density or impervious cover, in the Pinelands, or where water from the Highlands is utilized.



CHAPTER 2: TRANSFER OF DEVELOPMENT RIGHTS

2A) What is TDR?

TDR is a relatively simple concept, but it has proven to be a complex and challenging tool to utilize. The basic idea behind TDR is that it allows for the transfer of development “rights” from one location to another. In the U.S., private ownership of land comes with a bundle of rights, which usually includes the right to subdivide and develop land. Landowners can exercise this right and develop their property as permitted by local zoning. Alternately, if a TDR program is in place, a landowner can buy or sell the right to develop land, thus transferring density or development potential from one location to another.

In a typical TDR program, a local government identifies “sending areas” designated for preservation or limited density and “receiving areas” targeted for growth. Property owners in the sending area may develop their land as permitted under baseline zoning, or they can sell or transfer their development rights to designated “receiving areas.”

TDR has a unique appeal among the tools that planners can use to control growth in that it theoretically functions to simultaneously resolve a number of financial, legal, and equity issues related to land regulation and development. Most importantly, TDR programs can help communities achieve preservation goals when the funding for purchase of development rights is limited. Although preservation through the purchase of conservation easements is a simpler approach, most communities cannot afford to achieve their preservation goals exclusively through purchase transactions. With TDR, land preservation occurs through private market transactions and does not require the expenditure of public funds. TDR’s reliance on the market mechanism, combined with regulation, allows for greater flexibility, incremental decision-making, and market responsiveness compared to strictly regulatory approaches. These factors can contribute to stakeholder support and program longevity.

Other Benefits of TDR Programs

In addition to preservation, TDR can help communities curb sprawl and promote the development of

compact, walkable communities. Unlike many growth management tools that either limit growth or foster compact development, TDR is designed to do both.

Another reason TDR programs are adopted is to mitigate the impact of land regulations. Although sending area landowners may be discouraged from developing their property under a TDR program, they can be compensated for the lost development potential when transferred rights are purchased. This can help prevent the windfall and wipeout effect that land use regulations impose, contributing to a more balanced distribution of the costs and benefits of development. Often, baseline zoning is reduced when a TDR program is imposed, and TDR is implemented to compensate landowners for the reductions in allowable development. In this way, TDR can help mitigate the risk of regulatory takings claims. Where property owners are subject to downzoning, TDR may provide compensation for reduced rights or property values. This is an important function of TDR in states or communities with strong property rights protections, such as Florida, where state mandates require compensation to landowners whose property values are affected by public actions.

TDR – Mandatory or Voluntary?

TDR programs can be mandatory or voluntary. When landowners in the sending area have the choice to sell TDRs but also retain a right to build at some limited density, TDR programs are described as compensable zoning. For example, Montgomery County, Maryland, downzoned sending areas to one house per 25 acres. Property owners in Montgomery County have the choice to develop at the one-house-per-25-acre density or sell some or all of their TDRs. Although based on the concept of a landowner's bundle of rights, the right to transfer development rights is not intrinsic to property ownership. State enabling legislation sets the legal framework under which municipalities activate TDR programs. Most programs operate on a city or county level, although there are also a handful of regional programs. The nation's most successful programs, based in the New Jersey Pinelands and Montgomery County, Maryland, have protected more than 75,000 acres of rural land combined.

The classic TDR approach involves the transfer of the right to develop dwelling units. Some of the oldest and most successful TDR programs in the nation function primarily by allowing for the transfer of residential development rights. Innovative approaches to TDR that allow for the transfer of other types of development rights are increasingly popular and allow TDR programs to be crafted to suit local market conditions. These innovative TDR programs are discussed in more detail in Chapter 3.

When a landowner sells or transfer development rights from a sending area parcel, he or she must restrict future development on that parcel, usually through the placement of an easement on the land. Usually, the success or performance of a TDR program is measured in the number of acres protected or development rights transferred in the sending area.

Difficulties and Successes

Many TDR programs throughout the U.S. have generated few transfers, in large part because developers are satisfied with by-right zoning or are able to obtain zoning increases without using TDRs. TDR programs can be difficult to enact due to the complexity of spatial, financial, and legal issues involved. There are challenges to winning stakeholder support in both the sending and receiving areas. Some municipalities support the market for development rights through creation of TDR credit banks or create incentives for using TDR credits by allowing density bonuses when transferred credits are used in a development project.

The nation's most successful TDR programs are located in communities with unique cultural and political contexts. Montgomery County, Maryland, is home to the country's leading TDR program, with more than 43,000 acres preserved (Montgomery County Department of Economic Development 2005). Montgomery County is one of the most affluent counties in the nation and has a deep history of pioneering land use policy and a large share of productive family farms.

Many TDR programs are located in affluent communities with commitments to natural resource preservation (such as Boulder, Colorado, and the Lake Tahoe region) or places where farming has high cultural and economic value (Calvert County, Maryland, and Manheim Township, Pennsylvania). Although there are dozens of TDR programs in the U.S., the limited success of TDR outside of these few areas has led researchers to argue that TDR is likely to work well only where there is a unique sense of place and the program is backed by the political will of the community.

The most successful TDR program in New Jersey is the Pinelands Development Credits (PDC) Program, which operates in the Pinelands, the country's first National Reserve. This regional program has preserved over 51,000 acres of land since its inception in 1985, utilizing \$45,464,513 in private sector funds through PDC purchases. It relies on sending and receiving areas that were established at the time the Pinelands Comprehensive Management Plan was adopted, within the designated areas of that plan. Its purpose was to compensate for the restrictions on development within the Preservation Area District, Agricultural Production Areas, and Special Agricultural Production Areas, and to transfer that development to regions that were designated as Growth Areas. Protection of the Pinelands' unique natural and cultural resources is administered through combined state and federal mandates governing land use in seven counties and 56 municipalities.

Appendix A: Example TDR Programs in this document has information on the New Jersey Pinelands program and on the Rural Land Stewardship program in Collier County, Florida, which is also described briefly in **Section 2B) Innovations in TDR Program Design**. A compilation by New Jersey Future intern, Katherine Otto, of numerous TDR programs around the country is also included in **Appendix A**.

A full assessment of TDR programs across the county is presented in Rick Pruetz's *Beyond Takings and Givings. Saving Natural Areas, Farmland, and Historic Landmarks with Transfer of Development Rights*

and *Density Transfer Charges*, published in 2003. The website www.beyondtakingsandgivings.com updates the status of TDR case studies after the 2003 book was published.

Municipal TDR Programs in New Jersey

Municipal TDR Programs in Burlington County

In 1989, the state legislature authorized the Burlington County Transfer of Development Rights Demonstration Act, permitting Burlington County to serve as a pilot project for the state in the creation and implementation of TDR. Chesterfield and Lumberton townships were the two municipalities that availed themselves of this land use management opportunity. Both established voluntary TDR programs in the 1990s.

Lumberton established its TDR program in 1995. Like Chesterfield, which established its program slightly later, it established a receiving area with public water and sewer availability and created credit allocations based on the septic suitability of soils of a parcel. Soils are determined to be favorable, moderately restricted, or severely limited, and credits are assigned accordingly. Lumberton went on to establish a second receiving area within the township in 2000. Sending areas in both municipalities are all the farmland and open-space areas outside of the receiving district(s). Credits are sold privately. In Lumberton's case, a municipal credit bank was established. Chesterfield relies on the Burlington County Credit Bank.

Receiving districts in both towns permit a variety of housing types, and credit purchase can be used for commercial and other mixed-use development, as well. Another important provision of the TDR program in both towns is the comprehensive design guidelines that pertain to development constructed with TDR credits. These guidelines govern site standards, architectural aspects, and open space requirements. The purpose of these guidelines is to ensure that receiving area development is compatible with the environment and architecture of the traditional communities in the townships.

Both programs have been highly successful and continue to be implemented. In Lumberton, 850 acres have been preserved through the TDR program. In Chesterfield, the program has succeeded in preserving almost 5,000 acres of land – about one-third of the municipality's land area – through a combination of farmland easement purchase and assignment of credits under the TDR program.

Municipal TDR in Woolwich Township, Gloucester County

Woolwich Township in Gloucester County was a rural, agricultural community with a population of 1,459 people in 1990. During the following two decades, it became the fastest-growing municipality in New Jersey and the second-fastest in the entire northeastern United States, resulting in a population of 10,200 by 2010. This was due to an early General Development Plan for a 4,500-unit development, known as Weatherby, along with other scattered developments that were built throughout the township.

In 2005, as part of the pilot TDR projects funded initially by the New Jersey Office of Smart Growth, Woolwich began a comprehensive planning process in an effort to curb sprawl and contain development within specific areas. This culminated in a detailed TDR plan approved by the Office of Smart Growth and some of the other key state agencies, although DEP and the Department of Transportation (DOT) abstained from the approval vote. A TDR ordinance was adopted in 2008. Considerable cost was incurred by the township in obtaining plan endorsement and developing the program and ordinance.

The Woolwich TDR sending zone consists of over 4,000 acres of farmland and open space on 115 tax parcels. Land in the sending zones that is not preserved through TDR credit purchase is now zoned for a density of 15 acres per unit of housing. The receiving areas consist of a planned mixed-use, 743-acre “Woolwich New Town” and additional commercial areas located along Route 322, with another smaller, 125-acre commercial zone called Auburn Road Village adjacent to Swedesboro. The larger receiving area is not within a sewer service area. Although several options were explored to establish sewer service with a connection to the upgraded Swedesboro Sewage Treatment Plant (STP), or to the Logan Municipal Authority STP, or to discharge to groundwater with spray irrigation, none of the alternatives was viable. Woolwich’s program has stalled until this problem can be resolved.

Woolwich’s experience is illustrative for other municipalities, especially those in Salem County that are also rural and agricultural. Although the township leaders and consultants followed all the required steps in the planning process, the implementation of their program has been delayed because of wastewater planning issues, as well as concerns still held by DOT about impacts on Route 322, which is a major east-west road in the county. These state agencies were present for all parts of the planning process, but clearly, facets of a TDR plan must have definitive approval before a community goes forward with finalization of a plan. Many towns in New Jersey have watched Woolwich’s progress, which makes these delays and problems especially unfortunate for any effort to encourage use of TDR elsewhere.

The other consequence of the delay is that the TDR ordinance’s rezoning has effectively eliminated Woolwich’s farmland preservation program through Purchase of Development Rights (PDR). Prior to the TDR ordinance, Woolwich was actively preserving farmland through PDR, using both its Planning Incentive Grant and assistance through the county and the state Agricultural Development Committee (SADC). The township had every intention of continuing the PDR program, in conjunction with TDR, because the former method reduces ultimate buildout, which is not the case with TDR. However, the rezoning has meant that appraisals for farmland preservation are too low to be meaningful to farmland owners, due to the significant reduction of development potential that the rezoning mandates. Unlike in Chesterfield and Lumberton in earlier years, appraisals can no longer be based on the former zoning – an option through SADC until 2004. Only properties with prior approved development plans have this benefit.

This has been a major drawback to Woolwich landowners who cannot wait for TDR credit sales as a means of preserving their properties at a reasonable price. The TDR program did allocate credits based upon prior zoning, but this then changed to the growth-limiting current levels when the TDR ordinance was adopted. A mechanism is needed that allows prior zoning to prevail for PDR preservation projects, or that links appraised value to credits.

2B) Innovations in TDR Program Design

These examples of innovative TDR programs demonstrate that creativity in program design can be utilized to meet local resource protection needs or best match local market conditions.

Warwick Township, Lancaster County, PA – Campus Industrial Zone

Warwick Township, Pennsylvania, is primarily a farming community, and most of the land in the township is in agricultural use. Landowners in the township have taken advantage of purchase of development right programs to preserve parcels, but the local government recognized that not all farmland that it wanted to preserve could be protected through this method. The township developed a unique TDR program that allows for the transfer of residential development rights away from farmland. Transferred credits are sold for the purpose of increasing lot coverage in the Campus Industrial Zone (receiving area). In order to ensure sound land-use practices, the maximum lot coverage within the Campus Industrial Zone is 10 percent; however, for each transferable development right acquired, an additional 4,000 square feet of lot coverage is permitted, up to a maximum of 70 percent coverage.

The township also partners with developers to review and determine the number of TDRs needed for a specific project within the Campus Industrial Zone. The number of TDRs needed is based on the size of the project and the size of the tract where the project would be located. This partnership has been successful in selling 278 TDRs since 2001, redirecting more than \$685,000 to farmland preservation. The Warwick Township program is important and interesting because it is not restricted by the typical approach of allowing for transfer of residential rights from one area to another. By developing a transfer mechanism that removes residential rights and allows for increased industrial development, the township uses TDR to create a growth pattern that best meets local planning goals and takes advantage of the local real estate market demand. The Campus Industrial Zone is located next to the community's hospital, so the receiving area site leverages an existing community asset to create a new job center.

Rural Land Stewardship

The Collier County, Florida, Rural Land Stewardship Area (RLSA) program seeks to protect natural resources and agricultural activities by promoting compact, mixed-use development as an alternative to low-density single-use development. The RLSA program represents an innovative approach to TDR

that makes it perhaps the most important TDR program in use anywhere in the nation. Typical TDR programs simply transfer growth from one area to another and protect sending areas by reducing the amount of allowable development based on generally accepted agricultural zoning standards. The RLSA is a data-driven approach to TDR that envisions sending areas protected not only through reduced development standards, but also through incentives for restoration and mitigation of natural resources. Development rights that can be utilized or transferred from sending area parcels are quantified based on identified and mapped natural resources.

Like a traditional TDR program, the RLSA program designates sending and receiving areas across which rights may be transferred. Of the 195,846 acres in the RLSA, 89,543 acres are designated as potential Stewardship Sending Areas (SSAs) and 92,899 acres are designated as potential Stewardship Receiving Areas (SRAs). However, the RLSA Stewardship Credit System sets it apart from traditional TDR programs in that it assigns credits not simply based on severed residential development rights, but rather based on a combination of uses removed, as well as a Natural Resources Index (NRI). This means that landowners are compensated for eliminating certain land uses that are incompatible with the rural nature of eastern Collier County. Furthermore, the Stewardship Credit System provides greater incentives to protect lands identified as environmentally sensitive. In this way, the program endeavors to do more than redistribute the intensity of land uses and promote smart growth within the program area. It creates a market-based framework for the management of rural land uses, the promotion of agricultural economic development, and the stewardship of natural resources.

As of 2009, the program had preserved 21,123 acres, or 27 percent of eligible Sending Lands. An additional 31,832 acres are pending protection. The receiving area consists of 5,027 acres, 4,072 acres of which are planned as a New Town and 955 acres of which are dedicated to Ave Maria University. A second receiving area is in the planning stages.

See **Appendix A: Example TDR Programs** for a more detailed description of the Rural Land Stewardship Area Program.

Impervious Surface Cap and Trade

An innovative approach to TDR that utilizes an impervious surface cap-and-trade system has been proposed by John Hasse (a member of the TDR Statewide Task Force and the Salem County Regional TDR Task Force) and Michael Ontko of Rowan University. This “big idea” proposes that the state adopt an overlay mechanism that discourages development in rural and environmentally sensitive areas, while fostering smart growth that achieves LEED-ND certification and redevelopment of already urbanized areas. LEED-ND (Leadership in Energy and Design for Neighborhood Development) is a smart growth, green building, and sustainability rating system developed as a collaboration of the U.S. Green Building Council, the Congress for New Urbanism, and the Natural Resources Defense Council.

Hasse and Ontko summarize the limitations of existing New Jersey efforts to control sprawl and manage land throughout the state and suggest that a new land use mechanism is needed to draw together existing programs for land use management with one that supports sustainable growth. The use of impervious coverage as a TDR tool is being used in various programs in other states, most notably in the Lake Tahoe basin of California and Nevada, as well as within TDR programs in Pennsylvania and Maryland. Impervious cover limits are part of the Warwick Township program described above, for example.

The percentage of impervious surface in a watershed is a scientifically documented predictor of water quality within a watershed. A threshold of 10 percent has been identified at which the cumulative impacts of development projects begin to have ecosystem-wide implications, first on water, but also on the loss and fragmentation of land resources, such as farmlands, forests, wetlands, and wildlife habitats. In New Jersey, for every acre of impervious surface that is created by urbanization, one acre of farmland, 1.28 acres of forest land, and .55 acres of wetlands are lost.

A cap-and-trade system would limit the total amount of impervious surface allowed to be created and would rely on market forces that would preserve open space. The authors recommend a 10 percent cap on the amount of impervious surface that any property parcel can create by right, combined with a free-market trade of that impervious surface to areas where it is most demanded for development and also dictated by zoning. To direct development so that it achieves smart growth and sustainability goals, bonus incentives would be utilized that encourage transfers to urban exemption areas, that transfers development into state plan growth areas (Planning Areas one and two), and that achieves LEED-ND sustainability certification. Local control of land use would be maintained, but the state would need to develop mechanisms for the trading and bonus systems.

2C) Components of TDR Program Success

Several studies exist of TDR programs throughout the United States. One that summarizes the necessary elements of a successful TDR program is by Rick Pruetz and Noah Standridge, *What Makes Transfer of Development Rights Work? Success Factors from Research and Practice*, published in 2009. In their paper, the authors identified 10 factors of a successful program and surveyed 20 leading programs throughout the country to determine how many of them had those characteristics (the number of such programs is shown in parenthesis). The factors are:

1. demand for bonus development by developers (20),
2. customized receiving areas that fit local circumstances (20),
3. strict sending-area regulations, including low-density zoning (usually at least five acres per unit), to motivate landowner participation (18),
4. few or no alternatives to TDR for achieving additional development (17),

5. market incentives, especially having transfer ratios that create sufficient compensation to landowners and affordable TDRs for developers (15),
6. certainty of use, especially through zoning of receiving areas to minimize or eliminate discretionary approvals for developers (14),
7. strong public preservation support, as demonstrated by the existence of a locally or regionally funded preservation program, or the willingness to create a TDR bank (13),
8. simplicity, which generally helps to build support among diverse groups (13),
9. TDR promotion and facilitation, both to stakeholders and the public (12), and
10. a TDR bank (4).

As the authors state, “These results suggest that the first two factors are essential to success, the next three are extremely important, and the remaining five factors are helpful but not necessarily critical, although some, such as TDR banks, can produce extraordinary results.”



CHAPTER 3: SALEM COUNTY

3A) Overview

With the largest concentration of contiguous and prime farmland in New Jersey, Salem County is interested in protecting its agricultural lifestyle and economy. At the same time, the county is looking for appropriate ways to grow, both to curb sprawl-style development in some areas and to counter job and population losses in other communities. This chapter provides an overview of some of the geographic, political, demographic, real estate, and planning trends, challenges, and opportunities in Salem County.

Salem County

Salem County is located in the southwestern corner of New Jersey, across the Delaware River from New Castle County, Delaware, approximately 13 miles from Wilmington, Delaware, and 30 miles south of Philadelphia, Pennsylvania. It is bounded on its eastern side by Cumberland County, New Jersey, and on the north by Gloucester County. See **Map 1: Salem County** for a depiction of Salem County and its 15 municipalities.

According to U.S. Census estimates, in 2008, Salem County's population was approximately 66,342 people, which is less than one percent of the population of the State of New Jersey. Estimates indicate that in 2008, Salem County had 27,602 housing units, 24,295 households, and 2.6 persons per household. Salem County's median household income in 2008 was \$57,935, which was below the New Jersey median household income level, and 10.5 percent of the Salem County population was living below the poverty line. Among the over-25 age group in Salem County, approximately 79.4 percent of residents were high school graduates and 15.2 percent were college graduates.

As the 10th largest county in New Jersey, Salem County consists of 338 square miles of land and 35 square miles of water, and is the least populated and least densely developed of New Jersey's counties. A rural, small town and village quality characterizes Salem County, as the landscape is predominantly agricultural and includes approximately 36,500 acres of forestland and large wetland areas along the Delaware River. See **Map 2: 2007 Generalized Land Cover**.

The majority of Salem County's population is clustered in historic settlements near the Delaware River, along with a small handful of boroughs and census-designated places scattered through the county. These include Carneys Point, Penns Grove, and Pennsville along the Delaware River and Salem City (the county seat), and Alloway, Auburn, Hancock's Bridge, Monroeville, Quinton, Sharptown, Elmer, and Woodstown boroughs in the interior of the county.

Salem County is essentially flat and contains a diverse series of surface waterways and ecosystems. As the headwaters for six regional river systems, the county also contains nearly 100 different soil types, approximately 67,000 acres of tidal and freshwater wetlands and marshlands, 25 lakes, two inland rivers, and numerous streams, bay beaches, and dunes. Approximately 45 percent of the county's undeveloped land area is composed of prime farmland soils and soils of statewide importance. Several land areas within Salem County are designated as critical wildlife habitat, though many acres remain unprotected. Additionally, along the Delaware River, there are large areas of threatened and endangered species habitat. Despite these abundant natural features, seasonal tourism is not a large part of the county's economy, but efforts currently exist to increase natural- and historical-resources-based tourism. See **Map 7: Agricultural Quality of Soils** and **Map 3: Protected Lands**.

Mass transit in Salem County is limited to three New Jersey Transit bus routes that run along the major county roadways and connect urbanized areas within the county to major employment centers, such as Camden, New Jersey, and Philadelphia, Pennsylvania. There is no bicycle network between these urbanized areas, and pedestrian amenities are limited. Three active freight lines currently run through Salem County, although there is no passenger rail serving Salem townships. Recent economic development initiatives are primarily clustered around the I-295 interchanges and include hotels, fast-food and chain restaurants, and business park development in Carneys Point Township and Oldmans Township. Existing planning documents discuss proposals for a Riverwalk project in Penns Grove Township that would potentially stimulate economic development along the Penns Grove waterfront. Pennsville has already invested in such a waterfront walkway,

3B) Municipal Profiles

Salem County's 15 municipalities range in size from the tiny boroughs of Elmer (563 acres) and Penns Grove (595 acres) to the largest townships – Lower Alloways Creek (30,602 acres) and Pittsgrove (29,395 acres). The 2008 estimates for municipal populations range from as low as 1,050 in Elsinboro Township, to a high in Pennsville of 13,345 people. Densities are low throughout Salem's larger townships compared to other parts of New Jersey, and they range from 39 persons per square mile in Lower Alloways Creek Township to a high of 552 in Pennsville Township. Smaller boroughs are characterized by greater densities: there are 5,041 persons/square mile in Penns Grove, and over 2,000 persons/square mile in Salem City and Woodstown.

More importantly for consideration of a regional TDR program, Salem's municipalities divide into two groups based on the presence of infrastructure versus high quality farmland. Most of the communities with public water and sewer are found along or close to the Delaware River side of the county and include Carneys Point, Penns Grove, Pennsville, and Salem City. The exception to this is Woodstown, which also has water and sewer but is farther inland. Oldmans Township, which also sits on the Delaware side, has extensive farmland but lacks infrastructure. Those communities along the Delaware River and Bay also have extensive areas of emergent wetlands and wetland forests. The remaining nine municipalities are heavily dominated by farming and characterized by a preponderance of prime soils.

Descriptions of Salem's municipalities are given below. As part of this TDR Study, the master plan, zoning, and redevelopment plans of each municipality were reviewed, municipal officials were interviewed, and individual profiles with maps were created for each municipality. These profiles and maps can be found in **Appendix C** of this document.

Municipal Descriptions

Alloway Township

Alloway Township is located in the southern portion of Salem County, between Quinton and Upper Pittsgrove townships and is primarily designated as a rural planning area by the State of New Jersey. Land use in this township is predominantly agricultural and forestland, with significant areas of wetlands. Zoning in Alloway largely allows for agricultural, residential, and rural residential development.

Future planning goals for Alloway, as identified in the 2004 Cross Acceptance Report, are to designate Alloway Village as a town center; to develop strategic plans to preserve rural character, open spaces, and agricultural uses; and to create strategic plans for attracting agriculture-based light industry to the township. Alloway contains areas of preserved farmland, nonprofit preserved lands, and municipal- and state-owned preserved land.

Carneys Point Township

Carneys Point Township is a riverfront municipality located in the northwest section of Salem County. Major land uses in the area consist of nearly equal portions of agriculture, wetlands, and urban uses, while zoning in Carneys Point indicates that some areas of agricultural use fall into the Agricultural Development Area (ADA).

Future planning goals for Carneys Point seek to direct development toward a designated 2,500 acre redevelopment district; to create a viable town center in Carneys Point; and to increase linkages between Carneys Point and surrounding recreation and natural resources. There is very little preserved land, despite the fact that several portions on the east and west sides of the township fall

within the ADA, and that there are areas within the municipality indicated as environmentally sensitive.

Elmer Borough

This small borough is located in the eastern part of Salem County and is bordered by Pittsgrove and Upper Pittsgrove townships. While mostly urbanized, nearly all land in Elmer is designated as PA- 4B Rural/Environmentally Sensitive Land. The entire borough falls into the ADA, and the borough contains a substantial amount of prime agricultural soils. Zoning in Elmer includes areas designated for conservation, but the borough is zoned mostly for medium to low/medium density residential and business/commercial development.

Future planning goals seek to designate Elmer as a town center and to install wastewater facilities that are appropriate for a designated town center. Currently, all residential and commercial structures are on septic systems, including the hospital, which has an onsite groundwater discharge system. Other than the state-owned land on the east side of the borough, there is currently minimal land preservation in Elmer.

Elsinboro Township

Elsinboro Township is a riverfront municipality located in the southwest portion of Salem County. Elsinboro is one of the least densely settled communities in Salem County, with a 2008 population estimate of only 1,050. The municipality contains large wetland and surface-water areas, with some agricultural land uses and park areas.

Elsinboro is predominantly zoned for conservation and rural residential-agricultural, with commercial and medium-density residential along the eastern section of the township, closer to Salem City. In order to accommodate additional growth within the existing urbanized communities along the Delaware River waterfront, future planning goals seek to establish a wastewater system for the municipality, as a sewer service area does not currently exist in Elsinboro Township.

Lower Alloways Creek Township

Lower Alloways Creek Township is the southern-most community of Salem County along the Delaware River. Land use in Lower Alloways Creek is mainly wetlands and agriculture, with New Jersey State Planning Area classification as PA 4 Rural and PA 5 Environmentally Sensitive. The northern portion of Lower Alloways Creek falls into the ADA. Future planning goals are directed toward land preservation and protection of environmentally sensitive lands. Zoning is primarily for agricultural uses, with the exception of the industrial area surrounding and including Hope Creek Nuclear Power Plant. East of this facility, there are large tracts of preserved farmland and state-owned protected land.

Mannington Township

Centrally located in Salem County, Mannington Township contains a large amount of agricultural land

and wetlands, with New Jersey State Planning Area classifications of PA 4A Rural and PA 5 Environmentally Sensitive. Mannington is a less densely settled township, with 41 people per square mile and a population of approximately 1,550 people. The entire township falls into the Salem County ADA and future planning goals seek to preserve working farmland through the use of easement acquisitions.

Zoning in the township predominantly allows for agricultural land uses and some rural-residential development, with the eastern portion of the township zoned for conservation. Areas along Route 45 and adjacent to the City of Salem are zoned for commercial, industrial, and higher density residential uses. Currently, there are several areas of preserved farmland in Mannington, in addition to state-owned protected land.

Mannington Township is the only municipality in Salem County that pursued intramunicipal TDR, partly in response to significant development pressure. The township received State funding and was a community in the pilot program that the New Jersey Department of Community Affairs sponsored, following the adoption of the state-wide Transfer of Development Rights Act of 2004. Working with consultants Clarke Caton Hintz, Mannington began the process of plan endorsement and also changed its zoning. The movement toward adopting a TDR ordinance was slowed considerably due to costs, the reduction of development pressure with the economic downturn and some major land preservation successes, and the difficulty of establishing multiple receiving zones.

Oldmans Township

Oldmans Township is the northernmost municipality in Salem County and includes the communities of Pedricktown and Auburn. Land use in Oldmans Township is a mixture of agriculture, wetlands, and suburban residential development. Land in this township is designated as PA 2 Suburban, PA 4A Rural, and PA 4B Rural/Environmentally Sensitive. Current zoning permits agricultural-residential development in the rural areas outside of existing development, and there is a limited amount of preserved land. Much of this township does not contain prime agricultural soils under USDA current soil designations, despite having highly productive agriculture, so only a small portion of Oldmans Township falls within the county Agricultural Development Area boundaries.

Given these elements, future planning goals for Oldmans Township seek to focus development toward the established nodes of Pedricktown and the area surrounding the I-295 interchange. However, Oldmans Township is seeking approval of a substantial area of the township as a sewer service area in order to expand business development within its current 3,140,000 square foot business park. Currently, there are water and sewer lines to the Gateway Business Park from Carneys Point facilities and to the 520,000 square feet that are in use. There is also an approved sewer service area and treatment facility, with a 30,000-gallons-per-day capacity, located at the lower end of the large former military site along the Delaware River, which is now the Energy Freedom Pioneers Industrial Park.

Penns Grove Borough

Penns Grove Borough is a small urban borough located along the Delaware River in Salem County, and surrounded on three sides by Carneys Point Township. Penns Grove is entirely serviced by sewer infrastructure and zoned for medium-density residential, with commercial and highway commercial zones along the main corridors of the Township. Including small pockets of forest and park areas, all land in Penns Grove is designated as PA 1 Metropolitan, and no land in Penns Grove falls into the County ADA. However, there is little undeveloped land in the borough, with the exception of a large empty site bordered by Main St. and Railroad Ave on the west side of the township. Public water from NJ American Company also serves Penns Grove.

Pennsville Township

Pennsville Township is located along the Delaware River and contains significant wetlands, along with urban development, some agricultural areas, and a forestland, most of which is wetland forest. New Jersey State Planning Area classification lists Pennsville as a combination of PA 1 Metropolitan, PA 4B Rural/Environmentally Sensitive, PA 3 Fringe, PA 5 Environmentally Sensitive, and PA 7/8 Park Lands. Pennsville contains a large amount of land that falls within the CAFRA zone, but has no land area within the county ADA, which makes it difficult to promote farm preservation through purchase of development rights. Zoning in Pennsville allows for residential, commercial, and some industrial uses, while setting aside the wetland areas along the river for conservation. Pennsville is also one of the few municipalities in Salem County that has zoning for mixed-use development.

Other significant features in Pennsville include the large tracts of federally-owned land south of the urbanized area along the Delaware River. These consist of two wildlife refuges (Killcohook NWR and Supawna Meadows NWR) and Fort Mott State Park. Pennsville also manages the Riverview Beach Park, which is a municipal park located in town along the river. Given these unique assets, future planning goals for Pennsville seek to expand the PA 1 Metropolitan designation to incorporate all sewered areas in the township, and to cluster new development into designated “development ready” zones. In recent years, most of these potential development areas have been built, in part as affordable housing, as Pennsville has made several efforts to implement its COAH Plan. The township also hopes to preserve one area of farmland-assessed land with working farms. There are few areas within the township that are available as receiving areas.

Pilesgrove Township

Pilesgrove Township is located in the central northern section of Salem County and surrounds the small borough of Woodstown. Land use in Pilesgrove is mainly agricultural, with portions of urbanized development, tracts of forestland, and some wetland areas. New Jersey State Planning Area designation in Pilesgrove includes sections of PA 4A Rural and PA 4B Rural/Environmentally Sensitive. Most of Pilesgrove’s land area is zoned for “agricultural retention,” but also allows for residential and restricted residential uses. Several areas of highway commercial use exist, along with public parks and

educational land uses. Given the large amount of prime farmland soils in Pilesgrove, the entire township falls into the county ADA and currently contains several areas of preserved farmland.

Pittsgrove Township

Pittsgrove Township is a moderately populated municipality located in the eastern-most section of Salem County, adjacent to Vineland in Cumberland County. Land uses in Pittsgrove consist mostly of agriculture, forest land, and wetland areas, with New Jersey State Planning Area designations of PA 4B Rural/Environmentally Sensitive and some areas of PA 5 Environmentally Sensitive. Zoning in Pittsgrove primarily allows for agricultural uses, rural residential development, residential, and conservation. Some land at the edges of the township is zoned for commercial and industrial uses.

Pittsgrove contains several areas of protected farmland, and state, municipal, and nonprofit open space, including Parvin State Park and land along the Maurice River on the township's eastern border. Future planning goals prioritize the protection and preservation of natural resources and seek to direct development along Landis Avenue in the south and Route 40 in the north. Pittsgrove had the highest number of building permits of any township in Salem County, prior to the economic downturn. With three Route 55 interchanges within .2 miles of the township's eastern border, Pittsgrove has been an attractive destination for smaller residential developments that sprawl within its farmland.

Quinton Township

Quinton Township is located in the southern portion of Salem County and is classified as PA 4A Rural. Quinton consists of nearly equal amounts of agricultural, forest, and wetland area, with nearly all areas zoned residential and some areas zoned for light industrial uses. Quinton's village residential sections along Routes 49 and 581 are serviced by sewer, and future planning goals seek to designate this section of the township as a village center and cluster ratables in this area. More than half of Quinton falls into the county ADA, and most preserved farmland areas are located in the northeastern portion of the township.

Salem City

Salem City, incorporated in 1695 and the county seat of Salem, is located on the western side of Salem County and contains a population of approximately 5,600 people. Half of Salem City is urbanized land, while other land uses include large wetland areas and agricultural production. All of the land in Salem City is served by sewer and designated as PA 4 Rural. Zoning for the city allows primarily for residential development, with some retail, commercial, and light manufacturing, while the entire northwest section of Salem City is zoned for general manufacturing. Two planned apartment overlay districts are currently underway.

Although there are sections of prime farmland soils in Salem City, none of the area falls into the county ADA, and there is no preserved land in the city. Future planning goals include petitioning for a New Jersey Planning Area change to PA 1 Metropolitan designation and for the funding for

redevelopment activities and infrastructure improvements that accompany this type of designation change.

Upper Pittsgrove Township

Upper Pittsgrove is a large, sparsely populated northern township in Salem County. Primarily zoned for agricultural uses, Upper Pittsgrove has mostly agricultural land use and wetlands, with some residential and business activity along Route 40, in between Routes 604 and 609. This township has New Jersey Planning Area designation as PA 4A Rural, PA 4B Rural/Environmentally Sensitive, and PA 5 Environmentally Sensitive. The entire township falls into the county ADA, and there are currently many areas of preserved farmland. Upper Pittsgrove has more preserved farmland than any other municipality in Salem County and more than most communities in New Jersey.

Given the existing success of farmland preservation in Upper Pittsgrove, future planning goals emphasize continued farmland preservation and the establishment of Daretown and Monroeville as village centers.

Woodstown

Designated as a regional center in 1993, Woodstown Borough is a small urbanized area in the northern part of Salem County and is completely surrounded by Pilesgrove Township, with which it shares a school system and recreational programs. The municipality is mostly urbanized, with some small sections of agriculture and intact wetlands and forest areas on its southern side. Woodstown is zoned mostly residential, which includes an historic district, a commercial area, and several commercial/light industrial zones.

Some conservation zoning exists in Woodstown, and there is a total of 150 acres of preserved land, including the two Salem River Conservation Areas, Memorial Lake Park, and Bailey Street Park. Future planning goals seek to maintain and enhance the scenic rural character of the borough, and to create improved multimodal circulation throughout the borough by use of biking and walking paths.

The whole borough is within a sewer service area and Woodstown has a sewer treatment plant, which discharges to the Salem River, within its boundaries. This plant serves all of Woodstown, as well as the county complex on Route 45 in Mannington Township and a small area of Pilesgrove adjacent to Woodstown's southwest border.

3C) Infrastructure in Salem County

Sewer infrastructure in Salem County is limited to Salem City, Woodstown Borough, the riverfront communities of Carneys Point, Penns Grove, and Pennsville, and to small service areas in Quinton, Alloway, and Lower Alloways Creek townships. The sewer service areas in the county are depicted on **Map 4A: Salem County Proposed Sewer Service Areas** and **Map 4B: Salem County Potential Future**

Sewer Service Areas.

The larger wastewater treatment plants are located in Carneys Point, Penns Grove, Pennsville, Salem City, and Woodstown. Quinton, Alloway, and Lower Alloways Creek all pump to the Salem City Sewage Treatment Plant (STP), and there are small municipal plants in both Hancock’s Bridge and Canton in Lower Alloways Creek Township. The county complex on Route 45 in Waretown, Mannington Township, is connected to the Woodstown STP, and Woodstown also serves a very small area of Pilesgrove Township, adjacent to the borough’s borders. As **Table 1: Domestic Permit Flow Data** below shows, there are wide differences in plant capacity, and some plants are close to their maximum permitted flow. See also **Map 4A: Proposed Sewer Service Areas**, which shows the areas served by these plants, but with environmentally constrained areas removed from the service areas.

Table 1: Domestic Permit Flow Data for Salem County Wastewater Treatment, 2002, 2007, 2009

NJPDES No.	FACILITY NAME	2002	2007	Permitted Capacity MGD	Current (2009**) Treatment Flow MGD	Pct Capacity Used*	Commit - ted Capacity MGD***	Available Capacity MGD	Pct Remaining
NJ0024635	U S Army - Pedricktown	0.0075	0.0143	0.030	0.014	47.67%		0.016	52.33%
NJ0021598	Pennsville Sewerage Authority	1.2947	1.5734	1.875	1.573	83.92%		0.302	16.08%
NJ0021601	Carneys Point Sewage Plant	0.4675	1.0062	1.330	1.069**	80.38%**	0.035	0.226**	16.99%
NJ0024023	Penns Grove Sewerage Authority	0.3362	0.3935	0.750	0.394	52.47%		0.357	47.53%
NJ0022250	Woodstown Sewerage Authority	0.2850	0.3375	0.530	0.338	63.68%	0.135	0.058	10.94%
NJ0024856	Salem City WWTP	0.6100	0.6918	1.400	0.608	43.43%	0.224	0.568	40.57%
NJ0050423	Lwr Alloways Ck- Hancock’s Bridge STP	0.0146	0.0105	0.050	0.010	20.98%		0.040	79.02%
NJ0062201	Lower Alloways Ck- Canton Village STP	0.0412	0.0145	0.050	0.015	29.07%		0.035	70.93%
* Pct Capacity Used does not include committed flows, except for Salem City, WWTP where 0.085 MGD of the committed flow is currently in use and included in the current treatment flow.									
** The Carneys Point Sewage Plant data shown is for 2010. The 2009 data were skewed by a substantial leakage problem that occurred that year and which is now repaired.									

Source: Salem Co. Planning Department

Water supply tends to follow sewer infrastructure in general, although the service areas are not the same. Public supply wells pump water to residents in Elmer, Pennsville, Penns Grove, Salem City, and Woodstown, drawing largely upon the Potomac-Raritan-Magothy aquifer (PRM), except in Elmer. Allocations from the PRM aquifer are closely controlled by NJ DEP due to the over-reliance on the aquifer that has generated Critical Area 2 in towns north of Salem County. **Map 5: Water Purveyor Areas (1998)** depicts the location of these municipal wells and the following **Table 2: Public Water Allocations in Salem County** lists allocations and available water within those allocations.

Table 2: Public Water Allocations in Salem County

PI ID Number	PI Name	2009 Annual Diverted Water - Million Gallons per year (MGY)	Water Allocation (MGY)	Pct Use of Allocation	Surplus Allocation (MGY)	Surplus gallons per day	Potential # people served with surplus*
5047	Pennsville Twp Water Dept	444.91	580	76.71%	135.09	370,109.59	3,701.10
5167	Woodstown Borough Water Dept	130.79	174.1	75.12%	43.311	118,660.27	1,186.60
5170	Nancy Lee Inc T/A Harding Woods Trailer Park - Pittsgrove	25.58	37	69.12%	11.42461	31,300.30	313
5215	Elmer Borough Water Dept	52.89	80	66.11%	27.112	74,279.45	742.79
5290	Salem City Water Dept	272.21	900	30.25%	627.793	1,719,980.82	17,199.81
5328	NJ American Water – Carneys Point & Penns Grove	454.02	753	60.29%	298.98	819,123.29	8,191.23
	Total						31,334.53

*Daily water consumption is approximately 100 gallons per person.

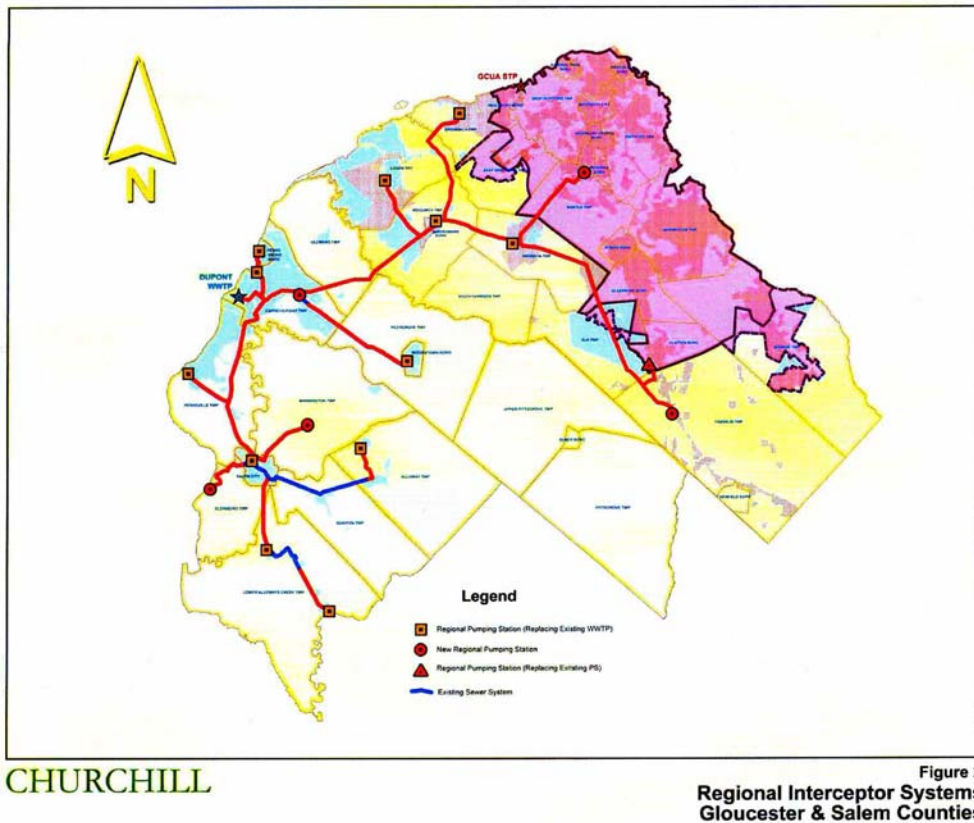
Source: NJDEP

Gloucester Salem Regional Alternative

In response to limited sewer treatment capacities in both Gloucester and Salem counties, and after some years of discussion about utilizing the DuPont Chambers Works sewage treatment plant (STP) for domestic waste treatment, negotiations began in earnest in 2010 between DuPont and county officials of Gloucester and Salem. The Chambers Works STP has a large unused capacity, although it is designed for industrial waste treatment. A Gloucester-Salem agreement with DuPont could merit conversion of part of the plant for domestic treatment and allow existing STPs in both counties to tie

into the DuPont site. Existing plants would become pumping stations and flows would move through force mains to the DuPont site in lower Carneys Point. The map in **Figure 1: Gloucester-Salem Regional Alternative**, prepared by Churchill Consulting Engineers, illustrates the possible connections of existing sewer service areas in the two counties. This is purely a conceptual map and does not reflect municipal decisions.

Figure 1: Gloucester-Salem Regional Alternative



There are several arguments for utilizing the Chambers Works treatment plant on a regional scale. These include environmental benefits, such as reduction of discharge of treated flows into various smaller rivers and creeks, since all discharge would be to the Delaware River at the Carneys Point site. Potentially, 12 less efficient and older treatment plants could be taken off line. The increased capacity could accommodate commercial and light industrial development within riverfront and other communities, which would increase their economic health. There would also be the opportunity for TDR receiving areas and other redevelopment to occur in municipalities within sewer service areas.

The main drawback to the Alternative is cost, which would be at least \$270 million* for the conversion and construction. This may require grant funding in addition to the redirection of the existing fees for service of all the plants that would tie into the regional plant, but considerable negotiation is needed to amend Utility Authority's contractual plans with the municipalities already served and their current financial structures and obligations. Not all municipal authorities may choose to participate in the regional alternative.

Another potential detriment is that greater capacity would likely support efforts to expand sewer service areas into regions in both counties that are still rural. The wastewater management planning that is occurring in both Gloucester and Salem counties would preclude this for the near future, but may not do so indefinitely. However, growth within the past two decades has resulted largely from sprawl development in numerous communities where only septic systems were possible. This has definitely been true in Salem County. Availability of sewer or, rather, lack thereof, has not prevented sprawling growth.

3D) Current Planning Initiatives in Salem County

The following planning initiatives highlight some of the county's priorities for preservation and growth in Salem County. See also **Map 6: Policy Map of the NJ State Development & Redevelopment Plan**, which illustrates State Planning Areas in Salem County. The Cross-Acceptance process that began in 2004 and continued in 2008 and 2009 made some major changes to parts of Salem County, but those have not been adopted to date.

Smart Growth Plan

Salem County's ***Smart Growth Plan: Delaware River and I-295/NJ Turnpike Planned Growth Corridor*** was adopted in 2004 by the Salem County Board of Chosen Freeholders. Prepared by Ron Rukenstein and Associates, the Smart Growth Plan included guidance from a steering committee composed of key stakeholder groups, such as the county Planning Board, the Economic Development Department, the Agricultural Development Board, participating municipalities, the New Jersey Office of Smart Growth, key employers, local banks, schools, and concerned citizens. This plan represented the first comprehensive planning effort for Salem County since 1970 and attempted to inventory key issues and assets of the county, while also guiding future development. Recognizing that Salem County is the least developed of New Jersey's counties but also faces future growth pressure, these stakeholders outlined a vision to both protect natural and historic resources and guide future development into existing urbanized areas.

* This preliminary figure dates from an early 2010 printed handout from Churchill Associates and is not the current cost estimate.

The vision for Salem County in this plan sought to accommodate future growth while capitalizing on the existing assets within the county, such as the location along the Delaware River; the close proximity to Wilmington and Philadelphia, I-295, and the New Jersey Turnpike; large amounts of prime agricultural land; and historic urban settlements with existing public service infrastructure. The goals and policy recommendations within this plan include:

- improved availability of county-wide information;
- increased capacity and support for regional decision-making and implementation;
- protection of identified environmental resources;
- sustainable economic development through redevelopment of urbanized areas and rural centers;
- provision of a wide range of housing options;
- improved educational attainment;
- augmentation of workforce training;
- upgrades of a safe and efficient transportation system; and
- regionalization of infrastructure systems and resources.

The Smart Growth Plan contains several goals and implementation strategies specific to farmland protection. These include prioritizing sites and resources identified as endangered; improving data and mapping capabilities for analysis and protection of those resources; and working alongside the Salem County Agricultural Board to identify prime soils, farmland targeted for preservation, and development of model ordinances and policy tools for farmland protection and smaller-lot residential zoning. In addition, the plan recommends working with the Salem County Agricultural Board, the state, and environmental agencies to delineate areas for protection through the use of conservation easements. The plan also recommends developing a target vision for the percentage of farmland to be preserved and managed by family-owned businesses.

Salem County Open Space and Farmland Preservation Plans

Adopted in December 2006, the ***Salem County Open Space and Farmland Preservation Plan*** outlines key goals and recommendations for open space preservation in Salem County. The plan was prepared by the Morris Land Conservancy from a joint initiative of the Salem County Agricultural Development Board and the Salem County Open Space Advisory Committee. A revised Salem County Farmland Preservation Plan was undertaken and adopted in 2008, in response to changes in state farmland preservation funding and requirements by the State Agriculture Development Committee for a plan that would meet Planning Incentive Grant funding guidelines. The 2006 plan resulted in anticipation of financial constraints for land preservation within the county and was created in order to identify priority conservation areas and to propose a “balanced system of preservation” that would meet open space and agricultural preservation goals. Criteria for land prioritization in the plan include soil productivity, agricultural integrity, water quality, and cultural preservation.

Feedback from a series of public meetings and distributed questionnaires guided the development of the following goals:

- Preservation of farmland and the farmer;
- Protecting the county’s water resources;
- Retaining natural forested land and forest habitat;
- Valuing the county’s agricultural heritage;
- Protecting unique Special Natural Resource Areas;
- Creating partnerships and obtaining grant funding to leverage local preservation funds;
- Connecting residents and visitors to the outdoors, agriculture, and natural areas;
- Creating contiguous greenways and preventing open space fragmentation by building upon existing public and private preserved lands; and
- Improving quality of life through open space protection.

These goals guide the plan’s recommendations for preserving specific greenways, “blueways” (which are protected surface and groundwater systems), and “brownways” (conserved agricultural fields and pastures).

Open Space Specific Plan

The land preservation recommendations in the open space part of this plan identify specific greenways, blueways, and brownways for protection. Greenways recommended for protection include: Burden Hill Greenway, Swedes Run Greenway, Pedricktown Marsh Greenway, and Green Branch Forest Greenway. Recommended blueways are the Salem River (including Mannington Meadows), Alloway Creek, Bayshore, Stow Creek, Oldmans Creek, Maurice River, Muddy Run, and Riverview. The plan outlines the specific boundaries of these greenways and blueways. Brownways identified for protection are as follows:

- Pine Tavern – Pole Tavern – Cohansey Agricultural Project Area
- Algonkin Lake – Seven Stars – Mannington Meadow Agricultural Project Area
- Mannington Meadows – Hagerville – Maskells Mill Agricultural Project Area

The open space protection section of this plan then provides lists of recommended partners, tools and funding sources for land conservation. Potential partners consist of federal and state agencies, regional agencies, county agencies, organizations, public utilities, nonprofits, and local groups. Recommended tools for open space preservation focus on an integrated approach of regulatory changes and land acquisitions. These recommended tools include:

- Agricultural zoning districts;
- Transfer of Development Rights (TDRs);
- Use of GIS data for mapping and analysis of regional open space systems;

- Targeted direct acquisition through fee simple transactions
- Conservation easements;
- Finance through bonding;
- Installment purchases;
- Lease-back agreements;
- Donation and/or bargain sale;
- Long-term lease arrangement between a municipality and landowner; and
- Eminent domain (as a last resort).

Farmland Preservation Specific Plans

The farmland preservation section of the 2006 *Salem County Open Space and Farmland Preservation Plan* outlined existing farmland preservation strategies. According to this part of the plan, in 1990 the Salem County Board of Freeholders approved a one million dollar bond issuance for farmland preservation. At the same time the Salem County Agricultural Development Board (SCADB) created the Agricultural Lands Preservation Program, financed in part by the Salem County Improvement Authority. In addition, the SCADB identified priority agricultural lands as an Agricultural Development Area (ADA) that “have the potential for long-term agricultural viability” and are selected based on specific statutory and county criteria.

The ADA extends throughout Salem County to encompass Pittsgrove, Upper Pittsgrove, and Pilesgrove townships fully and large percentages of Mannington and Alloway townships. It also includes two modest areas on the eastern side of Carneys Point Township. It does not include farmland in Oldmans or Pennsville townships. It also excludes largely wet areas of Elsinboro and Lower Alloways Creek townships and the eastern sides of Alloway, Quinton, and Lower Alloways Creek townships, which are primarily forested areas. See **Map 8: Salem County Farmland [Agricultural Development Area]**.

By 2003 (with significant help from the state) the Agricultural Lands Preservation Program had invested \$13.8 million in Salem County farmland easement purchases. In addition, between 2002 and 2004, Salem County voters approved a successful farmland and open space tax and the county floated another bond for farmland preservation. Since 2006, these sources have collected over \$800,000 annually for preservation and for debt service. By 2006, despite a defeat of a proposal to increase the open space and farmland preservation tax, Salem County had preserved 20,000 acres. Purchase of Development Rights remains as the major strategy for farmland preservation in Salem County.

The revised 2008 ***Farmland Preservation Plan*** is built upon the 2006 plan. Preservation goals include preserving 13,000 acres in five years and 26,000 acres in 10 years. The plan identifies three County Project Areas in which funding for preservation using State Planning Incentive Grant funds will be utilized, although any farm within the ADA is eligible for preservation, whether it is in a Project Area or

not. Within these Project Areas, specific farms are identified as “Target Farms,” with high priority for preservation. The three Project Areas are similar to the brownways of the 2006 plan. They are:

The Cohansey - Pole Tavern - Pine Tavern Agricultural Project Area:

This area consists of 35,983 acres, of which 25 percent is preserved and eight percent is targeted. It includes portions of Quinton, Alloway, Pittsgrove, and Upper Pittsgrove townships. Pittsgrove Township has a municipal Farmland Preservation Plan and PIG funding for its two municipal Project Areas, which are outside this county Project Area.

The Mannington Meadows - Seven Stars - Algonkin Lake Agricultural Project Area:

This area comprises 19,976 acres, of which 33 percent is either preserved or targeted. It includes portions of Mannington and Pilesgrove townships. Pilesgrove Township has a municipal Farmland Preservation Plan and PIG funding for its three municipal Project Areas, one of which falls within this county Project Area.

The Maskells Mill - Hagerville - Mannington Meadows Agricultural Project Area:

This Project Area encompasses 24,465.5 acres, of which 20 percent is preserved and eight percent is targeted for preservation. It covers areas within Lower Alloways Creek and Quinton townships, and a part of Mannington Township.

See **Map 9: Salem County Farm Project Areas** for a depiction of these areas.

Next, the plan looks at and describes various farmland preservation strategies, both currently employed by the county and also recommended for further farmland preservation. In addition to county easement purchases, which have been the predominant method of preservation, these strategies include Municipal Planning Incentive Grants (PIG); Direct Easement Purchases; Fee-Simple Acquisition; Cooperative/Nonprofit Projects; Donation and Bargain Sale; Installment Purchase Agreement (IPA); The 8-Year Farmland Preservation Program; and Transfer of Development Rights (TDR).

Transfer of Development Rights (TDR) in the Farmland Preservation Plan:

The 2008 Farmland Preservation Plan recommends that Purchase of Development Rights (PDR) and TDR be used together in order to navigate the various financial and political complexities of farmland preservation. A few municipalities in Salem County, including Pittsgrove and Mannington townships, have already considered TDR methods for farmland preservation. The plan concludes that:

- Incentives and disincentives must have integrity and be firmly in place in order to successfully operate a TDR program;
- A county-level TDR program would likely be more successful in Salem County than a municipal-level program;

- Successful implementation of TDR at the county-level in Salem County is “the only feasible long-term solution if Salem County is to retain its rural character;” and
- A TDR program must be well coordinated with the existing PDR program.

3E) Experiences with TDR in Salem County

Alloway, Quinton, and Elsinboro Townships

In 2007 a study entitled, *Alloway, Quinton and Elsinboro Townships: Feasibility Study for Inter-Municipal Transfer of Development Rights Program*, was issued on the feasibility of establishing an intermunicipal TDR program between Alloway, Quinton, and Elsinboro townships. Prepared by Sarah Birdsall Planning Consulting and funded by two smart-growth grants from the New Jersey Department of Community Affairs, the study looked at the potential of each township to develop a TDR program individually or in concert with each other.

Examination of buildout numbers revealed that zoning and environmental constraints precluded achievement of balanced Sending and Receiving Areas both within and between the municipalities. The study showed that viable Receiving Areas were impossible without substantial development of water and sewer infrastructure, beyond what was projected for the communities. The study incorporated considerable public input and also provided education and information on Transfer of Development Rights programs and procedures.

“Working Papers” were developed for each of the townships, which form the substance of the study report. These looked at population projections, economic growth potential, housing, buildout, and carrying capacity. Elsinboro Township is extremely limited by environmental constraints. Although its buildout would be small, there was no viable region within the township for a receiving area, and the township is disconnected from the potential receiving areas of the other two municipalities.

The villages of Alloway and Quinton and the land between them were reviewed as a possible “super-village” that could potentially serve as a receiving area for a combined TDR program between the two townships. Although there are environmental constraints due to wetlands, this “new village” area was the location for much of the development pressure occurring in the region. A receiving area here would benefit from the existing infrastructure of the two villages, including county roadways and the sewer extension from Salem City through Quinton Village to Alloway. This sewer line was installed to resolve potential health problems from septic densities and is dedicated to current development levels, with only an additional 250 connections allowed beyond the 2005 need.

The study made it clear that current capacity to absorb the zoning buildout from sending areas in the two communities was severely limited without significant expansion of public sewer and the establishment of public water. The zoning in both communities generates too large a buildout

(Alloway's zoning generated a buildout of 7,300 units, while Quinton's buildout was 5,400 units). Even with expanded infrastructure, the "super-village" could not accommodate all of the buildout.

The study working papers each concluded with recommendations for immediate growth management within the respective municipality. Many of the recommended actions, if implemented, would help lay the foundation for a TDR program of some type in the future.

Mannington Township

Mannington Township, a strong farming community with a population of only 1,600 people, was under considerable development pressure in 2006, due to its location, attractive landscape, and excellent soils for building. The township initiated a Transfer of Development Rights program under the pilot program sponsored by the Smart Growth Office of the New Jersey Department of Community Affairs, which also provided initial funding for the project. The planning firm of Clarke Caton Hintz was the consultant for the project.

The original idea was to establish a receiving area at the lower end of Mannington, adjacent to Salem City, and to tie into the Salem City wastewater treatment plant. Like Alloway and Quinton, described above, Mannington's zoning generated a large sending area, with a total number of units at buildout that was too large for this receiving area to accommodate. The township's first actions were to provide extensive public information on TDR and to analyze the need and possibilities of zoning changes, with much public communication about this topic. Mannington Township also embarked on other planning projects to fulfill New Jersey's Plan Endorsement process, which is a prerequisite to adoption of any TDR ordinance.

Currently, Mannington has slowed its TDR planning efforts, due largely to the costs involved in going further. It has revised its zoning, but it has also become clear that several smaller receiving areas would be needed to balance sending areas, and that such a small-scale approach would better fit the rural character of the community. Fortunately, some large farmland preservation successes, along with the economic downturn, have reduced or delayed the development pressure that was so threatening to Mannington's future.



CHAPTER 4: EXPLORING A TDR PROGRAM FOR SALEM COUNTY

4A) An Idea Whose Time Has Come?

Following adoption of the state Transfer of Development Rights Act in March 2004, some municipalities entered into the pilot program initiated by the New Jersey Office of Smart Growth to develop local TDR programs within municipal boundaries or in conjunction with neighboring townships. Mannington Township in Salem County was one of these municipalities, along with Alloway, Quinton, and Elsinboro townships, but other towns in Salem County also explored the possibility of doing so. Some felt hindered by their lack of infrastructure and others by cost considerations. Their concerns were similar to those of many other communities throughout New Jersey. Various towns waited to see what would be developed in the pilot municipalities before proceeding with their own TDR initiatives. By 2008 it had become obvious that various changes to the legislation and/or regulations were needed if TDR was to be utilized on a wider basis.

This Salem Regional TDR study project was developed to address the challenges and opportunities related to TDR program adoption and implementation at the state level as they affect Salem County municipalities, as well as other towns throughout New Jersey. The project also focused specifically on the prospect of a regional program in Salem County, because of its large amount of farmland and the previous county planning that focused on farmland preservation in the central and eastern parts of the county, with development/redevelopment in the western communities. The new water-quality rules, adopted in 2008, mandating county-wide Wastewater Management Plans, would also play a part in any TDR program development, whether municipal or regional. Consequently, this feasibility analysis has assessed the potential for TDR in conjunction with the wastewater management planning process.

As a consequence of the overall TDR study, the New Jersey State-Level TDR Policy Task Force, with the assistance of New Jersey Future, considered and developed recommendations for improvement to the state program generally. At the same time, the Salem County TDR Task Force, with the assistance of the Delaware Valley Regional Planning Commission, has looked at the specific requirements of a regional TDR program and has examined the experience that Salem County's municipalities have had with local TDR efforts.

4B) Program Goals

The primary goal of the Salem County Regional TDR Task Force was to create consensus about whether a TDR program should be pursued for Salem County. A good starting point was the identification of an appropriate program goal for a Salem County TDR program.

Based on the Task Force meetings and Salem County goals as identified in county plans, the primary interest in the TDR tool in Salem County would be to preserve farmland, although environmentally sensitive areas should be included as potential sending areas. Approximately 28,000 of Salem County's 126,245 acres of farm-assessed land have been preserved. This leaves roughly 98,000 acres that could be preserved, of which about 68,000 acres are in active farm production, the balance being water or properties under woodland management. Purchasing development rights on this much land is simply cost prohibitive. Even at a conservative estimate of \$6,000 per acre, the purchase of development rights on Salem's active farmland would cost roughly \$408 million. See **Map 3: Protected Lands** for a depiction of both preserved farmland and open space.

Although there is consensus that a TDR program should target the preservation of farmland, the question remains as to the specific agricultural areas that should be protected through TDR. Some options include:

- The 97,824 acres of farm-assessed land that are not yet preserved;
- The 76,246 acres in the ADA that are not yet preserved;
- The 45,783 acres of Project Area farms as identified in the county Farmland Plan; and
- The 8,639 acres of farms targeted for preservation in local farmland plans (Pilesgrove and Pittsgrove townships)

See **Map 8: Salem County Farmland [Agricultural Development Area]** and **Map 9: Salem County Project Areas [County and Municipal]** for illustration of these areas.

Salem County need not take an all or anything approach in selecting which of these areas to target for protection with a TDR program. A TDR program might be designed to help preserve all ADA farms, while providing extra incentives for preservation of select farm areas such as the county and municipal Project Areas. There might also be additional incentives for farms adjacent to already-preserved farms to help build a critical mass of protected agricultural activities. Also, following the Rural Lands Stewardship approach from Collier County, Florida, described in Chapter 3, Salem County could combine farmland protection with environmental mitigation in a program that utilizes removal of certain land uses, beginning with development and weighted by a value for critical environmental features that are protected.

In addition to protecting farmland, a Salem County Regional TDR program could also incorporate protections for certain nonfarm resources, such as specific habitats, scenic open space, or the like. It is important to keep in mind that the larger the area designated for protection, the greater the intensity of development in receiving areas would have to be. Nevertheless, Salem County has highly important natural resources that need to be protected.

4C) Options for Organization

There is some consensus that TDR is unlikely to be viable at the municipal level in Salem County. Most municipalities do not have a combination of adequate or appropriate sending and receiving areas to operate a TDR program on an individual basis. This was demonstrated in part by the Alloway, Quinton, and Elsinboro study, which was regional in nature but reflected the lack of appropriate receiving areas in each of the three townships. However, a regional TDR program may be viable if created as a partnership among a larger number of municipalities, or different municipalities with more infrastructure available, or across the county as a whole. Such regional approaches to TDR offer the most compelling solution for making TDR a viable approach to land preservation in Salem County.

