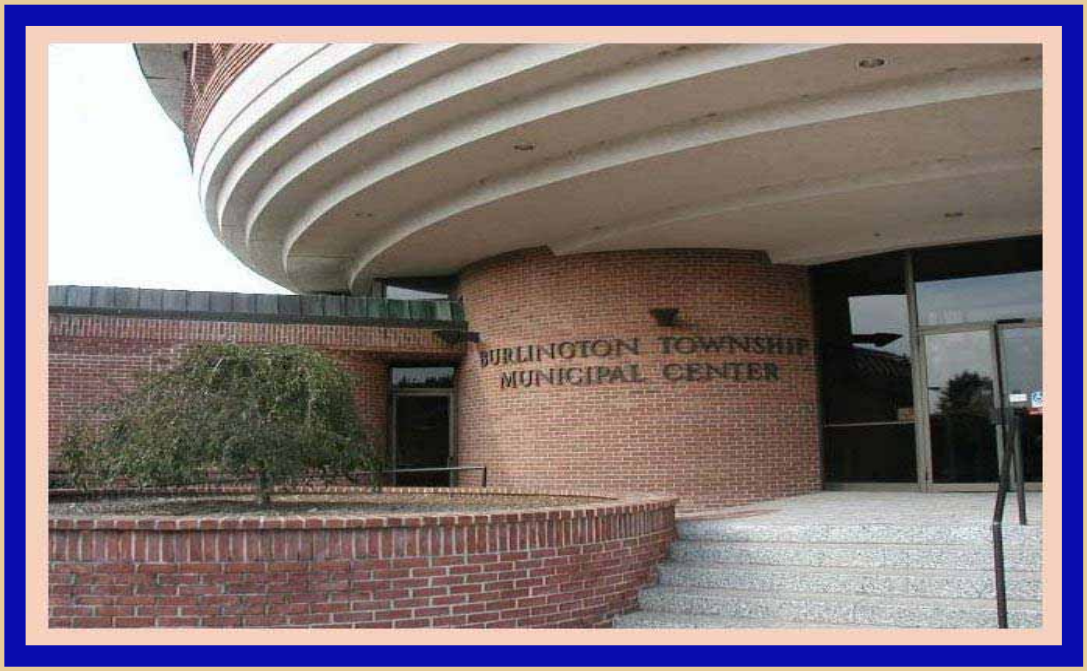

TOWNSHIP of BURLINGTON

Burlington County, New Jersey

Comprehensive Master Plan

Adopted 07/10/2008

Prepared By
Burlington Township Planning

TOWNSHIP OF BURLINGTON
BURLINGTON COUNTY

2008 COMPREHENSIVE MASTER PLAN

Adopted by the Planning Board
07/10/2008

Kevin D. Rijs, P.P., AICP
N.J. Professional Planner No. 5962

Joseph S. Augustyn, P.P., AICP
N.J. Professional Planner No. 2447

Master Plan original signed and sealed in accordance with NJAC 13:41-1.3
and on file with Burlington Township Clerk

Alaimo Group

DEDICATION AND ACKNOWLEDGEMENTS

This 2008 Comprehensive Master Plan is dedicated to all residents of Burlington Township. Special acknowledgement is given to all municipal staff who contribute daily to the well being of our residents. A sincere thank you is given to all Township volunteers whose dedication to municipal service help define the character of our community.

Township of Burlington

2008 Mayor and Council

Honorable Stephen M. George, Mayor
Carl M. Schoenborn, Council President
Richard W. Quinn, Jr., President Pro-Tem
Brian Carlin, Councilman
E. L. Pete Green, Councilman
George M. Kozub, Councilman
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Sandra V. Stewart, Councilwoman

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Anthony J. Carnivale, Jr., R.M.C., Township Clerk
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William Diamond, Fire Chief and Member
Charles Kelly, Member
Delbert D. Rife, Member
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David M. Serlin, Esquire, Planning Board Solicitor
Robert L. Schreibel, P.E., P.P., CME, Burlington Township Engineer
Scott Hatfield, P.E., C.M.E., Burlington Township Assistant Engineer
Wayne E. Haussler, P.E., P.T.O.E., P.P., Planning Board Traffic Engineer
Joseph S. Augustyn, P.P., AICP, Associate, Alaimo Group
Kevin D. Rijs, P.P., AICP, Senior Project Manager, Alaimo Group
Mark E. Everett, P.P., AICP, Senior Project Manager, Alaimo Group

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- Preliminary Investigation and Proposed Redevelopment Plan – Route 130 Corridor Redevelopment Area/South. June 2007

- Route 541/295 Interchange Redevelopment Plan. August 31, 2007

I. INTRODUCTION AND OVERVIEW

The 2008 Comprehensive Master Plan serves to supplement, and where appropriate, amend or supersede specific sections in the Township's previous Master Plans.

The Burlington Township Planning Board prepared the 2008 Comprehensive Master Plan to specifically provide for the following urgent community needs:

1. Maintain strong, sustainable, equitable and balanced tax based community economics.

2. Contain municipal service needs.

3. Preserve and protect natural resources and appropriate remaining open space areas including wetlands, floodplains, aesthetic vistas, forests, stream corridors, wildlife habitats, special soils, groundwater supplies and aquifer recharge areas.

4. Simplify municipal land use and zoning regulations and processes.

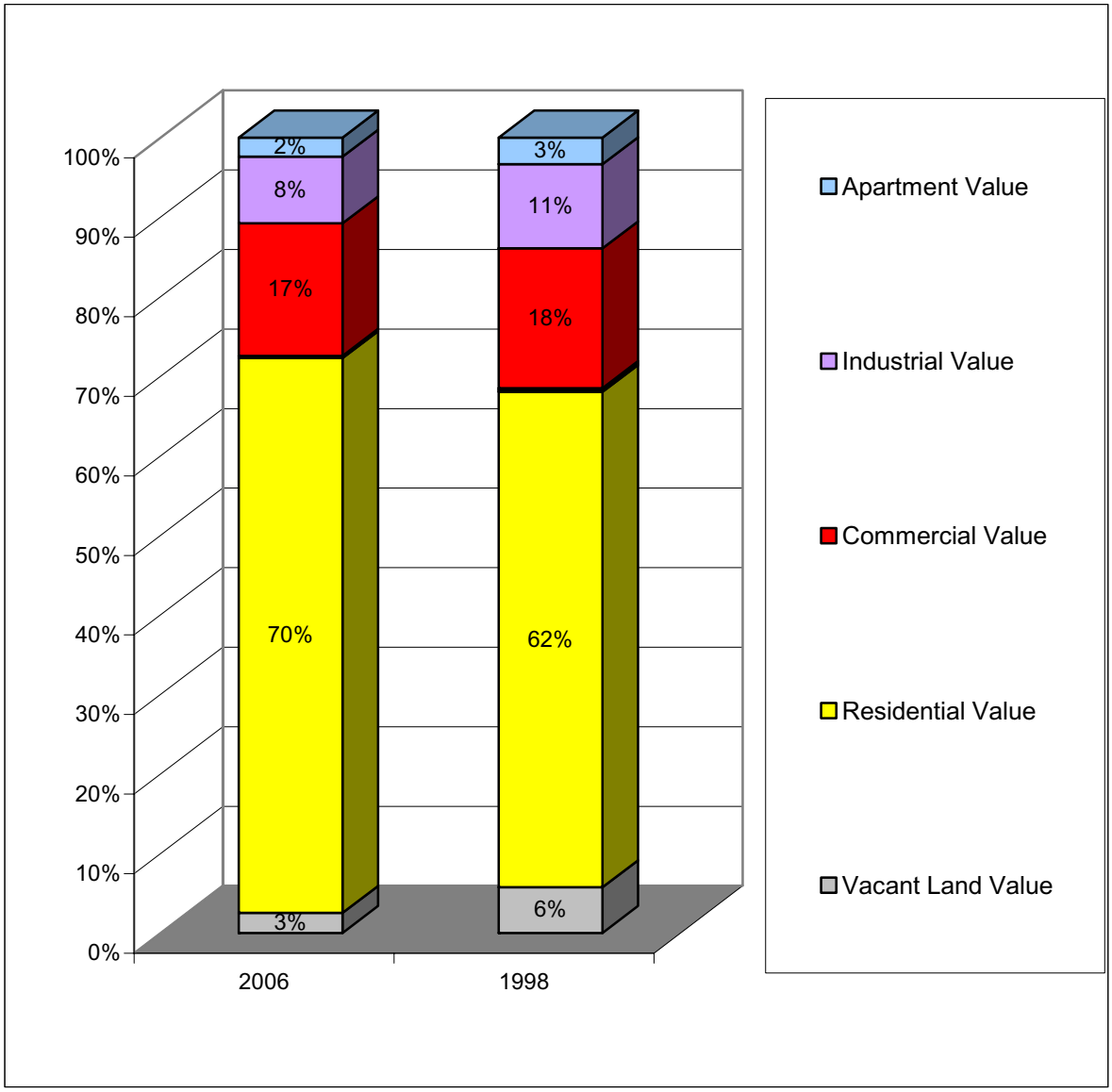
Burlington Township's previous Master Plan (1998) was focused on revisiting Master Plan Goals and Objectives; simplifying and consolidating proposed land uses and establishing a basis for updating the zoning ordinance; establishing a Conservation Plan complementary to open space preservation goals and objectives; and identifying passive open space preservation opportunities, techniques and funding sources.

Burlington Township is a highly educated and demographically young, suburban, residential community of over twenty thousand (20,000) people. It covers approximately fourteen (14) square miles, and is strategically located along the New Jersey Turnpike (exit 5), Interstate 295 (exit 47), and Route 130. The Burlington-Bristol Bridge in neighboring Burlington City provides a valuable connection to Interstate 95. The nearby interchange in Florence Township offers direct access to both New Jersey and Pennsylvania Turnpikes.

The most notable recent shifts between land use values is an 8% (62% to 70%) increase in residential value and a reduction of 3% (6% to 3%) value in remaining vacant land. In 2006, taxable values show approximately seventy percent (70%) residential, two percent (2%) apartment, seventeen percent (17%) commercial, eight percent (8%) industrial and three (3%) vacant.

In 1998, Burlington's tax base was comprised of the following mix, approximately sixty-two percent (62%) residential, three percent (3%) apartment, eighteen percent (18%) commercial, eleven percent (11%) industrial and six (6%) vacant.

Burlington has one of the lowest Municipal Government equalized property tax rates in Burlington County, and an A-1 credit rating. According to the NJ DCA Division of local government services, as of 2006 there were 289 vacant parcels in the Burlington Township (tax value $59,427,950 or 3% of the Total Municipal Value). In 1998 there were 1,101 vacant parcels (tax value $52,433,450 or 6% of the Total Municipal Value). Farmland parcels for the same period have decreased from 17 to 9. Burlington's remaining natural resources include stream corridors, lakes, forested areas, tidal estuaries and wetlands/floodplains. The Township has approximately 3.26-miles of Delaware River frontage.



A. Land Use Planning in Burlington: Intent and Purpose

The New Jersey Municipal Land Use Law (MLUL) requires each municipal planning board to adopt a Master Plan in order to implement zoning. The Master Plan serves as the basis for a municipality's zoning ordinance. Burlington's Master Plan guides and informs the decision making process involving all zoning provisions:

The Township of Burlington is consistent with the intent and purpose of the "Municipal Land Use Law" of 1975, N.J.S. 40:55D (MLUL) by:

1. Guiding the appropriate use of its lands in a manner which promotes the public health, safety, morals, and general welfare;

2. Securing safety from fire, flood, panic and other natural and man-made disasters;

3. Providing abundant light, air and open space;

4. Ensuring that development of the community does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;

5. Promoting the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and preservation of the environment;

6. Encouraging the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;

7. Providing sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of Township residents;

8. Encouraging the location and design of transportation routes which will promote the free flow of traffic;

9. Promoting a desirable visual environment through creative development techniques and good civic design and arrangement;

10. Promoting the conservation of open space, energy resources and valuable natural resources, and preventing urban sprawl and degradation of the environment through improper use of land;

11. Encouraging planned developments which incorporate the best features of design and layout;

12. Encouraging senior citizen community housing construction;

13. Encouraging coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land;

14. Promoting utilization of renewable energy resources; and

15. Promoting the maximum practicable recovery and recycling of materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.

Burlington's 2008 Master Plan guides the use of lands in a manner that protects public health and safety and promotes the general welfare of Burlington's residents, businesses, and visitors alike.

Burlington Township's 2008 Master Plan and associated mapping includes:

1. A statement of the standards of population density and development intensity recommended for the municipality;

2. A land use plan element presenting the existing and proposed location, extent and intensity of development of land to be used in the future for varying types of residential, commercial, industrial, agricultural, recreational, educational and other public and private purposes or combination of purposes; while stating the relationship thereof to the existing and any proposed zone plan and zoning ordinance;

    a. Mapping showing natural conditions, including, but not necessarily limited to, topography, soil conditions, water supply, drainage, flood plain areas, marshes, and woodlands;

    b. The existing and proposed location of any airports and the boundaries of any airport safety zones delineated pursuant to the "Air Safety and Zoning Act of 1983," P.L.1983, c.260 (C.6:1-80 et seq.);

3. A housing plan element pursuant to section 10 of P.L.1985, c.222 C.52:27D-310);

4. A community design plan element, consistent with the purpose of 40:55D-2.i "*to promote a desirable visual environment through creative development techniques and good civic design arrangement*s";

5. A circulation plan element showing the location and types of facilities for all modes of transportation required for the efficient movement of people and goods into, about, and through the municipality, taking into account the functional highway classification system of the Federal Highway Administration and the types, locations, conditions and availability of existing and proposed transportation facilities, including air, water, road and rail;

6. A utility service plan element analyzing the need for and showing the future general location of water supply and distribution facilities, drainage and flood control facilities, sewerage and waste treatment, solid waste disposal and provision for other related utilities;

    a. Additionally, a municipal storm water management plan (MSWMP) required pursuant to the provisions of P.L.1981, c.32 (C.40:55D-93 et al.), has been previously adopted, and as such is incorporated into this master plan;

7. A community facilities plan element showing the existing and proposed location and type of educational and cultural facilities, historic sites, libraries,

hospitals, firehouses, police stations and other related facilities, including their relation to the surrounding areas;

8. A recreation plan element showing a comprehensive system of areas and public sites for recreation;

9. A conservation plan element providing for the preservation, conservation, and utilization of natural resources, including, open space, water supply, forests, soil, marshes, wetlands, rivers and other waters, endangered and threatened species wildlife and other resources, and which analyzes the impact of each other component and element of the master plan on the present and future preservation, conservation and utilization of these resources;

10. A recycling plan element which incorporates the State Recycling Plan goals, relationship of the proposed development of the Township, to the Burlington County solid waste management plan, including provisions for the collection, disposition and recycling of recyclable materials designated in the Township recycling ordinance, and for the collection, disposition and recycling of recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing or 25 or more units of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land;

11. Local and regional plan consistency, the master plan includes a policy statement regarding the relationship of the proposed development of the Burlington, to;

    a. Master plans of contiguous municipalities;

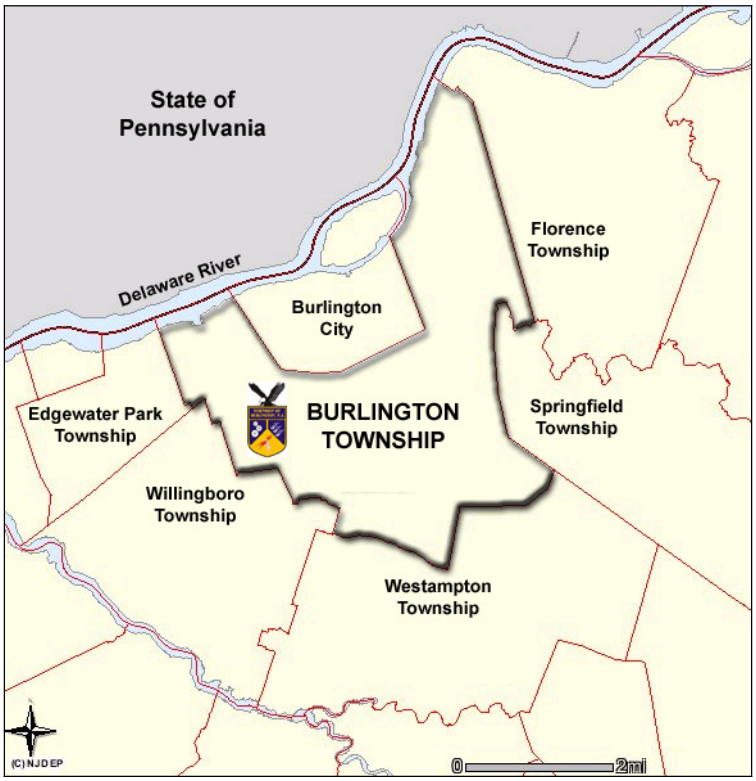
    b. The County master plan; &

    c. The State Development and Redevelopment Plan adopted pursuant to the "State Planning Act," sections 1 through 12 of P.L.1985, c.398 (C.52:18A-196 et seq.)

B. Burlington Township General Overview:

Burlington Township is located within Burlington County, New Jersey, approximately twenty (20) miles northeast of Center City Philadelphia, and eighty (80) miles southwest of New York City. The following municipalities border Burlington Township:

- Burlington City[1] is bordered by Burlington Township to the east, south & west;
- Florence Township[2] to the northeast;
- Springfield Township[3] to the east;
- Westampton Township [4] to the south and southwest;
- Willingboro Township [5] to the southwest; and
- Edgewater Park Township[6] to the west.



[1] 3.74 Square miles; Population 1990 – 9,835; Pop. 2000 – 9,736
[2] 10.17 Square miles; Population 1990 – 10,266; Pop. 2000 – 10,746
[3] 29.26 Square miles; Population 1990 – 3,028; Pop. 2000 – 3,227
[4] 11.1 Square miles; Population 1990 – 6,004; Pop. 2000 – 7,271
[5] 8.13 Square miles; Population 1990 – 36,291; Pop. 2000 – 33,08
[6] 3.06 Square miles; Population 1990 – 8,388; Pop. 2000 – 7,864

Burlington Township at a glance:

Incorporated:	1798
Total Municipal Area:	13.68 Sq. miles (8,758 Acres, inclusive of the recently annexed Springfield property)
1990 Total Population:	12,454[7]
2000 Total Population:	20,294
1990 Population per Sq. mile	910
2000 Population per Sq. mile	1,483
1990 Population per Acre:	1.42
2000 Population per Acre:	2.31
1990 Number of Housing Units:	4,666[8]
2000 Number of Housing Units:	7,348
1990 Housing Units per Acre:	0.53
2000 Housing Units per Acre:	0.84
Total Parks and Open Space Tax Lots:	102
Total Open Space/Park Acres:	686 Acres
Major Roadways:	New Jersey Turnpike; I-295; I-95; & Route 130
Connecting Routes:	Route 541, Route 543
Public Transportation:	NJ Transit & Burlink

Airports:
Local:
South Jersey Regional Airport in Lumberton – Approximately 7 Miles to the South.

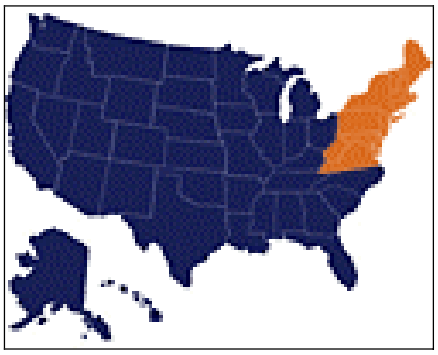
International:
Philadelphia, PA (PHL) - Approximately 32.0 Miles to the South

Newark, NJ, (EWR) - Approximately 62.0 Miles to the North

[7] Population 1980 – 11,527; 1970 – 10,621; 1960 – 6,291; 1950 – 3,441 Burlington Township 1998 Master Plan
[8] Housing Units 1980 – 4,206; 1970 – 3,186; Burlington Township Master Plan 1998

C. Northeast Regional Context

- Philadelphia within 25 miles.
- New York City within 75 miles.
- Baltimore/Washington DC within 120 miles.
- Trenton within 20 miles.



II. STRATEGIC VISION, COMMUNITY GOALS, OBJECTIVES, POLICIES, AND ACHIEVEMENTS.

A. STRATEGIC VISION

Township Council's mandate is to meet its residents needs by providing services, which are equitable, accessible, safe, high in quality and cost efficient.

The principal role of the Burlington Planning Board as the municipal planning entity is to develop a Master Plan that includes a shared community vision of its future that reflects a wide range of views and values, while also presenting clear direction.

The Township of Burlington Planning Board, as empowered by Township Council, intends to be proactive in helping to shape Burlington as we move forward into the 21st Century, while maintaining general continuity with the traditional goals, objectives, policies and standards in prior Municipal Master Plans. Burlington intends to provide for the social, economic and educational needs of all current and future residents of the municipality. The Township seeks to achieve a balance in land use involving state-of-the-art light industrial office uses, modern commercial enterprises designed with varying architectural features, and safe housing designed to accommodate the specific needs of all age and income groups. This is especially critical in view of the Township's evolving demographics as further presented in this Master Plan.

The Township of Burlington envisions a fiscally beneficial mix of retail, office and industrial uses; a "destination" retail center and revitalized state-of-the-art regional mall; a variety of housing that creates a strong community of all ages in safe and friendly neighborhoods; services that efficiently and effectively serve the common good; ample recreational facilities and opportunities; preserved natural resources and open spaces; and the orderly and efficient movement of people and goods.

Burlington commits to:

- Planning effectively for the future of the Township.
- Facilitating a robust economy by actively supporting economic development in the commercial and industrial sectors that create employment opportunities.
- Servicing the community equitably and with full public participation involving a broad range of programs and services that foster physical, social and cultural well-being.

- Contributing to regional smart growth.
- Protecting Burlington's natural resources.
- Achieving an attractive physical landscape within our built environment.
- Helping shape community character by promoting high quality and attractive architectural designs.
- Promoting cultural and ethnic diversity.
- Fostering and providing equitable support and caring for all residents.
- Encouraging and enabling residents and others to take pride in Burlington as a great place to live, work, shop, play or visit.

Key issues identified by the Township for ensuring the future of the municipality:

- Redeveloping and revitalizing Burlington's section of the Route 130 Corridor.
- Maintaining a safe community.
- Supporting a caring community.
- Giving our youth a strong educational and civic-minded basis for their future.
- Nurturing an open community/government partnership.
- Enhancing the spirit of neighborhood.
- Protecting and enhancing Burlington's natural and built environment.
- Providing and promoting ample recreation and sports opportunities.
- Building on the strengths of our multicultural and multiethnic community.

B. COMMUNITY GOALS & OBJECTIVES

In planning, goals are the long-term ideal or end result that is desired for a municipality. Goals are an integral part of Burlington Township's planning process, which direct the community's planning efforts, and the allocation of Township resources. Objectives are specific targets that are to be met as an intermediate step in achieving the Township's long-term goals. Municipal objectives allow progress toward the ultimate goal.

The goals, objectives, and policies stated below form the base on which the various Master Plan elements have been prepared. The various Master Plan elements inform and guide the physical, economic and social development of the Township.

1. Overall Community Goal

Balanced land use that supports a safe and healthy community where residents can live, work, recreate, and prosper.

Objective:
Periodically review the master plan and land development ordinance to maintain the strategic direction of the Township, update and amend land use ordinances as needed for plan consistency.

2. Housing Goal

A balanced mix of housing types in good condition to meet community needs.

Objective:
Revise zoning and ordinances where needed to ensure a balanced mix of housing types.

3. Character of Development Goal

Site specific designed development that is sensitive to surrounding land use, the environment, and contributes to the quality of life of Township residents.

Objective:
Through the site plan and subdivision review process, implement the general design guidelines established in the Community Design Plan.

4. Environmental Goal

A safe, healthy environment that contributes to the well being of Township residents.

Objective:
Continue to work with environmental organizations and regulatory agencies to monitor environmental indicators and amend/update relevant ordinances as needed.

5. Jobs and Retail Services Goal

Jobs:
A variety of employment opportunities within the Township for residents of all ages and qualifications.

Retail Services:
A full range of local and regional retail services to accommodate all Township resident needs.

Objective:
Provide for wide-ranging state-of-the-art principal permitted uses within the Townships' various zones.

6. Transportation Goal

A safe, efficient, network for all modes of transportation.

Objective:
Maintain local transportation networks, control congestion, and support County, State and Federal programs to improve efficiency and safety.

7. Water and Sewer Service Goal

An efficient water and sewer service system with capacity for planned future growth.

Objective:
Increase resident awareness of the benefits associated with water conservation. Effectively and efficiently collect, treat and dispose of domestic sewage and its associated by-products.

8. Recreation Goal

A recreation system that meets the modern-day needs of all Township residents.

Objective:
Monitor and respond to changing demographics through land use and ordinance revisions as needed.

9. Municipal Services Goal

Efficient essential services to meet basic community needs and additional optional services within budgetary limits.

Objective:
Monitor from year to year program costs and revenues, while making necessary adjustments if needed to meet mandatory requirements.

C. POLICIES

1. Burlington Township will continue to strengthen its commercial and industrial tax base, and support the viability of its existing businesses.

2. Burlington Township welcomes and supports the rehabilitation, maintenance, and upgrade of existing homes, particularly in a manner consistent with neighborhood and community traditions. Community character is defined primarily by the strength of its residential neighborhoods.

3. Burlington Township strives to achieve and sustain a desirable traditional visual environment both natural and built, and to protect and preserve established residential and commercial neighborhoods. Burlington Township intends to apply traditional and creative techniques of good civic design and arrangements for all residential, commercial and industrial uses.

4. Residential neighborhoods are to be protected from excessive non-local traffic, and the loss of traditional neighborhood ambience.

5. Burlington Township will maintain and achieve the safe and efficient movement of people and goods, as the community is further developed and redeveloped in accordance with the Township Master Plan. Burlington Township will coordinate with DVRPC, Burlington County, and NJDOT regarding transportation and circulation planning projects and efforts.

6. Burlington Township supports necessary access for emergency vehicles and personnel in all development and redevelopment projects.

7. Development regulations and zoning code requirements will be periodically evaluated to assure that development/redevelopment is encouraged in appropriate areas.

8. Burlington Township seeks to protect its natural resources including wetlands, floodplain, forested areas, wildlife habitats, and stream corridors.

9. Burlington Township intends to further its achievements involving the provision of ample active and passive recreational opportunities for all age groups.

10. Burlington Township will strengthen and diversify the commercial/industrial composition of the Township's Route 130 corridor.

11. Opportunities for redeveloping vacant and underutilized commercial sites along the highway will continue to be monitored. The mixing of compatible uses, i.e., commercial and light industrial, with appropriate buffering will be explored.

12. Burlington Township supports and encourages installation of safe bicycle and pedestrian pathways and sidewalks for both recreation and as a means of transportation.

13. Burlington Township will implement and achieve sustainable development by using Smart Growth planning approaches for the benefit of not only the Township, but the entire region as well.

14. Burlington Township supports technological innovation and clean energy initiatives. Promote and support recycling, energy conservation and alternative sources of energy through municipal code, practices and development review process. Recent examples include the Peninsula Composting Facility on River Road, and Sea Gull Lighting Products Distribution Center off Route 130. Peninsula, a private company turns food and yard waste into marketable compost material. Se Gull's roof is covered with solar panels that are maintained by Sun Edison. Investors own the panels and Sea Gull buys the power. These efforts by both companies have received national recognition and accolades for their efforts in sustainability.

D. ACHIEVEMENTS

Burlington Township's Mayor, Council, Planning Board, Zoning Board, residents, municipal officials, and Township professionals have considered the future of Burlington in great depth and developed a vision for the community. Great strides have been made toward achieving or furthering municipal goals and objectives. Recent municipal achievements including specific projects and efforts are described below.

PLANNING
Burlington Township Redevelopment Planning

Redevelopment is an alternate method of planning and zoning in which the municipality itself participates in bringing about desired changes. Where redevelopment is authorized direct municipal involvement is necessary to promote the public welfare. Thus, redevelopment presents an opportunity for the municipality to participate in the development process by providing an alternate method of planning and zoning to effectuate positive change. Redevelopment is appropriate when land and buildings have generally reached the point where simply authorizing desirable uses has no effect.

Adoption of the Redevelopment Plan vests the governing body or redevelopment agency with the powers set forth in N.J.S. 40A:12A-8.

N.J.S. 40A:12A-4 establishes the powers of the municipal governing body and of the planning board in exercising redevelopment and rehabilitation functions.

The municipal governing body is given the power to:

1. Cause a preliminary investigation to be made as to whether an area is in need of redevelopment;

2. Determine that an area is in need of redevelopment;

3. Adopt a redevelopment plan, and

4. Determine that an area is in need of rehabilitation pursuant to N.J.S.40A:12A-14.

A municipal planning board is specifically given the power to:

1. Conduct, but only when authorized by the governing body, a preliminary investigation and hearing and make a recommendation as to whether an area is in need of redevelopment;

2. Make recommendations concerning a redevelopment plan pursuant to N.J.S. 40A:12A-7, and

3. Make recommendations concerning the determination of an area in need of rehabilitation pursuant to N.J.S. 40A:12A-14.

Redevelopment Achievements:

Township's Route 130 Corridor Redevelopment
In 2005, consistent with N.J.S.A. 40A:12A-6, Burlington Township Council (Resolution 05-R-133) requested the Planning Board investigate the Township's Route 130 Corridor. The preliminary investigation was to determine whether any areas along the route were in need of redevelopment per the criteria in N.J.S.A. 40A:12A et seq.. Section 1 of Council's enabling resolution 05-R-133 specifically excluded existing residential properties from the investigation area. Section 4 of Resolution 05-R-133 directed the Planning Board to prepare a Redevelopment Plan for the area if so needed.

The general area to be investigated consisted of non-residential properties on both sides of the Route 130 Corridor.

Aqua Lane Redevelopment Area
On October 13, 2005 the Planning Board held a public hearing to determine if Block 98, Lots 7 and 8 (Aqua Lane Redevelopment Area) met the criteria to be a Redevelopment Area. On November 10, 2005 the Planning Board memorialized the resolution recommending to the Township Council that Block 98, Lots 7 and 8 be declared a redevelopment area. The Planner's report "Aqua Lane Redevelopment Area" (Preliminary Investigation and proposed redevelopment plan, dated October 13, 2005) was adopted by the Planning Board at the October 13, 2005 meeting. Township Council approved the Planning Board's recommendation that Block 98, Lots 7 and 8 be declared a redevelopment area and Resolution 05-R-234 was adopted on December 13, 2005.

The Aqua Lane Redevelopment Plan proposes development consistent with the intent and purpose of the Township's Age-Restricted (AR) overlay ordinance.

Route 130 Corridor Redevelopment (Area/South)
On August 9, 2007 the Planning Board held a public hearing to determine if the Route 130 South Corridor consisting of properties generally located within 300' from both sides of (north and south bound sides) Route 130 between Willingboro and Edgewater Park Townships, and Burlington City, met the criteria to be a Redevelopment Area. On September 10, 2007 the Planning Board memorialized the resolution recommending to the Township Council that the "Route130 Corridor Redevelopment Area/South" be declared a redevelopment area. The

Planner's report "Route130 Corridor Redevelopment Area/South" (Preliminary Investigation and proposed redevelopment plan, dated June, 2007) was adopted by the Planning Board at the August 9, 2007 meeting.

Route 130 Corridor Redevelopment (Area/North)
The Planning Board's investigation into the "Route 130 Corridor North Area" is scheduled to be completed by the end of 2008.

The Township's Route 130 Corridor redevelopment planning effort is supported by the DVRPC's (Delaware Valley Regional Planning Commission/Metropolitan Planning Organization - MPO) TCDI (Transportation and Community Development Initiative) program; and the DCA's (Department of Community Affairs) SFPG (Smart Future Planning Grant) program.

Burlington Township is an active participating member of the DVRPC, New Jersey State and Burlington County initiative to improve and redevelop appropriate Township sections of the U.S. Route 130 Corridor. The issues involved in this effort include mobility improvements for vehicles, improved access to alternative modes of transportation, access to and use of light rail facilities, the economic revitalization of the corridor, landscaping and streetscape improvements along the corridor, and the provision of bicycle/pedestrian access ways and facilities. Burlington Township's bicycle/pedestrian access and redevelopment planning effort is to further this overall regional effort by developing concrete plans for Burlington Township to address several of these issues.

Route 541/I-295 Interchange Redevelopment Area
Consistent with N.J.S.A. 40A:12A-6, Burlington Township Council Resolution 07-R-094 (dated May 8, 2007) requested the Planning Board investigate the Route 541 Corridor. The preliminary investigation was to determine whether certain areas along the commercial corridor were in need of redevelopment per the criteria in N.J.S.A. 40A:12Aet seq.

On September 19, 2007 the Planning Board held a public hearing to determine if the Route 541 commercial corridor consisting of certain properties, met the criteria to be a Redevelopment Area. On October 11, 2007 the Planning Board memorialized the resolution recommending to the Township Council that the "Route 541/Route 295 Interchange" be declared a redevelopment area. The planner's report "Route 541/Route 295 Interchange Redevelopment Area" (Preliminary Investigation and proposed redevelopment plan, dated August 31, 2007) was adopted by the Planning Board at the September 19, 2007 meeting.

The Ordinance adopting the Planning Board recommendation that the Route 541/Route 295 Interchange be declared a Redevelopment Area was introduced and passed on first reading at the November 8, 2007 Council meeting. On November 27, 2007, at the regularly scheduled Council meeting a public hearing was held on the Ordinance, and the ordinance was adopted.

PRESERVATION

As a result of securing a series of low-interest loans from the Burlington County Open Space Program and grants from the State of New Jersey Green Acres Program, in 2003 Burlington Township Council was able to authorize the acquisition of the 97-acre Tillinghast parcel, a historic agricultural property located along Mill Lane. The acquisition of development rights was completed in 2007. This parcel will be preserved as open space and for passive recreation use, in the form of a pedestrian path. The acquisition also involved Burlington Township's annexation of several lots (Block 303, Lots 5, 6, 7 & 8) owned by the Tillinghasts in neighboring Springfield Township, comprising approximately 30 acres.

ENGINEERING

A dedicated, highly skilled, multi-disciplined staff supports the Burlington Township Engineering Department.

By Ordinance, the function of the Department of Engineering is *"to provide engineering services required by the Township and the Planning Board …".,* and *" to provide assistance to all Departments, Boards, Agencies not otherwise employing Engineering Services to insure that proper engineering criteria is supplied before a policy determination is made".* The Department of Engineering satisfies this mandate by providing a myriad of services requiring expertise in the areas of Engineering, Planning and Project Administration/Management.

The Engineering Department oversees Township infrastructure maintenance, repair, upgrade, expansion, and is an integral part of the development review process.

A key responsibility of the Engineering Department is the preparation and management of the Township comprehensive Capital Improvement Program. Notable achievements over the past few years include:

- Grant award to Burlington Township in the amount of $85,000.00 from the Burlington County Office of Community Development. This grant was combined with Township funds to replace deteriorated curbs and driveway aprons; to provide for ADA upgrades; and to replace deteriorated sidewalk on Lambeth Road and Laramoor Drive in the LaGorce Square Development. Additional discretionary funding was obtained in the amount of $16,600.00 from the CD Office to further reduce the Township contribution.

- Grant award to Burlington Township in the amount of $290,000.00 from the New Jersey Department of Transportation, to improve safety along Bromley Boulevard near both the Mall and Regal Theatre driveways. This project included new paving and traffic striping; replacement of deteriorated curb and sidewalk; construction of handicapped ramps; improvements to existing pedestrian crosswalks; and modifications to the center median and access driveways for the Regal Cinema and Burlington Center Mall intersection with Bromley Boulevard.

- New tot lot play structures were installed at various locations as part of the Recreation Departments on-going program to provide state-of-the-art facilities, maximize safety, and provide ADA accessible facilities.

- Utilizing $500,000.00 in funding through a Green Acres Program, the Green Acres Area IV Site located at the end of Pinewald Lane was expanded to include three (3) full size soccer fields, two (2) practice soccer fields, pedestrian/bicycle pathways; and a new parking area with approximately 117 spaces.

- The Bike/Pedestrian Path along Old York Road from Jacksonville Road to the easterly boundary of the Green Acres II Recreation Area (Bandstand Site) was extended easterly to the front of the Green Acres III Site opposite Mill Lane. This project includes a pedestrian bridge which was installed over Riggs Mill Creek. This project was partially funded utilizing a $200,000.00 NJDOT Grant.

- Pedestrian/bike path installation along Old York Road between the Township Municipal Complex and Jacksonville Road.

- Pedestrian/bike paths in Green Acres Areas I and II and adjacent to the Municipal Building were repaved and improved.

- Construction of the Skimmer Adams Field Restroom Facilities and Concession Stand was completed, and parking area was overlayed.

- Parking area improvements were completed behind the Township Municipal Center and the adjacent Green Acres Park.

- New recreational fields were constructed at Green Acres Area IV.

- Numerous roadway and intersection improvements were completed.

- Elbow Lane reconstruction has been initiated utilizing grant monies from the NJDOT Transportation Trust Fund.

- A new 2 million gallon Water Storage Tower was installed on the Bromley Commercial Tract behind the Regal Theater. This facility will assure an adequate water supply during peak demand periods and to support firefighting purposes.

- Lower Sylvan Lake was lowered and mechanically dredged utilizing a $924,473.00 Grant from the New Jersey Clean Lakes Program.

- A traffic signal was installed at the intersection of Bromley Boulevard and Hancock Lane at the Bromley Place/Bromley Estates.

- A Public Works Department Salt Barn was constructed on Connecticut Drive.

- The new Sanitary Sewer System along Old York Road between Green Acres Area II and the Township Line was completed.

- A cover and aeration system were installed on Sludge Holding Tank No. 2 located at the Central Avenue Wastewater Treatment Plant.

- Deteriorated manholes were repaired and relined throughout the Township. Deteriorated ACP sewer mains on Jacksonville Road and Route 130 were lined.

GRANTS, LOANS APPLIED FOR; AND "IN KIND" SERVICES PROVIDED:

A critical mandate of the Mayor, Township Council, and Staff is to maintain the Township's facilities and infrastructure in good operating condition, at a minimum cost to Burlington Township taxpayers. In this regard, the Burlington Township Engineering Department is very aggressive in pursuing grant and loan opportunities made available by various Federal, State, and County Agencies to help offset the cost of Capital Projects. The Engineering Department has applied for over 4 million dollars in grants and low interest loans since 2003. Of these, 3.5 million dollars were approved for use by Burlington Township. The Engineering Dept. also provides in kind services to meet the Township's "matching" share required by some grant and loan awards. Simply put, "in kind services" consist of technical services that have a dollar value which is counted toward the required Township contribution. In many cases, 100% of the required Township match on any grant or loan application is satisfied through the Engineering Department's "in kind services".

In cooperation with the Township Planner's office, the provisions of "in-house" in kind technical services has also eliminated the need to provide matching municipal cash outlays (usually 20%) for various planning grants recently obtained, including two Delaware Valley Regional Planning Commission TCDI grants, and a DCA Smart Future Planning Grant for redevelopment and Master Plan related projects and programs.

III. MASTER PLAN ELEMENTS

THE 2008 COMPREHENSIVE MASTER PLAN IS COMPRISED SPECIFICALLY OF THE FOLLOWING ELEMENTS:

A. Land Use Plan

B. Housing Element & Fair Share Plan

C. Community Design Plan

D. Community Facilities Plan

E. Circulation Plan

F. Open Space and Recreation Plan

G. Natural Resources Conservation Plan

H. Utility Infrastructure and Service Plan

I. Municipal Stormwater Management Plan (MSWMP)

J. Recycling and Energy Conservation Plan

As permitted by the Municipal Land Use Law, the Township may from time to time add, amend, update, or repeal certain elements of this master plan.

A. LAND USE PLAN ELEMENT

GOAL: Achieve balanced land use in Burlington Township that supports a healthy and safe community where residents can live, work, recreate and prosper.

Regularly review the master plan and land development ordinances to maintain the strategic focus of the Township; update and amend ordinances as needed to maintain Master Plan consistency.

Introduction

The Strategic Vision, Goals, Objectives, and Policies presented in Section II have been established to guide the physical, economic and social development of the municipality. This Land Use Plan Element takes into account the Strategic Vision, Goals, Objectives and Policies as stated in Section II. The Township's Land Use Plan is significantly influenced and effected by unique local natural conditions, including, water supply, public sewer, drainage, flood plain areas, wetlands forested areas, topography and soils which are shown on the master plan mapping series, and are more specifically addressed within each applicable element.

The Existing Land Use Plan shows the location, extent and intensity of existing development for the varying types of land uses (residential, commercial, industrial, agricultural, recreational, educational and other public and private purposes). The relationship between the existing land use plan, zone plan and zoning ordinance are presented in this element.

The Proposed Land Use Plan shows the location, extent and intensity of future development for the varying types of land uses (residential, commercial, industrial, agricultural, recreational, educational and other public and private purposes). The relationship between the proposed land use plan, zone plan and zoning ordinance are presented in this element.

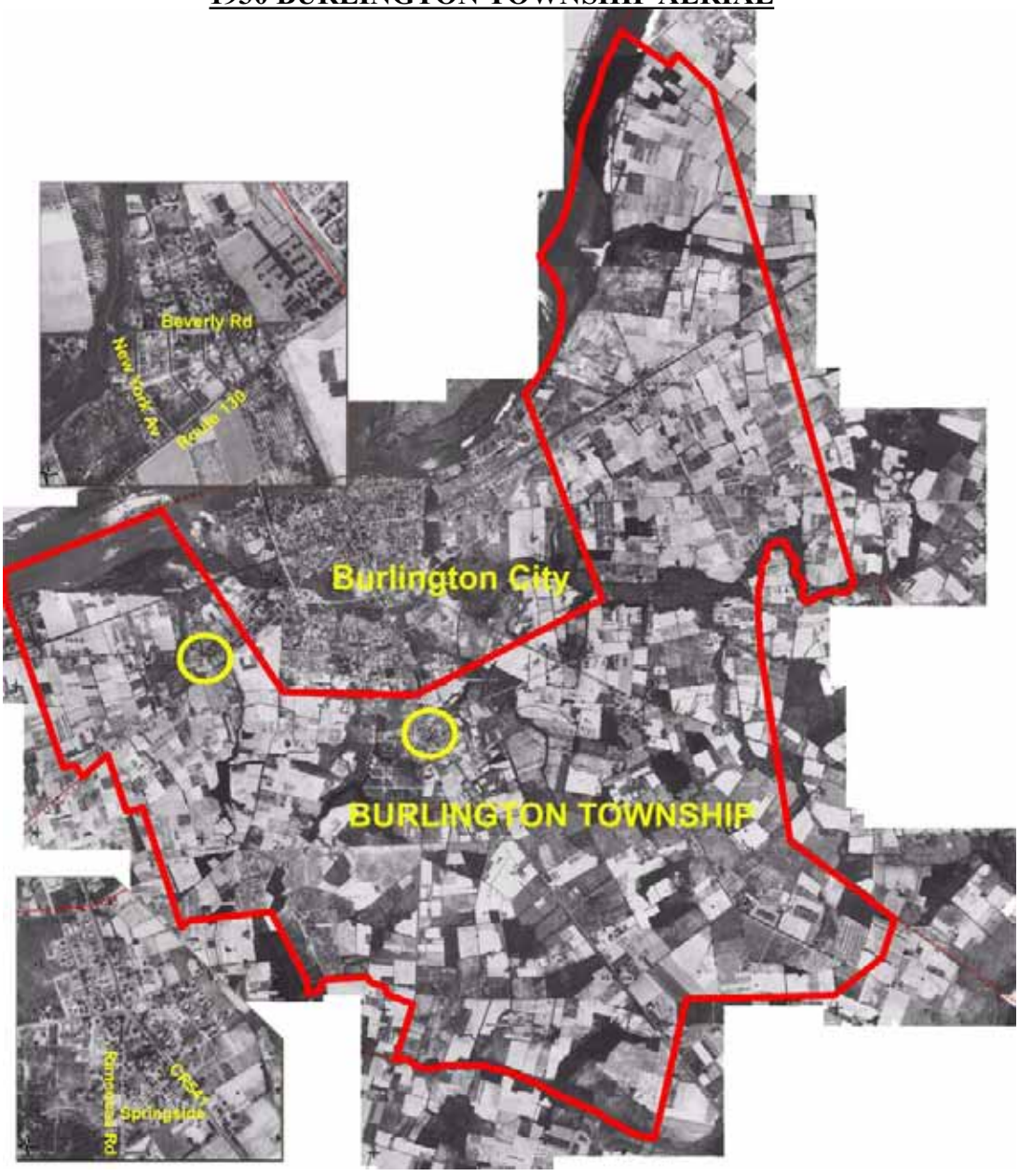
This Land Use Plan Element supports the goals and objectives of the other Township Master Plan Elements. The Housing Element and Fair Share Plan were adopted by the Township, and submitted in December, 2005 to the Council On Affordable Housing (COAH) for substantive certification. Subsequent rule changes by COAH effective June 2, 2008 require the Township to amend the Housing Element and Fair Share Plan and resubmit for certification. The 2008 Master Plan effort also supports the goals and objectives of the relatively new Municipal Stormwater Management Plan (MSWMP) as adopted in 2005. The MSWMP was adopted as a sub plan to the Utility Infrastructure and Service Plan. As part of the 2008 master planning process, the Burlington Township Engineering Department re-examined the 10/10/2006 MSWMP. The Township Engineering Department did not identify any recommended revisions to the MSWMP as part of the 2008 Master Plan.

In addition to this Land Use Plan element, the Community Design Plan; Community Facilities Plan; Recreation and Open Space and Recreation Plan; Circulation Plan; Natural Resources Conservation Plan; Utility Infrastructure and Service Plan; Recycling and Energy Conservation Plan; were all prepared, updated, and or amended as part of the 2008 Master Plan update.

Historical Land Use

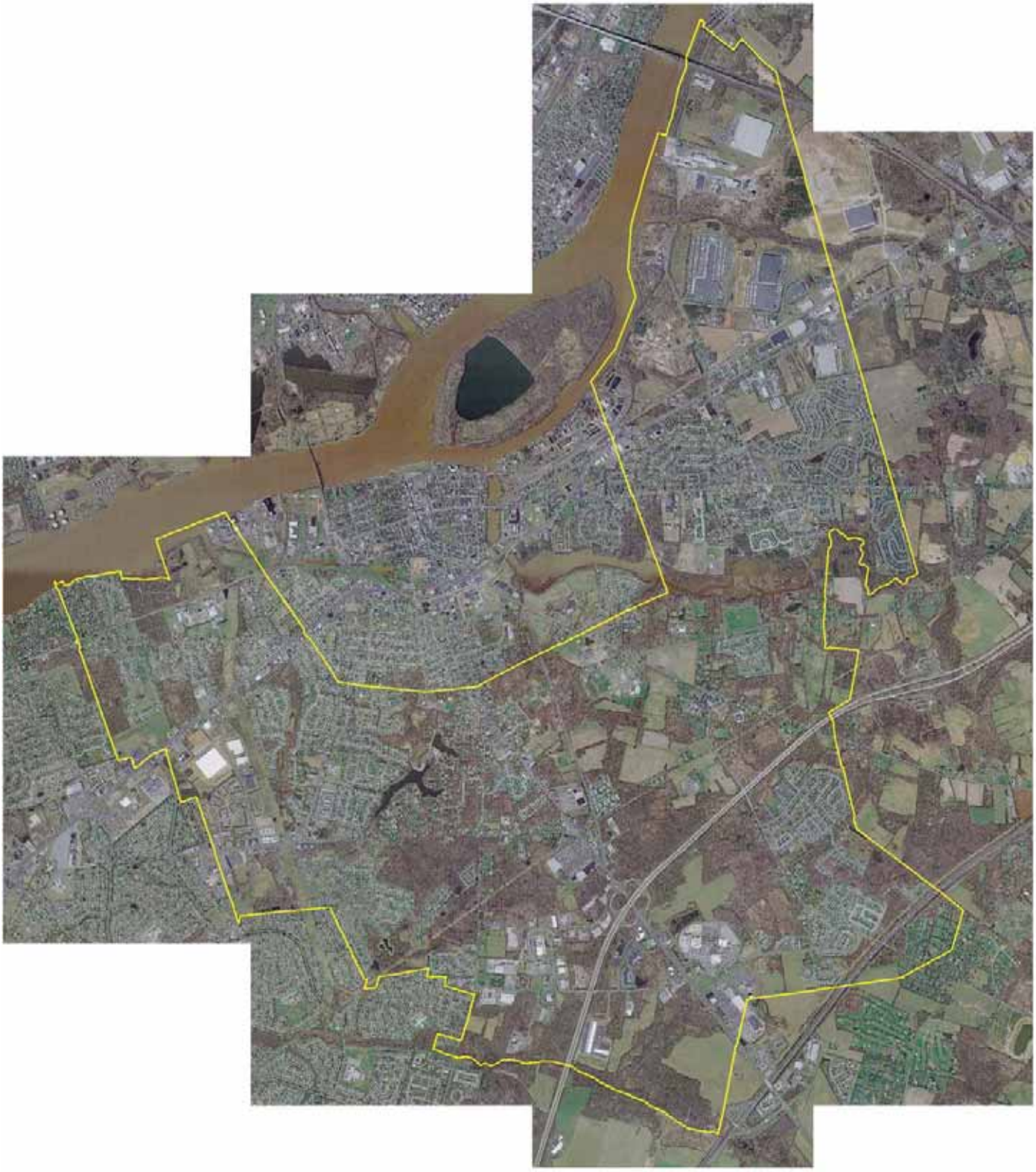
Burlington Township's agricultural history can be clearly seen in the NJDEP 1930's aerial photograph below. Residential and commercial development during this era is generally confined to the Burlington City area and two relatively small areas within Burlington Township (Route 130 & New York Avenue; and Springside CR541).

1930 BURLINGTON TOWNSHIP AERIAL



1995 BURLINGTON TOWNSHIP AERIAL

2005 BURLINGTON TOWNSHIP AERIAL



Comparing the 1995 and 2005 aerial photographs (above) shows the past ten (10) years of growth and land use changes throughout the Township.

EXISTING LAND USE

The existing land use map prepared as part of this Master Plan was assembled using the property classification codes found at N.J.A.C. 18:12-2.2. The Burlington County Department of Information Technology (GIS Unit) provided the October 2007 property tax data; the municipal tax assessor and Township engineering department will coordinate with the County to update the data set to reflect recently completed developments and land use changes.

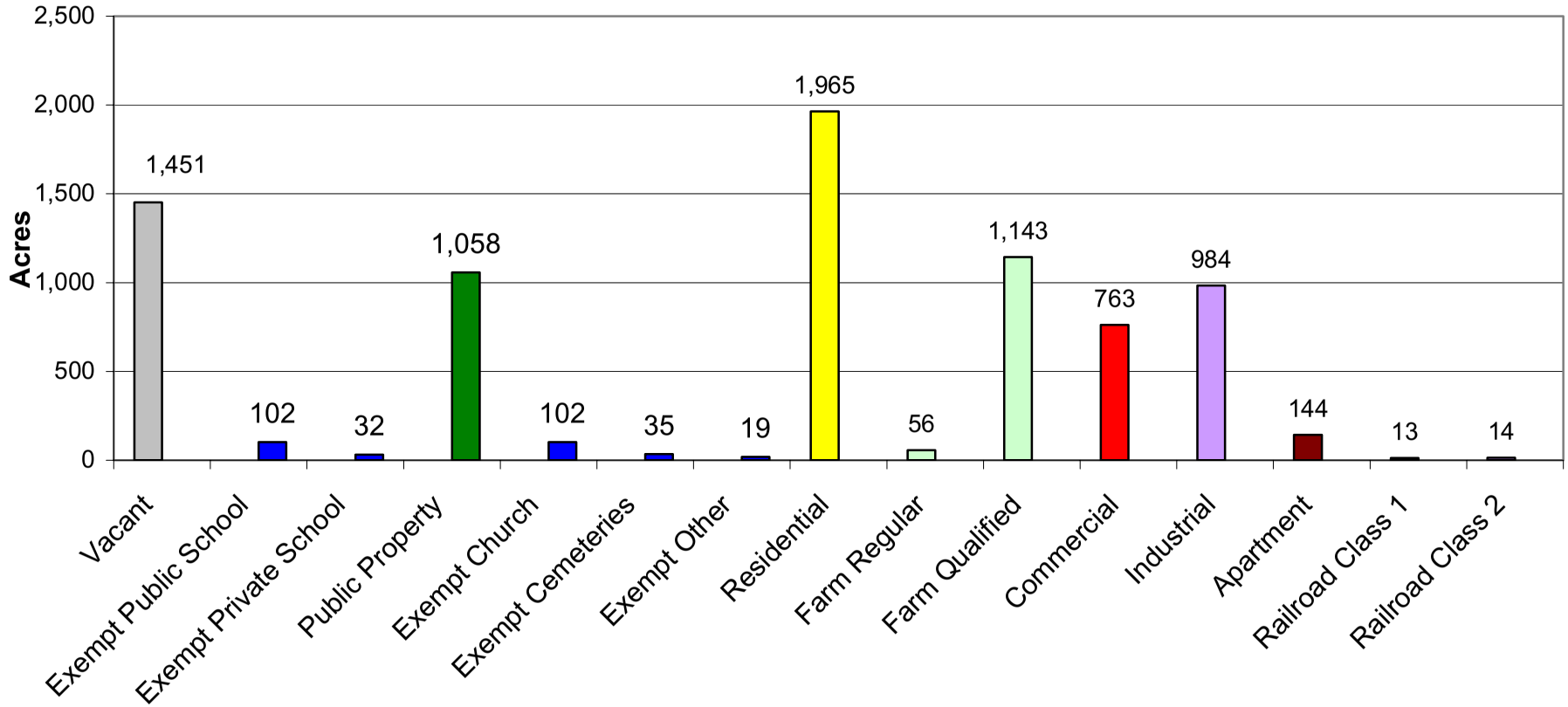
The existing land use data is extremely valuable in that it provides a wealth of information regarding development patterns in the community. The existing land use plan clearly shows the location, extent and intensity of development for residential, commercial, industrial, agricultural, recreational, and educational uses.

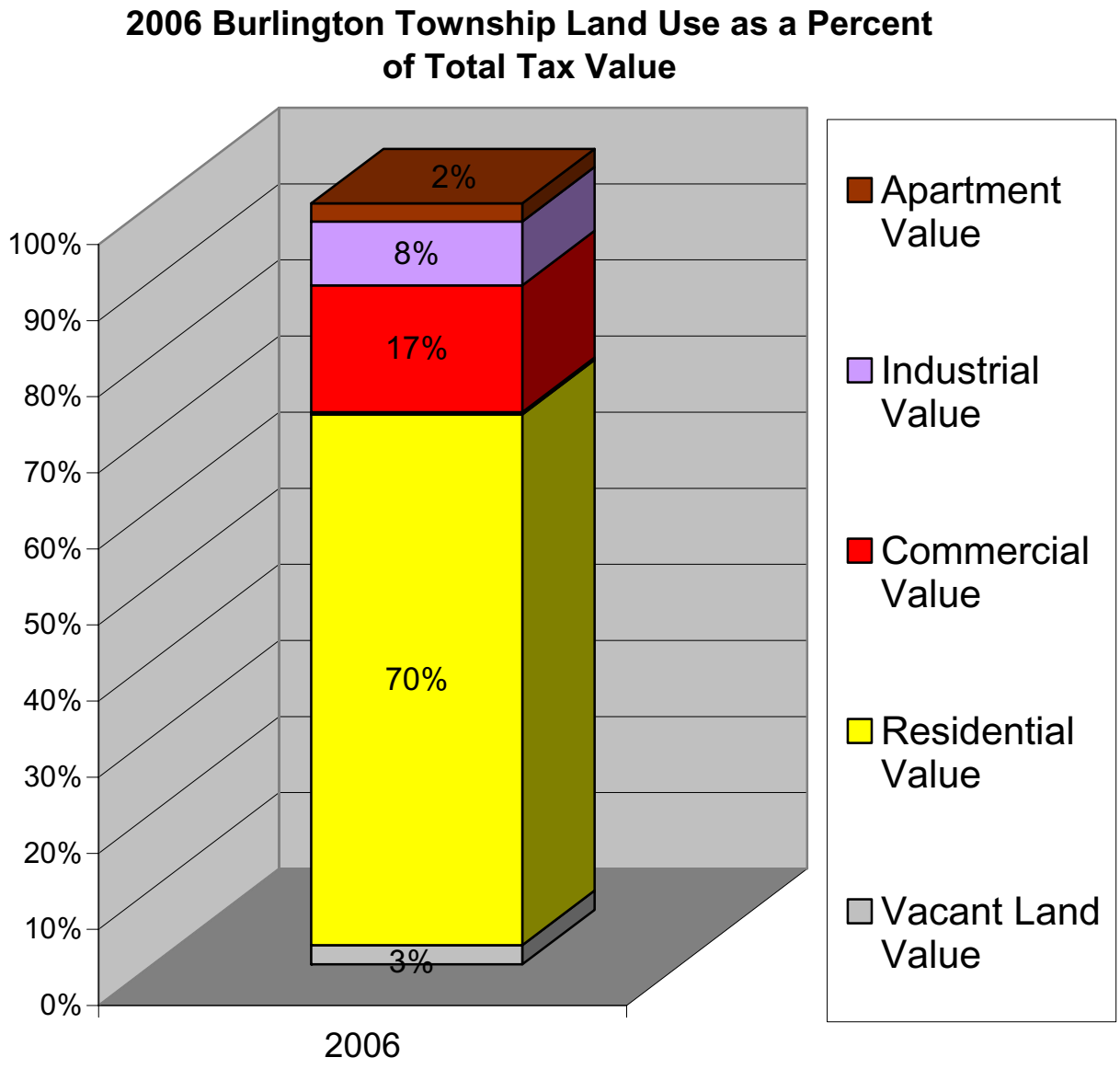
By comparing the existing zone plan to the existing land use map inconsistencies between zoning and actual developed land uses are easily identified for further study. Additionally, development potential can be examined by comparing the zone plan to available vacant land.

Existing Land Use by Approximate Acres based on County GIS Mod 4 data – 10/2007

Property Class	2007 Approximate Acres	Acres as a % of Twp	2006 Property Class as a % of Total Twp Value
Vacant (Class 1)	1,451	16%	3%
Residential (Class 2)	1,965	22%	70%
Apartments (Class 4C)	144	0.016%	2%
Farm Regular (Class 3A)	56	0.006%	>0.5%
Farm Qualified (Class 3B)	1,143	13%	>0.5%
Commercial (Class 4A)	763	8%	17%
Industrial (Class 4B)	984	11%	8%
Public School(Class 15A)	102	1%	n/a
Other School(Class 15B)	35	0.003%	n/a
Public Property(Class 15C)	1,058	12%	n/a
Church-Charitable(Class15D)	102	1%	n/a

Existing Land Use/Property Class by Acreage.
This graph is based on the October 2007 property tax data.





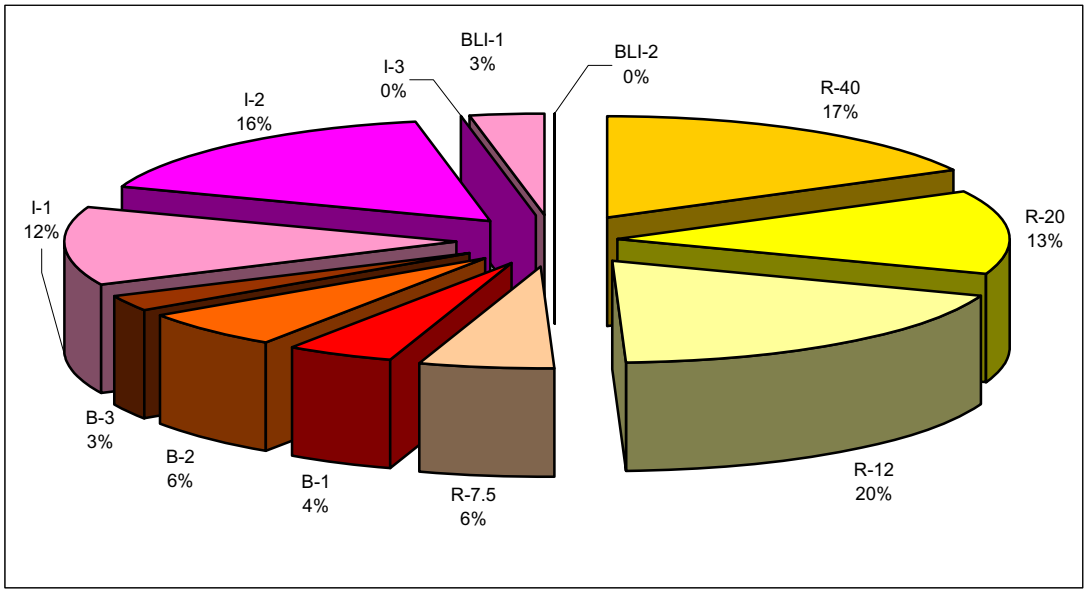
Assuming relatively minor shifts in land use tax values and total acres developed from 2006 and 2007, by comparing commercial and industrial values (17% and 8% - 2006) to developed acres (762 and 984 -2007) and total zoned acres (13% and 28%) an imbalance of commercial acres becomes evident. Rezoning vacant or under utilized industrial areas to commercial in appropriate locations is a consideration.

Existing Zones by Approximate Acres based on Current Zone Plan

Zone	Description	Approximate Acres	Approximate Vacant Acres
R-40	Low Density Residential	1,517	434
R-20	Medium Density Residential	1,151	154
R-12	Medium Density Residential	1,657	177
R-7.5	High Density Residential	495	26
Residential Overlays:			
AR – Age Restricted		76	49
PRC – Planned Retirement Community		45	45
B-1	Regional Business	386	133
B-2	Highway Business	527	112
B-3	Neighborhood Business	230	66
I-1	Industrial Light	1,087	219
I-2	Industrial Heavy	1,424	487
I-3	Industrial Special	5	0
BLI-1	Business Light Industrial 1	266	115
BLI-2	Business Light Industrial 2	7	2

Note: ROW centerlines and utility easements are often utilized as zone boundary lines. Therefore, the approximate zone acres above include these areas. There are approximately 900 acres of Road and Rail ROW in Burlington Township.

Existing Zones by Approximate Percentage of Total Township Area



Existing Ordinance Requirements:

Zone	Description	Min Lot Size	Max Bld. Cover	Max Lot Cover	Max Height
R-40	Low Density Residential	40,000SF	25%	40%	35’
R-20	Medium Density Residential	20,000SF	25%	40%	35’
R-12	Medium Density Residential	12,000SF	25%	40%	35’
R-7.5	High Density Residential	7,500SF	25%	50%	35’
Residential Overlays:					
AR – Age Restricted		2,700SF	n/a	85%	27’
PRC–Planned Retirement Community		2,700SF	n/a	85%	27’
B-1	Regional Business	10ac	n/a	60%	35’
B-2	Highway Business	40,000SF	n/a	50%	35’
B-3	Neighborhood Business	40,000SF	n/a	50%	35’
I-1	Industrial Light	2ac	n/a	60%	60’
I-2	Industrial Heavy	5ac	n/a	60%	n/a
I-3	Industrial Special	40,000SF	n/a	60%	n/a
BLI-1	Business Light Industrial 1	40,000SF	n/a	50%	35’
BLI-2	Business Light Industrial 2	40,000SF	n/a	50%	35’

Relationship between the existing land use plan, zone plan and zoning ordinance.

The existing land use pattern of development throughout Burlington Township is generally consistent with the zone plan and zoning ordinance. In the effort to eliminate or reduce any inconsistencies or conflicts in or between the municipal zone plan, and land development ordinances, proposed changes have been included in the proposed land use plan. It is further recommended that subsequent updates to the land development ordinances address these issues through code amendments. The objective being full and comprehensive consistency among the existing land use plan, zone plan and land development ordinances.

PROPOSED LAND USE

This Land Use Plan Element does not propose significant modifications to the existing land use plan. There are, however, certain modifications which are necessary to address changing community demographic, employment and housing needs.

This Land Use Element of the Master Plan includes three main classifications of land use:

1. Commercial

B-1 Regional Business
B-2 Highway Business
B-3 Neighborhood Business

2. Industrial

I-1 Industrial Light
I-2 Industrial Heavy
I-3 Industrial Special

BLI-1 Business Light Industrial 1
BLI-2 Business Light Industrial 2

3. Residential

R-40 Low Density Residential
R-20 Medium Density Residential
R-12 Medium Density Residential
R-7.5 High Density Residential

Residential Overlays:
AR – Age Restricted
PRC – Planned Retirement Community
New: CCRC – Continuing Care Retirement Community (New)

Commercial Land Uses

Burlington's three categories of commercial/business zones B-1, B-2, B-3 are approaching build out. The current zone plan identifies approximately 1,143 acres of commercial/business zoning (approximately 13% of Burlington Township). Unadjusted for completed projects and applicant approvals, approximately 311 acres of vacant commercially zoned land remained in the Township in October of 2007. The B-1 and B-2 zones are located primarily along CR541 and Route 130. The neighborhood business zone (B3) is located around the intersections of Columbus/Neck Road; Sunset/Salem Road; CR541/Fountain Avenue; and along a section of Rancocas Road.

Assuming projects under construction or approved for construction are completed, the B-2 (Highway Business) and B-3 Zones are generally built out. These two zones encompass approximately 757 acres (approximately 9% of total land area) of land within the Township. Approximately 580 acres (76%) of the 757 acres was developed at the time of the 10/2007-tax data collection. Adjusting the data for errors, new construction, and applicant approvals, it is estimated by 06/2008 eighty-six percent (86%) of these two zones were developed. Redevelopment and infill development applications have been increasing for these two zones and are expected to continue.

The B-1 (Regional Business) Zone has 386 acres in area, of which 133 acres remains vacant. The vacant lands have been investigated/examined as part of the I-295/CR541 Redevelopment Area. The vacant B-1 land surrounding the Burlington Mall is assumed likely to be developed within the next decade.

Two Business Light Industrial (BLI) zones exist within the proposed land use and zoning plan (BLI-1 and BLI-2). Although relatively small in area (less than 3% of total Township Zoning) and confined to two areas along Route 130, and one area to the north of I295/By-pass, the BLI zones generally permit all uses in the other business and industrial zones. Considering the existing development pattern and the Township's objective to protect existing neighborhoods, this Master Plan recommends the permitted uses within the BLI zones be further examined and amended to control negative impacts while promoting state of the art low impact development.

Industrial Land Uses

There are two areas within the Township Zoned I-1 (Industrial Light). The larger of the two is generally located between Irick Road and Rancocas Road. The second smaller area is located along both sides of Route 130 between Neck Road and Florence Township.

Burlington Township's I-2 (Industrial Heavy) Zone is primarily located in the northeast section of the town and is bordered by the Delaware River and Florence Township municipal line to the north and the River Line/Conrail Road to the south. A second smaller I-2 area is located on the western side of town adjacent to Burlington City and the Delaware River.

The I-1 and I-2 industrial zones cover approximately 2,500 acres (28% of the Township); it is estimated 450-550 acres of vacant I-1/I-2 zoned land remains in the Township under the current zone plan.

The I-3 (Industrial Special) only 5 acres in size is located along the River Line adjacent to the western boundary of Burlington City. Rezoning of this relatively small zone is a future consideration for the Township.

Residential Land Uses

As can be seen in the previous tables, nearly all of the residential areas within the Township have been developed. By maintaining consistency with current residential land uses classifications, existing and proposed (low, medium, and high-density) neighborhoods can be successfully integrated while respecting the existing development pattern.

Since the 1998 Master Plan, the Township has adopted two new age restricted residential overlays. The Age Restricted (AR) and Planned Retirement Community (PRC) overlays vary in the size of development they are intended to attract and regulate. To achieve an even greater housing unit mix to serve Burlington Township's the aging population, a new Continuing Care Retirement Community (CCRC) Overlay is proposed as part of this Land Use Plan Element.

Municipal population density and development intensity:

Census Year	Population & Density*		Housing Units & Dwellings Per Acre	
1970	10,621	1.21	3,186	0.36
1980	11,527	1.31	4,206	0.48
1990	12,454	1.42	4,666	0.53
2000	20,294	2.31	7,348	0.83

ASSUMPTIONS:

- Complete build out of the Continuing Care Retirement Community Overlay district within 12 years.
- Build out of 50% of the areas with the Age-Restricted Overlay option within 12 years.
- Incremental infill housing units.

Year Projection	Population & Density*		Housing Units & Dwellings Per Acre	
2010	22,500	2.57	8,150	0.93
2020	26,000	2.97	9,750	1.11
2030	27,000	3.08	10,250	1.17

* Densities based on a total municipal area of 8,758 Acres

Supplementing the goals and objectives established in Section II of this Master Plan, the following specific goals and objectives are intended to guide the development of land within the Township:

1. **Commerce and Industry**

Goal: Achieve a fiscally beneficial mix of retail, office/industrial uses, and heavy industrial uses to achieve economic strength and stability in its municipal tax base.

Objectives: To modernize and upgrade the appearance, safety and function of the Route 130 commercial corridor. Support the conversion of overhead utility lines to underground lines in the effort to improve the aesthetics of Route 130, and increase safety by eliminating public exposure to downed wires from accidents and storms.

To provide increased development and redevelopment opportunities for industrial uses in appropriately zoned areas of the Township.

To encourage commercial development and redevelopment along specific transportation routes as appropriately zoned.

To support increased utilization of existing office, industrial and commercial development. To provide for appropriate manufacturing and heavy industrial uses which are appropriately located and compatible with the Township's environmental resources.

To support and monitor home based businesses and ensure adequate regulatory controls.

2. **Housing**

Goal: Achieve a variety of housing types in sufficient quantities that creates a strong community base of population in safe and friendly neighborhoods, and does not place a burden on overall Township fiscal stability.

Objectives: To control residential property taxes by promoting commercial and office/light industrial uses.

To provide age-restricted housing in those areas of the Township where currently permitted by existing zoning regulations to meet the needs of Township residents.

To meet the Council on Affordable Housing fair share requirements through various methods including rehabilitation of existing housing stock, alternative living arrangements, supportive and special needs housing, age-restricted housing, and other means as necessary.

To integrate new development with substantial open space areas using Smart Growth techniques that discourage suburban sprawl.

To minimize the visual impact of new development and to require buffers for safety and visual attractiveness.

To encourage infill development and redevelopment as a Smart Growth technique.

To promote energy conservation in all redevelopment and new development construction.

To promote high quality and attractive building and landscape architecture.

3. **Community Facilities and Services**

Goal: Provide for the general needs of all Burlington Township residents by making available those facilities and services necessary for the common good.

Objectives: To promote facilities for local groups allowing them to meet and work together for the good of the community. Facilitate appropriate public and private partnerships.

To encourage community assistance for those having special needs, and to expand compliance with the Americans with Disabilities Act (ADA) in public places.

To identify the most efficient and effective means of providing municipal services while minimizing operating costs and capital expenditures.

4. **Recreation**

Goal: Provide ample recreation facilities that meet the active and passive recreational needs of Burlington Township residents of all ages.

Objectives: To provide family oriented parks and green spaces throughout the Township.

To continue the maintenance and upgrade of Assiscunk Creek Park as the centralized and dominant park in the Township.

To keep current with active recreational needs and trends of Burlington Township residents, and to meet those needs by providing ample amounts of recreational opportunities.

5. **Environment**

Goal: Preserve environmentally sensitive areas in their natural state, and to protect natural resources and areas of conservation.

Objectives: To protect wetland and flood plain areas by generally mapping these locations and identifying State and Federal preservation requirements.

To protect surface and subsurface water supplies by

promoting control of nonpoint source pollution, and well head protection.

To preserve wooded areas for wildlife habitat, and helping manage these and other natural areas throughout the Township.

To provide strong support for our varied natural resources including forested areas, streams and river frontage which provide many passive recreational opportunities, i.e., fishing, hiking and enjoyment of wildlife and the natural environment. These natural areas must be kept clean and preserved for generations to come. Burlington supports initiatives to help increase individual awareness and understanding of an involvement with the environment. Environmental education is a continuing process. Priorities include increasing resident understanding and appreciation of natural resources, and taking responsibility for actions that impact the environment.

To continue to implement NJDEP's new stormwater management regulations.

To promote stormwater management practices that positively affect aquifer recharge areas, flood plains, wetlands, waterways, and properties abutting waterways.

To provide significant natural space within and around existing development in order to lessen the impact of the built environment.

To seek appropriate locations for the establishment of greenways linking areas of environmental and recreational importance.

To promote wildlife preservation areas.

To promote lake management which supports the maintenance of the aesthetic benefits, environmental integrity, good water quality of lakes, as well as the financial benefit of increased area realty value.

6. **Open Space**

Goal: Preserve and/or protect appropriate remaining open space areas throughout the Township.

Objectives: To ensure that open space planning plays an important role in developing the character, location, magnitude and timing of growth and development in the Township.

To utilize a wide array of open space preservation methods and techniques.

To give priority to preserving large contiguous tracts of forests and lands containing unique areas of environmental sensitivity.

To identify and protect the habitats of threatened and endangered species of wildlife and vegetation, and control the character, location and magnitude of growth and development in and adjacent to such habitats.

To promote and encourage the protection of privately owned tracts of open space, wetlands and forestlands.

7. **Circulation**

Goal: Provide for the orderly and efficient movement of people and goods throughout the Township.

Objectives: To protect the existing transportation routes from development that exceeds the capacity of the road system.

To utilize the existing major transportation routes as much as possible, and avoid the expansion of new major arterial roadways.

To apply state of the art roadway design methods and techniques which optimizes the effectiveness and efficiency of the Township's existing roadway network.

To encourage the further development and use of public modes of transportation including light rail, buses and para-transit.

To promote pedestrian walkway systems and bicycle pathways throughout the community, particularly

connecting residential neighborhoods with nodes of commercial activity, places of employment, and transit centers.

To encourage the upgrading of existing transportation facilities. This will include but is not limited to the following:

a. Taking full advantage of the new Light Rail service.
b. Extending of bicycle routes.
c. Improving the existing roadway and intersections.

To quantify and control to the greatest extent possible the increased "background" traffic levels that is a result of nonspecific growth.

To monitor and record traffic patterns and conditions.

To monitor traffic volumes and determine the most effective solution for traffic control.

To identify transportation facilities that will be affected by development on a case-by-case basis.

To set in place procedures that provide for a reasonable assessment of the impact of new development on identified transportation facilities.

To facilitate the upgrade of transportation facilities relative to impacts by development. Procedures will be set in place to determine impact costs associated with development to be transferred to developers by the Township.

To explore the potential benefits associated with the coexistence of the new Light Rail and existing freight service.

To identify safety issues associated with the change of use from freight service to high-speed light rail systems.

To obtain "official designation" of bike routes and walking trails.

8. **Solid Waste**

Goal: Maximize recycling and reduce solid waste generation to the greatest extent possible throughout the Township.

Objectives: To set community standards for source reduction of solid waste generation.

To set community standards for maximizing recycling.

To educate our residents regarding recycling and the use of the Township and County recycling and compost facilities.

3. LAND USE CONCLUSIONS AND RECOMMENDATIONS

During the period 1980 to 2000, Burlington Township experienced rapid residential growth. The Delaware Regional Planning Commission (DVRPC – Metropolitan Planning Organization) ranked Burlington Township as the fourth fastest growing municipality (in absolute change) from 1990-2000 within its jurisdiction. According to tax records between 1998 to 2006, the number of vacant tax lots decreased from 1,101 to 289 (which is estimated to equal 1,600 plus acres). In addition to residential growth, the Township has experienced significant commercial and industrial investment. The Township prepared for the anticipated growth through its significant planning efforts which resulted in land development regulations that provided for basic utility and traffic improvements substantial open space and recreational opportunities.

As can be seen in the vacant land use analysis (as adjusted downward for projects either under construction and/or approved – 1,000+/- Acres) the Township is substantially built out. The few remaining large "key" tracts of vacant land can be summarized as follows:

a. I-295/CR541 Redevelopment Area behind the Burlington Mall; approximately 140-acres of Regional Business Zone (B-1).

   Consistent with the redevelopment plan for this area, this Master Plan supports updating permitted uses, bulk standards and design guidelines for the entire Regional Business Zone (B-1).

b. Masonic Charitable Foundation properties; between I-295 and Fountain Woods Road, approximately 460-acres.

   By providing additional development options, the residents of Burlington Township and surrounding region will have the opportunity to reside in a unique "age in place" environment while remaining close to family and friends.

c. CR541, Irick Road East of I-295; approximately 200-acres.

The Township's strategic future direction has been developed through a comprehensive analysis of the existing and proposed land use pattern and zone plan. The following recommendations are made involving future land use in Burlington Township:

LAND USE PLAN RECOMMENDATIONS

1. **Continuing Care Retirement Community (CCRC):** A permitted use overlay for a CCRC between the north side of I-295 and Fountain Woods Road, and Burlington By-pass and Jacksonville/Oxmead Roads. The CCRC would consist of mixed-use housing and associated services for seniors, with integrated independent apartment living, assisted living, skilled nursing alternatives, COAH compliant units, and a commercial component >250,000 SF in area. Minimum tract size 100 acres. Permitted densities would be approximately six (6) independent units per gross acre. In addition to the independent units up to 0.25 units or beds in the assisted living and skilled nursing care for each independent unit. For example: 400 acres at 6 units per acre = 2,400 independent units; 0.25 units or beds for each 2,400 independent units = 600. Total impervious coverage should be limited, with emphasis placed on cluster housing and open space preservation. Pedestrian/bikeways would connect existing and proposed neighborhoods and open space areas. Environmentally sensitive areas would be protected and integrated into site layout.

   The addition of a new CCRC zone and ordinance for residents 62-years and above, will provide residents an opportunity to "age in-place". This meets one of the Township housing goals by providing a new housing type to the existing housing unit mix.

2. **Age Restricted-1 (AR-1)** – A permitted use overlay for multi-family age restricted buildings should be applied to the Old Springside School property and considered for other appropriate areas in Town. Minimum lot size 5-8 acres. Permitted densities would range from 8-10 units per gross acre. The Old Springside School property is particularly suited for this type of development given the underlying residential zone and the time tested spatial relationship between the existing school building-mass with the surrounding neighborhood.

3. **Age Restricted (AR) Overlay additional locations:**

   a. Intersection of SW Quad. of Sunset & Rancocas Roads.

   b. Intersection of NW Quad. of Sunset & Rancocas Roads.

   c. 2315 Rancocas Rd. Currently Single Family Home and Farmland and also to include adjacent properties.

The Master Plan Land Use Analysis & Recommendations - Age Restricted Accommodations document adopted by the Planning Board on 02/01/2005 establishes the planning basis and community need for age restricted housing within the Township. The conclusions and recommendations identify a need for providing Continuing Care Retirement Communities within the Township. Presently the Township has two-overlay zones in-place to accommodate two varying types of small and large-scale comprehensively planned Age Restricted (AR) and Planned Retirement Community (PRC) developments (these developments are intended for residents 55-years of age and above).

4. **CR541**: Zone change from Industrial to Business: Intersection of CR541 and Irick Road (See Proposed Land Use Plan).

5. **CR541**: Zone change from Residential to Business (B-2): East side CR541: just north of proposed Lowes to include Mattson's Market. Lots included: Block 116; Lots 1, 1.03, 3 and 4.

6. **Rancocas Road (CR635):** Zone line relocation. Rancocas Estates – Rancocas Road, the B3 zone line should be moved to the rear property lines of the lots located along Keith Lane. This would effectively rezone existing non-conforming homes from B-3 to R-7.5.

7. **US Route 130:** Block 100.11, Lot 1, presently this property is split zoned Business and Residential – the zone line actually passes through the existing warehouse/office building. Zone line realigned to the rear of the property. Residential buffering is an issue when moving the zone boundary in this area.

8. **Redevelopment:** The Township should continue to monitor areas that may meet the standards for rehabilitation or redevelopment under the Local Redevelopment and Housing Law. The recent manufacturing shut down of the long-standing US Pipe factory along the municipal border with Burlington City is an area that should be continually monitored. As this large tract crosses the municipal boundary, discussions with Burlington City are to be anticipated regarding future land use.

9. Redevelopment efforts in Burlington Township, in cooperation with the NJDOT, Burlington County and PSE&G should include the conversion of above ground utilities, particularly along the Route 130 Corridor, into underground lines. This effort will serve to improve the appearance, safety, and function of the River Route.

LAND USE ORDINANCE CHANGES/AMENDMENTS

1. Age Restricted (AR) and Planned Retirement Community (PRC) Zone Bulk Standards (height = 27' etc.); housing types (single-family detached and Town homes only); open space requirements; and permitted densities are recommended for amendment to achieve consistency with current market designs and smart growth planning principles.

2. Permitted and conditional uses particularly in business and industrial zones need to be amended to allow state of the art development and redevelopment, while protecting the health, safety and welfare of our residents.

3. The Regional Business Zone (B-1) standards should be amended to better accommodate and control modern "Mall" type developments. The Burlington Mall and surrounding vacant land (Redevelopment Area) is Burlington's only B-1 area. Example: the maximum building height for this zone is insufficient at thirty-five feet (35').

4. The Township's buffering and screening ordinance (particularly between residential and business/industrial) is recommended to be updated to achieve greater effectiveness as a barrier involving sight, sound, and light pollution. For example, only a 15' buffer is presently required between business zones and residential.

5. Lot coverage maximums in business and industrial zones are recommended to be amended with consideration to optimize land use and increased ratable potential.

6. Transition zones between existing transportation corridors (particularly US Route 130 and CR541) and residential areas should be further explored. Transition zones would aim to control or eliminate certain negative impacts on residential areas associated with particular non-residential uses.

7. Business Light Industrial (BLI) zone uses should be examined and appropriately updated to reflect more contemporary business uses. Additionally the BLI zones should be removed from areas where industrial type uses and activity may negatively impact residential neighborhoods.

8. Develop a General Development Plan (GDP) Ordinance as part of the CCRC Overlay development process.

9. The following new section should be added to the Ordinance. Municipal buildings, parks, playgrounds, and other municipal governmental uses do not require approval by any reviewing agency, however, capital project review is required as mandated by N.J.S.A. 40:55D-31. Municipal or governmental uses, including parks and playgrounds should be removed from the schedule of uses for all zoning districts.

10. Burlington Township's Circulation Element promotes pedestrian walkway systems and bikeways throughout the community. Township development ordinances should clearly require developers to install sidewalks along adjacent roadways, subject to the NJDOT or Burlington County as applicable. Bikeways are similarly to be installed as called for in the Township Circulation Plan. As approved by the reviewing board, a contribution of equal value to a dedicated Township Sidewalk/Bikeway Trust Fund may be determined appropriate as a street improvement in lieu of immediate construction.

11. Required parking ratios should be reviewed with consideration given to specifying maximum number of parking spaces rather than minimum number of spaces, while also considering actual parking need as supported quantitatively by applicants for development.

12. The Appellate Division ruled on 06/23/08 the MLUL does not enable the requirement to set aside land for open space or payments in lieu of set-asides, unless a planned development is considered. Burlington Township Ordinance Section 19:12-2.2 and related requirements should be examined and amended in compliance with this ruling.

The recommended Land Use Plan changes and amendments are based on extensive experience in Burlington Township gained in the review of land development applications. During the review process, Planning Board members learned of the special concerns expressed by the members of the development community as well as the public. The proposed revisions reflect comments and suggestions from the professional staff. The Land Use Plan achieves general continuity with the master plans of adjacent municipalities and seeks to satisfy the goals and objectives of the County of Burlington and the New Jersey State Development and Redevelopment Plan.

TOWNSHIP OF BURLINGTON,
BURLINGTON COUNTY, NEW JERSEY

HOUSING ELEMENT

(Part A)

&

FAIR SHARE PLAN

(Part B)

Round 3

"Growth Share"
01/01/2004 to 12/31/2018

November 13, 2008

COAH Region #5
Community Code 0306

State Development & Redevelopment Plan
Planning Area 1 (PA1)
Planning Area 2 (PA2)
Park 2nd Plan (PA6)
Part of Willingboro-Edgewater Park Designated Town (DT)
No Special Resource Areas

History of Approvals:
Second Round: COAH Certified 03/14/1994 to 03/14/00
Third Round: Petition 03/14/00 & 12/20/05

TOWNSHIP OF BURLINGTON,
BURLINGTON COUNTY, NEW JERSEY

HOUSING ELEMENT

(Part A)

&

FAIR SHARE PLAN

(Part B)

Round 3

"Growth Share"
01/01/2004 to 12/31/2018

November 13, 2008

Joseph S. Augustyn, P.P., AICP
New Jersey Professional Planner No. 2447

The document original was signed and sealed in accordance with NJAC 13:41-1.3.

EXECUTIVE SUMMARY
BURLINGTON TOWNSHIP, BURLINGTON COUNTY
HOUSING ELEMENT AND FAIR SHARE PLAN
Round 3
November 13, 2008

On December 13, 2005 Township Council passed Resolution 05-R-237 authorizing the filing of the Township Housing Element and Fair Share Plan for Round 3 and requesting to remain under COAH (Repetition date 12/20/05).

The first fair share round includes the period 1987 through 1993. The second fair share round includes the first fair share round and adds the period 1993 through 1999. The third fair share round includes the first and second fair share rounds and adds the period from 1999 through 2018 for which municipal affordable housing needs are estimated, projected, actualized and/or addressed.

There are three components to the third round Methodology: the "*rehabilitation share"*, the "*prior round obligation*", and the "*Growth Share*." Growth share is generated by statewide residential and non-residential growth during the period January 1, 2004 to December 31, 2018 based on individuals projected to need affordable housing from January 1, 1999 through December 31, 2018.

On January 25, 2007, the New Jersey Superior Court, Appellate Division affirmed in part, reversed in part, and remanded portions of the Round 3 rules back to COAH for rulemaking. On January 22, 2008, COAH proposed new substantive and procedural rules, which became effective on June 2, 2008 as *N.J.A.C.* 5:96 and 5:97. On 06/16/08 Proposed rule amendments to the adopted 06/02/08 rules were published in the NJ Register. The proposed amendments to *N.J.A.C.* 5:96 included a petition schedule with a new deadline for municipalities to submit affordable housing plans to COAH by December 31, 2008. On 07/17/08 Governor Corzine signed a comprehensive affordable housing reform bill A-500 into law, which included amendments to the Fair Housing Act, including the requirement that all municipalities collect housing trust fund monies equal to 2.5% of non-residential equalized assessment value.

Burlington Township has a prior round obligation of **four hundred and forty five (445)** units (*N.J.A.C.* 5:97 Appendix C). As of the date of this document, the Township is monitoring 283 affordable housing units, when accounting for bonus credits (Subject to COAH approval), and the 52 Burlington City RCA, these units represent three hundred and ninety-two (392) COAH Credits. The prior round obligation shortfall of 53 (445-392 = 53) will be addressed through the mechanisms identified in this Fair Share Plan.

Based on recent amendments to N.J.A.C. 5:97, Burlington's "Total Projected Round 3 Growth Share" is **five hundred and fourteen (514) Units**, based on the municipality providing one (1) affordable unit of every five (5) new units and sixteen (16) new jobs, and an adjusted rehabilitation share of fifty-six (56) Units.