There are a number of organizational structures that may be considered. The program could be implemented **countywide**, with all Salem County municipalities participating. This would mean that each municipality had either a sending or receiving area (or both). Transfers would be enabled across municipal boundaries. A county-wide structure would most likely be implemented on a volunteer basis, with each municipality participating at their own discretion. Clearly, there must be incentives and adequate compensation to municipalities that agree to develop receiving areas to compensate for the additional cost that accepting growth from sending communities would entail.

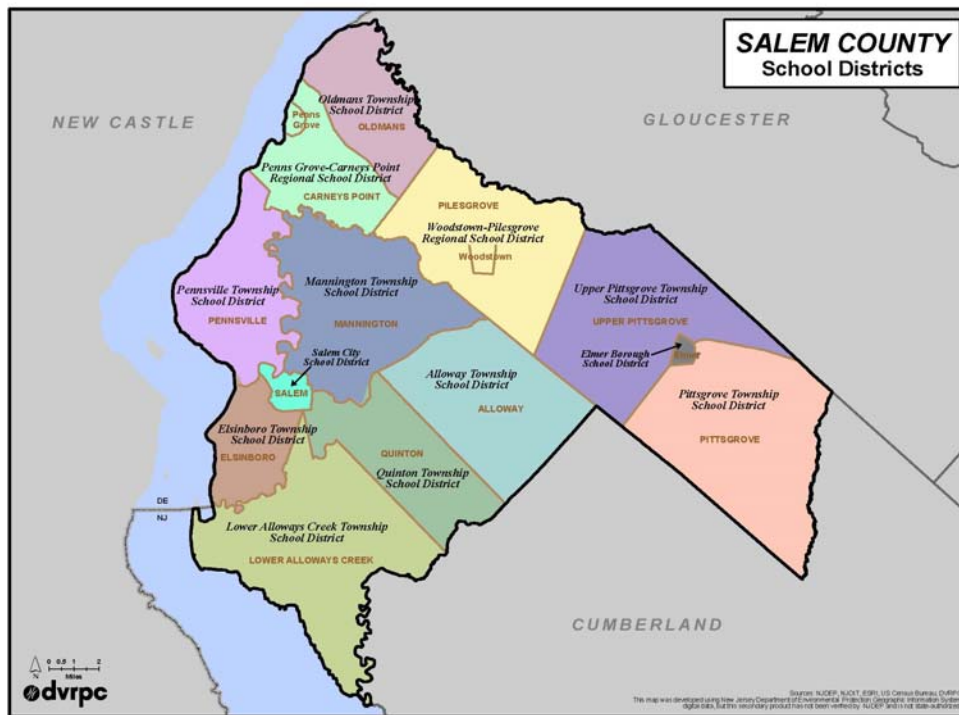
A second approach could involve **one or more smaller regional programs** in which a group of municipalities partner to create a multi-municipal TDR program and one of those municipalities has enough infrastructure. For example, Pilesgrove and Woodstown could create a joint TDR program to send development rights from Pilesgrove farmland into and next to Woodstown's more developed areas, utilizing Woodstown's wastewater treatment plant and public water services, if these could be expanded sufficiently. Other examples include Mannington and Salem City, and Carneys Point, Oldmans, and Pilesgrove townships.

A subset of this smaller regional approach would be for **municipalities within the same regional high school district** to collaborate on a TDR program. This has the advantage that the principal cost of additional growth – school expansions – is already shared in part by the municipalities, at least at the high school level. This could apply to the Woodstown – Pilesgrove District and the Carneys Point – Penns Grove District. Part of Oldmans, Upper Pittsgrove, and Alloway also feed into Woodstown High School and pay per pupil fees, but are not responsible for school expansions, which reduces the

efficacy of this approach. The other part of Oldmans Township feeds to Penns Grove High School on the same fee basis. Salem High School serves Salem City, Mannington, Quinton, Elsinboro, and Lower Alloways Creek, but these towns also do not constitute a single high school district. Nor do Pittsgrove and Elmer, which are both served by Shallick Regional High School. See **Figure 2: Salem County School Districts** and **Figure 3: Salem County High School Sending/Receiving Areas**, below.

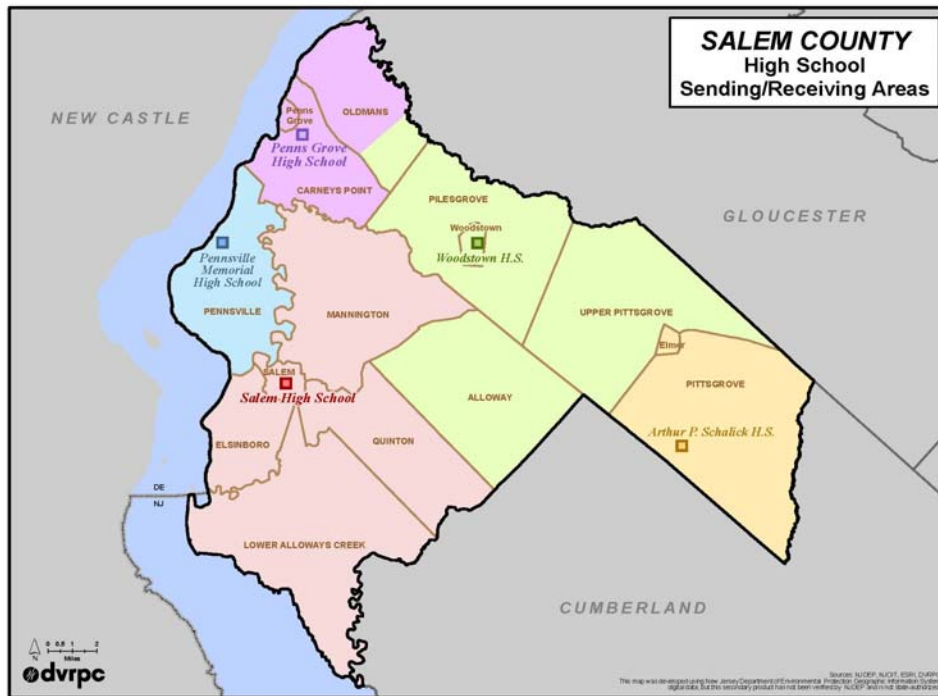
In addition, some Salem municipalities have recently decided to take part in a new state initiative to fill empty seats in classrooms by accepting students from out-of-district towns – the Interdistrict Public School Choice program. Lower Alloways Creek, Oldmans Township, Pittsgrove Township, Quinton Township, and Upper Pittsgrove Township are interested in opening their doors to students outside of their own district as a means of helping to pay for school budgets and to booster declining enrollments. Districts that get new enrollments will receive the student state aid allotment, which ranges from 40 to 50 percent of per pupil cost. Home districts must pay transportation costs. The five districts submitted their applications for approval in fall 2010. If approved, such exchanges could take effect in the 2011 to 2012 school year.

Figure 2: Salem County School Districts



Source: NJDEP

Figure 3: Salem County High School Districts



Source: NJDEP

Alternatively, the “Gloucester-Salem Alternative,” discussed in **Section 3C) Infrastructure in Salem County**, presents an opportunity for a possible multimunicipal partnership in which the **receiving area would be new areas**, possibly in Carneys Point and Oldmans townships, with increased sewer capacity. Sending areas could be surrounding farmland communities adjacent to them or to the east, such as Pilesgrove, Mannington, Upper Pittsgrove, and Pittsgrove.

4D) Potential Sending Areas

The Salem County Regional TDR Task Force indicated that this study process should identify potential sending areas broadly. The committee suggested that specific geographic areas should not be identified until further along in a TDR program design process, but that the appropriate characteristics for a sending area should be explored. This section identifies some of the possible sending area options for a Salem County TDR program.

Potential sending municipalities in the county are those agricultural areas in 10 townships: Alloway, Elmer, Elsinboro, Lower Alloways Creek, Mannington, Oldmans, Pilesgrove, Pittsgrove, Quinton, and Upper Pittsgrove. Only the most rural zoning districts could be considered as sending areas. There are

a total of 74,719 acres of buildable land within the rural zoning districts in those municipalities, as shown below in **Table 3: Potential Sending Area Acres & Units (break-down)** and summarized in **Table 4: Potential TDR Sending Municipalities (summed)**. The number of buildable units in these municipalities has been calculated based on the nitrate dilution model required by NJDEP’s new statewide water quality rules and wastewater management planning process,* which assesses the septic capacity within watersheds. Using the nitrate dilution model, there is a potential for 11,529 units to be built within rural zoning districts in those 10 municipalities. It is conceivable that those 11,529 units could be accommodated within the 2,576 acres of vacant land in the receiving areas, at an average density of 4.5 units per acre.

Table 3: Potential Sending Area Acres & Units (break-down)

	Zoning Districts	Buildable Acres (preserved land and environmental constraints removed)	Potential TDR Units (1 TDR for every 5 acres)	Buildable Units (Based on zoning that meets HUC 11 NO ₃ standards)
Alloway	Agricultural	5,292.83	1,058.57	742.97
	Low Residential	5,521.63	1,104.33	764.60
	Rural Residential	3,592.25	718.45	486.18
	Total	14,406.71	2,881.34	1,993.75
Elmer	Conservation	13.91	2.78	2.01
	Low Density Residential-1	4.69	0.94	0.68
	Low Density Residential-2	19.69	3.94	2.85
	Total	38.29	7.66	5.55
Elsinboro	Conservation	41.42	8.28	5.53
	Low Density Residential	10.43	2.09	1.39
	Rural Residential - Agricultural	1,425.65	285.13	190.86
	Total	1,477.50	295.50	197.78
Lower Alloways Creek	Agricultural Residential	5,467.99	1,093.60	780.48
	Conservation Park	199.5	39.90	29.78
	Wetlands	632.78	126.56	88.12
	Total	6,300.27	1,260.05	898.38
Mannington	Agriculture	12,152.16	2,430.43	1,618.46
	Conservation	79.24	15.85	10.43
	Conditional Residential	1,042.48	208.50	137.17
	Rural Residential	905.08	181.02	120.51
	Total	14,178.96	2,835.79	1,886.57
Oldmans	Agricultural Residential	3,463.00	692.6	481.28

* Calculated for the Salem County Wastewater Management Plan, courtesy of the Salem County Planning Department. Calculations for Pilesgrove and Pittsgrove come from analyses done separately by those townships.

Table 3: Potential Sending Area Acres & Units (break-down)
(continued)

	Zoning Districts	Buildable Acres (preserved land and environmental constraints removed)	Potential TDR Units (1 TDR for every 5 acres)	Buildable Units (Based on zoning that meets HUC 11 NO ₃ standards)
Pilesgrove	Agriculture Retention-1	6,689.21	1,337.84	929.96
	Agriculture Retention-2	3,215.26	643.05	446.43
	Total	9,904.46	1,980.89	1,376.39
Pittsgrove	Agricultural			404.60
	Conservation			74.00
	Rural Residential			658.50
	Total			1,137.10
Quinton	PB Residential	8,612.95	1,722.59	1,220.88
	Residential-1	2.00	0.40	0.27
	Residential-2	1.85	0.37	0.24
	Total	8,616.80	1,723.36	1,221.40
Upper Pittsgrove	Agriculture	11,930.00	2,386.00	1,683.63
	Low Density Residential	2,336.22	467.24	348.02
	Low Density Residential/Agriculture	2,066.93	413.39	299.79
	Total	16,333.15	3,266.63	2,331.43
Total		74,719	14,943.83	11,529.63

Source: DVRPC; Salem County Planning Department; Pilesgrove and Pittsgrove Townships

Table 4: Potential TDR Sending Municipalities (summed)

Municipality	Buildable Acres	Potential TDR Units (1 TDR for every 5 acres)	Buildable Units (Based on zoning that meets HUC 11 NO ₃ standards)
Alloway	14,406.71	2,881.34	1,993.75
Elmer	38.29	7.66	5.55
Elsinboro	1,477.50	295.50	197.78
LAC	6,300.27	1,260.05	898.38
Mannington	14,178.96	2,835.79	1,886.57
Oldmans	3,463.00	692.60	481.28
Pilesgrove	9,904.46	1,980.89	1,376.39
Pittsgrove			1,137.10
Quinton	8,616.80	1,723.36	1,221.40
Upper Pittsgrove	16,333.15	3,266.63	2,331.43
Total	74,719.15	14,943.83	11,529.63

Source: DVRPC

According to the Salem County Farmland Preservation Plan from August 2008, easement values in the county ranged from \$4,500 to \$10,000 per acre. The average in 2007 was \$8,000 per acre, although easement values have depreciated considerably since then. Using a modest county-wide average of \$6,000 per acre, the cost to preserve all 74,719 acres in the sending areas would be about \$450 million.

In other TDR programs, the transfer ratio has typically been one TDR credit (or unit) transferred for every five acres of land to be preserved. In this case, the value of the TDR would need to equal five times the per-acre easement value to be worthwhile for the sending area landowner. At \$6,000 per acre, every TDR credit would cost a developer \$30,000. Therefore, to build at higher densities in receiving areas, every additional unit to be built might cost a developer \$30,000. However, in some TDR programs, every TDR credit purchased can translate to two units in the receiving area. In that case, every additional unit might cost a developer \$15,000. This increases the attractiveness of the program for developers.

At a transfer ratio of one TDR credit for every five acres, the 74,719 acres of buildable land in the rural zoning districts of the potential sending areas would equal 14,943 units, not the 11,529 allowed by current zoning densities under the nitrate dilution standards. Were all these TDR credits to be transferred to the vacant land plus all agricultural land in residential zones, this would be equal to a density of 3.9 units per acre on average. Using an achievable but theoretical density of six units per acre on average in more compact receiving areas, the 14,943 units would utilize all 555 acres of vacant land, plus about 1,900 acres of farmland in residential zones, across these five municipalities.

4E) Potential Receiving Areas

For receiving areas, Salem County has several options:

County-wide Option:

Salem County could create receiving areas in those places that are served by existing infrastructure, notably sewer, since that is one of the most limiting factors in Salem County. This would mean directing growth to Salem County's river communities. This option makes sense from a planning perspective for several reasons. First, there is sewer capacity, which could possibly be expanded under the "Gloucester-Salem Alternative." Second, there is a variety of other infrastructure already in place in these communities. Third, many of these communities have experienced declines in population and jobs and desire new growth.

Potential receiving municipalities in the county include the developed riverside communities of Carneys Point, Oldmans, Penns Grove, Pennsville, Salem City, and the inland community of Woodstown. **Table 5: Potential TDR Receiving Municipalities** calculates residential units that would be allowed under current densities, although TDR receiving areas could be structured for mixed use

and/or for commercial and industrial growth. Also, since the mission of TDR in Salem County is likely to be preservation of farmland, agricultural land has been calculated separately from vacant land in potential receiving municipalities. The acreage calculated in **Table 5** is based on parcels of vacant or agricultural land that are five acres or greater in size. Penns Grove did not contain any areas of vacant or agricultural land over five acres. In the calculations for the other five municipalities, any preserved parcels have been removed, as have parcels with environmental constraints. These include the presence of 100-year floodplains, water bodies, wetlands, and land identified by the Landscape Project as being within critical habitat – having a documented occurrence of species on either the federal or state Threatened or Endangered Species lists and being (overall) 25 acres or greater in size. No percentage for infrastructure has been deducted.

Table 5: Potential TDR Receiving Municipalities

Municipality	Zoning District Name	Zone	Vacant Land – parcels of 5 acres or more * (acres)	Ag Land – parcels of 5 acres or more* (acres)	Totals	Permitted Density (residential units per acre)	Current residential units allowed
Carneys Point	Agricultural	AG	27.43	749.87	777.30	1.0	777.30
	General Commercial	GC		587.41	587.41		
	General Commercial-Redevelopment	GCR		11.90	11.90		
	Industrial-Commercial	IC	8.79	90.09	98.88	0.9	88.99
	Light Industrial-Redevelopment	LI		6.58	6.58		
	Low-Density Residential	LR	71.52	202.37	273.89	3	821.66
	Rural-Residential-1	RR-1	73.17	328.93	402.10	2	804.20
	Rural-Residential-2	RR-2	28.72	340.92	369.64	1	184.82
	Total			209.62	2,318.08	2,527.70	
Oldmans	Agricultural-Residential	AR	18.94	1,407.13	1,426.07	1	713.03
	Commercial/Industrial	CI	21.58	336.67	358.25		
	Residential	R	43.50	627.69	671.19	1	671.19
	Village-Commercial	VC		17.05	17.05	4	68.19
	Village-Residential	VR		6.18	6.18	4	24.72
	Industrial	I	19.39		19.39		
	Industrial Park Redevelopment Area	IPRA	98.61		98.61		
	Total			202.02	2,394.72	2,596.74	

Table 5: Potential TDR Receiving Municipalities
(continued)

Municipality	Zoning District Name	Zone	Vacant Land – parcels of 5 acres or more * (acres)	Ag Land – parcels of 5 acres or more* (acres)	Totals	Permitted Density (residential units per acre)	Current residential units allowed
Pennsville	Commercial	C		18.82	18.82	1.7	32.00
	Commercial	COM	33.36	288.08	321.44	1.7	546.45
	Light Industrial	LI	6.79	95.65	102.44		
	Mixed Use	M	31.22	11.55	42.77		
	Residential-2	R2		36.98	36.98	3	110.94
	Residential-3	R3		340.57	340.57	1	340.57
	Total			71.37	791.64	863.01	
Salem City	Light Manufacturing	M-1	17.36		17.36		
	Light Manufacturing	M-1	17.36		17.36		
	Residential-1	R-1	9.31	18.02	27.33	6	163.96
	Total		26.67	18.02	44.68		163.96
Woodstown	Light Industrial	LI	8.80		8.80		
	Residential-4	R4	8.94		8.94	6.2	55.44
	Residential-5	R5	15.35	11.20	26.55	6	159.29
	Residential-6	R6	12.39		12.39	4	49.56
	Commercial-3	C3		6.23	6.23		
	Total		45.48	17.43	62.91		264.29
Totals			555.16	5,539.88	6,095.04		5,612.31
All Vacant & Ag. Acres in Residential Zones			299.19	3,337.03	3636.22		

*Preserved land and environmentally constrained parcels (wetlands, 100-yr floodplains, water, Landscape Project critical habitat) removed.

Source: DVRPC

The total amount of vacant land (parcels of five acres or more) within residential zones in these five municipalities is 299.19 acres. Farmland (also parcels of five acres or more) in residential zones is 3,337 acres. At current zoning densities, this would allow 3,903.28 units in the five potential receiving municipalities. The additional density allowed under a TDR plan would vary greatly between zoning districts of different municipalities, and so the allowable units to be transferred cannot be determined with any exactitude. In other TDR plans, the maximum density allowed increases from two times to eight times the original density, depending on the zoning district.

It is important to note that the calculations in **Table 5** are broad estimates. Information on actual buildable parcels, with accessibility, road frontage, specific conditions, and several other factors would be part of any detailed analysis required to develop a TDR program. These figures give only a general understanding of the possibilities for establishing regional receiving zones in Salem municipalities.

New Receiving Area(s) Options

Another option for a receiving area would be to develop a new town center following the Woolwich TDR model. An appropriate location for a center that would be large enough to accommodate all sending area units across the county may not be feasible, given the environmental constraints on any one large location in the riverfront communities and the intention of some of the potential receiving municipalities to preserve the remainder of their farmland. However, current zoning densities in residential zones does compute to a potential buildout of 1,477 residential units in Carneys Point, and 1,810 units in Oldmans Township, although Oldmans lacks sewer infrastructure for these areas. Another 451 units and 164 residential units, respectively, are allowable under current zoning in Pennsville and Salem City, and Woodstown has an additional 48 acres zoned for 264 units.

A single or even a few large receiving areas would certainly need to incorporate farmland, which is somewhat contrary to the purpose of a Salem County TDR program that focuses on preserving farmland. However, this could be an option using land assembly to create a new place that would be more marketable than utilizing existing centers. Potential locations for one or more such new town centers might exist in Oldmans Township, or parts of Carneys Point and Pilesgrove townships. Sewer and water infrastructure would be a necessity for such new growth areas.

A second option would to leverage the existing market for low-density residential development in some Salem County communities and make that an option that can only occur with the purchase of transferable development credits. This would probably require significant downzoning of those areas. For example, it is currently possible to build at one unit per two acres in Pilesgrove's residential zones, and there appears to be a fairly strong market for that density, at least prior to the current economic downturn. Zoning could be changed to one unit per six or 10 acres, and TDR credits would have to be purchased to build at one unit per two acres.

Alternatively, a community could take an area that already had relatively low zoning, such as a 100-acre section in an agricultural zone with one-unit-per-10-acre zoning. This could be converted to a TDR receiving area that would allow one or two units per acre but ONLY with the purchase of TDR credits. However, this option involves using local package plants or discharge to groundwater (septic systems) in the receiving zone, which may not be cost effective or practical, especially given the new nitrate dilution standards. Nevertheless, TDR is a market-driven program, so while this may not be ideal from a planning perspective, it may be the only marketable way to "sell" TDR and protect some farmland.

4F) Clustering and Noncontiguous Clustering

Cluster Development

Clustering is a planning technique that groups a development's residential structures on a portion of the available land, reserving a significant amount of the site as protected open space or farmland. It reduces the lot area and bulk requirements of the development, provided there is no increase in the number of lots otherwise permitted and no increase in the overall density. It is a technique that allows land preservation without reducing the number of units allowed by the underlying zoning, and it results in land being protected without the cost of public acquisition or a decrease in equity for the landowner. The protected open land is usually owned and managed by a homeowner's association, but it can be held by local government or by a land trust or other nonprofit entity.

Cluster developments can be voluntary or mandatory. Voluntary clustering can be attractive to builders because clustering usually saves a developer on infrastructure costs through the reduction of roads and other structures, and because the communally owned open space or adjacent farmland often enhances the desirability of the development to buyers. However, most voluntary cluster ordinances also include incentives for developers, in the form of increased density of development. The amount of required open space/farmland also varies, from as low as 20 percent of a site to up to 75 percent (with additional density allowed).

Mandatory clustering requires that all major developments group the residential units on a portion of the land and reserve at least 50 percent of the site as open space, with density bonuses for additional percentages of preserved land. These ordinances are most effective if there are additional provisions that allow lot-size averaging, so that some lots can be undersized and some oversized depending on the specifics of the site, and if the open space is situated to preserve key environmental or farming features and linked to adjacent lands in an overall protection scheme. Use of a model such as Growing Greener, designed by planner Randall Arendt, helps to achieve highly marketable developments with well-designed land protection.

Mandatory clustered development is an improvement over large-lot zoning, which reduces density but frequently results in sprawling development. Clustering certainly can help to maintain important open space and farmland. It does not direct growth into centers or other growth areas, however, because it does not move the development off a parcel that may be in the middle of a farming region or an area of important habitat.

In Salem County, only Pittsgrove and Mannington townships have a mandatory cluster ordinance, with a 50 percent open space requirement. Other Salem municipalities have adopted clustering, but have hesitated to make it mandatory, fearing lawsuits, despite the fact that the courts have upheld mandatory clustering in Franklin Township, Gloucester County, and it has not been challenged

elsewhere in the state. Some clarification of the legislation allowing clustering is recommended by the TDR Statewide Task Force to address this concern.

Noncontiguous Clustering

This planning technique involves clustering, but is much more similar to TDR. Noncontiguous clustering allows a parcel of land to be preserved by transferring its development rights and its density to another, noncontiguous parcel, where development at a higher density is permitted. Both parcels must be considered as a single cluster development – a planned unit development. The transfer/transaction requires the involvement of two landowners and the approval of the township, as well as the developer. The result is that density is transferred to a location that the municipality has identified for growth, and the land of the “sending” parcel is permanently preserved.

Noncontiguous clustering is a voluntary tool. It is also market-driven and involves individual landowners, making it highly limiting. It does not preserve large contiguous expanses of land because it is so specific to particular parcels that can be part of a planned unit development. It can result in scattered parcel preservation, interwoven with development in a sending area. It is not, therefore, a substitute for a TDR program.

Noncontiguous clustering works best if there are sufficient incentives to encourage transfers from contiguous “sending” parcels, including density bonuses for sending area landowners that encourages them to enter into joint ventures and partnerships. It is also important to increase the receiving area’s marketability, for which targeted infrastructure investments are needed. The latter are usually essential if higher density development is to occur there.

Noncontiguous parcel clustering does not require the detailed planning, analysis, and valuations that a TDR program needs. It is a simpler transfer technique and requires only the willing landowners and developer and the municipality’s support for enabling the transfer. This involves a planned development density transfer ordinance, the perceived assurance that the municipality’s planning board will approve an application for the receiving parcel that will be developed more intensively than otherwise permitted, and a mechanism for the municipality to accept the sending parcel’s deed restriction. Predictability of the process and the marketability of the receiving area are critical to developer interest. Those factors are relevant to any TDR program.

Challenges to Noncontiguous Clustering

Municipal noncontiguous parcel clustering ordinances have been challenged in court and have been overturned. Both Franklin Township (Gloucester County) and Springfield Township (Burlington County) adopted ordinances that were deemed by the courts to be variants of TDR, but without meeting the requirements of the TDR Act, and therefore were not upheld. In *Builders League of South Jersey v. Township of Franklin*, 395 N.J. Super. 46 (N.J. Super. Ct. App. Div. 2007), the basis of the Superior Court Appellate Division’s decision was that noncontiguous clustering as laid out in the Franklin ordinance

exceeded the authority of the Municipal Land Use Law (MLUL) for noncontiguous clustering within a Planned Unit Development (PUD) because it was not limited to planned developments and because it did not require that the properties be developed as a “single entity” or be in “common ownership” – part of the definition of a PUD.

In *Flynn Tucker, LLC, et al. v. Township of Springfield, et al., Docket No. L-108-06 (Consolidated)*, three ordinances were in question. The judge ultimately concluded that the township had created a “hybrid form” of TDR, which included terms and mechanisms associated with TDR, but “without the assurances necessary to render it a TDR plan in compliance with the MLUL.”

Extreme care in the formulation of a noncontiguous cluster ordinance is clearly necessary and it is mandatory that any transfer of density be within a planned unit development context. Towns considering such an approach should also work within an overall land use planning process so that any location that is designated to be more densely developed has the infrastructure to support such density, or can meet the nitrate dilution standards of the wastewater management planning rules. Otherwise, there is a risk that purchased development rights could be rendered unusable and valueless to the owner if the intended receiving area is outside a designated sewer service area.

4G) Financial Considerations in a Regional TDR Program

A municipal TDR program works because the growth in a receiving area that brings benefits to owners in that location also compensates owners in the sending area. While there is an impact on the municipality’s cost of government due to the growth itself, there is no real difference in costs between growth through a TDR program and undirected growth within the municipality.

A regional TDR program may shift growth from one community to another, which can mean differing cost burdens and savings. These costs and benefits are difficult to measure. They can include the additional costs of educating school children in the receiving town, and the savings realized by the sending town in not having to support such growth. The receiving town may realize additional ratables, especially if commercial or industrial growth occurs as part of the TDR program. The sending town may suffer financially from not retaining such potential growth. A mechanism to identify and share costs is needed for a regional program to succeed in a home rule state such as New Jersey, where county government cannot manage and support the impact of growth on individual towns.

Shared Revenues – The New Jersey Meadowlands

The New Jersey Meadowlands Commission is the zoning and planning agency for a 30.4-square-mile area along the Hackensack River covering parts of 14 municipalities in Bergen and Hudson counties in New Jersey. The Hackensack Meadowlands Reclamation and Development Act (N.J.S.A. 13:17-1, *et seq.*), passed in 1969, created the Hackensack Meadowlands Development Commission, which was renamed the New Jersey Meadowlands Commission in 2001. The objectives of the act included

preservation of the delicate balance of nature in the Meadowlands; the provision of special protection from air and water pollution and a special provision for solid waste disposal; and the orderly, comprehensive development of the Hackensack Meadowlands in order to provide more space for industrial, commercial, residential, public recreational, and other uses. The commission preserves habitat, provides education, and manages economic development.

The original Master Plan adopted in 1972 zoned certain areas of the Meadowlands for industrial, commercial, and residential use, and others for parks, highways, open space, and other nontaxable public uses. The Master Plan was created on the basis of the best possible use of land based on its location and needs. In approaching zoning on a regional basis, the possibility of financial inequities arose. The Municipal Committee, made up of the chief executive of each of the 14 Meadowlands municipalities, is charged with reviewing all proposed codes and standards, master plans or amendments, development and redevelopment, improvement plans, or other major decisions of the NJMC. It has the authority to veto proposed zoning or variances.

A tax sharing plan was designed to balance these inequities so that the region could be developed as a unit with town-to-town equality. Each community gets a proportionate share of the property taxes from "new" (post-1970) development, regardless of where it occurs. Each community directly retains 60 percent of the revenues left after payment of county taxes and deduction of pre-1970 ratables. Each community also receives a payment for school pupils living in district residential development equal to the cost of educating these children and, finally, each town receives a payment reflecting the percentage of property the community has in the Meadowlands District. Communities whose total credits are larger than the amount subject to tax sharing receive payments from the tax-sharing fund. Communities whose total credits are less than the amount subject to tax sharing pay into the tax-sharing fund.

While the overall mechanism of the Meadowlands is much more complex than is needed by Salem County communities, some similar mechanism that measures ratables and deducts school pupil costs to determine a tax-sharing amount could resolve the cost problem of a regional TDR program involving two or more municipalities.

Other Financial Incentives

Other solutions to the costs of serving as a receiving area are possible and can work as incentives to encourage municipalities to provide receiving zones voluntarily. The New Jersey Highlands TDR program, for example, allows for charging impact fees of up to \$15,000 per residential unit. (Impact fees place a greater burden on developers, who must pay for them in addition to purchasing development rights, and thus will only work in very strong markets.) It also offers grants of up to \$250,000 to offset the costs of planning these receiving zones, and grants for reimbursement of the cost of changing development regulations to accommodate receiving zones.

An obvious incentive for a municipality that has limited sewer service is to allow an extension of the service area or to provide financing assistance for a local wastewater treatment facility as part of establishing a receiving area within the municipality or in a center. Priority for infrastructure funding would benefit the TDR program throughout New Jersey generally. However, priority funding is difficult to provide because such funding does not now exist at either the state or federal level and doesn't appear very likely in the future. The only current funding for sewer treatment is the loan program of the New Jersey Environmental Infrastructure Trust, which is money that must be repaid. Nevertheless, access to this funding could be linked more directly to TDR efforts.



CHAPTER 5: SUMMING UP AND FUTURE DIRECTIONS

5A) Municipal Perspectives

DVRPC staff conducted meetings with each of the municipalities in Salem County. Meetings were held with specific officials—mayor, deputy mayor, township administrator—or with planning boards or specific committees. For example, in Pilesgrove, the meeting was with the Plan Endorsement Committee, while in Carneys Point Township, the Industrial Development Committee was the recommended group to meet. The purpose of the meetings was twofold. It was to present the Salem County Feasibility Study so that township officials would be aware of the effort itself, and to gather information and opinion on the level of interest that the community might have in a regional TDR program.

Although all groups appreciated being informed directly about the project, the response to questions about future interest was mixed. Most municipal representatives gave support to a continuation of efforts to develop a regional TDR program, but were qualified in their commitment to the idea. Most frequently cited were the obstacles of sharing revenues or finding a way to fund receiving areas. This was of major concern to Carneys Point, Elmer, and Salem City. The costs of establishing a TDR program of any kind were also mentioned frequently. Most towns had already looked into the possibility of a municipal TDR program and found it to be too costly to pursue, or felt that there was no practical location for a receiving area of sufficient size to accommodate their own potential sending areas.

The lack of infrastructure was a limiting factor for several towns, especially Pilesgrove, Upper Pittsgrove, Pittsgrove, Quinton, Alloway, and Elsinboro. Environmental constraints, which had become more clearly limiting during the wastewater management planning process, were another barrier, especially for Carneys Point, Oldmans, Alloway, Quinton, and Elsinboro townships. Other towns are simply too built out and want to retain any remaining open space they have. They see no advantage in participating in a regional program. Pennsville and Woodstown fall into this category. Upper Pittsgrove also sees no advantage to a TDR program at this time. There, continued purchase of development rights may succeed in maintaining agriculture throughout the township. The township's view is that

farming is the dominant commercial industry in the township and brings tax revenues without municipal costs.

Nevertheless, the majority of the municipalities in Salem County would like the investigation of a regional program to continue. As development pressures reemerge with an improved economy, these towns know they will once again be targets for residential housing. Nearly all the towns were willing to have a representative serve on a future Task Force that is investigating solutions that may lead to a regional TDR program.

5b) Options for Salem County

Changes to TDR at the State Level

It is clear that a regional TDR program in Salem County, of any kind, will only be possible if there are changes to the legislation and regulations that now impede TDR efforts. These have been laid out by the New Jersey TDR Statewide Policy Task Force and are summarized in **Section 1B) The New Jersey State TDR Act** of this document. The full report is available on the websites of both New Jersey Future (www.njfuture.org) and the Delaware Valley Regional Planning Commission (www.dvrpc.org/TDR).

Some Salem County towns would be willing to consider a “TDR Light” approach if the TDR requirements were eased and their associated costs were consequently reduced, or if planning and other requirements for establishing a TDR program could be phased in over a longer time period. Recommendation #1 to “Empower local governments with a full spectrum of planning tools to transfer growth and preserve resources” in the Statewide Policy Task Force report, *Realizing the Promise: Transfer of Development Rights in New Jersey*, outlines specific details that would greatly assist Salem County municipalities in these efforts.

Also discussed in Recommendation #1 in the Statewide Task Force report is **clustering and noncontiguous clustering**. Some Salem County communities already have a strong clustering ordinance and at least one town is currently exploring noncontiguous clustering. This is perhaps the best direction for some Salem municipalities to pursue now because of its relatively low level of complication and low cost, although careful crafting of a noncontiguous clustering ordinance is a necessity. Again, specific state amendments to the noncontiguous clustering provisions of the Municipal Land Use Law would help towns utilize this tool. As recommended in the statewide report, small-scale preservation efforts could be encouraged with a more flexible tool, especially if the Planned Unit Development provisions were not mandated.

Changes to the TDR regulations that will protect current Purchase of Development Rights farmland preservation efforts are also needed. The experience of Woolwich Township described in **Section 2A) What Is TDR?** points to the necessity for greater clarity on this issue.

Encouraging Municipalities to Reconsider TDR–Incentives

It seems advisable to encourage all Salem County municipalities to look again at TDR possibilities, both municipal and regional, as well as to consider clustering and noncontiguous clustering. While **development pressure** is currently low, it will increase again in the future. Most towns have been relying on the County Farmland Preservation Program and the State Agricultural Development Committee (SADC) program to protect their farming industries. Only Pilesgrove and Pittsgrove have generated their own Farmland Preservation Plans and obtained state Planning Incentive Grant (PIG) funding, although Alloway and Upper Pittsgrove have recently completed plans and applied for PIG funding in 2010. There will never be sufficient funding to protect all of Salem’s important farmland. Future state land preservation funding is also uncertain, which may cause a decline in future farmland protection efforts at both the county and municipal level.

In addition to the removal of barriers, a key to municipal consideration of TDR and clustering options is the production of **educational materials** that help municipal officials, especially newer officials, understand how a local or regional TDR program could work in their community and what land use choices and tools are actually available to them. Some of this material could be distributed through planners who work for municipalities. While this is a service that could also flow through the League of Municipalities or the New Jersey Chapter of the American Planning Association, there appears to be a need to develop more local information, especially for rural communities.

A regional TDR program could certainly serve as a way to **make the Water Quality Management rules more palatable**. Although not yet implemented, these rules require changes to zoning outside of sewer service areas in order to meet the new nitrate dilution standard of 2 mg/liter. No matter how it is implemented, this standard will require changes in allowable densities on lands zoned for residential development. This, in turn, will have an impact on land values that will be unfavorable for farmland owners who have not preserved their land. A TDR program can compensate for some of this loss of equity. A TDR program can be structured to restrict sending opportunities to those areas where changes in zoning have been enacted, generally. Credit calculations in a Salem regional TDR program could possibly be based on the zoning before the implementation of the nitrate dilution standards.

There are areas of Salem County that are in need of **local wastewater treatment**, such as the Borough of Elmer. Localized TDR programs across municipal boundaries may be feasible ways to develop such treatment, with smaller receiving areas at the village or hamlet level. Creating such districts in and adjacent to existing villages/hamlets could support the cost of developing wastewater treatment that is currently needed, provided that the New Jersey Department of Environmental Protection (NJDEP) eases some of the barriers to such facilities. Specific regulatory changes to enable small-scale wastewater systems that would be linked to the TDR program are outlined in the Statewide Task Force report under Recommendation #3: “Support well-planned receiving districts through regulatory reform.”

Salem municipalities should also explore local or regional TDR programs that have receiving areas that enable a greater percentage of industrial or commercial development, rather than being only mixed residential-commercial zones or all residential. This approach has worked well for Warwick Township, Lancaster County, Pennsylvania, as described in **Section 2B) Innovations in TDR Program Design**. In Warwick Township, the sale of credits is not pegged to the transfer of residential housing rights to another location, but to the use of the credits in another location. Impervious cover limits are low in the receiving area and purchase of credits increases this limit. Specific projects in the receiving area are planned with developers, and the credits needed are a function of the site and the project size. This all requires a more active management of the TDR program by the township and county. That may be a necessity for any innovative TDR approach to succeed in any location that doesn't establish large, restrictively zoned agricultural areas, as was done in the Maryland programs.

The **"Gloucester-Salem Alternative"** that is currently being explored by the two counties, involving the conversion of part of the DuPont industrial wastewater plant to domestic flow treatment, could provide a real opportunity for a regional TDR program in Salem County. Although its purpose is to expand capacity to accommodate the buildout of existing approved sewer service areas and those that are planned but not approved, such as Woolwich's TDR receiving area, the conversion of the DuPont plant could allow for some additional modest sewer service areas to be created where growth is appropriate and where TDR receiving areas could be established.

Some new sewer service areas (SSAs) have already been proposed by municipalities as part of the wastewater management planning being conducted by the counties. For example, Oldmans Township has proposed such an area in Salem County's Plan. See **Map 4B: Salem County Potential Future Sewer Service Areas**. This is not yet approved by NJDEP and may not be, but it is an area that is appropriate in terms of state plan designation and in Salem County's existing plans. Other possibilities include reactivating the Alloway-Quinton-Elsinboro regional TDR plan, on some limited level, promoting a modest receiving area next to Salem City as the Mannington pilot TDR program envisioned, or enabling a modest Pilesgrove receiving area next to Woodstown, if the latter's sewage treatment plant is eventually connected to the DuPont plant.

Approval of new sewer service areas will be limited by the DuPont plant's capacity and its need to retain capacity for eventual buildout of existing service areas. New SSAs could be approved conditionally by NJDEP only if they are tied into a regional or local TDR program or solve an existing contamination or health problem. This would enhance prospects for a TDR program and limit the potential effects of expanded sewer service in Salem County. There is little clear guidance from NJDEP about establishing new sewer service areas generally, unless they are tied directly to capacity at an existing treatment plant. Greater clarity on this issue could be provided. It would help to tie Wastewater Management Planning to TDR efforts, which now seem disconnected.

Final Considerations

The views of the Salem County Regional TDR Task Force and of the municipalities point toward a phased approach to TDR in Salem County. A modest program involving two or just a few municipalities could serve as a start for a larger program. It is important for any initial regional TDR program to be successful. This is more likely at a smaller scale.

A combination of incentives for a regional TDR program would help its success. These could include using aspects of the impervious cover limits approach described in **Section 2B) Innovations in TDR Program Design, *Impervious Surface Cap and Trade***, that also incorporates LEED-ND design for more sustainable growth. This could be adopted by the participating municipalities without waiting for a state cap-and-trade program, although the definitions of the TDR Act may need to be broadened to include impervious cover amounts as a transferrable right. Other potential incentives include using bonus TDR credits to encourage comprehensive low-impact designs for stormwater management or habitat restoration on sending farms. The purchase of TDR credits could potentially be linked to soil quality for alternative energy facilities, especially those converting active farmland to solar energy panel arrays. This could help minimize use of prime farmland or farmland of statewide importance for such installations.

Another incentive involves density reductions in sending areas. Many Salem towns have been unwilling to consider agriculturally protective downzoning in agriculture-residential zones because of the equity issues and opposition by landowners. As described above in the discussion on septic capacity in **Section 4D) Potential Sending Areas**, changes in zoning that may be required by the nitrate dilution standards could eliminate this barrier to establishing reasonably zoned sending areas.

Well-developed design standards for any receiving area, especially in those towns that have experienced declining growth, would make a regional TDR program more viable. TDR is a market-based program, and getting developers to choose to build in a receiving area is key to its success. Attractive mixed-use communities that are well planned and where the potential is clear are part of that draw, along with predictability of the approval process and a reasonable cost of credits. Another key is active marketing of a receiving area which, in turn, is a function of its design.

A variation on the Collier County, Florida, Rural Land Stewardship program, described in **Section 2B) Innovations in TDR Program Design** and in **Appendix A**, might serve Salem County well and needs further examination. This combination of credits based on eliminating certain nonrural land uses, protecting environmentally sensitive areas, and severing development rights, may be exactly the right approach for Salem. It allows a combination of elements, incentives, and credit sales/bonuses within a model that fits local protection needs and goals.

5C) Next Steps

Nearly all the Salem municipal officials that were polled gave verbal support to continuing the investigation of a regional TDR program. The next steps in such an analysis require participation by interested municipalities in the process and their representation on any advisory group, along with county, state agencies, other organizations, and developer and landowner representatives. This is essential for deciding how to go forward and in determining if any communities would seriously consider an initial regional program. Salem County folks have made it clear over the years that they do not favor regional protective approaches and would oppose efforts like those in the Highlands or Pinelands. However, a voluntary program with an innovative approach that is locally controlled would be acceptable.

Another key relates to county leadership and assistance in the overall TDR process. A commitment to further investigation and participation in the planning process by the Board of Freeholders is critical. In essence, developing a regional TDR program requires answering the question of where Salem County really wants to go with future development, given the wastewater management planning changes that will occur and those that may be achieved, such as the DuPont plant conversion. Salem County's past plans, such as the *Smart Growth Plan*, must be reviewed in the face of potential sewer service area restrictions, the reality of environmental constraints, the lack of growth in riverfront communities, and the limitations of farmland preservation funding.

A planning process that is driven by municipal interests would increase the possibility for a regional TDR program in Salem County, in conjunction with the work that New Jersey Future is continuing with the Statewide TDR Task Force to get legislative and regulatory improvements. An open exchange of information would enhance this process, especially about the Gloucester-Salem alternative, and would allay fears about mandates and excessive growth or about excessive limits on growth.

Specific areas that could be examined in a continuing investigation include conducting a preliminary market analysis that looks in some detail at the pre-2008 real estate markets in municipalities that would be logical locations for receiving areas. Another focus could be on initiating the planning steps that are now required for a TDR program, but which are prohibitively expensive under the current regulations. That could include assisting TDR-interested municipalities in the plan endorsement process (including getting Environmental Resource Inventories completed – a first step), developing materials and presentations to inform and gain support from their residents, assessing the pre- and post-TDR development potential that underlies credit allocation, honing in on actual receiving area locations, and planning the incentives and other elements of an initial regional program.

Continuing investigation of a regional TDR program in Salem could include the generation of scenarios of future growth related to sewer, working with local officials on this. Scenarios based on the Gloucester-Salem Dupont conversion "Alternative" might help to clarify the state, county, and local

capability of controlling secondary growth resulting from expanded sewer capability. Although the scenario approach can be complex and time consuming, it would tie well to analysis of the economic viability of TDR in Salem.

Other topics that could be explored include determining how best to incorporate open space protection into a Salem program, whether ecological services can be sufficiently measured to use in credit calculations for open space and farmland, what protection of prime soils can be obtained through TDR credits, and how or if alternative-energy development can be focused by credit allocation.

Members of the Salem County Task Force are in agreement that, in the long term, regional TDR may be a real necessity for Salem County. Further action by the county and a solid commitment by local governments are needed to make it happen. Continued discussion and analysis will strengthen local support for the changes needed at the state level. That will also lead to an improved climate in Salem County for appropriate growth and expanded land protection that will benefit all the municipalities.



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APPENDIX A: EXAMPLE TDR PROGRAMS

- **Collier County, Florida: Rural Land Area Stewardship (RLAS) Program**
- **Pinelands Development Credit Program, New Jersey**
- *Smart Growth Through the Transfer of Development Rights. A selection of TDR case studies with relevance for the preservation of farmland, open space and other natural resources in New Jersey. Prepared by Katherine Otto for New Jersey Future [with permission]*

COLLIER COUNTY, FLORIDA'S RURAL LAND STEWARDSHIP AREA (RLSA) PROGRAM

The RLSA is a data-driven approach to TDR that envisions sending areas protected not only through reduced development standards, but also through incentives for restoration and mitigation of natural resources. Development rights that can be utilized or transferred from sending area parcels are quantified based on identified and mapped natural resources. Transfers are made to a receiving area surrounding and encompassing Ave Maria University. There is also a proposal for an additional receiving area to be established.

The RLSA program is voluntary. There is no change to the underlying density and intensity of permitted uses of land within the RLSA, as set forth in the baseline zoning standards, unless a property owner elects to utilize the provisions of the Stewardship Credit System. Stewardship Credits may be generated from any lands within the RLSA that are to be kept in permanent agriculture, open space, or conservation use. All privately owned lands within the RLSA may be candidates for designation as an SSA. Designation as an SSA occurs upon petition of a property owner and adoption of resolution by the Collier County Board of County Commissioners.

To calculate Stewardship Credit Values for a potential SSA, landowners use the three-step methodology established in a Stewardship Credit Worksheet. This methodology establishes that the greater the number of uses eliminated from the property, and the higher the natural resource value of the land, the higher the priority for protection and the greater the level of credits generated.

In the first step, the property owner selects a parcel with a single homogenous land cover-type to be analyzed and selects the appropriate Natural Resource Index Factor(s) associated with that property. The Natural Resource Index Factors are mapped in the Natural Resource Index Map Series and are based on six characteristics: Stewardship Overlay Designation, Sending Area Proximity, Listed Species Habitat, Soils/Surface Water, Restoration Potential, and Land Use/Land Cover. As part of the development of the RLSA program, Collier conducted a detailed study that was integrated into a multilayered GIS model to document the natural resources in the RLSA. The data-driven approach required extensive technical expertise. It was both costly and time consuming, but it is credited with helping gain support for the RLSA program from environmental advocates and landowners.

In the second step, the property owner selects the individual land use layers to be eliminated from the parcel. The land use layers that landowners can voluntarily remove for compensation under the RLSA program are:

- Residential Land Uses
- General Conditional Uses
- Earth Mining and Processing Uses
- Recreational Uses

- Agricultural Uses – Group 1 (includes row crops, citrus, specialty farms, horticulture, plant nurseries, improved pastures for grazing and ranching, aquaculture, and similar activities)
- Agricultural – Support Uses
- Agricultural Uses – Group 2 (includes pastures for grazing and ranching, forestry, and similar activities)

Each layer represents permitted or conditional uses allowed under baseline zoning standards. Land use layers can be removed only in their entirety and must be removed sequentially and cumulatively in order, starting with residential land uses. In the third step, the property owner identifies the number of acres being analyzed. The total credits per acre are then multiplied by the number of acres in the parcel to yield the total Stewardship Credits. Stewardship Credit values are determined by the open market and change over time based on supply and demand and the availability of willing buyers and sellers.

The program has been highly successful, with 27 percent of the eligible Sending Lands being preserved and an additional 35 percent pending. Credits are assigned to Sending Lands based on a complex Stewardship Credit System that compensates landowners based on an assessed Natural Resources Index (NRI) value and the uses removed. All transferable credits used to date in the program have been applied toward development in the Ave Maria Stewardship Receiving Area. This receiving area consists of 5,027 acres, 4,072 acres of which are planned as a New Town and 955 acres of which are dedicated to Ave Maria University. Although many parts of the Ave Maria community are still under development, the town and university officially opened in 2007. A second Stewardship Receiving Area has been proposed for the RLSA. Known as the Town of Big Cypress, this planned stewardship district would contain a total of 21,700 acres and 3,600 housing units.

PINELANDS DEVELOPMENT CREDIT PROGRAM

A Summary based on the New Jersey Highlands Water Protection and Planning Council Transfer of Development Rights Technical Report, January 2007, and the Pinelands Development Credit Bank website, <http://www.state.njdoib.org/pinelandsbank.htm>.

The Pinelands Development Credit (PDC) Program is a component of the Pinelands Comprehensive Management Plan (CMP), which controls land use throughout the one million plus-acre Pinelands area, and which is administered by the New Jersey Pinelands Commission. It was established to offset the restrictions on development that exist within the Preservation Area District, Agricultural Production Areas, and Special Agricultural Production Areas. These management areas serve as sending zones for the PDC Program.

PDCs are allocated to landowners in these restricted districts based upon the land type and number of acres of a given parcel. For example, within the Preservation Area District, PDCs are allocated at one PDC per 39 acres of upland and two-tenths a PDC for 39 acres of wetlands. No PDCs are allocated to a parcel if it is 10 acres or less and is already developed for a commercial, industrial, or other such use. For parcels less than 39 acres, the property owner receives fractional PDCs at the same ratio established for the management area in which the parcel is located. Each PDC allocated to a parcel equals four transferable development rights. The PDCs are issued in denominations of .25 credits and are valid for two years, at which time an "Update" from the Pinelands Commission is necessary.

The PDCs must be certified by the Pinelands Development Credit Bank, which exists to promote the marketability of PDCs, as well as to record and track all PDC activity. The bank may also buy and sell PDCs at auction, under certain limitations. Upon certification, the land is encumbered with a deed restriction. A landowner selling PDCs retains title to the land and is allowed to continue using it for any nonresidential use authorized by the CMP. The deed restriction transfers to any future purchase of the property.

Under the PDC Program, Regional Growth Areas established by the CMP serve as the receiving zones. These areas were authorized with the adoption of the CMP. Municipalities where they were designated had to amend their municipal master plans and local development regulations to accommodate them. In the Regional Growth Areas, purchasers of PDCs may use the development rights to build at densities above the base density. To distribute the bonus housing units evenly and maintain consistent housing types in various neighborhoods, municipalities designate zoning districts in which residential development will be permitted at densities ranging from less than 0.5 dwelling units per acre to 12 or more dwelling units per acre with PDCs. Municipalities may not permit greater density through variances. Where development requires a variance from bulk or area standards, the developer must secure a certain number of PDCs before approval for the variance will be granted.

The value of PDCs is now established on the open market through the purchase and sale of PDCs between private parties. The original value of a PDC was set by the Pinelands Protection Act at \$10,000 per PDC. The most recent sales information, for 2010 and 2011, indicates that the price of a PDC is currently ranging between \$40,000 and \$60,000, or \$10,000 to \$15,000 per development right.

The Pinelands PDC Program is one of the oldest and most successful TDR programs in the world. It is also perhaps the most ambitious TDR program in the United States, spreading over one million acres of land (20 percent of New Jersey) and allowing transfers of PDCs between six counties and 33 municipalities (10 with *both* sending and receiving areas). Since it began in 1985, more than 51,000 acres of environmentally sensitive forest and farmland in the Pinelands have been permanently protected.

Smart Growth through the Transfer of Development Rights

**A selection of TDR case studies with relevance for
the preservation of farmland, open space and other
natural resources in New Jersey**

Prepared by Katharine Otto
For New Jersey Future



August 2010

TABLE OF CONTENTS

Preface	Page 3
Useful Resources	Page 5
Overview of Programs	Page 7
Case Studies.....	Page 8
City of Davis, CA	8
City of Livermore, CA	10
Tahoe Regional Planning Agency, CA.....	11
Boulder County, CO.....	13
Gunnison County, CO.....	15
Pitkin County, CO	17
Alachua County, FL	19
Township of Hadley, MA	20
Town of Hatfield, MA.....	22
Calvert County, MD	23
Cecil County, MD.....	25
Montgomery County, MD	26
Long Island Pine Barrens, NY	28
Town of Southold, NY	30
Town of Warwick, NY.....	32
Township of Warwick, PA.....	34
King County, WA	25
Snohomish County, WA.....	37
Thurston County, WA.....	38
Dane County, WI	39
About New Jersey Future	Page 40

PREFACE

The following report outlines a selection of Transfer of Development Rights (TDR) programs in the USA that may be relevant in the context of TDR programs in New Jersey. TDR programs can be found under a variety of guises, including Transfer of Development Credits (TDC), density transfer, and lot coverage transfer programs. TDR is a valuable tool for the preservation of farmland, open space, natural and historic resources, as well as promoting development in smart and strategic locations. New Jersey already has several TDR programs, including the highly successful Pinelands Development Credit program. This report was prepared for New Jersey Future to support the work of New Jersey's TDR taskforces which began to meet in 2009, coordinated by the Delaware Valley Regional Planning Commission and New Jersey Future with support from the William Penn Foundation.

This report focuses primarily on regional and county TDR programs that focus on preserving agricultural and open space resources. It examines case studies on a variety of scales, from towns and cities to large counties and regions, with both intra- and inter-jurisdictional examples. Case studies were chosen for their potential relevance within the New Jersey context, particularly looking for innovative examples that may help address some of the issues that face TDR programs in New Jersey. For example, the Town of Southold considered only allowing transfers within school districts for their revised TDR program.

TDR can be adapted to meet a variety of needs within communities, both for sending and receiving areas. TDR is not just a tool for preservation, but can also be used to encourage the more efficient use of infrastructure, the provision of affordable housing and economic development in targeted areas. While the vast majority of programs examined within this report had a focus on preservation of agricultural lands, open space and/or natural resources, two programs shared many similar characteristics to these other programs but had a greater focus on the reduction of residential density (Montgomery County) and encouraging affordable housing (Town of Southold).

Nearly all programs contained within this report transferred development rights between or within place-based (county or municipality) jurisdictions, although the Tahoe Regional Planning Agency (TRPA) mandated transfers within hydrological regions and the Town of Southold has been considering transfers only occurring within school districts. While several county programs use large areas of unincorporated lands as sending and receiving areas, a significant number of counties have negotiated intergovernmental agreements with incorporated communities to become receiving areas and sometimes also part of the sending area. The majority of programs examined had only residential receiving areas (60%) and only three of the programs had only non-residential receiving areas (Hadley Township, Town of Hatfield and Warwick Township).

In the majority of the case studies development rights/credits were transferred from the sending areas to the receiving areas. There were, however, four exceptions with two programs that transferred sanitary flow rights (Long Island Pine Barrens (otherwise known as the Pine Barrens Credit Program, PBCP) and Town of Southold, both in Suffolk County, NY) and two that transferred lot coverage (TRPA and Warwick Township). For the TRPA and PBCP these atypical transfers correspond with one of the goals of their programs, to restore and enhance regional water quality. While the majority of programs relied on density increases as the primary incentive for purchasing development rights in the receiving areas, three programs used open space incentives (Gunnison County, Alachua County, and Cecil County) and three programs used other non-density related incentives (Hadley Township, King County, and Dane County).

Over time more communities are experimenting with new varieties of TDR that can create programs more suited to the individual circumstances of each jurisdiction (Pelletier *et al.*, 2010). Non-traditional TDR programs, such as land mitigation programs and some payment in-lieu options, share many of

the characteristics of traditional TDR programs but lack some of the complexity that reduces the success of some more traditional TDR programs. Two programs within this report had land mitigation components (City of Davis and TRPA) and six programs had payment in lieu options (City of Davis, City of Livermore, Gunnison County, Hadley Township, Town of Hatfield, and Town of Warwick NY).

In many cases TDR programs work alongside Purchase of Development Rights (PDR) programs. TDR programs are distinct from PDR programs which concentrate on the preservation of land, without the component that relocates the development to another location. TDR programs depend on a careful balance between sending and receiving areas; the demand and the price landowners are willing to pay to increase the density of development in the receiving area needs to balance with the willingness of landowners in the sending areas to sell their development rights and at an appropriate cost. PDR programs, on the other hand, can designate as much land as they wish as areas suitable for preservation but the scale of their achievement is often significantly limited by the availability of funding from public and non-profit organizations to purchase the development rights. PDR programs also permanently retire development rights rather than transferring the rights to a more suitable location and preserving the overall development potential of the region. PDR and TDR programs work best alongside each other if they are designed to fulfill slightly different purposes as in Montgomery County, Maryland; thus landowners in Montgomery County wishing to preserve natural resources and prime farmland gravitate toward the PDR program while landowners who wish to reduce residential development density on their property in return for the sale of their development rights use the TDR program.

While this report mainly focuses on programs which have been proved to be successful, it also includes some programs which have been adopted more recently that have not yet been proved successful but contain interesting characteristics that could be useful for TDR programs in the future. The twenty case study programs in this report are not an exhaustive list of relevant or successful programs. This report focuses on highlighting the noteworthy characteristics of each program and useful sources of further information rather than describing the details of the program. A summary of these noteworthy characteristics can be found in the Overview of Programs and listed at the end of each case study. There are hundreds of other successful or innovative programs that are referenced in the existing literature on TDR programs. The Resources section of this report references some of the existing literature that has been useful to explain more about how TDR programs and the places that have used it.

TDR is a valuable smart growth tool that has already preserved hundreds of thousands of acres of farmland, open space, forest and historic resources across the nation in return for promoting more efficient and economically viable communities. Five of the programs listed in this report were identified in the top ten TDR programs in the country in terms of the number of acres preserved by 2008 – King County, Montgomery County, Calvert County, Pitkin County and Boulder County (Pruetz and Standridge, 2009). By 2010 TDR programs had been responsible for preserving over 400,000 acres of land in over 200 jurisdictions (Pelletier *et al*, 2010) and in return encourage development in more efficient and sustainable communities. The number of acres preserved cannot alone determine a successful TDR programs when base zoning densities, development pressures and resource values vary so greatly. The great number of acres preserved, however, serves to indicate the significant private market demand for additional development rights for a price that can preserve local resources.

USEFUL RESOURCES

This report is intended as more of a brief introduction to the diversity of TDR programs. The following resources give interesting insight into more TDR programs and the policy and legislation that supports them. For any additional information about this report contact Katharine Otto, kotto104@gmail.com.

Articles and books

Detailed introduction to TDR and detailed case studies of hundreds of TDR programs across the USA and beyond:

- Pruetz, R (2003) *Beyond Takings and Givings. Saving Natural Areas, Farmland, and Historic Landmarks with Transfer of Development Rights and Density Transfer Charges*, Arje Press, Marina Del Rey CA
- Pruetz, R (2010) *Beyond Takings and Givings*. Website: www.beyondtakingsandgivings.com (updates about the status of case study TDR programs after the 2003 book was published)

Overview of selected themes and characteristics of TDR programs:

- American Farmland Trust Farmland Information Center (2008) *Transfer of Development Rights Factsheet*. Cited May 24, 2010 at www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf
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- Pruetz, R; and Pruetz, E (2007) “Transfer of Development Rights Turns 40”, *American Planning Association. Planning and Environmental Law. June 2007* 59(6):3-11
- Pruetz, R and Standridge, N (2009) “What makes transfer of development rights work?”, *Journal of American Planning Association, Winter 2009*, 75(1):78-87

Detailed case studies of county and regional TDR programs:

- McConnell, V.; Walls, M.; and Kelly, F. (2007) *Markets for Preserving Farmland in Maryland Making TDR Programs Work Better*. HRHCAE Pub 2007-03. Report Prepared for the Maryland Center for Agroecology. Final Draft. February 2007. Cited June 23, 2010 at <http://agroecol.umd.edu/files/Virginia%20McConnell%20Final%20Report%20HRHCAE%20Pub%202007-03.pdf>
- New Jersey Highlands Water Protection and Planning Council (2008) *Transfer of Development Rights Technical Report*. (Particularly Appendices A and B.) September 2008. Cited June 13, 2010 at www.highlands.state.nj.us/njhighlands/master/tr_tdr.pdf

Non-traditional TDR programs, particularly Density Transfer Charge Programs:

- Pelletier, M.; Pruetz, R.; and Duerksen, C. (2010) “TDR-Less TDR Revisited: Transfer of Development Rights Innovations and Gunnison County’s Residential Density Transfer Program.” *Planning Advisory Service Memo. May/June 2010*. www.planning.org/pas/memo/2010/may/index.htm

TDR laws and regulations

Municipal and county codes are often available online and give detailed information about the specifics of TDR programs and the other land use regulations that work alongside the program. Where available references to the location of municipal/ county codes is referenced at the end of each case study. Some state and local TDR enabling statutes and ordinances are inventoried at www.farmlandinfo.org/farmland_preservation_laws/index.cfm?function=laws&articleID=0&sortOrder=rating&articleTypeID=246&publishedStatusID=2&questionStatusID=&stateID=&topicID=3257&categoryID=&go.x=35&go.y=13&go=submit .

TDR Taskforces/ Alliances

TDR taskforces and alliances can publish a wealth of resources that critically examine the technical and practical components of TDR programs.

State of New Jersey TDR Policy Taskforce and Salem County TDR Taskforce

Insight into the issues currently facing New Jersey's established and developing TDR programs can be found in the discussions at the State of New Jersey and Salem County TDR Taskforces which were meeting from 2009 to 2010, convened by New Jersey Future and the Delaware Valley Regional Planning Commission (DVRPC). The Taskforces have published notes and agendas at www.dvrpc.org/tdr.

Puget Sound TDR Alliance, Washington

The Puget Sound TDR Alliance includes the Puget Sound Regional Council, Washington State Department of Commerce, Pierce, King and Snohomish Counties, and the Cascade Land Conservancy, who are working together to promote TDR programs in the Puget Sound Region. A key component of the Alliance's work is hosting a series of educational workshops which highlight available grants for receiving areas, technical assistance materials, and outreach materials for landowners and developers. The region already boasts of some of the more successful and long standing TDR programs, which provide a good selection of local examples of policies, regulations, interlocal agreements, TDR certificates, conservation easements and plans for receiving areas, which are all available at www.commerce.wa.gov/tdr. The Washington State Department of Commerce is in the process of drafting a new rule for voluntary interlocal agreement in TDR programs.

TDR/ Land Preservation Work Group of the Maryland Growth Taskforce

As part of Maryland's Task Force on the Future for Growth and Development, the TDR/ Land Preservation Work Group critically examined several examples of interjurisdictional TDR programs from across the country, including Boulder County CO, King County WA, the NJ Pinelands and Chesterfield Township NJ. The work group also examined how TDR programs could evolve in the future. The TDR/ Land Preservation Work Group's final report can be found at www.mdp.state.md.us/PDF/773/20091102/Final_Report_Task_Force_Version_20091101.pdf

OVERVIEW OF PROGRAMS

Location			Preservation of...					Transfer of ...			Transfer within...				Receiving Area			Other Characteristics					Page		
		State	Agriculture/ Farmland	Open Space	Historic Resources	Forest	Other Natural Resources	Development Rights	Sanitary Flow Rights	Lot Coverage	Municipality	Unincorp. County Lands	School District	Hydrological Region	Inter-jurisdictional	Low Density	Residential	Non-Residential	Land Mitigation	Under Review	Payment in Lieu option	Non-permanent Easement	Open Space Incentive	Non-Density Incentives	
Davis	City	CA	Ag					DR						IJ		R		LM		PIL					7
Livermore	City	CA	Ag	OS			NR	DR			M					R					PIL				9
Tahoe	Regional Planning Agency	CA, NV		OS			NR			LC			H	IJ		R	NR	LM	UR						10
Boulder	County	CO	Ag	OS			NR	DR				UC		IJ		R									12
Gunnison	County	CO	Ag	OS			NR	DR				UC				R					PIL		O		14
Pitkin	County	CO	Ag	OS	H		NR	DR						IJ		R									16
Alachua	County	FL	Ag	OS			NR	DR				UC				R	NR						O		18
Hadley	Township	MA	Ag					DR			M						NR				PIL			ND	19
Hatfield	Town	MA	Ag	OS				DR			M							NR			PIL	NPE			21
Calvert	County	MD	Ag			For		DR				UC			LD	R									22
Cecil	County	MD	Ag			For	NR	DR				UC				R						NPE	O		24
Montgomery	County	MD						DR				UC				R			UR						25
Long Island Pine Barrens	Regional	NY					NR		SF					IJ		R	NR								27
Southold	Town (Suffolk Co.)	NY	Ag	OS					SF							R									29
Warwick	Town	NY	Ag	OS				DR						IJ		R					PIL				31
Warwick	Township (Lancaster Co.)	PA	Ag							LC	M							NR							33
King	County	WA	Ag	OS		For	NR	DR				UC		IJ		R	NR							ND	34
Snohomish	County	WA	Ag					DR				UC		IJ		R	NR								36
Thurston	County	WA	Ag					DR							LD	R			UR						37
Dane	County	WI	Ag	OS				DR				UC				R								ND	38

- * Reduce residential density
- ** Being considered in revised TDR program

CASE STUDIES

CITY OF DAVIS, CA

Program Goals

The City of Davis has a program similar to the concepts of TDR known as the agricultural land mitigation program. Primarily the program is intended to mitigate the effects of the loss of agricultural lands to nonagricultural uses and reduce the potential for conflict between agricultural and non-agricultural land uses (City of Davis Municipal Code, Chapter 40A). In cooperation with Solano and Yolo counties, the program also aims to preserve lands within the Davis Planning Area which extends up to about 5 miles from the city limits. Agriculture is an important component of the city's economy and farmland is viewed as an important landscape and environmental resource.

Program Status

Agricultural land mitigation is required when land is altered from an agricultural to non-agricultural use in the general plan designation or zoning. Between 1995 and 2006 the City preserved over 2,000 acres of agricultural land by easement and collected over \$1.2 million in in-lieu fees which were used as matching funds for state and federal preservation program grants (City of Davis, 2006). Details on the structure and performance of this program can be found in detail in the 2006 Davis Agricultural Preservation Program and Nexus Study.

In November 2007, the city amended the land mitigation program to discourage payment of in-lieu fees which were difficult to put to use, and instead encourage mitigation projects to be carried out by the landowners themselves. To calculate the amount of money to be paid in lieu, the fee is based on the appraisal of more expensive land near the city limits rather than on land further out where it is cheaper. The new program also added new locational requirements for mitigation areas. Davis is a slow growth community so, while the current slump in development which is facing most of California and other states is not having a significant impact on the rate of development in the region, growth occurs at a slow enough rate that the new program has yet to be followed all the way through to new developments being built and mitigation lands purchased. The new land mitigation regulations have, however, been a useful tool for developers to run pro formas for potential new projects, with clear options for mitigation projects (Sears, 2010).

Program details

There are requirements for both adjacent mitigation and "remainder" mitigation depending on factors such as the characteristics of the parcel (eg soil quality, parcel shape, proximity to other agricultural land) and the proposed use (such as clustered residential development that would not be conducive to commercial farming operations next door). Adjacent and remainder land mitigation can occur in Davis Planning Area, with adjacent mitigation on the non-urbanized perimeter of the project and remainder mitigation occurring anywhere in the Planning Area. The number of acres that need to be preserved under remainder mitigation depends on the distance from the city limits, proximity to the site, and whether the site is a priority open space acquisition area.

"Alternative" mitigation proposals (mitigation on non-adjacent properties in lieu of adjacent mitigation) can be approved by the city council if the proposal meets the intent of Chapter 40A.03 (Farmland Preservation), would have extraordinary community benefits, the area is threatened by an equal or greater growth pressure to the project site, the site is strategically located and has agricultural or potential open space values. A mitigation administration fee must be paid by a developer who is seeking a zoning change to convert agricultural land. Mitigation can be accomplished by in-lieu fees which cover the cost of acquisition, administering, monitoring and enforcing the easement.

The program used to have a 500ft buffer around the city to minimize conflict between rural and urban land uses which was eliminated when simplifying regulations. The City does, however, still require a

minimum 150 foot wide agricultural buffer for any developer proposing urban uses adjacent to agricultural land, 50ft of which may have public access and 100ft of which would have not have public access.

There are two additional characteristics to open space preservation in the City of Davis that should be noted with regard to preservation efforts. The City has had an open space tax since 2000 which generates approximately \$600,000 per year which is used as matching funds for state and federal preservation program grants for the purchase of development rights. The City also has a Citizen's Right to Vote for any new project that would annex agricultural land to the city to be developed. While there have only been a few of those cases since 2000, they have all been voted down.

Noteworthy Characteristics

- Mitigation dependent on quality of sending site
- Payment in lieu option, but highly discouraged
- Agricultural buffer
- Adjacent and non-adjacent land mitigation options
- Inter-jurisdictional (but within city's planning area)

More information

City of Davis Municipal Code. Chapter 40A. Right to Farm and Farmland Preservation. Cited May 23, 2010 at <http://cityofdavis.org/cmo/citycode/chapter.cfm?chapter=40A>

City of Davis (2010) *Open Space Program*. Cited May 24, 2010 at <http://cityofdavis.org/pgs/openspace/moreinfo.cfm>

City of Davis (2006) *Davis Agricultural Preservation Program and Nexus Study*. Adopted November 1995. Last updated May 23, 2006. Cited May 24, 2010 at <http://cityofdavis.org/pgs/openspace/pdfs/Davis%20Ag%20Preservation%20Program%20-%20Info%20packet%207-06.pdf>

Correspondence with Mitch Sears, Open Space Planner, City of Davis. July 2010.

CITY OF LIVERMORE, CA

Program Goals

Livermore's Transferable Development Credits (TDC) program has an overarching goal to preserve open space. More specifically the program aims to preserve agriculture, preserve natural resources, prevent further sprawl, provide recreation opportunities, reduce traffic congestion and air pollution, avoid additional expenditure caused by increasing service areas, and preserve the special identity of the area (City of Livermore Development Code, Chapter 4.02.060).

Program Status

By 2008 the city had collected 56 payments adding up to a total of \$1,200,000 (American Farmland Trust, 2008). Livermore's current Transfer of Development Credits Ordinance was adopted in 2004, following in footsteps of the 2002 North Livermore Urban Growth Boundary Initiative.

Sending and Receiving Areas

Receiving areas are designated in the General Plan to allow new residential land use. All properties in North Livermore are part of the sending area. Receiving areas are districts that are zoned to receive additional residential development or density.

Other Program Details

The City of Livermore's TDC program is an example of a TDR program that allows a payment in lieu of transfer. Credits in the sending area are allocated based on a variety of factors, including land area, willingness to forgo development rights on one parcel and/or subdivision rights, and demolition of existing structures. Credits can be granted for land that is already under easement, providing that the existing easement is less restrictive than the proposed. On the receiving site, credits are allocated according to the type of housing (more credits required for a single family dwelling than a multi-family dwelling). An in lieu fee may be paid for each required transferred development credit, a fee which is reviewed no less than bi-annually. Affordable housing units are exempt from the transferable development credits requirements.

The Transferable Development Credits Regulations have some close connections to the North Livermore Urban Growth Boundary Initiative. It should also be noted that the city also implements a Seismic Hazard Mitigation Program that include the increase of coverage or floor area ratio in the Downtown Specific Plan area.

Noteworthy Characteristics

- Payment in lieu option

More information

American Farmland Trust Farmland Information Center (2008) *Transfer of Development Rights Factsheet*. Cited May 24, 2010 at www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf

City of Livermore Community Development Department Planning Division website – www.ci.livermore.ca.us/CDD/Planning/planning.html

City of Livermore Development Code. *Chapter 3-10. Transferable Development Credits*. Last updated June 23, 2006. Cited June 12, 2010 at www.ci.livermore.ca.us/CDD/Planning/pdfs/Planning_Handouts/TransferableDevelopmentCredits.pdf (Note: The development code was repealed after August 2009, to be replaced by: City of Livermore Development Code. *Part 4.02.060 Transferable Development Credits Regulations*. Cited June 23, 2010 at www.codepublishing.com/CA/Livermore/Zoning/LCU_Part4.pdf)

TAHOE REGIONAL PLANNING AGENCY, CA AND NV

Program Goals

The Tahoe Regional Planning Agency (TRPA) is a key example of a regional program, one aims to preserve, restore and enhance the unique natural and human environment of the Lake Tahoe region in California and Nevada.

Program Status

The TRPA coordinates several mechanisms which control development in the Lake Tahoe region. The mechanisms – transfer of lot coverage (TLC), transfer of development rights (TDR), transfer of existing development, and annual allocations – were initiated in 1987 as part of the 1987 Tahoe Regional Planning Agency's Regional Plan. Depending on which of four scenarios is chosen during the current update of the Regional Plan, these programs may alter slightly in the future.

The residential “unit of use” for all single family properties has two components – a development right to build a home which is present as long as the right has not been transferred or extinguished, and an allocation. Commercial, recreational and tourist accomodation land uses are all regulated separately.

Annual Allocation

Development in the Lake Tahoe area is restricted by an annual “allocation” which is based on types of development (residential, tourist accommodation, commercial and recreation). Residential bonus units are used as an incentive for affordable housing. Residential allocations can be transferred under certain conditions.

Transfer of Lot Coverage

The allowable lot coverage is calculated using two different scoring systems, one for when a lot was developed before the implementation of the 1987 Regional Plan (Bailey Land Scoring System) and one for properties developed after (Individual Evaluation System). The program includes special consideration of sensitive lands, limiting permissible uses and also maintaining a sensitive land mitigation mechanism. The TLC program also includes an excess coverage mitigation mechanism for projects involving new development on parcels with existing coverage that exceeds the TRPA's limitations for maximum allowable land coverage. For this program landowners have the option to reduce coverage on or off site, or pay a coverage mitigation fee.

Transfers of lot coverage must occur within hydrologically related areas, and occur at a 1:1 ratio for areas where up to 50% lot coverage is allowed and the ratio increases proportionally from 1:1 to 2:1 for areas with a 50% to 70% base allowable coverage (commercial uses within approved community plans). Coverage transfer must be to lands of equal or less sensitivity (ie more capable for supporting development). The region has “land banks” for each hydrologically related area which process mitigation fees. Landowners are responsible for negotiating transfers of lot coverage from one lot to another and need to show that the transfer meets TRPA's standards. Coverage transfers are permanent for sensitive lands (Land Capability Districts 1 to 3 of 7).

Transfer of Development Rights and Existing Development

Residential development rights can be transferred from a vacant parcel to an area in a plan area or adopted community plan and designated as a receiving area for multi-residential units. Existing development can also be transferred from one parcel to another.

Noteworthy Characteristics

- Transfer of lot coverage
- Transfer of development rights and existing development
- Annual allocation for building
- Transfers within hydrological regions

- Land mitigation program
- Inter-jurisdictional, regional program

More information

Tahoe Regional Planning Agency (TRPA) (2009) *Land Use Subelement. TRPA Draft Regional Plan Update Alternatives. Environmental Threshold Carrying Capacities and Pathway Vision Statements.* Cited June 3, 2010 at

www.trpa.org/documents/rp_update/RPU_Descriptions/Land_Use/1.8.1_Land_Use_Sub.pdf

TRPA (2010) *Regional Plan Update Fact Sheet # 3: Land Use.* Cited June 3, 2010 at

www.trpa.org/documents/rp_update/Facts&Presentations/RPU_Fact_Sheet_3_Land_Use.pdf

TRPA (2010) *Coverage Information.* Cited June 3, 2010 at

www.trpa.org/default.aspx?tabindex=9&tabid=187

TRPA Code of Ordinances. Chapter 20 Land Coverage Standards. Last Amended August 27, 2008.

Cited August 3, 2010 at www.trpa.org/documents/docdwnlds/ordinances/COCh20.pdf

TRPA Code of Ordinances. Chapter 33 Allocation of Development. Last Amended February 24, 2010.

Cited August 3, 2010 at www.trpa.org/documents/docdwnlds/ordinances/COCh33.pdf

TRPA Code of Ordinances. Chapter 34 Transfer of Development. Last Amended October 28, 1998.

Cited August 3, 2010 at www.trpa.org/documents/docdwnlds/ordinances/COCh34.pdf

Pruetz, R (2003) *Beyond Takings and Givings. Saving Natural Areas, Farmland, and Historic Landmarks with Transfer of Development Rights and Density Transfer Charges*, Arje Press, Marina Del Rey CA

Correspondence with Heath Gustafson, Soils/IPES Senior Planner. Tahoe Regional Planning Agency. August 2010.

BOULDER COUNTY, CO

Program Goals

The main goal of Boulder County's TDR program is to "promote county-wide preservation of agriculture, rural open space and character, scenic vistas, natural features, and environmental resources" (Boulder County Land Use Code, 6-700A).

Program Status

Adopted in 1995, the county's voluntary TDR program allowed up to five percent of a sending site to be developed with the remainder of the land protected by a conservation easement. Up until 2007, this program succeeded in preserving over 5,000 acres of agricultural and resource land through the issuance of 293 TDR certificates (Boulder County, 2007). By 2008 the county had preserve 5,900 acres (Pruetz and Standridge, 2008). Following the completion the County's Sustainability Element in 2007, the Expanded TDR Program was approved in June 2008.

Sending and Receiving Areas

Potential receiving areas are not mapped by the county so that property values are not artificially raised or lowered through speculation. Instead, the county requires that any interested property owner show how their property meets the criteria for approval. Neighboring land owners are notified and public hearings are held once a receiving area is proposed. The County has intergovernmental agreements with several of the communities within the county to act as sending and receiving areas, including the Cities of Boulder, Erie, Lafayette, Longmont, and Louisville, and the Town of Superior. Unless there is an intergovernmental agreement that requires a higher percentage, 75% of the units transferred to the receiving site must come from the sub-area surrounding the site.

Other Program Details

The Expanded program approved in 2008 allows the creation of a Transferable Development Credits (TDC) Clearinghouse in August 2008. The Expanded program also included the mandate that all property owners of unincorporated county land must purchase TDCs if they want to build a home of more than 6,000 square feet. If a property owner has a vacant parcel or home smaller than 2,000 square feet on unincorporated county land, they now have the opportunity to sell TDCs. The new program is responding to the dramatic increase in median dwelling unit size in the last decade and is an effort to preserve the diversity of the housing stock. The number of development rights that can be transferred, and the number of units that may still be built on the remaining site is defined by formula, with more development rights allocated per acre for larger lots. For receiving sites, the number of development credits per 500 sq ft of additional development increases from 1 TDC per 500ft for the first additional 500 sq ft to 3 TDCs for each additional 500ft after 2,000 sq ft of addition.

The program is used alongside other land development tools such as non-urban planned unit developments program which was started in 1978. The majority of the county is under a 35 acre minimum lot size zoning. In conjunction with the Expanded TDR program, the County also released an additional site plan review standard of compatibility – requiring that the size of dwelling units remain compatible with the surrounding neighborhood (area within 1,500 feet of the site, platted subdivisions of more than seven developed lots, or mapped townsites).

At present the TDR program only allows transferral of single family residential development rights. TDR dwelling units cannot serve as affordable housing unless a TDR participating municipality wishes to add an affordable housing element to the site as the county recognizes that its model encourages relatively low density development (two dwelling units per acre or less) and the additional cost of purchasing development credits would significantly increase the underlying cost of the land.

Noteworthy Characteristics

- Voluntary until 2008

- Sending or receiving area dependent on size of home
- Inter-jurisdictional
- Preserved parcel allows development of up to 5% of site

More information

Boulder County Land Use Department. Planning Division. *Transferable Development Rights Program*. Cited June 30, 2010 at www.bouldercounty.org/lu/planning_division/tdr_program/index.htm

Boulder County Land Use Code. Article 6. Planned Development Districts. Cited June 30, 2010 at www.bouldercounty.org/lu/lucode/pdf/Boulder_County_Land_Use_Code_Article_6.pdf

Boulder County Land Use Department. Planning Division. *Boulder County Code Updated: Expanded TDR Program*. Cited June 30, 2010 at www.bouldercounty.org/lu/planning_division/expanded_tdr/index.htm

Boulder County (2007) *Boulder County Comprehensive Plan Update. Sustainability Element*. Adopted May 16, 2007. Cited June 30, 2010 at www.bouldercounty.org/lu/bccp/pdf/BCCPSustainabilityElement.pdf

Boulder County Board of County Commissioners (2008) *Expanded TDR Program*. Approved June 12, 2008. Cited June 30, 2010 at www.bouldercounty.org/lu/planning_division/expanded_tdr/pdf/BOCCExpandedTDRDocuments061208.pdf

Boulder County Land Use Department (2010) *Intergovernmental Agreements (IGAs)*. Cited August 13, 2010 at www.bouldercounty.org/lu/igas/index.htm

- Boulder Valley. Parties: Boulder, Boulder County. Boulder Valley TDR CDP Successor IGA
- East Central Boulder Comprehensive Development Plan. Parties: Boulder County, Erie, Lafayette. Isabelle Ranch TDR/PUD Amendment
- Lafayette Transfer of Development Rights Comprehensive Development Plan. Parties: Boulder County, Lafayette. Resolution Approving TDR IGA.
- Longmont Planning Area Comprehensive Development Plan. Parties: Boulder County, Longmont. TDR Map, TDR Sending Site Map
- Longmont Transfer of Development Rights IGA. Parties: Boulder County, Longmont. First Amendment, and Second Amendment.
- US 36 Corridor Comprehensive Development Plan. Parties: Boulder County, Boulder, Louisville, Superior. Willow Ranch TDR Amendment to US 36 Corridor CDP

Pruetz, R and Standridge, N (2009) "What makes transfer of development rights work?", *Journal of American Planning Association*, Winter 2009, 75(1):78-87

GUNNISON COUNTY, CO

Program Goals

The main goal of Gunnison County's TDR program, known as the Residential Density Transfer (RDT) program, is to "provide an effective and equitable tool to conserve ranchlands used in agricultural operations and other valuable natural lands, and to help protect those lands from development impacts" (Gunnison County Land Use Resolution, Division 14-200).

Program Status

Gunnison's RDT program was adopted in November 2009 and has not been used to date (Pelletier, 2010). The program is a simplified version of Berthoud, Colorado's TDR program. It was established as a voluntary TDR program that applies to subdivisions of five or more lots. For these subdivisions there is an 30% open space requirement (pre-existed the 2009 RDT ordinance) which can be reduced to 15% if the developer complies with the RDT programs requirements.

Sending and Receiving Areas

There are no particular sending or receiving areas. The program currently applies to all unincorporated lands within the county. Some lots may not be eligible for the open space reduction as the natural environmental constraints on the land already exceed 30%. Lots used for mobile homes or solely for Essential (Workforce) Housing are also excluded from the open space calculation.

Other Program Details

The payment in lieu option for this program is based upon the difference in tax assessed (not appraised) values for the properties. Developers would currently pay 10% of the difference between the assessed value property before subdivision and sum value of all lots after subdivision. By reducing the required amount of open space on the property from 30% to 15% the number of lots that can be subdivided from the original lot can be increased and the amount of usable area on the lots may increase. The percentage was set low enough that developers can still make a profit on projects that are sited on a wide variety of original lot sizes, while providing suitable funding to acquire conservation easements in other areas of the county particularly. The funds generated are mainly used to leverage state lottery funds. The county also has an active PDR program which is funded by sales taxes.

Noteworthy Characteristics

- Open space requirement reduction
- Payment in lieu option

More information

Gunnison County Land Use Resolution. Reprinted 2006. Last amendment approved August 4, 2005. Cited July 26, 2010 at www.gunnisoncounty.org/planning_pdf/GC-LUR-2006.zip?download=GC-LUR-2006.zip

Gunnison County (2007) *Transfer of Development Rights (TDR) Program for Gunnison County*. November 30, 2007. Cited June 24, 2010 at www.gunnisoncounty.org/gis_pdf/TDR_information.pdf%3Fdownload%3DTDR_information.pdf

Gunnison County Land Use Resolution 2009-47 Concerning the Addition of a Voluntary Residential Density Transfer Section. Adopted November 3, 2009. Cited July 26, 2010 at www.gunnisoncounty.org/commissioners_pdf/resolutions/2009/Resolution%202009-47.PDF

Pelletier, M.; Pruetz, R.; and Duerksen, C. (2010) "TDR-Less TDR Revisited: Transfer of Development Rights Innovations and Gunnison County's Residential Density Transfer Program." *Planning Advisory Service Memo*. May/June 2010. www.planning.org/pas/memo/2010/may/index.htm

Shoemaker, W (2009) "Program aims to conserve land via developer incentive". *Gunnison Country Times*. Thursday November 5, 2009. Page A4. Cited June 24, 2010 at www.gunnisoncounty.org/gis_pdf/RDT_newspaper_article.pdf

Correspondence with Mike Pelletier, GIS Manager, Gunnison County. July 2010.

PITKIN COUNTY, CO

Program Goals

Pitkin County's TDR program is provided as an alternative to the Growth Management Quota System (GMQS). In Pitkin County, both systems are designed to promote smart growth, with the GMQS managing the rate, type, location, quality and quantity of growth in unincorporated rural and urban areas in the county, and the TDR program also promoting the Pitkin County Comprehensive Plans goal by transferring development rights to preserve natural and historic resources and lands which are physically and visually constrained (Pitkin County Land Use Code, Chapter 6).

Program Status

Pitkin County's TDR program was first adopted in 1994, with the adoption of a new land use code in 2006 that expanded from the original TDR program's focus on relocation of development closer to existing services and infrastructure thereby preserving the backcountry, to also include an element of protecting environmentally sensitive areas and discouraging development in environmentally hazardous areas. As of 2008, the County had preserved over 6,452 acres (Pruetz and Standridge, 2009). By December 2009, 308 TDR certificates had been issued for a variety of different site types and 121 of the rights had been redeemed with 30 TDRs used for new growth management exempt homes and 91 TDRs used for additional floor area (Pitkin County, 2009). Another 314 TDRs on receiver sites have been granted approval, mainly for additional floor area. The expansion of the program in 2006 allowed the program to have a more balanced supply and demand of TDRs, which is evidenced in the annual TDR tallies.

Since 2006, areas within the Aspen Urban Growth Boundary have also been receiving sites. Most receiving areas only allow the size of house to increase when "transferred development rights" are purchased, but within the Aspen Urban Growth Boundary new development rights can be created on the sites. The City of Aspen also has its own TDR program which focuses on historic preservation. A study of alternative TDR transaction mechanisms highlighted the rather unusual situation in Pitkin County that helped the program protect over 5,000 acres; that the county includes the Aspen which, while an affluent city, believes that protecting rural areas in exchange for building large vacation or ranch homes in particular areas is an worthwhile exchange (Bratton *et al.*, 2008).

Sending and Receiving Areas

Sending areas include parcels within preservation and conservation development planned unit development (CD-PUD) zone, physically and visually constrained sites, sites identified in the Open Space Preservation Master Plan and sites on the County Historic Register. Receiving areas include sites in certain residential districts, to the CD-PUD zone, and to any existing site without development rights if it is within the Aspen Urban Growth Boundary (designated center in unincorporated county land, not within any of the incorporated areas such as the City of Aspen) or part of the Conservation Development Option in rural areas. Depending on the receiving site zone, a credit can be used for a right to develop a new structure on the property and/or to increase the floor area of the house.

Noteworthy Characteristics

- Sending area includes environmentally hazardous and constrained lands.
- Inter-jurisdictional

More information

City of Aspen Land Use Code. Chapter 26.535 Transferable Development Rights. Cited June 22, 2010 at www.aspenpitkin.com/Portals/0/docs/City/clerk/municode/coaspent26-500.pdf

Bratton, N.; Eckert, J.; and Fox, N. (2008) *Alternative Transfer of Development Rights (TDR) Transaction Mechanisms*. Prepared by the Cascade Land Conservancy July 10, 2008. Cited June 12,

2010 at

www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&ItemID=6223&MId=944&wversion=Staging

Estin, T (2006) "Pitkin County 2006 Land Use Code: A Primer", *Mountain Business Journal*, July 4, 2006. Cited June 21, 2010 at www.estinaspen.com/2006070468/pitkin-county-2006-land-use-code-a-primer.html

Pitkin County Land Use Code. Chapter 6. Growth Management Quota System and Transferable Development Rights. Cited June 22, 2010 at www.aspenpitkin.com/Portals/0/docs/county/countycode/chapter_06_ord_014D,%2007-06,%20030-06,%20038-06,%20021-07,%20023-07,%20022-08,%20019-09,%20024-09,%20026-09.pdf

Pitkin County. Department of Community Development. Division of Planning and Zoning. *Transferable Development Rights Program Summary and Annual Review of the TDR Program*. Last updated December 16, 2009. Cited July 26, 2010 at www.aspenpitkin.com/Departments/Community-Development-Pitkin-County/Planning-and-Zoning/Transferable-Development-Rights-%28TDRs%29/

Pruetz, R (2005a) "Aspen, Colorado." *Beyond Takings and Givings Book Updates*. Cited June 22, 2010 at www.beyondtakingsandgivings.com/aspen.htm

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Pruetz, R and Standridge, N (2009) "What makes transfer of development rights work?", *Journal of American Planning Association*, Winter 2009, 75(1):78-87

ALACHUA COUNTY, FL

Program Goals

The purpose of Alachua's TDR program is to "protect the County's environmental resources and promote viable agriculture while encouraging efficient use of services and infrastructure within the Urban Cluster" (Alachua Unified Land Development Code, Chapter 402.180).

Program Status

While originally adopted in 2005, Alachua County's TDR program was only fully adopted in 2010 and has not been used so far. The county does not have much expectation of the program being used significantly in the near future for a variety of economic reasons.

Sending and Receiving Areas

The program is focused on unincorporated county lands, although there are options that allow the establishment of additional receiving areas in municipalities through intergovernmental agreements. Transferred development rights may be used to reduce the open space requirement and as support for a comprehensive plan amendment to expand the Urban Cluster.

Agricultural sending parcels are properties that are classified as agricultural by the Alachua County Property Appraiser, is outside the Urban Cluster, and are over 160 acres, contiguous to a designated sending area or has exceptional agricultural value. Conservation sending parcels are those identified as a Strategic Ecosystem or on the Alachua County Forever active acquisition list, and is over 160 acres, contiguous to 160 acres of eligible conservation sending parcels, or contains critical resources or ecological value. Sending parcels are rezoned to either Agricultural or Conservation with TDR Zones after development rights are sold. The sending area and transfer formulas differ according to whether the sending parcel is an agricultural or conservation area.

The program encourages non-residential development in receiving areas, with any non-residential development on unincorporated lands being eligible to receive. Mixed use developments in unincorporated areas can also receive development rights, but only proportional to the amount of non-residential use in the development. Any amendment to the Urban Cluster requires the purchase of two development rights per residential unit and 10 development rights per acre for non-residential land uses.

Noteworthy Characteristics

- Preserved parcels rezoned once development rights are sold.
- Open space requirement reduction
- Voluntary non-residential receiving area in unincorporated areas
- Expansion to Urban Cluster for residential and non-residential uses require purchase of transferred development rights

More information

Alachua County (2009) *Unified Land Development Code. Adopted 2005, last modified 2009. Chapter 402, Article 29 (Transfer of Development Rights Program)*. Cited June 10, 2010 at <http://growth-management.alachua.fl.us/ldr.php> (Note: the updated TDR section is in the "replacement pages" document)

Correspondence with Steve Lachnicht, Director, Division of Administration, Office of Growth Management. Alachua County. July 2010.

TOWNSHIP OF HADLEY, MA

Program Goals

There are three goals for Hadley's Farmland Preservation Bylaw: to "permanently protect farm land and agricultural soils in the Town", "protect farmland property values and provide a fair economic return to owners of property restricted from further development", and to "foster compact commercial and industrial development in central areas served by public infrastructure" (Hadley Zoning Bylaws, Section XVII).

Program Status

Adopted in 2000, Hadley's Farmland Preservation Bylaw is one of the first examples of TDR in Massachusetts and often serves as an example to other municipalities in the area. To date over ten new developments have been approved in the commercial/ industrial receiving area to pay the in-lieu fee for either a reduction in parking requirements or increase in density.

The TDR program in Hadley is based upon the transferral of credits from farmland to commercial property, allowing additional commercial floor area and a parking requirement reduction. The program has not been amended to date, although there is discussion about expanding the program for some residential uses in the receiving areas. While there are two options in the Bylaw about how to transfer the development rights, to date there has been no uptake on direct purchase of development rights by a developer. Instead, developers have all chosen to pay into a revolving fund which is then used as matching funds for the State of Massachusetts' Agricultural Preservation Restriction Program for preservation of chosen properties. To date, Hadley has generated \$338,772 in in-lieu fees from four TDR projects, funds which have been leveraged to preserve over 239 acres of farmland (Pioneer Valley Planning Commission, 2009 and Dwyer, 2010).

Sending and Receiving Areas

The sending area is all developable farmland of at least five acres within the Agriculture/Residential Zone. The receiving area is a state highway commercial corridor – all lots within the Business and Industrial Zones with frontage on Route 9, Mill Valley Road or North Maple Street. The program is particularly relevant now that many anchor stores in both enclosed and strip malls want to own their land and parking lots, thus making them subject to zoning requirements on a store by store (lot by lot) basis (rather than the combined parking requirement for the entire mall being spread across the single lot).

Other Program Details

Another interesting characteristic of Hadley's program is that not all applications for increased floor area or a reduced parking requirement are automatically approved. Applications for the increased density or reduced parking requirement are processed as Special Permit applications, thus allowing the Planning Board to assess whether the parking reduction or density increase is suitable given the individual lot, deal with properties that were grandfathered into the program but wish to make changes, and also make allowances depending on the proposed use of the site (a restaurant would have different requirements from a manufacturing site that required more floor area but fewer parking spaces).

Calculation of the in-lieu fee uses the average cost for the purchase of Agricultural Preservation Restrictions in the Town over the previous three years.

Noteworthy Characteristics

- Payment in lieu option
- Non-residential receiving area – highway commercial/ industrial
- Option for reduction of parking requirement
- Processed as a Special Permit by the Planning Board

More information

American Farmland Trust Farmland Information Center (2008) *Transfer of Development Rights Factsheet*. Cited May 24, 2010 at www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf

Town of Hadley Master Plan. October 2005. Prepared by Long Range Planning Committee with the assistance of Daylor Consulting Group. Cited May 29, 2010 at www.hadleyma.org/masterplan/HadleyMasterPlan.pdf

Town of Hadley Zoning By-laws. Section XVII Farmland Preservation Bylaw. Last amended May 2008

Pioneer Valley Planning Commission (2009) "Transfer of Development Rights". *Smart Growth Strategy 7. Preserve Farmlands and Support Farm Businesses*. Cited May 29, 2010 at www.pvpc.org/val_vision/html/toolbox/PDFs/building%20blocks/Transfer%20of%20Development%20Rights.pdf

Correspondence with Bill Dwyer, Clerk for Hadley Planning Board. July 2010.

Correspondence with Bob Wagner, Senior Policy and Program Advisor, American Farmland Trust. June 2010.

TOWN OF HATFIELD, MA

Program Goals

The purpose of Hatfield's TDR program is to "protect farmland and open space, protect property values and provide a fair economic return to property owners, foster compact development in areas served by public services and infrastructure, and to preserve the remaining rural, historic and agricultural character of the community by directing new commercial and industrial development to appropriate locations" (Hatfield Zoning Bylaws, Chapter 6.1).

Program Status

Created in 2003, Hatfield's TDR Program as not been used as of July 2010. The program includes an option for payment in lieu of credits.

Sending and Receiving Areas

The sending area is all land within the agricultural, outlying residential and rural residential zoning districts. The program allows for increased commercial and industrial development density (floor area and lot coverage) for land served by municipal water and sewer within the business, industrial and light industrial zoning districts. Development in the receiving area using transferred development credits requires an application to the Planning Board for a Special Permit.

Other Program Details

There is an option for the "restriction" (easement or covenant) on a property to be released if the land is deemed no longer suitable for agricultural or horticultural uses, as approved by two-thirds of the Massachusetts general court.

Noteworthy Characteristics

- Payment in lieu option
- Preservation easement can be released under certain circumstances
- Processed as Special Permit by Planning Board

More information

Town of Hatfield Zoning Bylaws. Chapter 6.1 Transfer of Development Rights. Adopted May 13, 2003, Amended May 11, 2004. Cited June 28, 2010 at www.townofhatfield.org/About%20the%20Town/zoningbylaws.pdf

Correspondence with Bob Wagner, Senior Policy and Program Advisor, American Farmland Trust. June 2010

CALVERT COUNTY, MD

Program Goals

The main goals of Calvert County's TDR program is to "preserve prime agricultural and forestry land", "utilize the free market system for financing preservation" and "guide development away from prime agricultural and forestry lands" (Calvert County Agricultural Preservation Rules and Regulations). The program also aims to "promote and preserve the identity of intact rural agricultural communities" and to "minimize conflicts between agricultural and non-agricultural land use by providing for functional separation of the two". The County also has a Forest Conservation TDR program which was designed to help meet the goals of the Maryland Forest Conservation Act.

Program Status

Calvert County's TDR program was the first in Maryland, adopted in 1978. As of December, 2005, the TDR program had preserved over 11,900 acres of the 23,767 acres of lands preserved in the county. By 2008, this number had increased to 13,260 acres preserved through the TDR program. The most notable characteristic of the Calvert County TDR program is that it uses low density receiving areas and does not require infrastructure like sewer service within these areas.

Sending and Receiving Areas

The county's program operates within its unincorporated lands. Sending areas are established voluntarily. Landowners can voluntarily apply to be designated in the county's Agricultural Preservation District, a designation which must remain for at least five years. To qualify, at least fifty percent of the total acreage must be suitable for cropland and/or managed forest land. Properties within the Agricultural Preservation District can be preserved through three County mechanisms – the TDR program, the Purchase and Retirement Fund (which purchases, retires and permanently removes transferable development rights), and the Leveraging and Retirement Fund (which also permanently retires development rights for the property, but there is no limit on the number of rights that can be purchased, and the owner receives tax-free interest payments and a lump sum payment at the end of a fixed term).

The base density of receiving areas has been slowly decreased over time. All zoning densities in the county were reduced in 1999 and 2003, with TDR providing the only method to regain previous densities, resulting in new development concentrating in the Residential Districts and within a mile of Town Centers. Receiving areas for the TDR program are any areas that are not part of the Agricultural Preservation District, and includes Priority Funding Areas (Residential Districts and Town Centers) and the Rural Community District (RCD). Several of these options are low density, with densities as low as one dwelling unit per four acres in the RCD and one dwelling unit per two acres in the RD when TDRs are used. The RCD has proved the most popular area to transfer rights to. Some lands in the RCD are both sending and receiving areas.

Noteworthy Characteristics

- Low density receiving areas
- Downzoning used
- Complimentary PDR Program

More information

American Farmland Trust Farmland Information Center (2008) *Transfer of Development Rights Factsheet*. Cited May 24, 2010 at www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf

Calvert County (2009) *Preserving Farm and Forestland in Calvert County, MD*. Agriculture workshop. March 19, 2009. Cited June 3, 2010 at www.co.cal.md.us/assets/Planning_Zoning/Slideshows/March19-AgWorkshopSlideshow.pdf

Calvert County Board of County Commissioners (2006) *Calvert County Land Preservation, Parks and Recreation Plan*. Approved and adopted December 2006. Cited June 23, 2010 at www.co.cal.md.us/assets/Planning_Zoning/PDF_Files/AdoptedOpenSpacePlan.pdf

Calvert County Zoning Code. Effective Date May 1, 2006. Last updated May 19, 2010. Article 2: Zoning Districts and Maps. Article 5: Residential Development Requirements. Cited June 23, 2010 at www.co.cal.md.us/assets/Planning_Zoning/ZoningOrdinance/Article2-Final.pdf and www.co.cal.md.us/assets/Planning_Zoning/ZoningOrdinance/Article5-ResidentialDevReq.pdf

Calvert County. Calvert County Agricultural Preservation Rules and Regulations. Adopted January 9, 2007 and amended March 20, 2007. Cited July 28, 2010 at www.co.cal.md.us/assets/ResolutionAugust07andRulesRegulations20070109.pdf

McConnell, V.; Walls, M.; and Kelly, F. (2007) *Markets for Preserving Farmland in Maryland Making TDR Programs Work Better*. HRHCAE Pub 2007-03. Report prepared for the Maryland Center for Agroecology. Final Draft. February 2007. Cited June 23, 2010 at <http://agroecol.umd.edu/files/Virginia%20McConnell%20Final%20Report%20HRHCAE%20Pub%2007-03.pdf>

Pruetz, R and Standridge, N (2009) "What makes transfer of development rights work?", *Journal of American Planning Association*, Winter 2009, 75(1):78-87

Correspondence with Veronica Cristo, Rural Planner II, Calvert County Department of Planning and Zoning. August 2010.

CECIL COUNTY, MD

Program Goals

The goal of Cecil County's TDR program is to "encourage preservation of natural resources and facilitate orderly growth in the County" and to encourage the provision of a more attractive living environment (Cecil County Zoning Code, Article XI, Part V, Section 246).

Program Status

Adopted in 2006 with an effective date of January 1, 2007, the Cecil County TDR program is relatively new. Unfortunately, primarily due to the housing market crash, there has been no use of the TDR program to date.

Sending and Receiving Areas

Sending parcels must be located in either the northern or southern agricultural residential zoning districts and be at least 50 acres in size. At least 50% of the parcel must have soils in USDA Classes I, II, or III, and if the parcel is wooded, 50% of the land must be classified as Woodland Group 1 or 2. The TDR ordinance also contains some site design standards to guide new development.

Receiving areas include the Suburban Residential District (up to four dwelling units per acre with TDR), Development Residential District (up to twelve dwelling units per acre) and the Town Residential District (up to six dwelling units per acre). While at present the program just operates within the county's unincorporated lands, the county does have a provision that development rights may be used in incorporated municipalities if the municipality has adopted mechanisms that allow the rights to be used.

Other Program Details

The County also has an active PDR Program. Under the county's PDR program easements can be repurchased by landowners after 25 years if the Board of County Commissioners has "determined that the land is no longer suitable for farming". The county also has a 15% minimum common open space requirement for all subdivisions, unless a payment in lieu of open space is made to the County's PDR Program.

Noteworthy Characteristics

- Payment in lieu option for PDR program
- Open space incentive
- Preservation easement can be released under certain circumstances

More information

Cecil County (2006) Zoning Ordinance Amendments adopted on August 18, 2006, effective January 1, 2007. Cited June 10, 2010 at www.ccgov.org/uploads/PlanningAndZoning/General/TDR_7_17_06.pdf

Cecil County (2006) *Purchase of Development Rights Program. Instructions for Completing the Application to Sell An Easement.* Cited June 10, 2010 at www.ccgov.org/uploads/PlanningAndZoning/AgPreservation/CC%20PDR%20Instructions_11_06.pdf

Cecil County Planning and Zoning Department (2010) *Transfer of Development Rights. Executive Summary.* Cited June 10, 2010 at www.ccgov.org/dept_planning/TDRExecSum.cfm

Correspondence with Eric S Sennstrom, Director, Cecil County Department of Planning and Zoning. August 2010.

MONTGOMERY COUNTY, MD

Program Goals

The main goal of Montgomery County's TDR program is to reduce residential density in sending areas. Preserving natural resources and agriculture is primarily the goal for the county's Purchase of Development Rights (PDR) program.

Program Status

One of the earliest and most successful TDR programs in the country, the Montgomery County TDR program has preserved over 64,000 acres at a density of one dwelling unit per 25 acres and over 5,000 acres are preserved without any potential for future development (MNCPPC, 2007:3). The County is currently in the process of a comprehensive rewrite of the County Zoning Code, a process that started in 2008 and not expected to be completed until 2012.

In the early 2000s the problem of "fifth TDR" arose, where individuals were developing country estates in the sending areas with the remaining development right, thus causing an escalation in land value in the area which made it unaffordable for commercial farming (McConnell *et al.*, 2007; and Bratton *et al.*, 2008). This issue still remains and is part of the motivation for developing the Building Lot Termination program which allows for the exchange of the fifth development right for a higher value (Dunn, 2010). As of 2007, the BLT program had successfully severed over 200 buildable ("fifth") TDRs from the land which represented over 5,000 acres protected from future development at any density (MNCPPC, 2007).

The program has nearly reached its goal of conserving 70,000 acres. As such a large proportion of the agricultural land is conserved and there are increasing pressures to develop the remaining lands, thereby increasing the value of those lands. While the county has been considering new development rights programs so that the remaining areas can be preserved, with the exception of the BLT program, no other new programs are being developed at the moment due to the state of the economy (Bratton *et al.*, 2008; and Dunn, 2010).

Sending and Receiving Areas

The county's sending area is known as the Rural Density Transfer Zone, where density is limited to one dwelling unit per 25 acres. One development credit is equal to five acres, and property owners can sell four of five development credits. The fifth development credit can be sold through the BLT program. The TDR program operates within the county's unincorporated lands unless land is annexed from the county to an incorporated community and, following a individual assessment of the parcels involved, an agreement is reached with the municipality that the parcels remain in the program.

TDR is the only way to exceed base zoning in the county, with the exception of the development of affordable housing. The county's use of downzoning and then allocating development rights as per the old zoning provided incentive for development rights to be purchased. To further incentivize growth in receiving areas, the County's capital improvements program ensure that infrastructure such as sewer, water and transportation reach the area. Other than capital improvement incentives, the program relies solely on additional density providing the incentive for development in the receiving areas. Unfortunately, over recent years the market for larger lot subdivisions has increased to such an extent that it is often more profitable for developers to build at lower densities, thus decreasing the demand for credits.

Other Program Details

The County also has an active PDR program which compliments the TDR program. Reflecting the TDR program's main goal to reduce residential density in sending areas rather than preserving natural resources or agriculture like the county's PDR program, Montgomery County's TDR program issues different easements for properties than under their PDR program. The standard TDR easement

focuses on the number of residential dwellings that can be constructed, occupied or maintained on the property, ignoring the elements commonly mentioned in the PDR program such as future subdivision, mining, development of soil, water or forestry conservation plans, agricultural structures, public access, and use of property. Unlike the PDR agricultural easement which contains a clause for termination of an easement if the land is no longer suitable for agriculture after 25 years, the standard TDR easement does not contain such a clause since the development rights have already been used elsewhere.

Noteworthy Characteristics

- Complimentary PDR program (not competing)
- Use downzoning
- PDR preservation easement can be released under certain circumstances

More information:

American Farmland Trust (2001) *Purchase of Development Rights and Transfer of Development Rights Case Studies*. Prepared for Boone County Planning Commission. Cited June 1, 2010 at www.ctahr.hawaii.edu/awg/downloads/rp_AFT_TDRstudies_Boone.doc

Bratton, N.; Eckert, J.; and Fox, N. (2008) *Alternative Transfer of Development Rights (TDR) Transaction Mechanisms*. Prepared by the Cascade Land Conservancy July 10, 2008. Cited June 12, 2010 at www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&ItemID=6223&Mid=944&wversion=Staging

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Maryland National Capital Park and Planning Commission (MNCPPC), Research and Technology Center (2007) *Tracking Transferrable Development Rights*. Cited June 1, 2010 at www.montgomeryplanning.org/research/documents/TDRstatusreport-finaldraft.pdf

Maryland National Capital Park and Planning Commission (2008) *Rural Areas/ Agricultural Reserve*. Cited June 1, 2010 at www.montgomeryplanning.org/community/ag_reserve.shtm

Maryland National Capital Park and Planning Commission (2010) *Montgomery County Zoning Rewrite*. Cited June 8, 2010 at www.montgomeryplanning.org/development/zoning/interact.shtm

McConnell, V.; Walls, M.; and Kelly, F. (2007) *Markets for Preserving Farmland in Maryland Making TDR Programs Work Better*. HRHCAE Pub 2007-03. Report Prepared for the Maryland Center for Agroecology. Final Draft. February 2007. Cited June 23, 2010 at <http://agroecol.umd.edu/files/Virginia%20McConnell%20Final%20Report%20HRHCAE%20Pub%2007-03.pdf>

Montgomery County Council. Bill 39-07. Repealing and re-enacting Montgomery County Code Chapter 2B Agricultural Land Preservation. Approved November 18, 2008. Cited August 3, 2010 at www.montgomerycountymd.gov/content/council/pdf/bill/2007/39-07.pdf

Montgomery County Zoning Code. Last updated 30 April, 2010. Cited June 8, 2010 at www.amlegal.com/montgomery_county_md/

Correspondence with Pam Dunn, Research and Technology Center, Montgomery County Planning Board. August 2010.

LONG ISLAND PINE BARRENS, NY

Program Goals

The purpose of the Pine Barrens Credit Program (PBCP), as established by the Long Island Pine Barrens Protection Act, is to “preserve the pine barrens ecology and to ensure the high quality of surface and groundwater within the Central Pine Barrens” (Central Pine Barrens Comprehensive Plan. Volume 1. Chapter 6.1). The Plan which accompanies the program also aims to “discourage piecemeal and scattered development”, “accommodate development in a manner consistent with the long term integrity of the pine barrens ecosystem”, and “promote a compact, efficient and orderly plan of development”.

Program Status

The Long Island Pine Barrens (or Central Pine Barrens) TDR program was started in 1993 when the Long Island Pine Barrens Protection Act of New York State was passed. The PBCP is managed by the Central Pine Barrens Joint Planning and Policy Commission which was also created as part of the 1993 Act. As of January 1, 2009 a total of 1,843 acres of land had been protected by easement, with approximately 40% of the credits generated having been redeemed (345 out of 907).

Sending and Receiving Areas

The sending and receiving areas, as well as the operational guidelines for the PBCP are outlined in the Central Pine Barrens Comprehensive Land Use Plan which was first adopted in 1995 and is currently undergoing its fourth update. The program is inter-jurisdictional with the towns of Brookhaven, Riverhead and Southampton hosting the sending areas and receiving areas, and several additional Suffolk County town designating additional receiving areas. While Brookhaven, Riverhead and Southampton Town have both sending and receiving areas, credits cannot be transferred within the same town. There is no restriction on the type of development that can occur in receiving areas according the Pine Barrens Plan, allowing residential, industrial and commercial uses, amongst others.

While in Brookhaven and Southampton a Pine Barrens Credit is equal to one single family dwelling, in Riverhead a Pine Barrens Credit is equal to three hundred gallons of sewage flow per day per acre. Even in Brookhaven and Southampton credit transfers are connected to sewage flow and are tied to the Suffolk County Department of Health Services Sanitary Code. It is the County Sanitary Code that defines that credit transfers must occur within the same Groundwater Management Zone.

Noteworthy Characteristics

- Regional, inter-jurisdictional program
- Some credit transfers connected to sewage flow

More information

American Farmland Trust Farmland Information Center (2008) *Transfer of Development Rights Factsheet*. Cited May 24, 2010 at www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf

Central Pine Barrens Joint Planning and Policy Commission website. *Pine Barrens Credit Program (Transfers of Development Rights)*. Last updated June 8, 2010. Cited June 9, 2010 at www.pb.state.ny.us/chart_pbc_main_page.htm

Central Pine Barrens Joint Planning and Policy Commission. *The Pine Barrens Credit Program: Transferable Development Rights in Central Suffolk County, NY*. January 2010. Cited June 9, 2010 at www.pb.state.ny.us/pbc/pbc_overview.pdf

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Suffolk County Department of Health Services. Division of Environmental Quality. *Sanitary Code. Article 6: Transfer of Development Rights Standards*. Effective September 30, 1995. Cited June 9, 2010 at www.co.suffolk.ny.us/Health%20Services/TDRStandards.pdf

TOWN OF SOUTHOLD (IN SUFFOLK COUNTY), NY

Program Goals

Adjacent to the Long Island Pine Barrens region, Southold's program also transfers development rights as related to sanitary flow, drawing upon Suffolk County's Sanitary Code. Southold's program has been used to encourage affordable housing goals in addition to land preservation goals. The official goals of Southold's "TDR" program is the "preservation of open space, agricultural lands and recreational landscapes; preservation of the rural, cultural, and historic character of the hamlets and surrounding countryside; preservation of the natural environment and prevention of further deterioration of resources; preservation and promotion of a broad range of housing and business opportunities to support a socioeconomically diverse community; and increased transportation efficiency" (Southold Municipal Code, Chapter 117).

Program Status

Southold's transfer of sanitary flow rights program has been in place since 2005. A sanitary flow credit is "equivalent to a right to develop a single-family residential parcel with an individual on-site sewerage system, or its nonresidential wastewater flow equivalent". One sanitary flow right is allocated per lot or parcel depending on the underlying zoning. Sanitary flow credits are transferred when the Town preserves open space land that it was already intending to preserve and are held in the town's TDR bank. To date about 47 sanitary flow credits have been removed from about 101 acres of land. Only 10 credits have been purchased for an affordable housing project (Spiro, 2010).

Sending and Receiving Areas

The current sanitary flow TDR program has no particular sending or receiving areas. Sending sites are parcels that the town already intended to preserve as open space. Any affordable housing projects are eligible to be "receiving sites" and there are no particular areas within the town where these developments can be located.

Future traditional TDR program

For some time the Town of Southold has been considering implementing a more traditional TDR program. There are several interesting elements to the proposed TDR program which is evaluated in the 2009 Generic Environmental Impact Statement for the program, including transferring rights only within existing school districts, flexible sending areas and having low density receiving sites (in a "hamlet locus"/ "HALO" zone). Dependent on those parcels that are part of the Agricultural District, the sending area of the TDR program would be more fluid than most TDR sending areas, consisting of all parcels in the Agricultural District, which allows parcels to be added and removed over time. To cope with the pressure of altering density on school budgets, the town has considered only allowing development rights to be transferred within a school district (and thus reducing the net impact of the transfer of density) and also relying on the impact of reduction in the size of residential units to control the number of new school children in the area.

Noteworthy Characteristics

- Sanitary flow transfer
- Considering TDR within school districts

More information

Town of Southold (2009) *Final Supplemental Generic Environmental Impact Statement for the Town of Southold Transfer of Development Rights Program*. April 3, 2009. Cited June 21, 2010 at <http://southoldtown.northfork.net/Planning/FSGEIS%204-3-09.pdf>

Town of Southold Municipal Code (2010) Chapter 117 Transfer of Development Rights. Cited June 21, 2010 at www.ecode360.com/?custId=SO0452

Town of Southold. Community Preservation Project Plan. August/ September 2008 Update. Adopted by Local Law No. 13-2008 on September 23, 2008. Cited July 27, 2010 at <http://southoldtown.northfork.net/LandPres/Community%20Preservation%20Project%202008%20Update.pdf>

County of Suffolk Sanitary Code 760-605 Sewage Facilities Requirements for Conventional Single-Family Residential Realty Subdivisions and Developments. Cited July 27, 2010 at www.co.suffolk.ny.us/upload/healthservices/deq_sanitarycode.pdf

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Correspondence with Melissa Spiro, Land Preservation Coordinator, Town of Southold NY. August 2010.

TOWN OF WARWICK, NY

Program Goals

The purpose of Warwick's TDR program is to preserve important local resources such as active farmland and significant open space, and relocate development to areas that are already served by public water and sewer or have the potential to do so (Town of Warwick Code, Chapter 164-47.4).

Program Status

The Town of Warwick use one of the broadest formulas to calculate the transferable density in TDR programs. Unlike most programs which draw almost entirely on a set proportion of the assessed value of the property and/or the number of acres, the total number of permitted units (which can be transferred) is calculated using information such as acreage of different soil groups, FEMA one-hundred year floodplains and existing permanent easements. Unfortunately, as of 2008, no transactions related to the TDR program had been completed.

In 2009 an Annexation District Floating Zone was added to the Village of Warwick's code following the establishment of the Town and Village of Warwick Intermunicipal Annexation Policy. Any lands annexed from the Town of Warwick are zoned for the Annexation District in the Village of Warwick. Landowners of the parcel that has been annexed may apply for an increase in base density for the parcel. The new development must meet the Traditional Neighborhood Design standards, 25% of the site must be reserved as common open space and a fee is paid to the Village for each additional development unit over to "as of right" unit count. The money collected is used for preservation of open space.

Sending and Receiving Areas

The sending areas in the town are designated through the Agricultural Protection Overlay District. It is intended that receiving areas in Warwick are either areas adjacent to the Town's three village centers or in the Town's five hamlets, either in areas where water and sewer are already provided, are planned, or have potential to become available. The receiving areas are zoned "Suburban Residential Low Density", "Suburban Residential Medium Density" and "Local Hamlet Business". Receiving zones can also be created in the Traditional Neighborhood Overlay District, in areas which have been designated for more compact development for some time. While the program at present is an intra-municipal program, there are provisions that the three villages located within the town (Florida, Greenwood Lake and Warwick) may become receiving areas for an inter-jurisdictional program.

Other Program Details

The Town also has Agricultural Advancement Districts, where the farm owner in certain areas of the town and the Town "enter into an agreement that provides the Town with a right of first refusal to purchase the property outright or to purchase development rights for a minimum of 10 years" where a sale for non-farm use is proposed (§ 164-47.8). Options that can be explored under this agreement include PDR, TDR, fee simple acquisition and conservation subdivision.

Noteworthy Characteristics

- Number of permitted units calculated dependent on a variety of factors including soil quality and flood zones.
- Payment in lieu option in conjunction with annexation to the Village of Warwick
- Inter-jurisdictional

More information:

Town of Warwick Code. Chapter 164 Zoning. (Particularly §164-47.3 Agricultural Protection Overlay District and §164-47.4 Transfer of Development Rights.) Last Amended January 24, 2002 by Land Law No. 1-2002. Accessed June 21, 2010 at www.e-codes.generalcode.com/codes/1027_A/1027-164.pdf

Village of Warwick Code. Chapter 145 Zoning. 145-27 Annexation District. Adopted in Local Law no. 1 of 2009. February 2009. Cited July 30 at www.villageofwarwick.org/postings/village_zoning_combined.pdf

Pruetz, R (2008) "Warwick, New York." *Beyond Takings and Givings Book Updates*. Cited June 22, 2010 at www.beyondtakingsandgivings.com/warwick.htm

TOWNSHIP OF WARWICK (IN LANCASTER COUNTY), PA

Program Goals

The purpose of Warwick's transfer of lot coverage program is to preserve the Township's farmland and agricultural landscape and economy (Township of Warwick Code, Chapter 340-45).

Program Status

Since it was established in 1991, Warwick Township's TDR program has managed to preserve over 1,318 acres of farmland (Warwick Township, 2010). Since 2001, the Township has also partnered with developers to determine the number of TDRs needed for specific projects within the Campus Industrial Zone, a partnership which has generated over \$685,000 for farmland preservation through the sale of 278 TDRs.

Sending and Receiving Areas

In the program lot coverage is transferred from farmland to a newly designated Campus Industrial Zone (zoned rural residential pre-2001) where the maximum lot coverage is 10%. Through the TDR lot coverage can be increased up to 70%. Every farm within the Agricultural Zone is an eligible sending tract.

Noteworthy Characteristics

- Lot coverage transfer

More information

Township of Warwick Zoning Code. Chapter 340-45 Transferable Development Rights. Adopted 2001. Amended December 17, 1997, April 4, 2001 and February 18, 2009. Accessed June 30, 2010 at www.ecode360.com/?custId=WA2488

Warwick Township (2010) *Transferable Development Rights Program*. Last updated January, 28, 2010. Cited June 30, 2010 at www.warwicktownship.org/warwick/cwp/view.asp?a=3&q=565106&warwickNav=|6702|

KING COUNTY, WA

Program Goals

The purpose of King County's TDR program is to preserve rural, resource and urban separator lands that provide a public benefit. It is also intended to encourage increased residential development density or increased commercial square footage in existing centers (King County Code, Chapter 21A.37). A wide variety of resources are intended to be preserved through this program; in order to qualify as a sending area, a parcel must be within a particular zones and provide at least one public benefit. (Public benefits are agricultural potential, forestry potential, critical wildlife habitat, open space, and regional trail connectors or urban separators.)

Program Status

King County's TDR program is one of the more successful TDR programs, preserving 141,400 acres of rural and resource lands between 2000 and 2010 by relocating subdivisions for 2,284 potential dwelling units in rural areas to urban areas (King County, 2010). Roughly half of the potential dwelling units are in the TDR Bank while the other half are held by private landowners. An average of over 100 TDRs were bought or sold annually until 2008 and about 400 of the dwelling units have been redeemed.

In 2009, as part of the new comprehensive plan, the County increased the options for which TDR credits could be redeemed for a density increase, floor area ratio increase, an ability to meet traffic concurrency requirements (if used in the same travelshed as the sending site), allowing construction of larger accessory dwelling units in the Rural Area or satisfying carbon offset requirements. It is too early to say which incentives have proved the most attractive for TDR credit buyers (Greve, 2010).

Sending and Receiving Areas

The program operates primarily within unincorporated lands, although there is opportunity for receiving sites within incorporated city limits if there is an intergovernmental agreement with King County, as there been with cities such as Bellevue, Issaquah and Seattle. King County's intergovernmental agreement with Seattle between 1998 and 2008 resulted in over 900 acres of lands being preserved in return for the building of three "TDR Towers" in the Denny Triangle area of the city (King County Executive News, 2010). Proposals for a renewed partnership between Seattle and King County began in June 2010. The County's TDR program also allows some rural areas to receive TDRs if the TDRs originated in a Rural Forest Focus Area and satisfy certain criteria.

Noteworthy Characteristics

- Uses a TDR Bank
- Inter-jurisdictional
- Several non-density related incentives

More information

King County Sustainable Building website (2010) *Transfer of Development Rights*. Cited May 29, 2010 at www.kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights.aspx

King County Code. Chapter 21A.37 General Provisions. Transfer of Development Rights. Last Updated December 2008. Cited July 24, 2010 at www.kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights/~media/environment/stewardship/sustainable_building/transfer_development_rights/KCC_Title_21A37_Dec2008.ashx

King County Executive News (2010) "Executive proposes renewal of innovative Transfer of Development Rights Partnership", *King County Executive News*. June 25, 2010. Cited August 13,

2010 at www.kingcounty.gov/exec/news/release/2010/June/25TDRPartnership.aspx

Long, Katherine (2009) "Bellevue has 'regional deal' in place for future Bel-Red development", *The Seattle Times*. September 7, 2009. Cited August 13, 2010 at http://seattletimes.nwsourc.com/html/business/technology/2009818539_bellevuedevelopment07m.html

Sims, R (2000) "King County's innovative Transfer of Development Credits Program receives 'Partnership' award for Issaquah project", *King County Executive News*. October 3, 2000. Cited August 13, 2010 at <http://your.kingcounty.gov/exec/news/2000/1003001.htm>

Correspondence with Darren Greve, King County TDR Program Manager. June 2010.

SNOHOMISH COUNTY, WA

Program Goals

At present Snohomish County's TDR program is designed to "provide for urban development within portions of the Arlington Urban Growth Area" and to "help conserve valuable agricultural lands located in the Stillaguamish River Valley" (Snohomish County Land Use Code, Chapter 30.35A). The program is also a useful tool to combat a "liberal boundary line adjustment and lot status policy" which, in combination with the relatively low minimum lot size of 10 acres, was putting increased pressure to develop and speculate on local farmland (Snohomish County Long Range Planning Division, 2007:8).

Program Status

Part of the Puget Sound region of Washington, the first phase of the TDR program in Snohomish County was adopted in 2004. An expansion to the TDR program was adopted in 2008 to be in line with the county's comprehensive plan policies that promote the expansion of the TDR program, and also to allow the county to designate new sending and receiving areas through a particular planning process that, among other requirements, includes consultation with landowners and cities. This 2008 update allowed for the establishment of the pilot program in the Stillaguamish River Valley which aims to preserve about 3,300 acres of farmland. Unfortunately, due to the weak economy, only two properties have been preserved in the sending area to date and were funded through public funding rather than through transfers of credits.

Sending and Receiving Areas

Sending and receiving areas are designated through overlay zones. Although the program is designed primarily for transfers between unincorporated lands under the County's jurisdiction, there is an inter-local agreement between the City of Arlington and Snohomish County for the Stillaguamish River Valley Pilot Program which allows some receiving areas to be located within the city's boundaries after they are added to the Urban Growth Area and annexed to the City.

Noteworthy Characteristics

- Inter-jurisdictional

More information

City of Arlington Land Use Code (2010) Chapter 20.26 and 20.37. Cited June 21, 2010 at www.ci.arlington.wa.us/documents/Planning%20Division/Title%2020%20March%202010.PDF

Snohomish County. Planning and Development Services. Long Range Planning Division. (2010) *Transfer of Development Rights Program*. Cited June 18, 2010 at www1.co.snohomish.wa.us/Departments/PDS/Divisions/LR_Planning/Projects_Programs/Agriculture_Resources/Transfer_of_development_rights.htm

Snohomish County. Planning and Development Services. Long Range Planning Division (2007) *Transfer of Development Rights for Farmland Conservation. Model Policy and Regulatory Strategy for Snohomish County*. (Also known as the TDR Demonstration Project). June, 2007. Cited June 18, 2010 at www.co.snohomish.wa.us/documents/Departments/pds/gma_planning/agriculture_resource_lands/tdr/tdrfinalprojectreport.pdf

Snohomish County Land Use Code (2010) Chapter 30.35A Transfer of Development Rights and Chapter 30.35B Designation of Transfer of Development Rights Sending Areas by Council Motion. Cited June 21, 2010 at http://library6.municode.com/7721/home.htm?infobase=16332&doc_action=whatsnew

Correspondence with Mark Beardslee, Senior Planner, Snohomish County Long Range Planning Division. July 2010.