The Total Projected Round 3 Growth Share (2004-2018 COAH) relies on a COAH projection of an additional 1,623 residential dwellings (1,623/5 = 324.6 COAH Units) and 3,037 new jobs (3,037/16 = 189.81 COAH Units). 324.6+189.81 = **514**.

Township of Burlington

2008 Mayor and Council

Honorable Stephen M. George, Mayor
Carl M. Schoenborn, Council President
Richard W. Quinn, Jr., President Pro-Tem
Brian Carlin, Councilman
E. L. Pete Green, Councilman
George M. Kozub, Councilman
Harry McConnell, Councilman
Sandra V. Stewart, Councilwoman

Kevin J. McLernon, Administrator
Anthony J. Carnivale, Jr., R.M.C., Township Clerk & Affordable Housing Officer
Kenneth S. Domzalski, Esquire, Township Solicitor
Robert L. Schreibel, P.E., P.P., C.M.E., Township Engineer

2008 Planning Board

Charleen J. George, Chairperson
Robert G. Davis, Vice Chairperson
Honorable Stephen M. George, Mayor
Brian Carlin, Council Representative and Member
William Diamond, Fire Chief and Member
Charles Kelly, Member
Delbert D. Rife, Member
Israel Rivera, School Board Representative and Member
Lacey Walker, Member
Joseph Sabatino, Alternate Member #1
Celeste Niles, Alternate Member #2

Housing Element & Fair Share Plan Development Team & Staff

Eileen R. Liss, Planning Board Secretary
David M. Serlin, Esquire, Planning Board Solicitor
Scott Hatfield, P.E., C.M.E., Burlington Township Assistant Engineer
Joseph S. Augustyn, P.P., AICP, Associate, Alaimo Group
Kevin D. Rijs, P.P., AICP, Senior Project Manager, Alaimo Group

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B. Certified Governing Body Endorsing the Adopted Housing Element & Fair Share Plan and petitioning/filing/Re-petitioning for Substantive Certification.

C. COAH Excel Work Book A: Growth Share Determination Using Published Data.

HOUSING ELEMENT

PART A

1. Introduction: Goals, Objectives and Assumptions

The Strategic Vision, Goals, Objectives, and Policies presented in the 07/10/2008 Comprehensive Master Plan (Section II) have been established to guide the physical, economic and social development of the municipality. This updated Housing Element takes into account the Strategic Vision, Goals, Objectives and Policies as stated in Section II.

Housing Goal: A balanced mix of housing types in good condition to meet community needs.

Objectives:

- Seek to maintain existing neighborhoods as safe, attractive, healthful and stable residential areas with abundant provisions for recreation and open spaces.
- Assure continuity among the varying land uses while recognizing the need for preserving natural resources and open space.
- Enforce fair and just housing code requirements to assure stable property values and aesthetics while protecting the health, safety, morals and general welfare of its residents.
- Encourage and assist in the development of age restricted housing in appropriate locations to meet the needs of our aging population.
- Diversify housing opportunities through new, imaginative, energy efficient and innovative residential formats that meet the needs of the entire community.

In addition, Burlington Township encourages infill development and discourages uncontrolled growth of suburban sprawl. Burlington Township emphasizes strong tax base economics focused on industrial and commercial uses as a foundation for keeping residential taxes low and maintaining housing costs as affordable for all Township residents.

Burlington Township seeks to provide access to affordable housing in accordance with present and prospective housing needs. The Township is proceeding through a planned program of coordinated, phased and contiguous development and redevelopment. Burlington Township will achieve its goals and objectives while recognizing fully that the protection of Burlington's open spaces will serve to sustain future generations.

Assumptions:
A series of assumptions provide the basis for the Burlington Township Round 3 Housing Element and Fair Share Plan. Burlington Township began the new millennium with a population of 20,294 residents based on 2000 Census figures. The Township's 65 years and over age group continues strong growth (currently 12.6% of Burlington Township's population), based on cohort survival projections. Burlington Township will continue to encourage controlled development to occur within or adjacent to existing developments. This pattern of controlled growth achieves greater efficiency using existing Township infrastructure and services. The Township will also continue to restrict residential development in areas where conditions could impact public health, safety, and welfare, or be destructive to the environment. Future development of all types must also be compatible with existing development in consideration of location, existing densities, and community character, and be consistent with the Smart Growth Goals and Objectives of the State of New Jersey.

Burlington Township's housing stock inventory, demographics, Round 3 growth share projections are detailed herein. This housing element provides the foundation for the Township's Round 3 Fair Share Plan.

2. Inventory of Housing Stock

History of Development of Burlington Township

Approximately eighty-five percent (85%) of the residential districts within Burlington Township have been developed or approved for development. Remaining undeveloped areas include limited farmland, vacant land, and infill possibilities between and among existing development. Residential zoning districts in the Township account for approximately sixty percent (60%) of the Township's total land area.

The 2000 U.S. Census shows that just 5.5% (401 units) of Burlington Township's housing units can be considered older housing stock having been built in 1939 or earlier (9.3% or 677 units were built pre-1949). During the decade 1990 to March 2000, the census shows that 3,059 new units (or 41.6% of all homes) were added to the housing stock. Review of the New Jersey Construction Report (http://www.state.nj.us/dca/codes/cr/conrep.shtml) shows 930 new housing units were built between 2000 and May 2008, with a significant slowdown in construction having occurred over the last four (4) years.

The total number of housing units in 1990 was 4,666 consisting of: 2,577 single family detached; 147 single family detached; 333 units and buildings containing two or four units; 136 units and buildings containing five to nine units, 1,430 units and buildings containing ten or more units, and 43 units classified as mobile homes, trailers or other. In 1990, owner occupied housing (2,686 units) in Burlington Township made up 57% of all occupied units. The median 1990 value of single-family housing units in Burlington Township was $117,800. The median value for the upper quartile was $147,600, and $89,900 for the lower quartile.

Nearly all of the 1990 housing units in Burlington Township had complete kitchen and plumbing facilities and public water. Only 5.1% of the units did not have public sewer and 4.7% did not have public water.

In 1990, Burlington Township had a median household income of $39,618. The per capita income was $15,924. Median monthly housing cost for mortgaged housing was $861 and $319 for non-mortgaged housing.

The overall mean number of rooms of all units was 5.5. Owner-occupied units had a mean number of rooms of 6.8, and average 2.94 persons per unit. The mean number of rooms in renter occupied units were 3.5, and averaged 2.17 persons per unit.

Related to the housing stock and demographics are the tax values and rates paid by residents for support of their local services and schools. Typical of New Jersey municipalities, a relatively small percentage of the tax levy is provided for local services and a relatively large percentage is provided for schools. In 2008, the Burlington Township local purpose levy as a percent of the total tax levy is just 14%. The percentage for local schools is 63%. The tax levy for county government is 20%. The remaining tax levy for the Fire District is 3%.

Municipal population density and development intensity

Census Year	Population & Density*		Housing Units & Dwellings Per Acre	
1970	10,621	1.21	3,186	0.36
1980	11,527	1.31	4,206	0.48
1990	12,454	1.42	4,666	0.53
2000	20,294	2.31	7,348	0.83

TABLE 1: Units in Structure by Tenure

Units in Structure	Vacant Units	Total	Occupied Units	
			Owner	Renter
1, detached	96	4,986	4,763	127
1, attached	23	578	497	58
2	4	133	7	122
3 or 4	7	281	39	235
5 to 9	10	188	18	160
10 to 19	78	644	127	439
20 to 49	13	211	14	184
50 or more	5	327	25	297
Mobile home	0	0	0	0
Boat, RV, Van, etc.	0	0	0	0
Total	**236**	**7,348**	**5,490**	**1,622**

Source: 2000 U.S. Census, Summary File 3; H30, H31, & H32 for Township

TABLE 2: Year Structure Built by Tenure

Year Built	Vacant Units	Total	Occupied Units	
			Owner	Renter
1990-March 2000	82	3,059	2,796	181
1980-1989	0	436	353	83
1970-1979	51	815	311	453
1960-1969	56	1,315	779	480
1950-1959	24	1,046	724	298
1940-1949	9	276	212	55
1939 or earlier	14	401	315	72
Total	**236**	**7,348**	**5,490**	**1,622**
Median Year Built	n/a	1978	1990	1968

Source: 2000 U.S. Census, Summary File 3; H31, H34, H35, H36, & H37 for Township

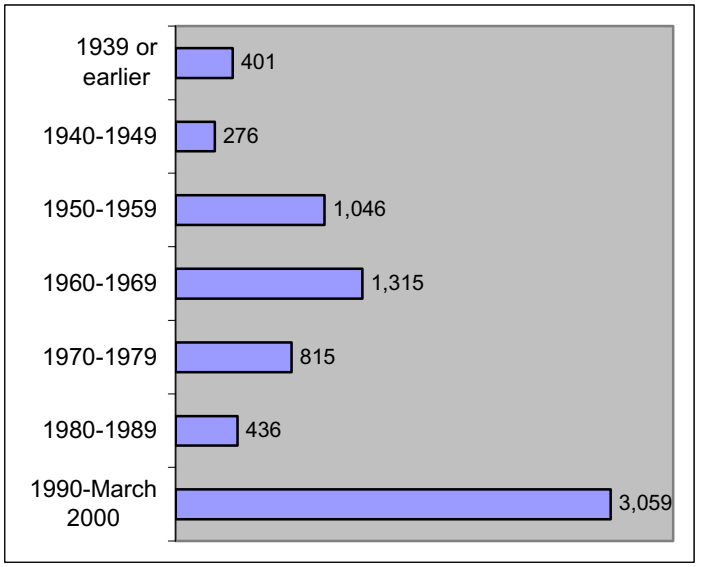


TABLE 3: Comparison of Year of Construction for Township, County, & State

Year Built	%		
	Burlington Township	Burlington County	New Jersey
1990-March 2000	41.6%	16.5%	10.5%
1980-1989	5.9%	15.9%	12.4%
1970-1979	11.1%	19.9%	14.0%
1960-1969	17.9%	17.9%	15.9%
1950-1959	14.2%	13.5%	17.1%
1940-1949	3.8%	4.5%	10.1%
1939 or earlier	5.5%	11.8%	20.1%
Total Units	7,348	161,311	3,310,275
Median Year	1978	1971	1962

Source: 2000 U.S. Census, Summary File 3; H34 & H35 for Township, County, & State

TABLE 4: Household Size in Occupied Housing Units by Tenure

Household Size	Total Units	Owner Occupied Units	Renter Occupied Units
1 person	1,517	825	692
2 person	2,154	1,721	433
3 persons	1,359	1,102	257
4 persons	1,298	1,170	128
5 persons	552	487	65
6 persons	154	121	33
7 + persons	78	64	14
Total	**7,112**	**5,490**	**1,622**
Average Household Size of Occupied Units			
Burlington Twp	2.72	2.90	2.09
Burlington County	2.65	2.77	2.24
New Jersey	2.68	2.81	2.43

Source: 2000 U.S. Census, Summary File 3; H16, & H17 for Township & Summary File 1; H12 for Township, County & State

TABLE 5: Number of Bedrooms per Unit by Tenure

Number of Bedrooms	Total Units	(%)	Vacant Units	Occupied Units		
				Total	Owner	Renter
No Bedroom	131	1.8%	0	131	8	123
1 bedroom	1,268	17.3%	104	1,164	178	986
2 bedrooms	1,008	13.7%	29	979	599	380
3 bedrooms	2,860	38.9%	51	2,809	2,699	110
4 bedrooms	1,929	26.3%	50	1,879	1,861	18
5 + bedrooms	152	2.1%	2	150	145	5
Total	7,348	100%	236	7,112	5,490	1,622

Source: 2000 U.S. Census, Summary File 3; H42 & QT-H5 for Township

TABLE 6: Percentage of All Units by Number of Bedrooms

Jurisdiction	None or one	Two or Three	Four or More
Burlington Township	19.1	52.6	28.4
Burlington County	12.2	58.3	29.5
New Jersey	18.3	59.2	22.6

Source: 2000 U.S. Census, Summary File 3; QT-H4 for Township, County, & State

TABLE 7: Housing Quality for Township, County, & State

Condition	%		
	Burlington Twp	Burlington County	New Jersey
Overcrowding*	3%	2%	5%
Inadequate Plumbing **	0.2	0.4	0.7
Inadequate Kitchen **	0.6	0.4	0.8

*more than 1.01 occupants per room

** All Housing Units

Source: 2000 U.S. Census, Summary File 3; QT-H4 & H20 for Township, County, & State

TABLE 8: Value of Owner Occupied Residential Units

Value $	Number of Units	%
0-50,000	88	1.7
50,000-99,999	652	12.6
100,000-149,999	1,779	34.4
150,000-199,999	1,746	33.8
200,000-299,999	853	16.5
300,000-499,999	45	0.9
500,000-999,999	5	0.1
1,000,000+	0	0
Median	$151,600	(X)

Source: 2000 U.S. Census, Summary File 3; DP-4 for Township

TABLE 9: Price asked vacant for sale only housing units

Value $	Number of Units	%
0-50,000	0	0
50,000-99,999	7	10.4
100,000-149,999	12	17.9
150,000-199,999	28	41.8
200,000-299,999	18	26.9
300,000-499,999	0	0
500,000-999,999	2	3
1,000,000+	0	0
Median	$175,900	(X)

Source: 2000 U.S. Census, Summary File 3; QT-H6 for Township

Note, at the time of the 2000 Census, seven (7) vacant housing units were offered for sale at less then $99,999. The tables above will be updated when the 2010 Census data is released. The 2008 Illustrative Low and Moderate Income Sales Price for New Construction within COAH Region 5, Max. Moderate 70% lists the following illustrative for sale prices:

One bedroom = $87,767
Two Bedroom = $105,320
Three Bedroom = $121,703

TABLE 10A: Rent asked for vacant housing units

Monthly Rent $	No. of Units	%
Under 200	0	0
200-299	0	0
300-499	9	9.1
500-749	90	90.9
750-999	0	0
1000-1499	0	0
1500 or more	0	0
Total Rental Units	99	100%
Median Rent	$ 547.00	

Source: 2000 U.S. Census, Summary File 3; QT-H6 for Township

TABLE 10B: Gross Rents for Specified Renter-occupied Housing Units

Monthly Rent $	No. of Units	%
Under 200	40	2.5
200-299	61	3.8
300-499	73	4.5
500-749	1098	68
750-999	200	12.4
1000-1499	101	6.3
1500 or more	13	0.8
No Cash Rent	29	1.8
Total Rental Units	1,615	100%
Median Rent	$ 621.00	

Source: 2000 U.S. Census, Summary File 3; DP-4 for Township

TABLE 11: Bedrooms by Gross Rent

Monthly Rent $	0xbedroom	1xbedroom	2xbedroom	3xbedroom
With Cash Rent	123	986	373	104
Less than $200	7	33	0	0
200-299	0	61	0	0
300-499	0	73	0	0
500-749	109	733	245	11
750-999	7	78	102	13
$1,000 or more	0	8	26	80
No cash rent	0	0	7	22
Total	123	986	380	126

Source: 2000 U.S. Census, Summary File 3; H67 for Township

TABLE 12: Household Income in 1999 by Gross Rent as a Percentage of Household Income in 1999

Income	Number of Households	Percentage of Household Income					
		less than 20%	20-24%	25-29%	30-34%	35%+	Not Computed
Less than $10,000	241	7	0	6	0	228	0
$10,000 to $19,999	290	21	12	7	20	224	6
$20,000 to $34,999	442	18	163	100	61	87	13
More than $35,000	642	503	102	15	5	7	10
Total Rental Units	1,615						

Source: 2000 U.S. Census, Summary File 3; QT-H13 for Township

As can be seen in Tables 10-12, nine hundred and fifty-four (954 of the total occupied rental units 1,615) rental apartments in Burlington Township spend less than thirty percent (30%) of their household income on rental payments.

Burlington Township is located within COAH Housing Region Five (5). The 2008 Regional Income Limits for one (1) person in Region 5 are as follows:

Median Income	$52,010
Moderate Income	$41,608 (between 80 and 50 percent of median income)
Low Income	$26,005 (50 percent or less of median income)
Very Low Income	$15,603 (30 percent of less off median income)

For illustrative and comparison purposes, using COAH methodologies for calculating Low & Moderate Income Rents for New Construction and/or Gut Rehabilitation the following should be noted:

COAH Region 5 – Illustrative Low & Moderate Income Rents 2008

Income	Gross Rent 1 Bedroom	Gross Rent 2 Bedroom	Gross Rent 3 Bedroom
Low (30% Median)	$418	$502	$580
Low (35% Median)	$488	$585	$676
Low (46% Median)	$641	$769	$889
Moderate (60% Median)	$836	$1,003	$1,159

Gross Rent includes an approximate utility allowance.

NOTE: One bedroom housing is affordable to a 1.5 person household
Two bedroom housing is affordable to a 3 person household
Three bedroom housing is affordable to a 4.5 person household

Tables 10-12 show that at the time of the 2000 Census 900 one-bedroom properties were rented at less than $749 a month. 347 two-bedroom properties were rented at less than $999 a month. 24 three-bedroom properties were rented at less than $999 a month. The median rent asked for occupied rental units was $621 and the median rent asked for vacant units was $547. The tables above will be updated when the 2010 Census data is released.

Units Affordable to low and moderate-income households.

Although not part of the municipal Fair Share Plan at this time, the properties identified below in the future may partake in COAH certified crediting programs.

- Jubilee House (B142.04, L4), 4 Rooms with 8 beds.
- Granville House (B119, L7.03), 39 Bedrooms, 11 Bedrooms (single occupancy).
- Marcella Center (B119, L9), 48 low/moderate bedrooms).
- Masonic Home (B134, L3.1), 313 Bedrooms.
- Burlington Woods (B134, L7), 240 Bedrooms.

These properties are presently not included in the two hundred and eighty-three (283) monitored affordable housing properties identified in the municipal Fair Share Plan.

Substandard Housing Units capable of being rehabilitated.
677 units (approximately 9.3%) of Burlington Township's housing units (2000 Census) can be considered older housing stock having been built in 1949 or earlier. See tables 2 & 3.

N.J.A.C. 5:97Appendix B (*COAH Rehabilitation Share Methodology*) lists Burlington Township as having 34 Units Crowded, Built pre-1950; 16 Units with Incomplete Plumbing Facilities; and 46 Units with Incomplete Kitchen Facilities. These numbers are generally consistent with the 2000 U.S. Census, Summary File 3; QT-H4 & H20 for the Township.

Housing Stock Summary:
To following key points from the 2008 Comprehensive Master Plan Land Use Plan Element should be noted:

- Nearly all of the residential areas within the Township have been developed.
- By maintaining consistency with current residential land uses classifications, existing and proposed (low, medium, and high-density) neighborhoods can be successfully integrated while respecting the existing development pattern.
- Since the 1998 Master Plan, the Township has adopted two new age restricted residential overlays. The Age Restricted (AR) and Planned Retirement Community (PRC) overlays vary in the size of development they are intended to attract and regulate.
- A new Continuing Care Retirement Community (CCRC) Use is being developed as part of the Township's effort to update ordinances consistent with the recommendations in the 2008 Master Plan.
- **ASSUMPTIONS:**
    - Complete build out of the Continuing Care Retirement Community by 2020.
    - Build out of 50% of the areas with the Age-Restricted Overlay option by 2020.
    - Incremental infill housing units.

Year Projection	Population & Density*		Housing Units & Dwellings Per Acre	
2010	22,500	2.57	8,150	0.93
2020	26,000	2.97	9,750	1.11
2030	27,000	3.08	10,250	1.17

* Densities based on a total municipal area of 8,758 Acres

At the time of the March 2000 Census Burlington Township had approximately 7,348 dwelling units. Between January 2000 and December 2003, 736 new homes were built. 8,084 units (less units counted twice between Jan-Mar 2000) is the approximate number of housing units in Burlington Township at the end of December 31, 2003.

Between January 2004 and May 2008, 194 new homes were built.
8,278 units is the approximate number of housing units in Burlington Township as of May 2008.

COAH has projected 1,623 new housing units to be constructed within Burlington Township from 2004-2018. The projection includes a total housing unit count of 9,729 by year 2018. The 2018 total housing projection is generally consistent with Burlington Township's Master Plan projections regarding housing construction and projected build out analysis. Following the adoption of the Housing Element these projections will be reexamined every 3-years.

3. Analysis of Demographic Characteristics

TABLE 13: Population by Age & Sex

Age	Total Persons	Male	Female
Under 5 years	1,819	930	889
5 to 9	1,595	791	804
10 to 14	1,415	701	714
15 to 19	1,013	537	476
20 to 24	809	367	442
25 to 29	1,240	537	703
30 to 34	1,965	900	1,065
35 to 39	2,194	1,114	1,080
40 to 44	1,786	888	898
45 to 49	1,340	691	649
50 to 54	1,121	541	580
55 to 59	818	390	428
60 to 64	621	298	323
65 to 69	597	256	341
70 to 74	534	237	297
75 to 79	496	187	309
80 to 84	395	120	275
85 to 89	297	82	215
90 years +	239	53	186
Total	**20,294**	**9,620**	**10,674**
Median Age	35.6	35.2	36.1

Source: U.S. Census, SF1, for Township QT-P1

TABLE 14: Comparison of Age Distribution for Township, County, & State (% of persons)

Age	Burlington Township	Burlington County	New Jersey
Under 5 years	9	6.4	6.7
5 to 9	7.9	7.2	7.2
10 to 14	7	7.4	7
15 to 19	5	6.3	6.2
20 to 24	4	5.3	5.7
25 to 29	6.1	6.2	6.5
30 to 34	9.7	7.4	7.7
35 to 39	10.8	9.1	8.7
40 to 44	8.8	8.9	8.4
45 to 49	6.6	7.4	7.3
50 to 54	5.5	6.8	6.5
55 to 59	4	5.1	5
60 to 64	3.1	4	3.9
65 to 69	2.9	3.5	3.5
70 to 74	2.6	3.3	3.3
75 to 79	2.4	2.7	2.9
80 to 84	1.9	1.7	1.9
85 to 89	1.5	0.9	1.1
90 years +	1.2	0.4	0.5
Median Age	35.6	37.1	36.7

Source: U.S. Census, SF1, for Township, County, & State QT-P1

TABLE 15: Persons in Household Township

Household Size	Number of Households
1 person	1,521
2 persons	2,162
3 persons	1,363
4 persons	1,292
5 persons	541
6 persons	157
7 or more persons	76
Total Households	**7,112**

Source: U.S. Census, SF1, for Township QT-P10

TABLE 16: Comparison of Persons in Household for Township, County, & State (% of households)

Household Size	Percent (%) of Households		
	Burlington Township	Burlington County	New Jersey
1 person	21.4	22.9	24.5
2 persons	30.4	32.2	30.3
3 persons	19.2	17.6	17.3
4 persons	18.2	16.6	16.0
5 persons	7.6	7.3	7.5
6 persons	2.2	2.3	2.7
7 or more persons	1.1	1.1	1.7
Average household size	2.72	2.65	2.68
Average family size	3.18	3.14	3.21

Source: U.S. Census, SF1, for Township, County, & State QT-P10

TABLE 17: Persons by Household Type & Relationship

	Total
Households	7,112
Family Households:	5,280
Male Householder	3,918
Female Householder	1,362
Non-family Households:	1,832
Male Householder:	852
Living alone	672
Female Householder:	980
Living alone	849
Population in Households	19,322
Population in group quarters:	972
Institutionalized	873
Non-institutionalized	99

Source: U.S. Census, SF1, for Township QT-P10 & QT-P11

TABLE 18: 1999 Income for Township, County, & State

Jurisdiction	Per Capita Income	Median Income	
		Household	Families
Burlington Township	$ 24,754	$ 61,663	$ 70,958
Burlington County	$ 26,339	$ 58,608	$ 67,481
New Jersey	$ 27,006	$ 55,146	$ 65,370

Source: U.S. Census, SF3, for Township, County, & State DP-3

TABLE 19: Poverty Status for Persons & Families for Township, County, & State

Jurisdiction	Individuals (%)	Families (%)
Burlington Township	5	3.4
Burlington County	4.7	3.2
New Jersey	8.5	6.3

Source: U.S. Census, SF3, for Township, County, & State DP-3

The 2000 census data also shows that of Burlington Township's 5,490 Owner Occupied Units, 141 were living below the 1999 poverty level. Of the Townships' 1,622 Renter Occupied Units, 300 were living below the 1999 poverty level. U.S. Census, SF3 HCT23, for Township, Tenure by Poverty Status in 1999 by Year Structure Built.

TABLE 20: Comparison of Occupied Units (1995-1998) Year Moved into for Township, County, & State

Jurisdiction	Percent living in same house 1995-1998
Burlington Township	31.9%
Burlington County	26.7%
New Jersey	27.7%

Source: U.S. Census, SF3, for Township, County, & State QT-H7

TABLE 21: Educational Attainment for Township, County, & State Residents (older than 25yrs)

Jurisdiction	Percent (%) with high school graduate or higher	Percent (%) with bachelors degree or higher
Burlington Township	85.1	26
Burlington County	87.2	28.4
New Jersey	82.1	29.8

Source: U.S. Census, SF3, for Township, County, & State DP-2

TABLE 22: Means of Transportation to Work for Township, County, and State Residents (Worker 16 yr +)

Jurisdiction	Percent (%) who drive alone	Percent (%) in carpools	Percent (%) using public transit	Percent (%) using other means	Percent (%) Worked @ Home	Mean Travel Time to Work Minutes
Burlington Township	82.6	10.1	3.5	2.0	1.8	29.2
Burlington County	82.7	9.2	2.9	2.3	2.8	28.2
New Jersey	73.0	10.6	9.6	4.0	2.7	30.0

Source: U.S. Census, SF3, for Township, County, & State DP-3

4. Table 23: Municipal Employment 2004-2006

BURLINGTON TOWNSHIP

Municipal Annual Employment & Wage Report 2004-2006

		Average Units	Employment March	Employment June	Employment September	Employment December	Total Wages	Average Annual Employment	Average Annual Wage	Average Weekly Wage
2006	TOTAL - FEDERAL GOVT	3	193	199	197	193	$10,311,003	197	$52,429	$1,008
	TOTAL - LOCAL GOVT	17	785	796	770	806	$35,943,410	739	$48,665	$936
	TOTAL - PRIVATE SECTOR	511	10,271	10,083	10,280	10,515	$405,930,261	10,297	$39,423	$758
	TOTAL - ALL COVERED UI & UCFE	531	11,249	11,078	11,247	11,514	$452,184,674	11,232	$40,258	$774
2005	TOTAL - FEDERAL GOVT	3	207	206	200	196	$10,365,184	203	$51,060	$982
	TOTAL - LOCAL GOVT	16	773	785	750	786	$34,318,531	719	$47,714	$918
	TOTAL - PRIVATE SECTOR	504	10,230	10,414	10,320	10,572	$385,034,146	10,350	$37,201	$715
	TOTAL - ALL COVERED UI & UCFE	522	11,210	11,405	11,270	11,554	$429,717,861	11,272	$38,122	$733
2004	TOTAL - FEDERAL GOVT	3	209	206	207	206	$10,483,707	208	$50,463	$970
	TOTAL - LOCAL GOVT	16	763	776	731	763	$32,878,046	707	$46,509	$894
	TOTAL - PRIVATE SECTOR	496	10,135	10,417	10,488	10,607	$376,555,024	10,361	$36,343	$699
	TOTAL - ALL COVERED UI & UCFE	515	11,107	11,399	11,426	11,576	$419,916,777	11,276	$37,241	$716

http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmi14/index.html

Employment Trends

The 2003 Employment and Wage Data (New Jersey Department of Labor and Workforce Development) shows Burlington Township had on average had 11,109 covered & UCFE jobs (State Jobs not included), the average annual wage for a private sector job at this time was $36,131. The 2004-2006 data above can be summarized as follows:

Year	Avg. Annual Employment	Avg. Annual Wage
2004	11,276	$37,241
2005	11,272	$38,122
2006	11,232	$40,258

On average (2003-2006) the private sector provides approximately 92% of the jobs in the Township. The total number of jobs within the Township has remain stable over the past 5-6 years.

Employment outlook

Burlington Township is focusing on increasing employment and development opportunities within non-residential zones throughout the municipality, especially with the Route 130 Corridor and CR514/I-295 Redevelopment Areas. The Township is implementing the 2008 Comprehensive Master Plan and active Redevelopment Areas in a cohesive planning effort to stimulate investment and job growth. The Township is relying on the employment projections provided by COAH and may achieve the projected increase in employment established by COAH. 3,037 New Jobs between 2004-2018.

5. Determination of present and prospective fair share for low and moderate-income housing and analysis of zoning and infrastructure capacity.

Burlington Township has completed the examination of its present and prospective Fair Share for Low and Moderate income housing as reflected in the accompanying Housing Element and Fair Share Plan documents and appendices. An infrastructure capacity analysis was performed as part of the recent redevelopment efforts. Determination is declared of appropriate and adequate infrastructure capacity and zoning compatibility to accommodate Burlington Township's present and prospective Fair Share of low and moderate-income housing.

6. Lands and structures considered most appropriate for construction/conversion/rehabilitation of affordable housing.

Burlington Township's Fair Share Plan presents realistic opportunities, and mechanisms and locations considered most appropriate for new construction, conversion, and rehabilitation of affordable housing. The plan includes inclusionary residential development, gut rehabilitation in an existing condominium development, municipally sponsored affordable housing, and rehabilitation of Burlington's existing housing stock.

7. Household & Employment Projections (*N.J.A.C.*5:97 Appendix F).

A. Burlington Township is relying on the household and employment projections provided in *N.J.A.C.* 5:97 Appendix F for the 2004-2018 Round 3 Growth Share period.

1) **Residential:**
2) 2004 Housing = 8,106
3) 2018 Housing = 9,729
4) Housing Projection 2004-2018 = 1,623
   Divide by five (5)
5) **Projected Residential Growth Share = 324.6**

6) **Employment:**
7) 2004 Employment: 11,426
8) 2018 Employment: 14,463
9) Employment Projection 2004-2018 = 3,037
   Divide by sixteen (16)
10) **Projected Nonresidential Growth Share = 189.81**

11) **TOTAL PROJECTED GROWTH SHARE = 324.6 + 189.81 = 514**

B. Although the Township is relying on the projections listed above, it should be noted that housing unit rate of growth would vary depending on market conditions. Note: COAH projects there will be 9,729 Housing Units in the Township by 2018; the Township projects 9,750 Housing Units by 2020.

8. Rehabilitation Share (*N.J.A.C.* 5:97 Appendix B)

A. Introduction

The rehabilitation share for affordable housing is the number of existing housing units as of April 1, 2000 that are both deficient and occupied by households of low or moderate income as determined through the methodology provided in *N.J.A.C.* 5:97 Appendix B, 5:97-2.2(b).

Rehabilitation Share fifty-six (56).

9. Prior Round Obligation 1987-1999 (*N.J.A.C.* 5:97 Appendix C)

A. Introduction

"Prior round obligation" means the cumulative 1987-1999 fair share obligation, which is displayed for each municipality in *N.J.A.C.* 5:97 Appendix C.

As shown in ***N.J.A.C.***5:97 Appendix C, Burlington Township has a Prior Round Obligation of four hundred and forty five.

B. **Prior Round Obligation (1987-1999) = <u>445</u>**

10. Projected Growth Share (in accordance with *N.J.A.C.* 5:97-2.4)

A. Burlington Township is relying on the Round 3 Growth Share projections provided in *N.J.A.C.* 5:97 Appendix F for the 2004-2018 Round 3 Growth Share period.

B. **TOTAL PROJECTED GROWTH SHARE = <u>514</u>**

PART B – Fair Share Plan (*N.J.A.C.* 5:97-3)

1. Introduction and Overview

Summary of Housing element and remaining prior round obligation

***N.J.A.C.* 5:97-1.1(d)**
There are three components to the third round Methodology: the "**rehabilitation share"**, the "**prior round obligation"**, and the **"growth share."**

This method requires that municipalities meet the actual growth share obligation with not merely a good faith attempt, but with the actual provision of housing for low- and moderate-income households, while continuing to provide a "**realistic opportunity"** for affordable housing to address the projected growth share obligation.

***N.J.A.C.* 5:97-1.4 Definitions**
"Rehabilitation share" means the number of deficient housing units occupied by low- and moderate-income households within a municipality, established in *N.J.A.C.* 5:97 Appendix B that must be addressed in a Fair Share Plan.

"Prior round obligation" means the cumulative 1987-1999 fair share obligation, which is displayed for each municipality in *N.J.A.C.* 5:97 Appendix C.

"Growth share" means the affordable housing obligation generated in each municipality by both residential and non-residential development from 2004 through 2018 and represented by a ratio of one affordable housing unit among five housing units constructed plus one affordable housing unit for every 16 newly created jobs as measured by new or expanded non-residential construction within the municipality pursuant to the methodology detailed in *N.J.A.C.* 5:97 Appendix D (UCC Use Groups for projecting & implementing non-residential components of growth share).

"Fair share round" means any one of three periods in time during which the Council has established municipal obligations to provide a fair share of affordable housing. The first fair share round includes the period 1987 through 1993. The second fair share round includes the first fair share round and adds the period 1993 through 1999. The third fair share round includes the first and second fair share rounds and adds the period from 1999 through 2018 for which municipal affordable housing needs are estimated, projected, actualized and/or addressed.

"Fair share obligation" means the **sum** of each municipality's 1999 through 2018 rehabilitation share as assigned in *N.J.A.C.* 5:97 Appendix B, incorporated herein by reference; the 1987 through 1999 prior round obligation as assigned in *N.J.A.C.* 5:97 Appendix C, incorporated herein by reference; and the 1999 through 2018 growth share obligation as determined in accordance with *N.J.A.C.* 5:97-2.

"Realistic opportunity" means a reasonable likelihood that the affordable housing in a municipality's Housing Element and Fair Share Plan will actually be constructed or provided during the 10-year period of certification based upon a careful analysis of the elements in the municipality's plan, including the financial feasibility of each proposed mechanism and the suitability of specific sites as set forth in *N.J.A.C.* 5:97-3.13.

2. Rehabilitation Share (*N.J.A.C.* 5:97-6)

The rehabilitation share for affordable housing is the number of existing housing units as of April 1, 2000 that are both deficient and occupied by households of low or moderate income as determined through the methodology provided in *N.J.A.C.* 5:97 Appendix B, *N.J.A.C.* 5:97-2.2(b).

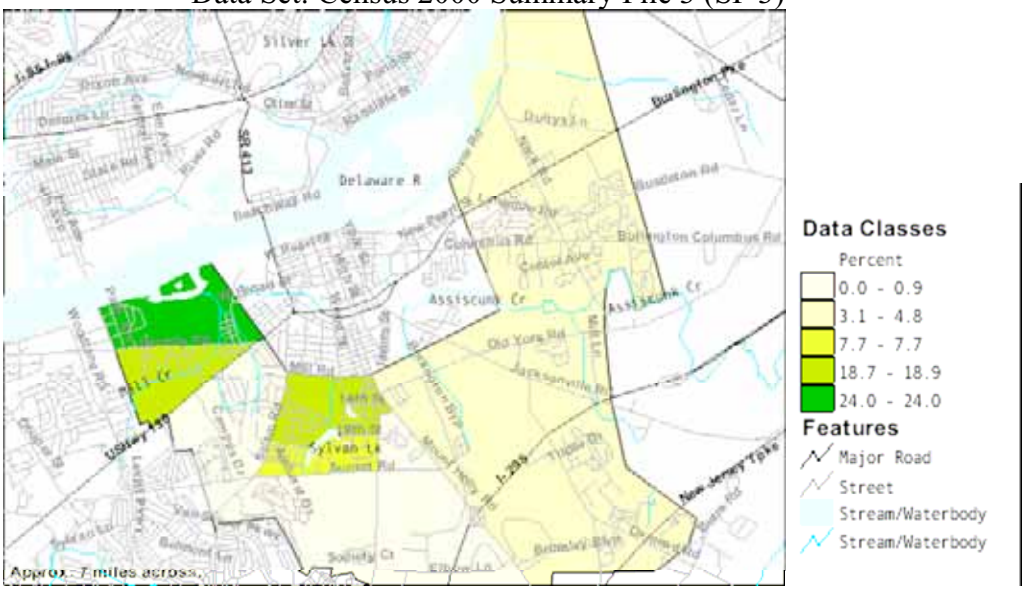
The following section describes Burlington Township's mechanisms to address the **fifty-six (56)** unit Rehabilitation Share.

Rehabilitation Plan 2008 to 2018
Burlington's rehabilitation obligation is being met through the funding and administrative assistance provided by the Burlington County Community Development Office. The rehabilitation effort is being administered by the Community Development Office in cooperation with Burlington Township's Affordable Housing Office through a Memorandum of Understanding, and an Interlocal Services Agreement. Fourteen (14) properties were rehabilitated in Burlington Township between February 2000 and February 2007. The Interlocal Service Agreement will remain in place until the Township's rehabilitation obligation has been met.

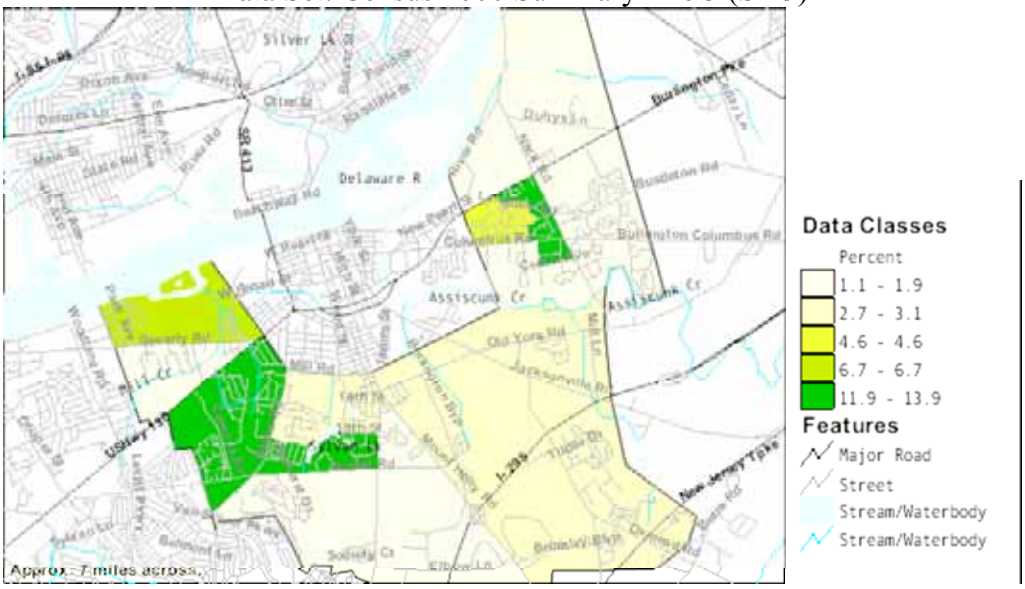
The Township and County Affordable Housing Rehabilitation programs are described in detail on both the Township and County websites. Additionally, brochures and handouts are readily available at the municipal building to encourage resident participation.

By utilizing certain U.S. Census Block Group data, the Township has identified specific target areas within the municipality to increase resident awareness of available home rehabilitation programs.

TM-H010. Percent of Housing Units Built Before 1940: 2000
Universe: Housing units
Data Set: Census 2000 Summary File 3 (SF 3)



TM-P067. Percent of Persons Below the Poverty Level in 1999: 2000
Universe: Total population
Data Set: Census 2000 Summary File 3 (SF 3)



Rehabilitation Share 56

Subject to resident participation, the Township in cooperation with the County aims to rehabilitate approximately six (6) properties per year to December 31, 2018.

3. Prior Round Review & Adjustments (COAH Workbook A)

The prior round obligation is the cumulative 1987 through 1999 fair share obligation, which is displayed for each municipality in N.J.A.C. 5:97 Appendix C.

As shown in *N.J.A.C.* 5:97 Appendix C, Burlington Township has a Prior Round Obligation of four hundred and forty-five.

Prior Round (1987 through 1999) Obligation = 445

*N.J.A.C.*5:97-3.3 Low/moderate income split of the fair share obligation.

- **Moderate Income Units: two hundred and twenty-two (222)**
- **Low Income Units: two hundred and twenty-three (223)**

*N.J.A.C.*5:97-3.10 Formulas for municipalities that have not included a vacant land adjustment in any previous or pending Fair Share Plan

Rental Requirement 25% of 445 = 112
(Round up)

Age Restricted Maximum 25% of 445 = 111
(Round down)

RCA Maximum 50% of 445 = 222 Units
(Round down, NOTE: A 52 Unit RCA was executed under Round 2 with Burlington City)

A. The following section describes Burlington Township's mechanisms to address the 1987-1999 prior round obligations.

1. Prior Round Credits

N.J.A.C. 5:97-1.4 Definitions
"Prior-cycle credit" means a credit granted by the Council for eligible low and moderate income units, except for rehabilitated units, constructed on or after April 1, 1980 and before December 15, 1986. (See *N.J.A.C.* 5:97-4.2)

"Post-1986 Credit" means a credit granted by the Council for eligible low and moderate income units, except for rehabilitated units, constructed on or after December 15, 1986. (See *N.J.A.C.* 5:97-4.3)

a. Prior-cycle credit - *N.J.A.C.* 5:97-4.2
This plan does not seek "prior cycle credits" as defined within *N.J.A.C.* 5:97-4.2 at this time.

b. Post-1986 Credit - *N.J.A.C.* 5:97-4.3

Burlington Township seeks "Post-1986 Credit" for the following Units:

Project Name	# of Units	Age Restricted	Housing Type
1. BCCAP Senior Apartments	71	Yes	Rental
2. Park South	12	Yes	For Sale
3. Park South	12	No	For Sale
4. Bridle Club	56	No	For Sale
5. Burlington Heights	30	No	For Sale
6. Burlington Manor at Steeple Chase	70	No	For Sale
7. Shannon Estates	17	No	For Sale
8. Catholic Charities (Group Home)	1(5 bedrooms)	No	Special Needs (Developmental Disability)
9. Prince Associates (Group Home)	1(3 bedrooms)	No	Special Needs (Developmental Disability)
10. ARC Burlington (Group Home)	1(4 bedrooms)	No	Special Needs (Developmental Disability)
11. Family Service	12(15 bedrooms)	No	Special Needs
Total Units	**283**		

Prior Round RCA = 52 (See below)

Unit Type Totals	**#**
Age Restricted Units	
- Rentals	71
- For sale	12
Total	**83**
Family Units	
- Rental	0
- For sale	185
Total	**185**

Special Needs (rental) **15 Units** (27 bedrooms)
(See bonus credit request below)

c. Prior Round Bonus Credits

1. Rentals *N.J.A.C.5:97-3.5*
Rental Requirement 25% of 445 = 112
(Round up)

(a) *N.J.A.C.* **5:97-6.10 Supportive and Special Needs Housing -** Rental

"Supportive and special needs housing" means a structure or structures in which individuals or households reside, as delineated in *N.J.A.C.* 5:97-6.10, previously referred to as alternative living arrangements.

Burlington Township has the following special needs **non age-restricted rental** group homes, supportive shared living, and permanent supportive housing:

Project Name	**# of Bedrooms**
1. Catholic Charities B18/L4,5,6	5
2. Prince Associates B117/L11	3
3. ARC Group Home B145.30/L2	4
4. Family Service B102.15/L1110	2
5. Family Service B114.02/L513	2
6. Family Service B114.03/L1409	2
7. Family Service B102.15/L1241	1
8. Family Service B102.15/L812	1
9. Family Service B102.15/L844	1
10. Family Service B114.02/L611	1
11. Family Service B114.02/L701	1
12. Family Service B114.02/L314	1
13. Family Service B102.15/L1004	1
14. Family Service B102.15/L1026	1
15. Family Service B102.15/L1159	1
Total Bedrooms	**27**

N.J.A.C. 5:97-6.10(b) The unit of credit is the bedroom. Non age-restricted rental units up to the municipal prior round obligation are calculated at two units of credit (*N.J.A.C.*5:97-3.5(a)).