THURSTON COUNTY, WA

Program Goals

The purpose of Thurston's TDR program is "to encourage the conservation of long-term commercially significant agricultural lands by allowing owners of such lands to realize the equity in the land's development potential without conversion to non-agricultural uses" (Thurston County Code of Ordinances, Chapter 20.62.010).

Program Status

Established in 1996, Thurston County's TDR program has not been particularly efficient at preserving the long-term agriculture district; as of March 2010, the last certificate issued to a landowner interesting in selling development rights was acquired in 2007, none of the TDR senders had been able to transfer their development rights within the municipalities, and if agricultural land had been preserved it had been purchased through public funds rather than through a transfer of development rights.

The TDR program is currently under significant review with revisions expected to be completed in Spring 2011. Information about the status of the review process can be found at www.co.thurston.wa.us/planning/tdr/tdr_home.html.

Sending and Receiving Areas

The sending area is designated through an overlay long-term agriculture district. At present transfers occur between unincorporated county lands as local city governments have shown little interest in becoming receiving areas.

A notable characteristic of the existing program is the option for transfers that allow developers the option to build at a relatively low density in some receiving areas (3 dwelling units per acre is the lowest base density in the rural residential receiving areas). Unfortunately, there is insufficient market demand for the higher density of 4 to 8 units per acre which are offered through the TDR program.

Other Program Details

The preservation easement that is placed on the sending area parcel once the development rights have been transferred does not allow for any subdivision of the property for dwelling units unless the development right was specifically reserved for the parcel. The transfer of development rights does not affect the landowners rights to subdivide for all other agricultural uses.

Noteworthy Characteristics

Relatively low density receiving areas

More information

American Farmland Trust (2001) *Purchase of Development Rights and Transfer of Development Rights Case Studies*. Prepared for Boone County Planning Commission. Cited June 1, 2010 at www.ctahr.hawaii.edu/awg/downloads/rp_AFT_TDRstudies_Boone.doc

Thurston County Planning Department. Transfer of Development Rights Program. Stakeholders Minutes and Documents. Receiving Subcommittee. March 22, 2010. Cited May 29, 2010 at www.co.thurston.wa.us/planning/tdr/docs/TDR%20Meeting%20Notes%203_22_2010.pdf

Thurston County Code of Ordinances. Chapter 20.62 Transfer of Development Rights. Includes all ordinances through No. 14343, passed March 3, 2010. Cited July 26, 2010 at <http://library.municode.com/index.aspx?clientId=16720&statId=47&stateName=Washington>

DANE COUNTY, WI

Program Goals

Some of the key purposes of the TDR program are to “protect high -priority natural or agricultural resources”, “reduce spot development of rural land”, “direct development in rural areas away from areas planned for long-term agricultural use”, “encourage the efficient provision of services by clustering residential units”, “encourage rural housing that is adequate and affordable for persons from a range of incomes”, “facilitate development in rural areas of towns already experiencing or seeking development and “encourage the efficient use of land that has no history of, or is no longer suitable for, agriculture” (Dane County Code of Ordinances, Chapter 10.158 and 10.159).

Program Status

The TDR program in Dane County was only adopted in March 2010.

Sending and Receiving Areas

At present the county TDR program’s overlay sending and receiving area districts can be located in unincorporated areas, but the county is encouraging local towns to become both sending and receiving areas. The sending area overlay district includes lands identified in county and municipal plans as suitable for long-term or permanent agricultural, conservation or natural resource use, and limited or no non-farm development. The County highlights several different options for “bonus” receiving areas that are tied to affordable housing, the Dane County Traditional Neighborhood Design Model Design Ordinance, occurs within a designated Urban Service Area, provides limited multi-family senior housing, or the development qualifies for LEED-ND certification. Unless expressly authorized, all transfers of development rights must occur within the same town or within unincorporated land.

Other Program Details

The county produced two useful guides to TDR in town plans which include a useful overview of many of the different options that can be chosen in an individual TDR program and part of a model TDR ordinance.

Noteworthy Characteristics

Several non-density related incentives

More information

Dane County (2010) *Transfer of Development Rights*. Cited June 21, 2010 at www.countyofdane.com/plandev/planning/transfer_rights.aspx

Dane County. Planning and Development Division (2010) “Guide to Transfer of Development Rights in Town Plans”. *Planning Notes, Number 7*. March 30, 2010. Cited June 21, 2010 at http://danedocs.countyofdane.com/webdocs/pdf/plandev/planning/Guide_to_TDR.pdf

Dane County. Planning and Development Division (2010) *Dane County Guide to Incorporating TDR into a Town Comprehensive Plan*. Cited June 21, 2010 at http://danedocs.countyofdane.com/webdocs/pdf/plandev/planning/TDR_Guide.pdf

Dane County Code of Ordinances. Chapter 10 Zoning. Last updated April 30, 2010. Cited August 3, 2010 at <http://danedocs.countyofdane.com/webdocs/pdf/ordinances/ord010.pdf>

ABOUT NEW JERSEY FUTURE

New Jersey Future is a nonprofit, nonpartisan, statewide organization that employs research, analysis and advocacy to drive policies and build coalitions that help revitalize cities and towns, protect natural lands and farm fields, provide transportation and housing choices, generate new jobs and improve opportunities for the impoverished.

Founded in 1987 to support the creation and implementation of the State Development and Redevelopment Plan, New Jersey Future brings together concerned citizens and leaders in government, the community, law and planning, business and education to promote policies that secure economic opportunity, community vitality and quality of life for all citizens of the state by promoting both sustainable growth and environmental preservation.

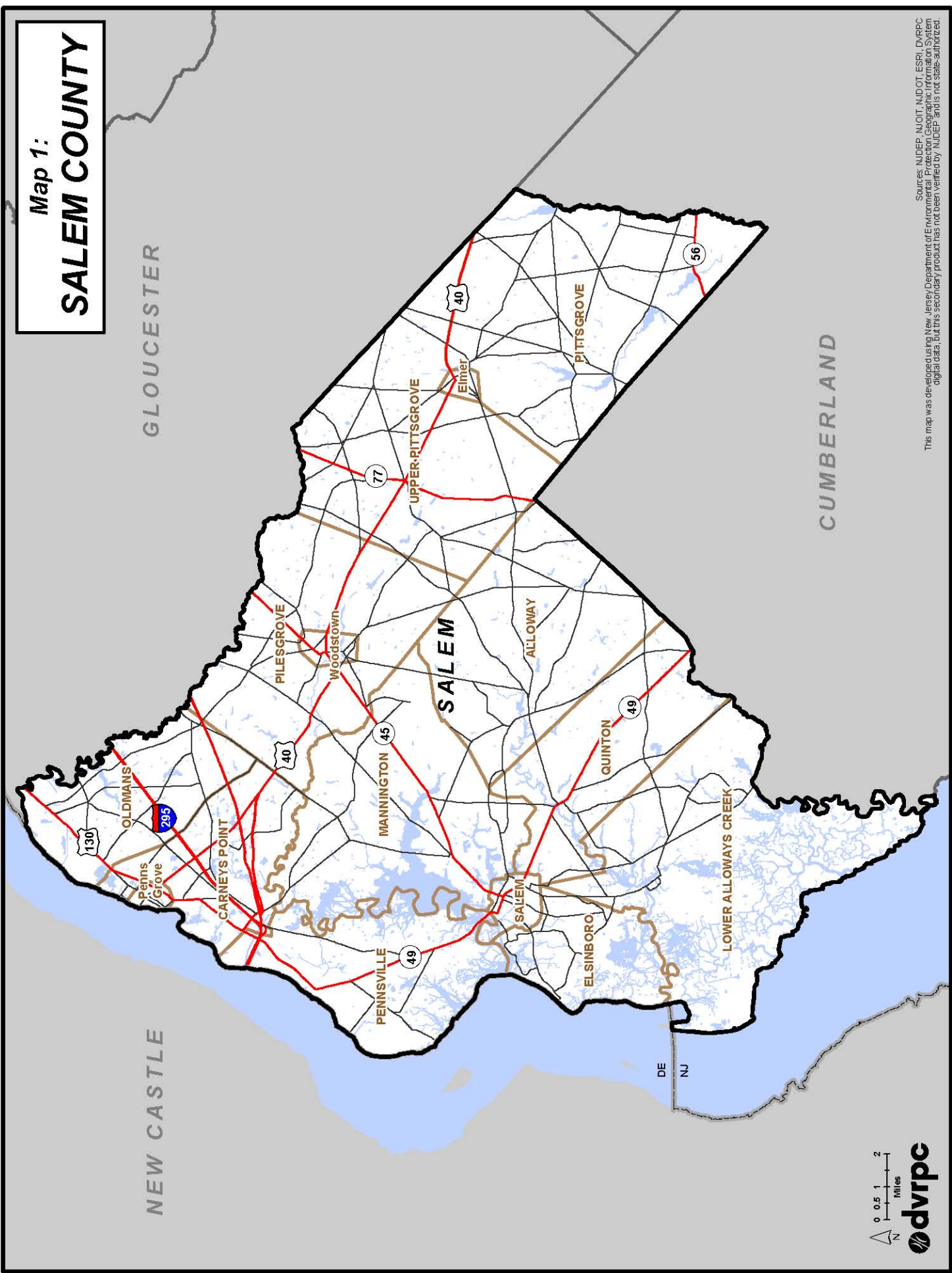




APPENDIX B: SALEM COUNTY MAPS

- 1. Salem County**
- 2. Salem County 2007 Generalized Land Cover**
- 3. Salem County Protected Lands**
- 4A. Salem County Proposed Sewer Service Areas**
- 4B. Salem County Potential Future Sewer Service Areas**
- 5. Salem County Water Purveyor Areas (1998)**
- 6. Salem County Policy Map of the NJ State Development & Redevelopment Plan**
- 7. Salem County Agricultural Quality of Soils**
- 8. Salem County Farmland [Agricultural Development Area]**
- 9. Salem County Farm Project Areas [County and Municipal]**

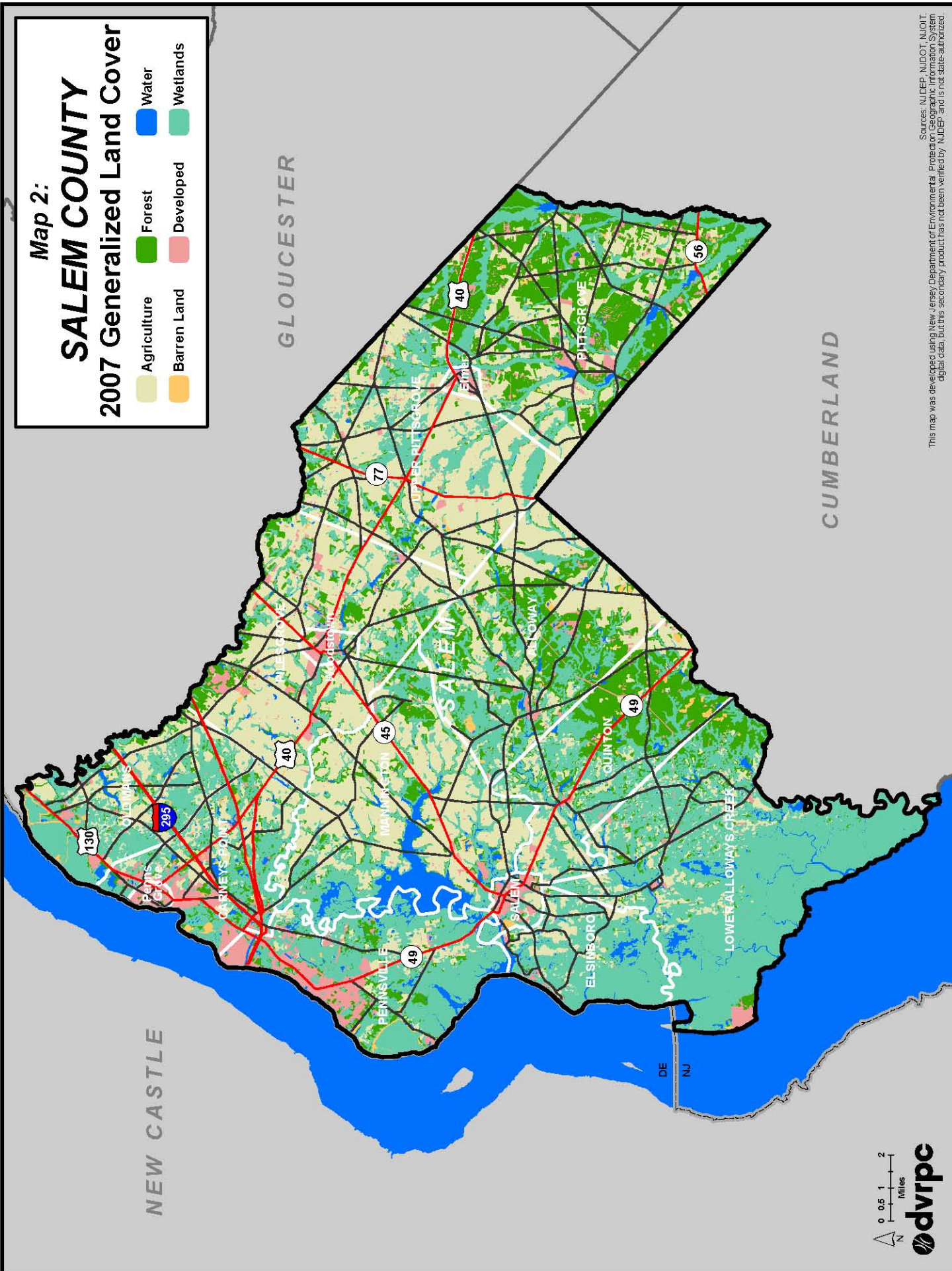
**Map 1:
SALEM COUNTY**



Sources: NJDEP, NJDOT, NJDOT, ESRI, DVRPC
 This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-subsidized.

Map 2:
SALEM COUNTY
2007 Generalized Land Cover

- Agriculture
- Forest
- Water
- Barren Land
- Developed
- Wetlands



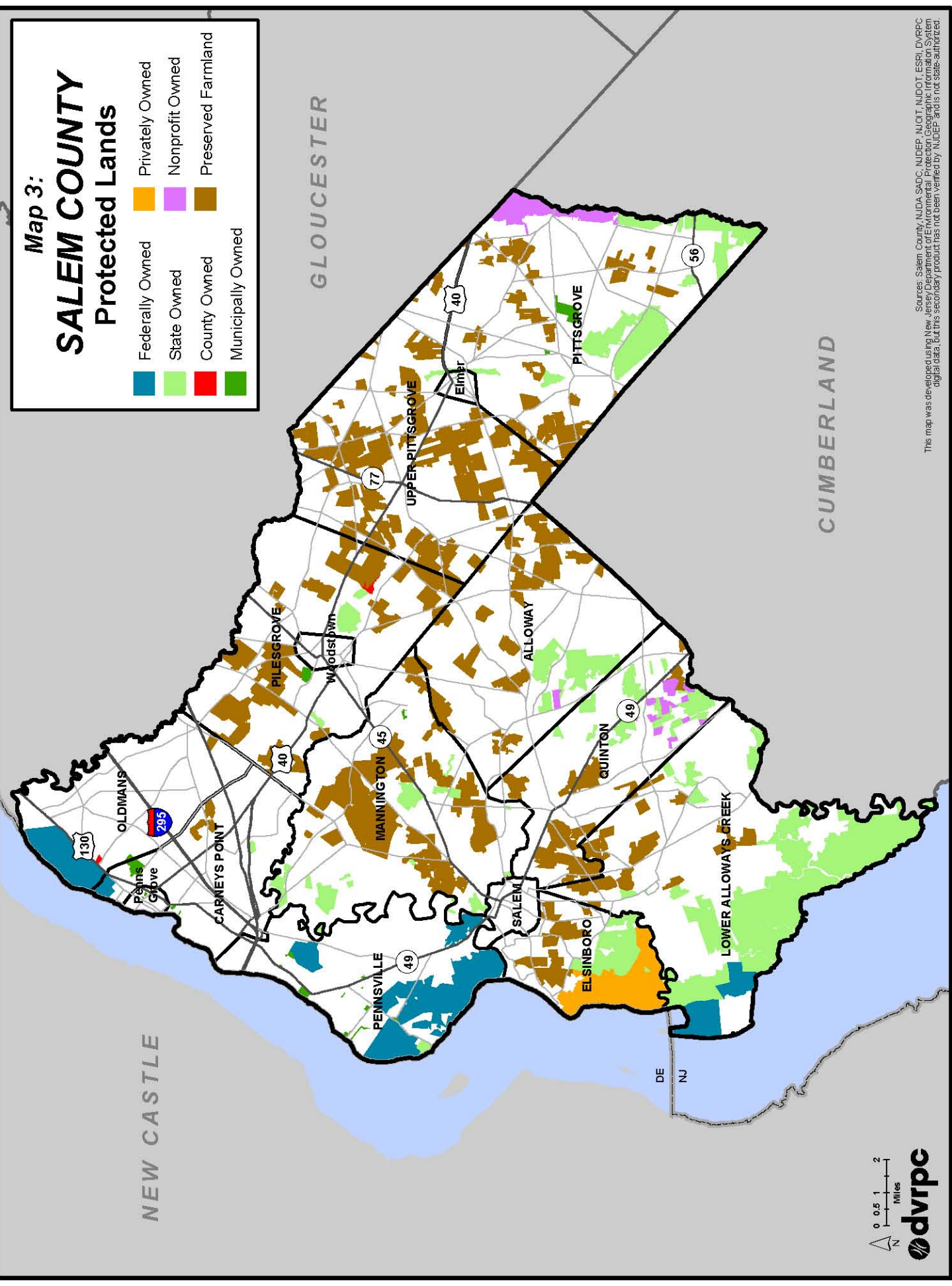
Sources: NJDEP, NJDOT, NJOTI.
 This map was developed using New Jersey Department of Environmental Protection digital data, but this secondary product has not been verified by NJDEP and is not state-sourced.



Map 3:

SALEM COUNTY Protected Lands

- Federally Owned
- State Owned
- County Owned
- Municipally Owned
- Privately Owned
- Nonprofit Owned
- Preserved Farmland



Sources: Salem County, NJDA, SADC, NJDEP, NJDOT, NJDOT, ESRI, DVRPC, Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary products has not been verified by NUBEP and is not state-subsidized.

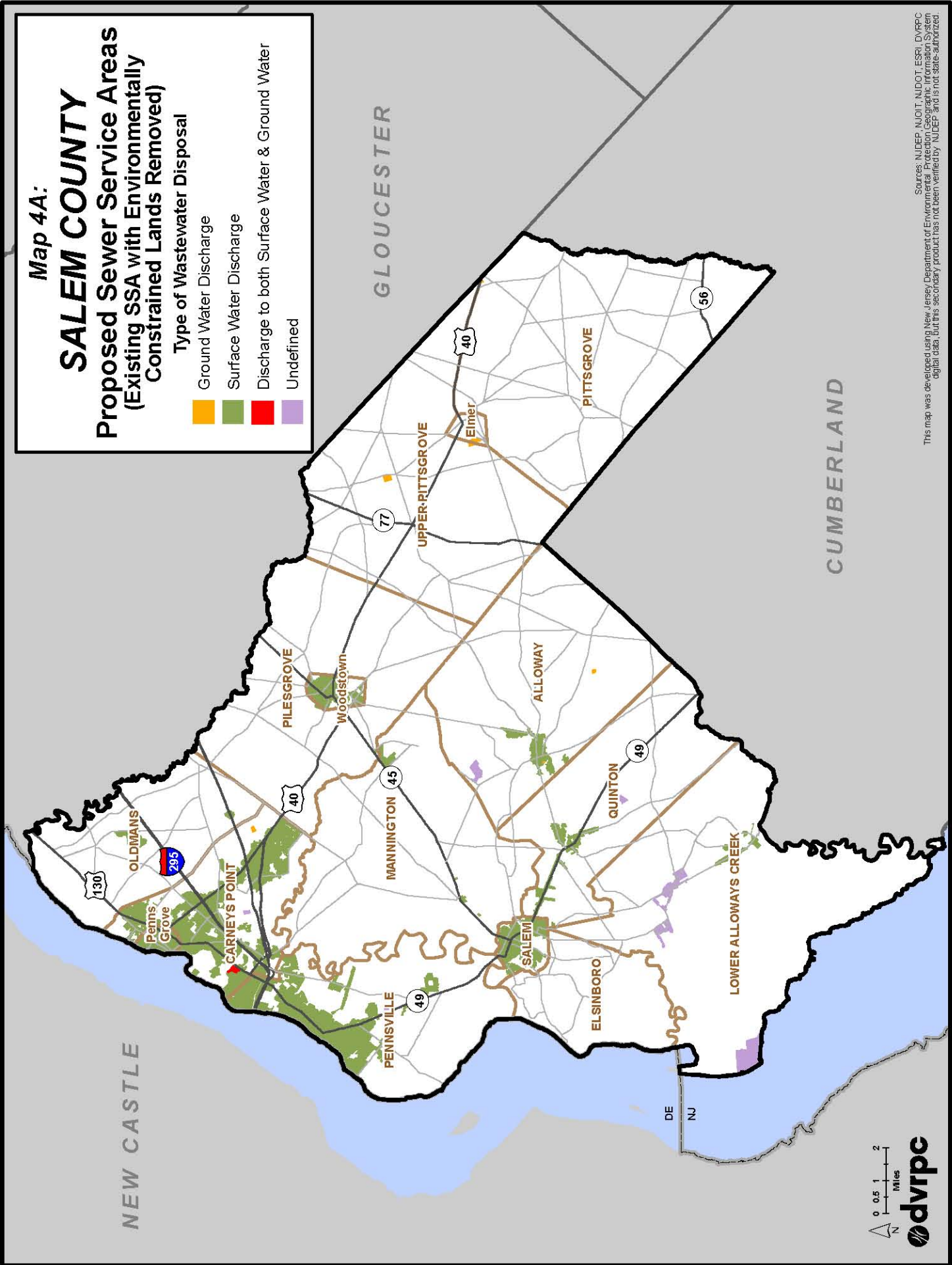
Map 4A:

SALEM COUNTY

Proposed Sewer Service Areas (Existing SSA with Environmentally Constrained Lands Removed)

Type of Wastewater Disposal

- Ground Water Discharge
- Surface Water Discharge
- Discharge to both Surface Water & Ground Water
- Undefined

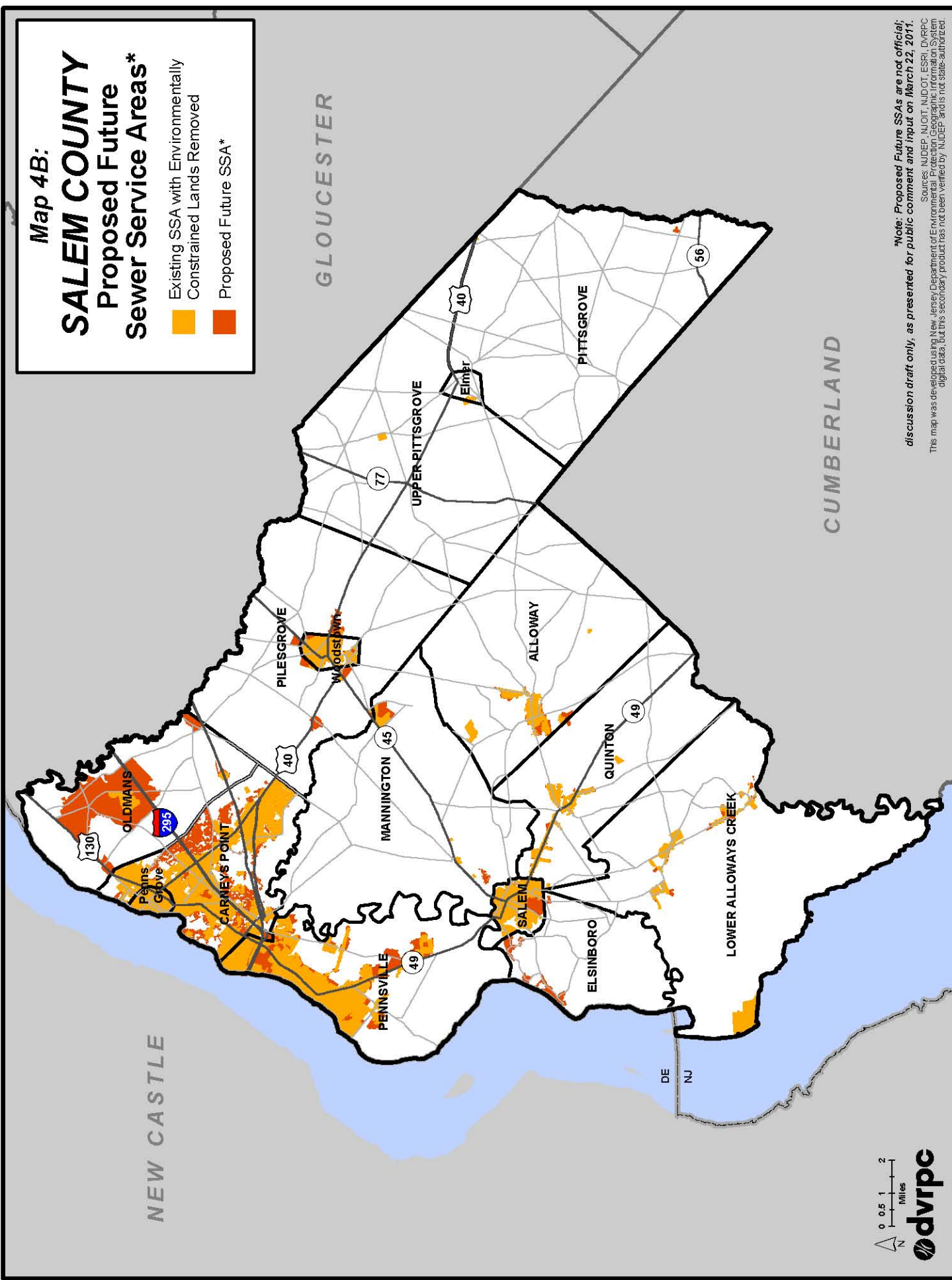


Sources: NJDEP, NJGIT, NJDOT, ESRI, DVRRPC
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Map 4B:











SALEM COUNTY Proposed Future Sewer Service Areas*

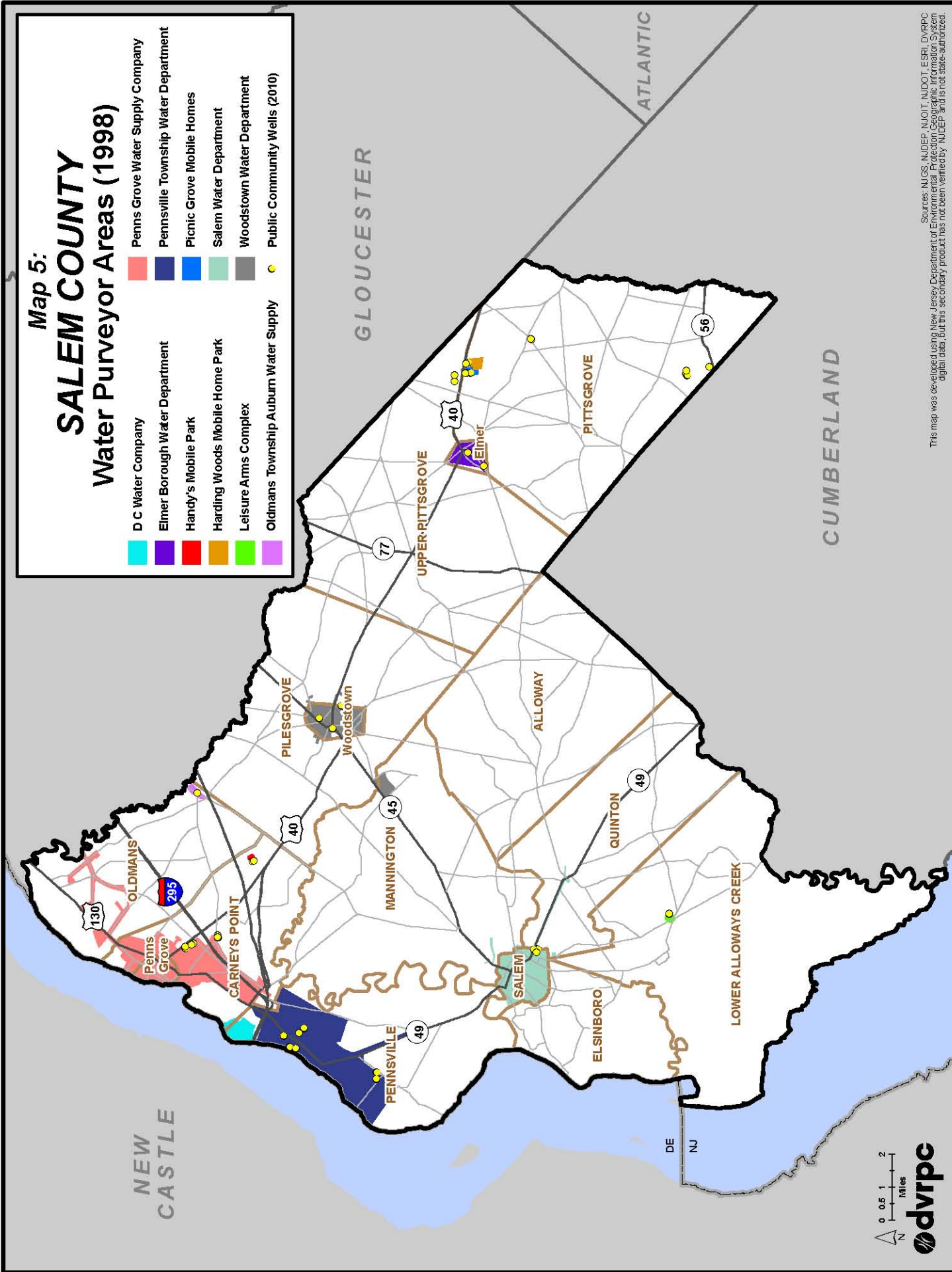
- Existing SSA with Environmentally Constrained Lands Removed
- Proposed Future SSA*



**Note: Proposed Future SSAs are not official; discussion draft only, as presented for public comment and input on March 22, 2011.*
Sources: NJDEP, NJDOT, NJDOT, ESRI, DVVRPC
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NUBEP and is not state-subsidized.

Map 5: SALEM COUNTY Water Purveyor Areas (1998)

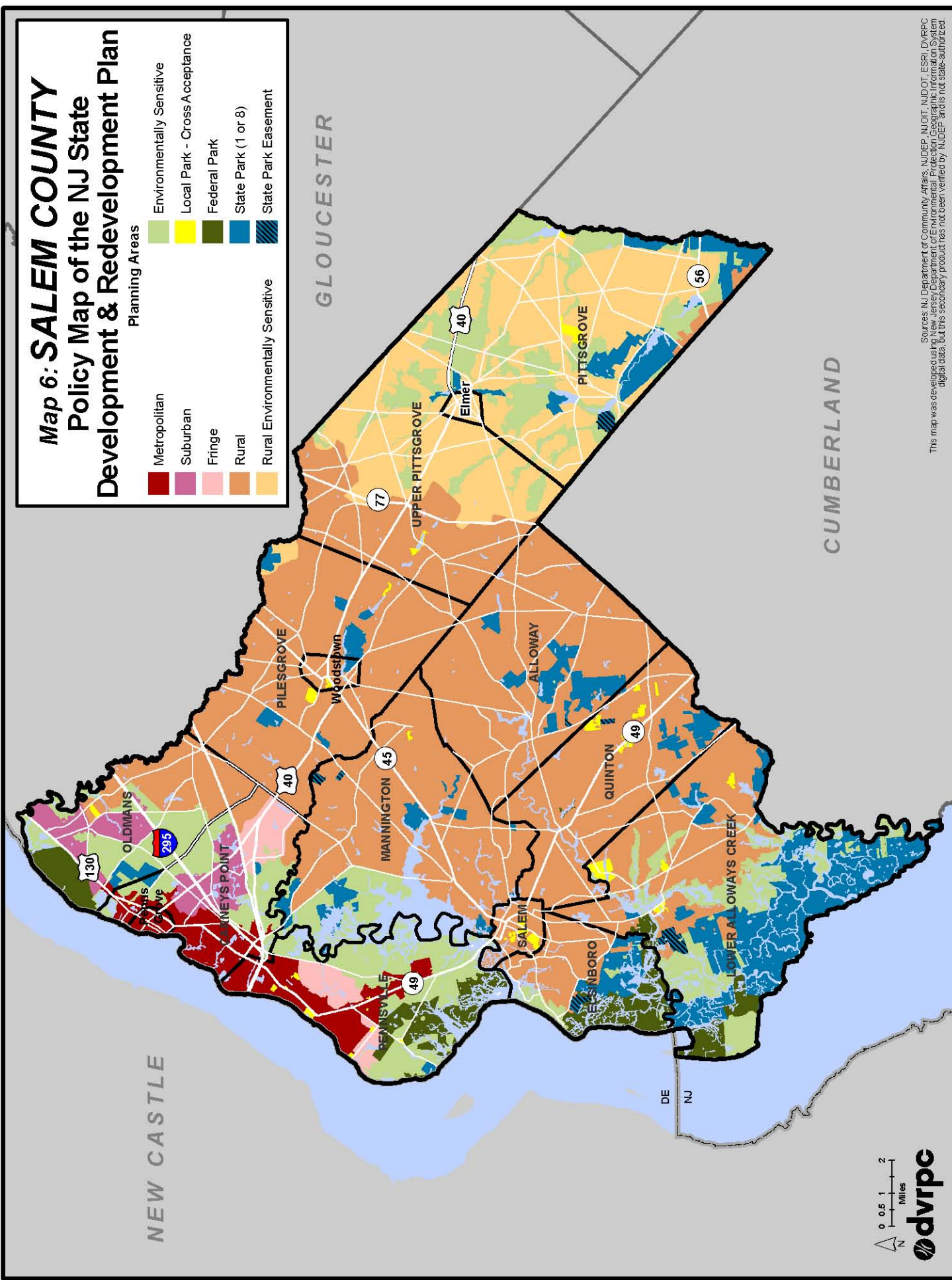
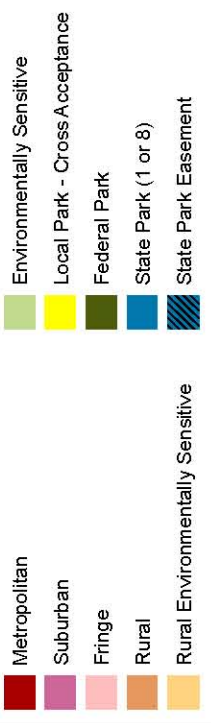
- | | | | |
|---|--------------------------------------|---|--------------------------------------|
|  | D C Water Company |  | Penns Grove Water Supply Company |
|  | Elmer Borough Water Department |  | Pennsville Township Water Department |
|  | Handy's Mobile Park |  | Picnic Grove Mobile Homes |
|  | Harding Woods Mobile Home Park |  | Salem Water Department |
|  | Leisure Arms Complex |  | Woodstown Water Department |
|  | Oldmans Township Auburn Water Supply |  | Public Community Wells (2010) |



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NUCEP and is not state-subsidized.
Sources: NJOS, NUDCP, NUDOT, ESR, DVRPC

Map 6: SALEM COUNTY Policy Map of the NJ State Development & Redevelopment Plan

Planning Areas



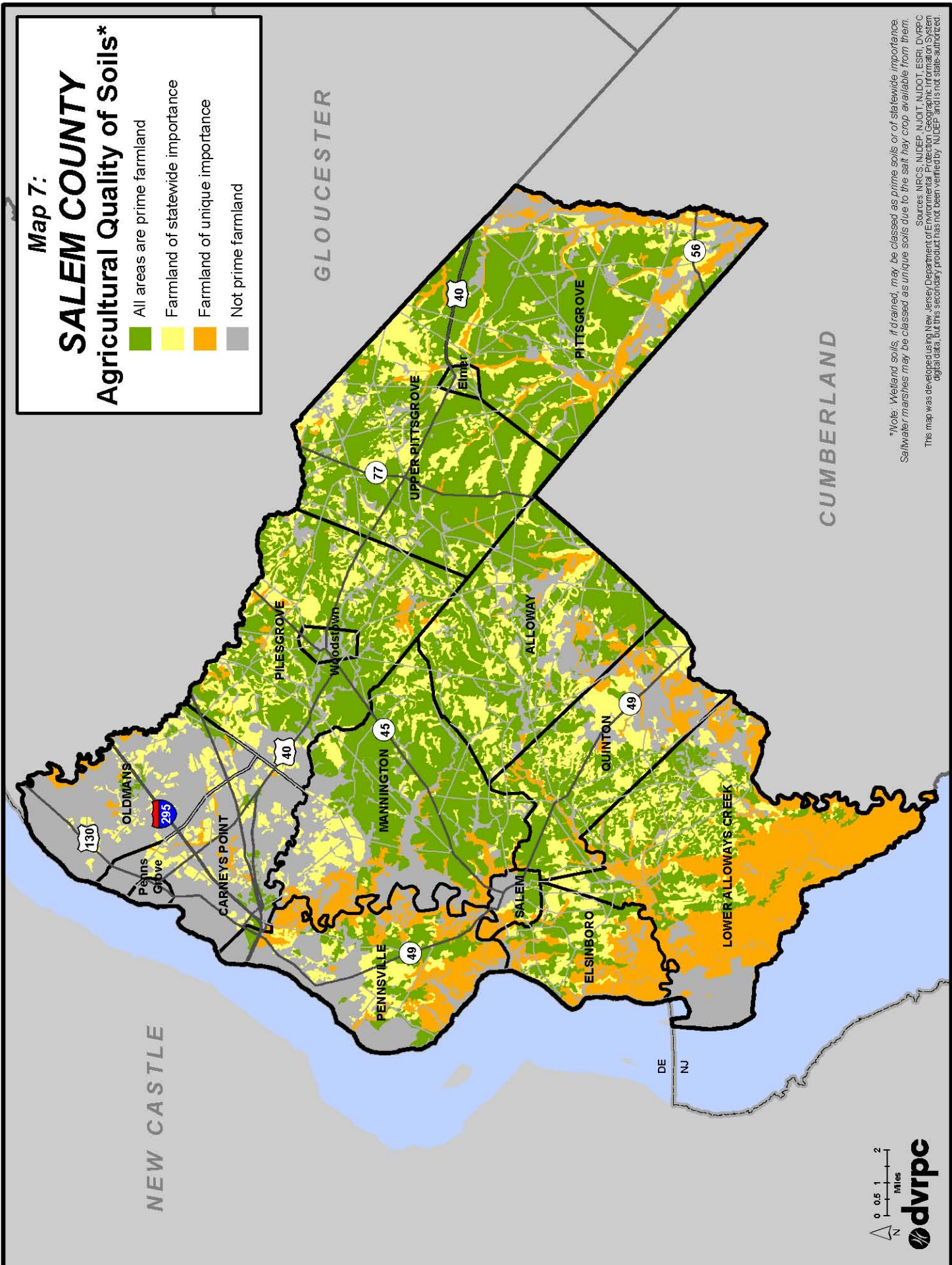
Sources: NJ Department of Community Affairs, NJDEP, NJDOT, NJDOT, ESRI, DVVRPC
 This map was developed using New Jersey Department of Environmental Protection Geographic Information System
 digital data, but this secondary product has not been verified by NDEP and is not state-authored.

Map 7:

SALEM COUNTY

Agricultural Quality of Soils*

- All areas are prime farmland
- Farmland of statewide importance
- Farmland of unique importance
- Not prime farmland






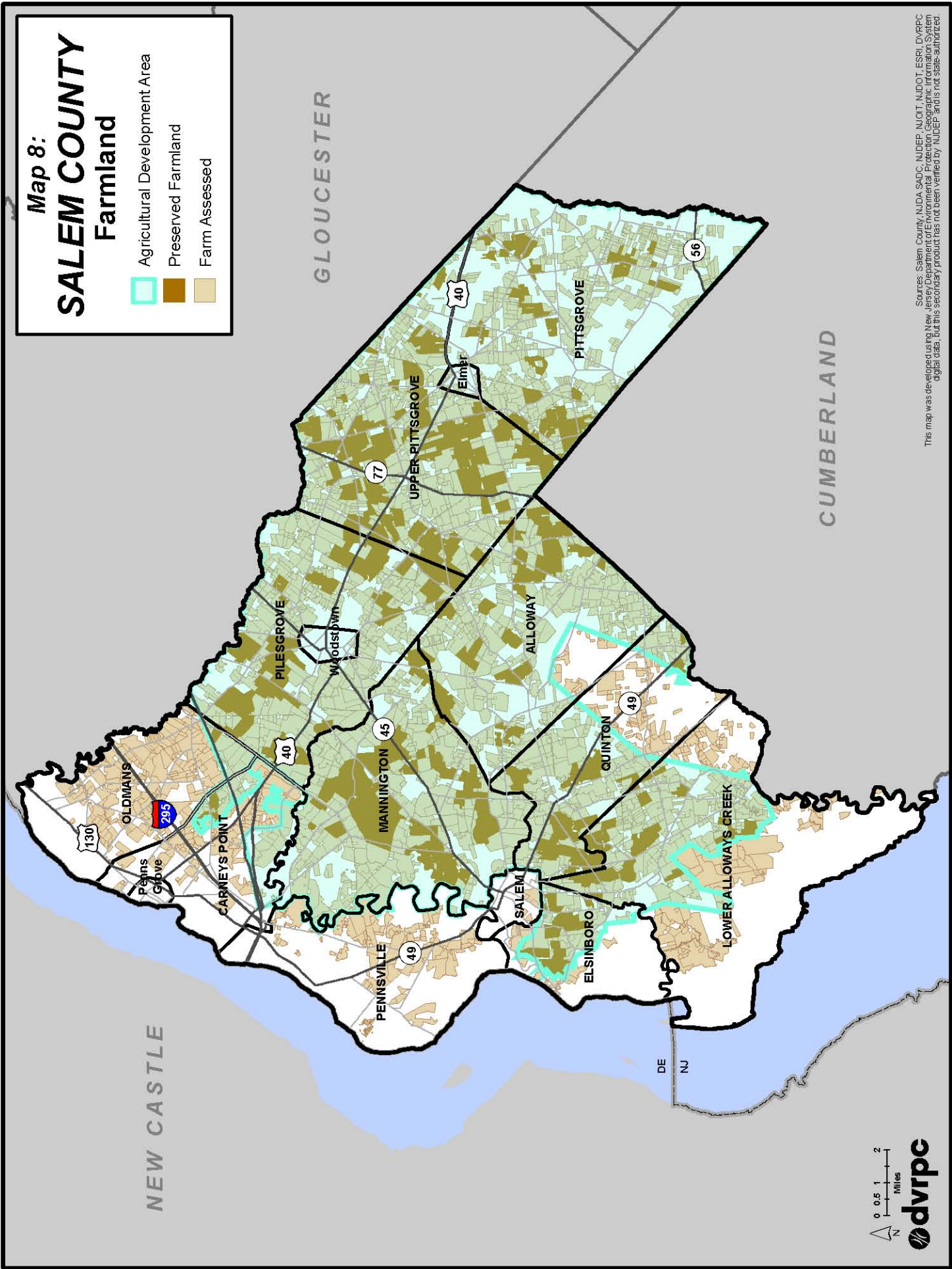
0 0.5 1 2 Miles

*Note: Wetland soils, if drained, may be classed as prime soils or of statewide importance. Saltwater marshes may be classed as unique soils due to the salt may crop available from them.
Sources: NRCS, NJDEP, NJDOT, NJDOT, ESRI, DVRPC
This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP, and is not state-subsidized.

Map 8:

SALEM COUNTY Farmland

-  Agricultural Development Area
-  Preserved Farmland
-  Farm Assessed

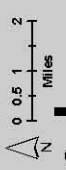


NEW CASTLE

GLOUCESTER











CUMBERLAND

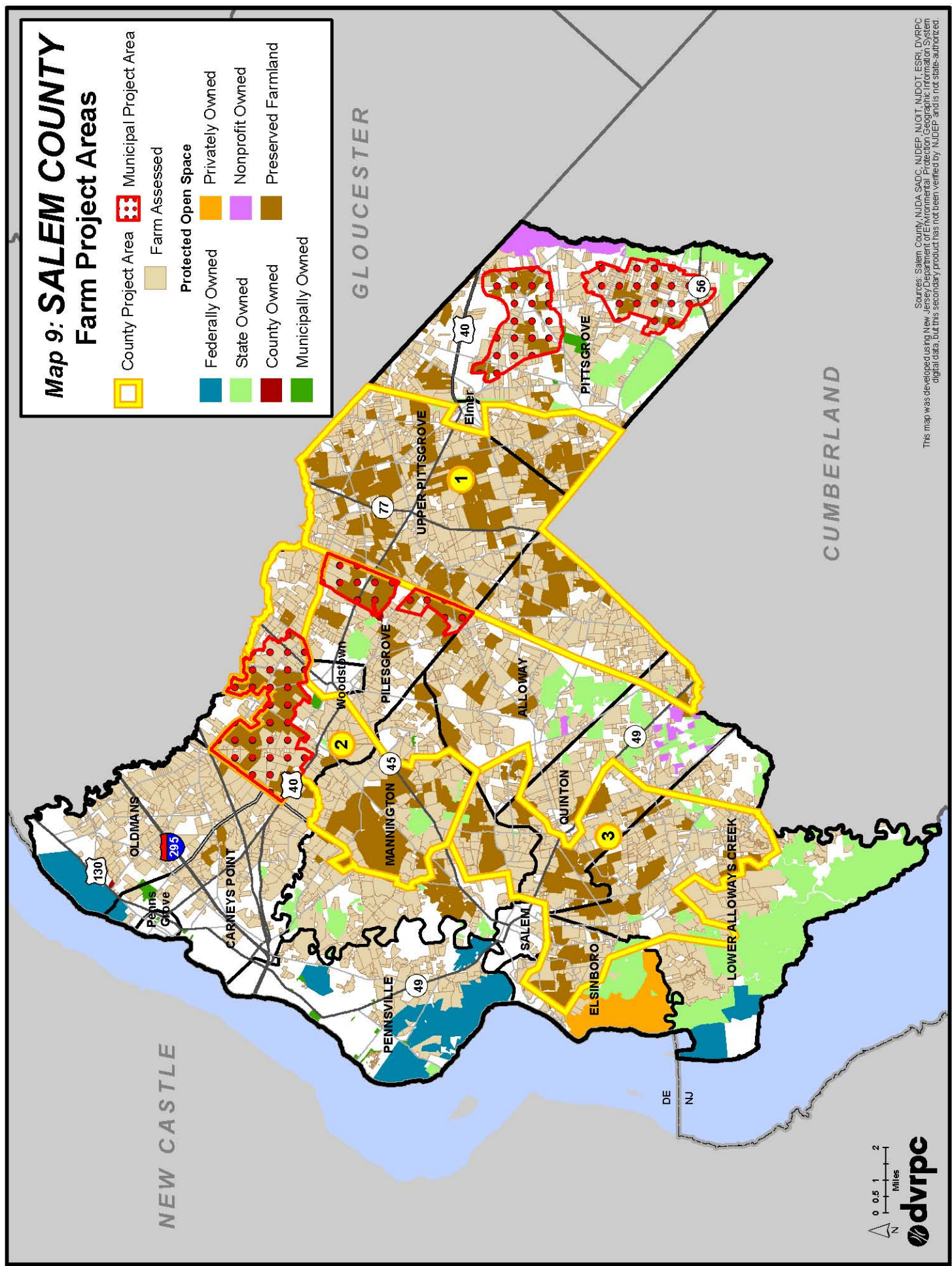
DE
NJ



This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NDEP and is not state-authored.

Map 9: SALEM COUNTY Farm Project Areas

	County Project Area		Municipal Project Area
	Farm Assessed		
Protected Open Space			
	Federally Owned		Privately Owned
	State Owned		Nonprofit Owned
	County Owned		Preserved Farmland
	Municipally Owned		



0 0.5 1 2
miles




Sources: Salem County, NUDA SDC, NUDOP, NUDOT, ESRI, DVRPC
 This map was developed using New Jersey Department of Transportation digital data, but this secondary product has not been verified by NUDOP and is not state-authorized.



APPENDIX C: MUNICIPAL PROFILES

Alloway Township

Carneys Point Township

Elmer Borough

Elsinboro Township

Lower Alloways Creek Township

Mannington Township

Oldmans Township

Penns Grove Borough

Pennsville Township

Pilesgrove Township

Pittsgrove Township

Quinton Township

Salem City

Upper Pittsgrove Township

Woodstown



Alloway Township

Area: 33.17 square miles; 21,229 acres

Population (2009): 3,089

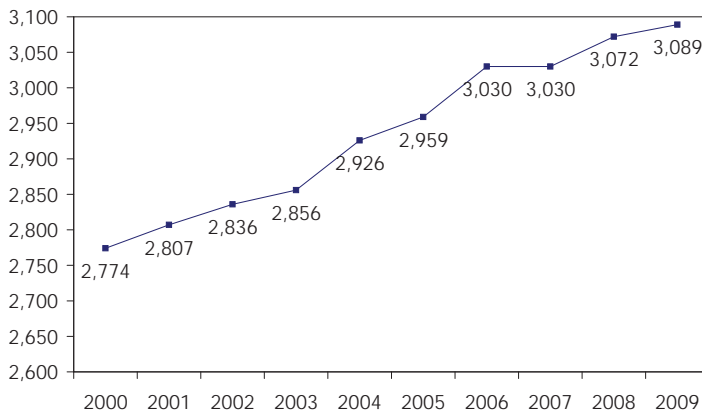
persons per square mile: 93

Population projection (2030):

3,821 (+749, +24%)

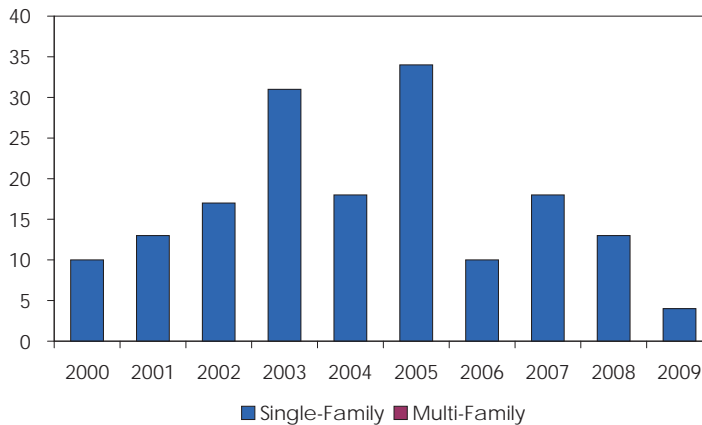
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	14,567	9,398	97,496
Under HUC 11 Nitrate Target (2 mg/L)	14,567	2,016	4,088

Source: Salem County Planning Department, 2010

2007 Employment: 626

2030 Projected Employment: 896 (+270, +43%)

Source: SJTPO

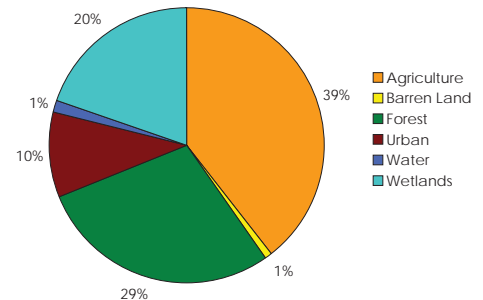
Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4A (Rural)
- Designate Alloway Village as a town center
- Develop strategic plans to preserve rural character, open space and agriculture
- Attract agriculture-based, light industry

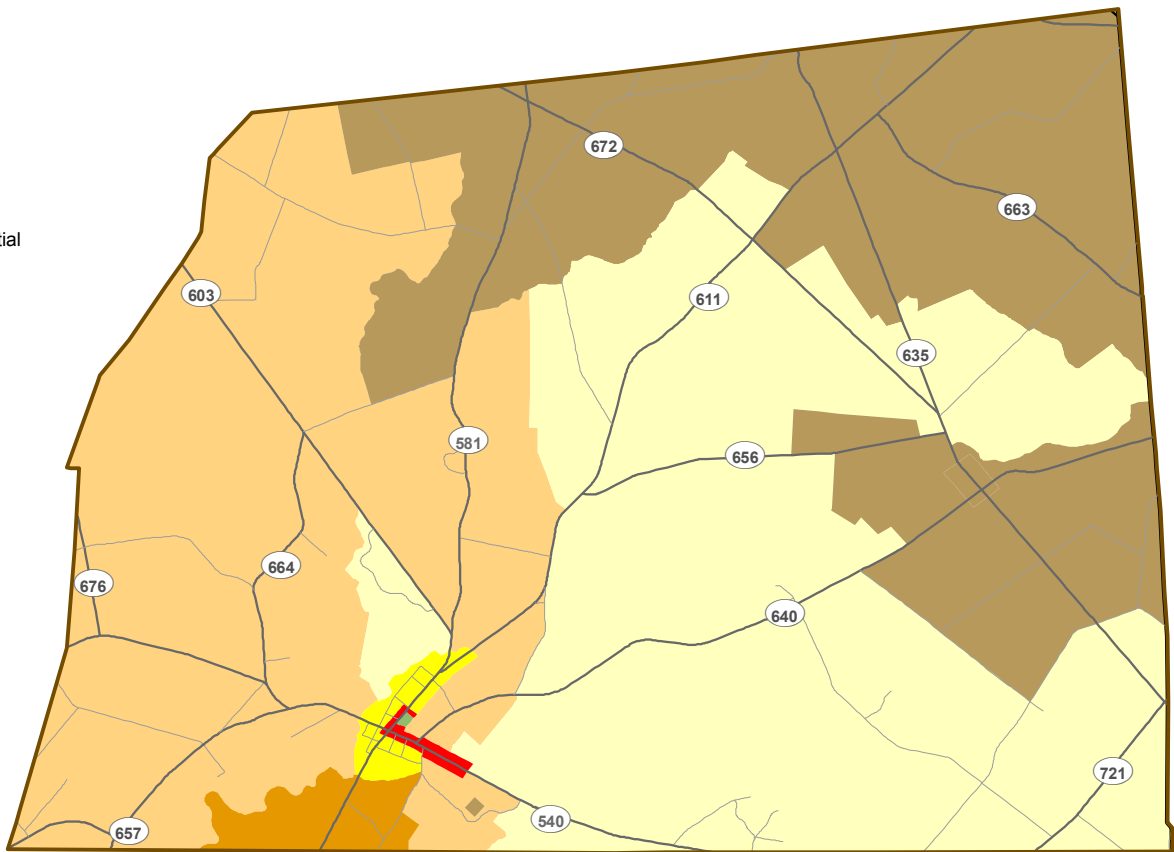
Historic Places:

- Village of Alloway Historic District
- Dickinson House
- Phillip Fries House

ALLOWAY TOWNSHIP

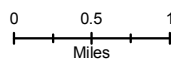
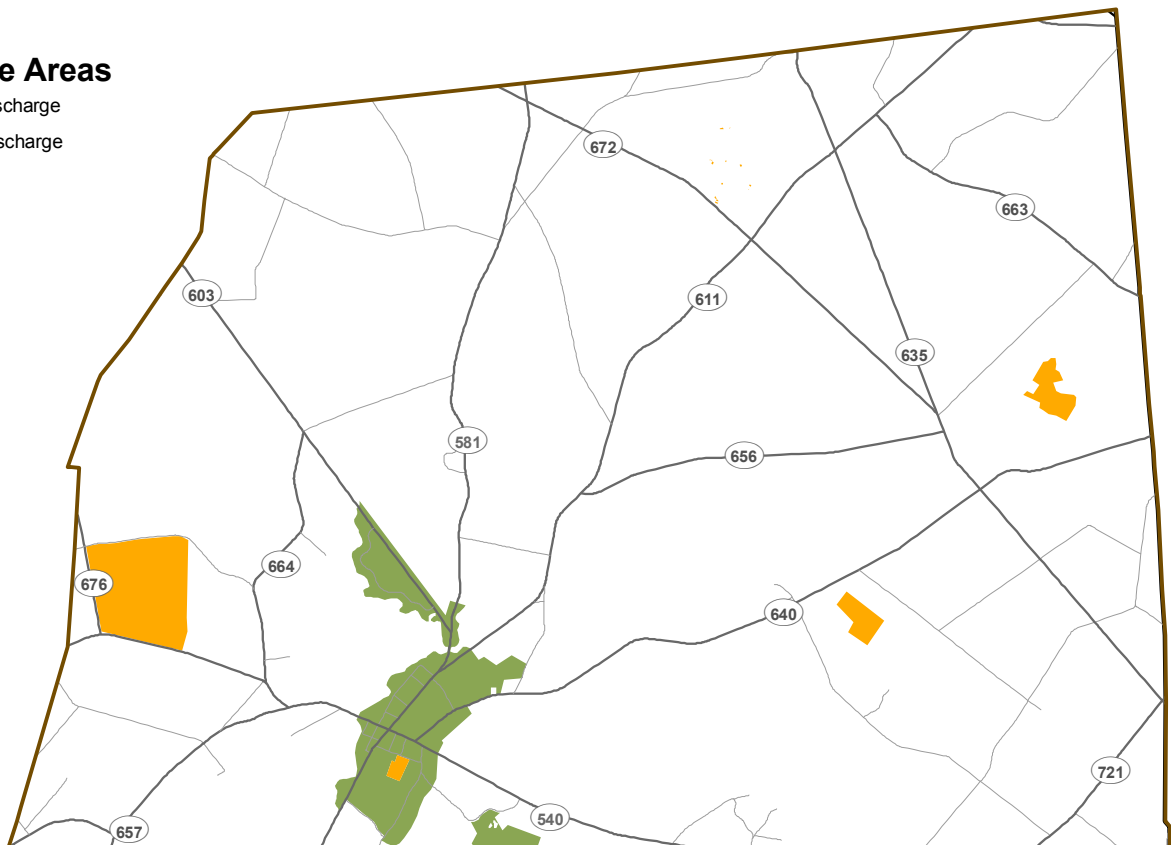
Zoning*

- Agricultural
- Commercial
- High Residential
- Low Residential
- Medium Residential
- Public
- Rural Residential



Sewer Service Areas

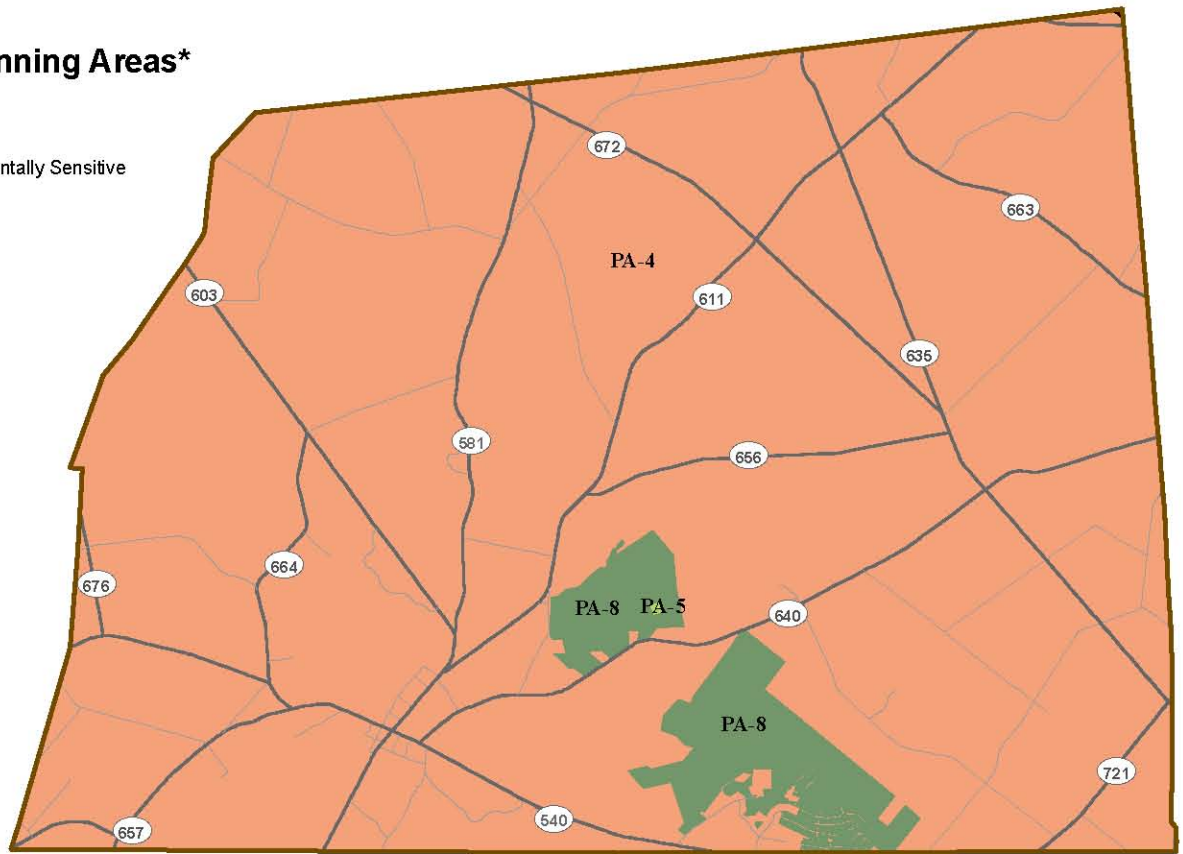
- Ground Water Discharge
- Surface Water Discharge