Rental, Supportive & Special Needs CREDIT, 27 + 27 = 54

(b) Age-restricted rental units *N.J.A.C.*5:97-3.5(b).

Age-restricted rental units are calculated at 1.33 units of credit **up to** 50 percent of the prior round rental obligation (50% of the 112-Unit Rental Requirement is equal to 56). NOTE: *N.J.A.C.*5:97-3.5(a) does not permit rental bonus's in excess of the prior round rental obligation.

BCCAP Senior Rental Apartments – 71 Units
Fifty-six (56) of the seventy-one (71) age-restricted rental apartments (1998/BCCAP Senior Apartments) = 74 Credits (56x1.33 = 74.48). The remaining 15 age-restricted units are calculated as 15 Credits (15x1=15).

Rental, Age-restricted unit CREDIT, 74 + 15 = 89

(c) Regional Contribution Arrangement (RCA) - *N.J.A.C.* **5:97-4.4.**

Burlington City
9 - Age-restricted rental unit credits (Phase I).
43 – Scattered site "gut rehabilitation" credits (Phase II).

Burlington Township (Sending Municipality) entered into a Regional Contribution Agreement with the City of Burlington (Receiving Municipality) for the transfer of fifty-two (52) units. This contractual agreement was approved by COAH in accordance with the Substantive Rules *N.J.A.C.* 5:91-11.1 et. seq. and *N.J.A.C.* 5:93-6.1et. seq. All RCA funds for this project have been transferred to Burlington City.

Phase	COAH Approval	Units Transferred	Unit Cost
Phase I	06/06/01	9 Units	$20,000
Phase II	11/05/03	43 Units	$20,000

As the sending municipality, Burlington Township receives 52-Credits for the COAH approved RCA with Burlington City.

Rental, RCA, Age-restricted unit CREDIT = 9
RCA, "gut rehabilitation" new construction CREDIT = 43

(d) Prior Round Rental Credit Calculation

Rental CREDIT = 54 + 89 +9 = 152

The 112-Prior Round Rental Requirement has been met.

*N.J.A.C.*5:97-3.10 allows Burlington Township to provide up to 111-Age-restricted units as part of the 445 prior round obligation. The 1998/BCCAP Senior Apartments provides 89 Credit Units of Age-restricted rentals and the 2001/RCA with Burlington City provides 9 Age-restricted rental credits, Park South has 12 for sale age-restricted units. The 25% Age-Restricted cap has not been exceeded.

89+12+9 = 110

Prior Round Credit Sub Totals

152 Rental Credits (Includes RCA Phase I & 5:97-3.5(a), 5:97-3.5(b) bonus's) *plus*
43 Gut Rehabilitation RCA Phase II *plus*
12 For Sale Age Restricted Credits *plus*
185 For Sale Family Credits
392 Prior Round Credits Completed

Credits required to address Prior Round Obligation:

445 *less* 392 = **53**

Adjustments/Exclusions: COAH Excel Workbook A

http://www.state.nj.us/dca/coah/planningtools/gscalculators.shtml

COAH developed three calculator tools to be used in determining projected growth share obligations based on the three methods permitted in *N.J.A.C* 5:97-2.4 and 5.6. Workbook A uses the COAH-generated growth projections and guides the user through permitted exclusions to determine both a residential and non-residential growth share obligation. Municipalities relying on the COAH-generated growth projections need only use Workbook A.

Burlington Township is relying on the COAH generated growth projections and as such need only use Workbook A (See Appendix F). Burlington is not seeking market rate exclusions at this time.

4. Growth Share Analysis

Burlington Township is relying on the household and employment projections provided in *N.J.A.C.* 5:97 Appendix F for the 2004-2018 Round 3 Growth Share period.

1) **Remaining Prior Round Obligation** = **53**

2) **Residential:**
3) 2004 Housing = 8,106
4) 2018 Housing = 9,729
5) Housing Projection 2004-2018 = 1,623
Divide by five (5)
6) **Projected Residential Growth Share = 324.6**

7) **Employment:**
8) 2004 Employment: 11,426
9) 2018 Employment: 14,463
10) Employment Projection 2004-2018 = 3,037
Divide by sixteen (16)
11) **Projected Nonresidential Growth Share = 189.81**

12) **Total Growth Share = 324.6+189.81 = 514**

13) **TOTAL FAIR SHARE PLAN = 53+514 = 567**

5. Round 3 Fair Share Plan Program & Parameters

"Fair Share Plan" means the plan that describes the mechanisms and the funding sources, if applicable, by which a municipality proposes to address its affordable housing obligation as established in the Housing Element, includes the draft ordinances necessary to implement that plan, and addresses the requirements of *N.J.A.C.* 5:97-3.

A. Burlington Township has an outstanding Prior Round Obligation (1987-1999) of 53 (445 – 392 =53). This Round 3 Fair Share Plan addresses the 53 Credit Prior Round Obligation, municipal rehabilitation requirement of 56, and projected Growth Share Obligation of 514.

B. 2008 to 2018 Plan to Address Outstanding Prior Round Obligation

To address the **53** credits outstanding from prior rounds Burlington Township proposes a partnership between existing property owners, non-profit agencies, and other affordable housing providers to create the realistic opportunity for new municipally sponsored 100% affordable development/s (*N.J.A.C.* 5:97-6.7). Supportive and Special Needs Housing (*N.J.A.C.* 5:97-6.10) is the Township's preferred housing type to address the 53-credit shortfall. The Township's proposed revised credit calculations can be seen in the following sections. When accounting for bonus credits by securing an additional forty-two (42) family rental units/bedrooms the 53-credits can be addressed.

To create a realistic opportunity to produce affordable housing to satisfy the Township's outstanding prior round obligation, Burlington Township has been working diligently toward securing a mutually beneficial partnership involving the following projects:

1. Masonic - Burlington Township has been working closely with the Masonic Foundation (the largest vacant residential land owner in the Township, 400+acres) to produce affordable housing to satisfy the prior round obligation and a portion of the growth share. It should be noted that Masonic recently commenced construction of the Township's first solar field (6 acres). Energy production is being used to reduce utility costs for Masonic properties. The Township and Masonic through a potential tri-party partnership has the desire, land, and resources available to create the affordable units to satisfy the remaining prior round obligation.

2. Redevelopment Area, Aqua Lane – 50 Acres Residentially Zoned, as the Redevelopment Entity and property owner, the Township has significant control of the strategic future land use of this property. The Township will work with potential redeveloper/s and may amend the adopted redevelopment plan to increase affordable housing opportunities.

3. Redevelopment Area, CR541/I295 Interchange – 200+/- Acres Regional Commercial Zone, the Township has been working with the County, existing landowner and potential redeveloper/s to create a plan for this area that will provide local and regional benefits. As the plan is developed opportunities will continue to be explored and evaluated for compatible mixed uses and affordable housing production.

   Burlington Township is committed to satisfying its remaining prior round obligation of 53 credits. To facilitate the production of the affordable units the Township will partner with a non-profit or other affordable housing provider and commit the necessary funds from the existing Housing Trust Fund, but may not exceed a financial commitment beyond the December 31st 2004 balance.

Proposed Revised Prior Round Credit Calculation/s

As *N.J.A.C.* 5:97-6.10(b) counts the bedroom as the unit of credit and Non age-restricted rental units up to the municipal prior round obligation are calculated at two units of credit -*N.J.A.C.*5:97-3.5(a). Once the 42-Family Rental Units identified above (29+13 = 42) have been provided, the Prior Round Obligation will have been satisfied. As *N.J.A.C.*5:97-3.5(a) does not permit rental bonus's in excess of the prior round rental obligation (112 unit rental obligation), thirteen (13) supportive/special needs units will only receive one unit of credit. The Prior Round Rental CREDIT calculation will be revised as follows:

Proposed Revised Rental, Supportive & Special Needs Calculation of **CREDIT, 27+27(**5:97-3.5(a)**)+ 29+29(**5:97-3.5(a)**) =112+13 = <u>125</u> Credits**

As the 25% rental requirement will be satisfied through supportive and special needs housing and associated bonus credits, the age restricted rental unit bonus credit calculation must be revised accordingly per *N.J.A.C.*5:97-3.5(a).

Age-restricted rental units *N.J.A.C.*5:97-3.5(b).

As the 25% Rental Requirement has been satisfied the 71 unit BCCAP Senior Rental Apartments are calculated at one (1) unit of credit, and the calculation revised accordingly.

Proposed Revised Rental, Age-restricted unit CREDIT =71

RCA credit Calculations Remain Unchanged:

Rental, RCA, Age-restricted unit CREDIT = 9
RCA, "gut rehabilitation" new construction CREDIT = 43

Proposed Revised Prior Round Rental Credit Calculation:

Rental CREDIT = 125+71+9 = 205

*N.J.A.C.*5:97-3.10 allows Burlington Township to provide up to 111-Age-restricted units as part of the 445 prior round obligation. The 1998/BCCAP Senior Apartments provides 71 Credit Units of Age-restricted rentals and the 2001/RCA with Burlington City provides 9 Age-restricted rental credits, Park South has 12 for sale age-restricted units. The 25% Age-Restricted cap has not been exceeded.

71+9+12 = 92

<u>Prior Round Credit Sub Totals</u>
205 Rental Credits (Includes RCA Phase I & 5:97-3.5(a), 5:97-3.5(b) bonus's) *plus*
43 Gut Rehabilitation RCA Phase II *plus*
12 For Sale Age Restricted Credits *plus*
<u>185 For Sale Family Credits</u>
445 Prior Round Credits

The Township is confident it can partner with an appropriate affordable housing provider to successfully satisfy the outstanding prior round obligation. The Township will utilize the funds available in the municipal Housing Trust Fund in-partnership to produce the necessary quality affordable housing. By working with the various properties identified above the Township will leverage its available resources to maximize community benefit while creating the realistic opportunity to satisfy the prior obligation within four (4) years from the date COAH approves the Township's proposed Spending Plan.

C. 2004-2018 Growth Share Parameters Burlington Township

i. Projected Growth Share = 514

Affordability Mix Requirements:

ii. Low Minimum 50% = 257
(of which 67 are Very low, 13% of 514)

iii. Moderate Minimum 50% = 257

TOTAL = 514

Housing Type Mix Requirements:

iv. Age restricted Maximum 25% = 128

v. Family Minimum 50% = 257

vi. Rental Minimum 25% = 128

D. Programs, Projects and/or Units Addressing the Third Round

As noted earlier in this report residential development within the Township is anticipated to generate a "Growth Share" obligation of 325 units between 2004 and 2018 (1,623 new housing units divided by 5 = 324.6).

Residential development that generates the need for one (1) or more affordable units will be required to provide the affordable housing unit/s on-site, or elsewhere within a Township residential zone. When a fraction of an affordable unit is generated, the developer will be required to pay the residential development fee for the applicable number of market rate units within the proposed development that generate the fraction **or** (subject to Township approval) partner with the Township to provide the additional affordable unit.

> *Example, if a developer proposes thirteen (13) homes a growth share obligation of 2.60 affordable units is generated (13/5 = 2.60). The developer would be required to provide two (2) affordable units for ten (10) of the proposed homes, and pay the necessary residential development fee for the remaining three (3) proposed homes **or** partner with the Township to provide three (3) affordable units.*

If all residential developers were to pay the 1.5% it is estimated that the Township would collect between $600,000-$700,000 in development fees. As residential developers will be required to meet their affordable housing obligation and possibly pay the 1.5% development fee on fractional market rate units the Township anticipates collecting approximately $100,000 in residential development fees between 07/18/2008 and December 2018.

Municipal employment growth (Non-residential development) is anticipated to generate a "Growth Share" obligation of 190 units between 2004 and 2018 (3,037 new jobs divided by 16 = 189.8). As required by P.L.2008, c.46, Non-Residential development will pay the required fee. The Township's priority for spending the non-residential development fees collected is to extend expiring controls on existing affordable units and completion of the projects identified below (100% Municipally Sponsored project/s; Supportive and Special Needs housing; and Assisted Living Facilities). The Township anticipates collecting approximately $3,000,000 in non-residential development fees between 07/18/2008 and December 2018.

To address the projected **514** "Growth Share" and create a "realistic opportunity" for the creation of affordable housing, Burlington Township proposes to work with existing facilities and interested parties to utilize the mechanisms identified below:

1. Extension of Expiring Controls (*N.J.A.C.* 5:97-6.14) = 94 Credits.

Burlington Township will work with applicant's and property owners to extend existing affordability (in accordance with UHAC) controls on units scheduled to expire during the 1999-2018 period. Units where controls on affordability are extended will meet code requirements, or the Township will fund the necessary rehabilitation work.

Ninety-four (94) units will have controls on affordability extended in accordance with *N.J.A.C.* 5:97-6.14 and *N.J.A.C.* 5:97-9.

a. Implementation Schedule, *N.J.A.C.* 5:97-3.2(a)4

	Date Affordability Controls Expire for Owner Occupied Units to Year 2018 See 5:97-6.14 for Extension Credit					
Non-Age Restricted	**2010**	**2011**	**2012**	**2013**	**2018**	**Unit Total**
Calton Homes-Bridle Club		13	38	4	0	55
Shannon Estates	9	8				17
Park South					12	12
Age Restricted						
Park South					10	10
Unit Total	9	21	38	4	22	**94**

Within forty-seven (47) months of COAH approving the 2008 proposed Spending Plan the Township will spend and/or commit to spending existing Housing Trust Fund monies on Extension of Expiring Affordability Controls (*N.J.A.C.* 5:97-6.14). The Township has targeted sixty-eight (68) properties, which controls will expire by January 2013 for this renewal and repair program.

A portion of the nonresidential development fees anticipated to be collected will be used to secure extensions on the remaining twenty-six (26) properties. Fees will be spent and/or committed within three calendar years from when they were collected.

The projected income-mix renewal schedule can be further summarized as follows: Very Low = 33 Properties; Low = 30 Properties; Moderate = 31 Properties. Ten (10) properties will Age Restricted and eighty-four (84) will be family units. All properties are anticipated to be owner occupied.

2. Municipally Sponsored 100% Affordable (*N.J.A.C.* 5:97-6.7) = 40 Credits

Burlington Township will sponsor 100 percent affordable development/s consisting of up to 40 affordable units of credit:

a. All units are available to low- and moderate-income households;

b. A municipal partnership will be established with a non-profit or other affordable housing providers to create the 40 affordable units;

c. Burlington will serve as the primary sponsor.

d. Implementation Schedule, *N.J.A.C.* 5:97-3.2(a)4: 2010-2018

3. Supportive & Special Needs Housing (*N.J.A.C.* 5:97-6.10) = 40 Credits

Consistent with the recently implemented agreement and plan with Burlington County Family Service, Burlington Township intends to expand agreements with non-profit and other affordable housing providers to create an additional forty (40) supportive and special need housing units (bedrooms) at Bienvenue Condominiums or elsewhere within Burlington Township.

4. Assisted Living (*N.J.A.C.* 5:97-6.11) = 20 credits

Burlington Township will continue negotiations with Masonic Charitable Foundation to create a minimum of 20 affordable housing units of credit within their existing facilities. These units will meet the criteria for Assisted Living Affordable Housing *N.J.A.C.* 5:97-6.11. The implemented schedule for these 20 units is 2009-2018.

***Reserved*, Redevelopment (*N.J.A.C.* 5:97-6.6)**

***Reserved*, Accessory Apartments (*N.J.A.C.* 5:97-6.8)**

***Reserved,* Market to Affordable (*N.J.A.C.* 5:97-6.9)**

Note: Burlington Township acknowledges the importance of *N.J.A.C.* 5:97-8.11(a) which permits the Township to request authorization for expenditure of affordable housing trust funds on emergent affordable housing mechanisms not included in the municipal Fair Share Plan, in the form of an amendment to the spending plan.

TOWNSHIP OF BURLINGTON

RESOLUTION

08-R-217

RESOLUTION ENDORSING AMENDED HOUSING ELEMENT AND FAIR SHARE PLAN, AND REPETITION COAH FOR SUBSTANTIVE CERTIFICATION WITH AN ADOPTED AMENDED HOUSING ELEMENT AND FAIR SHARE PLAN

WHEREAS, the Planning Board of the Township of Burlington, County of Burlington, State of New Jersey adopted an Amended Housing Element and Fair Share Plan on November 13, 2008; and

WHEREAS, a true copy of the Resolution of the Planning Board adopting the Amended Housing Element and Fair Share Plan is attached pursuant to N.J.A.C. 5:96-2.2(a)2;

NOW, THEREFORE, BE IT RESOLVED that the Township Council of the Township of Burlington, in the County of Burlington, State of New Jersey, hereby endorses the Amended Housing Element and Fair Share Plan as adopted by the Township of Burlington Planning Board; and

BE IT FURTHER RESOLVED, that the Township Council of the Township of Burlington pursuant to the provisions of N.J.S.A. 52:27D-301 et seq. and N.J.A.C. 5:96-3.4, submits this repetition for substantive certification of the Amended Housing

KENNETH S. DOMZALSKI
ATTORNEY AT LAW
235 High Street
Post Office Box 429
Burlington, NJ 08016

Element and Fair Share Plan to the Council on Affordable Housing for review and certification; and

BE IT FURTHER RESOLVED, that all objectors and owners of sites in the Housing Element and Fair Share Plan shall receive notice of the repetition; and

BE IT FURTHER RESOLVED that notice of this repetition for substantive certification shall be published in a newspaper of County wide circulation pursuant to N.J.A.C. 5:96-3.5 within seven days of the issuance of the notification letter from the Executive Director of the Council on Affordable Housing indicating that the submission is complete and that a copy of this Resolution, the adopted Amended Housing Element and Fair Share Plan and all supporting documentation shall be made available for public inspection at the Township of Burlington, Township Clerk's Office located at 851 Old York Road, Burlington Township, New Jersey, during the hours of 9:00 a.m.-4:00 p.m. on Monday through Friday for a period of 45 days following the date of publication of the legal notice pursuant to N.J.A.C. 5:96-3.5.

Dated: December 9, 2008

TOWNSHIP OF BURLINGTON

ATTEST:

ANTHONY J. CARNIVALE, JR., Clerk

BY: Carl M. Schoenborn

CARL M. SCHOENBORN
President of Council

I certify that the foregoing Resolution is a true copy of a Resolution duly adopted by the Township Council of the Township of Burlington on 12/9/08

Municipal Clerk

Dated: 12/17/08

KENNETH S. DOMZALSKI
ATTORNEY AT LAW
235 High Street
Post Office Box 429
Burlington, NJ 08016

C. COMMUNITY DESIGN PLAN ELEMENT

Burlington's Master Plan Elements firmly establish the Township's goals, objectives, policies and standards which guide municipal land use to protect public health and safety, and promote general welfare. Community design guidelines further the general welfare by promoting a desirable visual environment, and advance public safety through site arrangement.

GOAL: Development that is sensitive to surrounding land use, the environment, and contributes to the quality of life of Township residents.

The New Jersey Municipal Land Use Law establishes the purpose of regulating community design under 40:55D-2:

"*To promote a desirable, visual environment through creative development techniques and good civic design and arrangements"*

Overall community design standards and site-specific building standards work hand-in-hand with land use policy. Burlington Township community design consideration throughout the municipality and particularly within the Redevelopment Areas is an essential component of the development process and must be included in every phase of that process. Burlington intends to review proposals by developers based on the total, three-dimensional design of the entire project. Proposals will be examined based on their relationship with the existing natural and built environment.

New development or redevelopment of existing structures, must contribute to area and overall community character. The highest quality of community design can be achieved through proper land use controls and project design review standards well grounded in the Municipal Land Use Law.

Not only is it essential that new construction and redevelopment be complementary to Burlington Township's existing built environment and sympathetic to individual site-specific user needs, construction projects should aim to further the design and overall character of the town while enhancing/increasing the functionality and accessibility of all spaces. Burlington Township acknowledges the importance of community design, as the built environment has a dramatic impact on the way an area is perceived and used by residents and visitors. It has a tremendous impact on marketability, retail success, and fiscal stability.

Each new construction and redevelopment proposal will provide an opportunity for the Township to help achieve its vision of reinvigorated commercial and industrial areas. Those opportunities will only become reality through vigilant application of design review and implementation of Burlington Township's Community Design Guidelines and Standards.

Design Guidelines and Standards

1. Commercial, office, and mixed use residential buildings with multiple uses or tenants are to be designed with a complex massing that includes varying roof lines, projections/recesses along the facades, store fronts and rooflines, smaller additions to the main building, and/or separate, smaller structures.

2. Buildings are to avoid monotonous wall or roof plans by modulating the facade to give the appearance of several smaller scale buildings. Wall facades exceeding thirty feet (30') in length and oriented towards the public view shall include windows, entrances or similar architectural features appropriately spaced.

3. Gable roofs with a minimum pitch of 5/12 are encouraged, and should be provided with eaves. Flat roofs should be avoided on one-story buildings. Two-story or taller buildings should be provided with a traditional cornice treatment.

4. Architectural embellishments that add visual interest to roofs, such as dormers, belvederes, verandas, masonry chimneys, cupolas, clock towers, and other similar elements are to be included in building design. The eves fascia shall be of traditional proportions and shall not be used as a "sign band" for the building.

5. Facade treatments should include attractively designed storefronts, doorways, windows and related design features. Each facade must be treated architecturally, not just the main entrance facade. The entire front, sides and rear of the building should be coordinated in compatible colors and materials. Street facades, in the public view, should receive primary architectural emphasis.

6. Storefronts should be designed with variations where possible in widths, setbacks, and traditional architectural facades.

7. The architectural design of franchise style commercial development must be adapted, to the greatest extent possible, to the form and character of the area, as determined by the reviewing board.

8. Entrances should be inviting to pedestrians and, to the greatest extent possible, provide shade and weather protection. Fixed or operable fabric awnings integrated into the overall building design are to be considered.

9. At grade entrances to sidewalks are to be encouraged.

10. Corner facades are encouraged for buildings located at intersections.

11. All equipment-providing services to the building whether roof mounted or ground placed, should be screened by appropriate architectural/landscape design features.

12. The use of site and streetscape furniture and improvements including benches, tables, trash receptacles, bike racks, pedestrian walkways, planters and decorative lighting is to be considered for commercial/industrial development and redevelopment.

13. Parking lots should be designed to accommodate and encourage safe and convenient pedestrian and bicycle movement as part of overall design considerations. Landscaping and buffering should be used abundantly to minimize street view of parking lots. Parking lots should also be designed to provide clear on-site visibility for security and safety purposes. Parking lots should be placed behind buildings where possible. Primary building frontage and orientation is to be toward the street.

14. On-site “Do not enter” and “one-way” signs often confuse the motoring public and add to the clutter of the streetscape. They shall be used sparingly while accounting for traffic safety considerations.

15. Lighting should be designed to provide for security, safety, and adequate (not excessive) illumination, while providing for sharp cutoff luminaries to control light pollution, offsite glare and uplighting. Lighting fixture designs shall compliment building architecture, and be used to accent building architecture and landscaping. Neon tube lighting should not be used for building trim, accent or signage. Focused and specific building accent lighting using state of the art illumination technologies (example: LED) is encouraged. Passive and active solar applications are encouraged.

16. Cellular communication facilities should be collocated, when possible, on existing towers and the overall design of the facility should be geared toward minimizing offsite impacts.

17. Above ground utility lines, particularly along Route 130, should be placed underground to modernize and upgrade the appearance, safety and function of the River Route Commercial Corridor.

D. COMMUNITY FACILITIES PLAN ELEMENT

Burlington's Community Facilities Plan describes existing and proposed municipal and Board of Education improvements such as municipal governmental buildings, parks, fire and emergency facilities, police, and schools.

GOAL: Provide for the general needs of all Burlington Township residents by making available those facilities and services necessary for the common good.

Objective: Promote facilities for community groups allowing them to meet and work together.

Objective: Facilitate appropriate public and private partnerships.

Objective: Encourage community assistance for those having special needs.

Objective: Expand compliance with the Americans with Disabilities Act (ADA) in public places (Title II).

Objective: Identify the most efficient and effective means of providing municipal services while minimizing operating costs and capital expenditures.

Planning for a full range of community facilities is an essential component for meeting the needs of current residents as well as satisfying the demands resulting from anticipated future growth. Burlington Township has a well-developed system of community facilities and services that contribute to the high quality of life the Township residents have come to expect. Various Plans provided in the appendix show locations of these facilities.

Municipal Center

The Township Municipal Center is located at 851 Old York Road. The Municipal Center contains one building and includes all municipal functions except for the Public Works Department (including water and wastewater utilities), the Fire and Rescue Facilities and the Board of Education. All other Township Departments are housed in the Municipal Center. The parking facilities at the Municipal Center are shared with Assiscunk Creek Park that surrounds the Municipal Center.

The Municipal Center has a variety of public meeting rooms for the various Boards, Commissions and Committees of the Township. All the official meetings of the Township are held at the Municipal Center.

Schools Facilities

The Burlington Township Board of Education is the public body which governs the school district. The Board of Education operates four (4) township schools. School names, existing grades, and facility size are as follows:

Schools	Existing Grades	Facility Size (acres)
Bernice Young Elementary	PK, K, 1,2,	17
Fountain Woods School	3,4,5	30
Burlington Twp. Middle School	6,7,8	26
Burlington Township High School	9,10,11,12	64

The Springside Elementary School, which was constructed in 1915, was closed in 2008. Third grade students previously attending Springside Elementary School now attend Fountain Woods School.

Burlington Township Schools are generally geographically located in the central part of the Township. The central location of these facilities enables the Township to connect all the schools to the municipal pedestrian/bikeway path network. The pedestrian/bikeway path is connected to Assiscunk Creek Park and the many recreation areas and facilities available at this facility. The Board of Education regularly coordinates with the Township to promote safe walking and biking to school.

In accordance with N.J.A.C. 6:23-2.1 the Burlington Township Board of Education prepared and submitted a five year Long Range Facility Plan (Facility Plan) for review to the Township Planning Board in 2005. The Facility Plan includes an inventory of the district's schools, a means of identifying the district's needs, a context for individual projects "example roof replacement", a "best course" action plan, and "best selection" action plan. Any project selected for implementation by the Board of Education must be consistent with the Facilities Plan that is approved by the Commissioner of Education. After the opening of the Middle School and closing of the Springside Elementary School during 2008, the Board of Education has now implemented is current Facility Plan and is not expected to update the Facility Plan until 2010.

The following daycare facilities are found within Burlington Township:

1. Goddard School
   1750 Bustleton Road

2. Great Beginnings Child Development Center
   1304 Route 130 North

3. Hickory Woods Childcare
   506 Elbow Lane

4. KinderCare Learning Center
   2004 Salem Road

5. Child's World
   1614 Salem Road

6. Dor-Lynn Preschool
   1308 Mt. Holly Road

Fire and Rescue Facilities

The Burlington Township Fire Department provides fire and emergency response services for all of Burlington Township. Three volunteer fire companies cover the residential, commercial and industrial properties that make up the Township. The Department is also responsible for three major highways that intersect the town, the New Jersey Turnpike, I-295 and New Jersey Route 130. Prior to 1990 the Township was protected by three independent fire companies, partially funded from general fund revenues of the Township and partially funded by fund raising completed by the individual fire companies. Independent Fire Co. #1 was created in 1914 and is located at 1309 Rancocas Road. Beverly Road Fire Company #2 was created in 1925 and is located on Beverly Road. Relief Fire Company #3 was created in 1957 and is located on Neck Road. Burlington Township also provides partial funding for and receives EMS services from Endeavor Emergency Squad located in Burlington City.

In 1990 a Fire District was formed with a dedicated fire tax. The control of the Fire District is vested in a Board of Fire Commissioners consisting of five elected members. The Burlington Township Board of Fire Commissioners is legally responsible for all aspects of providing fire protection to the residents and property owners in the Township and they are obligated to oversee the operation of the Fire Department.

The primary purpose of the Board of Fire Commissioners is to coordinate the efforts of the three fire companies and to provide a more reliable source of funding for the

improvements that were needed to cope with the rapid growth that was taking place in the Township. Since creation of the Board of Fire Commissioners and Fire Department, the three volunteer fire companies continue to exist as independent entities, with a Township Fire Chief who exercises overall control and coordination of fire suppression efforts.

The site of a future Independent Fire Company and Fire District offices has been selected by the Township on Burlington By-Pass (Route 541) north of Northgate Village Apartments and across from the new Burlington Township Middle School at Springside.

Health Care Facilities

Lourdes Medical Center of Burlington County is located at 218 Sunset Road in Willingboro Township. The Medical Center is a 249-bed community hospital that includes a unit for long-term acute-care patients; cardiology services, Lourdes Cancer Center; an EECP laboratory for the treatment of chronic chest pain; maternity services; and behavioral health services.

Lourdes Medical Center of Burlington County is part of Lourdes Health System and is a member of Catholic Health East, as health system with 31 hospitals on the East Coast. Lourdes has recently benefited from more than $40 million in capital improvements since 1999. In 2001, the hospital opened a long-awaited $20 million same-day surgery center, with new operating suites, recovery areas and a new critical care unit.

The proposed location is shown on the Community Facilities Map. Burlington meets the standards of the Insurance Service Office of New Jersey for fire stations coverage of at least two and one-half roadway miles recommended for low-density residential and other low-intensity uses with the addition of the new Fire Station in this location.

Recreation Facilities

The Township has prepared a separate Open Space & Recreation Plan Element as part of this Master Plan. Please see the Open Space & Recreation Plan Element for information on community recreation facilities.

Public Works

The Public Works Department is responsible for the Division of Streets and Roads, Division of Sanitation, Building Maintenance, and Water and Sewer Utilities. The Public Works Department maintains the Township fleet of vehicles and equipment.

The Division of Streets and Roads is responsible for repair of streets, storm drains, lawn maintenance, facility maintenance, recycling and compost facility maintenance, leaf collection, snow removal, large metal and wood pickups, tree and stump removal, and emergency management events.

The Division of Sanitation is responsible for the collection of household trash, recyclables, metal heavy objects, wood objects, and furniture. A further description of solid waste collection is found under the Recycling Element.

The Division of Building Maintenance is responsible for routine maintenance and general repairs of the municipal center and surrounding grounds. These activities include maintenance of the refueling area, election setup and closedown, elevator maintenance, seasonal decorations, maintenance and painting of bathroom facilities.

Water and sewer utilities are discussed in detail in the Utility Infrastructure and Service Plan element.

Library Facilities

Burlington Township is provided library services through the Library Company of Burlington in Burlington City and the regional Burlington County Headquarters Library in Westampton Township. The Burlington County Headquarters Library is located on Woodland Drive in Westampton approximately 2.7 miles from Burlington Township. Both libraries are part of the Burlington County Library System, which includes fifteen County and member libraries located in Burlington County. A historical library also exists on the second floor of the Municipal Center on Old York Road.

E. CIRCULATION ELEMENT

GOAL: A healthy environment with a safe, efficient, and effective transportation network for all user groups.

Introduction and overview

Circulation is the movement of people and goods from one point to another. Safe and efficient circulation is vital to the economic growth of the Township and Region. Land use and transportation are inextricably linked. A clear understanding of this relationship is critical to the decision making process in regarding type, location, and intensity of development. An efficient transportation system has always influenced the development and redevelopment of land. Burlington Township strives to maintain and enhance its transportation networks to optimum efficiency. The networks serve current Township residents, businesses and visitors, and are also designed to accommodate new users that can be anticipated through planned growth.

This Circulation Element examines the existing network of vehicular, transit, and pedestrian routes in the Township and the impacts associated with this network. It also establishes critical goals & objectives that will allow the appropriate government officials to better manage and maintain this network. This planning effort provides the necessary tools to aid in reducing the impact of traffic on the community.

Burlington Township is predominantly a suburban community where residents rely heavily on motor vehicles for their transportation needs. This Circulation Element focuses primarily on the street network, with secondary emphasis on public transportation and pedestrians/bicyclists movement. Effective governmental policy that support efficient local circulation is also critical to achieving Master Plan goals.

This Circulation Element has been prepared utilizing guidelines established in the Municipal Plan Endorsement Guidelines (October 17, 2007), State of New Jersey Department of Community Affairs State Planning Commission Office of Smart Growth.

POLICIES & OBJECTIVES

1) To coordinate with developers and other governmental agencies in assuring that the roadway network is suitable to provide safe, efficient traffic circulation for all vehicles traveling within Burlington Township. More specifically,

   - To protect the existing transportation routes from development that exceeds the capacity of the roadway network.

   - To utilize the existing major transportation routes as much as possible, and avoid the creation of new major arterial roadways.

   - To apply state-of-art roadway design methods and techniques which optimize the effectiveness and efficiency of the Township's existing roadway network.

   - To encourage the periodic upgrading of existing transportation facilities.

   - To monitor traffic volumes and determine the most effective solution for control of congestion.

   - To identify transportation facilities that will be affected by development on a case-by-case basis and work with Developers to determine impact costs associated with development that may be transferred to Developers by the Township.

2) To continue to implement policies that mitigate traffic impacts associated with development. More specifically, these policies include:

   - Continue the condition rating and classification of the street network into different orders of road.

   - Unless pre-empted by the RSIS, street and cartway widths as well as applicable design standards established in the Township Zoning Ordinance should continue as the standards for the Township.

   - In those instances where a street has a variable or substandard right-of-way width, primary importance should be given to obtaining additional right-of-way either through a dedication or road widening easement.

- Coordinate with the State and County to insure that all new development with frontage on a Municipal, County or State road provides, at minimum, a four (4) foot wide sidewalk, or where impractical, a contribution in-lieu-of construction.

- The Township's land development regulations should be consistent with the New Jersey Highway Access Management Code or should be amended if inconsistent.

3) To obtain funding or partner with Developers to implement the desired improvements listed on Page #10 of this Circulation Element.

4) To obtain funding or partner with Developers to implement the installation of proposed pedestrian/bicycle paths as identified on the Township Circulation Plan.

5) To support efforts to implement the installation of the Delaware River Heritage Trail.

6) To actively promote the use of pedestrian/bicycle facilities throughout the Township, both for functional and recreational use, and to obtain "official designation" of bike routes and walking trails.

7) To implement New Jersey's Safe Routes to School (SRTS) program by utilizing the SRTS strategies: Engineering, Enforcement, Education, and Encouragement.

Description of the Road Network

The jurisdiction of the public road network is divided among state, county, and local (municipal) governments. This Circulation Element will focus primarily on streets under municipal jurisdiction. Federal aid highways, such as Interstate 295 and Route 130 have been placed under the State's jurisdiction since the Department of Transportation (NJDOT) has the responsibility for maintenance and petitioning for capital funds. Similarly, all County Routes (CR) have been placed under the jurisdiction of Burlington County. The private road network, which comprises roughly 8 miles of roads (consisting primarily of multi-family developments, the Burlington Center Mall roads, Richard's Run in the Haines Industrial Center, and Goodyear Lane) also serves some of the same functions as the public street network, but will not be the focus of this element.

Route 295 and the NJ Turnpike are limited access highways. Access to Route 295 within the Township is limited to the interchange at Route 541. There is no direct access to the NJ Turnpike within the Township. The closest points of access are in adjacent Westampton Twp. (Exit 5 Interchange) and Florence Twp. (Exit 6A Interchange).

Route 130 is the major north-south oriented road traversing Burlington Township. County Route 541 (a.k.a. Burlington-Mt. Holly Road and High Street) is the major east-west oriented road. These roads provide access to the Township's main business districts. Since trucks are prohibited on Route 541, County Route 541T (a.k.a. Burlington By-Pass) provides a direct route for trucks traveling between the Turnpike or Route 295 and Route 130. Similarly, Dulty's Lane is the designated truck route for trucks utilizing the Haines Industrial Center.

Table #1 below depicts the total number of miles under each level of government.

Table #1. Road Miles by Governmental Level.

Governmental Level	Number of Miles
New Jersey (including Turnpike)	7.20
Burlington County	19.88
Burlington Township (exclusive of paper streets)	73.57
Total	100.65

Classification for Existing Streets

Streets may be classified into several different types based on their design capacity and access function. The Federal Highway Administration classifies streets into urban and rural types. Burlington Township is considered an urban area. In the urban system, streets are classified into principal arterials, minor arterials, collectors, and local streets. Limited access highways, expressways, and turnpikes are all considered principal arterials.

PRINCIPAL ARTERIALS are intended to handle large volumes of regional and through traffic. Typically, they are under the jurisdiction of the State or the County. These entities usually receive substantial funding from the federal government for their construction and maintenance. Examples, as listed above, are Interstate 295, Route 130 and CR 541. Roads of this type are intended for volumes of traffic ranging from an average of 10,000 vehicles a day to over 25,000 vehicles per day (AADT, which is the average daily traffic volume on an annual basis). Burlington Township has no principal/major arterials under its jurisdiction.

MINOR ARTERIALS function in much the same way as major arterials but with lesser volumes of traffic and fewer through routes. They provide a connection between major arterials and residential or non-residential collector streets, as well as providing intra-municipal travel paths. The intended number of vehicles ranges between 3,000 and 10,000 per day (AADT). Almost exclusively the province of Burlington County, Burlington Township no minor arterials under its jurisdiction.

COLLECTOR streets are the next lower step in the street hierarchy. Collectors distribute traffic between local streets and arterial order streets. They provide access to abutting properties and allow traffic from residential neighborhoods to access arterial streets. Non-residential collectors also service industrial and business parks by channeling traffic to arterial streets.

A number of municipal streets by virtue of their location and physical configuration provide for cross-town movement and/or direct access to arterial streets. These are the primary criterion for their classification as collector streets in the Township.

Municipal streets designated as collectors are: Campus Drive, Mill Road, Elbow Lane, Neck Road (from Old York Rd. to Route 130), Fountain Avenue, Fountain Woods Road, Oxmead Road, Hancock Lane, Mill Lane, Bustleton Road, Connecticut Drive, Amherst Drive, Bromley Boulevard, and Dulty's Lane. According to recognized standards, collector streets should generally have a minimum ultimate right-of-way width of 60 feet. They typically carry an average of between 1,500 to 3,000 vehicle trips per day (AADT), although they may carry more depending upon their exact location. On-street parking is generally not permitted.

LOCAL streets distribute traffic between residential access streets and collector streets. This is the lowest order of street and is expected to carry up to 1,500 vehicles per day (AADT). They generally have a right-of-way width of 50 feet, allowing one lane of travel in each direction. On-street parking is generally permitted. Residential access streets are also considered local streets under the federal functional classification system. The vast majority of municipal streets are classified as local streets.

Table #2 below lists the streets under state and county jurisdiction. These streets primarily function as routes for regional traffic and long distance travel, as reflected in their functional classifications.

Table #2. State & County Roads – Functional Classifications[1]

NEW JERSEY STATE ROADS:	Interstate 295 – Principal Arterial (Interstate)
	Route 130 – Principal Arterial
	NJ Turnpike – Principal Arterial (Expressway)
BURLINGTON COUNTY ROADS:	Rancocas Road (CR 635) – Minor Arterial
	Burlington/Mt. Holly Road (CR 541) – Principal Arterial
	High Street (CR541) – Principal Arterial
	Burlington By-Pass (CR541T) – Minor Arterial
	Sunset Road (CR 634) – Minor Arterial
	Salem Road (CR 633) – Minor Arterial
	Park Road (CR 633) – Minor Arterial
	Beverly Road (CR 543) – Principal Arterial
	Columbus Road (CR 543) – Minor Arterial
	Neck Road (CR 658, west of Route 130) – Collector
	River Road (CR 656) – Collector
	Jacksonville Road (CR 670) – Collector
	Old York Road (CR 660) – Minor Arterial

[1] Road classifications for State and County roads are based on the FHWA 2000 Urban Functional Classification Map, dated June 2, 2004, prepared by the NJDOT in cooperation with the USDOT Federal Highway Administration

Street Design

Most of the streets that will be built in the future in Burlington Township will be designed to service new residential development. New streets are created as part of the subdivision and development of land. The improvements are typically constructed by Developers under Township oversight, but, eventually, nearly all of these new streets become the jurisdiction of the Township. The Township, therefore, has an important interest in the design and layout of collector and local streets. The design of larger collectors and arterials, which carry regional and through traffic, is mainly a function of higher levels of government that have their own set of standards.

The design of residential (local and collector) streets is governed by the standards set forth in N.J.A.C. 5:21 Residential Site Improvement Standards (R.S.I.S.). The design of non-residential streets is governed by Section 19:13 of the Township Zoning Ordinance along with authoritative, recognized standards such as AAHSTO and NJDOT.

The Township has only one (1) signalized intersection under its jurisdiction, located at the intersection of Bromley Boulevard & Hancock Lane. Other than the need to widen the Hancock Lane right-of-way to 66' on the north side of the intersection, the Township has not identified any deficiencies or level of service issues related to the traffic signal, which has been in operation since 2002. The Township annually contracts with a qualified vendor to perform maintenance of the signal, on an as needed basis.

All other traffic signals in the Township are either privately owned and maintained (i.e., the signal at Regal Cinemas & Bromley Blvd.), or under the jurisdiction of the County or State.

The intersections of Bromley Boulevard & Oxmead Road; Elbow Lane & Rancocas Road; and Jacksonville Road & Oxmead Road have been identified as potential future locations of traffic signals. Should it appear that the level of service at these stop-controlled intersections may degrade to unacceptable levels, the Township or County will evaluate the need to signalize this intersection, as part of any future approvals granted for development in and around this area.

Sidewalks and Bikeways

Consistent with ongoing efforts to encourage non-traditional forms of transportation, the Township endeavors to provide a comprehensive, continuous network of sidewalks and bikeways for both practical and recreational use. This effort is particularly critical given local, regional and national concerns involving cost of fuel, health of residents, traffic congestion and green house gases.

It is of critical note that bicycle commuters along arterial streets move at speeds up to 30 miles per hour and can present a danger to pedestrians using the same system. Pedestrian sidewalks along arterials and collectors should, if possible, be separated from use by bicyclists, or a shared-use path provided. Shared-use paths should be constructed in accordance with the standards set forth in the AASHTO Guide for the Development of Bicycles Facilities along with authoritative, recognized standards such as ITE and NJDOT. More leisurely recreational cycling on local streets should make use of the cartway. The lower design speeds and the speed of traffic on local streets permit bicyclists and motorists to use the same cartway.

Where safe and functionally practicable, the Township Reviewing Boards require developers and redevelopers to provide sidewalk facilities as part of proposed improvements, or provide a contribution in-lieu-construction, which allows the Township to construct the improvement as part of a larger capital project or at a more feasible, nearby location. Where deemed appropriate, shared-use paths are required to be constructed in-lieu-of sidewalks.

The majority of local streets have sidewalk installed on at least one side of the right-of-way. In general, future improvements to the pedestrian/bicycle network in Burlington Township will be incremental, and will consist of identifying and removing specific barriers, filling in missing sections, and improving connections to mass transit facilities, high employment areas, open space, recreation sites, and school sites.

The locations of existing and proposed shared-use facilities are depicted on the Circulation Plan.

The Township typically coordinates with the Office of the County Engineer with respect to pedestrian and bicycle facility improvements along County roads. The Township has also historically supported the construction of the Heritage Trail, a proposed County improvement intended to facilitate non-motorized travel along the Delaware River corridor.

Mass Transit

Burlington Township has a substantial amount of public transportation available, including three (3) New Jersey Transit bus routes (#'s 409, 413 and 419) and two (2) Burlink bus routes (#'s B5 and B6). In addition, there are three (3) NJ Transit Riverline (Trenton to Camden, with connecting services to Philadelphia, Newark Airport and New York) light rail stations located in the neighboring municipalities of Florence Twp. and Burlington City. All 3 stations are located within ½ mile of Burlington Township, are served by the above referenced Burlink routes.