ALLOWAY TOWNSHIP

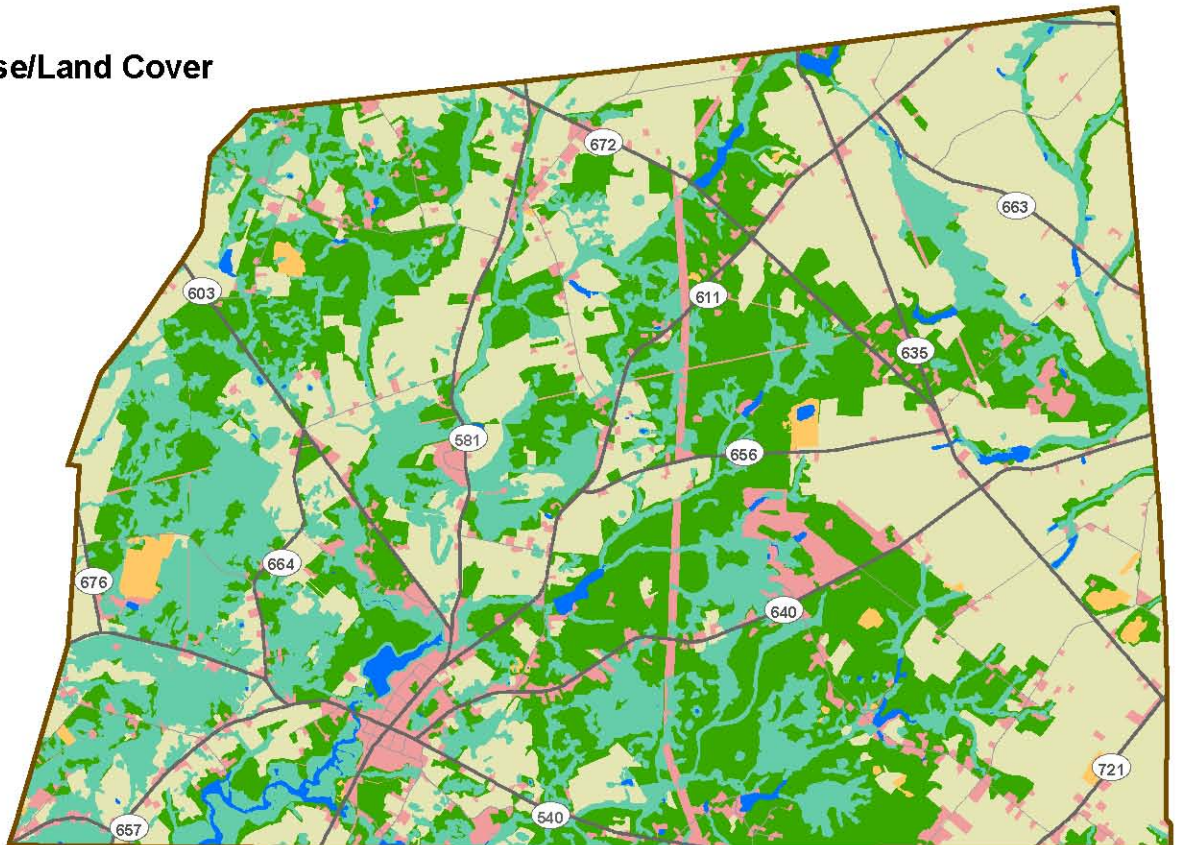
NJ State Planning Areas*

- PA-4, Rural
- PA-8, Park
- PA-5, Environmentally Sensitive



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

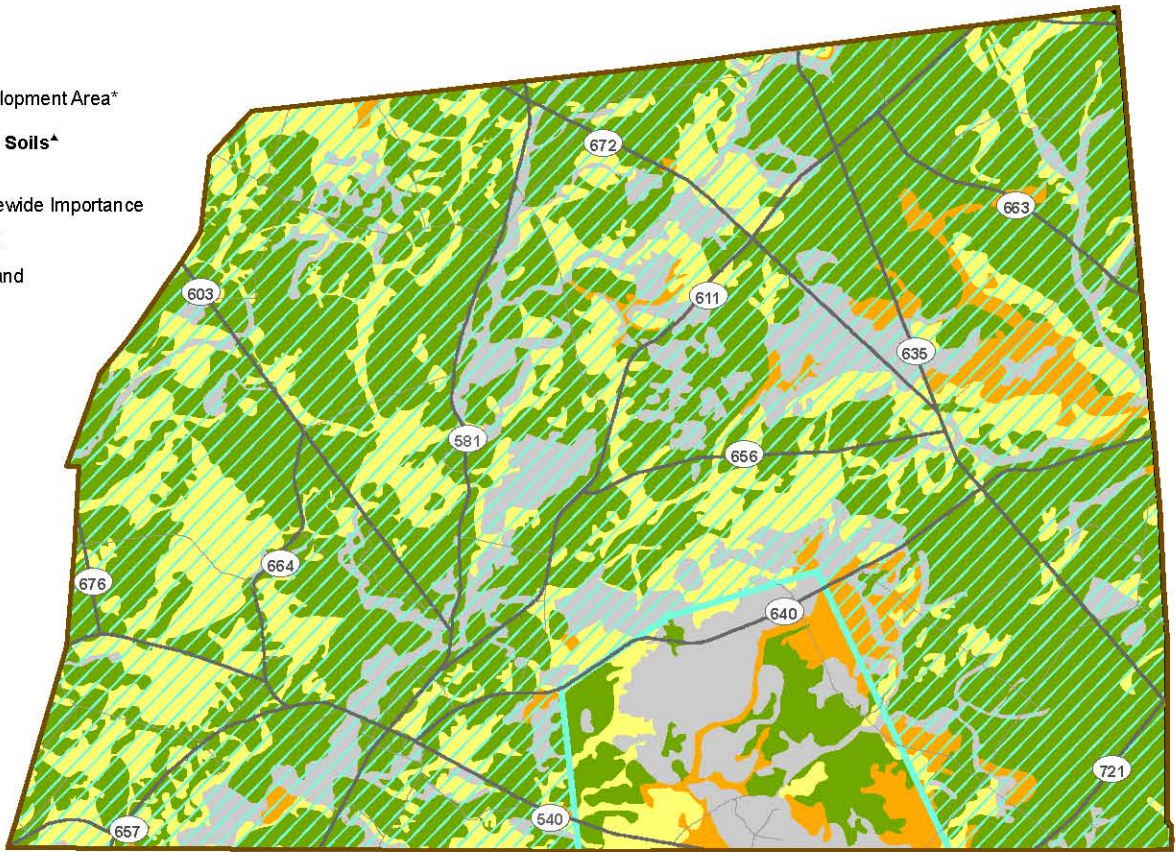
ALLOWAY TOWNSHIP

Agriculture




 Agricultural Development Area*

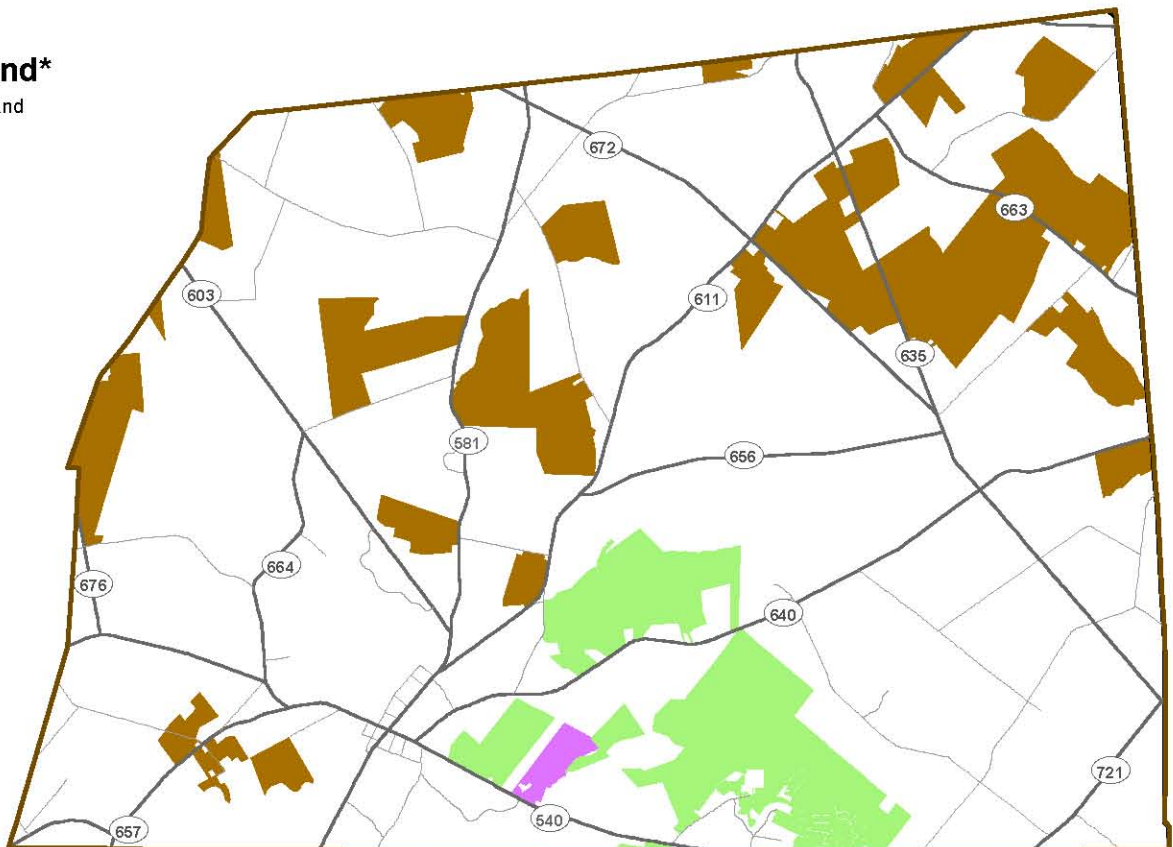
Agricultural Quality of Soils[^]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

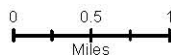


Preserved Land*

-  Preserved Farmland
-  Nonprofit Owned
-  State Owned



Sources: *Salem County Department of Planning,
[^]NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey
 Department of Environmental Protection
 Geographic Information System digital data,
 but this secondary product has not been
 verified by NJDEP and is not state-authorized.

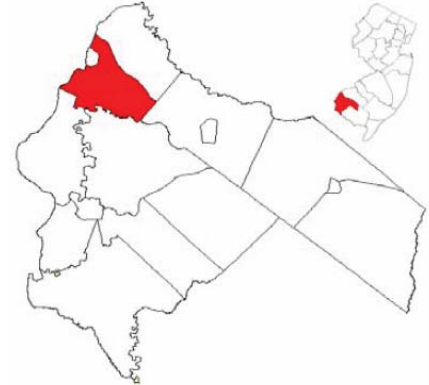
Carneys Point Township

Area: 17.75 square miles; 11,360 acres

Population (2009): 7,991
 persons per square mile: 449

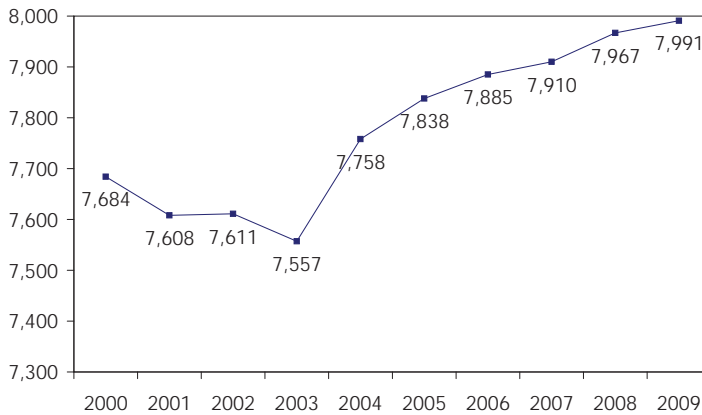
Population projection (2030):
 8,422 (+455, +6%)
Source: SJTPO

Regional Location



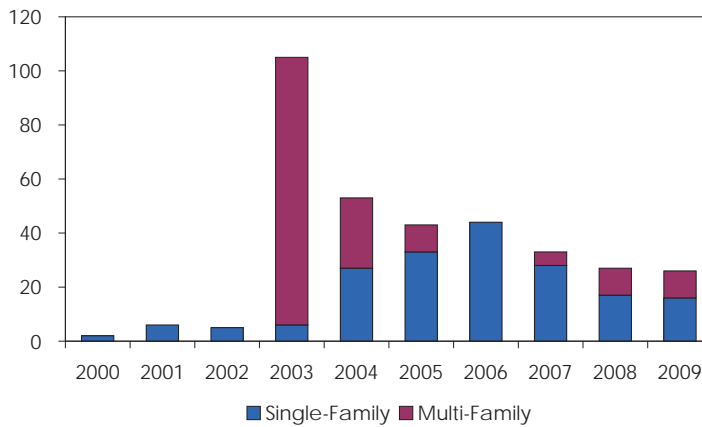
Source: Wikipedia Encyclopedia

Population, 2000-2009



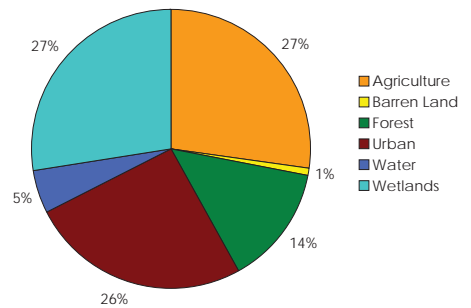
Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- The Township has land in all five Planning Areas
- Encourage new development within the 2,500-acre redevelopment district
- Create a viable town center
- Establish pedestrian linkages between the town center, recreation facilities, and natural areas

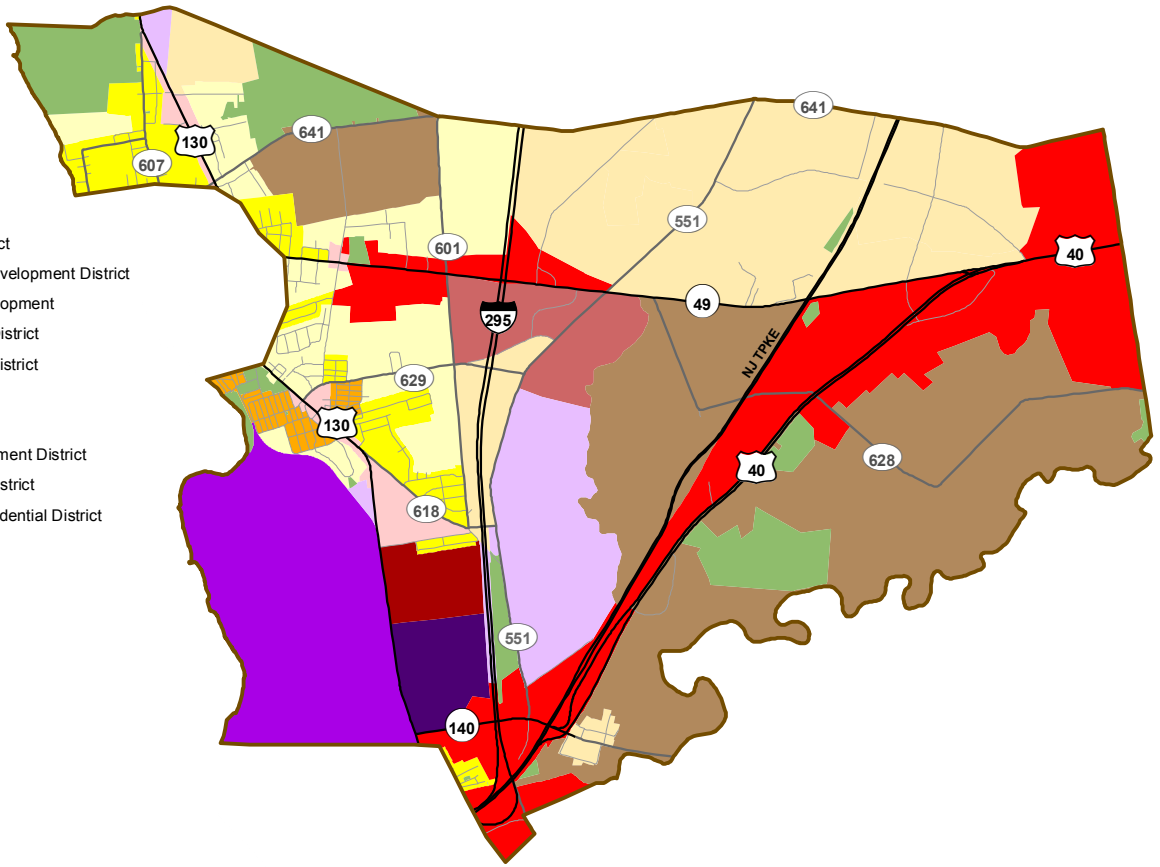
2007 Employment: 2,155
 2030 Projected Employment: 2,606 (+451, +21%)
Source: SJTPO

Salem County Transfer of Development Rights

CARNEYS POINT TOWNSHIP

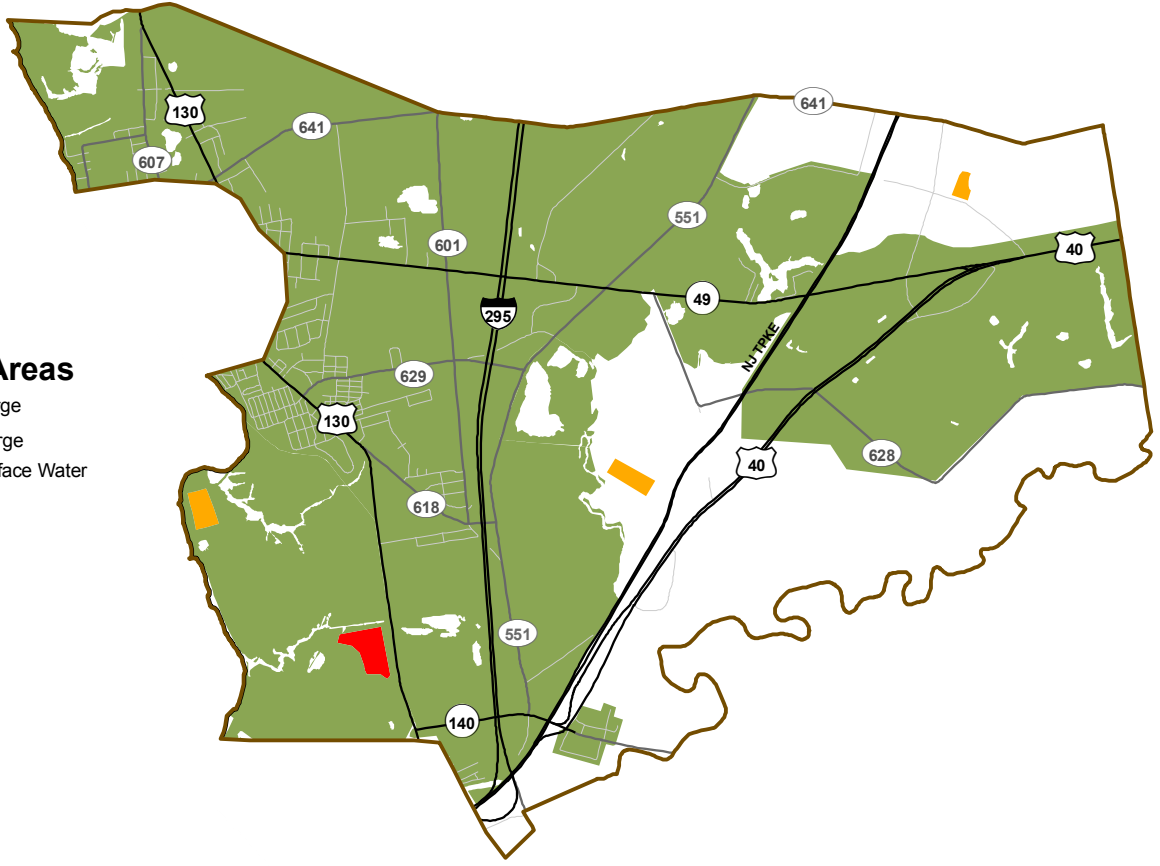
Zoning*

- Agricultural District
- General Commercial District
- General Commercial-Redevelopment District
- General Industrial-Redevelopment
- High-Density Residential District
- Interchange Commercial District
- Light Commercial District
- Light Industrial
- Light Industrial-Redevelopment District
- Low Density Residential District
- Medium-High Density Residential District
- Open Space
- Rural Residential District

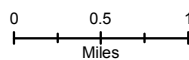


Sewer Service Areas

- Ground Water Discharge
- Surface Water Discharge
- Discharge to both Surface Water & Ground Water



Sources: *Salem County Department of Planning, NJDEP, NJOIT, NJDOT

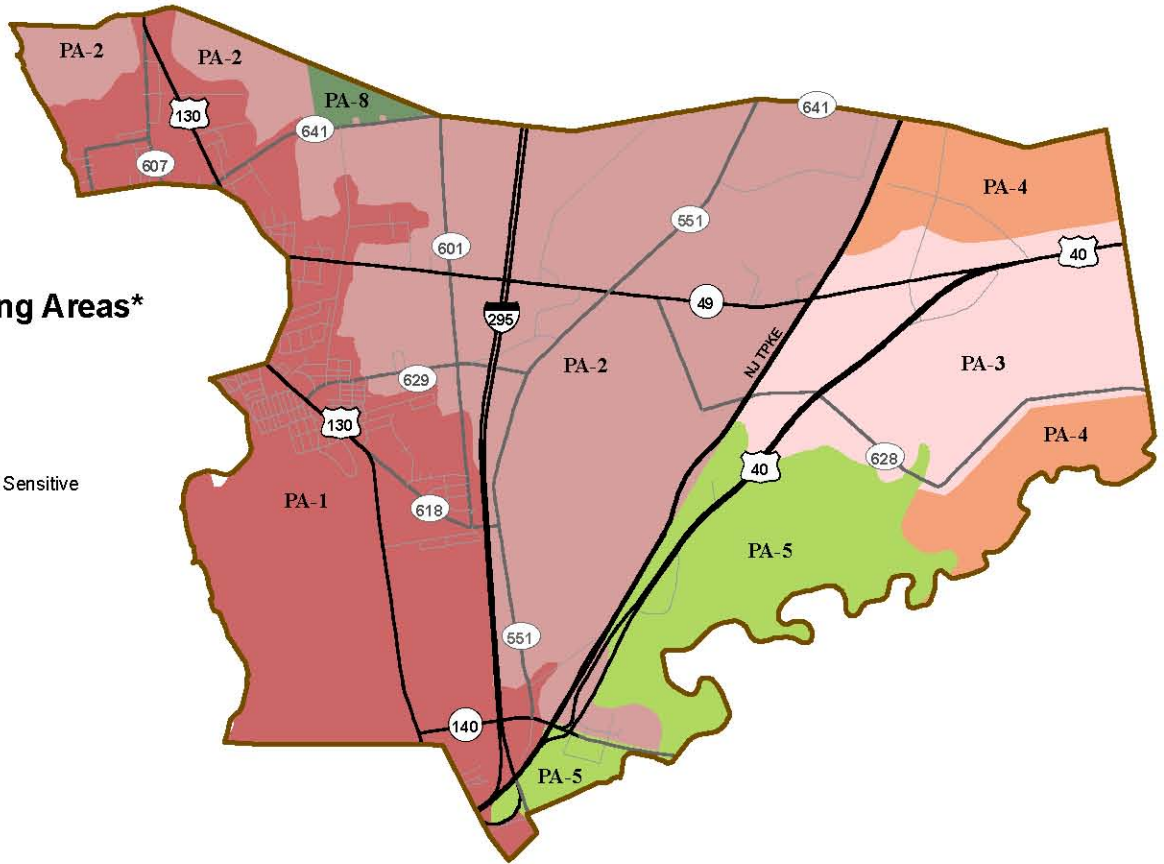


Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

CARNEYS POINT TOWNSHIP

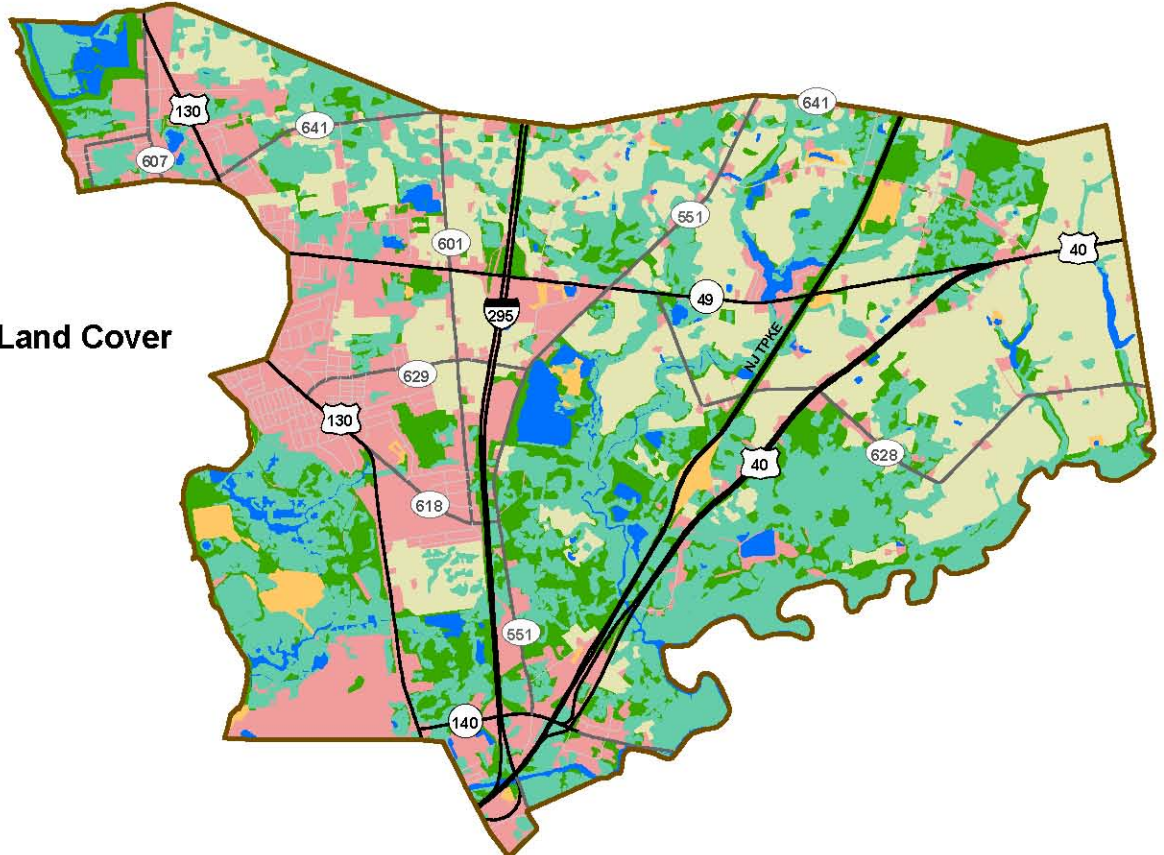
NJ State Planning Areas*

- PA-1, Metropolitan
- PA-2, Suburban
- PA-3, Fringe
- PA-4, Rural
- PA-5, Environmentally Sensitive
- PA-8, Park



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

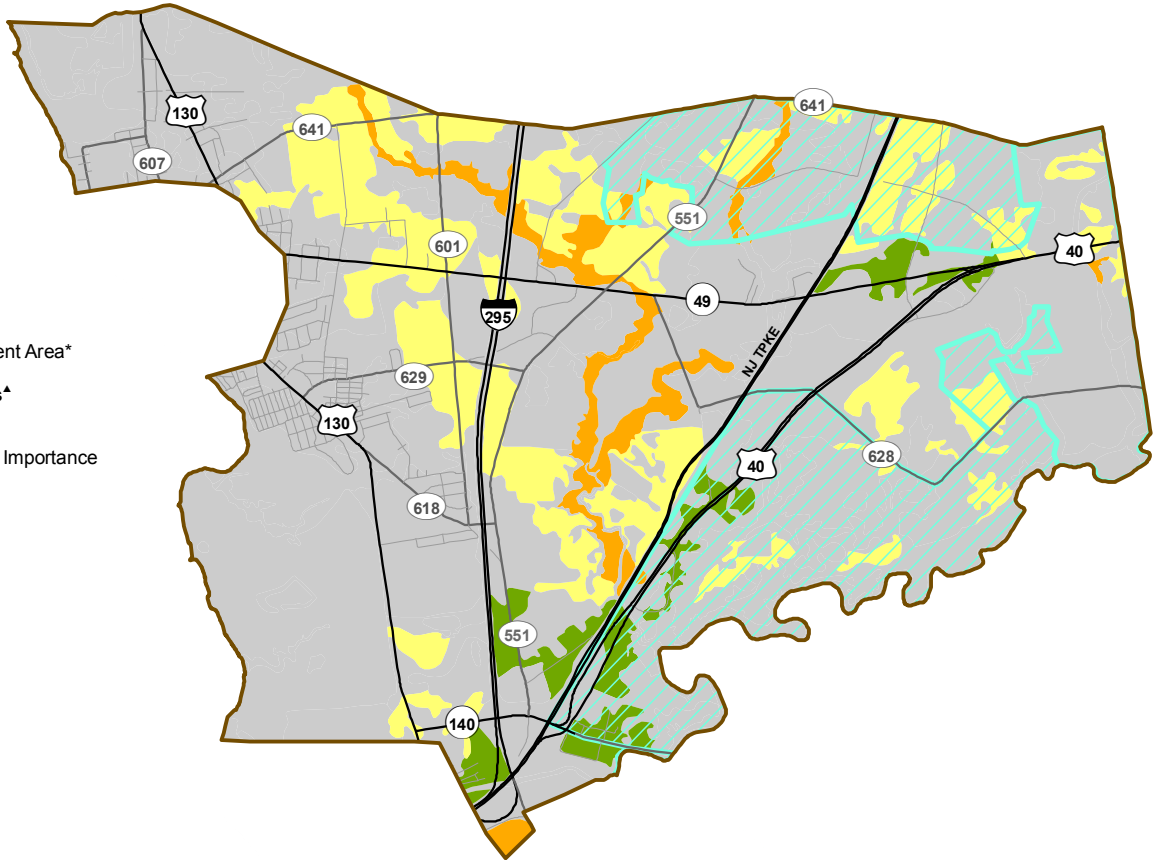
CARNEYS POINT TOWNSHIP

Agriculture





 Agricultural Development Area*

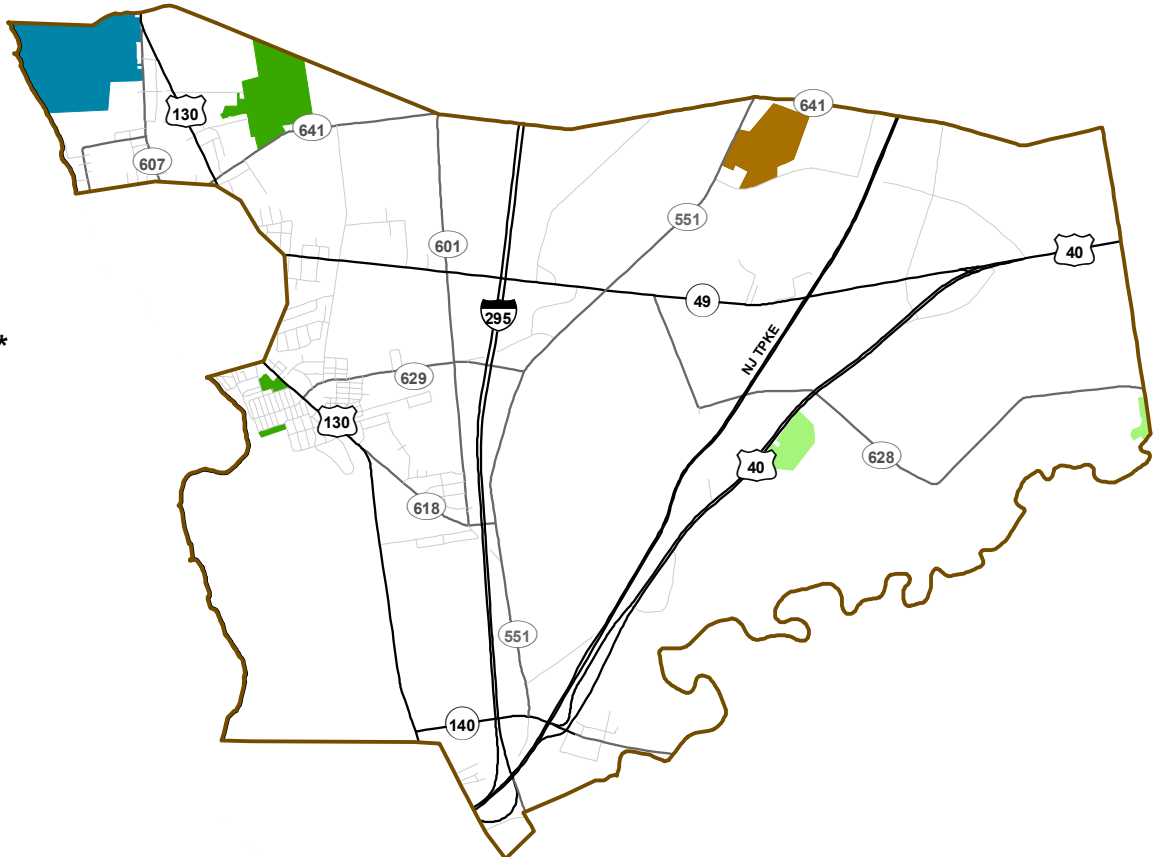
Agricultural Quality of Soils*

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

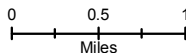


Preserved Land*

-  Preserved Farmland
-  Municipally Owned
-  State Owned
-  Federally Owned



Sources: *Salem County Department of Planning,
*NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

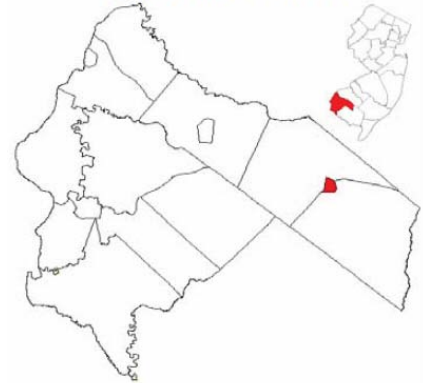
Elmer Borough

Area: 0.88 square miles; 563 acres

Population (2009): 1,342
persons per square mile: 1,528

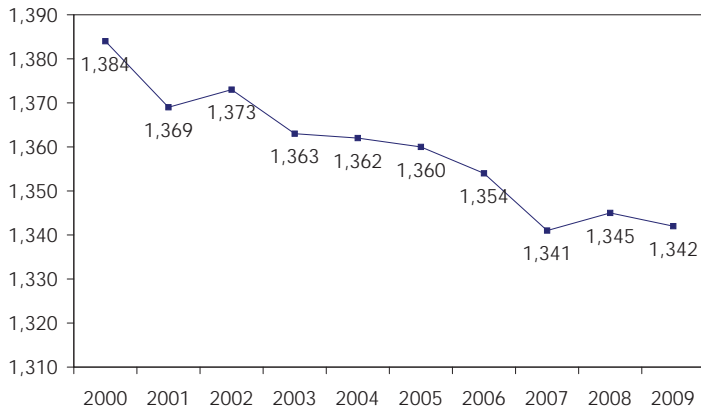
Population projection (2030):
1,327 (-18, -1%)
Source: SJTPO

Regional Location



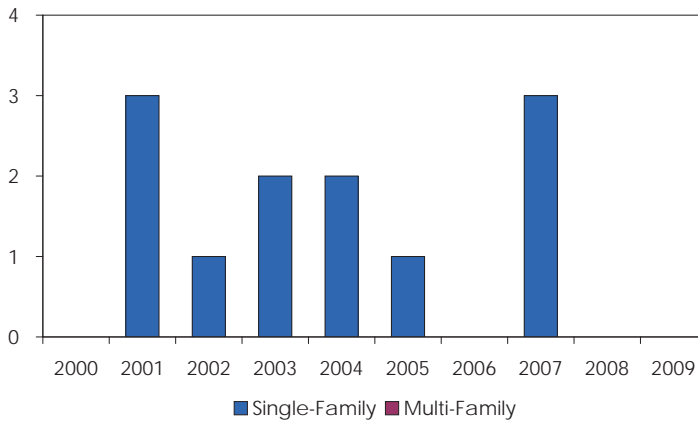
Source: Wikipedia Encyclopedia

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

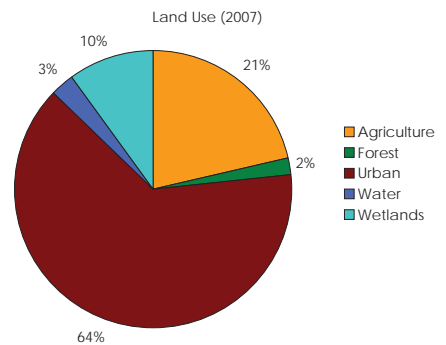
Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	132	288	50,869
Under HUC 11 Nitrate Target (2 mg/L)	132	19	5,118

Source: Salem County Planning Department, 2010

2007 Employment: 1,434
2030 Projected Employment: 1,596 (+162, +11%)
Source: SJTPO

Salem County Transfer of Development Rights



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified in the 2004 Cross Acceptance Report)

- PA 4B (Rural/Environmentally-Sensitive)
- Town Center designation- 1997
- Install wastewater facilities that are appropriate for a designated town center

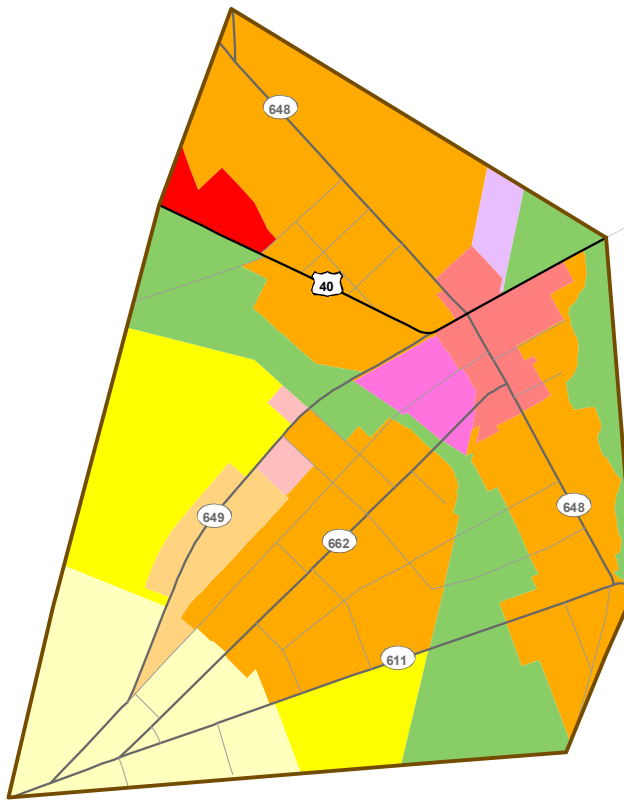
Historic Places:

- Dodges Market*
- Elmer Historic District*
- Elmer Trust Company*
- David Smith House*

ELMER BOROUGH

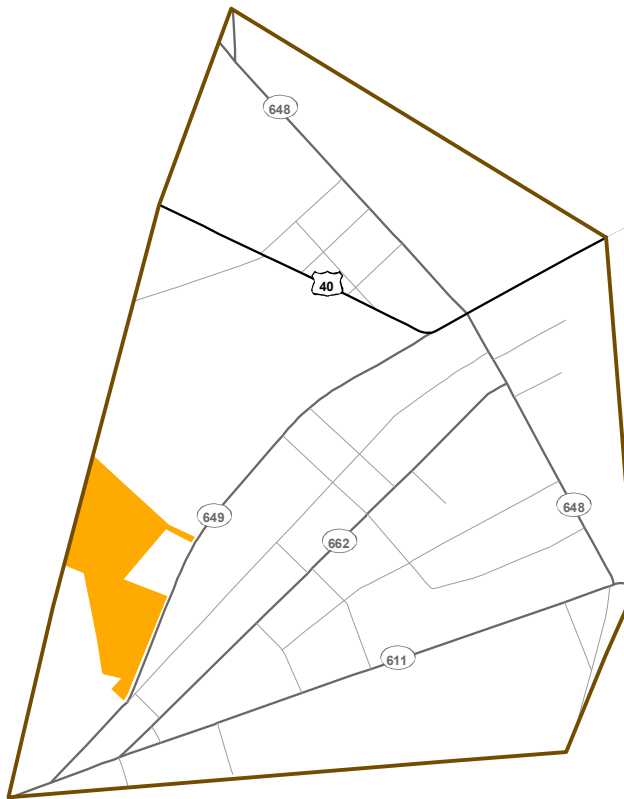
Zoning*

- Conservation
- Highway Business
- General Business
- Limited Commercial
- Commercial/Light Industrial
- Light Industrial
- Residential - Professional
- Medium Density Residential
- Low Medium Density Residential
- Low Density Residential

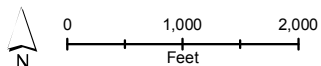


Sewer Service Areas

- Ground Water Discharge



Sources: *Salem County Department of Planning, NJDEP, NJOIT, NJDOT

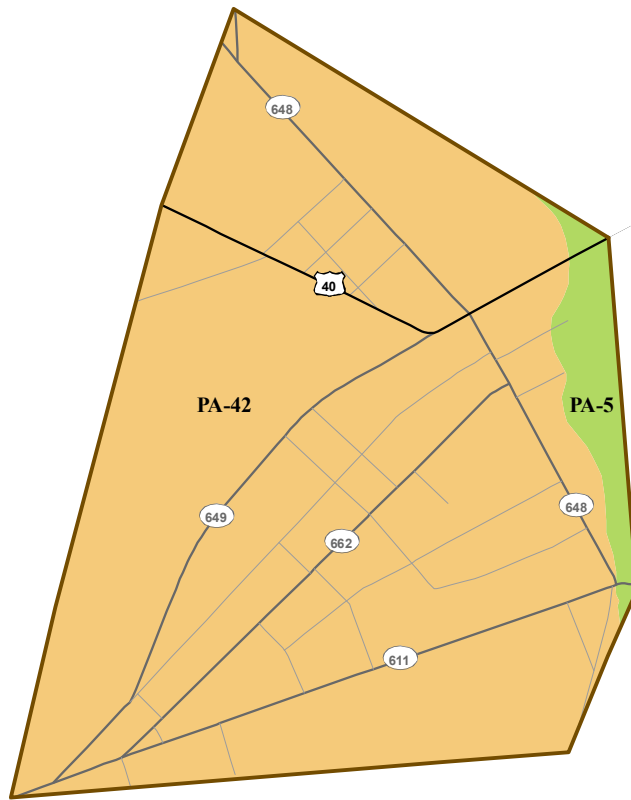


Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

ELMER BOROUGH

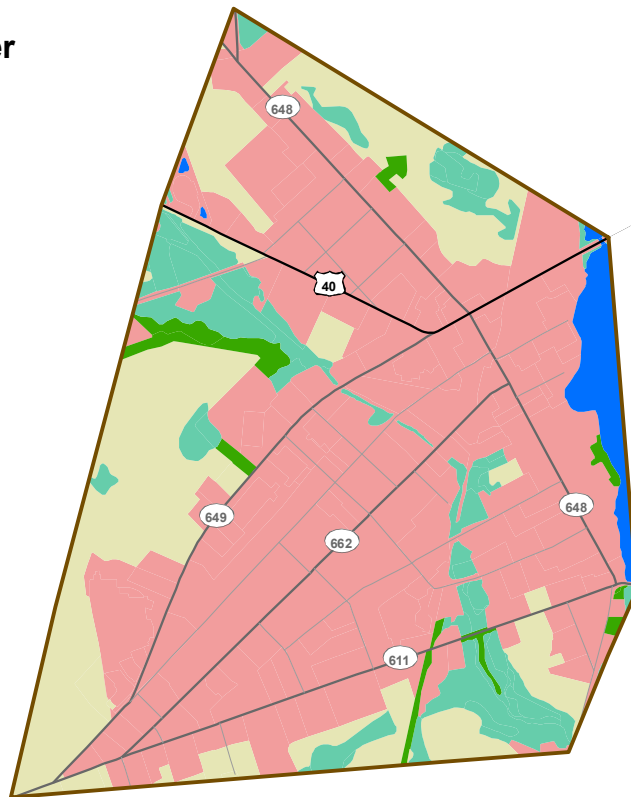
NJ State Planning Areas*

- PA-42, Rural Environmentally Sensitive
- PA-5, Environmentally Sensitive

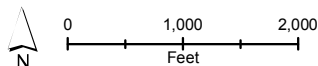


2007 Land Use/Land Cover

- Agriculture
- Forest
- Urban
- Water
- Wetlands




Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

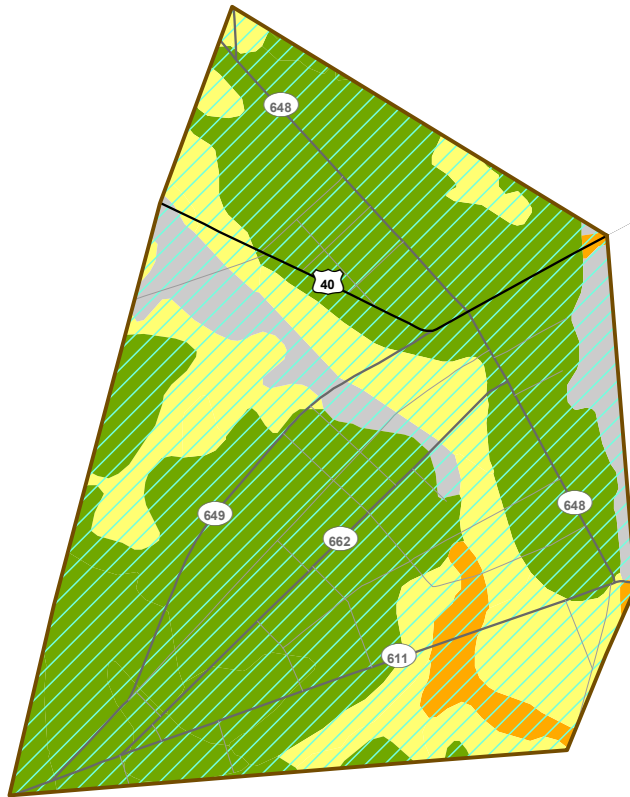
ELMER BOROUGH

Agriculture

 Agricultural Development Area*

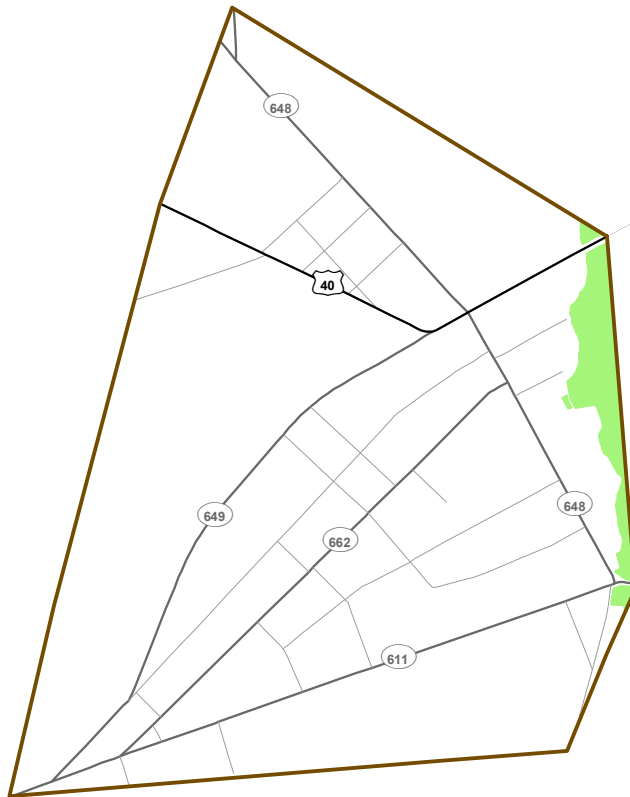
Agricultural Quality of Soils[^]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

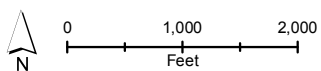


Preserved Land*

 State Owned



Sources: *Salem County Department of Planning,
[^]NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Elsinboro Township

Area: 13.33 square miles; 8,531 acres

Population (2009): 1,050

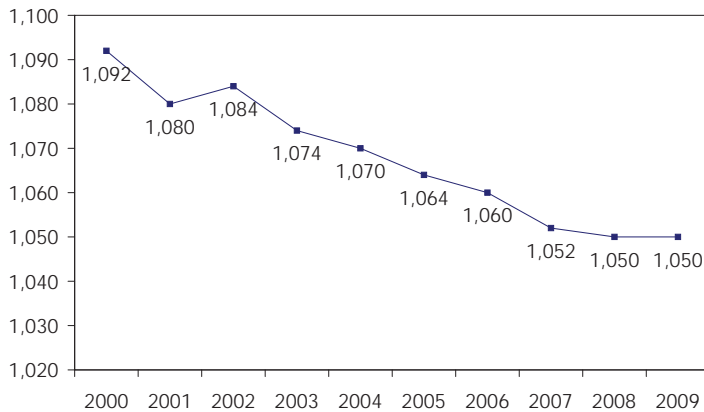
persons per square mile: 79

Population projection (2030):

1,030 (-20, -2%)

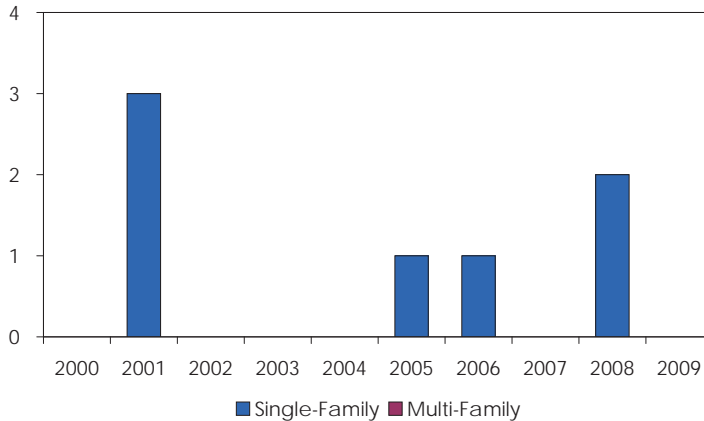
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	1,771	917	4,671,461
Under HUC 11 Nitrate Target (2 mg/L)	1,771	236	141,108

Source: Salem County Planning Department, 2010

2007 Employment: 95

2030 Projected Employment: 105 (+10, +10%)

Source: SJTPO

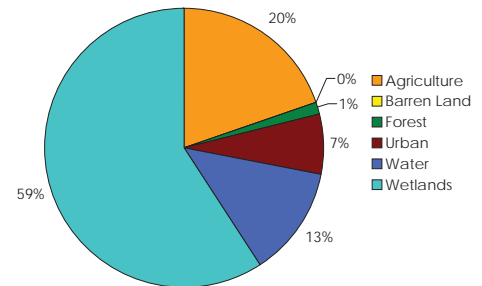
Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)






- PA 4A (Rural) & PA 5 (Environmentally-Sensitive)
- Elsinboro is entirely within the CAFRA jurisdiction
- Establish a wastewater system to service communities on the Delaware waterfront

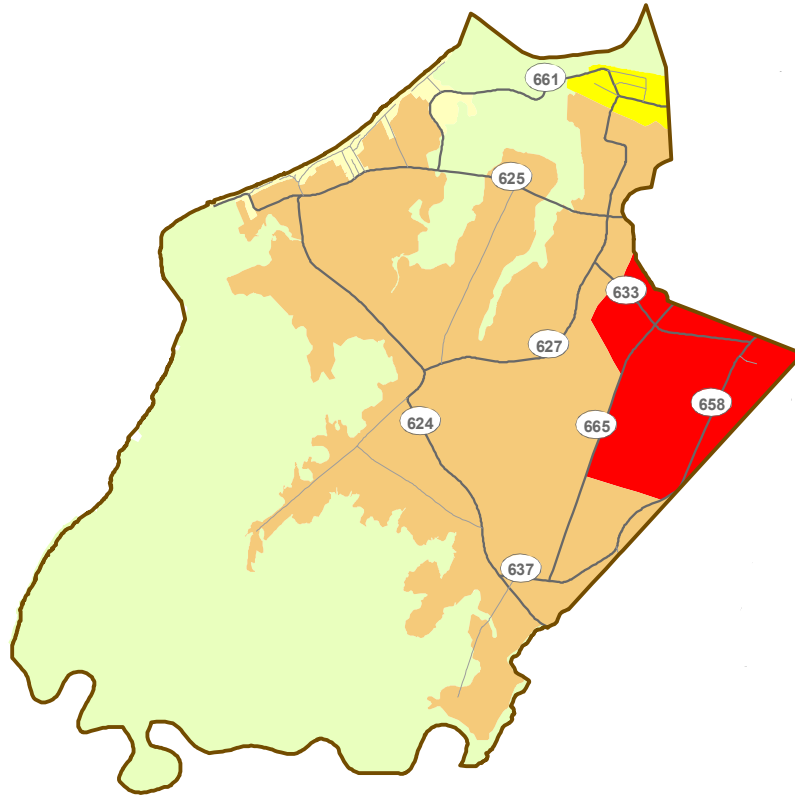
Historic Places:

Holmeland (Benjamin Holme's House)
Abe and Mary Nicholson House
Samuel and Sarah Nicholson House

ELSINBORO TOWNSHIP

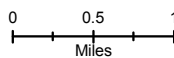
Zoning*

-  Commercial
-  Conservation
-  Low Density Residential
-  Medium Density Residential
-  Rural Residential - Agricultural



Sewer Service Areas

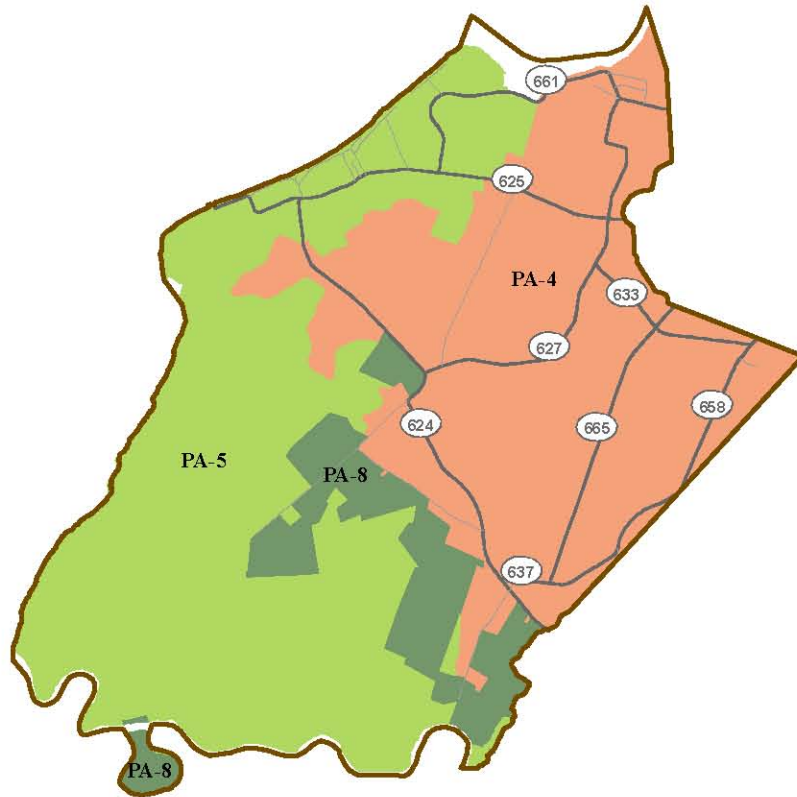
Currently there is no "Sewer Service Area" within Elsinboro Township



ELSINBORO TOWNSHIP

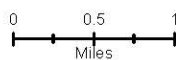
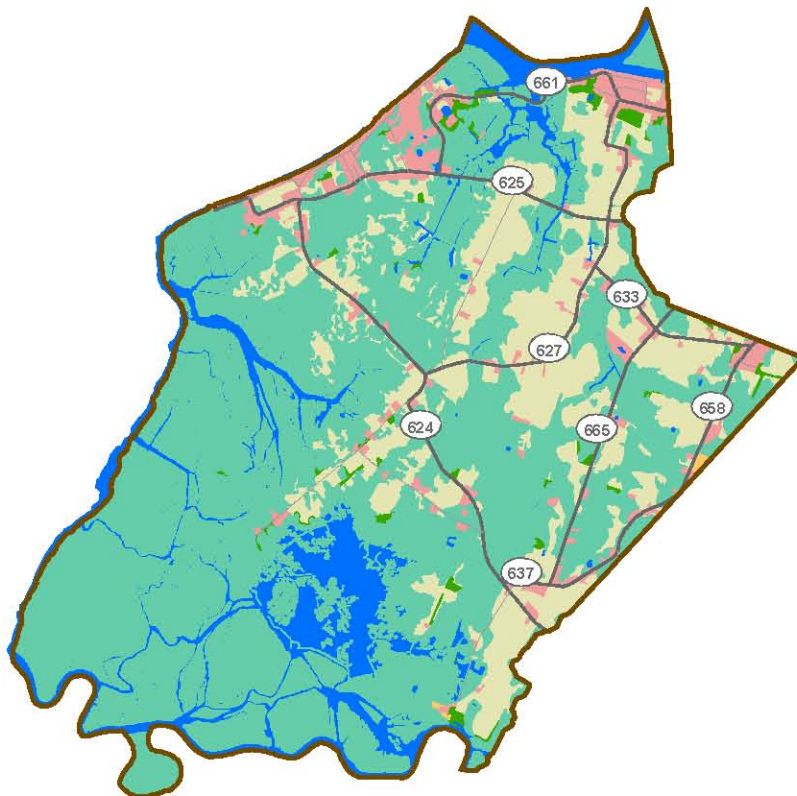
NJ State Planning Areas*

- PA-4, Rural
- PA-5, Environmentally Sensitive
- PA-8, Park



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



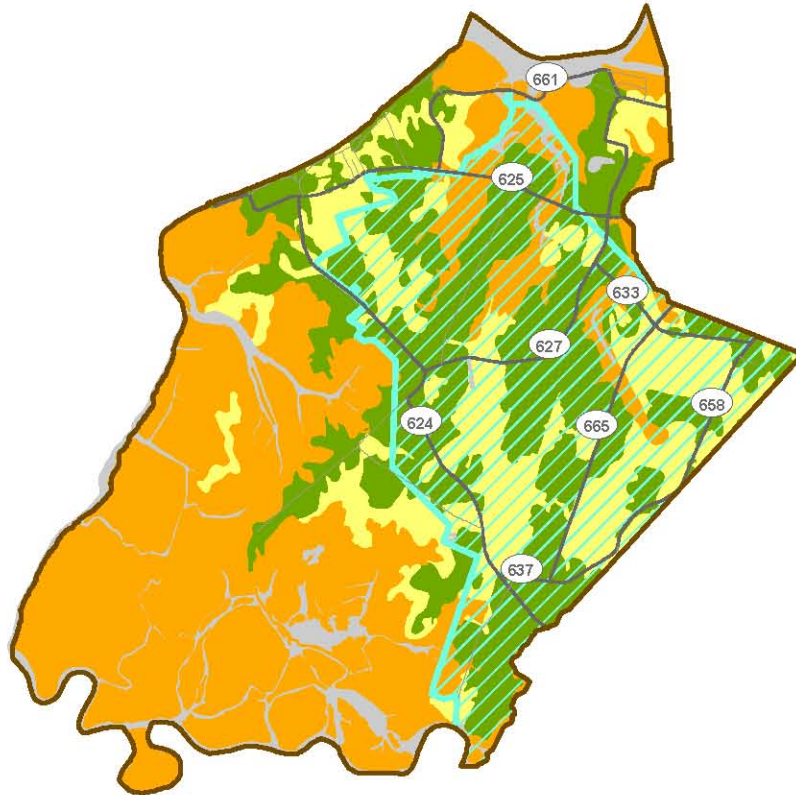
ELSINBORO TOWNSHIP

Agriculture



 Agricultural Development Area*

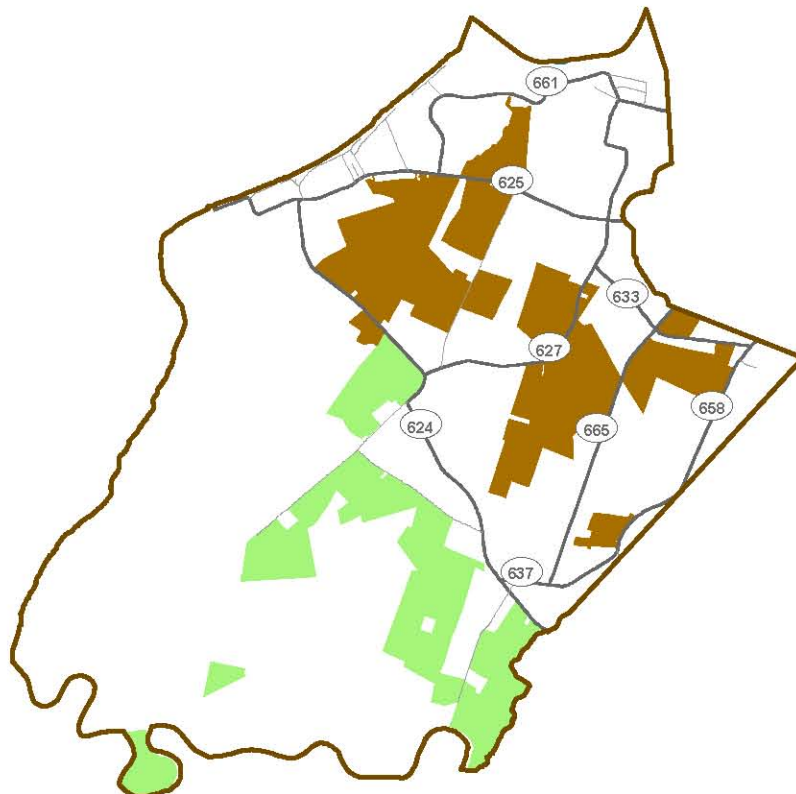
Agricultural Quality of Soils*

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland



Preserved Land*

-  Preserved Farmland
-  State Owned



Sources: *Salem County Department of Planning,
▲NRCS, NJDEP, NJOIT, NJDOT



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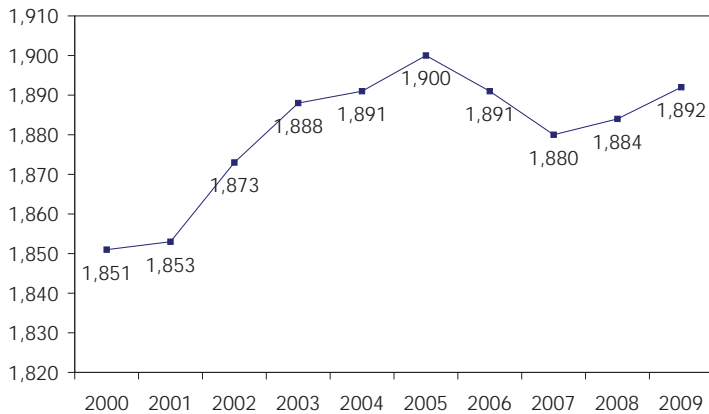
Lower Alloways Creek Township

Area: 47.8 square miles, 30,602 acres

Population (2009): 1,892
persons per square mile: 39

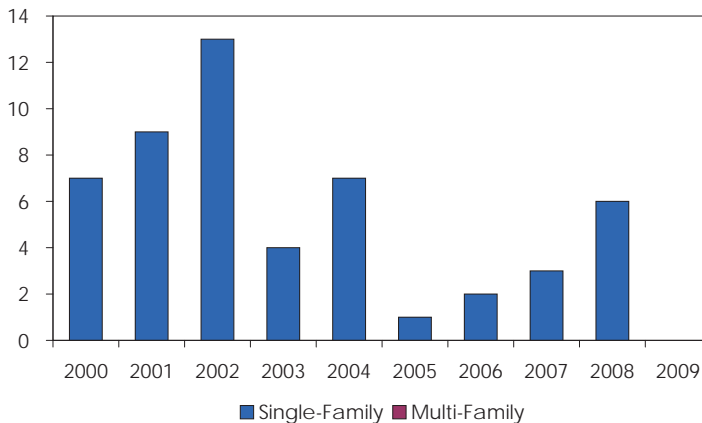
Population projection (2030):
2,176 (+292, +15%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	6,414	3,978	828,118
Under HUC 11 Nitrate Target (2 mg/L)	6,414	914	34,723

Source: Salem County Planning Department, 2010

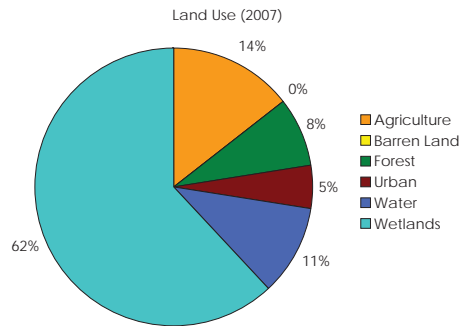
2007 Employment: 630
2030 Projected Employment: 806 (+176, +28%)
Source: SJTPO

Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4A (Rural) & PA 5 (Environmentally-Sensitive)
- Entirely within CAFRA jurisdiction
- Encourage programs that fund the preservation and protection of environmentally-sensitive lands

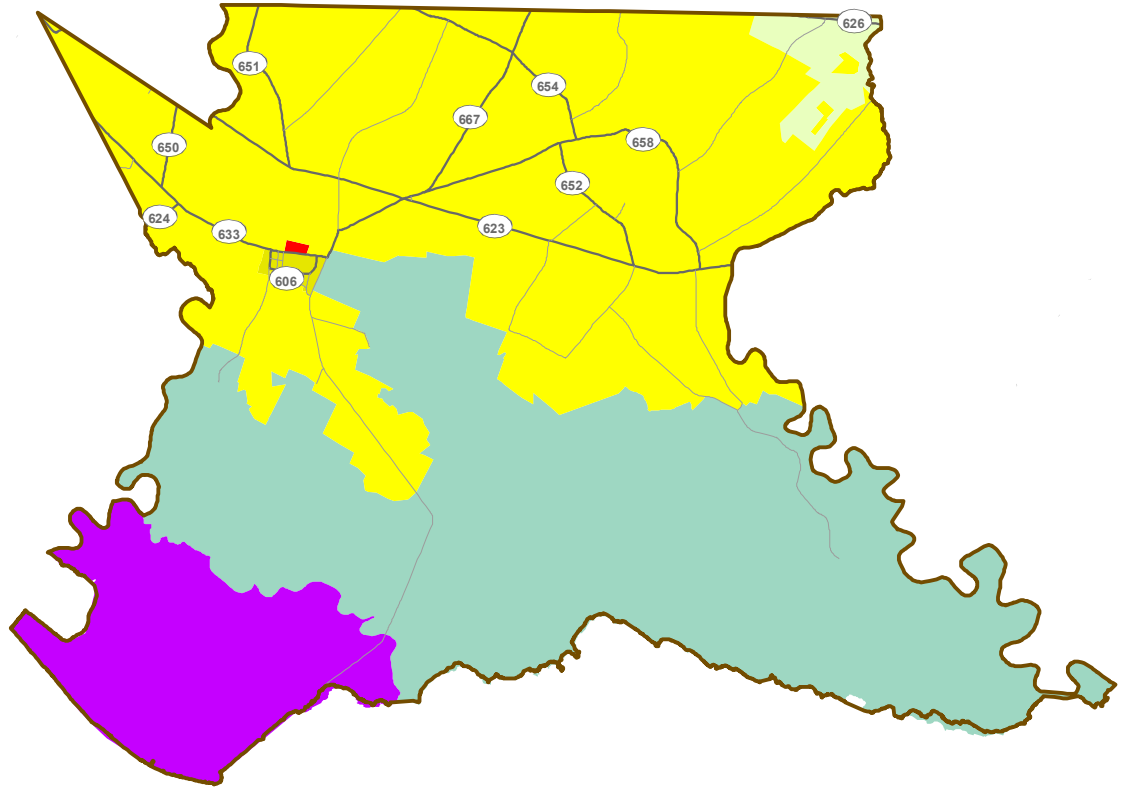
Historic Places:

- Alloways Creek Friends Meetinghouse*
- Nathaniel Chambliss House*
- Cuff-Dubois House*
- Hancock House*
- Hancock's Bridge*
- New Bridge Road Bridge*
- Ware-Shourds House*



LOWER ALLOWAYS CREEK TOWNSHIP

Zoning*

-  Agricultural Residential
-  Commercial
-  Conservation Park
-  Industrial
-  Villages District
-  Wetlands



Sewer Service Areas

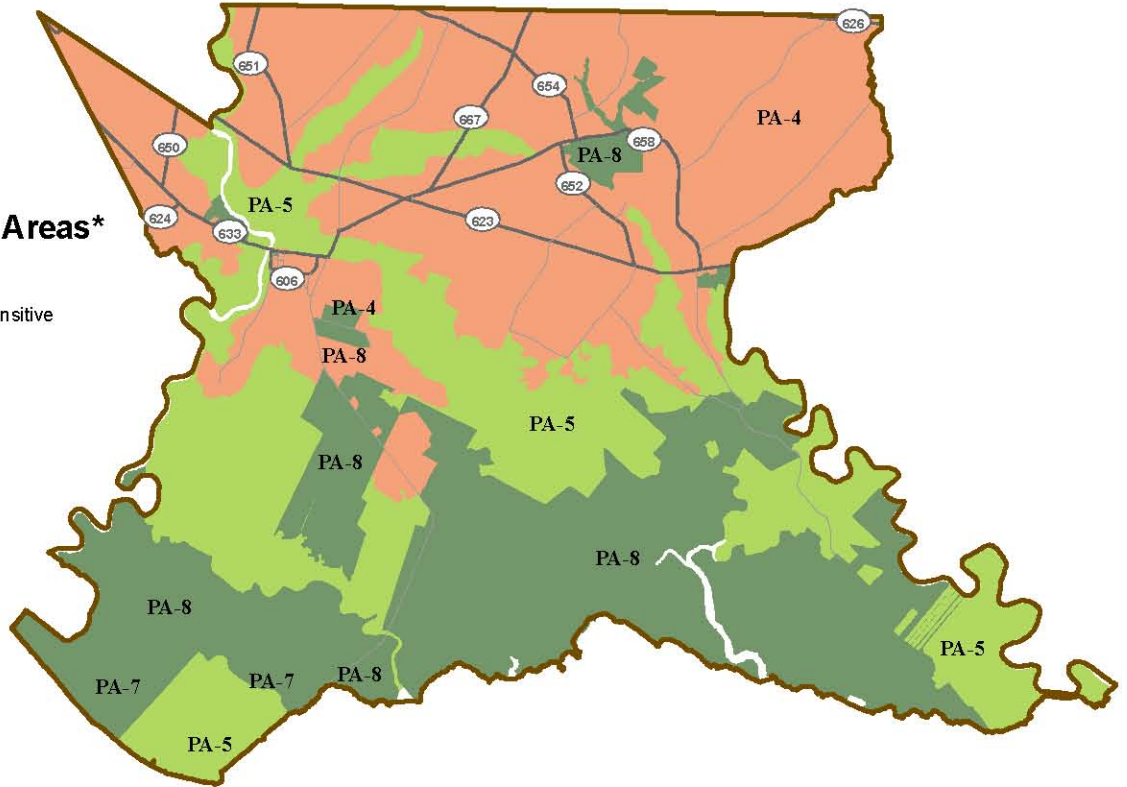
-  Surface Water Discharge
-  Ground Water Discharge



LOWER ALLOWAYS CREEK TOWNSHIP

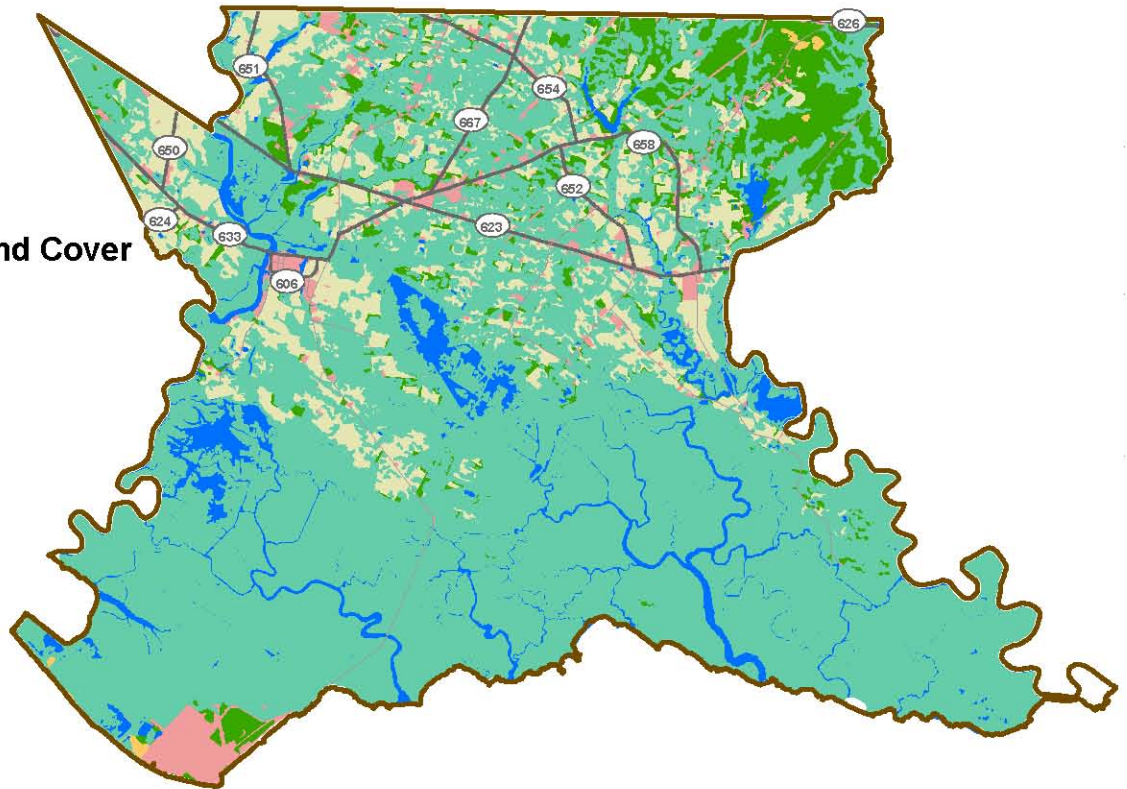
NJ State Planning Areas*

- PA-4, Rural
- PA-5, Environmentally Sensitive
- PA-7, Park
- PA-8, Park



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



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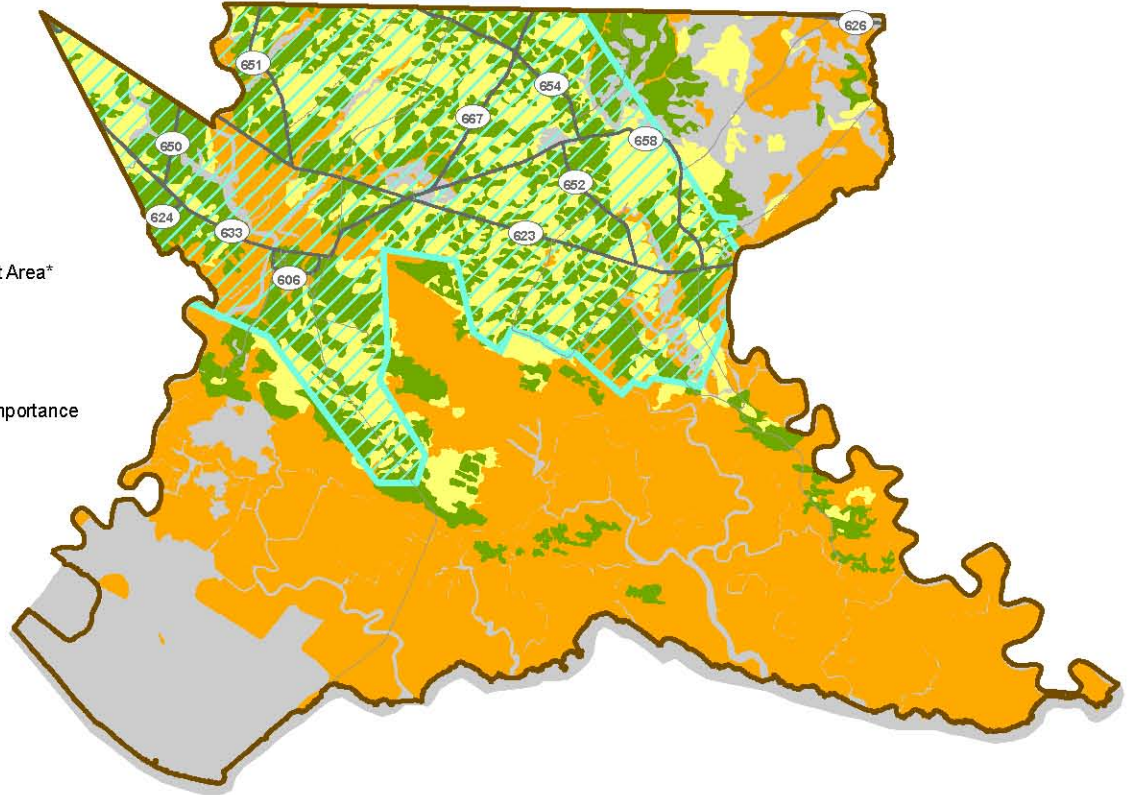
LOWER ALLOWAYS CREEK TOWNSHIP

Agriculture

 Agricultural Development Area*

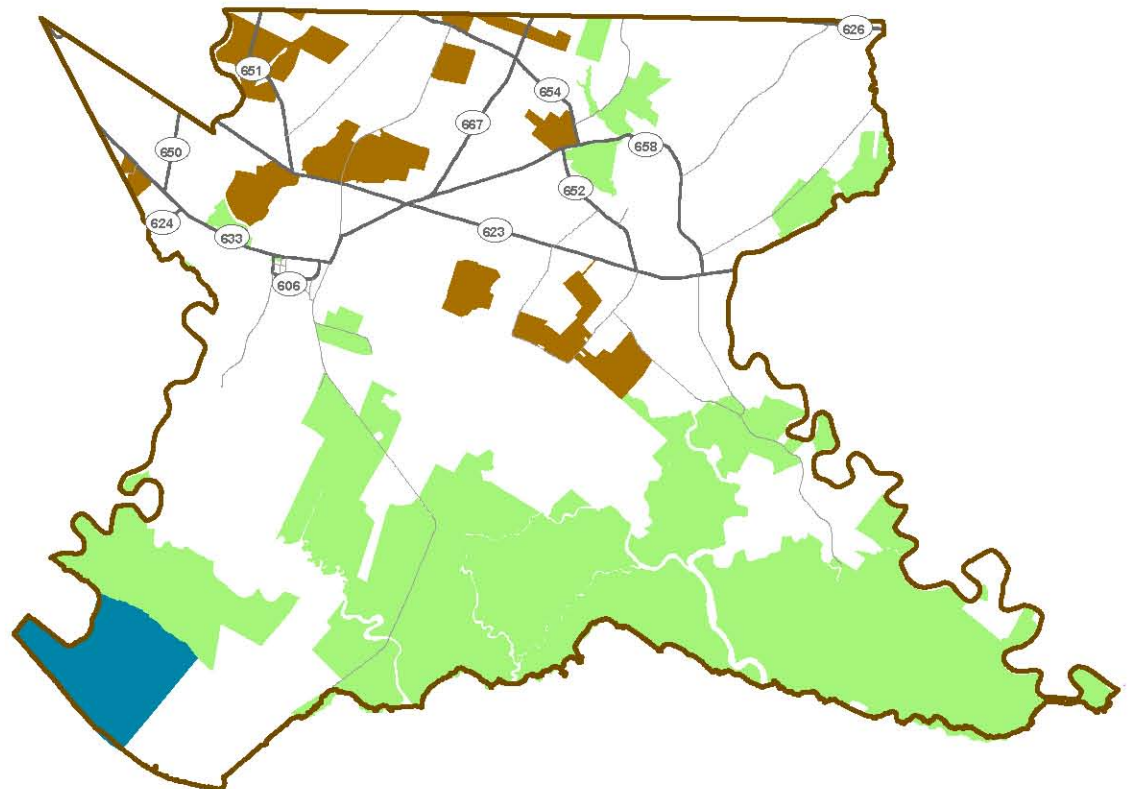
Agricultural Quality of Soils[†]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland



Preserved Land*

-  Preserved Farmland
-  State Owned
-  Federally Owned



Sources: *Salem County Department of Planning,
[†]NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



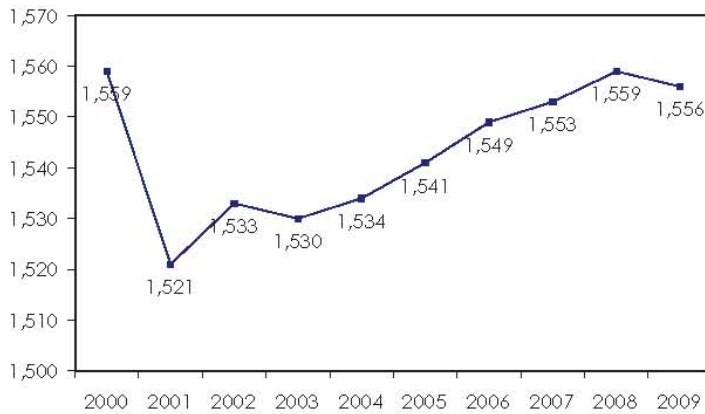
Mannington Township

Area: 38.4 square miles; 24,589 acres

Population (2009): 1,556
persons per square mile: 41

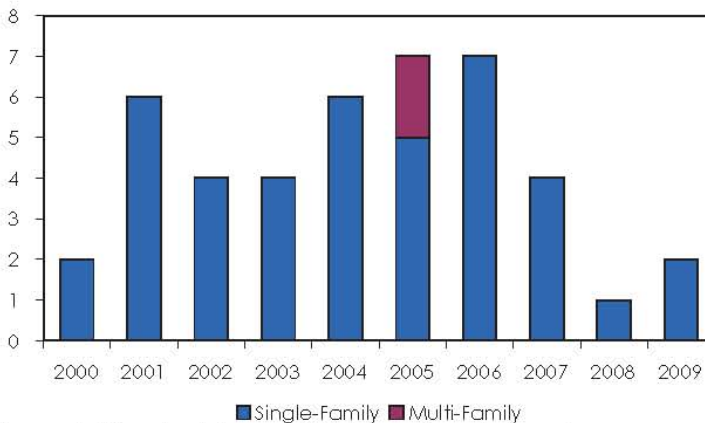
Population projection (2030):
1,599 (+40, +3%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	14,915	5,741	2,392,898
Under HUC 11 Nitrate Target (2 mg/L)	14,915	1,983	72,281

Source: Salem County Planning Department, 2010

2007 Employment: 899
2030 Projected Employment: 1,048 (+149, +16%)
Source: SJTPO

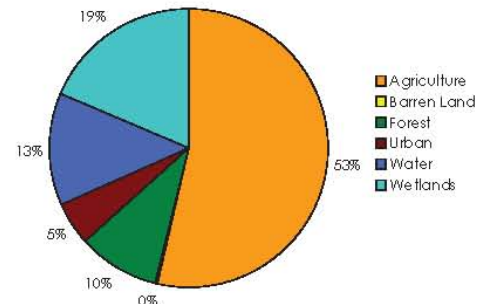
Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4A (Rural) & PA 5 (Environmentally-Sensitive)
- Maintain agricultural production
- Preservation that utilizes easements are preferred to fee simple acquisition

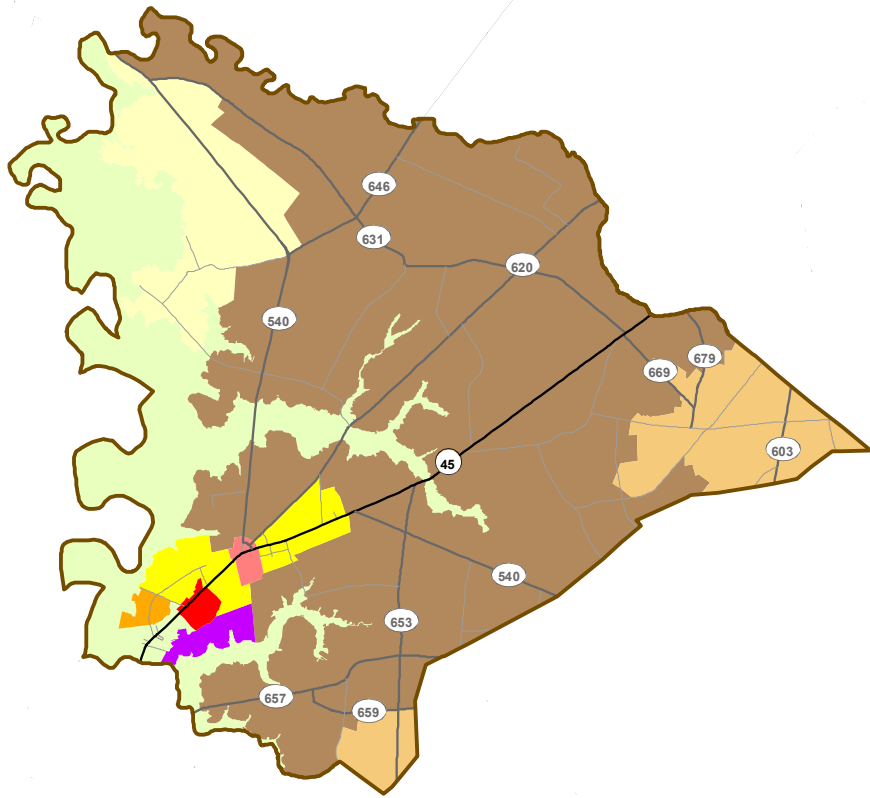
Historic Places:

- Benjamin Wright House
- Benjamin and Mary Bassett House
- Richard Brick House
- Hackett House
- Jacob Fox House
- Joseph Bassett, Jr. House
- Mannington Blacksmith Shop Site
- Mannington Township Hall
- Native American Site
- Salem Motor Vehicle Inspection Station
- Sarah Bassett Griscom House
- William Smith House
- Woodnut Pottery Site

MANNINGTON TOWNSHIP

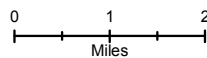
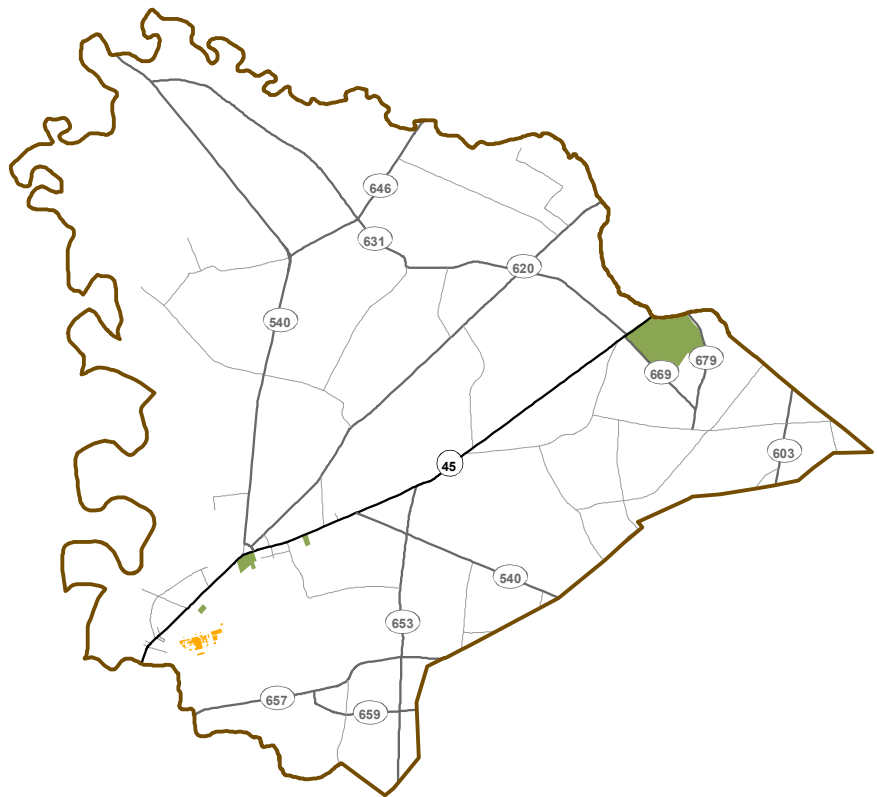
Zoning*

- Agriculture
- Conservation
- General Commercial
- Limited Commercial
- Industrial
- Conditional Residential
- Medium Density Residential
- High Density Residential
- Rural Residential



Sewer Service Areas

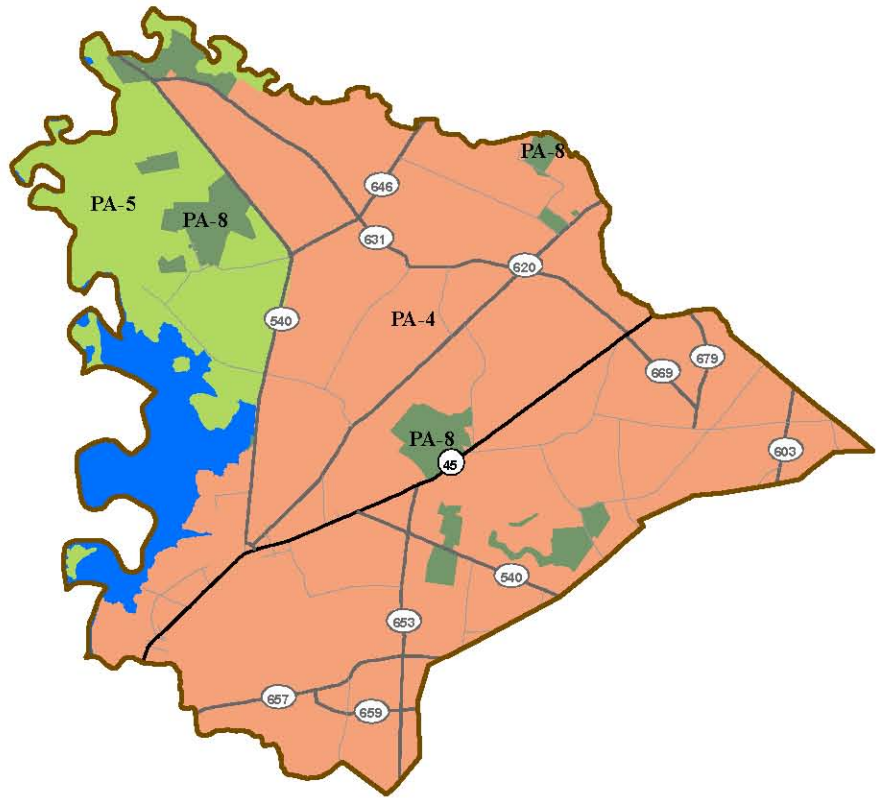
- Surface Water Discharge
- Ground Water Discharge



MANNINGTON TOWNSHIP

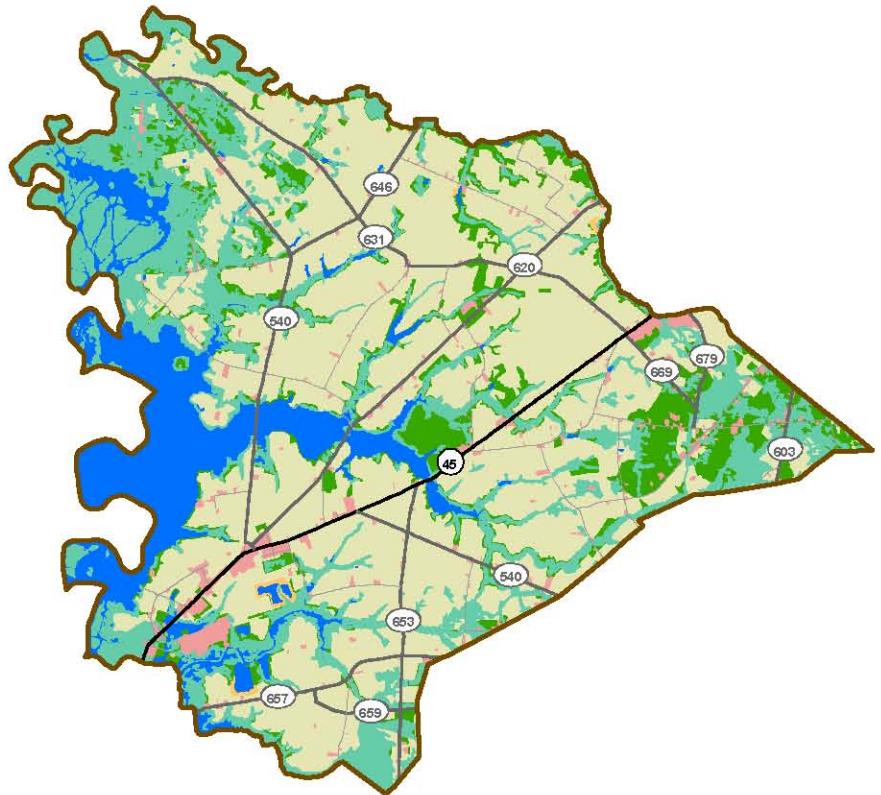
NJ State Planning Areas*

- PA-4, Rural
- PA-5, Environmentally Sensitive
- PA-8, Park
- Water



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



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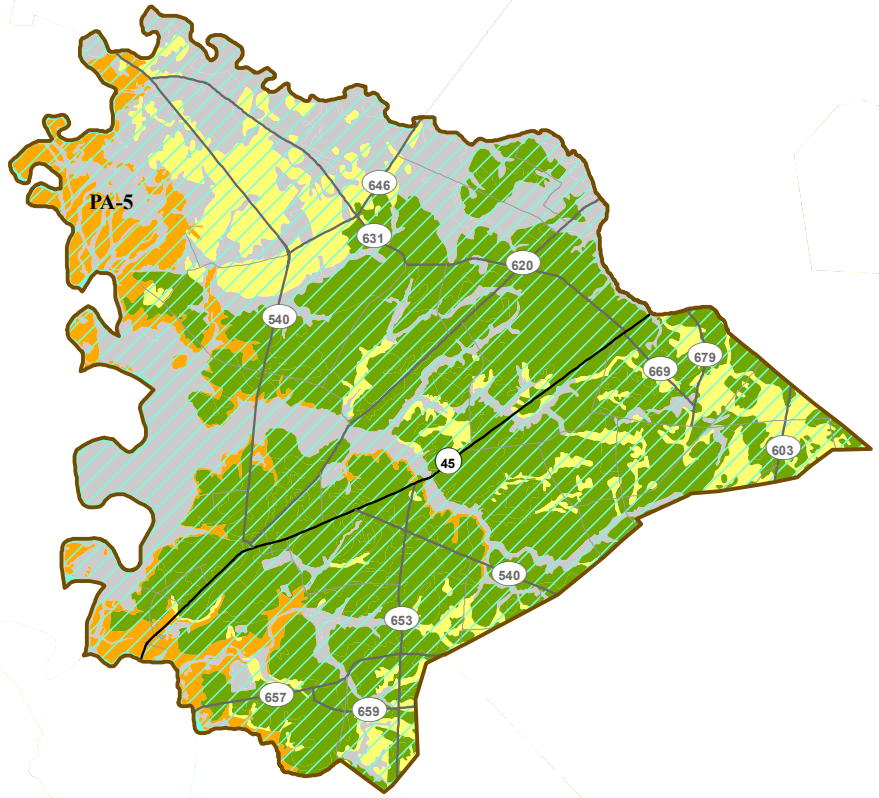
MANNINGTON TOWNSHIP

Agriculture




 Agricultural Development Area*

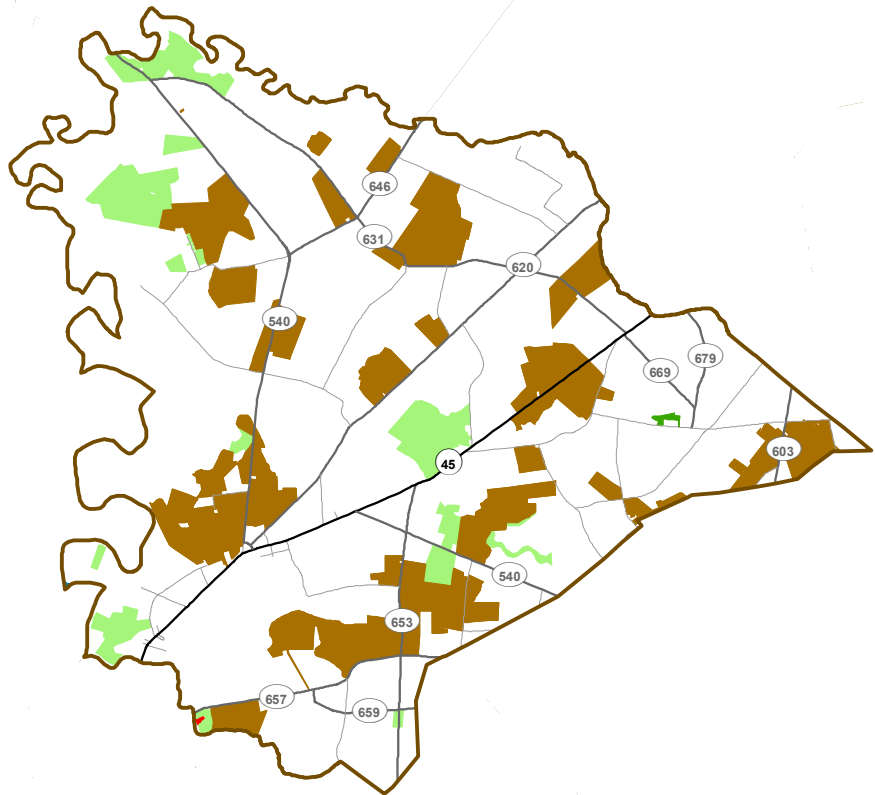
Agricultural Quality of Soils[†]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

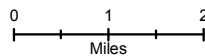


Preserved Land*

-  Preserved Farmland
-  State Owned
-  Municipally Owned



Sources: *Salem County Department of Planning,
[†]NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



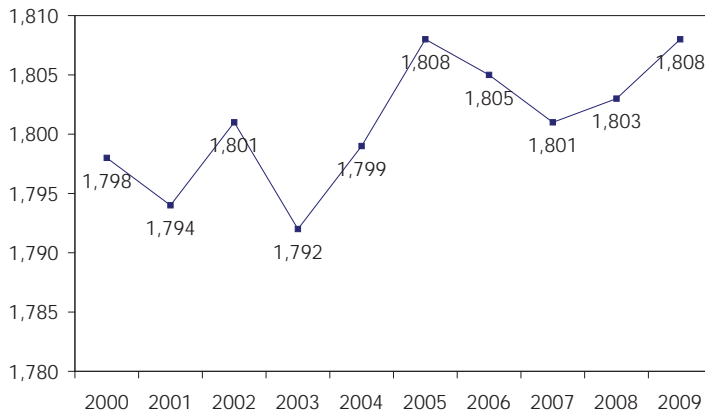
Oldmans Township

Area: 20.3 square miles; 12,992 acres

Population (2009): 1,808
persons per square mile: 89

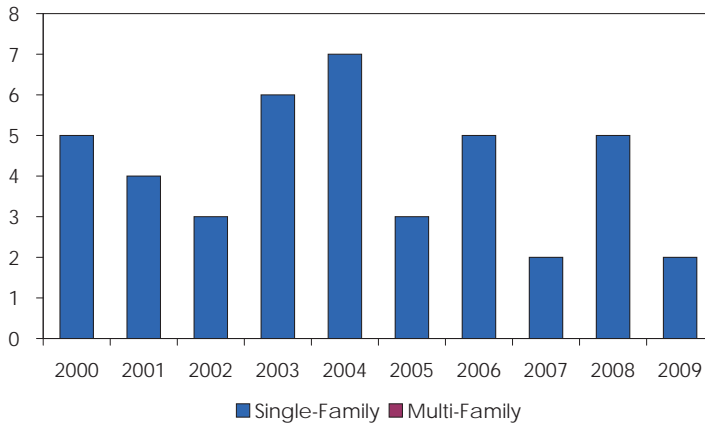
Population projection (2030):
1,837 (+34, +2%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	5,148	2,853	8,628,645
Under HUC 11 Nitrate Target (2 mg/L)	5,148	697	323,847

Source: Salem County Planning Department, 2010

2007 Employment: 665
2030 Projected Employment: 764 (+99, +15%)
Source: SJTPO

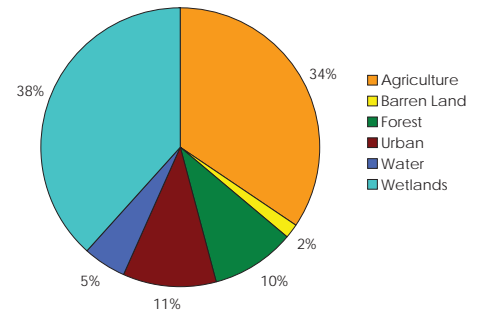
Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA2 (Suburban), PA4A (Rural), & 4B (Rural/ES)
- Development is desirable within the nodes of Pedricktown and the I-295 interchange
- Centers need infrastructure improvements

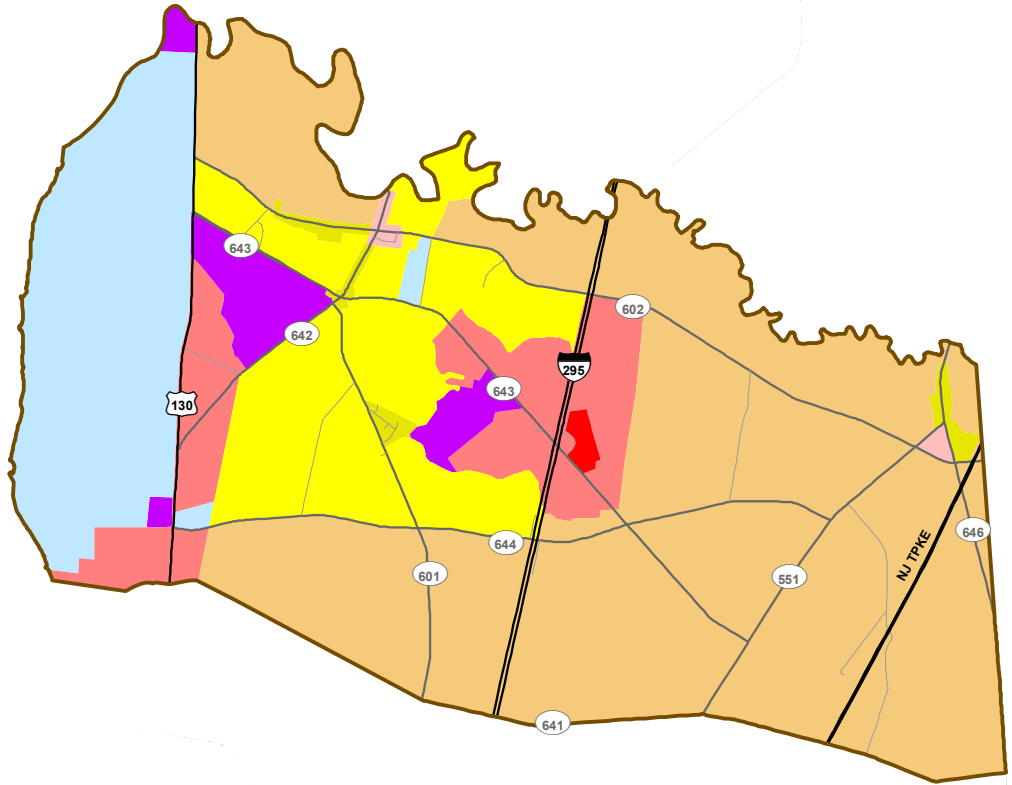
Historic Places:

*Nike Missile Master Complex
US Route 130 Bridge*

OLDMANS TOWNSHIP

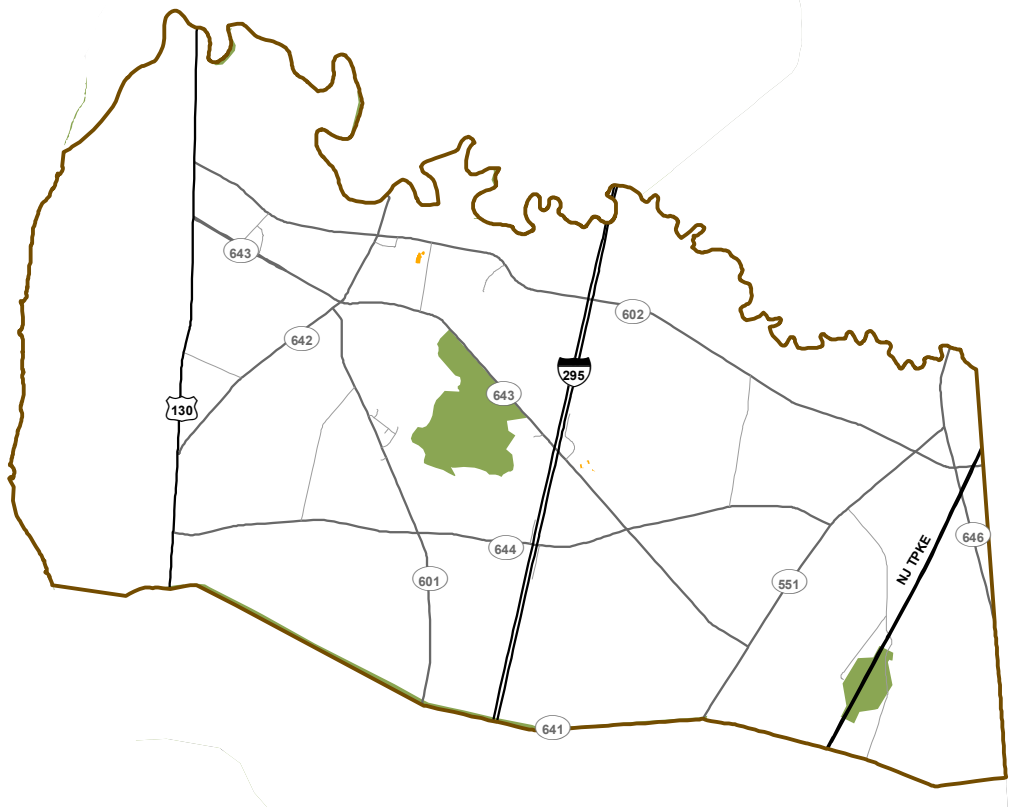
Zoning*

- Commercial District
- Commercial/Industrial
- Village Commercial
- Industrial
- Public
- Residential
- Village Residential
- Agricultural Residential

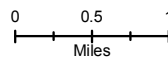


Sewer Service Areas

- Ground Water Discharge
- Surface Water Discharge



Sources: *Salem County Department of Planning, NJDEP, NJOIT, NJDOT

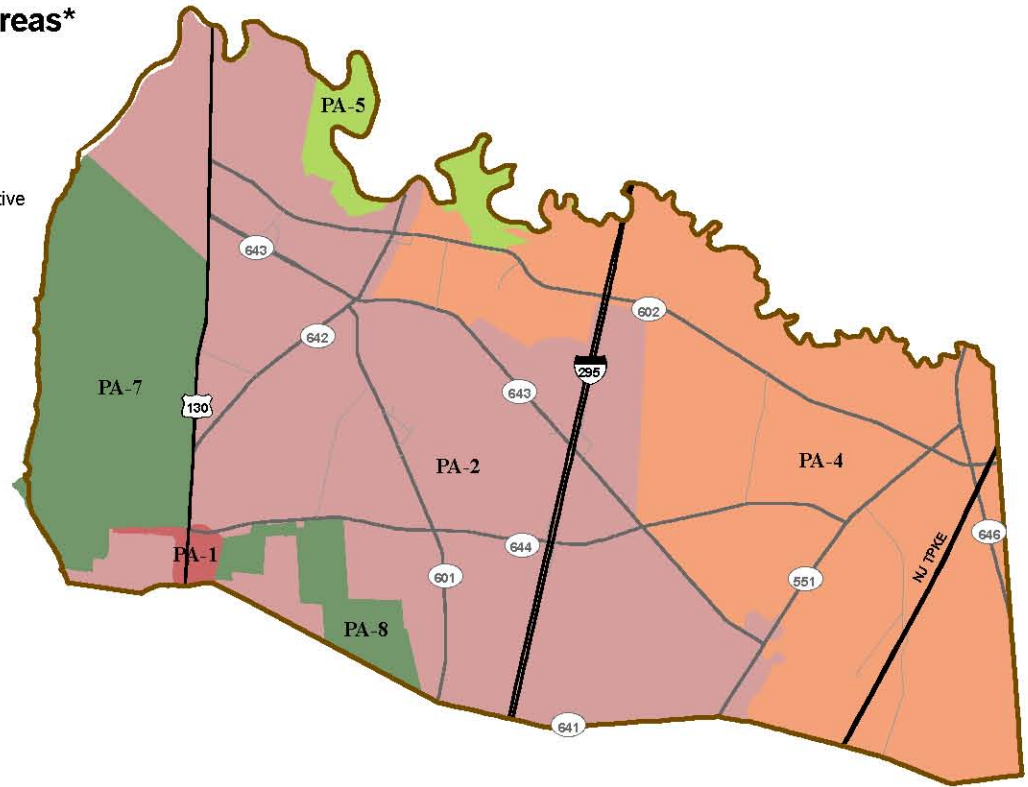


Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

OLDMANS TOWNSHIP

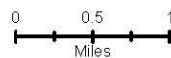
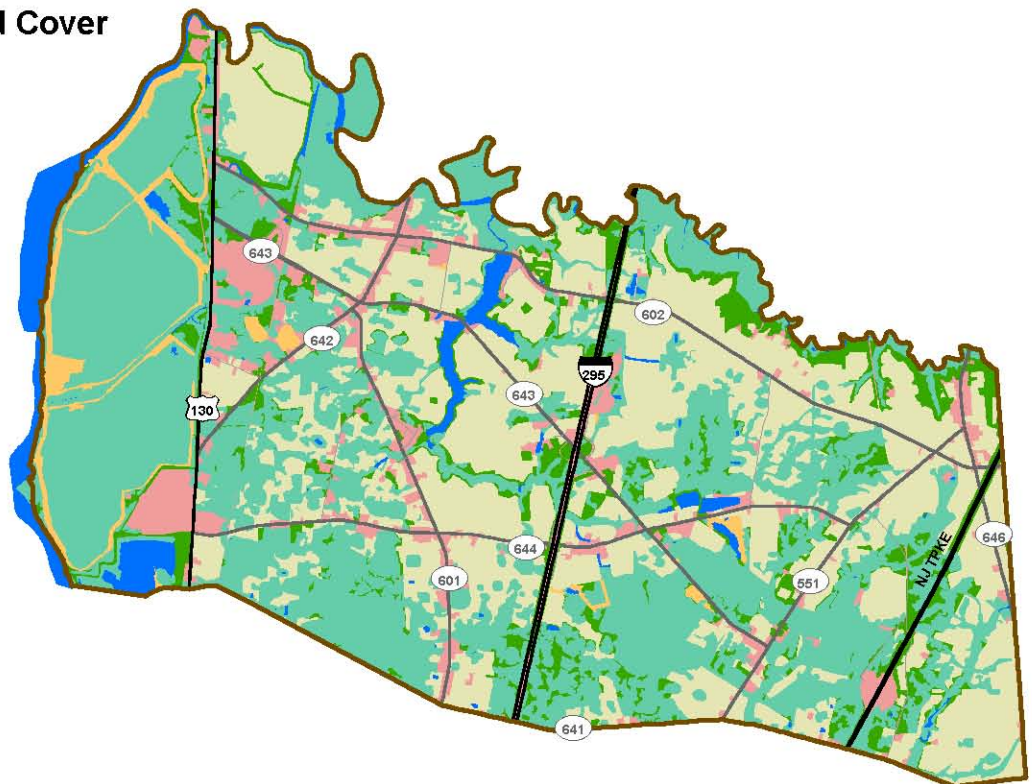
NJ State Planning Areas*

- PA-1, Metro
- PA-2, Suburban
- PA-4, Rural
- PA-5, Environmentally Sensitive
- PA-7, Park
- PA-8, Park



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



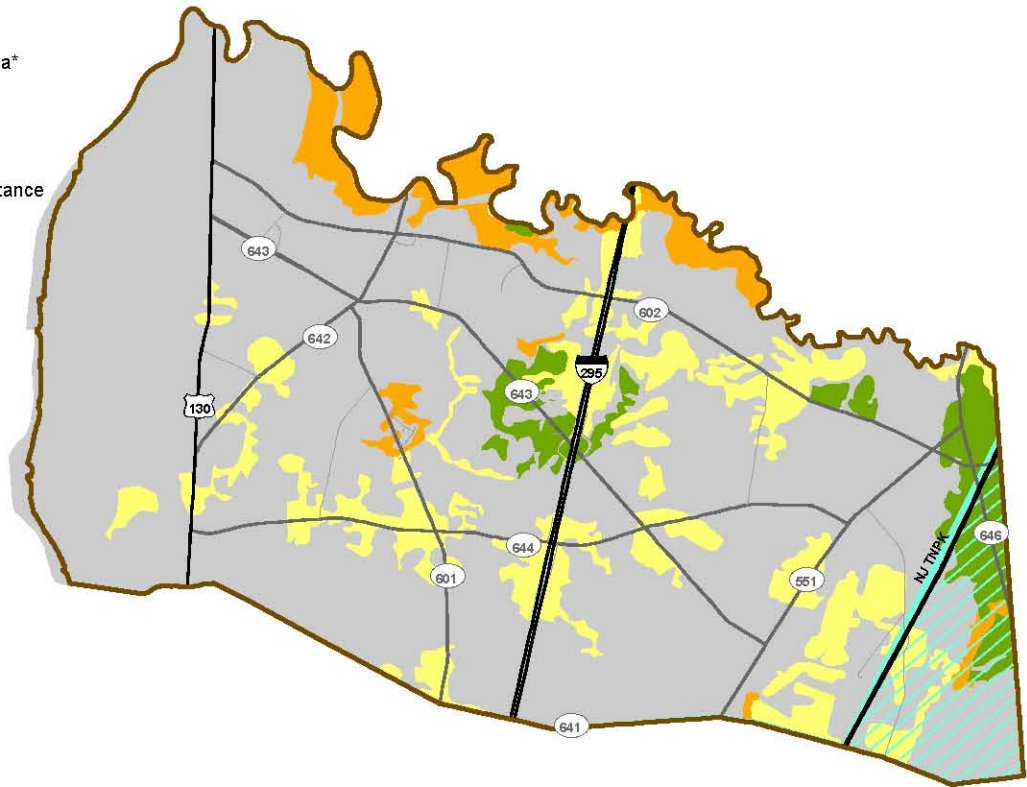
OLDMANS TOWNSHIP

Agriculture

 Agricultural Development Area*

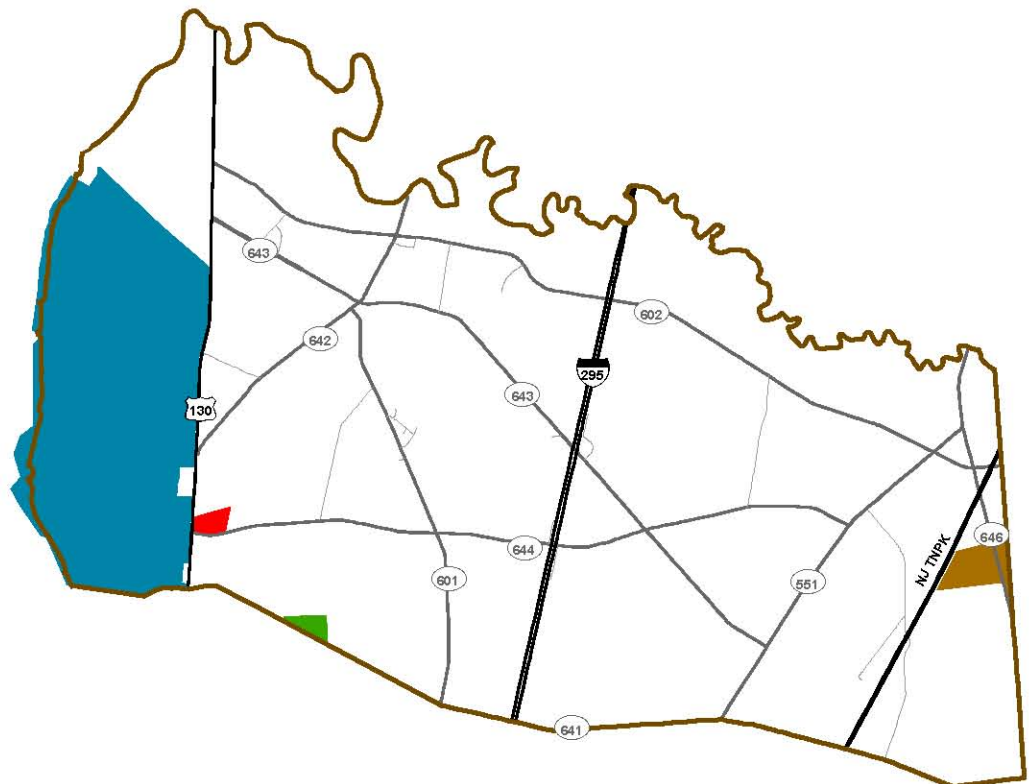
Agricultural Quality of Soils[†]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

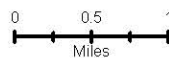


Preserved Land*

-  Preserved Farmland
-  County Owned
-  Municipally Owned
-  Federally Owned



Sources: *Salem County Department of Planning,
[†]NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



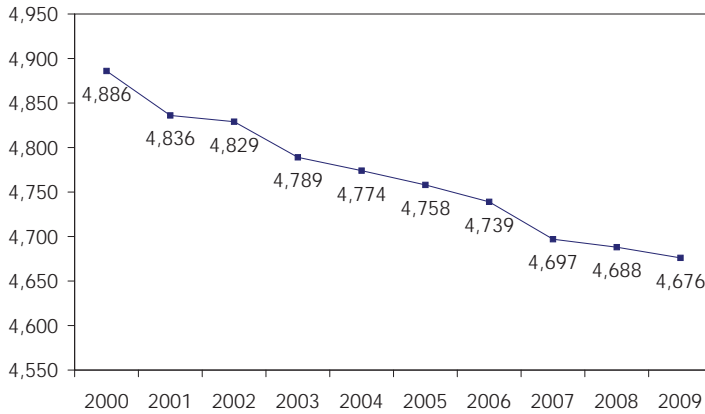
Penns Grove Borough

Area: 0.93 square miles; 595 acres

Population (2009): 4,676
persons per square mile: 5,041

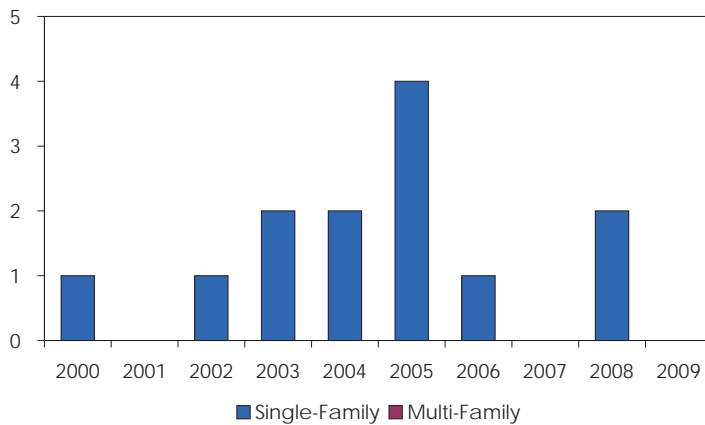
Population projection (2030):
4,560 (-128, -3%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



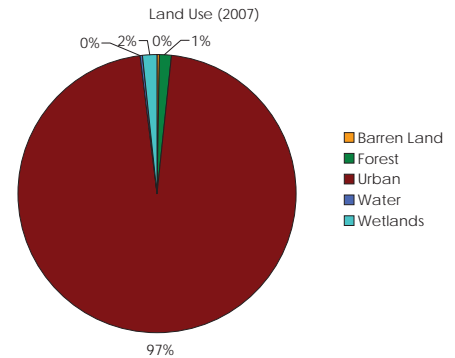
Source: NJ Dept of Labor and Workforce Development

2007 Employment: 1,017
2030 Projected Employment: 1,115 (+98, +10%)
Source: SJTPO

Regional Location



Source: Wikipedia Encyclopedia



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- Metropolitan Planning Area (PA 1)
- Riverwalk project is important for revitalization
- Streetscape improvements are also important for redevelopment

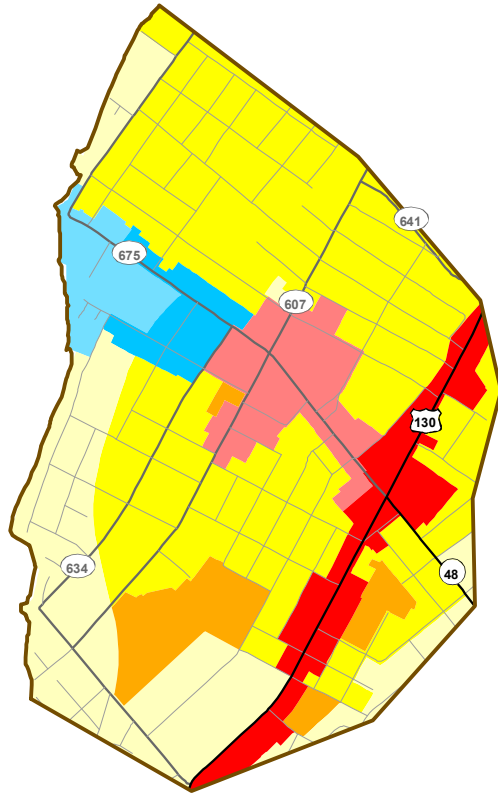
Historic Places:

- Leap House*
- Penns Grove Municipal Building*
- River Walk Site 1*
- River Walk Site 2*

PENNS GROVE BOROUGH

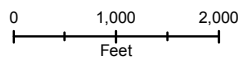
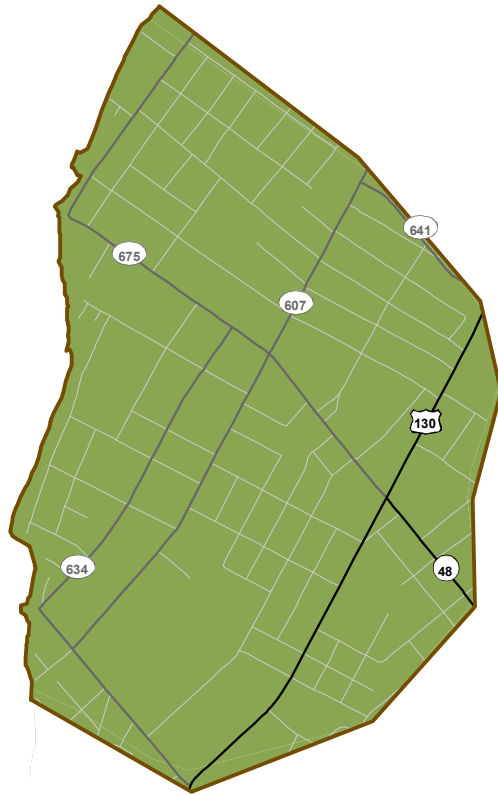
Zoning*

- Commercial, Office, Service
- Highway Commercial/Industrial
- Marina 1
- Marina 2
- Low Density Residential
- Medium Density Residential
- Multi-Family Residential



Sewer Service Areas

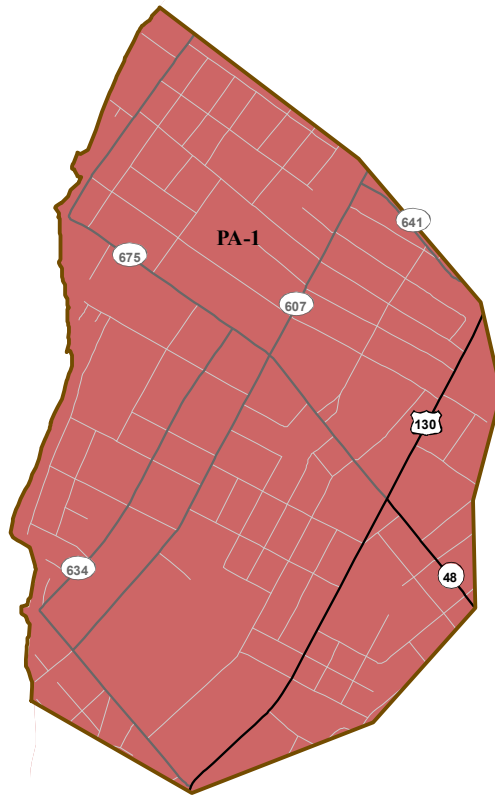
- Surface Water Discharge



PENNS GROVE BOROUGH

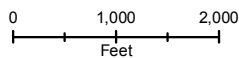
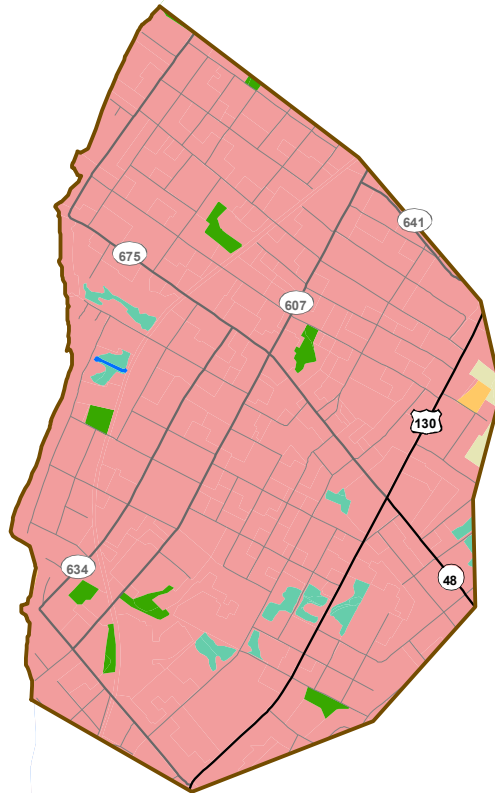
NJ State Planning Areas*