The Florence Twp. Station is located adjacent to an industrial area in Burlington Township and would be better served by the addition of pedestrian/bicycle facilities both in Burlington and Florence. Toward this objective, Burlington Township is working with developers of property along Dulty's Lane, River Road and Route 130 to construct new or expand existing pedestrian/bicycle paths. This transportation network will serve commuters who utilize the Riverline and NJ Transit bus system as their primary source of transportation, and then walk or bike to their places of employment.

As part of the subdivision and site plan review process, the Planning & Zoning Boards have been working closely with developers to provide amenities (such as outside rest areas, bike racks and seating) and promote public transport usage, as well as walking and biking. This effort successful effort reduces energy consumption, automobile dependence and alleviates traffic congestion while increasing the health of workers through exercise.

Burlington Township also plans to coordinate with NJ Transit regarding the need to provide adequate shelters at designated stops along its bus routes in the Township.

Identification of Problem Areas

The continuing development of Burlington Township and surrounding communities has increased the number of people and goods that must be moved on the street network. Streets that were previously uncongested have become increasingly busy. Delays at intersections have become longer. Most recently, however, traffic volumes (total and peak) are being affected nationally by rising fuel costs. This trend will be monitored and considered relative to municipal circulation policies and priorities.

The Draft DVRPC Destination 2030 long-range plan has identified a significant increase in the number of people driving alone to work (59.4% to 72%) and a decline in carpooling (17.8% to 10.2%) between 1980 and 2000 for the region. Burlington Township census data shows the following trend for the decade 1990 to 2000. The number of people driving alone to work has increased from 75.9% to 82.6%, while carpooling has declined from 15.3% to 10.1%. The mean travel time to work has increased from 22.2 minutes to 29.0 minutes for this decade (a 30% increase). Public transit usage remained relatively unchanged at 3.4% & 3.5%. During the preparation of this Master Plan gas prices for the state were hitting record levels ($3.45+ a gallon) and as such NJ Transit is experiencing significant increased rider levels. It is reasonable to expect that if gas prices continue to rise, there will be mounting pressure on mass transit suppliers to accommodate increasing numbers of commuters with safe, efficient, affordable comfortable transportation alternatives.

Recognizing that mobility is an important quality of life factor, the Township annually performs street and sidewalk improvements in an effort to mostly maintain, but in some cases expand or improve, existing facilities. The location and scope of street improvements is based primarily on the Road Ratings performed by the Township Department of Engineering, as well as other factors including public input. Examples of the improvements performed on an annual basis are road reconstruction/overlay projects and a curb/sidewalk replacement project. The Township also recently extended a shared-use path, installed a pedestrian bridge along Old York Road, and installed flashing beacons in front of the Bernice Young School on Neck Road.

Where possible, the Township seeks sources of outside funding, in the form of grants, to complete these projects. Examples of programs that the Township has obtained funding from are the biennial NJDOT Community Development Block Grant (CBDG) program, the NJDOT State Aid program, the NJDOT Pedestrian/Bikeway Grant program.

The Township has also identified several major improvements and has adopted policies, as stated in the Goals & Objectives section of this Circulation Element that may potentially mitigate the impact of development on local roads, which has resulted in an increase in the number of vehicles utilizing the roadway network. These are discussed below.

Future improvements recommendations

The following is a list of potential, future improvements that the Township has identified as helpful in mitigating the overall effects of development on the roadway network.

1. Re-align Oxmead Road between the Route 295 overpass and Jacksonville Road (C.R. 670).

2. Perform a traffic study and signal warrant analysis of the intersection at Bromley Boulevard & Oxmead Road. If warranted, install signal.

3. Obtain additional right-of-way to accommodate a road widening of Dulty's Lane.

4. Maintain existing streets to accommodate vehicular traffic at the designated design speeds.

5. Work with PSE&G, NJDOT, Burlington County and developers/redevelopers to convert overhead utility lines to underground lines, particularly along Route 130. This effort will serve to modernize and upgrade the appearance, safety, and function of the Route 130/River Route Commercial Corridor.

Coordination between local, county, and state officials is crucial to implementing these recommendations. All levels of government have constrained resources and cooperative ventures among government and the private sector will increase the success in identifying funding solutions and acting in a timely manner to address needed improvements.

For example, the developer of the Haines Industrial Center, Whitesell Enterprises, recently funded the design and construction of an intersection improvement at Route 130 & Dulty's Lane. This project widened the right-of-way, improves the level of service, and provides additional stacking capacity at the Dulty's Lane approach to the intersection. The Township reviewed plans submitted for the project and obtained the required NJDOT Street Intersection Permit.

Additional Proposed Improvements and Roads

Several notable improvements are planned by NJDOT and Burlington County.

NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT)

NJDOT, in conjunction with Burlington County, is scheduled to perform a major intersection improvement at the intersection of Route 130 and Campus Drive. The State will construct a signalized intersection and jughandle on property presently occupied by the Costume Gallery to provide direct access to Campus Drive. Simultaneously, the County will realign and extend Campus Drive to Salem Road, where a traffic signal will be installed. Upon completion of these improvements, the County will take over jurisdiction of Campus Drive. Right-of-way acquisition is underway and construction is tentatively scheduled to begin in 2010.

NJDOT has also planned and designed (preliminary) a major improvement for the intersection of Neck Road and Route 130. This project includes jughandles at the northwest and southeast quadrants. The schedule and funding for this project is undetermined at this time.

BURLINGTON COUNTY

Burlington County is planning long-term safety improvements at various intersections in the vicinity of Route 541, Route 541T, Sunset Road, Wedgewood Drive and Cadillac Road. These improvements will include realignment of Route 541T (By-Pass), traffic signals for Northgate Village Apartments and Liberty Square Plaza, revisions to local traffic circulation patterns, and signage/striping improvements.

As part of the proposed development of the Burlington Marketplace, a commercial/retail project on a 140-acre parcel adjacent to the Burlington Center Mall and Route 295, the County has proposed that the potential Developer (Develcom) install a "flyover" or overpass to and from the southbound lanes of Route 541, as well as other access and right-of-way improvements that are in the process of being identified by the County. Secondary access to this development is proposed to utilize Bromley Boulevard via Hampshire Drive. The need for a traffic signal at the intersection of Hampshire Drive and Bromley Boulevard, as well as any other municipal impacts, will be evaluated as part of the Township's overall review of the proposed development.

STATE HIGHWAY ROUTE 130 (RIVER ROUTE)

Route 130 Corridor is a vital, major North/South arterial roadway that provides access to numerous businesses and residential areas in the Township, as well as the NJ Transit Riverline. It is also the primary route for truck traffic conveying goods to and from distribution centers along the corridor between the NJ Turnpike, the connector bridge to the Pennsylvania Turnpike, Route 295, and Route 95 via the Burlington-Bristol Bridge.

In the 1950's significant development along Route 130 gave rise to the "Route 130 Corridor", which is still largely dominated by buildings dating back to that era. The roadway itself, a divided four-lane road, was designed and built in accordance with the standards and principles applicable to traffic volumes, speeds, and the types of vehicles at that time. While improvements have been performed in the past, there are additional improvements that would clearly benefit the present and future users of this roadway.

As befits a roadway of this critical regional importance, various transportation agencies have studied this roadway and formulated recommendations to improve the access, safety and functionality of the roadway. These studies include the Route 130/Delaware River Corridor Strategic Plan, prepared by the Burlington County Board of Chosen Freeholders; and the US 130/NJ Turnpike Area Infrastructure Needs Analysis, performed by the Delaware Valley Regional Planning Commission. The Township recognizes the importance of Route 130 Corridor and fully supports the implementation of the recommendations included in both of these documents.

Consistent with these efforts, in June 2007, the Route 130 Corridor Redevelopment Area/South Preliminary Investigation and Proposed Redevelopment Plan, prepared by Alaimo Associates, was approved by Burlington Township after receiving public input. This effort addresses the Route 130 Corridor in Burlington Township from Willingboro Township to Burlington City. As stated (Policy #6 on Page #19) in this document *"Burlington Township will maintain and achieve the safe and efficient movement of people and goods, as the community is further developed and redeveloped in accordance with the Township Master Plan. Burlington Township will coordinate with the D.V.R.P.C., Burlington County, and N.J.D.O.T. regarding transportation and circulation planning projects and efforts."*

Presently Burlington Township is conducting a similar investigation and preparing the companion document involving the Route 130 Corridor Northern Sector from Burlington City to Florence Township.

STATE HIGHWAY ACCESS MANAGEMENT CODE

The New Jersey Department of Transportation adopted the Highway Access Management Code in April, 1992 that applies to all of the roads under their jurisdiction. These roadways include Interstate 295 and Route 130 (the NJ Turnpike being under the jurisdiction of the Turnpike Authority). The access code is intended to balance the competing demands for access to state highways and to move people and goods safely and efficiently. Each state highway segment has been classified, with interstate roads the most restricted. The access level determines the spacing requirements of new driveways that intersect the state road. The Department of Transportation is promoting the use of shared driveways, access to secondary streets that intersect with state highways, and interconnected parking lots. These design techniques have been encouraged in the past in the Township and contribute to the consistency of the circulation element with the Highway Access Management Code. It is also the policy of the Township that any Application proposing development along a State Highway submits the proposed plans to the NJDOT for review and approval and obtains any required access permit(s). This is a condition of any approvals granted by the Township. A continuation of this Township policy and effort is recommended.

FEDERAL ACTIONS THAT AFFECT CIRCULATION

The traditional approach to building new roads and increasing the capacity of existing roads has been shown to have its limitations in fiscal, political, and social constraints. The focus on reducing congestion has shifted to reducing the demand for more road capacity at peak times. Demand management includes such techniques as flexible and staggered work hours to reduce peak use of the road network, car-pooling, telecommuting, bicycling, and walking. Reducing the demand for more road capacity may include the institution of a trip reduction ordinance by a

municipality, private or public subsidies to use mass transit or carpool, and reducing parking requirements (a maximum parking limit, for example).

This recognition of the potential physical limitations of existing roadways is embodied in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 which instituted several major changes in transportation policy at the federal level. For the first time, highways and mass transit have been put on an equal funding basis. States will have more flexibility on deciding whether to spend money on highways or mass transit, since some of the spending categories allow trading one type of funding for another. For the first time, non-traditional items, such as turning abandoned railroad lines into bicycle commuting paths and preserving scenic roadways, have their own spending categories. Transportation demand management techniques, smart highways, and paratransit are all encouraged within the Act.

Burlington Township

Open Space & Recreation Plan

This Master Plan element has been prepared in accordance with the format requirements as set fourth in the NJDEP 2007 Open Space and Recreation Plan Guidelines for participation in the Green Acres planning incentive grant program.

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1. Executive Summary:

Open space and recreation facilities are vital to a good quality of life, and to advance the public health and general welfare of all residents. Recreation and open space amenities are incorporated into the Strategic Plan of the Township, and are included in site plan and subdivision review.

As the basis for developing the Burlington Township Open Space and Recreation Plan, the Planning Board implemented objectives in its 1998 Master Plan and 2003 Master Plan Reexamination Report.

Acknowledgement:

The Township of Burlington acknowledges and appreciates the hard working independent volunteer organization known as the Burlington Township Sports Club. The activities of the club include but are not limited to; operation of snack shacks, sale of apparel and merchandise, fund-raising, and social affairs. The funds generated by this dedicated volunteer organization help reduce operating costs of recreation programs, thereby benefiting all Township residents.

Open Space and Recreation Plan Purpose:

The Open Space and Recreation Plan (OSRP) examines existing municipal open space and recreation facilities, resources, infrastructure, service level and suitability. The Plan proposes recommendations and presents findings, which in turn further guide the development of a balanced open space and recreation network tailored to the public open space and recreation needs of Burlington Township and area residents.

Burlington Township acknowledges the importance and applicability of the Green Acres Mission Statement as it impacts the Township Master Plan:

> "***To achieve, in partnership with others, a system of interconnected open spaces whose protection will preserve and enhance New Jersey's natural environment and its historic, scenic and recreational resources for public use and enjoyment***"

Burlington Township Recreation Commission:

Burlington Township Recreation Commissioners are appointed by the Mayor with advice and consent from Council. The Commission is responsible for the organization, administration, and operation of recreational activities within the Township. The Commissioners are committed to providing a safe and well-structured recreational environment for all Township residents.

Planning Processes:

Burlington Township Mayor, Council and Planning Board initiate, develop and implement the Master Plan Open Space and Recreation Plan. The Township Recreation Commission assisted professional planning efforts in the development of the necessary studies, analyses, mapping and plans. The public hearing and master plan process are instrumental in completing the Open Space and Recreation Plan.

Open Space and Recreation Plan Findings:

- Burlington Township is committed to maintaining, protecting, connecting, and optimizing the use of the existing open space and recreation land inventory.
- Burlington Township has upheld a long-standing tradition of providing an outstanding recreational sports program.
- The most heavily utilized parks in the Township are Green Acres Assiscunk Creek Park, and Skimmer Adams Complex on Lake Avenue.
- All parks and amenities are maintained in good condition.
- There are no wooden structures within the parks system, with the exception of gazebos and seating.
- Low maintenance landscaping is the preferred landscape type.
- Burlington Township parks are heavily utilized by families.
- School fields are available for public use upon request by the Recreation Department, and as such are utilized on an "as needed" basis.
- The Township greenway/open space network is established and can be seen on the general open space system map. The Township will continue to seek open space linkages via stream corridors, flood hazard areas, wetlands, and steep slope areas where appropriate.
- Greenways, open space areas, recreation areas, conservation areas and the linkages between them should be identified on affected site plan and subdivision applications, enabling the municipality to arrange for preservation of the reserved area, negotiate for a conservation easement, or preserved by using cluster techniques.
- Two sections of the "Delaware River Heritage Trail" are within Burlington Township. The trail extends from Trenton to Palmyra in New Jersey, crosses the Delaware River via the Tacony-Palmyra Bridge, extends from Philadelphia to Morrisville in Pennsylvania and crosses the Calhoun Street bridges back to Trenton. The purpose of the trail is to create a multi-use pathway as close as possible to the shores of the Delaware River, while connecting numerous communities, parks,

historical sites and natural assets. Burlington Township will continue to remain active in the implementation of the project.

- Section 19:12-4 of the municipal ordinance provides for the encouragement, regulation, and design of bikeways and pedestrian paths within the Township. The ordinance is flexible and allows the Reviewing Board to permit minor beneficial deviation from the established standards to provide for a "*harmonious development*".

- The successful implementation of the open space and pedestrian ordinances referenced above can be seen in the numerous neighborhood pocket parks throughout the residential areas of the Township, and the ability of pedestrians to access them (as can be seen on the Circulation Map).

- The continued maintenance and expansion of Burlington Township's bicycle and pedestrian pathway network serves the recreation needs of the residents, as well as the growing need for the community to safely and efficiently commute to work, school, and shopping areas without relying solely on automobiles.

Township Recreational Programs:

- Aerobics and Line Dancing (September – June)
- Baseball (Spring – Fall)
- Basketball (Winter indoor – Summer outdoor)
- Cheerleading (Fall)
- Field hockey (Summer)
- Football (Fall)
- Roller hockey (Spring and Fall – outdoor)
- Soccer (Spring and Fall)
- Softball (Spring, Summer, and Fall)
- Tennis (Summer)
- Track (Winter indoor – Spring outdoor)
- Volleyball (September – June)
- Swimming (Summer)
- Wrestling (Winter)

2. Goals, Objectives and Policies:

The following Goals, Objectives, and Policies emphasize Open Space and Recreation as a high priority for Burlington Township.

Open Space and Recreation Goals:

- To provide ample recreation facilities and opportunities that meet the active and passive recreational needs of Burlington Township residents of all ages and interests, while being cost efficient.

- To provide various accessible active and passive recreational opportunities within interconnected regional and neighborhood parks.

- To provide family orientated parks and green spaces throughout the Township.

- To maintain award winning Assiscunk Creek Park as the centralized and dominant municipal park in the Township.

- To preserve remaining open space areas as deemed appropriate.

- To protect natural resources and conservation areas as part of the open space inventory for passive enjoyment.

Comprehensive Objectives:

- To ensure the availability of adequate community services, including both public and private facilities, to support Township residents conveniently and economically.

- To maximize utilization and preservation of the natural character of the land.

- To protect areas with natural qualities and features which, while enhancing the aesthetic and environmental character of Burlington, can also provide buffering, recreation, drainage, recharge areas, flood and erosion control benefits.

- To maintain Burlington Township's existing neighborhoods as safe, attractive, healthful and stable residential areas with adequate provisions for recreation and open spaces.

- To recognize present and future benefits associated with agricultural and the changing nature and definition of "farming" (example: Agritourism).

- To provide a repository of land for future generations consistent with the concepts and ideas of intergenerational equity.

- To utilize a wide array of open space and preservation methods and techniques.

- To create greenways corridors along streams and creeks.

- To protect surface and subsurface water supplies by promoting control of nonpoint source pollution, and well head protection.

- To provide strong support for our varied natural resources including forested areas, streams and river frontage which provide many passive recreational opportunities, i.e., fishing, hiking and enjoyment of wildlife and the natural environment. These natural areas must be kept clean and preserved for generations to come. Burlington Township supports initiatives to help increase individuals' awareness and understanding of an involvement with the environment. Environmental education is a continuing process that impacts one's activities from childhood to retirement. Promoting the empowerment of Township residents to better understand and value our natural resources and assuming environmental responsibility are priorities.

- To promote stormwater management practices that positively affect aquifer recharge areas, flood plains, wetlands, waterways, and properties abutting waterways.

- To promote lake management that supports aesthetic benefits, environmental integrity, and good water quality.

Inventory:

Public recreation and open space of approximately 686-acres exist in Burlington Township. This expanse of protected municipal land is comprised of approximately 352-acres of improved parkland and approximately 334-acres of unimproved parkland and open space.

Burlington Township has developed a Recreation and Open Space Inventory (ROSI) which documents existing open space and recreation resources.

Burlington Township recently preserved approximately ninety-seven (97) acres of the Tillinghast Farm (located on Mill Lane between Old York Road, I-295 and Springfield Township) as open space with the assistance of Green Acres (NJDEP) and Springfield Township. As part of this cooperative effort, 31.54-acres of preserved farmland was annexed from Springfield Township to Burlington Township.

Burlington Township's award winning Green Acres Assiscunk Park (approximately 235+/-acres) provides Regional and Local Users with various active and passive recreational opportunities. The Park also serves as a wildlife creek corridor connecting with Florence and Springfield Township's to the East, and Burlington City to the West.

Existing Open Space and Recreation: Undeveloped Lands

Key	Name	Block	Lot	Acres
A	Tanner Avenue	101.14	35	2.80
B	Lower Sylvan Lake	38.01	1	17.03
	Lower Sylvan Lake	38	1	2.09
C	Skimmer Adams Field (Boudinot)	62	1	1.08
	Skimmer Adams Field (12th Street)	63	8	0.10
D	Assiscunk Creek, Area I	136	P/O 5	45.80
E	Assiscunk Creek, Area III	144	P/O 11	53
F	Assiscunk Creek, Area IV	144	9.05	0.11
	Assiscunk Creek, Area IV	144	34.01	0.10
G	Alloway 10	95.01	14	3.92
H	Meadow Oaks	142.01	34	19.07
I	Meadow Oaks	142.02	15	1.30
J	Sante Fe	142.10	35	5.05
	Sante Fe	142.11	8	0.33
	Sante Fe	142.09	39	1.01
K	Bridle Club	131.06	34	5.80
	Bridle Club	131.16	P/O 52	1.71
L	Trellis Green	98.13	P/O 57	7.80
M	Bridle Club	131.17	10	0.93
N	Bridle Club	131.11	9	0.74
O	Bridle Club	131.14	10	0.60
P	Bridle Club	131.02	16	0.29
Q	Upper Sylvan Lake	40	9	0.06
	Upper Sylvan Lake	40	10	0.04
	Upper Sylvan Lake	40	11	0.13
	Upper Sylvan Lake	40	14	0.11
	Upper Sylvan Lake	40.01	22	0.14
R	Wyngate	127	2	1.15
S	Steeplechase	147.03	47	0.07
	Steeplechase	147.03	48	0.07
	Steeplechase	147.03	49	0.33
T	Steeplechase	143.08	21	0.12
U	Trellis Green	98.11	7	0.45

Existing Open Space and Recreation: Undeveloped Lands (continued)

Key	Name	Block	Lot	Acres
V	Trellis Green	98.15	1	0.07
W	Trellis Green	98.11	1	0.26
X	Park South	140.05	18	1.34
Y	Tiffany Hollow	142	16	0.90
Z	Oxmead Crossing	129.06	34	16.11
AA	Rancocas Estates	109.17	5	18.39
BB	Rancocas Estates	109.17	14	0.37
CC	Rancocas Estates	109.21	23	1.05
DD	Rancocas Estates	109.21	1	9.59
EE	Old Mill Run	104.36	11	1.81
FF	Old Mill Run	104.33	6	0.61
GG	Old Mill Run	104.31	26	12.93
	Tillinghast (2007)			97.52

Existing Open Space and Recreation: Developed Lands

Key	Name	Block	Lot	Acres
1	Linden Road	94.07	1	0.60
2	Shive Place	98.06	4	1.4
3	Alston Cook Field	101.14	36	2.59
4	Walnut Drive	104	28	12.6
5	Longwood Drive	104.21	7	0.4
6	Skimmer Adams Field	68	13	0.28
	Skimmer Adams Field	69	1	1.38
	Skimmer Adams Field	70	1	1.38
	Skimmer Adams Field	71	1	0.60
	Skimmer Adams Field	76	13	0.32
	Skimmer Adams Field	77	1	1.01
	Skimmer Adams Field	78	1	0.69
	Skimmer Adams Field	68	23	0.11
7	LaGorce Recreation Field	145.01	3.03	4.8
8	Assiscunk Creek, Area I	136	P/O 5	15
9	Assiscunk Creek, Area II	144	P/O 11	22
10	Upper Sylvan Lake	50	1	5.39
11	Sylvan Lake Recreation Site	41	1	2.04
	Sylvan Lake Recreation Site	50	2	0.62
	Sylvan Lake Recreation Site	50	3	0.65
	Sylvan Lake Recreation Site	45	2	0.54
12	Meadow Oaks	142.01	35	1.63
13	Bridle Club	131.04	50	5.35
	Bridle Club	131.04	51	1.58
14	Assiscunk Creek Park (Area IV)	144	P/O 10	74.01
15	Steeplechase	147.14	14	2.55
16	Steeplechase	147.07	P/O 29	3.26
17	Steeplechase	143.07	P/O 39	4.30
18	Steeplechase	143.02	37	6.40
19	Steeplechase	147.05	11	1.56
20	Steeplechase	147.06	P/O 40	0.11
21	Sante Fe	142.15	P/O 41	17.08
22	Oxford Place	145.30	P/O 10.02	0.91

Existing Open Space and Recreation: Developed Lands (continued)

Key	Name	Block	Lot	Acres
23	Wyngate	127	7	2.35
24	Bridle Club	131	P/O 1.01	3.63
25	Bridle Club	131.06	35	6.53
26	Trellis Green	98.14	6	3.26
27	Bridle Club	131.03	5	0.27
28	Bridle Club	131.11	21	0.21
29	Bridle Club	131.13	11	0.23
30	Stonebridge	101.14	24.34	40.7
31	Sante Fe	142	P/O 1.04	0.92
	Sante Fe	142.13	9	0.15
	Sante Fe	142.14	21	0.12
32	Steeplechase	143.02	38	0.23
33	Trellis Green	98.13	34	0.21
34	Park South	140.08	1.01	2.04
35	Central Avenue Tot-Lot	95	P/O 19	0.81
36	Tiffany Hollow	142	44	2.43
37	Pinewald Meadows	142.07	10.01	1.97
38	Pinewald Meadows	142.07	10	0.76
39	Oxmead Crossing	129.1	8	35.96
40	Oxmead Crossing	129.13	1	38.01
41	Oxmead Crossing	129.13	35	13.85
42	Rancocas Estates	109.17	15	3.77
43	Old Mill Run	104.31	21	0.61

4. Needs Analysis:

Past Growth:

From 1990 to 2000, Burlington Township's population grew from 12,454 to 20,294. During this same period the Township median age increased from 34.3-years to 35.6-years. From 1990 to 2000 housing units increased from 4,666 to 7,348 (based on certificates of occupancy recorded by the NJ Construction Reporter it is estimated an additional 452 housing units were added to the housing stock between 2000-2007). Review of the October 2007 property tax data shows that approximately 12% (1,000+Acres) of Burlington Township is Public Property. Residential and Apartment property makes up approximately 22% or 2,000-acres of the Township land use mix. Vacant land is shown as approximately 16% (1,400-acres; however, this number does not reflect approved projects under construction for years 2007-2008). Based on ongoing construction activity throughout the Township since the 2007 tax data was compiled, a conservative downward adjustment to this number is approximately 11.4% or 1,000 vacant acres remaining in town.

Present Land Use Mix:

The vacant land use analysis performed as part of the 2008 Master Plan shows that approximately half of the vacant acreage in Burlington Township is within the Low Density Residential (R-40 = Minimum Lot Size 40,000SF lots) Zone, 435-acres (remaining vacant areas are generally spread evenly throughout the various zones, the most notable contiguous tract is the 133-acres of vacant land surrounding the Burlington Township Mall – I-295/Route 541 Redevelopment Area – Regional Business = B-1).

Significant Land Use Recommendation Under Consideration:

One of many recommendations included in 2008 Master Plan is the addition of more Age Restricted Overlays within the Township, and the creation of a new Continuing Care Retirement Community Overlay (CCRC). The proposed CCRC would cover the majority of the remaining vacant R-40 Zone. The Age Restricted ordinance already in-place, and the CCRC under consideration both have significant open space and recreation requirements to accommodate new residents, including their need for mobility.

Additionally, methods to protect and utilize environmental resources such as stream corridors and wetlands will be integrated into the layout and design of any proposed subdivision.

5. Resource Assessment:

In the mid 1970's Burlington Township had approximately 46-acres of open and recreational lands. At the time of the 1998 Master Plan the open space and recreation inventory had grown to in excess of 390-acres. Assiscunk Creek Park (235 acres) made up more then half of the Township's dedicated open space and recreational land. As of 2008 additional land added to the Township open space and recreation areas increased this acreage to current area of 686-acres.

Township open space and recreation areas are reasonably spread throughout the Township within close proximity to residential areas.

Future Need:

Burlington Township's priorities for future open space acquisitions will be based on a needs analyses relative to demographic and land use considerations as developed by Mayor, Council and Planning Board.

This plan does not propose the acquisition of additional recreation or open space areas; however, Burlington Township will continue to evaluate opportunities to expand its current land inventory and amenities.

Burlington Township is cognizant of the recent court ruling regarding the requirement of open space dedication from residential developers, and will assure that municipal ordinances are consistent with the court decision.

6. Action Plan: *(Reserved for future consideration)*

7. Open Space and Recreation Map

The Recreation and Open Space Inventory (ROSI) shows all land under the jurisdiction of the Township Recreation Department.

The ROSI Map provides a general overview of open spaces and recreation areas by depicting existing developed and undeveloped parkland, greenways, stream corridors, active and passive recreation areas.

8. Additional Parcel Data Requirements

To coordinate efficient open space planning in New Jersey, all future plans and maps developed by Burlington Township will be prepared to be entered into the Green Acres Program GIS which utilizes Environmental System Research Institutes (ESRI) ArcGis Software. Burlington Township's digital information may provide for the following:

a. Existing preserved open space sites documented in the Recreation and Open Space Inventory (ROSI) delineated at the block and lot level.

b. Potential open space and greenway areas identified in the same detail outlined in the plan's resource assessment. Delineation includes individual block as well as boundaries defined by roads and waterways.

9. Public Participation

The 2008 Master Plan was properly noticed in accordance with the statutory requirements of the Municipal Land Use Law (MLUL). The Township may amend this element to meet specific future grant application requirements regarding public notice and public participation.

10. Plan Adoption

The Planning Board hereby adopts the Open Space and Recreation Plan as an element of Burlington Township's 2008 Master Plan. The Open Space and Recreation Plan will also be kept current and made part of the Township's Comprehensive Master Plan revision process.

G. NATURAL RESOURCES CONSERVATION PLAN ELEMENT

GOAL: Preserve and Protect Burlington Township's Natural Resources.

Burlington's natural resource conservation plan establishes a basis for preservation and conservation of sensitive areas within the entire Township. Natural resources and their conservation are critical to the quality of life, public health, and general welfare of all Burlington Township residents, both present and future. As natural resource "open space" areas are often utilized for passive recreation, this Master Plan element is closely linked with the Open Space and Recreation Plan (OSRP). The OSRP documents the Township's open space and recreation system.

The objectives of Burlington's Natural Resources Conservation Plan contribute to the preservation of the ecological, and scenic resources of the Township:

1) Provide a continuous greenway network wherever possible along streams, slopes, scenic areas and critical environmental areas such as flood plains, wetlands and woodlands areas;

2) Control or prohibit development in environmentally sensitive areas;

3) Control environmental degradation and adverse impacts such as noise and air pollution due to improper use of land;

4) Encourage land development which preserves natural amenities and addresses drainage concerns;

5) Provide for wildlife habitat;

6) Preserve existing woodland areas; and

7) Protect the quality of surface bodies of water (streams, lakes, ponds) and groundwater sources.

Burlington Township maintains consistency with the New Jersey State Goal to "Conserve the State's Natural Resources and Systems" and supports the following objectives and strategies:

- Conserve the state's natural resources and systems as capital assets of the public by promoting ecologically sound development and redevelopment in the Metropolitan and Suburban Planning Areas (PA1 & PA2) which includes Burlington Township;

- Restore the integrity of natural systems in areas where they have been degraded or damaged;

- Encourage the development and redevelopment of Designated Centers;

- Manage the use of land, water, soil, plant and animal resources to maintain biodiversity and the viability of ecological systems;

- Maximize the ability of natural systems to control runoff and flooding, and to improve air and water quality and supply.

- Support standards of performance to prevent and reduce pollution and toxic emissions at the source, in order to conserve resources and protect public health.

- Promote the development of businesses that provide goods and services that eliminate pollution and toxic emissions or reduce resource depletion.

- Support the planting of native trees and vegetation.

- Reduce waste; support reuse and recyling of materials;

- Water Resources – Protect and enhance water resources through coordinated planning efforts aimed at reducing sources of pollution and other adverse effects of development;

- Open Spaces, Natural Systems and Passive Recreation – Protect biological diversity through preservation and restoration of contiguous open spaces and connecting corridors; manage public land and encourage private land management to protect scenic qualities, forests and water resources; provide ample access to a variety of passive recreational opportunities.

- Air Resources **-** Reduce air pollution by promoting development that reduce both mobile and stationary sources of pollution; promote the use of efficient, alternative modes of transportation; and support clean, renewable fuels and efficient transportation systems.

- Energy Resources **-** Support energy reduction through conservation, facility modernization, use of renewable energy and cogeneration; reduce energy consumption through energy audits.

- Waste Management, Recycling and Brownfields **-** Promote recycling and source reduction through materials management; support legislative, planning and facility development efforts regarding solid and hazardous waste treatment, storage and disposal; support Brownfield's cleanup and reuse through coordinated planning, strategic marketing and priority redevelopment.

To further Township and State preservation goals and objectives, a Natural Resource Inventory (NRI) map [also known as an Environmental Resource Inventory (ERI)] has been prepared and is included as part of this Master Plan element. The NRI shows existing natural and cultural resources including water, land, flora and fauna, and the conditions and activities that impact them.

The Natural Resources Conservation Plan in conjunction with the NRI provides a basis for policy decisions related to land use and for the preservation, conservation and proper utilization of Burlington's natural resources. The Township supports and implements resources protection ordinances that preserve, conserve, and promote sustainable utilization of natural resources including:

- Energy;
- Open Space;
- Water Supply;
- Forests;
- Soil;
- Wetlands;
- Rivers, Estuaries, Lakes and other water bodies;
- Threatened and Endangered Species Habitat

Burlington Township supports State Plan efforts to:

- Redevelop Brownfields.
- Increase economic output per energy consumed.
- Reduce solid waste generation per capita and per job.
- Reduce the number of unhealthful days caused by ground level ozone, particle matter, and carbon monoxide.
- Reduce green house gas emissions.
- Reduce vehicle miles traveled to work and commute times.
- Increase the number of streams that support aquatic life.

Protection Plan For Stream Corridors:
Burlington Township will update municipal ordinances as part of the new Wastewater Management Plan (WMP) process. A new Stream Corridor ordinance may be adopted as part of this effort.

A map will be prepared showing all municipal waterways and state required setbacks, wetland transition area, riparian buffer, and the standard limit of construction disturbance for each waterway based on current information. The plan will show present development that conflicts with the state required setbacks, as well as locations with disturbed corridors where restoration is necessary. To assure plan consistency, during preparation it will be coordinated with applicable neighboring municipalities and stakeholders.

Environmental Justice Inventory – *Reserved pending Plan Endorsement*

Relationship to adjacent Towns and Regional Entities to coordinate resource protection and land acquisition efforts:

In accordance with the MLUL, Burlington Township coordinates all Master Plan efforts, new ordinance preparation, and existing ordinance amendments with neighboring municipalities and the County. The Township will continue to coordinate potential acquisitions with the Burlington County Farmland Preservation Program, NJDEP Green Acres Program, and adjoining municipalities.

Streams and Open Waters
There are numerous streams, tributaries and open waters within Burlington. These waterways are shown on the Wetlands and Flood Plans Map and several of the other Master Plan Maps. These high quality waterways benefit Burlington and the region, and necessitate diligence on the part of the Township to protect against pollution, erosion and excessive runoff and the subsequent sedimentation that can be caused by improper development and deforestation. Furthermore, upstream communities need to recognize their obligation to help protect surface water quality for downstream neighbors.

Wetlands
Freshwater wetlands are areas of low topography typically exhibiting poor drainage and standing water or high groundwaters table much of the year. They are occupied by wet or hydric soils and hydrophytic vegetation. Wetlands serve valuable ecological functions such as storing floodwaters, filtering pollutants, allowing for groundwater recharge and providing wildlife habitat.

Wetland areas mapped by the NJDEP are subject to field verification; nonetheless, they are a good source for wetland identification. Based on this information, freshwater wetlands in Burlington are shown within the Master Plan map series.

The wetland areas in the Township are regulated by NJDEP and require a surrounding buffer or transition areas that can extend up to 150 feet beyond the wetland. These areas are generally located in close association to the streams. The wetland areas are concentrated in relatively narrow bands around the stream corridors and often include the floodplain. Some low lying areas have more expansive wetland sites which are more likely associated with seasonal high water table rather than stream hydrology.

Flood Plains

The Delaware River and associated tributaries serve to create flood plains within Burlington. Flood plain delineations are provided on the Master Plan Flood Plain Map, and may also be viewed on Maps issued by FEMA.

Aquifer Recharge Areas

Aquifer recharge areas, which replenish geological formations, can yield significant quantities of water to wells. This is achieved either through infiltration of precipitation or through downward seepage from surface water bodies. The quantity and quality at which aquifers are recharged varies greatly with soil characteristics and present and future land uses (relating to impervious cover and associated runoff).

In an effort to protect the long-term viability of the aquifer, development in areas of potential aquifer recharge should reflect a respect for the dynamics of natural processes. Monitoring of potential contamination from facilities on or near aquifer recharge areas, as well as controlled development in these areas and responsible development in more buildable areas will help assure reasonable water supply for the Township in the future.

Soils

Burlington Township's soils are diverse and include sandy loams, loams, clayey urban land and sand. They vary in characteristics of water table height, slope, composition, permeability, water capacity, and dominant vegetation. A major soils series found throughout Burlington is the Galestone Series. These soils are well drained, gently sloping sandy soils that have little clay at the surface, but more in the subsoils. The Master Plan Map series includes a "Soils Map" covering all Burlington. This NJDEP/GIS based map should be used in conjunction with the Burlington County Soil Survey, USDA/SCS.

Conclusions

Conservation planning can be utilized as a tool to help preserve the remaining natural character of Burlington and protect the Township's environmental areas. These include, but are not limited to: wetlands, floodplains, steep slopes, farmland, mature woodlands, groundwater, sensitive surface waters and wildlife habitat. Conservation planning can prevent wasteful land development practices, promote recreational development, help protect historic and cultural sites, lessen the cost of new development and maintain property values.

Recommendations:

Open Space/Greenways:

- Continue to create a greenway/open space network by establishing and designating protection areas on a greenway map. Greenway/open space linkages may be established via stream corridors, flood hazard areas, wetlands, steep slope areas, wildlife corridors, existing public and private conservation easements and public uses including local and county parkland. Historic landmarks and districts, railroad and utility rights-of-way, farmlands, mature woodlands and trails may also be included. Greenway/open space designations should consider existing and potential linkages with similar efforts in neighboring municipalities.

- Greenways, open space areas, conservation areas and the linkages between them should be identified on affected site plan and subdivision applications, enabling the municipality to arrange for preservation of the reserved area, negotiate for a conservation easement, or preserved by using lot averaging or cluster techniques.

Groundwater:

- Burlington supports the NJDEP wellhead protection program for water supply wells. This program involves defining wellhead protection areas, evaluating existing and potential sources of contamination, and establishing appropriate management techniques for wellhead protection, including subdivision and site plan review, design and operating standards, source prohibitions, and public education.

- In order to provide a level of maintenance for existing septic systems that parallels the requirements for new septic systems, the Township cooperates with County and State programs to ensure that existing septic tanks meet State and County Standards.

- Burlington supports the education of property owners on water conservation measures to reduce water usage during peak daily and seasonal usage, and on the potential impacts to groundwater quality from excessive use of fertilizers, detergents, and pesticides. Advice should include the use of landscaping materials with reduced irrigation requirements and the use of water conservative irrigation technologies, such as drip irrigation.

Wetland Protection:

- Considering the importance of freshwater wetlands in Burlington Township and surrounding municipalities, potential impacts on wetlands should be considered when reviewing development proposals within the Township.

- Support wetlands protection strategies in environmentally sensitive areas such as in the vicinity of the mapped wetlands. The strategies should be environmentally sensitive "Best Management Practices" to control pollutants from stormwater runoff and control of other non-point source pollutants.

- Acquire conservation easements on wetlands and wetlands buffers as appropriate.

- Support the monitoring and enforcement of conservation easement restrictions.

Development Regulations:

- Encourage Cluster Development in appropriate locations. Clustering redistributes the entire parcel's development potential to a portion of the same parcel capable of supporting higher densities. Normally permitted development densities are arranged within a smaller area in order to safeguard those portions of the site to be preserved. This allows the remainder of the site to be set aside for open space and/or protection of critical environmental resources without cost to the developer or the Township. Cluster development lowers development costs by reducing needed infrastructure and subsequently lowering housing costs. It conserves land, promotes design flexibility, protects environmentally critical areas, protects farmland and can provide large tracts of open space at no cost to the community. Clustering also permits development to take place away from substantially wooded areas, preserving the wooded character of an area.

- Apply the Residential Site Improvement Standards (RSIS) where appropriate.

- Continue to require natural resource mapping and environmental impact assessment for all subdivisions and site plan approvals.

- Encourage shared parking where appropriate to reduce stormwater runoff and increase open space.

Stream Corridors and Surface Water:

- Utilize water quality management practices to protect the quality of surface water resources.

- Require the establishment or maintenance of vegetated buffers along all stream corridors. Reforestation of disturbed buffer areas should be included in the design standards.

- Educate property owners on the potential impacts to surface water quality from excessive use of fertilizers, pesticides and herbicides.

Forest Resources:

- Include design standards that control forest removal based on the quality of the forest type.

- Provide reforestation standards and requirements.

- Enact a woodlands protection ordinance regulating the removal of trees, and limiting the destruction of trees in proposed subdivisions.

- Encourage residential development that maintains "wooded lots" and preserves large areas of mature woodland.

- Limit tree cutting along collector and higher order roadways so as to preserve the wooded view from the roadway except in those situations where traffic safety requires vegetation removal.

Conservation of Scenic Assets:

- Consider the location of scenic views and preservation of conservation areas in the arrangement of new development. The design of subdivisions and buildings should appropriately preserve scenic views, retaining them as a natural amenity.

Agriculture:

- Encourage landowners to seek technical assistance from the Burlington County Soil Conservation District to develop Conservation Plans using best management practices (BMPs) to conserve soil and water resources. BMPs serve to mitigate the potential environmental impacts of agricultural production, including those related to agricultural runoff.

Air Quality:

- Support Transportation Demand Management (TDM) strategies as a method to reduce the number of trips between residences and work places. TDM strategies typically include the following:

    - Ridesharing: park and ride, van pools/car pools, van pool/car pool lots.

    - Flextime/compressed workweeks.

- Shuttle services.
- Public transit.
- Opportunities and amenities for pedestrians and bicyclists, including bikeways and pathways.
- Telecommuting.

Steep Slopes:

- Require conservation easements on steep slope areas.
- Adopt performance standards that limit the amount of disturbance of steep slopes.

Household Hazardous Wastes:

Serious ground and surface water contamination from residential uses can occur through the use and improper disposal of household hazardous wastes. These wastes are composed of various cleaners, pesticides and fertilizers, paints, and preservatives, automotive products, home hobby chemicals, medicines, cosmetics and associated items. Many of these products are flammable, explosive, corrosive, carcinogenic, or have the potential to damage respiratory or nervous systems.

- Initiate an education program to instruct residents of the dangers regarding household hazardous wastes, proper disposal methods, and alternative products that can be used to replace hazardous substances in the home.
- Inform residents of the opportunity to dispose of these compounds at the Township recycling center on Lake Avenue.

H. UTILITY AND INFRASTRUCTURE SERVICE ELEMENT

GOAL: Create and maintain safe, effective and efficient public water, sanitary sewerage, and stormwater management systems for Burlington Township residents.

Introduction

The Utility Element addresses public infrastructure that supplies potable water, conveys and treats wastewater, and manages storm water prior to its discharge into the natural system of streams, lakes, and rivers. The Township recognizes that statewide public policy and regulations link development opportunities to the availability of water and sewer service. Through this element we strive to ensure the existence of an adequate infrastructure for the present and projected population of Burlington Township, without adversely affecting the environment or the community's quality of life.

Other utilities, such as natural gas supply, electricity distribution, telecommunications and cable television broadcasting are regulated by other governmental entities (i.e., NJ Board of Public Utilities) and are not the focus this element.

Public Water

Burlington Township supplies potable water to a large majority of its residents and businesses through approximately 100 miles of water main (6"-16" diameter) that is maintained by the Township Department of Public Works & Utilities. The Township also owns and maintains seven (7) well sites with an eighth well scheduled to go into operation in mid-summer 2008. Four of the wells are located near the Township's Public Works Offices on Oxmead Road; three are located in the area of Aqua Lane and the proposed eighth well is located near the intersection of Dulty's Lane and Neck Road. These wells, which all draw groundwater from the Middle Potomac-Raritan-Magothy ("PRM") aquifer, are permitted by the NJDEP through a Water Allocation Permit that was last modified in February 2007 and allows the pumping of up to 1,130 million gallons per year from all of the wells. The present allocation is anticipated to serve the Township's needs through the year 2015.

In addition, New Jersey American Water Company, a private utility company located in Cherry Hill, NJ, serves 140 Township residences located in the Edgewater Park Estates section at the northwest corner of the Township, which does not have ready access to any Township owned water distribution facilities. Burlington City also serves Township twelve (12) residences located on Lynn Drive and Cindy Court, as well as a portion of the existing U.S. Pipe Facility in the Township, due to the fact that there are not any municipal facilities located in these areas. These figures represent only two percent (2%) of the Township's 7,114 water service connections.

It is likely that an equally small percentage of residences and businesses are currently served by on-site potable water wells, which are owned and maintained by the individual property owners. Most of these wells serve older residences and businesses. We anticipate that this number will decrease over the coming years as both residents and redevelopers recognize the benefits of a public water connection and permitting requirements become more stringent. Township regulations require properties being developed to have a bulk area of at least one (1) acre in order to permit the installation of a well. Applicable permits from the NJDEP also have to be obtained.

The Township has two (2) elevated water storage tanks, a 1 MG tank located near the intersection of Neck Road and a 2 MG tank located adjacent to the Regal Cinemas near Bromley Boulevard.

There are eleven (11) municipal water main interconnections, ten (10) of which are with Burlington City to accommodate the potential sale of Township water (1.5 million gallons/day or "MGD") and for emergency purposes; and one (1) interconnection along Route 130 with Florence Township for emergency purposes. All interconnections are metered. Burlington Township also serves several businesses along Western Drive in Westampton Township, and a rest stop operated by the NJDOT along Interstate 295 in Springfield Township, as well as approximately a dozen residential dwellings along the short section of Neck Road located in Springfield Township. These water services are all individually metered.

The major short-term infrastructure needs identified by the Department of Public Works & Utilities with regard to the potable water distribution facilities in the Township concerns the condition of the existing water mains located within older developments. A significant amount of the water mains in such developments as LaGorce Square, Rosewood East and West, Springside and Town Estates are older cast iron pipe, which is susceptible to breaks and should be replaced with ductile iron pipe. This infrastructure replacement will be the primary focus of water system capital improvements performed over the next five years. In addition, the Township has identified the need to replace the existing eight-inch (8") cast iron main along Neck Road with a larger diameter, ductile iron main. A long-term project that has also been identified is the installation a larger diameter, more directly routed pipeline from the Township wells and treatment facilities at Aqua Lane across Route 130 in order to expand the pumping capacity of the three wells at this location.

Sanitary Sewerage

Burlington Township handles the conveyance of sanitary sewerage through approximately ninety-nine (99) miles of gravity sewer main (6"-24" diameter) and twenty-one (21) miles of force main (1.5"-14" diameter) that is maintained by the Township Department of Public Works & Utilities. The Township also owns and maintains twenty-nine (29) pump stations. Sewerage flow is ultimately conveyed to the Township Wastewater Treatment Plant located at the terminus of Central Avenue. This plant, which utilizes triple-ditch technology, is designed to treat 3.65 MGD for discharge to the Delaware River Basin. The plant was upgraded in 1998-99 based on expected build-out conditions and is presently operating at about seventy percent (70%) capacity. It is anticipated that it will accommodate the wastewater treatment needs of Burlington Township for the foreseeable future.

The Township operates under a joint Water Quality Management Plan (WQMP) with Burlington City. The Plan, which was last updated in 1990, reflects the fact that a large majority of Township properties are located within a designated sewer service area. However, there are a total of six (6) industrial properties located along Beverly Road, River Road and Dulty's Lane that operate under individual NJPDES permits for either the operation of an industrial treatment facility (i.e., PSE & G, Color-Rite, Poly One) or a subsurface treatment facility (American Pallet, C.R. England, National Gypsum). The WQMP was recently revised (February 2008) to expand the sewer service area to include the former Hercules Site, an eighty-six (86) acre parcel that is being redeveloped from a former industrial use (which operated under a NJPDES permit) to warehousing and office space which will generate only domestic wastewater.

Over ninety-five percent (95%) of the Township is located within a designated sewer service area. Only the industrial parcels noted above as well as a small residentially zoned (R-40) area between the NJ Turnpike and Westampton Township, known as Dogwood Acres, are located outside the current service area. Special situations may present themselves, which could justify the extension of public or private sewer beyond the current service areas. These instances should be handled on a case-by-case basis. Extensions of the sewer service boundary within Burlington Township must be approved by Township Council and be consistent with this Element and the Township's Water Quality Management Plan.

The NJDEP is in the process of adopting new regulations that will designate that County Board of Chosen Freeholders as the wastewater management-planning agency for the entire Burlington County. This will require the development of a countywide wastewater management plan. Municipalities that do not participate will face the potential loss of water and/or sewer allocation. It is anticipated that, as part of this process, the Township's WQMP, which is outdated, will be completely revised and updated to reflect both the growth and sewer utility

infrastructure improvements that have occurred since 1990. It is further anticipated that ongoing redevelopment efforts will result in the inclusion of at least one (1) additional industrial property (Poly One), which is presently operating under an individual NJPDES permit, into the sewer service area. The Township will work closely with Burlington County to ensure that the proposed countywide plan accurately reflects the present conditions and future needs of Burlington Township.

A small percentage of residences are currently served by on-site septic systems, which are owned and maintained by the individual property owners. Most of these septic systems serve older residences situated on larger lots, many of which are located in the current service area. We anticipate that this number will decrease over the coming years as both residents and redevelopers recognize the benefits of a public sewer connection and permitting requirements become more stringent. Township regulations require properties being developed to have a bulk area of at least one (1) acre in order to permit the installation of a septic system. Approval from the County Board of Health also has to be obtained.

The Township also conveys a percentage of it daily sewer flows to the Burlington City Wastewater Treatment Plant. This inter-local arrangement is governed by a series of Agreements, dating back to 1960, between the two municipalities. At present, the Township conveys 600,000-700,000 GPD of wastewater to Burlington City for treatment at their plant.

Sludge is produced as a by-product of the wastewater treatment process. The Township is the process of performing a study to determine the most cost efficient method to handle the sludge generated at its treatment facility. Presently, the sludge is dewatered in two (2) holding tanks and then hauled to a disposal facility. The Township is considering other options, which may include either the installation of a dryer or mechanical dewatering device at the Township WWTP or reimbursing Burlington City to dewater and dispose of the sludge. The latter would be accomplished by pumping the sludge through an existing eight-inch (8”) pipe (presently utilized to convey raw sewage for treatment at the City plant) for dewatering at the City WWTP. The outcome of this study may result in a substantial capital expenditure.

Finally, the Township and City share maintenance responsibilities for a seventy-two inch (72”) outfall pipe that conveys treated effluent from both plants to the Delaware River Basin. This pipe has recently been inspected and is in need of repair. This joint Township-City project has been funded for 2008.

While the conveyance system is in generally good condition, the Township did enter into a professional services contract with Fred Unger & Associates in 2005 to perform a condition assessment of the existing asbestos cement pipe (ACP) in the Township. As a result of that study, which confirmed that much of the ACP is badly deteriorated, the Township contracted with Insituform in 2006 to rehabilitate or replace approximately 5,000 LF of ACP sewer line along Jacksonville Road, Sunset Road and Route 130.

The major infrastructure needs identified by the Department of Public Works & Utilities with regard to the wastewater conveyance and treatment facilities in the Township are as follows:

1. Continue to replace deteriorated asbestos cement pipe (ACP) identified in the study prepared Fred Unger & Associates. These areas include Salem Road (between Sunset and Mill Road); portions of the Springside development; and the Campus Drive area.

2. Clean and de-scale (pigging) the LaGorce force main.

3. Maintain or increase (if needed) the operating capacity of the various Township pump stations.

4. Optimize the Township's sludge-handling operations.

Stormwater Management and Flood Control

Refer to the adopted Municipal Stormwater Management Plan.

NJPDES Tier A Stormwater Regulation Program

Stormwater Management Plan

Burlington Township

Burlington County, New Jersey

An Addendum to the Public Utilities Service Plan Element of the Township Master Plan

Revised October 10, 2006

Prepared by:

F.X. Browne, Inc.
with assistance from the
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FXB Project No.
NJ1032-28-001

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1.0 Introduction

This Municipal Stormwater Management Plan (MSWMP) documents the strategy for Burlington Township ("the Township") to address stormwater-related issues. The creation of this plan is required by N.J.A.C. 7:14A-25 New Jersey Municipal Stormwater Regulations. This plan contains all of the required elements described in N.J.A.C. 7:8 New Jersey Stormwater Management Rules. The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acres of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. A "build-out" analysis has been included in this plan based upon existing zoning and land available for development. The plan also addresses the review and update of existing ordinances, the Township Master Plan, and consistency with other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy to be used when a variance or exemption of the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

2.0 Municipal Stormwater Management Plan Goals

The goals of this MSWMP are to:

- reduce flood damage, including damage to life and property;
- minimize, to the extent practical, any increase in stormwater runoff from any new development;
- reduce soil erosion from any development or construction project;
- assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- maintain groundwater recharge;
- prevent, to the greatest extent feasible, an increase in nonpoint pollution;
- maintain the integrity of stream channels for their biological functions, as well as for drainage;

- minimize pollutants in stormwater runoff from new and existing development in order to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the state, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water; and
- protect public safety through the proper design and operation of stormwater management facilities.

To achieve these goals, this plan outlines specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan to ensure long-term effectiveness of stormwater management facilities. The plan also outlines safety standards for stormwater infrastructure to be implemented to protect public safety.

3.0 Stormwater Primer

Development of land can dramatically alter the hydrologic cycle, increasing stormwater runoff and creating negative impacts downstream. Natural landscapes slow runoff and allow it to infiltrate. A forest, for example, has vegetation that absorbs runoff and allows it to soak into the ground. Vegetation also helps to filter sediments and pollutants. When land is developed and natural landscapes are replaced by impervious surfaces such as roads, buildings, and parking lots, stormwater runoff is increased and is no longer filtered by vegetation. This water becomes direct runoff, which rapidly carries increased sediments and pollutants into streams and lakes. In addition to other negative impacts, sediments can fill in waterways, which increases flooding and may necessitate lake dredging.

Stormwater runoff from developed areas often makes its way through a path of impervious surfaces, from rooftop to gutter to street to storm sewer, for example. This greatly increases the runoff rate, causing the flow in downstream waterways to peak faster and in greater volumes than previously. This phenomenon can lead to an increase in flooding downstream, and can also cause both erosion problems and ecological problems in downstream waterways.

Increases in impervious area can also decrease opportunities for infiltration. By decreasing infiltration, base flow and groundwater recharge are decreased. Base flow is groundwater that slowly moves through the subsurface to recharge a stream. Since this slow flow is decreased, and rapid overland flow is increased, greater fluctuations occur in stream flow rates. These fluctuations can increase soil erosion of waterways, which not only adds sediments and pollutants to the water, but also alters the natural stream channel. These changes can destroy habitats for aquatic life.

Construction activities can also have negative impacts on the water cycle. Runoff from construction sites often carries with it large amounts of soil and construction debris, which should be filtered so that they do not flow into waterways. Construction activities can also compact the soil, leading to increased runoff from the site. Activities that alter the natural topography of a site, such as clearing and grading, can remove depressions from the ground that previously stored runoff and allowed it to infiltrate.

Additionally, land development brings with it a multitude of uses that increase the pollutant load entering waterways. For example, lawn fertilizers, animal wastes, and hazardous fluids from automobiles can easily be transported along impervious surfaces by stormwater runoff.

In addition to increased pollutant loading, land development can adversely affect water quality and stream biota in more subtle ways. For example, stormwater falling on impervious surfaces or stored in detention or retention basins can become heated and raise the temperature of the downstream waterway, adversely affecting cold water fish species such as trout. Development can remove trees along stream banks that normally provide shading, stabilization, and leaf litter that falls into streams and becomes food for the aquatic community.

4.0 Burlington Township Water Resources

Burlington Township is a suburban area encompassing approximately 15 square miles in Burlington County, New Jersey. Burlington Township surrounds Burlington City and is bordered by the Delaware River to the north, and the Townships of Florence, Springfield, Westhampton, Willingboro, and Edgewater Park. The population has grown rapidly in recent years, increasing by 63 percent from 1990 to 2000. The 2000 Census population was recorded as 20,294. The Township has a mixture of residential, business, industrial, and business light industrial zones.

The following information was obtained from the Township's Master Plan (1998). The total area of developed land in the Township increased from about 56 percent in 1991 to 72 percent in 1996. In 1975, single family residential homes made up 10 percent of the land use; that number increased to 32 percent by 1997. During that same time period, farm, wooded and vacant lands decreased from 72 percent to 27 percent of the Township's total land use. The number of housing units in 1990 was reported at about 4,700; this number increased to 6,113 by 1997 and to 7,112 in 2000. This population increase and subsequent new development is assumed to have resulted in increased stormwater runoff and pollutant loads to Township waterways.

Figure 1 shows the Township boundaries on the USGS topographic map, Bristol Quadrangle.

4.1 Burlington Township Waterways

Figure 2 depicts the Township waterways. The Township is bordered to the north by the Delaware River. Lakes include Upper Sylvan Lake, which is used as a public swimming beach, and Lower Sylvan Lake, which is used primarily for fishing. Township streams include Anarkin Creek, Assiscunk Creek, Bustleton Creek, Riggs Mill Creek, Pope's Run, Tanner's Run, and Mill Creek which makes up a part of the Township's southern boundary.

At present, none of the above waterways within Burlington Township have been identified by the New Jersey Department of Environmental Protection (NJDEP) as "Category One" waterways. Category One waterways are special waters identified for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, or other characteristics of aesthetic value; exceptional ecological significance; exceptional recreational significance; exceptional water supply significance; or exceptional fisheries resources.

Nonetheless, the Township endeavors to assure that any potential impacts to its waterbodies and waterways are properly mitigated and minimized to the maximum extent practicable.

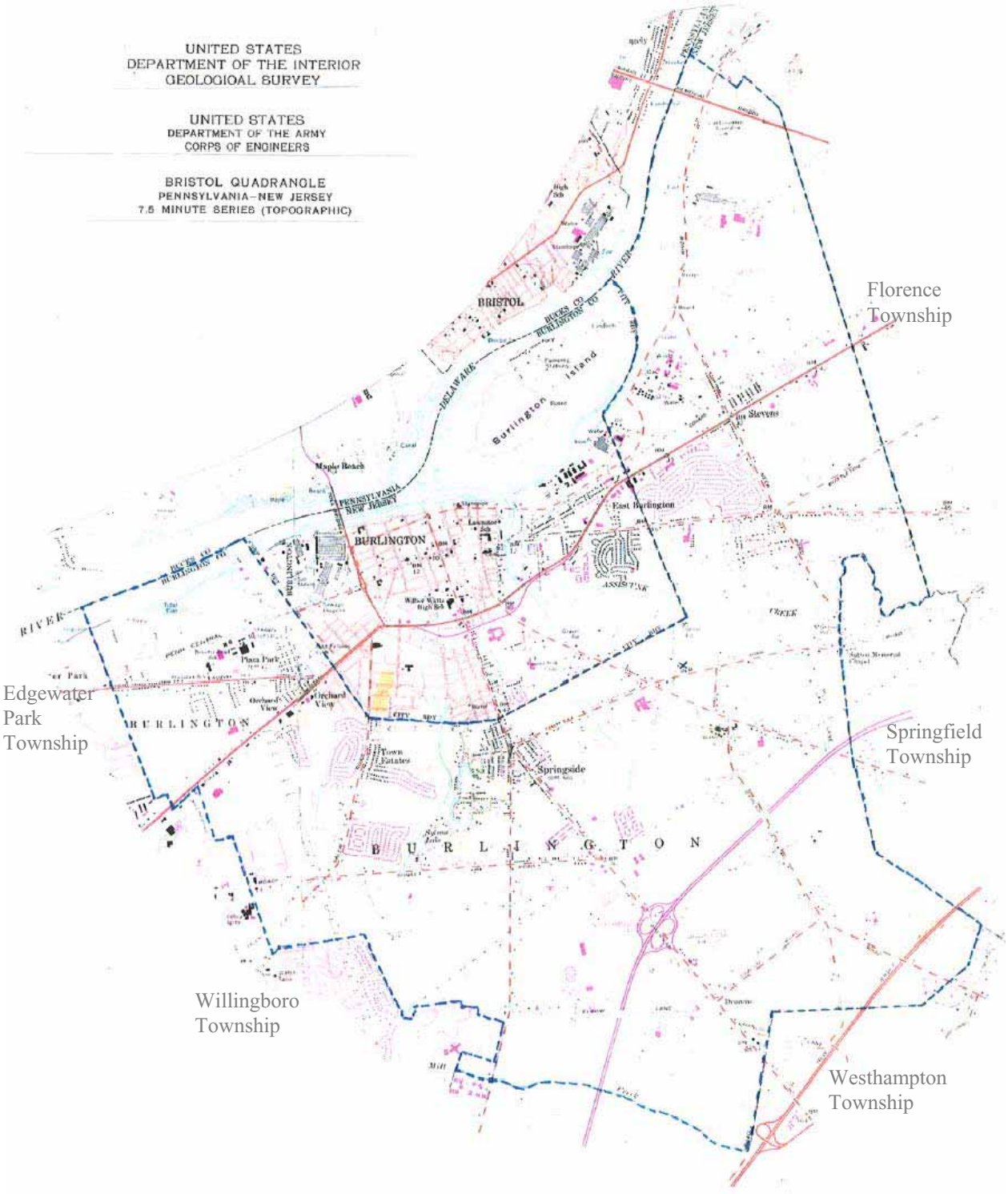


Figure 1 Township Boundary - USGS Topographic Map, Bristol Quadrangle

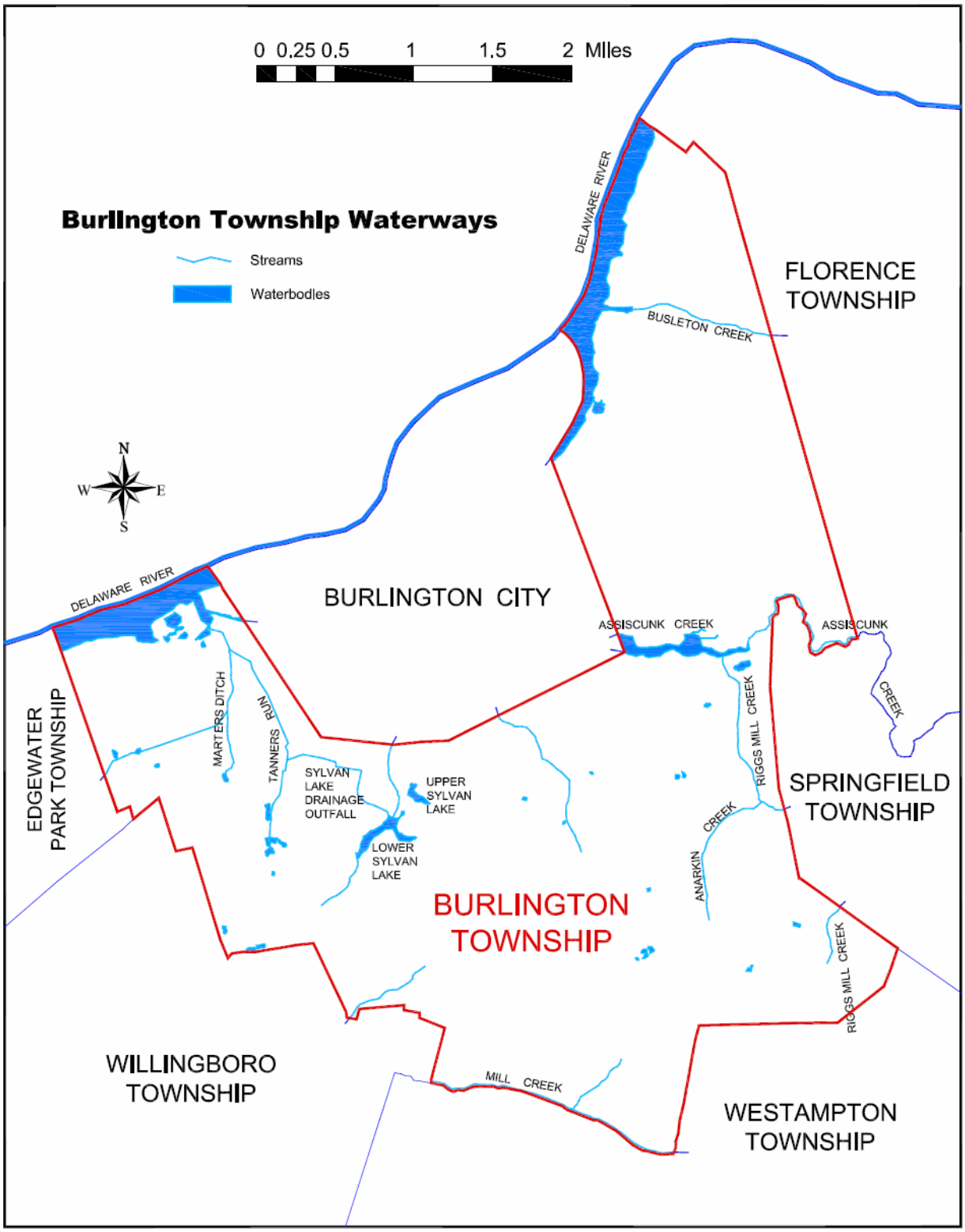


Figure 2 Township Waterways

4.2 Burlington Township Water Quantity

4.2.1 Storm Drainage Study

A comprehensive storm drainage study was compiled in 1980 for Burlington Township by Alaimo Consulting Engineers. This study identified the major problems in the Township's storm drainage system by dividing the Township into 12 drainage basins. The problems identified in this study are the following:

- Lack of stormwater controls
- Inadequate maintenance
- Insufficient easements
- Erosion problems
- Lack of a comprehensive view of stormwater issues

The Township has considered the conclusions of this study in formatting regulations, strategies, and policies to control runoff from developed sites and limit adverse stormwater impacts resulting from development to the maximum extent practicable. These regulations include the current Design and Performance Standards contained in Section 19:12-8 of the Township Land Development Ordinance.

4.2.2 Flooding Issues

The average annual precipitation in Burlington Township is between 44 and 46 inches (Natural Resources Conservation Service). Most of the Township's flood-prone areas are found along the Delaware River and the Assiscunk Creek. The majority of flooding in the Township occurs when precipitation and high tide are concurrent.

The Township identified four main areas where flooding most often occurs. A map of these flood-prone areas is included as Figure 3.

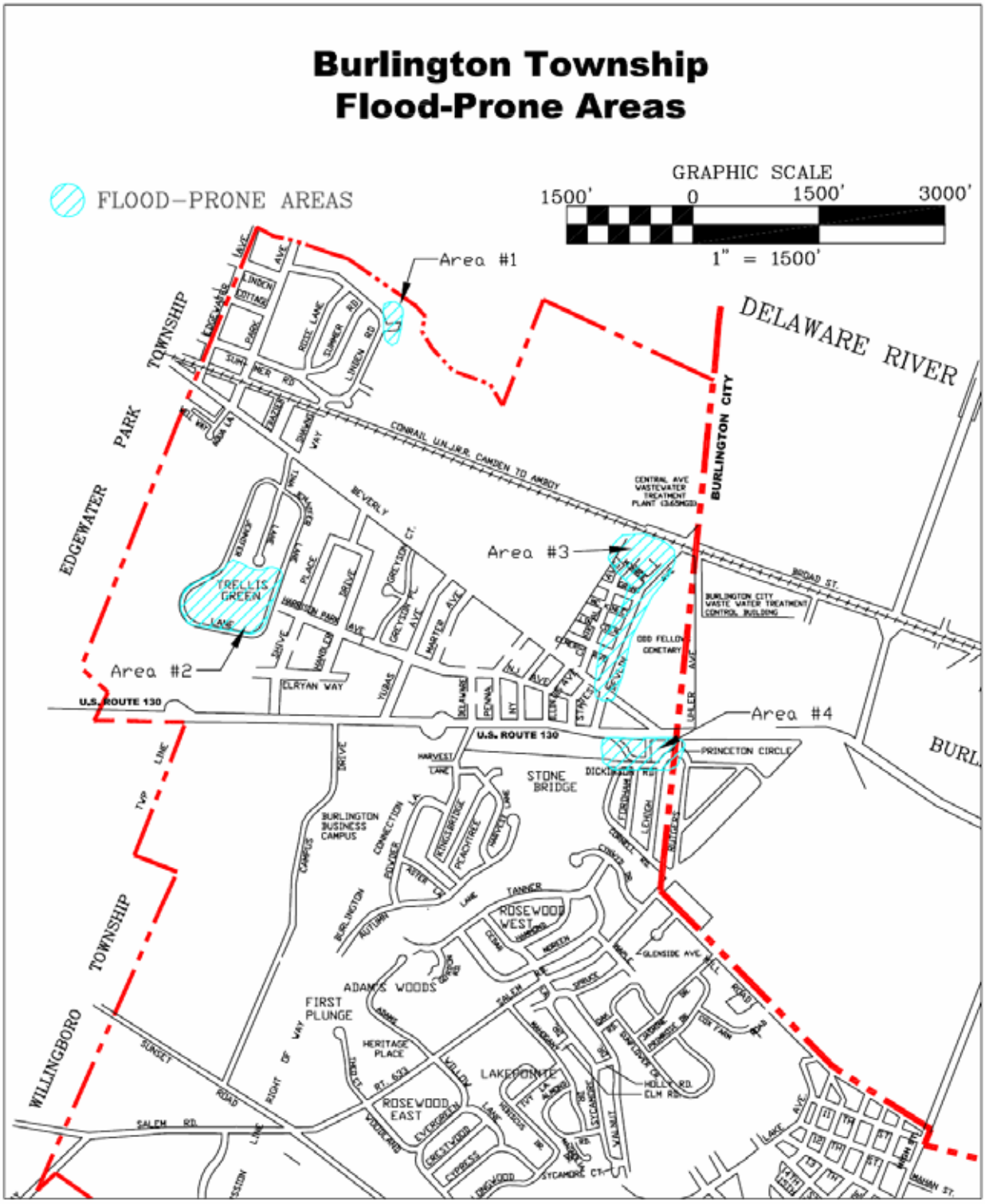


Figure 3 Flood-Prone Areas of Burlington Township

The Township flood-prone areas all lie in the Northwestern portion of the Township near the Delaware River, and are as follows:

Area # 1) Linden Road

This area drains directly to the Delaware River, and is affected by the tidal conditions on the Delaware. No detention facilities exist in this area. Runoff floods the existing recreation site.

Area # 2) Trellis Greene

This area receives undetained runoff from an area of approximately 300 acres primarily in Edgewater Park and Willingboro Townships. Runoff converges in this area and floods an existing recreation site and an area of undeveloped open space, and is then conveyed to Marter's Ditch, which is poorly defined and contains hydraulic restrictions. As part of the proposed development of two residential subdivision projects further downstream along Marter's Ditch, the Township is currently working with a developer to address these problems. The developer hired a drainage consultant to perform a study of Marter's Ditch. Recommendations to improve the hydraulics and decrease the amount of flooding included additional culverts, ditch improvements, and a regional detention basin. The cost of the improvements is the responsibility of the developer. The improvements required NJDEP wetlands and stream encroachment permits, which have been obtained. These improvements are currently under construction.

Area # 3) Devlin Avenue

This area is traversed by Tanner's Run, which is another poorly defined drainage ditch that is adversely affected by backwater from the Delaware River. In addition, a hydraulic restriction created by a NJ Transit railroad culvert compounds the problem.

The Township has met on several occasions with representatives of the NJDEP to discuss the potential for channel improvements between Beverly Road and the Township Sewer Treatment Plant. The NJDEP has indicated that an individual wetlands permit may be required to improve the portion of Tanner's Run that runs parallel with Devlin Avenue.

The Township performed a drainage study of this area and as a result has budgeted funds to perform channel improvements. The improvements recommended in this study are still being

considered; however, the permitting issues may prevent the work from taking place or create substantial modifications to the scope of the work. In addition, there are two County culverts along this stretch of Tanner's Run that would also require improvements. The project is currently on hold pending further discussions with the NJDEP and the County to resolve permitting, environmental, and other issues.

This project is included as an option for the Mitigation Plan, which is discussed further in Section 10 of this document.

Area # 4) Dickinson Avenue and Route 130

The flooding in this area is a result of a hydraulic restriction created by the existing box culvert (8.5' x 2') that runs under Route 130 and drains Tanner's Run to the Delaware River. This culvert was constructed with a reverse slope and presently contains a significant amount of silt. In addition, a trash rack and a utility pipe across the upstream end of the culvert tend to catch debris and create temporary additional restrictions.

The de-silting of this culvert and/or relocation of the utility pipe are included as potential Mitigation Plan Projects; however, this work would also require the approval of the NJDOT.

4.3 Burlington Township Drinking Water and Groundwater

Burlington Township owns and operates the public water supply system in the Township. There is no municipal water utility authority, and municipal water is provided through several groundwater wells which are routed to the Township's Water Treatment Facilities.

There are currently seven wells operating in Burlington Township, with an eighth under construction and scheduled to be completed in 2006. Presently, all of the existing wells are located at two well sites on lands owned by Burlington Township. Wellhead protection is being provided in accordance with NJDEP standards. The two well sites are located on Oxmead Road and Aqua Lane. The Township has a NJDEP Water Allocation Permit to divert 1,130 million gallons per year from the wells currently in operation. The eighth well will be constructed at the intersection of Neck Road and Dulty's Lane on a 1.41-acre parcel that has been dedicated to the Township.

Since the Township owns all properties on which the municipal water wells are located, the Township does not see the need to enact any special wellhead protection standards at this time.

A map of wellhead protection areas is included as Figure 4. A map of the groundwater recharge areas is included as Figure 5.

Information regarding the delineation of wellhead protection areas and tiers was obtained from the New Jersey Geological Survey (2003). The tiers are used to evaluate the risk of well contamination based on the time it takes groundwater to reach the well. Tier 1 is the area with the shortest travel time to the well (2 years or less), and therefore requires the greatest level of protection against groundwater pollution. Tier 3 has a longer travel time (five to twelve years), so pollution in this zone is easier to contain and mitigate. Tier 2 areas have a travel time of two to five years.

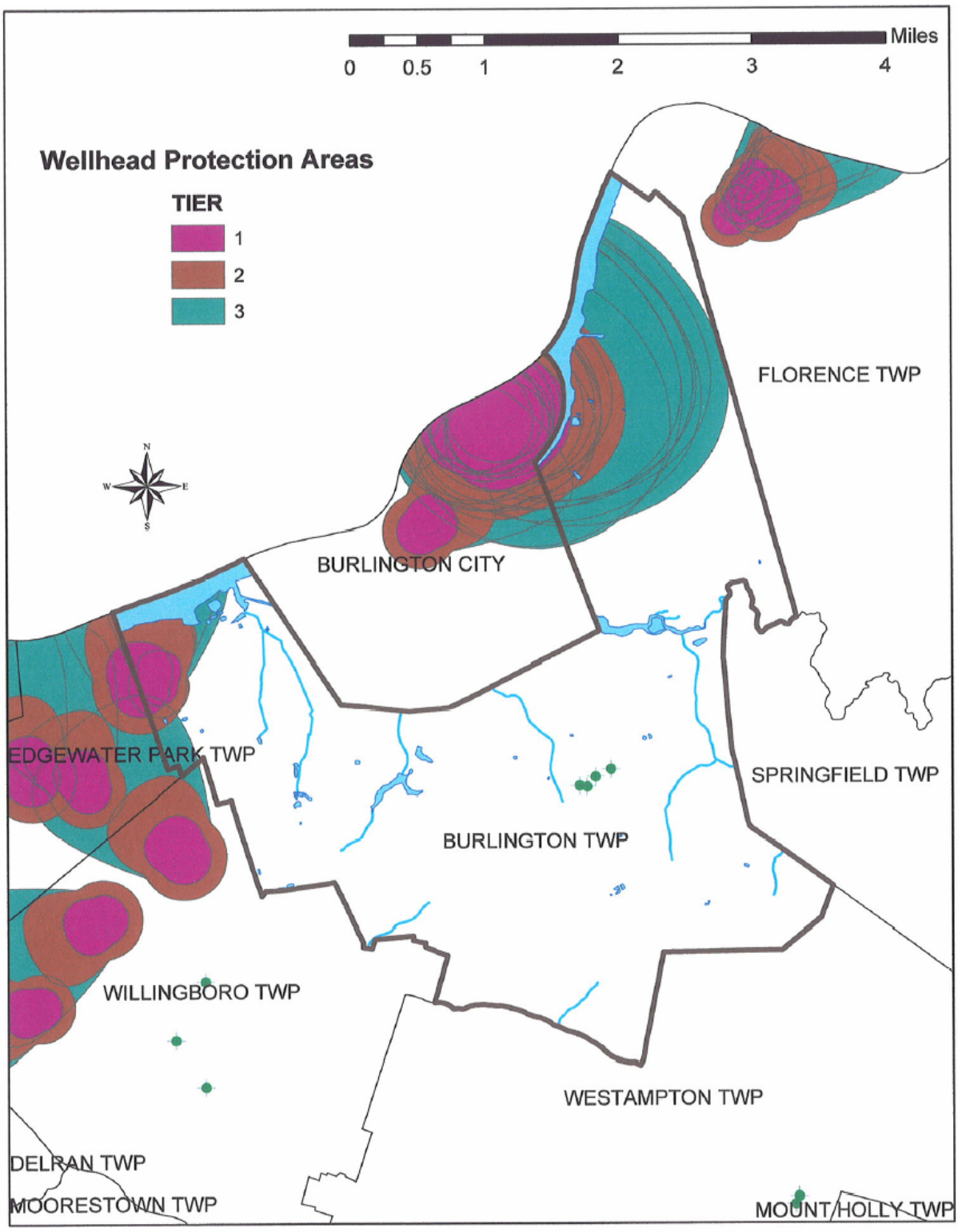


Figure 4 Wellhead Protection Areas

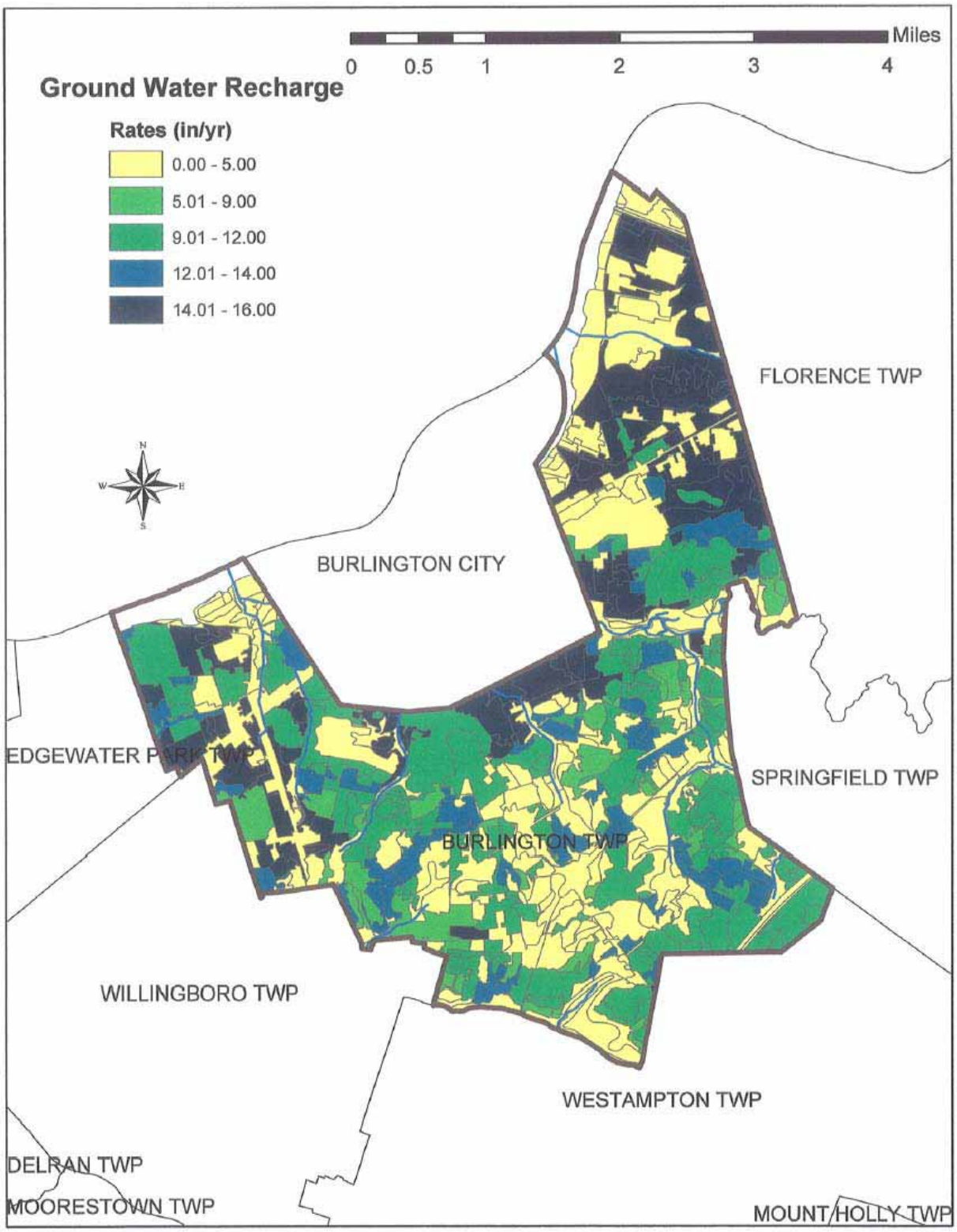


Figure 5 Groundwater Recharge Areas

4.4 Burlington Township Water Quality

4.4.1 Ambient Biomonitoring Network (AMNET)

The NJDEP's Ambient Biomonitoring Network (AMNET) documents the health of New Jersey's waterways based on benthic macroinvertebrate sampling. Benthic macroinvertebrates are bottom-dwelling ("benthic") aquatic creatures without a backbone ("invertebrate") that are small but can be seen without a microscope ("macro"). These creatures include insects, worms, and the larvae of several types of flies. Each of these organisms has its own level of tolerance for pollution, so the creatures living in an area are an indication of the overall health of the waterway. Unlike with chemical testing, this method cannot pinpoint the specific type of pollution affecting a waterway; however, it provides a broader, longer-term view of the aquatic habitat and takes into account all types of pollution.

There are over 800 AMNET sites throughout the state of New Jersey, which are sampled on a five-year cycle. A sampling of macroinvertebrates is collected at each site, and the number and type of each organism is recorded. Streams are then classified as non-impaired, moderately impaired, or severely impaired based on the following information:

- Diversity of the community
- Number and percentage of pollution-sensitive organisms
- An average rating of the pollution sensitivity of all organisms (Each organism is assigned a tolerance rating based on a scale of 1-10.)

Based on AMNET data the following classifications were made for waterways in Burlington Township:

- Assiscunk Creek, the portion which enters Springfield Township, has been classified as Moderately Impaired
- Assiscunk Creek at Neck Road in Burlington Township has been classified as Severely Impaired
- An unnamed tributary (Riggs Mill Creek) to Assiscunk Creek at Oxmead Road in Burlington Township has been classified as Moderately Impaired

4.4.2 New Jersey's Integrated Water Quality Monitoring and Assessment Report

The health of Burlington Township's waterways is reflected in New Jersey's 2004 Integrated Water Quality Monitoring and Assessment Report, or Integrated List, and is broken up into Sublists 1 through 5. All assessed waters are placed on a Sublist based upon the following parameters: 1) the degree of support of designated uses; 2) how much is known about the waterway's water quality status; and 3) the type of impairment preventing use support.

The Total Maximum Daily Load (TMDL) Program, established in 1972 as part of the federal Clean Water Act, is intended to identify waters that do not meet water quality standards, and to establish limits which will allow these waters to attain the water quality standards. A TMDL is the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. In order to establish a TMDL, first the water body is tested for water quality. For each pollutant that is present in quantities that exceed the designated water quality standard, a TMDL is established. The water body and associated TMDLs are then placed on a list to indicate that they are impaired waters.

In New Jersey, TMDLs are listed in the New Jersey 2004 Integrated Water Quality Monitoring and Assessment Report (Integrated List). Organizations such as state agencies, local agencies, or watershed partnerships then develop strategies for reducing the pollutants entering the water body to levels at or below the TMDL.

The Integrated List includes Sublists 1-5, described below:
Sublists 1 and 2: include waters that are unimpaired
Sublist 3: includes waters that have limited data availability to determine impairment status
Sublist 4: includes 3 sub-categories, as follows:

- 4A: TMDL(s) have been developed and approved by the US Environmental Protection Agency (EPA), and are expected to result in full attainment of water quality standards.
- 4B: Other pollution control requirements are expected to result in attainment of water quality standards.
- 4C: Waters are impaired by factors other than pollutants; therefore, a TMDL does not need to be developed. For example, waters affected by habitat degradation or stream channeling would be placed on this list.

Sublist 5: includes waters which are impaired and require the development of a TMDL. A waterway should be included on this Sublist if it is determined, in accordance with the state's assessment and listing methodology, that a pollutant has caused, is suspected of causing, or is projected to cause, an impairment. Where more than one pollutant is associated with the impairment of a single waterway, the waterway will remain on Sublist 5 until TMDLs for all pollutants have been completed and approved by the EPA.

For example, Upper Sylvan Lake, which is used for recreation, had, in the past (early 1990's), exhibited high levels of fecal coliform bacteria and therefore was no longer desirable for certain recreational uses. It was determined that a TMDL was needed for this lake for fecal coliform bacteria, and the lake was placed on Sublist 5 of New Jersey's Integrated List.

Below are listed the waters in Burlington Township that are included on Sublist 4A, followed by the pollutants affecting the waterway:

- Lower Sylvan Lake: Phosphorus.

Below are listed the waters in Burlington Township that are included on Sublist 5, followed by the pollutants affecting the waterway:

- Upper Sylvan Lake: Phosphorus and Fecal Coliform
- Assiscunk Creek, along the reach that begins at the Delaware River and stretches through Burlington Township into Springfield Township: Arsenic, Cadmium, Chromium, Lead, Mercury. This waterway has been given a high priority, and is anticipated for TMDL submittal by December 31, 2005.
- Delaware River/Estuary: Metals. The main metals documented along the Delaware River are Arsenic, Cadmium, and Mercury.

Burlington Township is bordered by Zone 2 of the Delaware River Estuary, and Zone 3 is located downstream of the Township. TMDLs were completed for the Delaware River Estuary in Zones 2 and 3 for the following pollutants:

- 1,2 – dichloroethane
- tetrachloroethene

4.4.3 Pollutant Sources for Burlington Township Waters on the Integrated List

The phosphorus and prior sedimentation problems in the Sylvan Lakes are attributable to nonpoint source pollution. The drainage area to the lake consists of 158 acres of forest and 299 acres of residential land. According to NJDEP's TMDL report (2000) for Upper Sylvan Lake, sources of phosphorus to the lake include incoming waters from the Mill Stream tributary, stormwater runoff from the area around the lake, and internal phosphorus release from the lake sediments. The residences in the area are now sewered; therefore, phosphorus input from septic systems is not an issue. There are no known point sources of pollution to the Sylvan Lakes (NJDEP 2000).

TMDLs were completed for the Delaware River Estuary in Zones 2 and 3 for both 1,2-dichloroethane and tetrachloroethene. 1,2-Dichloroethane is used primarily for the production of vinyl chloride which is used to make a variety of plastic and vinyl products including polyvinyl chloride (PVC) pipes, furniture and automobile upholstery, housewares, and automobile parts. Additionally, it is used as a solvent and is added to gasoline to remove lead. Tetrachloroethene is used for dry cleaning of fabrics, metal-degreasing, and the manufacturing of chemicals and various consumer products. The presence of these industrial pollutants in the Delaware River is most likely attributable to point sources such as industrial sites in the nearby cities, including Trenton which lies upstream and Philadelphia which is situated across the river.

4.4.4 Implementation of TMDLs in Burlington Township

The following measures were taken to rehabilitate Upper Sylvan Lake by reducing phosphorus and sediments in the lake and surrounding watershed, according to NJDEP's 2000 TMDL document for the lake:

- All stormwater pipes were removed from the lake and conveyance systems redirected away from the Upper Lake (2 of 4 outfalls were removed in 1993; 2 outfalls were removed in 1995 and were rerouted to Rancocas Creek, Mill Creek watershed).