PA-1, Metro



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Wetlands



PENNS GROVE BOROUGH

Agriculture

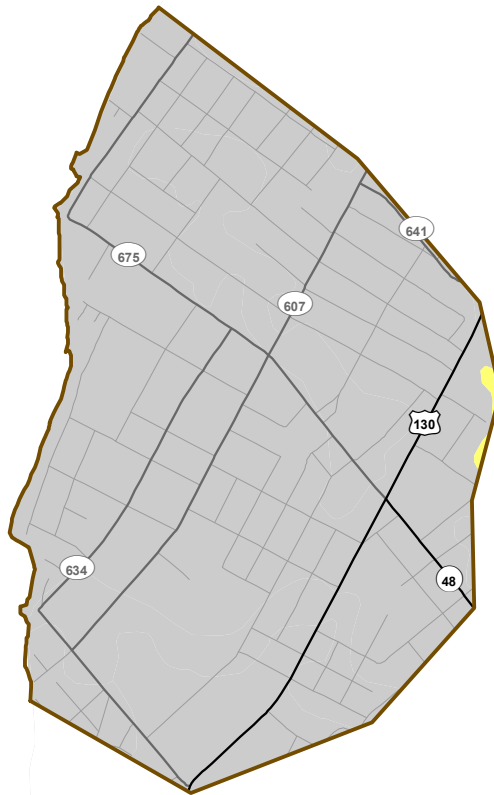
 Agricultural Development Area*

Currently, there are no "Agricultural Development Areas" within Salem City

Agricultural Quality of Soils[^]

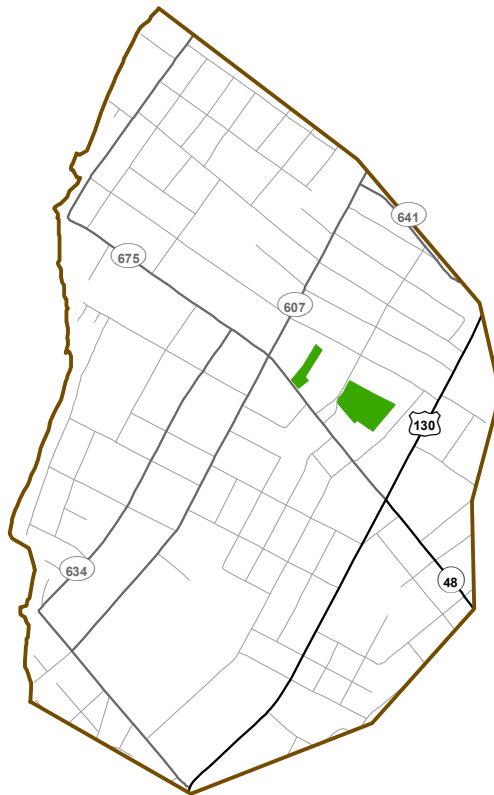
 Farmland of Statewide Importance

 Not Prime Farmland

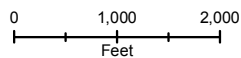


Preserved Land*

 Municipally Owned



Sources: *Salem County Department of Planning,
*NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



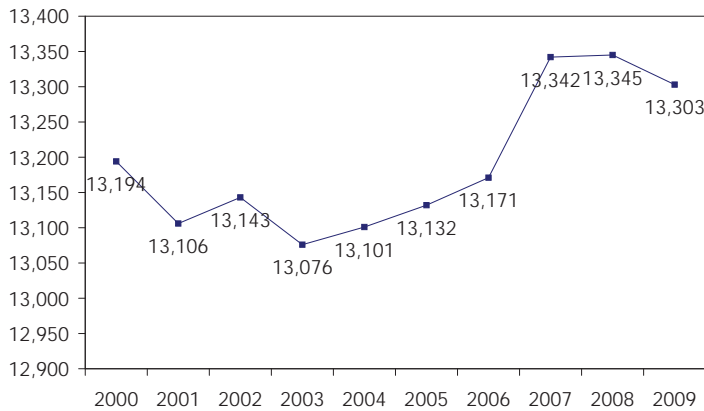
Pennsville Township

Area: 24.18 square miles; 15,475 acres

Population (2009): 13,303
persons per square mile: 552

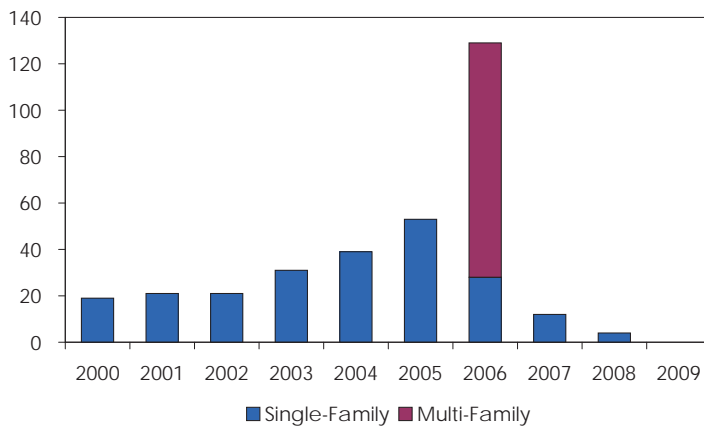
Population projection (2030): 13,112 (-233, -2%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



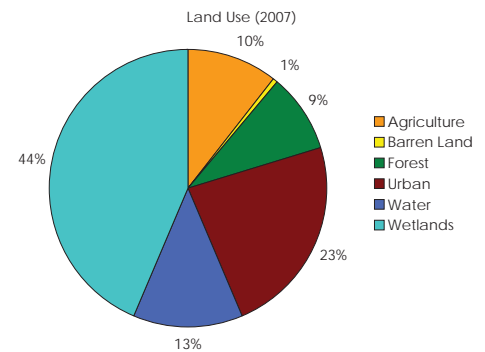
Source: NJ Dept of Labor and Workforce Development

2007 Employment: 3,751
 2030 Projected Employment: 4,248 (+497, +13%)
Source: SJTPO

Regional Location



Source: Wikipedia Encyclopedia



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(derived from the 2004 Cross Acceptance Report)

- PA 1 (Metropolitan), PA 4B (Rural/ES), & PA 5 (ES)
- Large acreage of environmentally sensitive land within the CAFRA jurisdiction
- Expand PA 1 to incorporate all sewer-ed areas
- Cluster new development into "development ready" zones where sewer capacity is available

Historic Places:

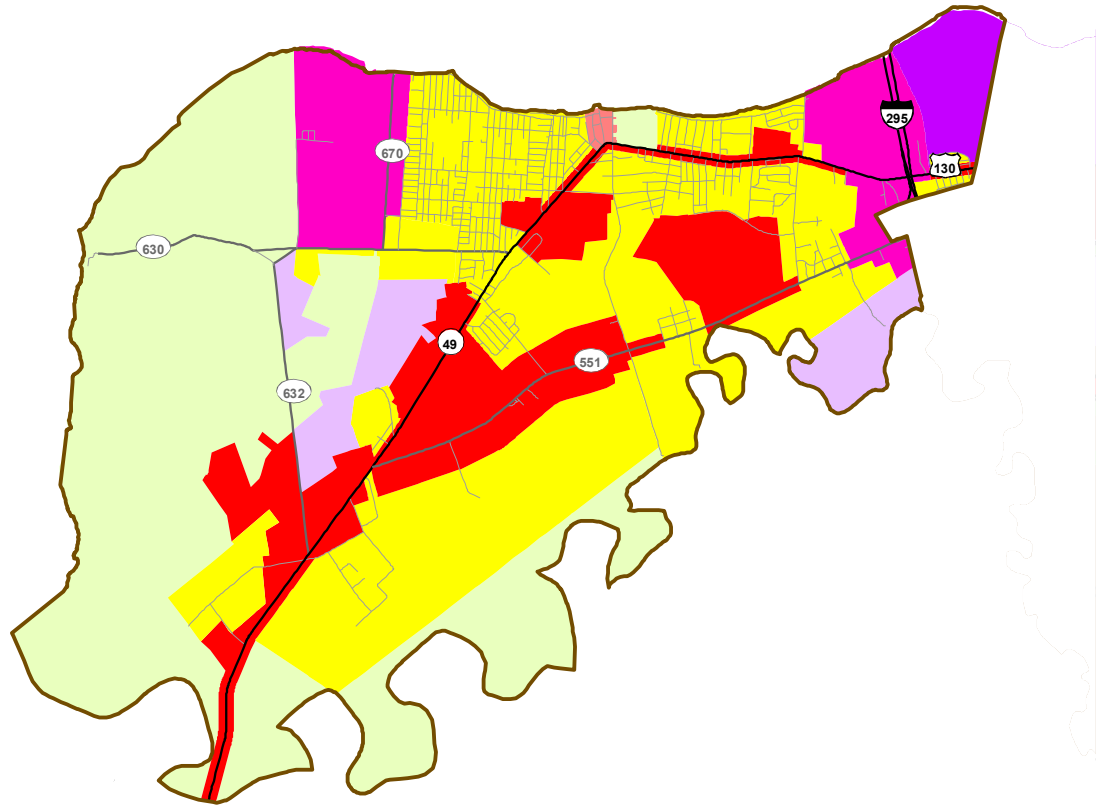
- Finn's Point Rear Range Light*
- Fort Mott & Finn's Point National Cemetery*
- Redstrake House*
- Penn's Neck Bridge*
- Samuel Urion / Yerkes Farmstead*

Salem County Transfer of Development Rights

PENNSVILLE TOWNSHIP

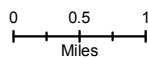
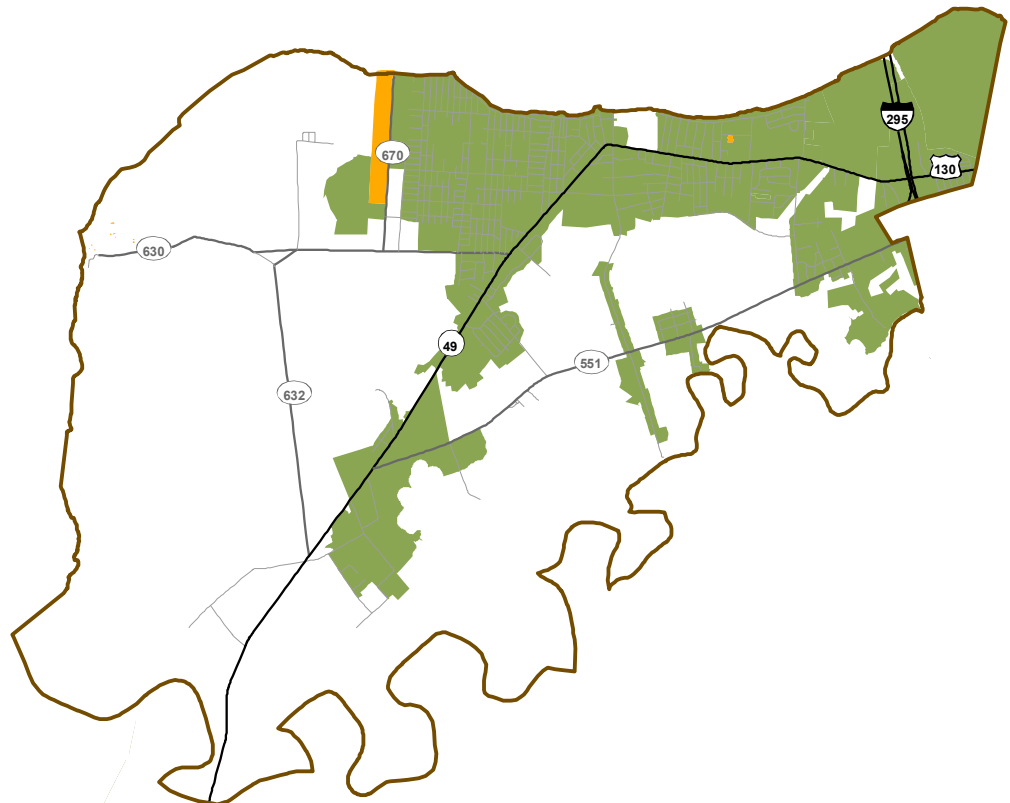
Zoning*

- Central Business District
- Commercial
- Conservation
- Heavy Industrial
- Light Industrial
- Mixed Use
- Residential



Sewer Service Areas

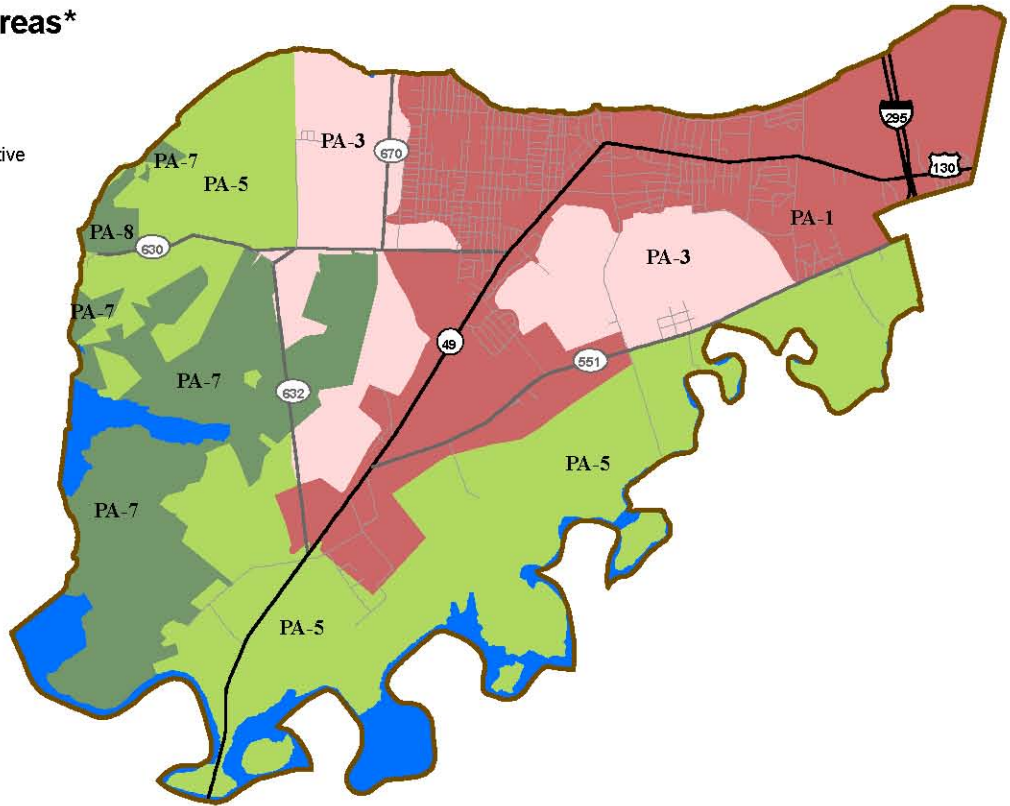
- Surface Water Discharge
- Ground Water Discharge



PENNSVILLE TOWNSHIP

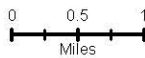
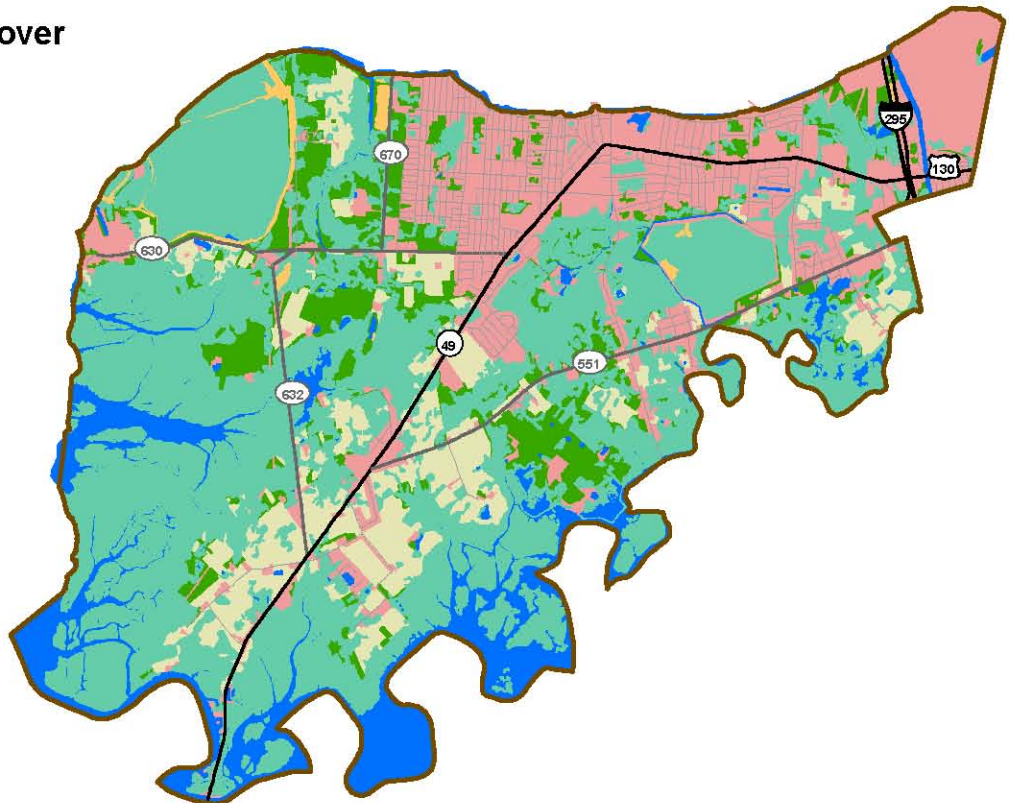
NJ State Planning Areas*

- PA-1, Metro
- PA-3, Fringe
- PA-5, Environmentally Sensitive
- PA-7, Park
- PA-8, Park
- Water



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



PENNSVILLE TOWNSHIP

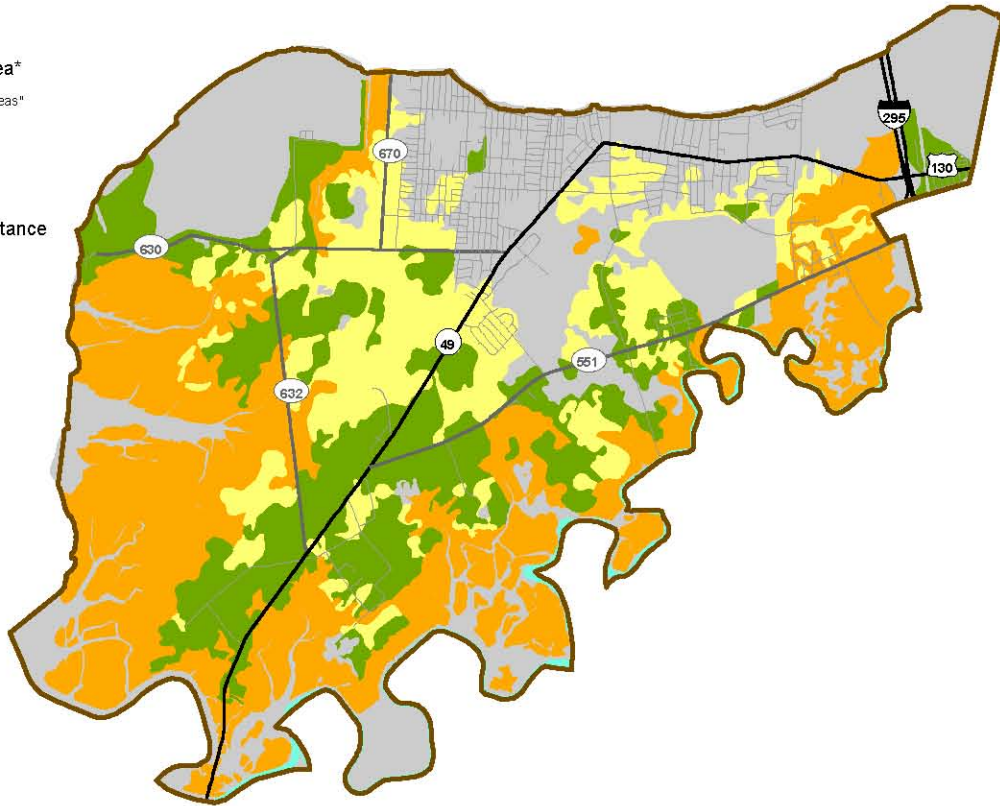
Agriculture

 Agricultural Development Area*

Currently, there are no *Agricultural Development Areas* within Salem City

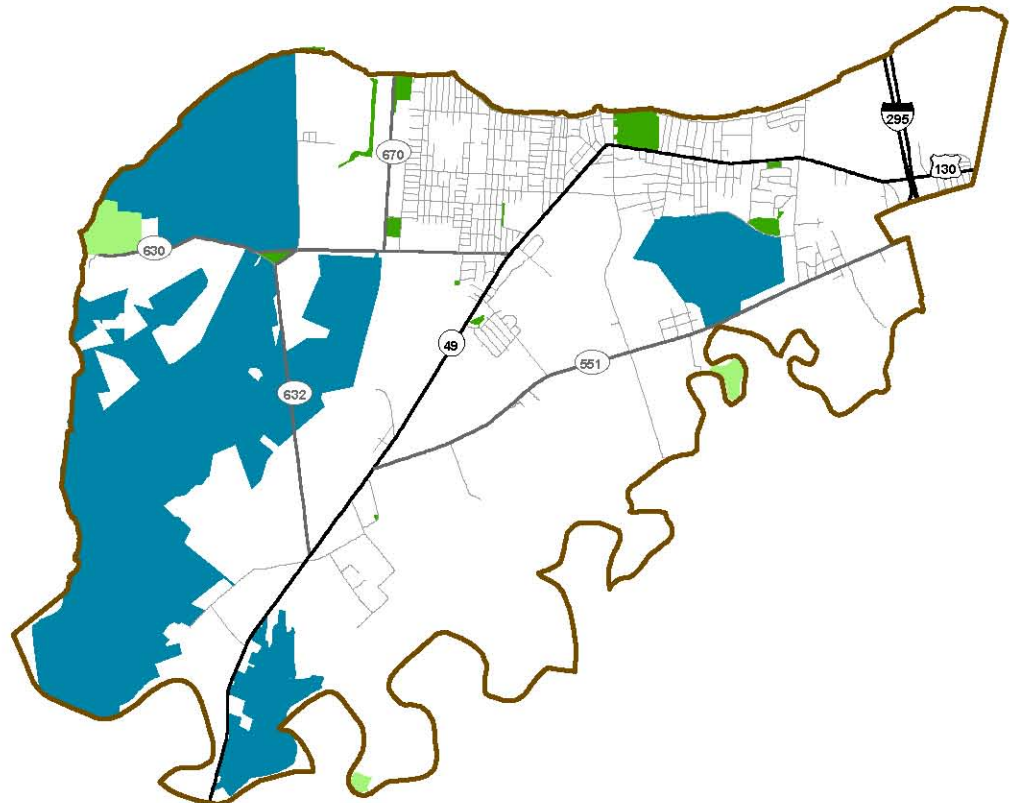
Agricultural Quality of Soils*

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

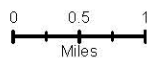


Preserved Land*

-  Federally Owned
-  State Owned
-  Municipally Owned



Sources: *Salem County Department of Planning,
 ^NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

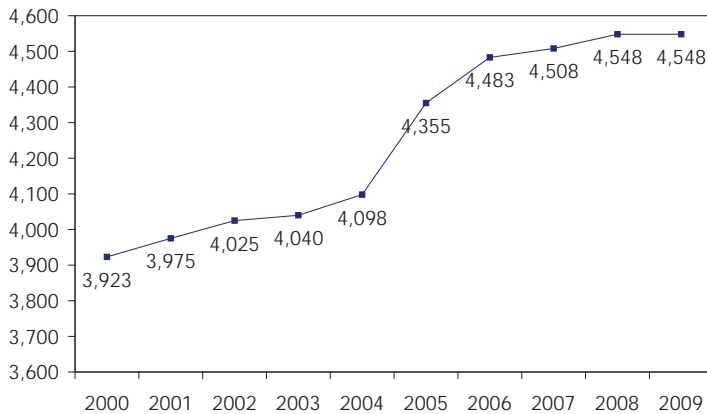


Pilesgrove Township

Area: 35.0 square miles; 22,415 acres

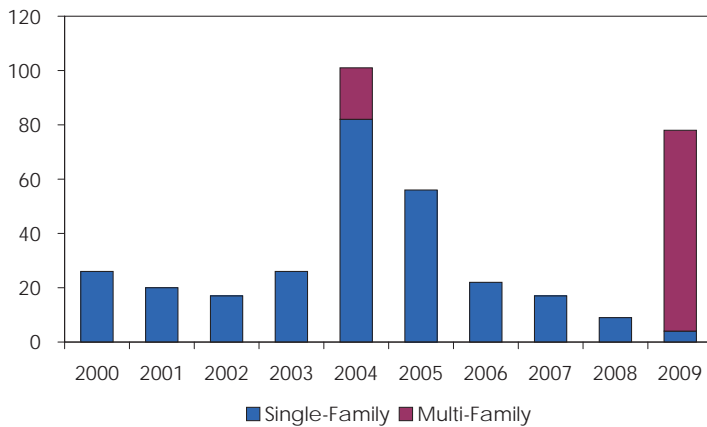
Population (2009): 4,548
Population projection (2030): 5,316 (+768, +17%)
 persons per square mile: 130
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	15,970	8,942	1,177,674
Under HUC 11 Nitrate Target (2 mg/L)	15,970	2,223	100,132

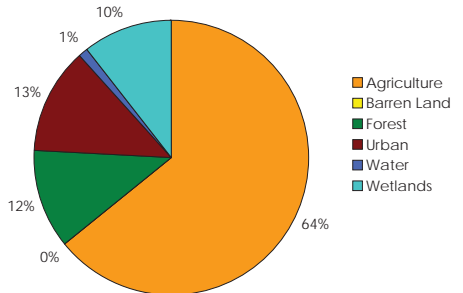
Source: Salem County Planning Department, 2010
 2007 Employment: 1,037
 2030 Projected Employment: 1,429 (+392, +38%)
 Source: SJTPO

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

- (as identified by the 2004 Cross Acceptance Report)
- PA 4A (Rural), & PA 4B (Rural/Env.- Sensitive)
 - Extend the Woodstown center into Pilesgrove
 - Cluster new development into the affordable housing and redevelopment zone

Historic Places:

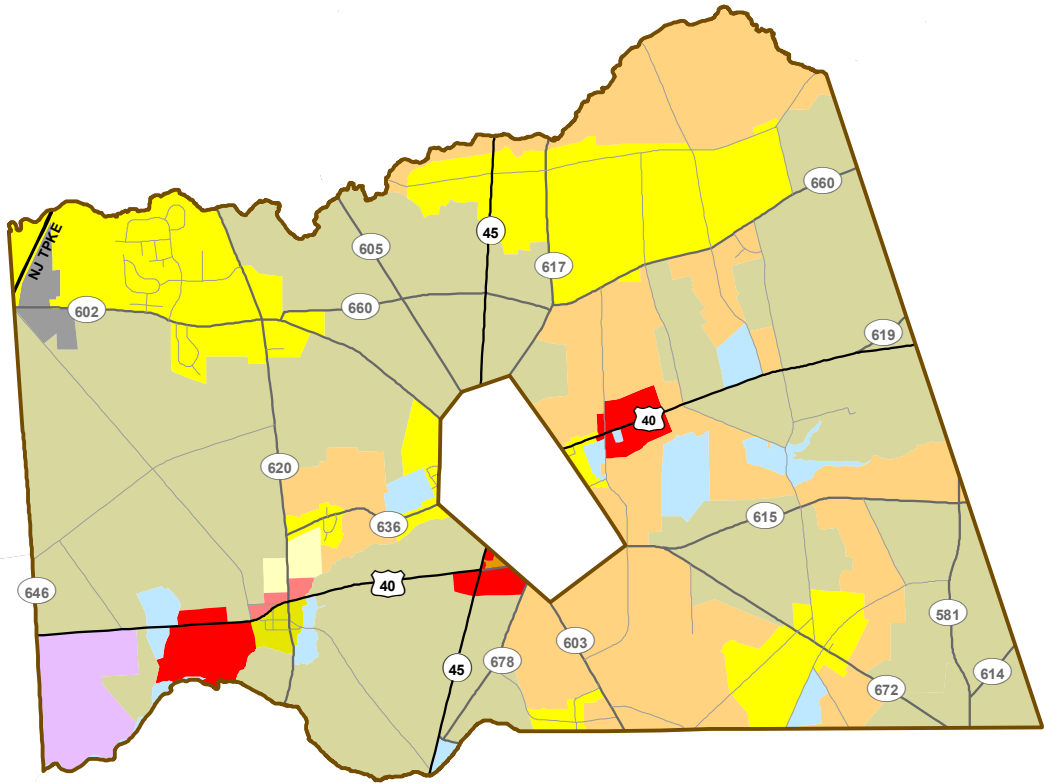
- Charles Engel Allen House*
- Samuel and Anne Bassett House*
- Champneys-Reed House*
- Zaccheus Dunn House*
- Railroad Under-Grade Bridge # 23.39*
- Seven Stars Tavern*

Salem County Transfer of Development Rights

PILESGROVE TOWNSHIP

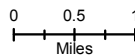
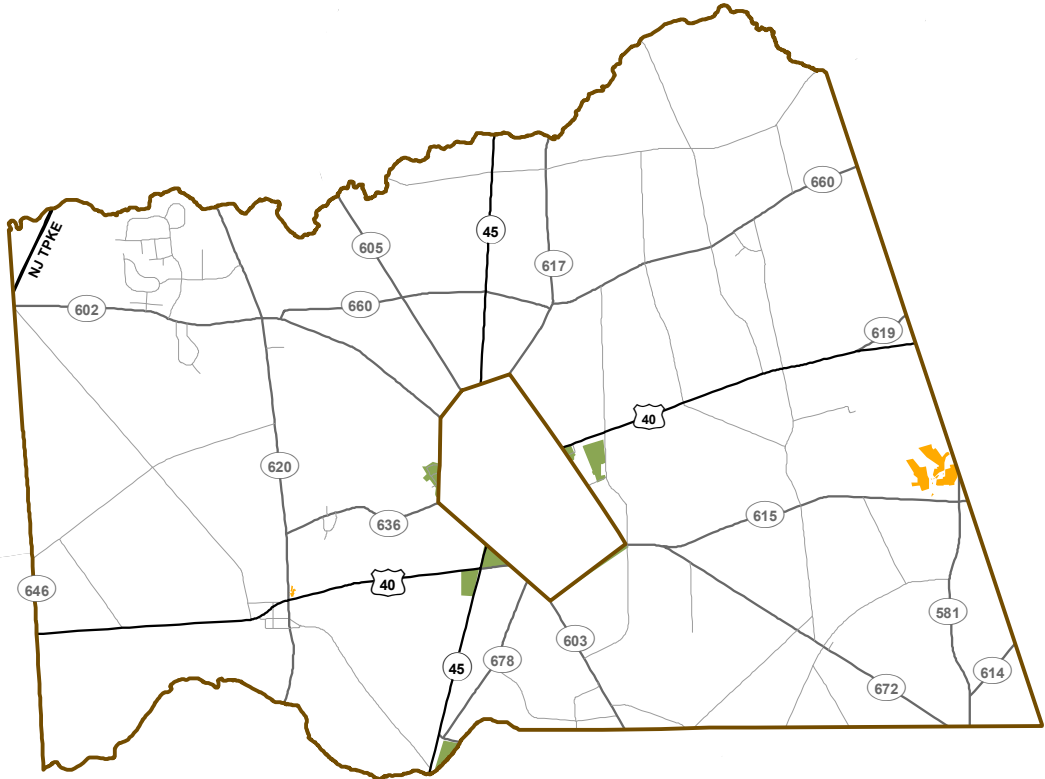
Zoning*

- Agriculture Retention
- Highway Commercial
- Neighborhood Commercial
- Planned Light Industrial
- Public, Parks, Education
- Planned Residential
- Residential
- Restricted Residential
- Affordable Housing
- Village Neighborhood
- Unknown



Sewer Service Areas

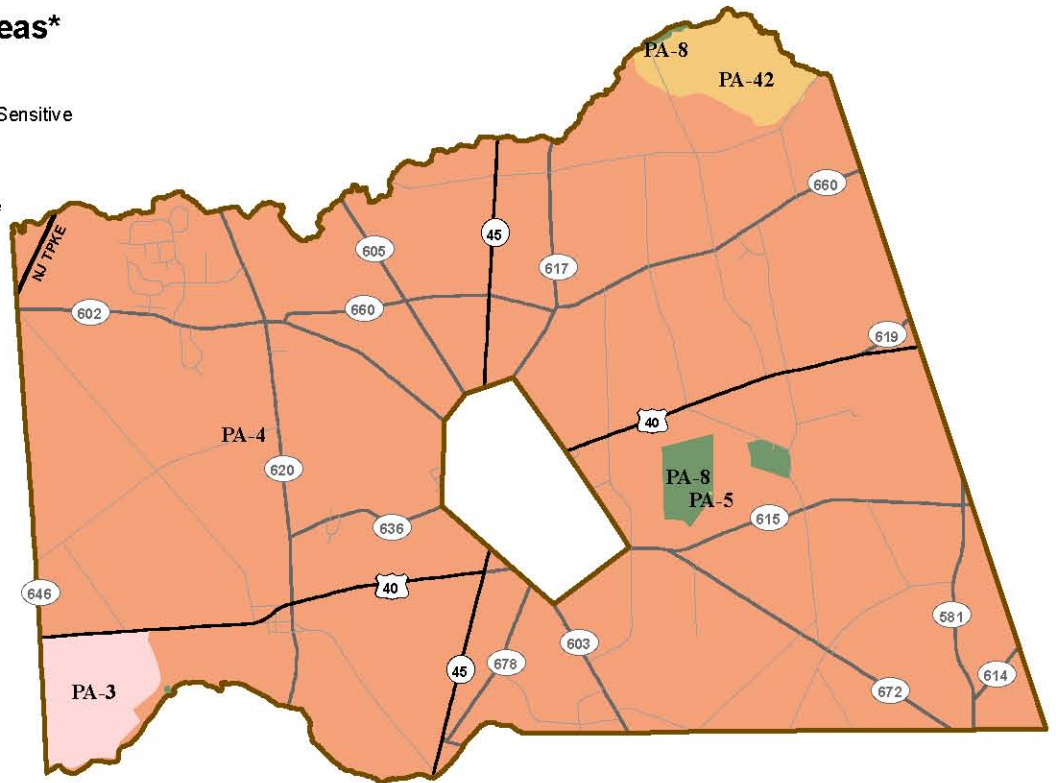
- Ground Water Discharge
- Surface Water Discharge



PILESGROVE TOWNSHIP

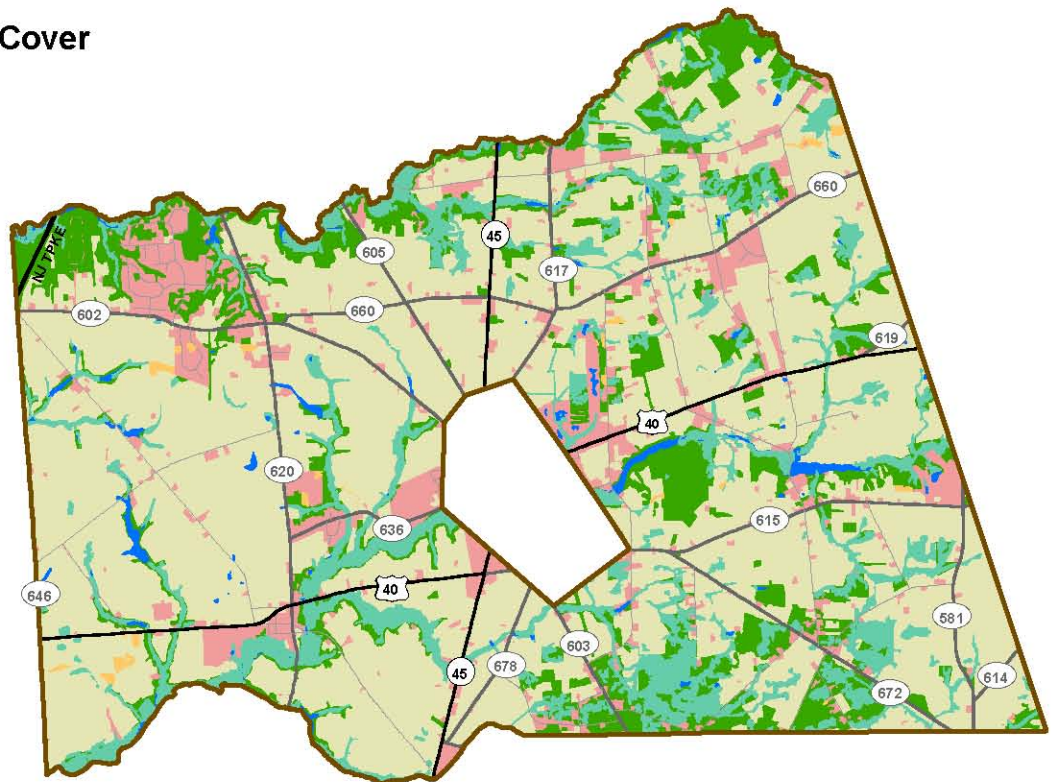
NJ State Planning Areas*

- PA-4, Rural
- PA-42, Rural Environmentally Sensitive
- PA-3, Fringe
- PA-5, Environmental Sensitive
- PA-8, Park

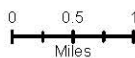


2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT

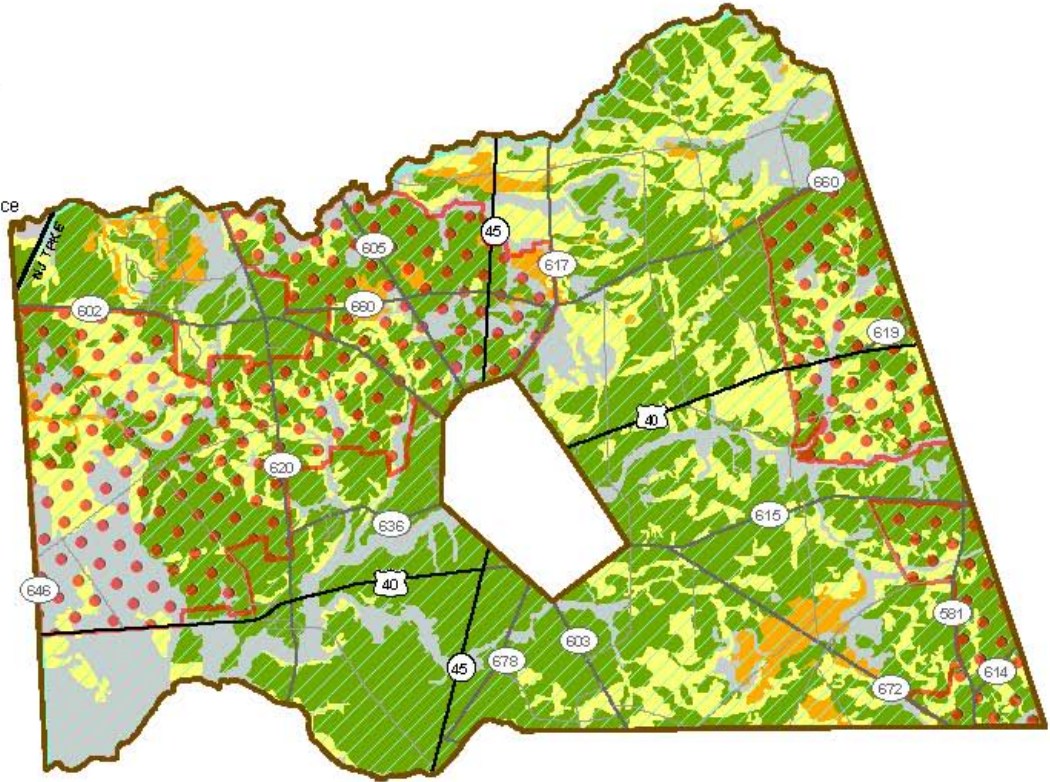


Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

PILESGROVE TOWNSHIP

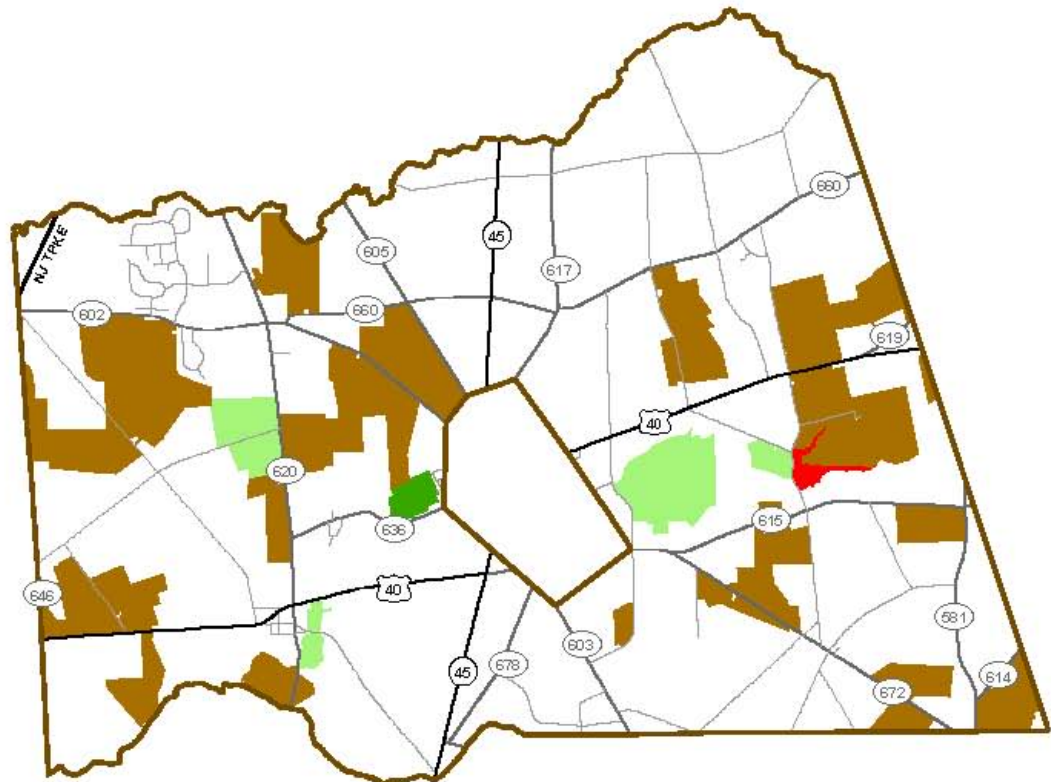
Agriculture

-  Municipal PIG Area*
-  Agricultural Development Area*
- Agricultural Quality of Soils***
-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

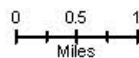


Preserved Land*

-  Preserved Farmland
-  State Owned
-  Municipally Owned
-  County Owned



Sources: *Salem County Department of Planning,
*NRCS, NJDEP, NJOT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

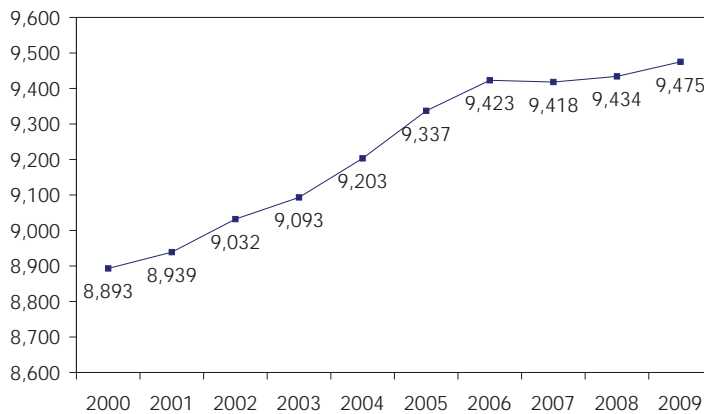


Pittsgrove Township

Area: 45.9 square miles; 29,395 acres

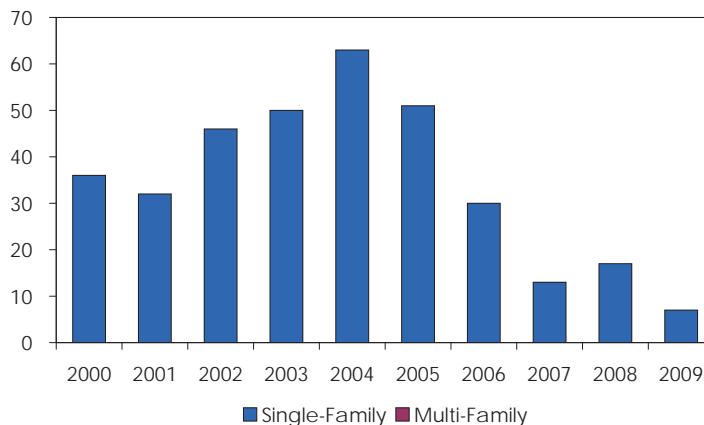
Population (2009): 9,475
Population projection (2030): 11,384 (+1,950, +21%)
 persons per square mile: 206
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	12,209	4,542	3,643,503
Under HUC 11 Nitrate Target (2 mg/L)	12,209	1,292	358,901

Source: Pittsgrove Township, 2010

2007 Employment: 3,018

2030 Projected Employment: 4,094 (+1,076, +36%)

Source: SJTPO

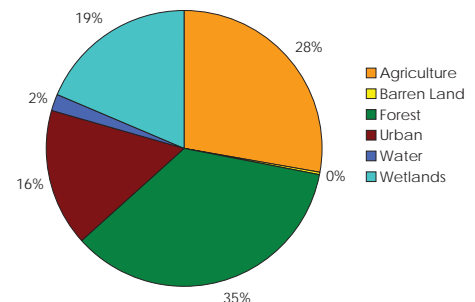
Salem County Transfer of Development Rights

Regional Location



(Source: Wikipedia Encyclopedia)

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4B (Rural/ES) with some areas PA 5 (ES)
- Preservation of natural environs is a high priority
- Development should be focused on Landis Ave.

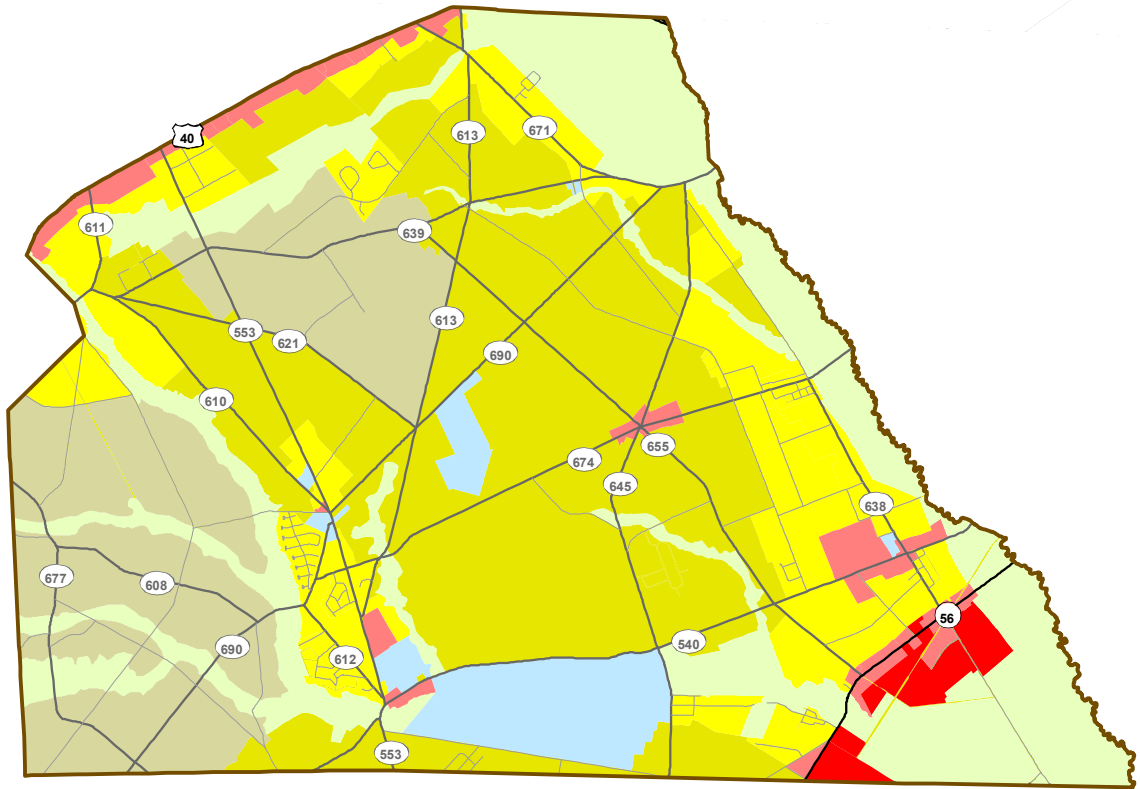
Historic Places:

- Alliance Historic District*
- CCC Cabins Historic District*
- Moshe Bayuk House*

PITTSGROVE TOWNSHIP

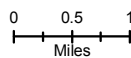
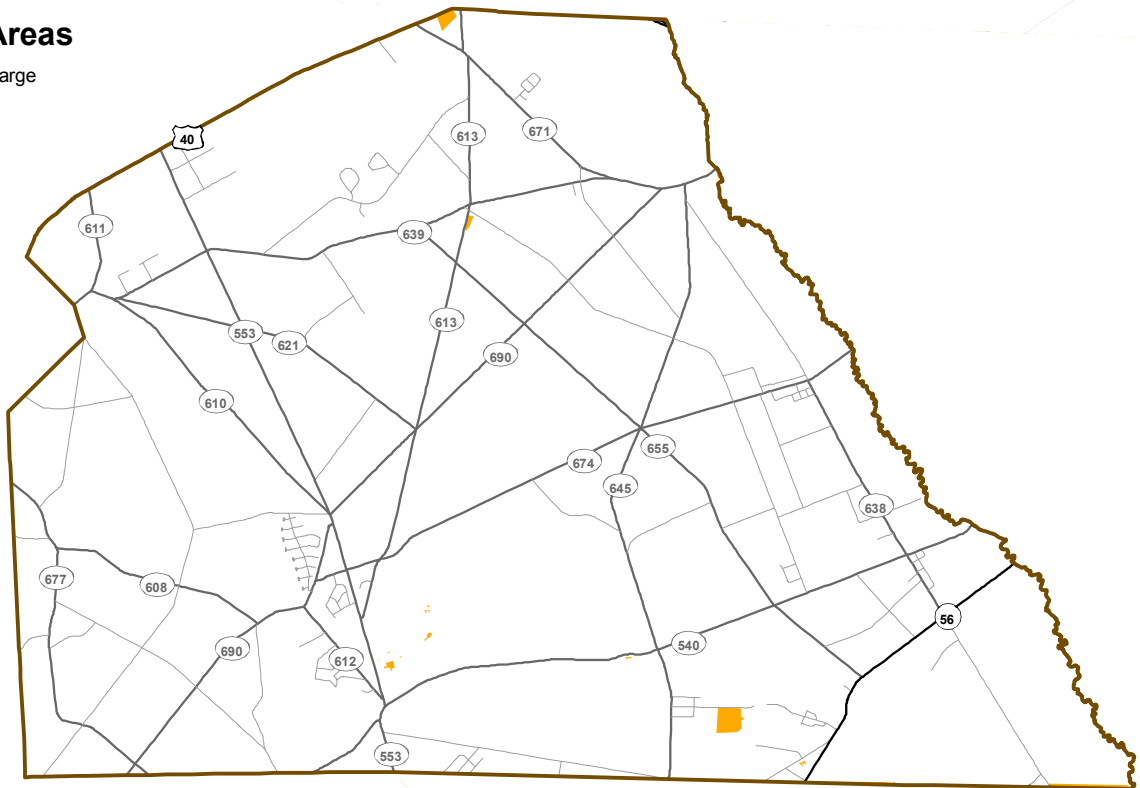
Zoning*

- Agriculture
- Business
- Industrial/Commercial
- Conservation
- Residential
- Rural Residential
- Public








Sewer Service Areas

- Ground Water Discharge



PITTSGROVE TOWNSHIP

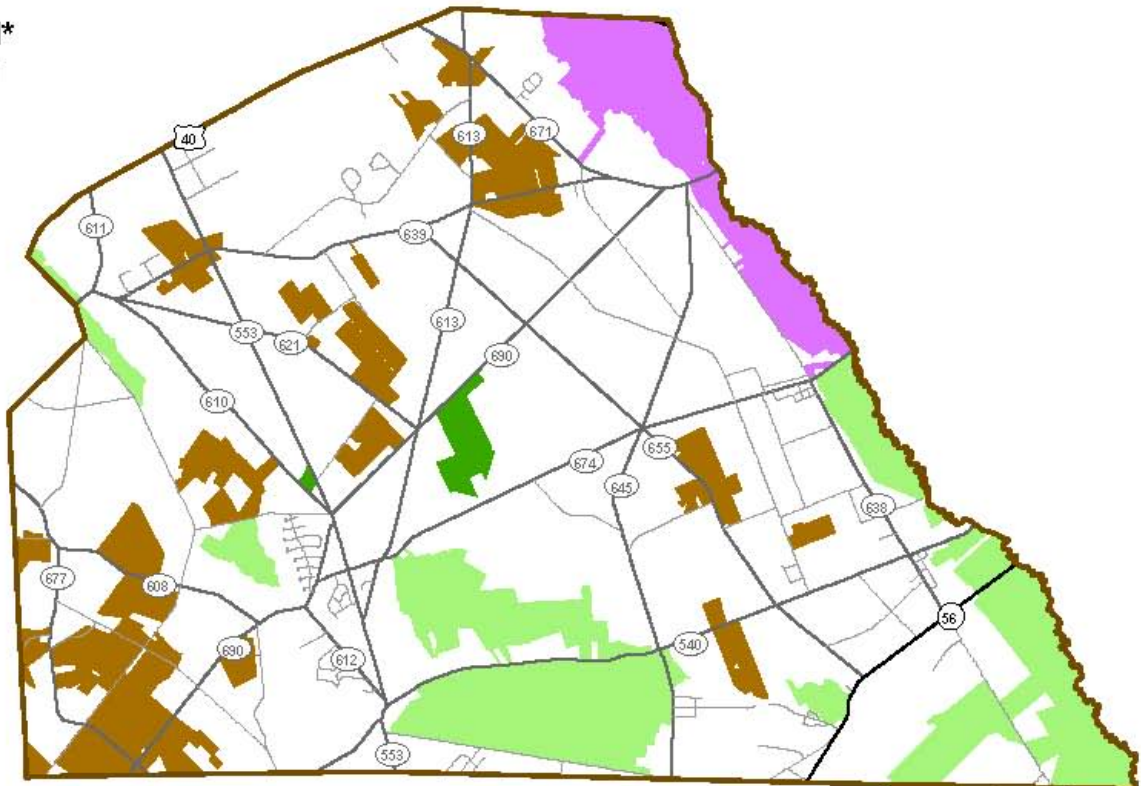
Agriculture

-  Municipal PIG Area*
-  Agricultural Development Area*
- Agricultural Quality of Soils***
-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

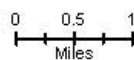


Preserved Land*

-  Preserved Farmland
-  State Owned
-  Municipally Owned
-  Nonprofit Owned



Sources: *Salem County Department of Planning,
*NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state authorized.



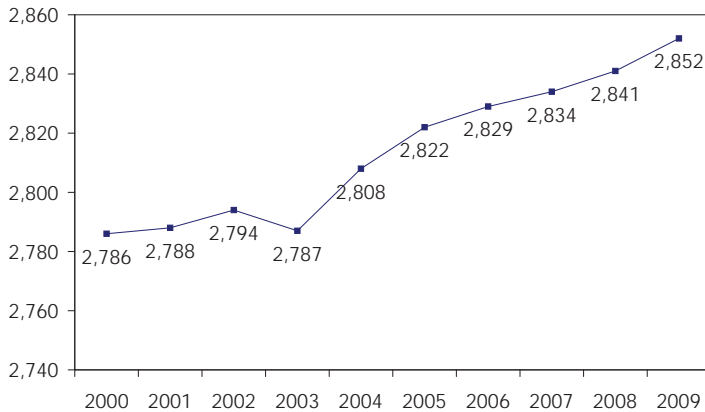
Quinton Township

Area: 24.55 square miles; 15,709 acres

Population (2009): 2,852
persons per square mile: 116

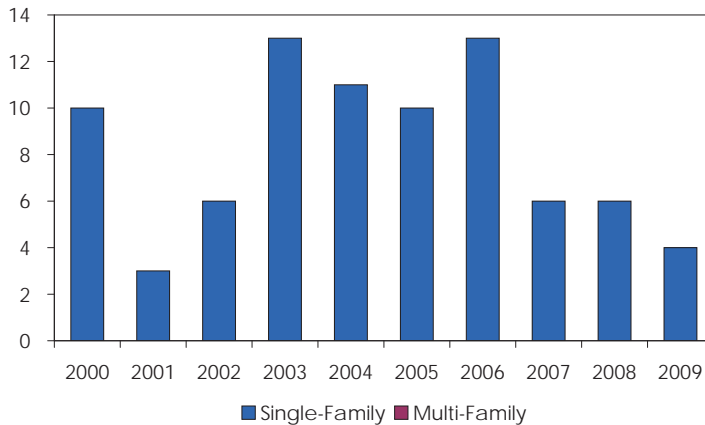
Population projection (2030):
2,982 (+141, +5%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	9,102	2,912	4,615,141
Under HUC 11 Nitrate Target (2 mg/L)	9,102	1,222	258,077

Source: Salem County Planning Department, 2010

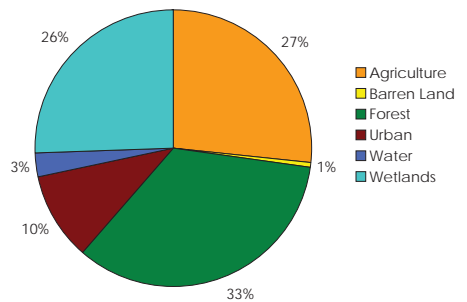
2007 Employment: 138
2030 Projected Employment: 164 (+26, +19%)
Source: SJTPO

Salem County Transfer of Development Rights

Regional Location



Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4A (Rural)
- Designate Quinton as a village center
- Cluster new ratables within this proposed center
- Preserve the Township's rural and natural environs

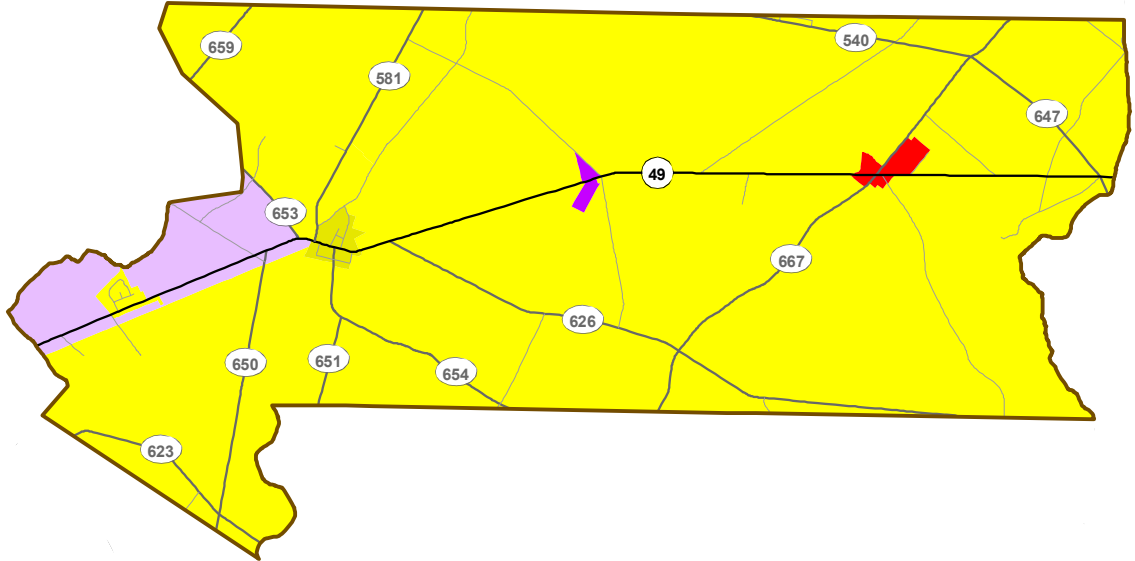
Historic Places:

New Bridge Road Bridge
NJ Route 49 Bridge

QUINTON TOWNSHIP

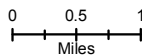
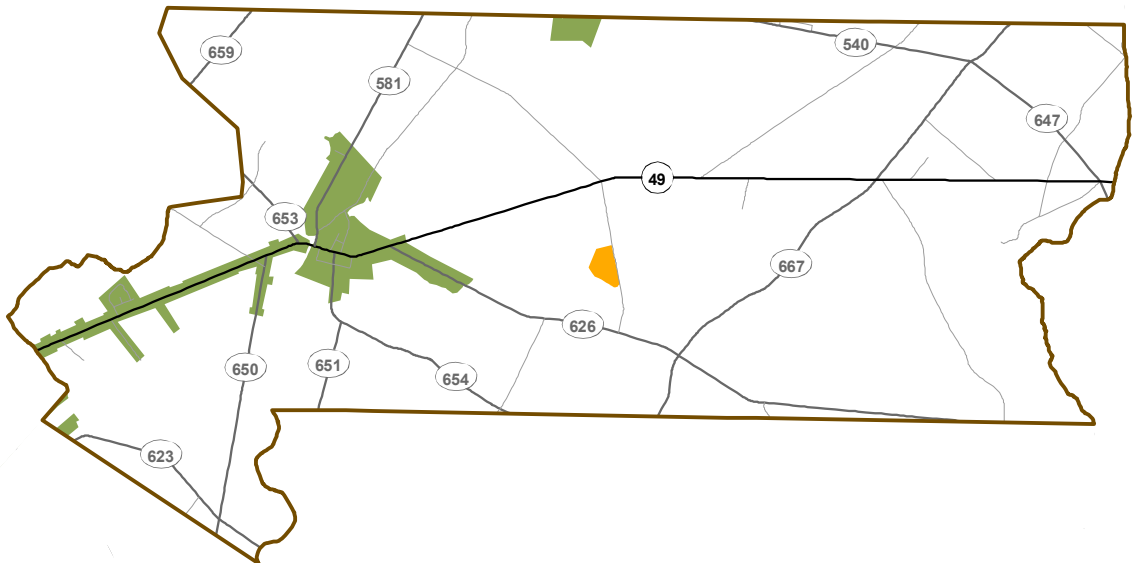
Zoning*

- Highway Commercial
- Light Industrial / Office
- Manufacturing
- Residential
- Village Residential



Sewer Service Areas

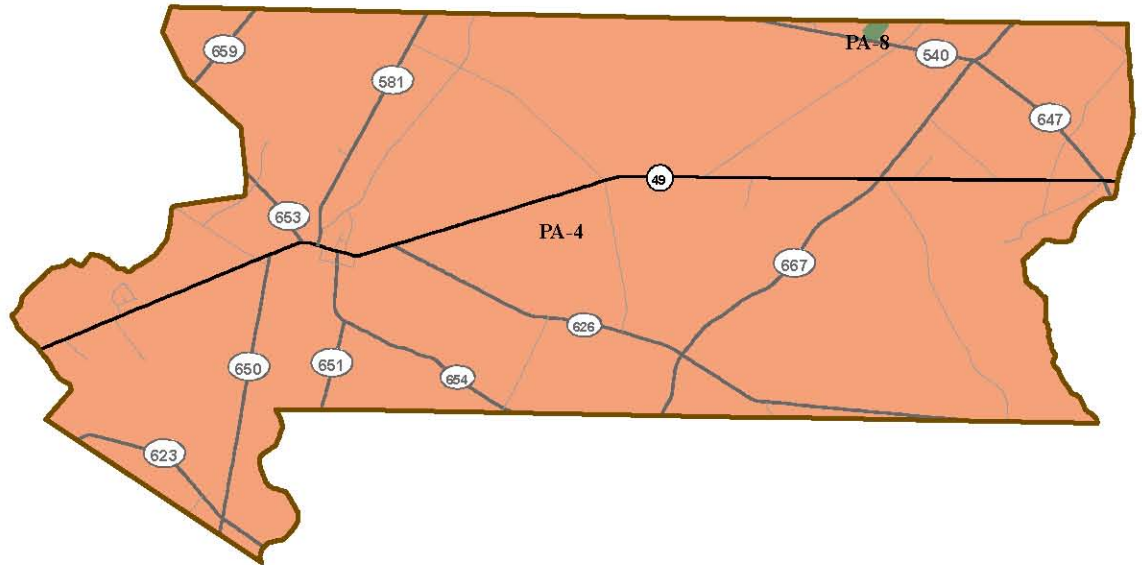
- Surface Water Discharge
- Ground Water Discharge



QUINTON TOWNSHIP

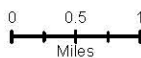
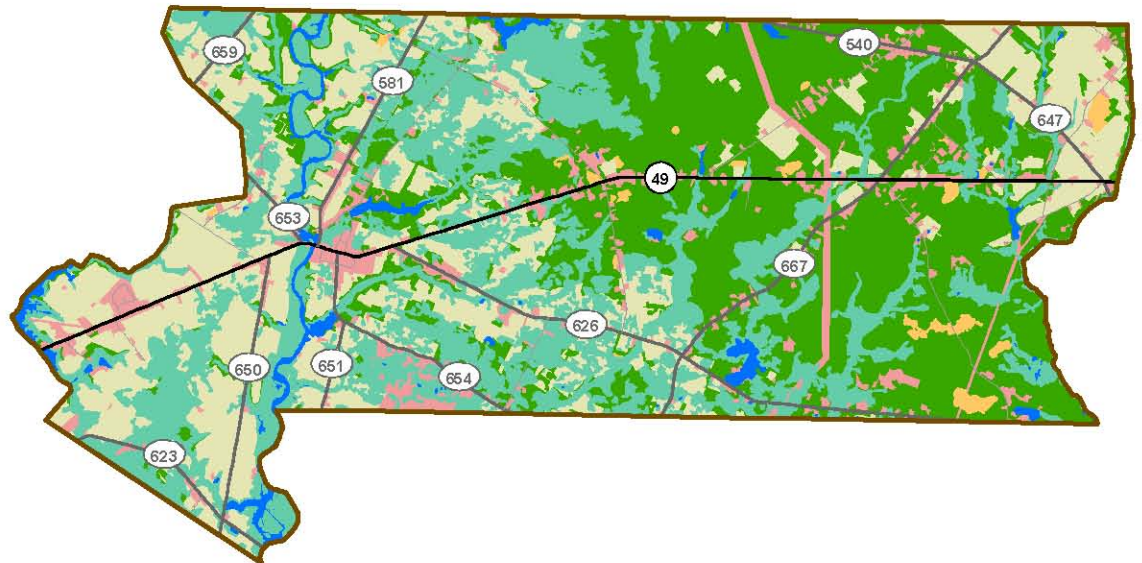
NJ State Planning Areas*

- PA-4, Rural
- PA-8, Park



2007 Land Use/ Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



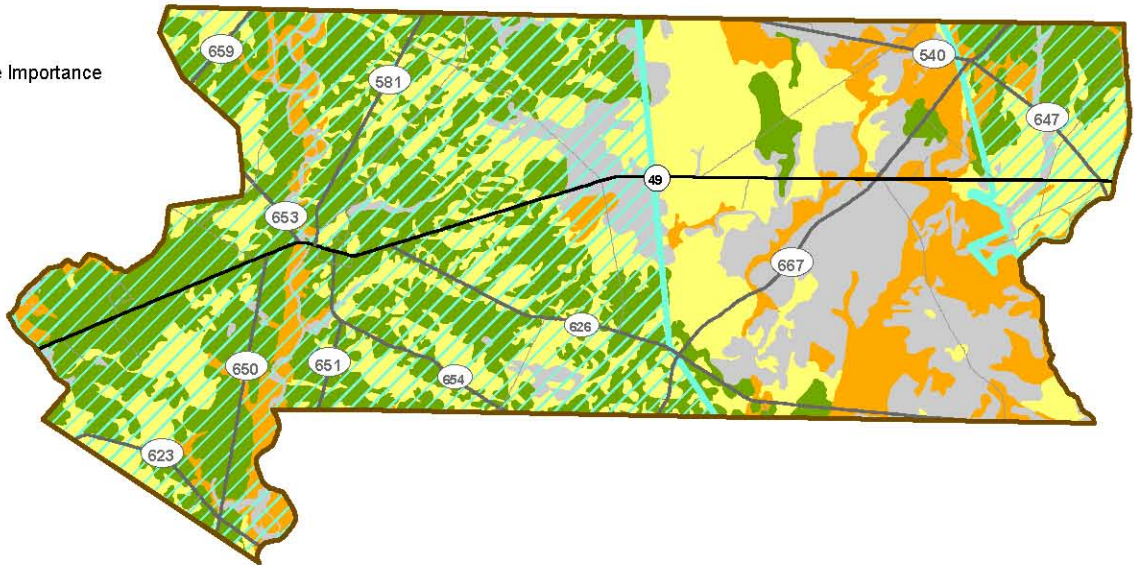
QUINTON TOWNSHIP

Agriculture

 Agricultural Development Area*

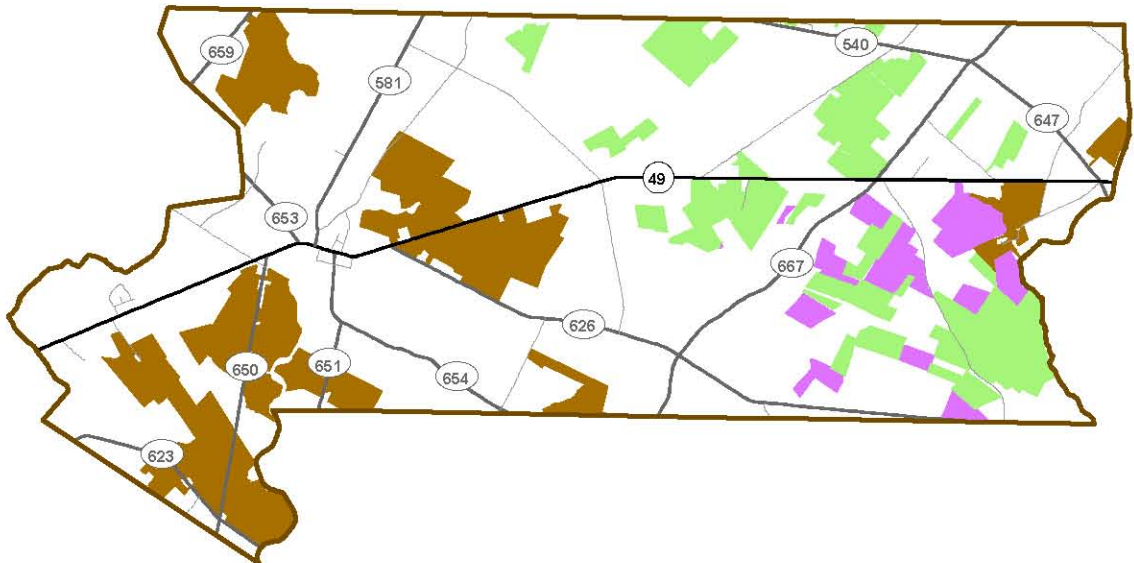
Agricultural Quality of Soils[^]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

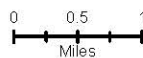


Preserved Land*

-  Preserved Farmland
-  Nonprofit Owned
-  State Owned



Sources: *Salem County Department of Planning,
[^]NRCS, NJDEP, NJOIT, NJDOT



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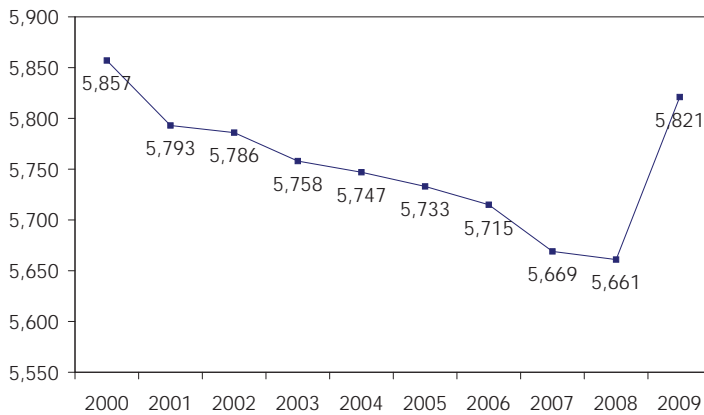
Salem City

Area: 2.8 square miles; 1,792 acres

Population (2009): 5,821
persons per square mile: 2,022

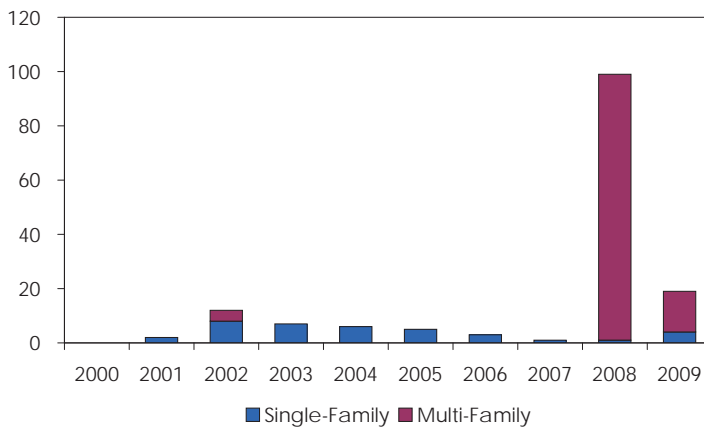
Population projection (2030):
5,562 (-99, -2%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

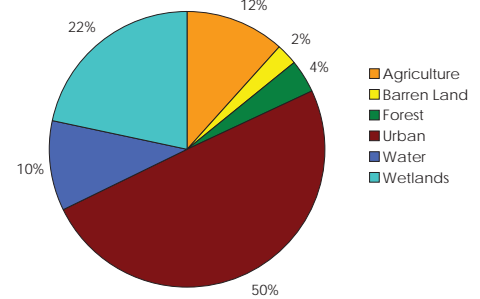
2007 Employment: 2,987
2030 Projected Employment: 3,306 (+319, +11%)
Source: SJTPO

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4a (Rural)
- Regional Center designation- 1999
- Requesting upgrade to PA1 (Metropolitan)
- Requesting funds for redevelopment activities & infrastructure improvements to warrant upgrade

Historic Places:

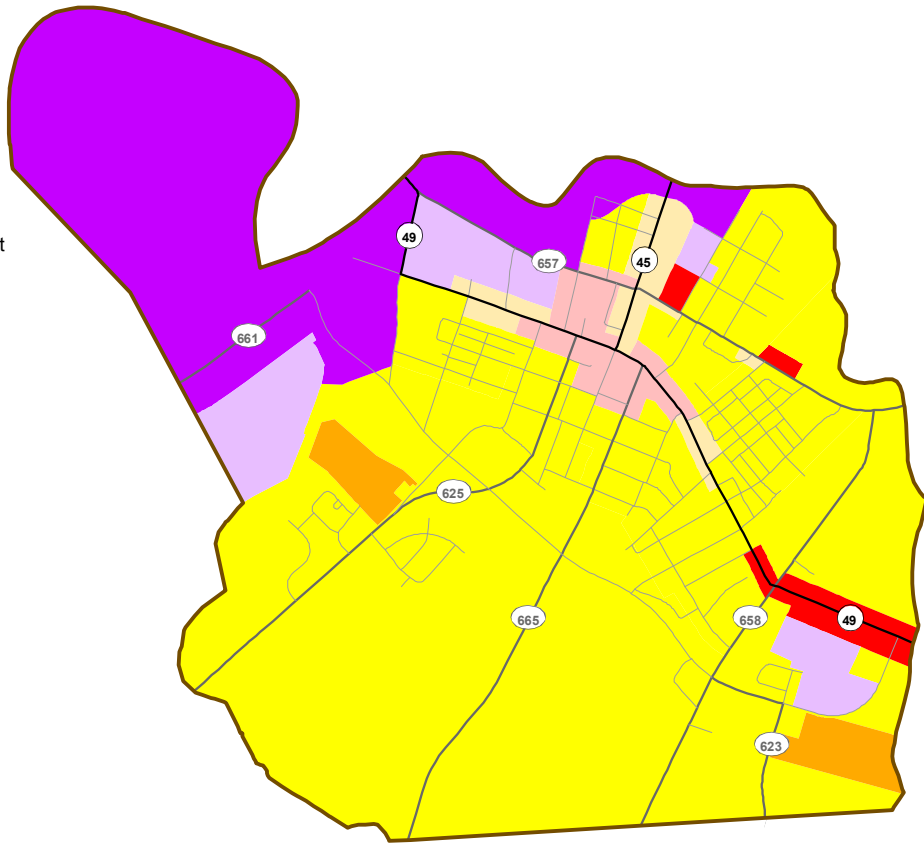
- Broadway Historic District*
- Chestnut Street Streetscape*
- Hedge-Carpenter-Thompson Historic District*
- Market Street Historic District*
- Oak Street Streetscape*
- Rebecca A. & John G. Garwood Residence*
- Penns Neck Bridge*
- Salem Armory*
- Salem Working Class Historic District*
- Telegraph Building*
- Walnut Street Streetscape*

Salem County Transfer of Development Rights

SALEM CITY

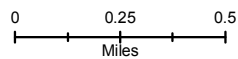
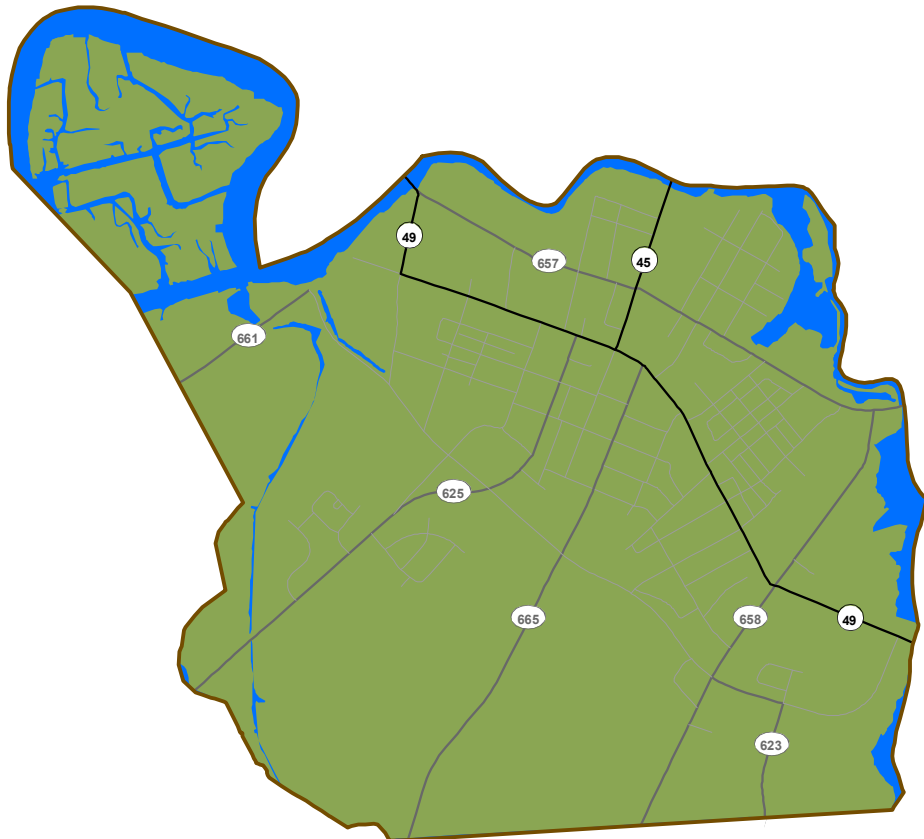
Zoning*

- General Commercial
- Retail Commercial
- General Manufacturing
- Light Manufacturing
- Planned Apartment Overlay District
- Residential - Limited Commercial
- Residential



Sewer Service Areas

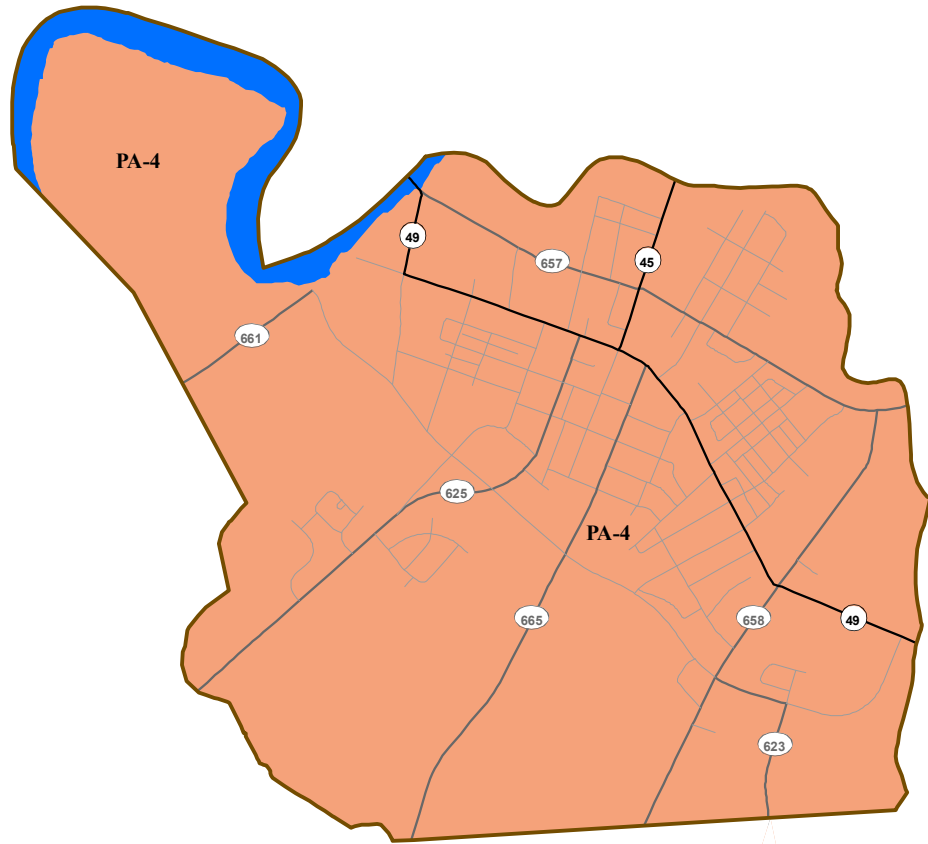
- Surface Water Discharge
- Water



SALEM CITY

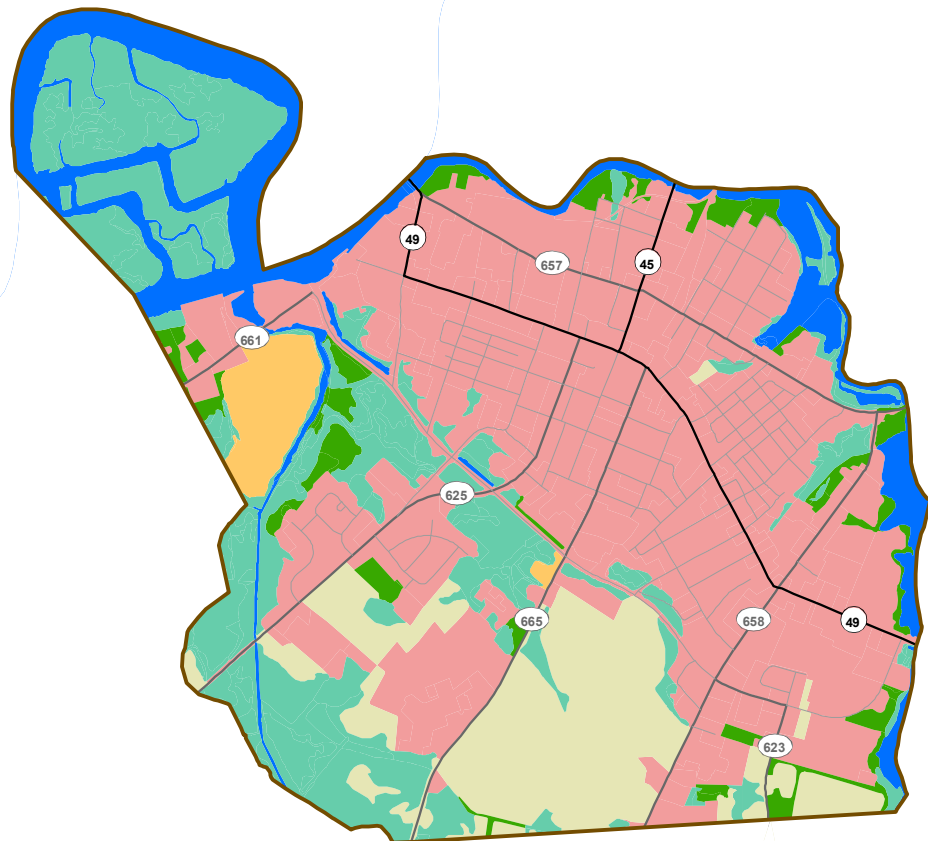
NJ State Planning Areas*

- PA-4, Rural
- Water

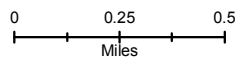


2007 Land Use/ Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



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SALEM CITY

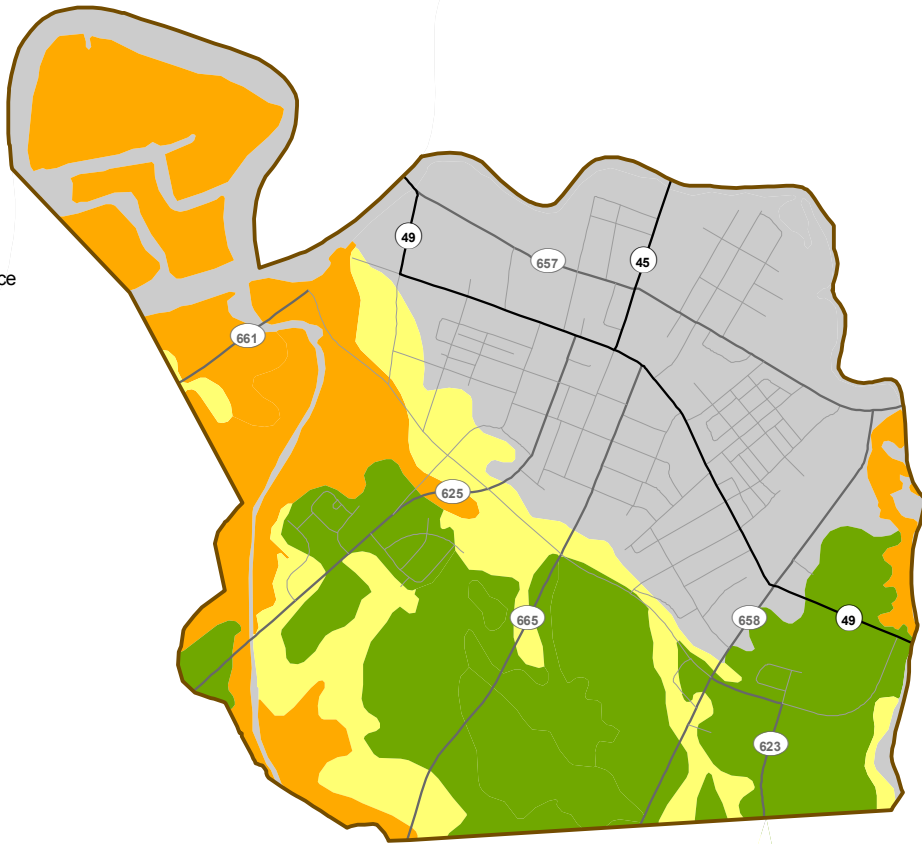
Agriculture

 Agricultural Development Area*

Currently, there are no "Agricultural Development Areas" within Salem City

Agricultural Quality of Soils^

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland

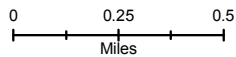


Preserved Land

Currently, there is no "Preserved Land" within Salem City



Sources: *Salem County Department of Planning,
^NRCS, NJDEP, NJOIT, NJDOT



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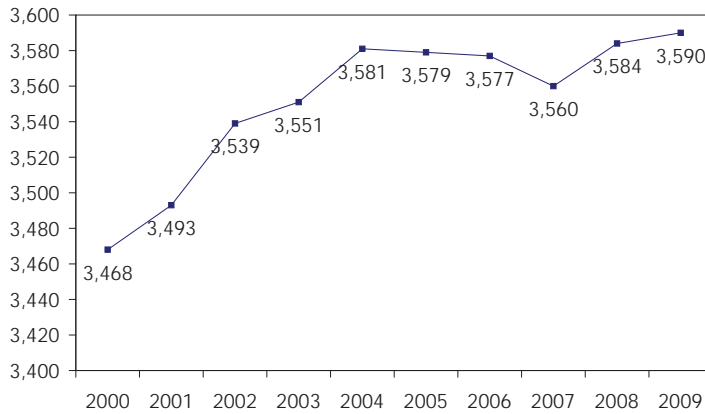
Upper Pittsgrove Township

Area: 40.5 square miles; 25,894 acres

Population (2009): 3,590
persons per square mile: 88

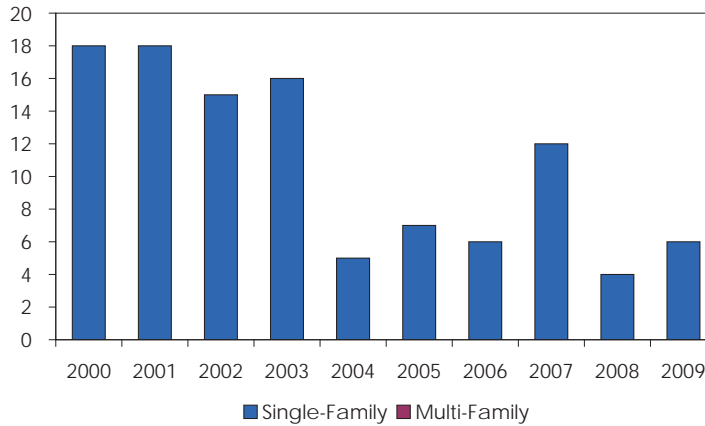
Population projection (2030):
4,375 (+791, +22%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

Buildout Analysis

	Buildable Acres	Units	Commercial square feet
Under Existing Zoning	17,499	6,634	6,958,594
Under HUC 11 Nitrate Target (2 mg/L)	17,499	2,499	473,713

Source: Salem County Planning Department, 2010

2007 Employment: 907

2030 Projected Employment: 1,227 (+320, +35%)

Source: SJTPO

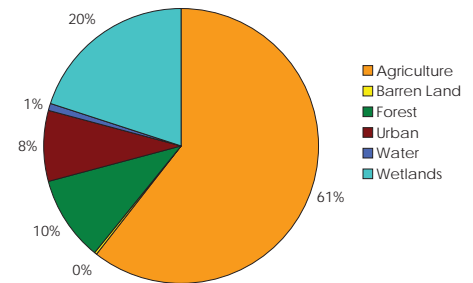
Salem County Transfer of Development Rights

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4B (Rural/ES) and PA 5 (Env. Sensitive)
- Farmland preservation is important to ensure the Township's land use vision
- Daretown and Monroeville are proposed centers

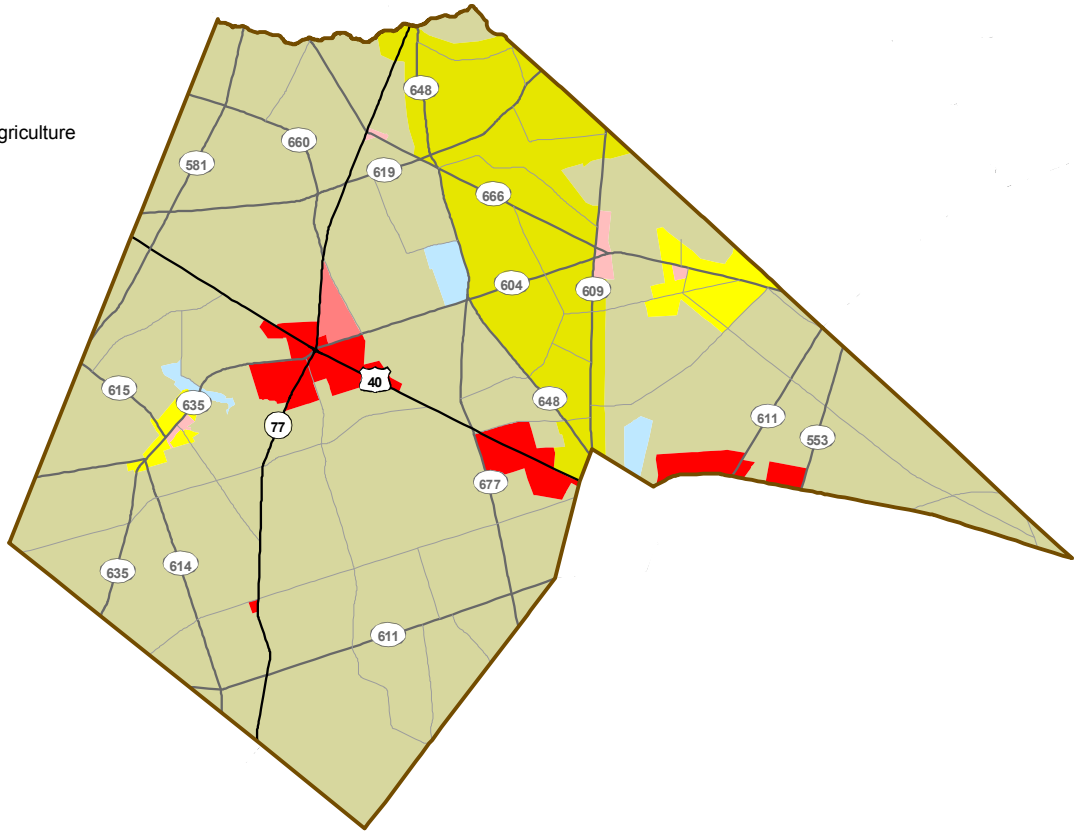
Historic Places:

- 26 Daretown-Alloway Road*
- Greenberg Farm Complex*
- Mayhew-Johnson-Lippincott House*
- Pittsgrove Presbyterian Church*

UPPER PITTSBURGH TOWNSHIP

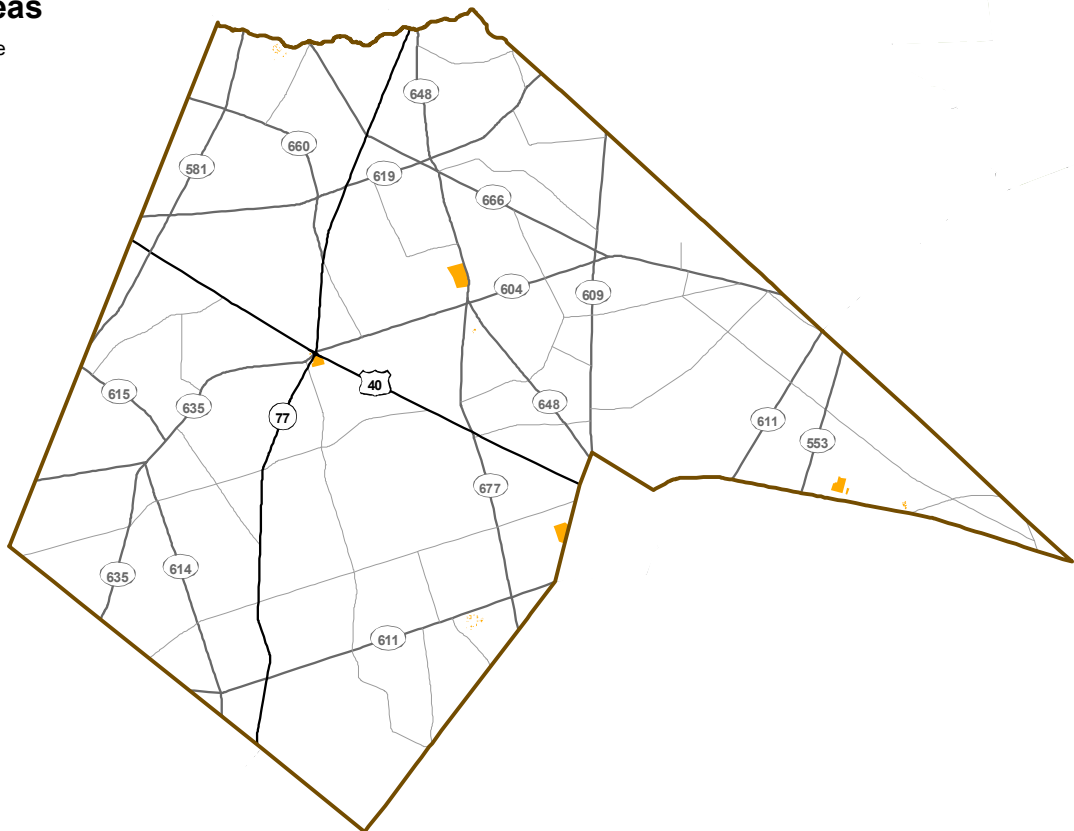
Zoning*

- Agriculture
- Low Density Residential/Agriculture
- Village Residential
- Highway Business
- Business
- Village Business
- Public

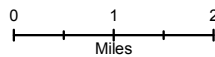


Sewer Service Areas

- Ground Water Discharge



Sources: *Salem County Department of Planning, NJDEP, NJOIT, NJDOT

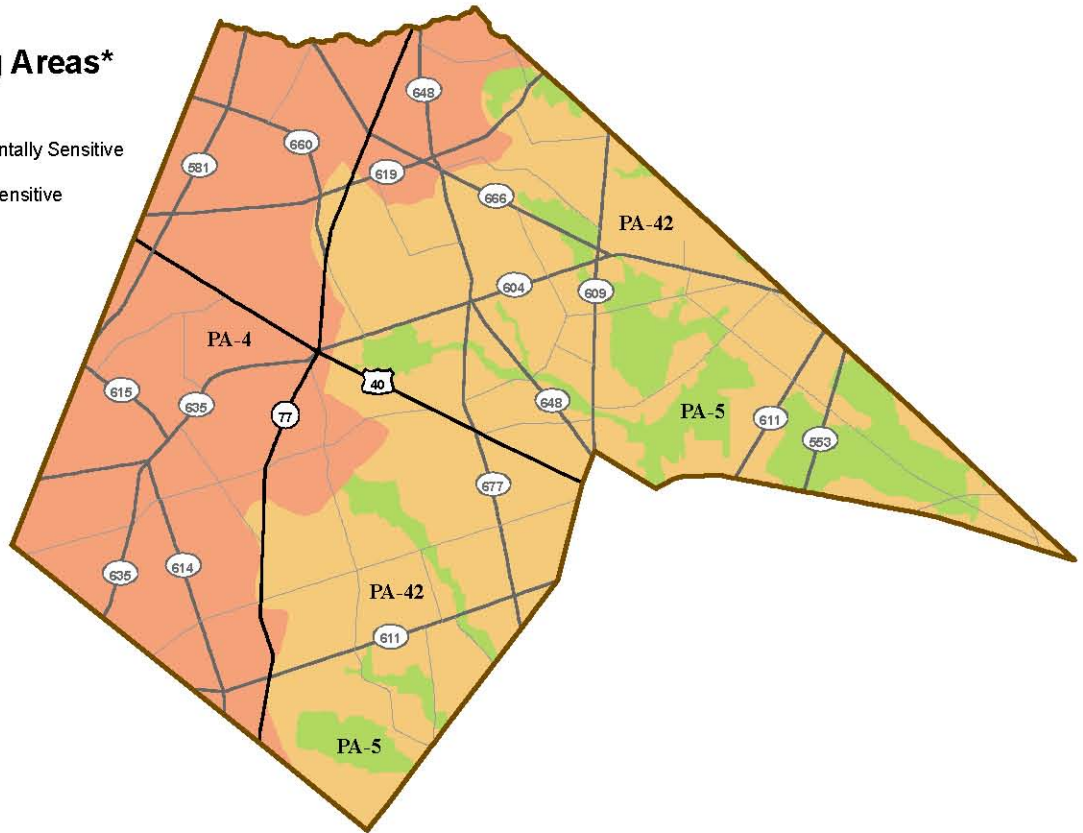


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UPPER PITTSBORO TOWNSHIP

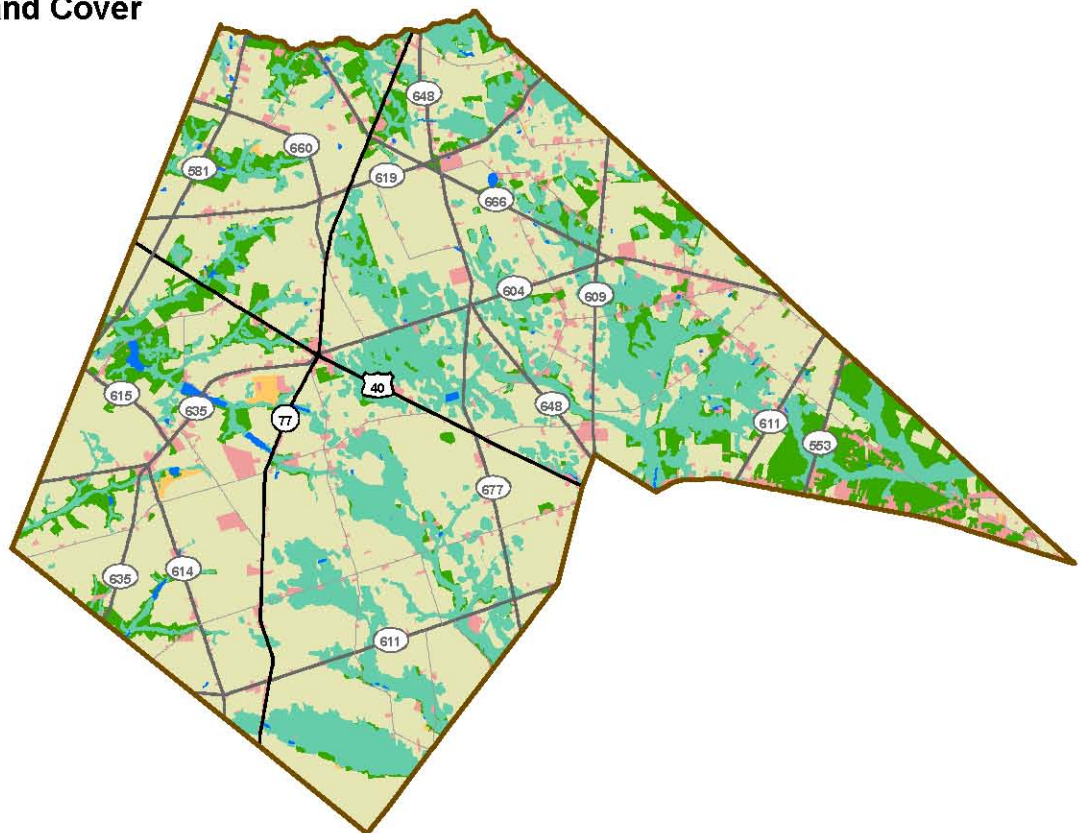
NJ State Planning Areas*

- PA-4, Rural
- PA-42, Rural Environmentally Sensitive
- PA-5, Environmentally Sensitive



2007 Land Use/Land Cover

- Agriculture
- Barren Land
- Forest
- Urban
- Water
- Wetlands




Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT



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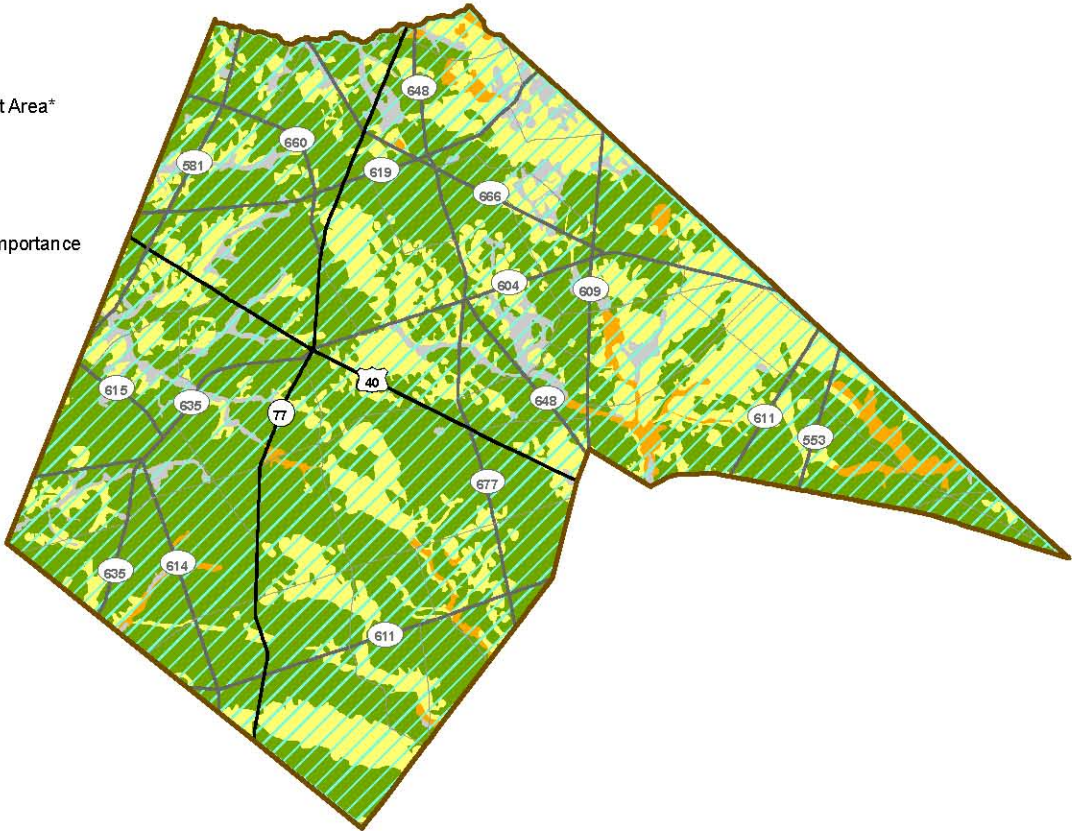
UPPER PITTSBORO TOWNSHIP

Agriculture



 Agricultural Development Area*

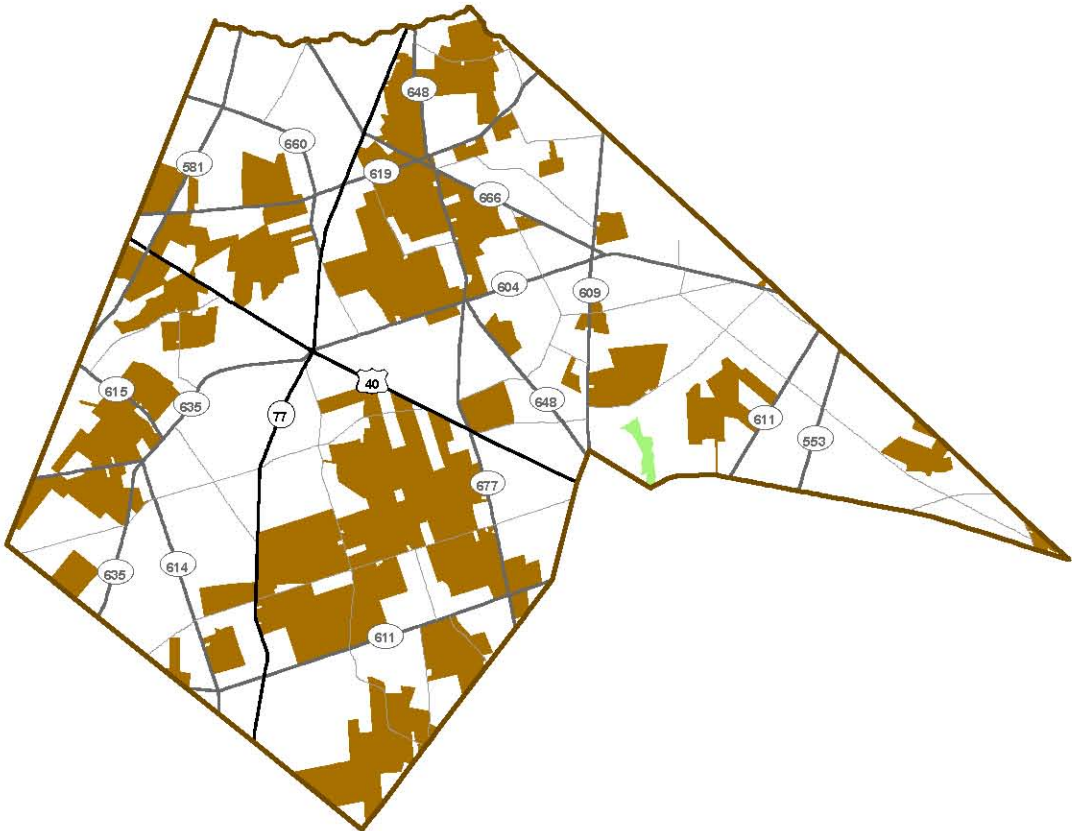
Agricultural Quality of Soils[▲]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Unique Farmland
-  Not Prime Farmland



Preserved Land*

-  Preserved Farmland
-  State Owned



Sources: *Salem County Department of Planning, [▲]NRCS, NJDEP, NJOIT, NJDOT



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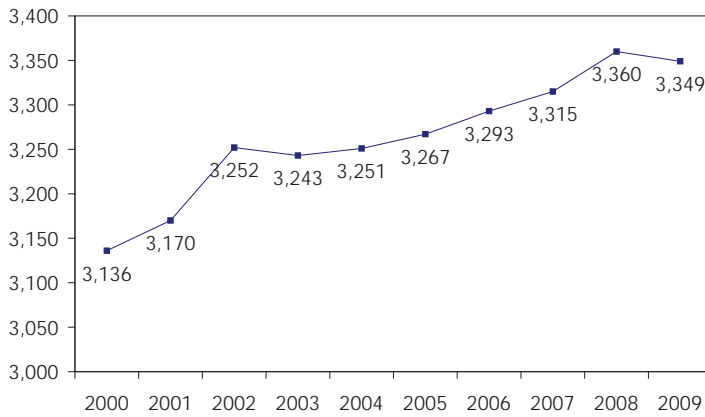
Woodstown Borough

Area: 1.62 square miles; 1,036 acres

Population (2009): 3,349
persons per square mile: 2,074

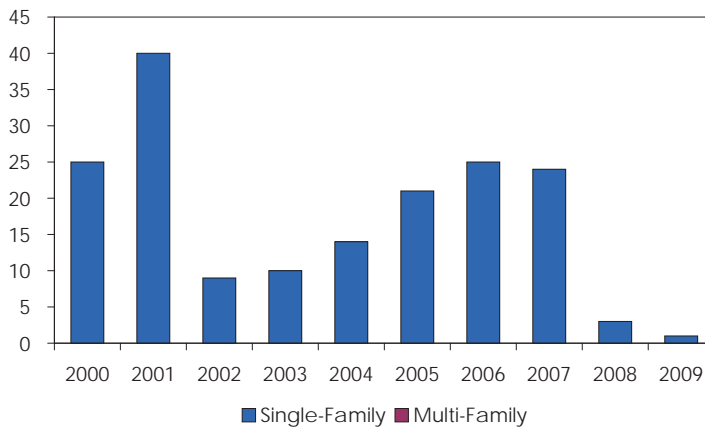
Population projection (2030):
4,045 (+685, +20%)
Source: SJTPO

Population, 2000-2009



Source: US Census Bureau

Residential Building Permits Authorized, 2000-2009



Source: NJ Dept of Labor and Workforce Development

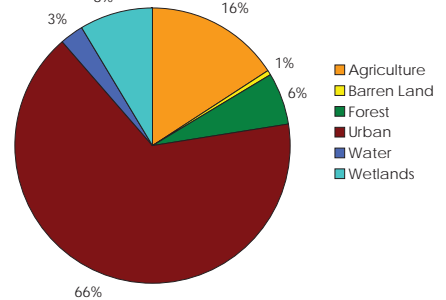
2007 Employment: 1,651
2030 Projected Employment: 2,263 (+612, +37%)
Source: SJTPO

Regional Location



Source: Wikipedia Encyclopedia

Land Use (2007)



Source: NJDEP

Municipal Land Use Planning Summary and Goals:

(as identified by the 2004 Cross Acceptance Report)

- PA 4A (Rural)
- Regional Center designation- 1993
- Maintain and enhance scenic, rural character
- Preserve and enhance historical resources
- Multimodal circulation via walking, biking paths

Historic Places:

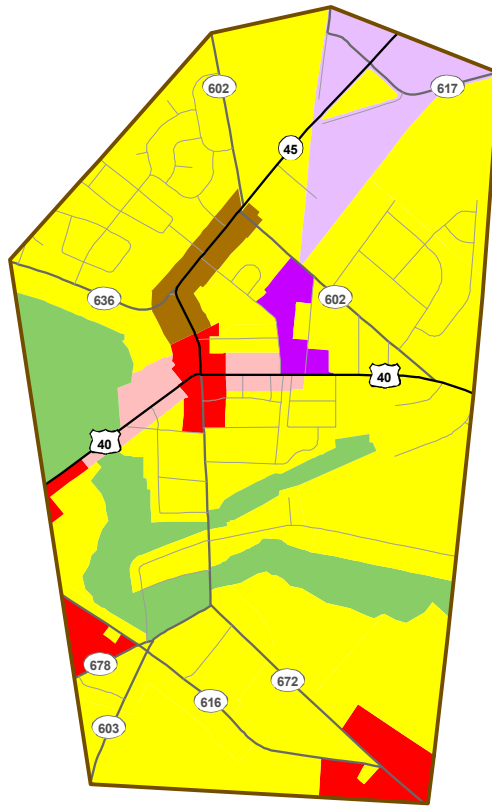
James and Mary Lawson House
Joseph Shinn House
South Woodstown Historic District
Woodstown Town Center Commercial Historic District

Salem County Transfer of Development Rights

WOODSTOWN BOROUGH

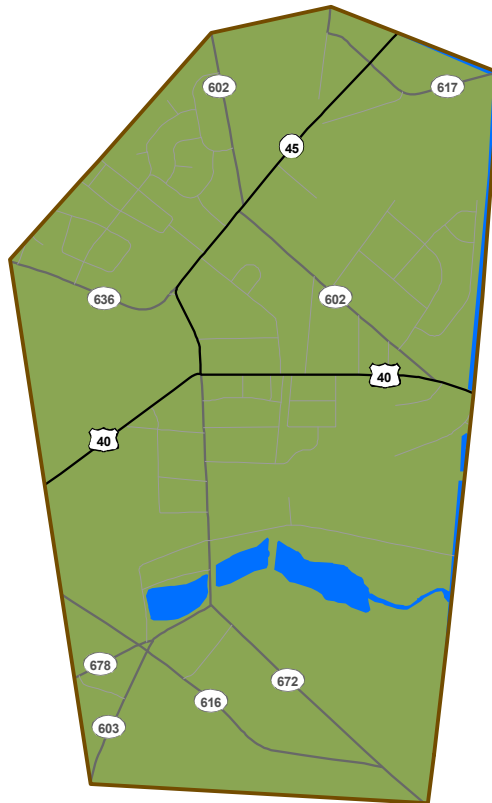
Zoning*

- Conservation
- Historic District
- Light Commercial
- Commercial
- Industrial
- Supply Industrial
- Residential

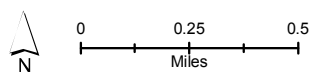


Sewer Service Areas

- Surface Water Discharge
- Water



Sources: *Salem County Department of Planning, NJDEP, NJOIT, NJDOT

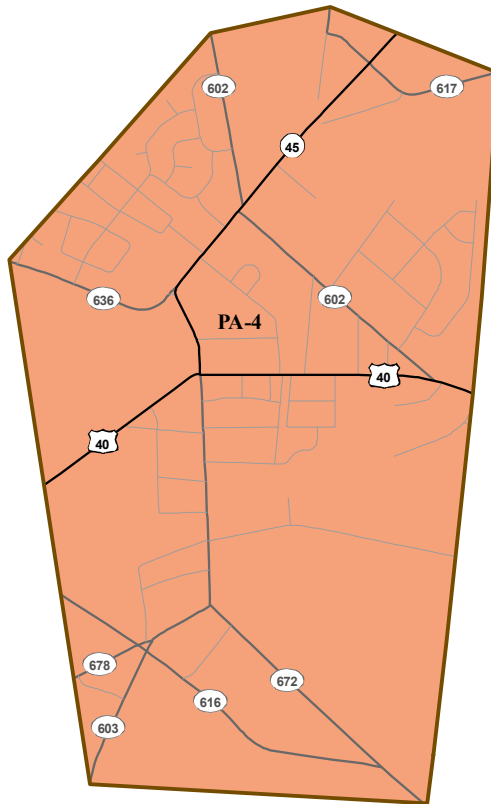


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WOODSTOWN BOROUGH

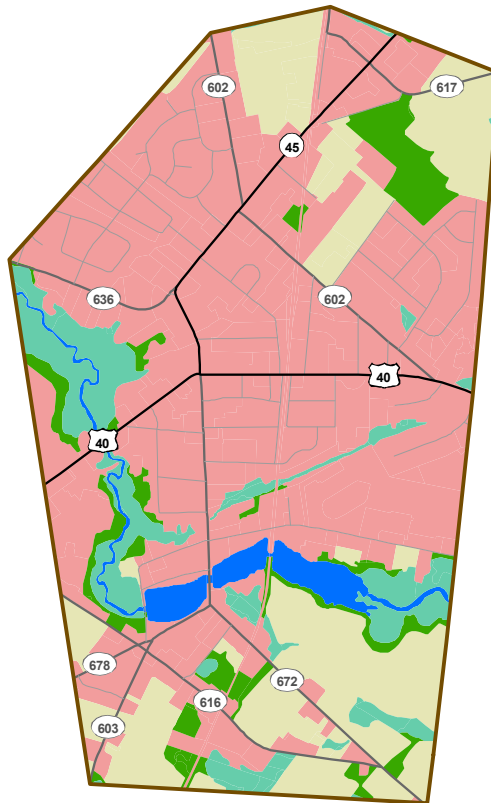
NJ State Planning Areas*

PA-4, Rural

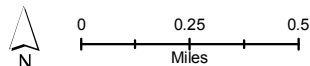


2007 Land Use/Land Cover

- Agriculture
- Forest
- Urban
- Water
- Wetlands



Sources: *NJ Department of Community Affairs, NJDEP, NJOIT, NJDOT




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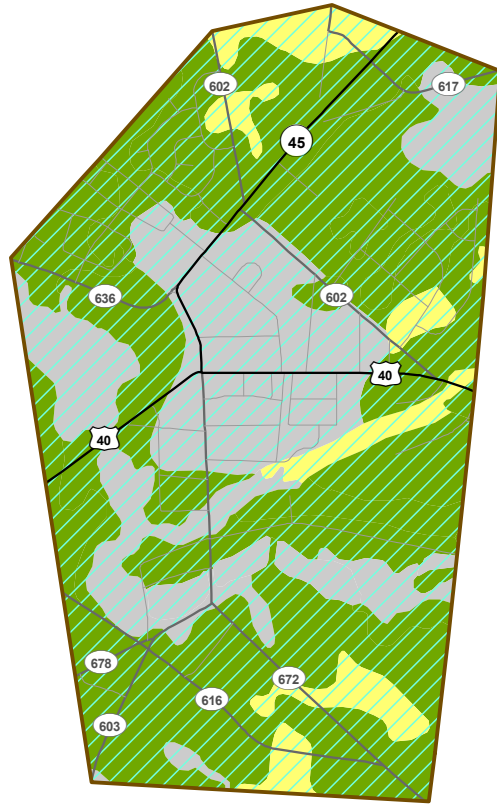
WOODSTOWN BOROUGH

Agriculture

 Agricultural Development Area*

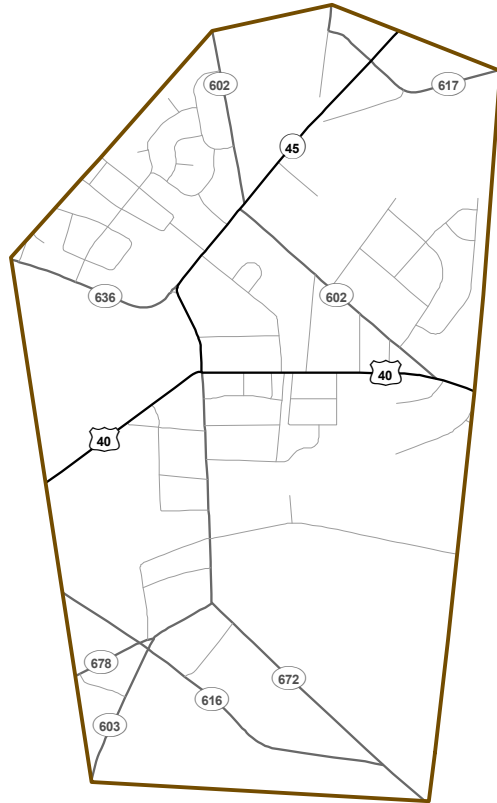
Agricultural Quality of Soils[†]

-  Prime Farmland
-  Farmland of Statewide Importance
-  Not Prime Farmland

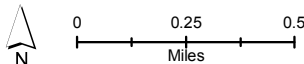


Preserved Land

Currently, there is no "Preserved Land" within Woodstown Borough



Sources: *Salem County Department of Planning,
†NRCS, NJDEP, NJOIT, NJDOT



Maps were developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Publication Abstract

Title: Assessing the Potential
For a Regional Transfer of Development
Rights Program in Salem County, NJ.

Date Published: June 2011
Publication No. 11051

Geographic Area Covered: Salem County, New Jersey

Key Words: Agriculture, environment, farmland preservation, land preservation, open space, Salem County, Transfer of Development Rights, land use, New Jersey Future, New Jersey TDR, municipal planning, regional planning, regional TDR, Salem TDR Task Force, and TDR.

ABSTRACT

This study assesses the feasibility of developing a regional Transfer of Development Rights (TDR) program in Salem County, New Jersey. Guided by a Salem Regional TDR Task Force, the study evaluates land use patterns and the views of municipal officials within Salem's fifteen municipalities and looks at existing TDR programs elsewhere in New Jersey and in other states for innovative ideas that could be utilized in Salem. It also estimates the relative amounts of land that could be protected as sending zones and transferred into receiving zones in the county, and where those areas might be located. The Salem regional study includes a preliminary analysis of the buildout of Salem's municipalities and information on the water and sewer infrastructure in municipalities with potential as receiving areas. It proposes various ways that a regional TDR program could be initiated in Salem and recommends topics for future study toward its development. This report complements a state-wide analysis of Transfer of Development Rights in New Jersey developed by a State-wide TDR Task Force and issued by New Jersey Future in 2010, which includes recommendations for legislative and regulatory changes that would facilitate use of TDR in Salem and throughout New Jersey.

For More Information Contact:

Delaware Valley Regional Planning Commission
190 North Independence Mall West
8th Floor
Philadelphia, PA 19106-1520
Phone: 215-592-1800
Fax: 215-592-9125
Internet: www.dvrpc.org

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