- The lake was dredged to remove phosphorus-laden sediment from the lake bottom (completed 28 March 1994).

- An aeration system was installed in the lake in August 1994. Dissolved oxygen in the lake bottom has shown significant improvements following this installation.

- An array of erosion controls and stormwater infiltration measures have been implemented to control nonpoint source pollution. Measures included installing new sand courts in a play area; removing pavement and replacing it with sod; installing wood chip mulch in a parking area; implementing cleaning and sweeping; and installing concrete wheel stops, a stone sub-base, and bituminous walkways.

- Public education programs were initiated, including an environmental education curriculum, teacher training, development and installation of environmental kiosks, and planning and construction of nature trails around the lakes. (ongoing).

Improvements made to reduce phosphorus and sedimentation in Lower Sylvan Lake included:

- The lake was dredged to remove nutrient-rich sediments from the lake bottom (2003);

- Public education programs were initiated, including an educational kiosk, environmental education curriculum, teacher training, and development of the Walnut Drive Nature Trail at Lower Sylvan Lake; and

- Stormwater pipes were re-routed to areas downstream of the lake.

As a result, both the upper and lower lakes have been de-listed for sedimentation.

In addition, efforts are being made by the Township to pursue delisting of Upper Sylvan Lake for fecal coliform. Weekly lake sampling for fecal coliform bacteria has been performed by Burlington County Health Department for the 10-week swimming seasons (mid-June through August) from 1997 to Present. According to the NJDEP's TMDL document (2000), sampling procedures "were consistent with the NJDEP-NJDHSS protocols for bathing beaches which are used in the Cooperative Coastal Monitoring Program for ocean and bay bathing beaches." This document also indicates that: "30 samples were taken, only 1 of which exceeded the NJDHSS primary contact standard (N.J.A.C. 8:26-1 et. seq.), indicating that the bathing beach supports swimming."

If phosphorus levels are not adequate to pursue delisting, the Township will use a tiered Best Management Practices (BMP) implementation approach with continued monitoring. The following actions may be taken:

- Cleaning and maintenance of detention basins in the watersheds of both lakes.
- Continued public education efforts.
- Planting of riparian buffers: installation of vegetative filters in public areas that are a minimum of 30 feet wide. Installation of vegetative filters on private lands if necessary. The NJDEP recommends 75 foot wide buffers where practical.

Implementation of these measures is expected to achieve the necessary load reductions. The Township will take these steps one by one with monitoring after each step to determine whether necessary phosphorus reductions have been achieved.

NJDEP will update the Integrated List in 2006. At that time, they will investigate both Upper and Lower Sylvan Lakes to see if their findings support delisting. Burlington Township plans to continue its efforts to meet TMDLs and hopes to have both Upper and Lower Sylvan Lakes delisted by 2006. This issue is further discussed in the section of this report on Plan Consistency.

5.0 Stormwater Design and Performance Standards

Burlington Township will adopt the design and performance standards for stormwater management measures as presented in N.J.A.C. 7:8-5 (New Jersey Stormwater Management Rules) to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies. The design and performance standards include the language for maintenance of stormwater management measures consistent with the stormwater management rules at N.J.A.C. 7:8-5.8 Maintenance Requirements, and language for safety standards consistent with N.J.A.C. 7:8-6 Safety Standards for Stormwater Management Basins. The NJDEP Model Stormwater Control Ordinance for Municipalities is currently being incorporated into the existing Township ordinances. The ordinances will be submitted to the county for review and approval within 24 months of the effective date of the Stormwater Management Rules, by April 2006. The Township Master Plan is being updated in

2005 and will address inconsistencies in commercial development with respect to stormwater management. During construction, Township inspectors will observe construction operations to ensure that the stormwater management measures are constructed and function as designed.

6.0 Burlington Township Stormwater Management Plan Consistency with State and Regional Stormwater Management Planning

The Township is not within a Regional Stormwater Management Planning Area, and therefore does not need to be consistent with any regional stormwater management plans (RSWMPs). If any RSWMPs affecting the Township are developed in the future, this plan will be updated to be consistent.

Burlington Township requires residential development to comply with the Residential Site Improvement Standards (RSIS) at N.J.A.C. 5:21, which have incorporated N.J.A.C. 7:8 (State Stormwater Management Rules) by reference. The municipality will utilize the most current update of the RSIS in the stormwater management review of areas to which it applies. The Township is in the process of developing and adopting a Stormwater Control Ordinance, consistent with the requirements of N.J.A.C. 7:8, which, in the future, will be applied to all non-residential development. This Municipal Stormwater Management Plan will be updated if necessary to be consistent with any future updates to the RSIS.

The Township's ordinances require all new development and redevelopment plans to comply with New Jersey's Soil Erosion and Sediment Control Standards. The Burlington County Soil Conservation District reviews all projects regulated by these Standards, and supercedes the Township on such matters. During construction, Township inspectors will observe on-site soil erosion and sediment control measures and report any inconsistencies to the Burlington County Soil Conservation District.

In accordance with New Jersey's 2004 Integrated Water Quality Monitoring and Assessment Report, TMDLs are in place for the following Burlington Township waterways, as described in Section 4.4 of this report. The TMDLs are listed below with associated pollutants:

- Lower Sylvan Lake: Phosphorus
- Upper Sylvan Lake: Phosphorus and Fecal Coliform

Stormwater management recommendations from this report and from the Burlington Township Stormwater Management Ordinance will help to further reduce the TMDLs for both lakes.

This plan will be updated to address any future TMDLs that are put in place for any contributing watershed area within the Township.

7.0 Nonstructural Stormwater Management Strategies

7.1 Burlington Township's Zoning Ordinance

Burlington Township's Zoning Ordinance was reviewed to see where nonstructural stormwater management strategies could be incorporated or improved. No revisions have been made to the Zoning Ordinance, but consideration for future changes have been established as described below.

Percentage of Impervious Surface:

Burlington Township's Zoning Ordinance sets limits on the percentage of impervious surface allowed in each zoning district. The Township has decided that a decrease in these limits is not appropriate at this time. The Township may review these limits in the future to determine whether a decrease in impervious surface is appropriate.

Detention Basins and Infiltration Basins:

Detention basins are required by all major developments and site plans unless deemed unnecessary by the Reviewing Board Engineer. Infiltration basins are not permitted unless the applicant can demonstrate by a drainage study prepared by a New Jersey Licensed Professional Engineer that an onsite detention basin is not feasible from an engineering standpoint. In the case that an infiltration basin is permitted, the design must comply with the NJDEP "Best Management Practices for Control of Nonpoint Source Pollution from Stormwater" dated May 2000 as amended. With the future adoption of a Township Stormwater Control Ordinance that will be consistent with the requirements of N.J.A.C. 7:8, the prohibition against infiltration basins will be eliminated. This section is to be revised following completion of the Stormwater Control Ordinance.

Burlington Township recognizes that the Residential Site Improvement Standards (RSIS) supercedes the Township Zoning Ordinance with respect to stormwater management; therefore, the standards set forth in the Township Zoning Ordinance presently apply only to non-residential development.

7.2 Burlington Township Master Plan

The Township's Master Plan was most recently updated in 1998, and another update is scheduled to be completed in 2005. A Master Plan Reexamination Report, written in 2003, included many goals and objectives established by the Township to be incorporated in the updated Master Plan. Objectives are the specific targets to be met as intermediate steps in achieving the Township's long-term goals. Numerous goals and objectives relate to nonstructural stormwater management strategies, and are described below.

7.2.1 Commerce and Industry

Objective: To support increased utilization of existing office, industrial and commercial development. To provide for appropriate manufacturing and heavy industrial uses which are appropriately located and compatible with the Township's environmental resources.

7.2.2 Housing

Goal: To integrate new development with substantial open space areas using Smart Growth techniques that discourage suburban sprawl.

Goal: To encourage infill development and redevelopment as a Smart Growth technique.

7.2.3 Recreation

Objective: To provide family oriented parks and green spaces throughout the Township.

Objective: To continue the maintenance and upgrade of Assiscunk Creek Park as the centralized and dominant park in the Township.

7.2.4 Environment

Goal: To preserve environmentally sensitive areas in their natural state, and to protect natural resources and areas of conservation.

Objective: To protect wetland and floodplain areas by generally mapping these locations and identifying State and Federal preservation requirements.

Objective: To protect surface and subsurface water supplies by promoting control of nonpoint source pollution, and wellhead protection areas.

Objective: To preserve wooded areas for wildlife habitat, and helping manage these and other natural areas throughout the Township.

Objective: To provide strong support for our varied natural resources including forested areas, streams and river frontage which provide many passive recreational opportunities, i.e., fishing, hiking and enjoyment of wildlife and the natural environment. These natural areas must be kept clean and preserved for generations to come. Burlington Township supports initiatives to help increase individuals' awareness and understanding of and involvement with the environment. Environmental education is a continuing process that impacts one's activities from childhood to retirement. Promoting the empowerment of Township residents to better understand and value our natural resources and assuming environmental responsibility are priorities.

Objective: To adopt and implement NJDEP's new stormwater management regulations.

Objective: To promote stormwater management practices that positively affect aquifer recharge areas, floodplains, wetlands, waterways, and properties abutting waterways.

Objective: To provide significant natural space within and around existing development in order to lessen the impact of the built environment.

Objective: To seek appropriate locations for the establishment of greenways linking areas of environmental and recreational importance.

Objective: To promote lake management which supports the maintenance of the aesthetic benefits, environmental integrity, good water quality of lakes, as well as the financial benefit of increased realty value.

7.2.5 Open Space

Goal: To preserve appropriate remaining open space areas throughout the Township.

Objective: To ensure that open space planning plays an important role in developing the character, location, magnitude and timing of growth and development in the Township.

Objective: To utilize a wide array of open space preservation methods and techniques.

Objective: To give priority to preserving large contiguous tracts of forests and lands containing unique areas of environmental sensitivity.

Objective: To promote and encourage the protection of privately owned tracts of open space, wetlands, and forestlands.

7.2.6 Transportation

Objective: To utilize the existing major transportation routes as much as possible, and avoid the expansion of new major arterial roadways.

Objective: To promote pedestrian walkway systems and bicycle pathways throughout the community, particularly connecting residential neighborhoods with nodes of commercial activity and places of employment.

Objective: To encourage the upgrading of existing transportation facilities.

Objective: To identify transportation facilities that will be affected by development on a case-by-case basis.

The Master Plan Reexamination Report also analyzes the changes to goals, objectives, policies, problems, assumptions and recommendations from 1998 to 2003. As such, the following goals have been established for the Township.

7.2.7 Schools

The Township plans to continue coordinating with the Board of Education on the planning of schools, including layout, stormwater management, adequate buffer landscaping, and preservation of natural resources.

7.2.8 Preservation of Open Space

Burlington Township will encourage open space preservation and the use of smart growth techniques.

7.2.9 Preservation of Environmental Resource

Preservation of Township wetlands, flood plains, stream corridors, forested areas and wildlife habitats continues to be considered a critical part of planning for the well being and safety of present and future Township residents. As such, these environmental resources are presently mapped and considered in the

review of all development projects in Burlington Township. Furthermore, the Township implements watershed management techniques and NJDEP regulations in controlling stormwater flows and nonpoint source pollution.

7.3 Municipal Regulations Checklist

The Municipal Regulations Checklist provided in the NJDEP BMP manual was used to identify areas where non-structural stormwater management strategies could be incorporated into local regulations. The checklist identified the following options to be considered by the Township in updating the Zoning Ordinance and/or Master Plan:

7.3.1 Vegetation and Landscaping

A. Preservation of Natural Areas
    1) Restrict residents from enlarging existing turf lawns.
    2) Provide incentives for the use of vegetation as filters from stormwater runoff.

B. Tree Protection Ordinances
    1) If forested areas are present at development sites, require a certain percentage of the stand to be preserved.

C. Landscaping Island and Screening Ordinances
    1) In landscaping islands in parking lots, or between the roadway and sidewalk, require the use of vegetation which is more beneficial for stormwater quality, groundwater recharge, or stormwater quantity, but does not interfere with driver vision at the intersections.

D. Riparian Buffers
    1) Identify or limit cases in which stormwater outfall structures may cross over riparian buffers.

7.3.2 Minimizing Land Disturbance

A. Limits of Disturbance
    1) Limit traffic of heavy construction vehicles to certain areas, such as areas of existing roadways and proposed roadways. Require these areas to be identified on construction plans and marked in the field.
    2) The Township requires an as-built inspection before issuing a certificate of occupancy, but should consider requiring this inspection to include identification of compacted areas, if they exist within the site.

B. Open Space and Cluster Development
    1) Offer flexible site design incentives for developers that utilize open space or cluster design options.
    2) Specify a maximum allowable percentage of impervious cover in open space/recreation areas.

7.3.3 Impervious Area Management

A. Streets and Driveways
    1) Allow or require street features, such as circles, rotaries, or landscaped islands to receive runoff.
    2) Require cul-de-sacs to contain a landscaped island in the center.
    3) Allow alternative turn-arounds such as "hammerheads" on short streets in low density residential developments.

B. Parking Areas and Sidewalks
    1) Reduce required parking lot ratios.
    2) Set parking requirements as a maximum or median rather than minimum requirements.
    3) Provide model shared parking agreements.
    4) Allow for permeable material to be used in overflow parking areas.
    5) Offer incentives for parking areas that reduce impervious cover, rather than providing only surface parking lots.
    6) Allow for sidewalks to be constructed with pervious material.

7) Encourage substituting sidewalks with alternate pedestrian networks (e.g. trails through common areas).

C. Unconnected Impervious Areas

1) Require developers to disconnect impervious area to promote pollutant removal and groundwater recharge.
2) Change ordinances to allow the reduction of the runoff volume when runoff from impervious areas is re-infiltrated into vegetated areas.

7.3.4 Vegetated Open Channels

1) Allow or require vegetated open channel conveyance instead of the standard curb and gutter designs.
2) Establish design criteria for vegetated channels.

8.0 Land Use Build-Out Analysis

The term "HUC-14" is from the hydrologic unit code system developed by the United States Geological Service for delineating and identifying drainage areas. The system starts with the largest possible drainage areas and progressively smaller subdivisions of the drainage area are delineated and numbered in a nested fashion. A drainage area with a hydrologic unit code (HUC) designation with 14 numbers, or HUC-14, is one of several sub watersheds of a larger watershed with 11 numbers, or a HUC-11. There are 921 HUC-14 sub watersheds in New Jersey that range in size from .1 to 42 square miles. The average size of a HUC 14 is 8.5 square miles. Visit http://www.state.nj.us/dep/watershedmgt/hucmap.htm for a map showing HUC-14 drainage areas in New Jersey.

A build-out analysis was conducted for Burlington Township to determine the acreage of impervious surface and the associated nonpoint source pollutant loadings for each of the Township's HUC-14 drainage areas based on allowable land use under current zoning. A map showing each HUC-14 drainage area in Burlington Township is presented in Figure 6.

First, the pollutant loadings for existing land use were estimated. A land use map of the Township is included in Figure 7, and standard pollutant loads by land cover are shown in Table 1. Pollutant loads for land designated as recreation/open space were calculated by averaging pollutant loads for forest and low density residential. Nonpoint source pollutant loads under existing land use for Burlington Township were calculated using the standard pollutant loads from Table 1 and the percentages of land use type in each HUC-14 drainage area in Burlington Township. These calculations are presented in Table 2.

Land Cover	Pollutant Load (lb/acre/year)		
	Total Phosphorus	Total Nitrogen	Total Suspended Solids
High, Medium Density Residential	1.4	15	140
Low Density, Rural Residential	0.6	5	100
Commercial	2.1	22	200
Industrial	1.5	16	200
Urban, mixed Urban, Other Urban	1.0	10	120
Agriculture	1.3	10	300
Forest, Water, Wetlands	0.1	3	40
Barrenland/Transitional Area	0.5	5	60

Table 1. Pollutant Loads by Land Cover

(Source: New Jersey Stormwater Best Management Practices Manual 2004)

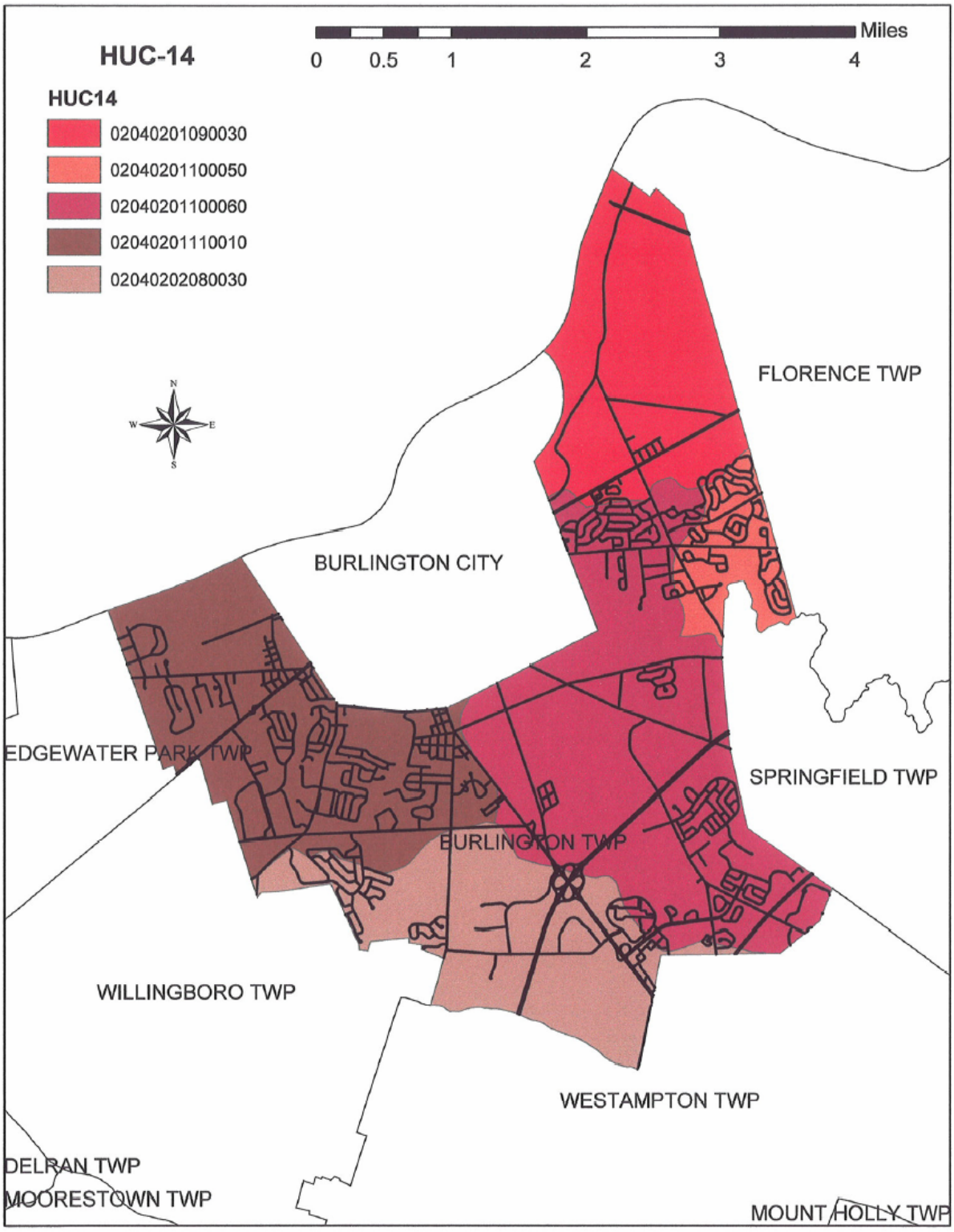


Figure 6 HUC 14 Drainage Areas

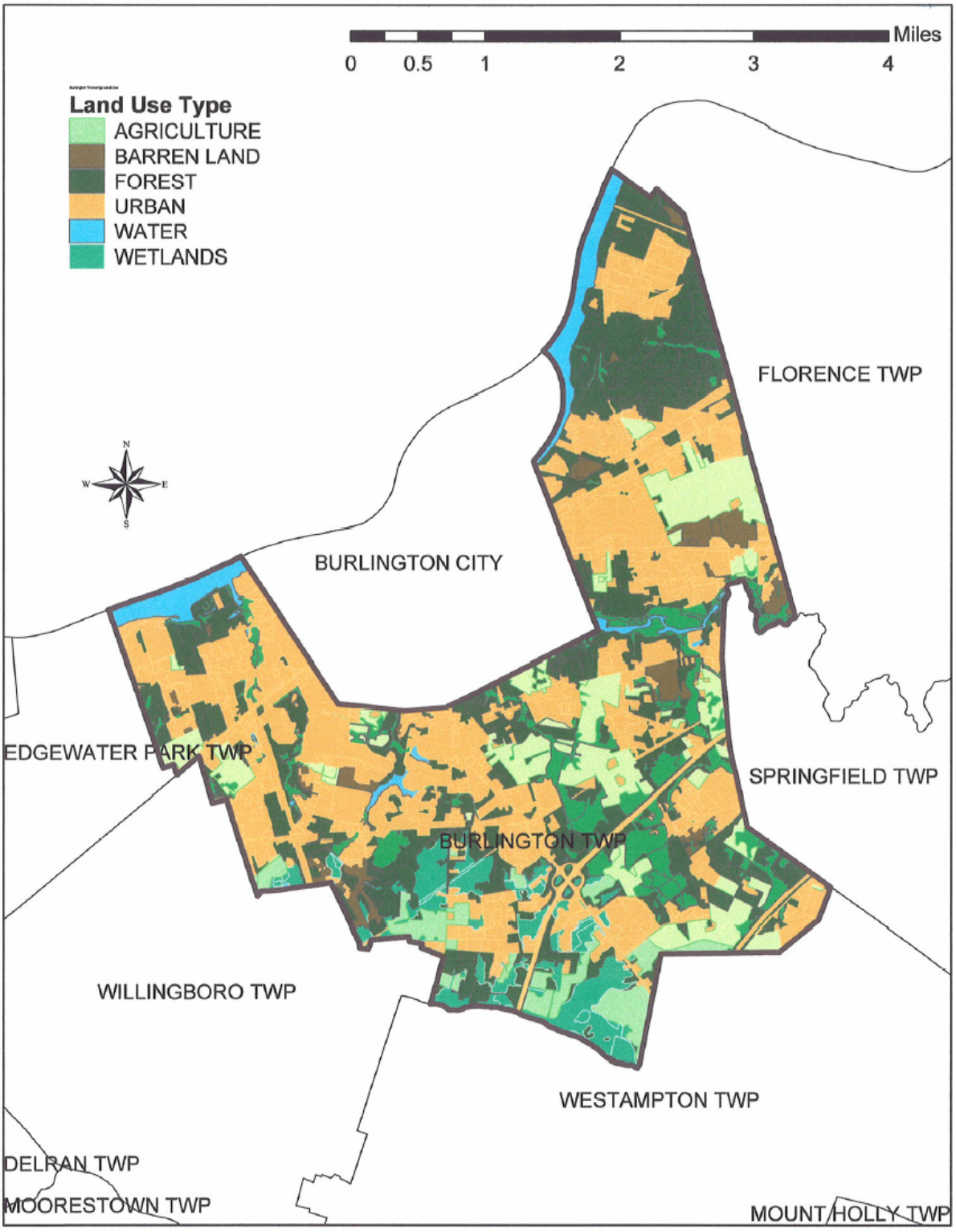


Figure 7 Land Use Map

HUC14	Land Use	Area (acres)	Pollutant Load					
			Total Phosphorus		Total Nitrogen		Total Suspended Solids	
			(lb/acre/yr)	(lb/yr)	(lb/acre/yr)	(lb/yr)	(lb/acre/yr)	(lb/yr)
2040201090030	Urban	478.7	1.0	478.7	10.0	4787	120.0	57442
	Agriculture	208.9	1.3	271.6	10.0	2089	300.0	62667
	Forest	703.2	0.1	70.3	3.0	2109	40.0	28126
	Water	153.7	0.1	15.4	3.0	461	40.0	6146
	Wetland	0.0	0.1	0.0	3.0	0	40.0	0
	Barren Land	66.1	0.5	33.0	5.0	330	60.0	3963
	TOTAL	1610.5		**869**		**9,777**		**158,346**
2040201100050	Urban	60.7	1.0	60.7	10.0	607	120.0	7280
	Agriculture	287.2	1.3	373.4	10.0	2872	300.0	86161
	Forest	87.4	0.1	8.7	3.0	262	40.0	3496
	Water	5.9	0.1	0.6	3.0	18	40.0	236
	Wetland	22.5	0.1	2.2	3.0	67	40.0	900
	Barren Land	3.3	0.5	1.6	5.0	16	60.0	198
	TOTAL	467.0		**447**		**3,843**		**98,272**
2040201100060	Urban	897.9	1.0	897.9	10.0	8979	120.0	107750
	Agriculture	939.8	1.3	1221.7	10.0	9398	300.0	281932
	Forest	1123.1	0.1	112.3	3.0	3369	40.0	44924
	Water	24.9	0.1	2.5	3.0	75	40.0	997
	Wetland	34.4	0.1	3.4	3.0	103	40.0	1378
	Barren Land	25.1	0.5	12.6	5.0	126	60.0	1509
	TOTAL	3045.3		**2,250**		**22,050**		**438,489**
2040201110010	Urban	1046.9	1.0	1046.9	10.0	10469	120.0	125630
	Agriculture	442.4	1.3	575.1	10.0	4424	300.0	132724
	Forest	592.1	0.1	59.2	3.0	1776	40.0	23686
	Water	140.9	0.1	14.1	3.0	423	40.0	5635
	Wetland	5.4	0.1	0.5	3.0	16	40.0	215
	Barren Land	0.0	0.5	0.0	5.0	0	60.0	0
	TOTAL	2227.7		**1,696**		**17,109**		**287,890**
2040202080030	Urban	303.4	1.0	303.4	10.0	3034	120.0	36410
	Agriculture	394.4	1.3	512.7	10.0	3944	300.0	118320
	Forest	926.8	0.1	92.7	3.0	2781	40.0	37074
	Water	2.5	0.1	0.3	3.0	8	40.0	101
	Wetland	3.4	0.1	0.3	3.0	10	40.0	137
	Barren Land	15.3	0.5	7.6	5.0	76	60.0	917
	TOTAL	1,646		**917**		**9,853**		**192,958**

Table 2. Nonpoint Source Pollutant Loads for Existing Land Use

Second, the area of land available for development or redevelopment was calculated for each zoning district by subtracting the constrained lands from the total land area. Constrained lands include wetlands, waterways, and land preserved by the Township as open space or recreational land. The Township Zoning Map is included as Figure 8. Figure 9 depicts the wetlands and waterways in the Township, and Figure 10 depicts the preserved open space and recreational lands. Full build-out conditions refers to the theoretical situation where all available land within the township, excluding constrained lands, is developed. Nonpoint source pollutant loads under full build-out conditions were calculated and are included in Table 3.

The two HUC-14 drainage areas containing the greatest percentage of agricultural lands (2040201100050 and 2040201100060) showed a decrease in pollutant loads for total suspended solids (TSS) when full build-out was projected. This is due to the fact that agricultural lands contribute a higher amount of TSS than other land uses. Although TSS may decrease when agricultural lands are converted to residential lands, the amount of impervious surface will greatly increase, leading to increased stormwater runoff. This runoff, if not managed properly, can result in greater soil erosion, thus increasing sediment loads. Additionally, converting agricultural land to residential land typically results in higher metal and petroleum hydrocarbon pollutant loads.

The projected amount of impervious surface at full build-out is included in Table 4, based on the maximum lot coverage indicated in the Township's Zoning Ordinance for each zoning district. The percentage of impervious surface per HUC-14 under full build-out is projected to range from approximately 30 percent in predominantly residentially-zoned areas to 60 percent in the HUC-14 drainage basin with the largest area of industrial zoning. However, this analysis does not include roadways, and therefore underestimates the amount of impervious surface in each zone. Land reserved for open space and recreation may contain impervious surfaces such as tennis and basketball courts; since no impervious surface restriction is placed on these areas, 20 percent impervious surface was assumed.

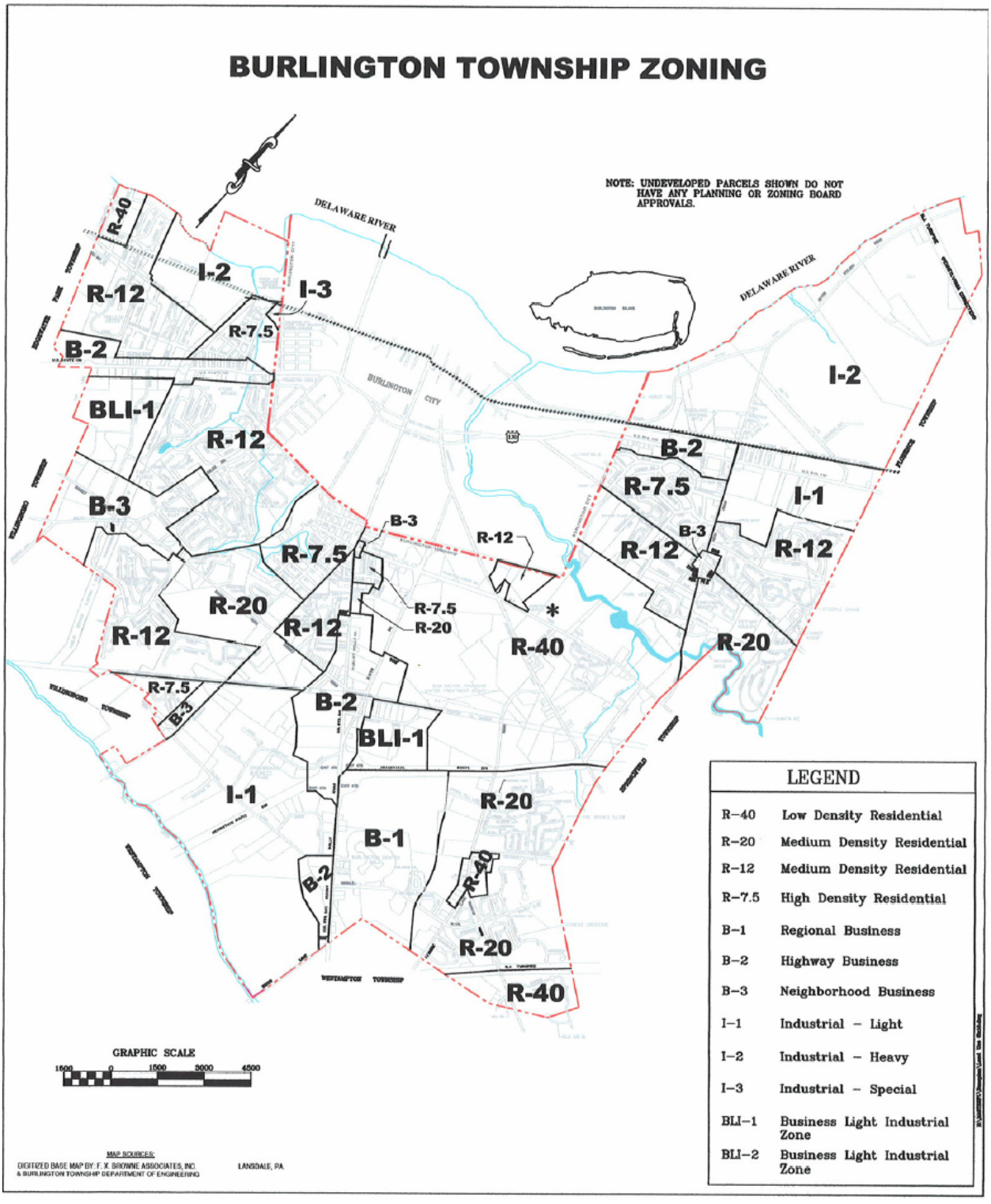


Figure 8 Township Zoning Map

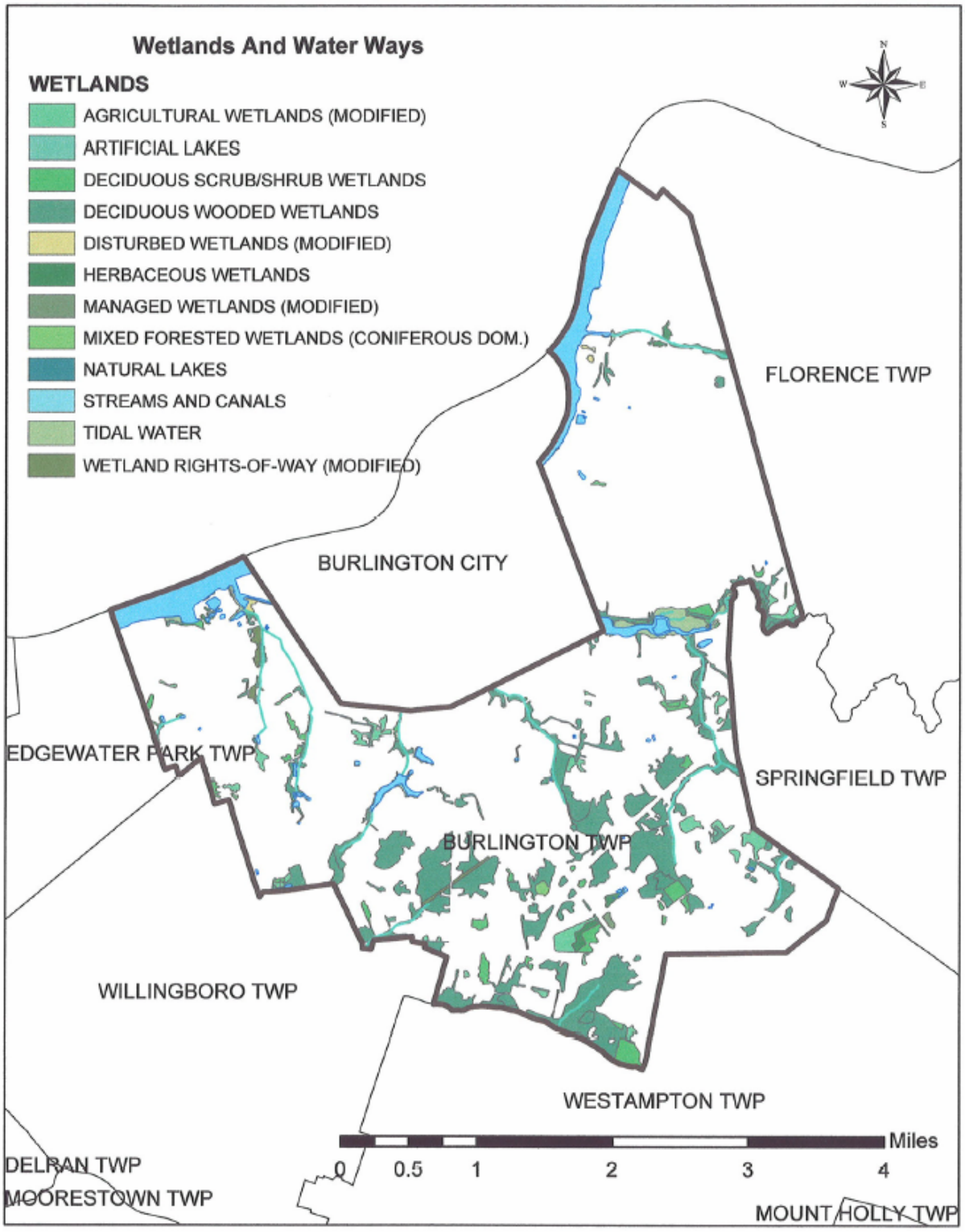


Figure 9 Wetlands and Waterways

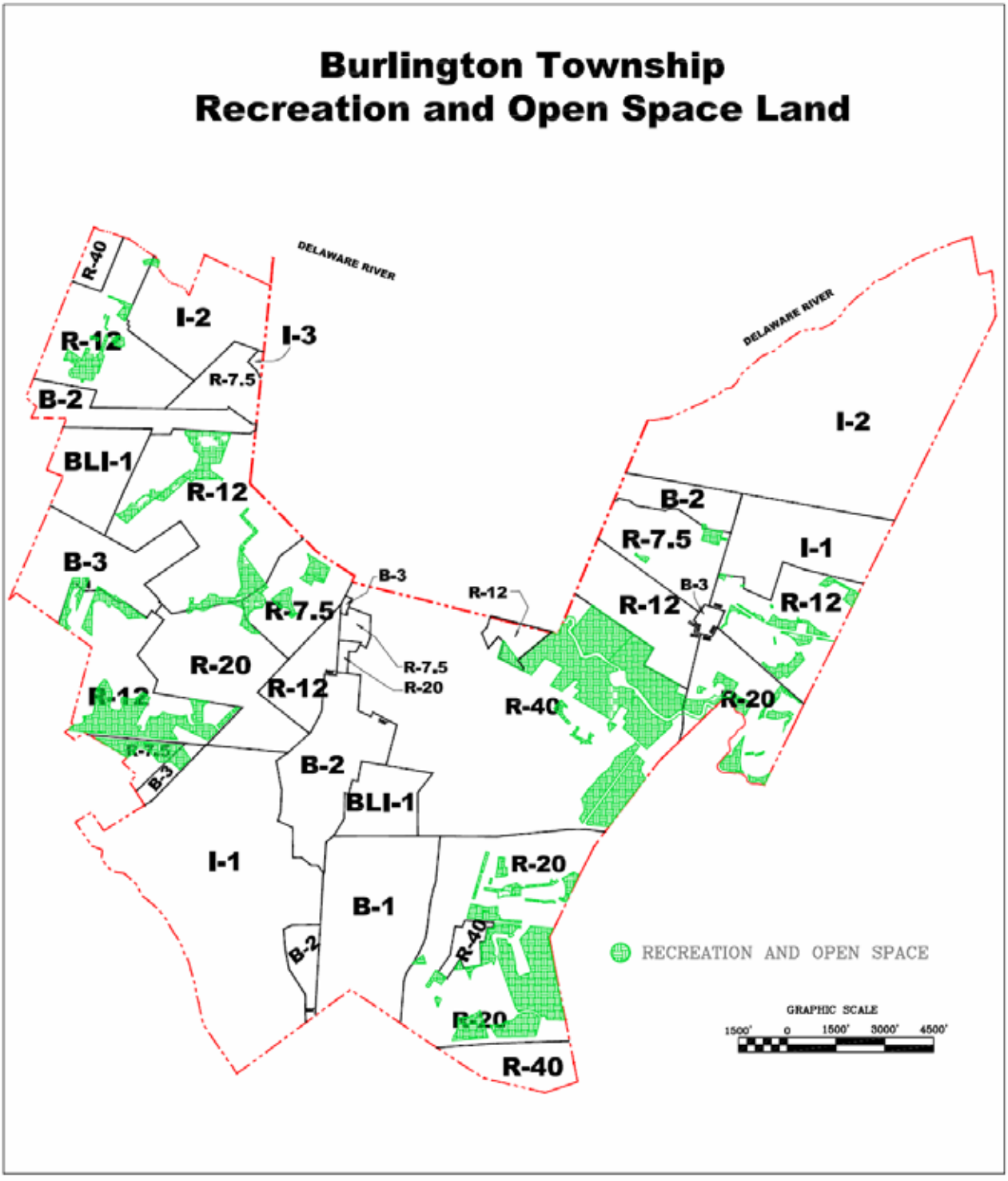


Figure 10 Open Space and Recreational Lands

HUC14	Zoning/ Land Use	Developable Area (acres)	Pollutant Load					
			Total Phosphorus		Total Nitrogen		Total Suspended Solids	
			(lb/acre/yr)	(lb/yr)	(lb/acre/yr)	(lb/yr)	(lb/acre/yr)	(lb/yr)
2040201090030	R-12	22	1.4	31	15	334	140	3,121
	R-7.5	10	1.4	14	15	150	140	1,398
	B-2	69	2.1	146	22	1,527	200	13,880
	I-1	222	1.5	333	16	3,548	200	44,354
	I-2	1,241	1.5	1,861	16	19,850	200	248,127
	Wetland[1]	34	0.1	3	3	102	40	1,360
	Open Space[2]	8	0.3	2	4	32	70	560
	TOTAL	1,606		**2,390**		**25,543**		**312,799**
2040201100050	R-40	7	0.6	4	5	37	100	746
	R-20	142	1.4	199	15	2,130	140	19,883
	R-12	197	1.4	276	15	2,955	140	27,580
	Wetland[1]	68	0.1	7	3	204	40	2,720
	Open Space[2]	62	0.3	19	4	248	70	4,340
	TOTAL	476		**505**		**5,575**		**55,269**
2040201100060	R-40	934	0.6	560	5	4,669	100	93,372
	R-20	374	1.4	523	15	5,606	140	52,324
	R-12	230	1.4	322	15	3,454	140	32,238
	R-7.5	173	1.4	242	15	2,597	140	24,236
	B-1	155	2.1	326	22	3,414	200	31,032
	B-2	187	2.1	393	22	4,115	200	37,413
	B-3	7	2.1	15	22	158	200	1,434
	I-1	43	1.5	65	16	694	200	8,674
	I-2	5	1.5	8	16	83	200	1,035
	BLI-1	63	2.1	132	22	1,387	200	12,605
	Wetland[1]	538	0.1	54	3	1,614	40	21,520
	Open Space[2]	313	0.3	94	4	1,252	70	21,910
	TOTAL	3,023		**2,735**		**29,042**		**337,793**
2040201110010	R-40	55	0.6	33	5	277	100	5,545
	R-20	180	1.4	251	15	2,693	140	25,134
	R-12	728	1.4	1,019	15	10,915	140	101,876
	R-7.5	216	1.4	303	15	3,247	140	30,306
	B-2	134	2.1	282	22	2,952	200	26,833
	B-3	196	2.1	411	22	4,309	200	39,177
	I-2	231	1.5	346	16	3,688	200	46,102
	I-3	5	1.5	7	16	78	200	972
	BLI-1	150	2.1	314	22	3,289	200	29,904
	Wetland[1]	170	0.1	17	3	510	40	6,800
	Open Space[2]	127	0.3	38	4	508	70	8,890
	TOTAL	2,191		**3,022**		**32,467**		**321,539**
2040202080030	R-20	75	1.4	105	15	1,130	140	10,544
	R-12	136	1.4	191	15	2,044	140	19,075
	R-7.5	17	1.4	24	15	261	140	2,435
	B-1	119	2.1	249	22	2,613	200	23,752
	B-2	94	2.1	198	22	2,075	200	18,860
	B-3	49	2.1	103	22	1,081	200	9,830
	I-1	583	1.5	875	16	9,330	200	116,620
	Wetland[1]	547	0.1	55	3	1,641	40	21,880
	Open Space[2]	76	0.3	23	4	304	70	5,320
	TOTAL	1,697		**1,823**		**20,478**		**228,316**

[1] Wetland area includes areas where Wetlands and Recreation/Open Space overlap.

[2] Pollutant loads for Open Space lands were estimated by averaging pollutant loads for forest and low density residential.

Table 3. Nonpoint Source Pollutant Loads for Build-Out Land Use

HUC14	Zoning/Land Use	Developable Area (acres)	Maximum Lot Coverage (from Zoning Ordinance)	Impervious Area (acres)	Total % Impervious
2040201090030	I-2	1,241	60%	744	59%
	B-2	69	50%	35	
	I-1	222	60%	133	
	R-7.5	10	50%	5	
	R-12	22	40%	9	
	Recreation/Open Space*	8	20%	2	
	Wetland**	34	0%	0	
	TOTAL	1,606		928	
2040201100050	R-12	197	40%	79	32%
	R-20	142	40%	57	
	R-40	7	40%	3	
	Recreation/Open Space	62	20%	12	
	Wetland	68	0%	0	
	TOTAL	476		151	
2040201100060	R-7.5	173	50%	87	34%
	R-12	230	40%	92	
	BLI-1	63	50%	32	
	B-2	187	50%	94	
	R-40	934	40%	373	
	B-1	155	60%	93	
	R-20	374	40%	149	
	B-3	7	50%	4	
	I-1	43	60%	26	
	I-2	5	60%	3	
	Recreation/Open Space	313	20%	63	
	Wetland	538	0%	0	
	TOTAL	3,023		1,015	
2040201110010	R-40	55	40%	22	41%
	I-2	231	60%	138	
	R-12	728	40%	291	
	R-7.5	216	50%	108	
	B-2	134	50%	67	
	BLI-1	150	50%	75	
	B-3	196	50%	98	
	R-20	180	40%	72	
	I-3	5	60%	3	
	Recreation/Open Space	127	20%	25	
	Wetland	170	0%	0	
	TOTAL	2,191		900	
2040202080030	B-1	119	60%	71	35%
	B-2	94	50%	47	
	I-1	583	60%	350	
	B-3	49	50%	25	
	R-7.5	17	50%	9	
	R-20	75	40%	30	
	R-12	136	40%	54	
	Recreation/Open Space	76	20%	15	
	Wetland	547	0%	0	
	TOTAL	1,697		601	

* For Recreation/Open Space land, 20% allowable impervious surface was assumed.

** Wetland area includes areas where Wetlands and Recreation/Open Space overlap.

Note: Roads were not included in analysis.

Table 4. Percentage of Impervious Surface for Build-Out Land Use

9.0 Plan Strategies

Strategies have been developed for Burlington Township to meet the stated goals and objectives of the Stormwater Management Plan. The Plan Strategies section includes specific goals, the rationale behind such goals, and actions which can be used to achieve these goals. The following types of actions are included:

- Structural and non-structural projects
- Policy recommendations
- Land use planning

9.1 Reduce adverse stormwater impacts through impervious area management.

9.1.1 Increase the benefits of BMPs using maintenance and retrofits to reduce impacts from impervious areas.

The reason for establishing this goal is that existing stormwater basins may not be providing the intended benefits because they have not be properly designed or maintained.

This goal can be achieved through the following actions:

- Provide education for owners of BMPs to inform them of proper maintenance techniques. Require owners to maintain private BMPs and provide Township maintenance inspections to ensure compliance with any existing maintenance agreement. If necessary, amend existing ordinances and regulations to give the Township the authority to enforce maintenance requirements of private BMPs, to the maximum extent permitted by the NJDEP Stormwater Management Rules.
- Identify areas where retrofits would be appropriate to improve the effectiveness of BMPs. Examples include naturalizing detention basins or modifying outlet structures to provide water quality benefits. Several retrofit options are described in the Mitigation Plan.

9.1.2 Require commercial and residential redevelopment projects to reduce the post-development runoff rate and volume to a specified percentage below the pre-development rate.

The reason for establishing this goal is that much of the Burlington Township watershed was developed prior to the adoption of stormwater control regulations. To account for the previous lack of stormwater controls, redevelopment projects should require a reduction in peak runoff rates and volumes.

This goal can be achieved through the following action:
Amend existing ordinances to stipulate a 10% reduction in total runoff volume for the 100-year storm event from pre to post-construction for redevelopment projects, if required by the Reviewing Board Engineer, based upon site (soil, groundwater and land cover) conditions and previously identified adverse impacts related to the existing site conditions, for those sites which exceed the maximum permitted impervious coverage.

9.2 Preserve and improve habitats and open space land.

9.2.1 Preserve, restore and manage riparian buffers along lakes and streams.

The reason for establishing this goal is that riparian buffers provide shoreline stabilization, water quality, and habitat benefits.

This goal can be achieved through the following actions:
Reestablish riparian buffers on public property, and when possible, establish easements to allow restoration on private property. Restoration methods should be determined based on the needs at the particular location. Seed mix and plantings should be native species, and invasive species should be removed. However, the use of herbicides should be avoided where possible.

9.2.2 Preserve and restore stream banks.

The reason for establishing this goal is that streambank erosion and channel widening reduce the health of aquatic habitats and degrade water quality in streams and lakes.

This goal can be achieved through the following actions:

The Township should assess its streambanks, prioritize stream sections in need of restoration, and perform streambank restoration projects. Depending on the causes and severity of erosion at a particular location, one or more of the following streambank restoration measures should be considered: velocity controls such as J-hook vanes, cross vanes, W-weirs, Root wad revetments, Boulder revetments or rip-rap; riparian vegetation plantings; removal of invasive species; channel realignment; modification of culverts; in-stream habitat structures; or bioengineering techniques.

9.2.3 Preserve and restore wetland areas.

The reason for establishing this goal is that wetland areas provide habitat for native flora and fauna, provide water quality benefits by filtering pollutants from stormwater, and provide flood control by storing stormwater runoff.

This goal can be achieved through the following actions:
Preserve ordinary and extraordinary resource value wetlands to the maximum extent practicable by purchasing private land, designating public land as undeveloped open space, and acquiring easements.

9.3 Improve the water quality of streams and lakes in the Township.

9.3.1 Reduce the amount of pollutants in stormwater runoff including nitrogen, phosphorus, and fecal coliform.

The reason for establishing this goal is that the Sylvan Lakes are included on NJDEP's Integrated List for TMDLs, and the Township wishes to have these lakes delisted. Lower Sylvan Lake has a TMDL established for phosphorus, and Upper Sylvan Lake is pending establishment of a TMDL for phosphorus and fecal coliform.

This goal can be achieved through the following actions:

- Strictly enforce pet waste ordinances.
- Develop a monitoring program to identify sources of fecal coliform.

- Install or retrofit existing BMPs at selected locations to reduce the pollutant loading from developments that have no effective water quality treatment for stormwater runoff. For example, the Township can install native plantings in existing detention basins for a minimal cost.
- Continue public education efforts to educate the public about non-point source pollution, its effect on lakes and streams, and ways that it can be reduced.

9.4 Increase community involvement in meeting the Township's watershed management goals.

9.4.1 Coordinate and improve the efforts of state, local, and community organizations in environmental education and volunteering.

The reason for establishing this goal is that, by coordinating the activities of various organizations, the Township can help to combine resources and create new opportunities for volunteer groups.

This goal can be achieved through the following actions:

- Utilize the Township's Environmental Commission and School Board Liaison Activities to encourage environmental education activities in schools and integrate environmental education into community events.

10.0 Burlington Township Stormwater Mitigation Plan

10.1 Stormwater Mitigation

This mitigation plan is provided for a proposed development that is granted a variance or exemption from the design and performance standards of the municipal stormwater management plan.

The developer is responsible for obtaining all necessary permits to perform mitigation work. Each streambank stabilization project will require a stream encroachment permit, and some projects may also

require a wetland permit and/or the approval of County and/or State agencies. Streambank stabilization projects near County culverts will require the County Engineer's approval prior to implementation. The developer must provide detailed mitigation plans to the Township, and must receive Township approval before beginning mitigation work.

10.2 Mitigation Project Options

10.2.1 Option 1

The mitigation project must be implemented in the same drainage area as the proposed development. The project must provide additional groundwater recharge benefits, or protection from stormwater runoff quality and quantity from previously developed property that does not currently meet the design and performance standards outlined in the Municipal Stormwater Management Plan. The developer must ensure the long-term maintenance of the project, including the maintenance requirements under Chapters 8 and 9 of the NJDEP Stormwater BMP Manual.

The applicant can select one or more of the following projects listed to compensate for the deficit from the performance standards resulting from the proposed project. A partial list of suggested projects is included below. More detailed information on these projects, or additional project options, may be obtained by contacting the Burlington Township Engineering Department.

A) Retrofit existing detention basin(s). A schematic of a naturalized basin is included in Figure 11. Locations and recommendations for detention basin improvements are included in Table 5. Latitude and longitude coordinates are provided using the North American Datum of 1983 (NAD83) system. Naturalize the detention basin(s) by provide one or more of the following:

1. **Eliminate the concrete or stone-lined low flow channel, if applicable.**
    a. Benefits
        i. Water Quality – Removing these channels and planting vegetation will slow the rate of runoff, cool the water, and allow for greater pollutant removal from small storm events.
    b. Implementation

i. Remove any existing concrete or stone from the basin, and replace it with a meandering vegetated swale. Plant the area with appropriate indigenous wetland plantings. See the recommendations below for indigenous plantings.

2. Plant a variety of indigenous vegetation.

a. Benefits

i. Water Quality – Vegetation will help to slow the flow through the basin and filter pollutants.

ii. Volume Control – Plants will increase the evapotransipration from the basin.

b. Implementation

i. Develop a planting plan by selecting native plants that are appropriate for the size, shape, depth, and hydrology of the basin. Planting plugs should be used rather than seed, although seed mix can be used in conjunction with plugs.

ii. The person responsible for implementing the planting plan shall also be responsible for ensuring that plants become established within the basin. A maintenance plan should be developed and agreed to with the Township.

3. Add a sediment forebay

a. Benefits

i. Water Quality – The forebay will allow sediment to settle out of the water. The forebay will increase ease of maintenance by preventing buildup of sediment in the main basin area.

b. Implementation

i. The sediment forebay should be placed at the outfall of the incoming storm pipe.

ii. The size of the sediment forebay will depend on the site constraints. In general, the sediment forebay should be designed to handle approximately 10% of the required detention basin volume.

iii. Access to the forebay should be incorporated into the design to allow for maintenance.

4. Modify the outlet structure to retain small storms.

a. Benefits

i. Water Quality – Increased detention time will allow the vegetation more time to treat the water and will allow sediments to settle out.

ii. Groundwater Recharge – Increased retention time will facilitate infiltration in basins which have appropriate soils.

iii. Volume control – Increased retention time will allow for increased evapotranspiration.

b. Implementation

i. Creating a two-stage release will increase pollutant removal of small storms while also accommodating larger storm flows. Outlet structure modifications will depend upon the existing outlet structure and the hydraulics of the basin. As an example, a 3-inch or 4-inch orifice plate can be added over the existing outlet pipe to slow the flow exiting the basin. A riser can then be added to act as an emergency spillway and handle larger storm flows. Flow calculations will need to be completed to ensure that the hydraulics of the modified outlet structure are adequate to handle storm flows.

5. Add soil berms to create meander through the basin.

a. Benefits

i. Water Quality – Berms will increase the travel time through the basin for small storm flows, allowing sediments to settle out. Berms will also increase the amount of contact with vegetation, helping to facilitate filtering of pollutants by the vegetation.

ii. Groundwater Recharge – Increased travel time through the basin will facilitate infiltration in basins which have appropriate soils.

iii. Volume control – Increased travel time through the basin and increased contact with vegetation will allow for increased evapotranspiration

b. Implementation

i. The height and length of the berm will vary depending on the particular site. In general, the berm height should be between 18 and 36-inches high.

ii. An appropriate volume must be maintained within the basin. Any fill added to the basin will reduce its capacity and additional regrading may be needed to either deepen or widen the basin to maintain the required volume.

B) Retrofit existing detention basin outlet structures with hinged trash racks meeting the alternative Device Exemption requirements in Attachment "C" of the Township Municipal Stormwater General Permit.

C) Install streambank stabilization and/or other stream improvement measures at various culverts. Locations and recommendations for stream improvements are included in Table 6. Please note that Streambank stabilization projects near County culverts will require the County Engineer's approval prior to implementation. Latitude and longitude coordinates are provided for most locations using the NAD83 system.

Detention Basin No.	Location	Recommended Improvement	Coordinates (NAD83)	
			Latitude	Longitude
1	Trellis Green development between Tina Lane and Jennifer Lane	Add a hinged trash rack at the outlet. Fix slight erosion around the outlet. Naturalize the basin.	North 40º03.787’	West 074º53.294’
2	Trellis Green development along Tina Lane	Add hinged trash racks at outlets. Remove riprap pile at downstream end of outlet pipes.	North 40º03.702’	West 074º53.376’
3	Harrison Park Ave. between Yubas Ave. and Grayson Place	Naturalize the basin. Vegetation would attract birds that surrounding homes could observe. Add trash rack if one is not present.	North 40º03.828’	West 074º52.931’
4	Grayson Place and Beverly Road	Naturalize the basin. Add a hinged trash rack.	North 40º04.000’	West 074º53.007’
5	Burlington Center Mall (Mount Holly Rd. and Elbow Lane)	Naturalize the basin.	North 40º02.455’	West 074º49.732’

Table 5. Recommended Detention Basin Improvements

Figure 11. Naturalized Detention Basin

Stream/ Culvert No.	Stream Name	Location	Recommended Improvement	Coordinates (NAD83)	
				Latitude	Longitude
1	Tanner's Run	Salem Rd.	Install streambank stabilization measures on upstream side.	North 40º03.732'	West 074º51.998'
2	Tanner's Run	Tanner Ave.	Increase the buffer size along the stream. Install streambank stabilization measures downstream and upstream. Remove English Ivy.	North 40º03.747'	West 074º52.150'
3	Tanner's Run	Dickinson Avenue and Route 130	De-silt culvert and/or relocate utility pipe (requires NJDOT approval).	Not recorded	Not recorded
4	Tanner's Run	Devlin Avenue	Channel improvements between Beverly Road and the Township Wastewater Treatment Plant.	Not recorded	Not recorded
5	Tanner's Run	near Devlin Avenue	Culvert improvements.	Not recorded	Not recorded
6	Bustleton Creek	River Rd. (Route 656)	Remove litter and tires from the creek.	North 40º06.158'	West 074º49.769'
7	Anarkin Creek	Bromley Blvd. between Manchester and Hamshire	Increase buffer width. Remove litter.	North 40º02.428'	West 074º49.159'
8	Riggs Mill Creek	Jacksonville Rd. and Mill Lane	Install streambank stabilization measures downstream and upstream.	North 40º03.593'	West 074º48.904'
9	Riggs Mill Creek	Old York Rd. near Mill Lane	Install streambank stabilization measures downstream.	North 40º04.114'	West 074º48.981'

Table 6. Recommended Stream/Culvert Improvements

10.2.2 Option 2

If a suitable site cannot be located in the same drainage area as the proposed development, as discussed in Option 1, the mitigation project may provide mitigation that is not equivalent to the impacts for which the variance or exemption is sought, but that addresses the same issue. For example, if a variance is given because the 80 percent TSS requirement is not met, the selected project may address water quality

impacts due to a fecal impairment. Listed below are specific projects that can be used to address the mitigation option.

A) Sylvan Lakes- provide measures to reduce TMDLs identified by the NJDEP. Measures can include:
    i) re-establishing a vegetative buffer along lake shorelines, a minimum of 30 feet wide,
    ii) installing additional aquatic habitats, and
    iii) providing goose control measures.

10.2.3 Option 3

If none of the above options are feasible, the developer may provide funding or partial funding to the municipality for an environmental enhancement project identified in this Plan or approved by the Township. The funding must be equal to or greater than the cost to implement the mitigation outlined above, including costs associated with purchasing the property or easement for mitigation, and the cost associated with the long-term maintenance requirements of the mitigation measure.

11.0 References

2003 Master Plan Reexamination Report, Township of Burlington. Alaimo Group, December 8, 2003.

Application for Sylvan Lakes Riparian Buffer Plantings, Burlington Township. June 2004.

A Comprehensive Storm Drainage Study for Burlington Township. Richard A. Alaimo Association of Consulting Engineers. May 1980.

Guidelines for Delineation of Wellhead Protection Areas in New Jersey. New Jersey Geological Survey Open File Report OFR 03-1, New Jersey Department of Environmental Protection, 2003. <http://www.njgeology.org/whpaguide.pdf>

New Jersey Stormwater Best Management Practices Manual. New Jersey Department of Environmental Protection. February 2004.

Report on the Establishment of Total Maximum Daily Load (TMDL) For Phosphorus in the Lower Sylvan Lake, Burlington Township, Burlington County, NJ. New Jersey Department of Environmental Protection. June 12, 2000.

The Zoning Ordinance of the Township of Burlington. Ordinance Codification Service, Suite 101, 300 Chester Avenue, Moorestown, NJ. January 1995.

New Jersey 2004 Integrated Water Quality Monitoring and Assessment Report (305(b) and 303(d)). State of New Jersey, Department of Environmental Protection, Water Assessment Team. June 2004.

Natural Resources Conservation Service, United States Department of Agriculture. Average Annual Precipitation Map, 1961-1990. April 1998.

Appendix A

Glossary of Terms

ACCESS STREET: The lowest order street in the hierarchy of streets; it conducts traffic between individual dwelling units and higher order streets.

ACCESSORY BUILDING, STRUCTURE OR USE: Subordinate to the principal building, structure or use and located on the same lot.

ADVERSE EFFECT: Development, designs, situations, existing features on a developer's property, or any nearby property, creating, imposing, aggravating or leading to impractical, unsafe, unsatisfactory or non-complying conditions.

AMBIENT BIOMONITORING NETWORK (AMNET): New Jersey DEP program that documents the health of New Jersey's waterways by classifying streams based on benthic macroinvertebrate monitoring results.

AQUIFER: A permeable geologic formation capable of storing and yielding groundwater to wells and springs.

AS-BUILT: Drawing or certification of conditions as they were actually constructed.

BANK STABILIZATION: Methods of securing the structural integrity of earthen stream channel banks with structural supports to prevent bank slumping and undercutting of riparian trees, and overall erosion prevention. Techniques include the use of willow stakes, imbricated riprap, or brush bundles.

BASE FLOW: The portion of stream flow that is not due to storm runoff, and is supported by groundwater seepage into a channel.

BASIN: The largest single watershed management unit for water planning, that combines the drainage of a series of subbasins. Often basins have a total area of more than a thousand square miles.

BEST MANAGEMENT PRACTICE (BMP): A structural or non-structural device designed to temporarily store or treat urban stormwater runoff in order to mitigate flooding, reduce pollution and provide other amenities. (Also called STORMWATER PRACTICE.)

BIOCHEMICAL OXYGEN DEMAND (BOD): The quantity of dissolved oxygen used by microorganisms (e.g., bacteria) during the biochemical oxidation of matter (both organic and oxidizable inorganic matter) over a specified period of time.

BIORETENTION: A water quality practice that utilizes landscaping and soils to treat urban stormwater runoff. Bioretention systems collect stormwater in shallow depressions before filtering it through a fabricated vegetated planting soil media.

BUFFER: An area adjacent to a shoreline, wetland or stream where development is restricted or prohibited.

BUILD-OUT ANALYSIS: An impact assessment of the current zoning criteria of a municipality that predicts the amount of growth that will occur within the municipality in the future under the existing designations. The municipality can use the information generated in a build-out analysis to estimate the financial effects on government services and infrastructure that will be required to meet the growth demands.

CHANNEL: A natural stream that conveys water; a ditch or channel excavated for the flow of water.

CLEAN WATER ACT (CWA): More formally referred to as the Federal Water

Pollution Control Act, the Clean Water Act constitutes the basic federal water pollution control statute for the United States. Enforceable provisions of the CWA include technology-based effluent standards for point sources of pollution, a state-run control program for nonpoint pollution sources, a construction grants program to build or upgrade municipal sewage treatment plants, a regulatory system for spills of oil and other hazardous wastes, and a Wetlands preservation program (Section 404).

CLUSTER OR OPEN SPACE DEVELOPMENT: Development designs that incorporate open space into a development site. These areas can be used for either passive or active recreational activity or preserved as naturally vegetated land.

COMBINED SEWER OVERFLOW (CSO): Excess flow (combined wastewater and stormwater runoff) discharged to a receiving water from a combined sewer network when the capacity of the sewer network and / or treatment plant is exceeded, typically during storm events.

COMPACTION: An increase in soil bulk density.

CONDUIT: Any channel intended for the conveyance of water, whether open or closed.

CONSERVATION EASEMENT: Voluntary agreements that allow an individual to set aside private property to limit the type or amount of development on their property. Easements relieve property owners of the burden of managing these areas by shifting responsibility to a private organization or government agency better equipped to handle maintenance and monitoring issues.

CONVEYANCE SYSTEM: Drainage facilities, both natural and human-made, which collect, contain, and provide for the flow of surface water and urban runoff from the highest points on the land down to a receiving water. The natural elements of a conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of a conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

CRUSHED STONE: Aggregate consisting of angular particles produced by mechanically crushing rock.

DAM: A barrier to confine or raise water for storage or diversion, to create a hydraulic head, to prevent gully erosion, or for retention of soil, sediment or other debris.

DETENTION: The temporary storage of storm runoff in a stormwater practice with the goal of controlling peak discharge rates and providing gravity settling of pollutants.

DETENTION BASIN: A structure constructed for the purpose of temporary storage of stream flow or surface runoff and gradual release of stored water at controlled rates.

DEVELOPMENT: The division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation or enlargement of any building or structure, any mining excavation or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, by any person, for which permission is required under the Municipal Land Use Law , N.J.S.A. 40:55D-1 et seq. In the case of development of agricultural lands, development means: any activity that requires a State permit; any activity reviewed by the County Agricultural Board (CAB) and the State Agricultural Development Committee (SADC), and municipal review of any activity not exempted by the Right to Farm Act , N.J.S.A 4:1C-1 et seq.

DISCHARGE: 1. Outflow; the flow of a stream, canal, or aquifer. 2. Rate of flow, specifically fluid flow; a volume of fluid passing a point per unit of time, commonly

expressed as cubic feet per second, cubic meters per second, gallons per minute, gallons per day, or millions of gallons per day.

DISCONNECTED IMPERVIOUS SURFACES: The practice of interrupting impervious surfaces to allow for the infiltration and filtration of precipitation. An example of this is a residential subdivision in which each dwelling's roof top drains through a vegetative strip before reaching the road surface.

DISSOLVED OXYGEN (DO): Oxygen which is present (dissolved) in water and available for use by fish and other aquatic animals. If the amount of dissolved oxygen in the water is too low, aquatic animals will suffocate.

DISTURBED AREA: An area in which the natural vegetative soil cover has been removed or altered and, therefore, is susceptible to erosion.

DIVERSION: A channel, embankment, or other human-made structure constructed to divert water from one area to another.

DRAINAGE AREA: All land and water area from which runoff may run to a common (design) point. (Also called a WATERSHED)

DREDGING: A method for deepening streams, swamps, or other waters by scraping and removing solid materials from the bottom.

(UNITED STATES) ENVIRONMENTAL PROTECTION AGENCY (EPA): The federal agency responsible for implementing the federal laws designed to protect the environment in the United States.

ENVIRONMENTALLY CRITICAL AREAS: **A**n area or feature which is of significant environmental value, including but not limited to: stream corridors; natural heritage priority sites; habitat of endangered or threatened species; large areas of contiguous open space or upland forest; steep slopes; and well head protection and groundwater recharge areas. Habitats of endangered or threatened species are identified using the New Jersey DEP's Landscape Project as approved by the Endangered and Nongame Species Program.

EROSION: The detachment and movement of soil or rock fragments by water, wind, ice or gravity.

EXTENDED DETENTION (ED): A stormwater design feature that provides for the gradual release of a volume of water (0.25 - 1.0 inches per impervious acre) over a 12 to 48 hour interval time to increase settling of urban pollutants, and protect channels from frequent flooding.

FLOODPLAIN: Any lowland that borders a stream and is inundated periodically by its waters.

FOREBAY: An extra storage area provided near the inlet of a BMP to trap incoming sediments before they accumulate in the BMP structure. (Also called a SEDIMENT FOREBAY)

GRADING: The cutting and/or filling of the land surface to a desired slope or elevation.

GREENWAY: An interconnected series of open space and recreational areas that are protected from development.

GROUNDWATER: (1) Water that flows or seeps downward and saturates soil or rock, supplying springs and wells. (2) Water stored underground in rock crevices and in the pores of geologic materials that make up the earth's crust.

GROUNDWATER RECHARGE: the amount of water from precipitation that infiltrates into the ground and is not evapotranspired.

GROUNDWATER TABLE: The level below which the soil is saturated (the pore spaces

between the individual soil particles are filled with water). Above the groundwater table, water in the soil does not fill all pore spaces.

HABITAT: A place where a biological organism lives. The organic and non-organic surroundings that provide life requirements such as food and shelter.

HEAVY METALS: Metals of relatively high atomic weight, including but not limited to chromium, copper, lead, mercury, nickel, and zinc. These metals are generally found in minimal quantities in stormwater, but can be highly toxic even at trace levels.

HUC-14 DRAINAGE AREAS: Sub-watershed drainage areas defined by the United States Geological Service hydrologic unit code system for delineating and identifying drainage areas.

HYDROLOGIC CYCLE: The circular flow or cycling of water from the atmosphere to the earth (precipitation) and back to the atmosphere (evaporation and plant transpiration). Runoff, surface water, groundwater, and water infiltrated in soils are all part of the hydrologic cycle.

IMPERMEABLE: Properties that prevent the movement of water through a material.

IMPERVIOUS SURFACE: Material which resists or blocks the passage of water.

INFILTRATION: The penetration of water through the ground surface into subsurface soil. The infiltration rate is expressed in terms of inches per hour. Infiltration rates will be slower when the soil is dense (e.g., clays) and faster when the soil is loosely compacted (e.g., sands). Can also refer to seepage of groundwater into sewer pipes through cracks and joints.

INFILTRATION BASIN: A stormwater management facility constructed within highly permeable soils that provides temporary storage of runoff during rain events. Outflow from an infiltration basin is through the surrounding soil.

INLET: 1. A drainage passway. 2. A short, narrow waterway connecting a bay, lagoon, or similar body of water with a large parent body of water. 3. An arm of the sea (or other body of water) that is long compared to its width and may extend a considerable distance inland.

INTEGRATED LIST: New Jersey's 2004 Integrated Water Quality Monitoring and Assessment Report, or Integrated List, which includes data from both the federal 305(b) and 303(d) lists.

LANDOWNER: Any individual, corporation, association, trust or any other legal entity having legal title to the land.

LOW-IMPACT DEVELOPMENT (LID): A comprehensive land planning and engineering design approach with the goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds. LID designs maximize the amount of natural features and vegetation at a site, in order to allow stormwater to be infiltrated on site and recharge the groundwater rather than being conveyed to detention facilities or storm sewers.
LOT: A parcel of undivided land.

MAJOR DEVELOPMENT: Any "development" that provides for ultimately disturbing one or more acres of land. Disturbance refers to the placement of impervious surface or exposure and/or movement of soil or bedrock or clearing, cutting, or removing of vegetation.

MASTER PLAN: A composite of one or more written or graphic proposals for the development of a municipality, as set forth and adopted by the planning board pursuant to N.J.S.A. 40:55D-28.

MAXIMUM EXTENT PRACTICABLE: The implementation of BMPs for a particular site when considering various factors to include

physical conditions, economic viability, project size and location within the watershed; and such other factors as may be considered by the Reviewing Board.

MINOR SUBDIVISION: A subdivision of land that does not involve (1) the creation of more than 3 lots, including the remainder of the original lot; (2) planned development as defined in the Municipal Land Use Law; (3) any new street; or (4) extension of any off-tract improvement.

MITIGATION: Action taken to avoid, reduce the severity of, or eliminate an adverse impact.

MUNICIPALITY: Any city, borough, town, township, or village.

NJDEP: New Jersey Department of Environmental Protection. State agency in charge of protecting environmental resources in New Jersey.

NONPOINT SOURCE (NPS) POLLUTION: Pollution that cannot be traced to a specific origin, but seems to flow from many different sources. NPS pollutants are generally carried off the land by stormwater or snowmelt runoff.

NPDES: National Pollutant Discharge Elimination System. This permit program controls water pollution by regulating industrial and municipal point sources that discharge pollutants directly into waters of the United States.

NUTRIENTS: Elements or substances, such as nitrogen or phosphorus, that are necessary for the growth and development of living things. Large amounts of these substances reaching water bodies can lead to reduced water quality and eutrophication by promoting excessive aquatic algae growth. Some nutrients can be toxic at high concentrations.

OUTFALL: The point of discharge for a river, drain, or pipe.

PEAK DISCHARGE (FLOW RATE): The maximum instantaneous rate of flow during a storm, usually in reference to a specific design storm event.

PERCOLATION: The downward movement of water through the soil.

PERMEABILITY: The quality of a soil horizon that enables water or air to move through it.

PHASE II REGULATIONS: Also known as Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program Rules (N.J.A.C. 7:14A). These Rules are intended to address and reduce pollutants associated with existing stormwater runoff. The Rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act.

POLLUTANT: any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.), thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt, industrial, municipal, agricultural, and construction waste or runoff, or other residue discharged directly or indirectly to the land, ground waters or surface waters, or to a domestic treatment works. “Pollutant” includes both hazardous and nonhazardous pollutants.

POLLUTANT LOADING: The total quantity of pollutants in stormwater runoff.

POROUS PAVEMENT: An alternative to conventional pavement whereby runoff is diverted through a porous asphalt layer and into an underground reservoir. The stored runoff then gradually infiltrates into the subsoil.

PRETREATMENT: Techniques employed in stormwater practices to provide initial storage or filtering to help trap coarse materials before they enter the system.

REDEVELOPMENT: New development activities on previously developed land.

REGIONAL STORMWATER MANAGEMENT PLANS (RSWMPs): A regional stormwater management plan addresses stormwater-related water quality and water quantity impacts of new and existing land uses in a drainage area, and is developed on a drainage area basis, and is not limited to on-site stormwater management measures.

(NEW JERSEY) RESIDENTIAL SITE IMPROVEMENT STANDARDS (RSIS): A set of rules that control all matters concerning the construction, alteration, addition, repair, removal, demolition, maintenance, and use of any site improvements constructed by a developer in connection with residential development. The RSIS are intended to ensure public health and safety.

RETENTION: The amount of precipitation on a drainage area that does not escape as runoff. The difference between total precipitation and total runoff.

RETROFIT: The installation of a new stormwater practice or the improvement of an existing one in a previously developed area.

REVIEWING BOARD ENGINEER: The engineer employed by a Reviewing Board having jurisdiction over an application for development.

RIP-RAP: Broken rock, cobbles, or boulders placed on earth surfaces, such as the face of a dam or the bank of a stream, for protection against the action of water (waves or streamflow); also applies to brush or pole mattresses, or brush and stone, or similar materials used for soil erosion control.

RIPARIAN BUFFER: The area from the streambank in the floodplain to, and including, an area of trees, shrubs, and herbaceous vegetation located upslope from the body of water.

RUNOFF: That portion of the precipitation on a drainage area that is discharged from the area in the stream channels. Types include surface runoff, ground water runoff or seepage.

SEDIMENT: Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

SEDIMENTATION: The process of soil and silt settling and building up on the bottom of a creek, river, lake, or wetland.

SHEET FLOW: Water, usually stormwater runoff, flowing in a thin layer over the ground surface.

SITE: the lot or lots upon which a major development is to occur or has occurred.

SMART GROWTH: A development trend that focuses on restoring community and vitality to center cities and older suburbs and reducing sprawl. Smart growth is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses than traditional development.

SPRAWL DEVELOPMENT: Expansion of low-density development into previously undeveloped land.

STABILIZATION: Provision of adequate vegetative and/or structural measures to prevent erosion from occurring.

STAKEHOLDER: Any agency, organization, or individual that is involved in or affected by

the decisions made in the development of a watershed plan.

STORM DRAIN (or STORM SEWER SYSTEM): Above- and below-ground structures for transporting stormwater to streams or outfalls for flood control purposes.

STORM FLOW: The portion of stream flow that is due to stormwater runoff.

STORMWATER HOT SPOTS: Land-uses or activities that generate highly contaminated runoff. Examples include fueling stations and airport de-icing facilities.

STORMWATER INFILTRATION SYSTEMS: Stormwater practices that are designed to percolate runoff into the underlying soil.

STORMWATER MANAGEMENT: Programs designed to maintain or return the quality and quantity of stormwater runoff to pre-development levels.

STORMWATER MANAGEMENT BASIN: an excavation or embankment and related areas designed to retain stormwater runoff. A stormwater management basin may either be normally dry (that is, a detention basin or infiltration basin), retain water in a permanent pool (a retention basin), or be planted mainly with wetland vegetation (most constructed stormwater wetlands).

(NEW JERSEY) STORMWATER MANAGEMENT RULES (N.J.A.C. 7:8): New Jersey state regulations that describe the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development.

STORMWATER PRACTICE: A structural or non-structural device designed to temporarily store or treat stormwater runoff in order to mitigate flooding, reduce pollution and provide other amenities (Also known as a BMP).

STORMWATER RUNOFF: Excess precipitation that is not retained by vegetation, surface depressions, or infiltration, and thereby collects on the surface and drains into a surface water body.

STREAM CORRIDOR: The land area around a stream, including the stream itself and the floodplain.

SUBDIVISION: A new development that splits an existing tract, parcel or lot into two or more parts.

SUBWATERSHED: A smaller geographic section of a larger watershed unit with a drainage area of between 2 and 15 square miles, and whose boundaries include all the land area draining to a point where two second order streams combine to form a third order stream.

SWALE: A natural depression or wide shallow ditch used to temporarily store, route, or filter runoff.

TOTAL MAXIMUM DAILY LOAD (TMDL): A tool for establishing the allowable loadings of a given pollutant in a surface water resource to meet predetermined water quality standards.

TOXIC: Related to or caused by a poison, hazardous waste, or toxin.

TOTAL SUSPENDED SOLIDS (TSS): The total amount of particulate matter which is suspended in the water column.

URBAN RUNOFF: Stormwater that passes through and out of developed areas to a stream or other body of water.

VARIANCE: Permission to depart from the literal requirements of a zoning ordinance, pursuant to N.J.S.A. 40:55D-40b, 70c, and 70d.

VEGETATED FILTER STRIP: A vegetated section of land designed to accept runoff as overload sheet flow from upstream development. It may consist of any natural vegetated form, from grass meadow to small forest. The dense vegetative cover facilitates pollutant removal. A vegetated filter strip differs from a natural buffer in that the strip is designed and constructed specifically for the purpose of pollutant removal. A filter strip differs from a grassed swale in that a swale is a concave vegetated conveyance system, whereas a filter strip has a fairly level surface.

VEGETATED OPEN CHANNEL CONVEYANCE: An earthen conveyance system in which the filtering action of grass and soil are utilized to remove pollutants from urban stormwater. Also known as GRASSED SWALES.

VELOCITY: The distance that water travels in a given direction in a stream during an interval of time.

WATER QUALITY: A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

WATERS OF THE STATE: the ocean and its estuaries, all springs, streams, wetlands, and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

WATERSHED: All the land area that contributes runoff to a particular point along a waterway. (Also known as a DRAINAGE BASIN)

WATERWAY: A navigable body of water, such as a river, channel, or canal.

WELLHEAD PROTECTION: An area of restricted development surrounding a public water system, in efforts to protect the water supply from contaminants.

WETLAND: Land on which water covers the soil or is present either at or near the surface of the soil or within the root zone, all year or for varying periods of time during the year, including during the growing season. Wetlands are identified by determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Human-made wetlands include constructed stormwater wetlands (see STORMWATER WETLAND) designed to treat stormwater runoff, and artificial wetlands created to comply with mitigation requirements.

WETLAND MITIGATION: The construction of artificial wetlands in order to comply with a regulatory requirement to replace wetland areas destroyed or impacted by proposed land disturbances.

ZONING ORDINANCE: A set of regulations and requirements that govern the use, placement, spacing and size of buildings and lots within a specific area or in a common class (zone).

ZONING OFFICER: The terms "Zoning Officer, Inspector of Buildings, Building Inspector, Administrative Officer or Official" shall mean the person or persons who are charged with the enforcement of municipal ordinances.

Acknowledgements

Stephen M. George	Mayor

Township Council

George M. Kozub	Council President
Sandra V. Stewart	President Pro-Tem
Carl M. Schoenborn	Councilman
Harry McConnell	Councilman
E.L. "Pete" Green	Councilman
Richard W. Quinn, Jr.	Councilman
Brian J. Carlin	Councilman

Township Officials

Kevin McLernon	Township Administrator
Kenneth Domzalski, Esq.	Township Solicitor
Anthony Carnivale, Jr.	Township Clerk
Robert L. Schreibel, P.E.	Township Engineer
John Pinto	Director of Public Works

J. RECYCLING AND ENERGY CONSERVATION PLAN ELEMENT

GOAL: Source Reduction by Education

To maximize the reduction of solid waste generation by educating residents regarding source reduction methods and benefits while effectively utilizing Township & County recycling equipment and facilities.

Recycling in New Jersey

New Jersey has the highest population density in the country. Along with high population density New Jersey has one of the highest per capita solid waste generation rates (6.4 lbs/ per person/day) in the country. The need for comprehensive public management of solid waste in New Jersey arose out of a crisis in the 1970's, as the development of new environmentally sound disposal sites could not keep pace with the closure of old solid waste landfills. As a result, the state legislature took a number of steps to address this issue. In 1987 the legislature amended the Municipal Land Use Law (MLUL) to require a Recycling Element as a mandatory [40:55D-28.(14)d.(4)]component of a community's master plan.

Mandatory recycling began in New Jersey following the enactment of the New Jersey Statewide Mandatory Source Separation and Recycling Act in 1987. This Act created an initial statewide goal of achieving a 25 percent recycling rate of the municipal waste stream. In 1992, this New Jersey State recycling goal was doubled to 50 percent of the municipal waste stream, with the future goal for the overall waste stream to be established at 60 percent. In addition to establishing recycling goals, the legislature has adopted other specific requirements for municipalities. Each community must designate a recycling coordinator, and the information concerning a given community's recycling program must be distributed at least twice a year (this information is also readily available throughout the year at the municipal building). The collection of recyclable materials designated by Burlington County must be collected curbside in each municipality. Further, the Act states that municipalities shall plan for the collection, disposition, and recycling of recyclable materials within any development proposal for the construction of 50 or more units of single-family residential housing, or 25 or more units of multi-family housing, and any commercial or industrial development proposals for the utilization of 1,000 square feet or more of developed land.

The environmental benefits of recycling are not only significant because of their positive impact on the air, water and land of our state, but also because they result in monetary savings for manufacturers and society.

In 2003, New Jersey recycled nearly 10.3 million tons of its total solid waste. Recycling not only saves resources and energy, but also reduces the need for landfills and resource recovery facilities. In regard to energy conservation, recycling is especially beneficial.

"In 2001, the recycling of paper, plastic, glass, aluminum cans and steel cans resulted in reductions of 8,000 metric tons of water pollutants and 120,972 metric tons of air pollutants (in addition to the 5.7 million metric tons of carbon equivalent (greenhouse gas) reductions per year). Recycling reduced overall emissions of sulfur oxides by approximately 7,200 metric tons and nitrous oxides by some 7,500 metric tons." (2003 Northeast Recycling Council study). More specifically, recycled paper production creates 74% less air pollution and 35% less water pollution than virgin paper production. In addition, the production of recycled steel creates 85% less air pollution and 40% less water pollution than the production of steel from virgin ore, while recycled glass production creates 20% less air pollution than does production with virgin materials.

Recycling also promotes our state's Greenhouse Gas Reduction goals. The USEPA calculated that on average, approximately 1.67 metric tons of CO2 equivalents are avoided for every ton of municipal solid waste (MSW) recycled. If the MSW recycling rate increases from 34% to 50%, a total of 7.7 million metric tons of CO2 equivalent in avoided Greenhouse Gas emissions would result.

According to the Institute for Local Self-Reliance, total employment in the recycling industry from 1967 to 2000 grew by 8.3% annually while total United States employment during the same period grew by only 2.1% annually. The recycling industry also outperformed several major industrial sectors in regard to gross annual sales as its sales rose by 12.7% annually during this period. Furthermore, the number of recycling industries in the United States increased from 8,000 in 1967 to 56,000 in 2000. These facilities employ 1.1 million people across the country.

On a more local scale, New Jersey's well-developed recycling industry, which includes manufacturers of various recycled products, specialized processing facilities and transporters, is an important segment of the state's economy. A recent study conducted by the Northeast Recycling Council and United States Environmental Protection Agency found that almost 27,000 people in New Jersey are employed in recycling and reuse establishments and that total receipts from these establishments are valued at over $5.9 billion annually. The Department estimates that nearly 9,000 additional jobs would be created in New Jersey should the 50% municipal solid waste recycling goal be met.

A survey conducted by the NJDEP in April 2004 showed that recycling asphalt debris, concrete rubble, used bricks and blocks, felled trees and stumps and wood scrap costs significantly less than disposing of these materials as solid waste.

Average Cost to Recycle:

- Asphalt debris* - $5.70 per ton
- Concrete rubble* - $4.85 per ton
- Used bricks and blocks* - $5.49 per ton
- Trees and stumps - $37.69 per ton
- Wood scrap - $46.43 per ton

Average Cost of Disposal:

Over $75.00 per ton and can be as high as $98.00 per ton.

Burlington Waste Management & Recycling:

Burlington Township partners with Burlington County to provide comprehensive solid waste services to Township residents. As the NJDEP adopts amendments to the County Solid Waste Management Plan, the Township amends and updates appropriate municipal ordinances to assure consistency. The Burlington County Office of Waste Management oversees the operation of the Township recycling collection program. As set forth in the County Solid Waste Management Plan, designated waste materials are collected at the following locations:

- Households
- Municipal drop offs
- Schools
- Libraries
- Post offices
- Apartments and condominium complexes

Recyclable materials designated for collection:

- Paper: Includes newspaper, office paper, school paper, phone books, magazines, catalogs, brown grocery bags, cardboard and chipboard, cereal boxes, tissue boxes, paperboard;
- Aluminum and steel/tin food and beverage cans;
- Empty non-hazardous aerosols;
- Glass Bottles and jars;
- Plastic Bottles (# 1 and #2 only)

Burlington Township recycled 20,855 [1] tons of material in 2006, saving taxpayers $ 1,408,755 annually in disposal costs. This statistic shows a strong commitment by the residents of Burlington to the recycling goals established by the Burlington Township and State of New Jersey.

[1] 2006 Recycling tonnages adjusted for one time demolition of Hercules industrial facility

Burlington Township Waste Collection:

The Public Works Department is responsible for public recycling and solid waste disposal in the Township. The Public Works Department owns and operates its own vehicles for solid waste collection services. Solid waste is picked up once per week from residences as well as from Township facilities. The Public Works Department collects leaves from mid October through mid-December and sweeps streets from March to November; the Department also operates a recycling drop off center and compost site on Lake Avenue.

The Burlington County Office of Waste Management operates a permanent Household Hazardous Facility at the Eco Complex located on Florence – Columbus Road in Mansfield Township. This facility is available to all Burlington County residents. Wastes processed at this facility include various cleaners, pesticides and fertilizers, paints, and preservatives, automotive products, home hobby chemicals, medicines, cosmetics and associated items.

Since the 1980's Burlington County has arranged for recycling collection through the Occupational Training Center (OTC) of Burlington County. OTC trucks transport the material to the exiting OTC Recycling Facility in Westhampton Township. Burlington County sends County OTC personnel and trucks to Burlington Township to collect curbside paper, bottles, and cans. Both OTC and the Township collect recyclables and solid waste with vehicles utilizing 2 person crews.

Peninsula Composting – A regional Organic Composting Facility (B154.02, L9):

During the preparation of this Master Plan, Peninsula Composting was awaiting County and State approvals for construction of their facility located on a 44-acre property along CR656 (River Road). The property is adjacent to the municipal boundary with Florence Township. Peninsula's business plan is to take Township and Regional generated food waste that would otherwise be landfilled and recycle it into a useable environmentally sound product.

The private facility is anticipated to receive approximately 100,000 tons per year of food waste and 60,000 tons per year of carbon bulking agent (the facility is designed to process up to 600 tons daily). The facility will produce approximately 100,000 tons per year of clean fine-screened organic compost.

Consistent with the New Jersey Solid Waste Management Plan, anticipated benefits from this facility include:

1. Reduction of food waste to landfills decreases the net pollution load on the County and State.

2. Landfill space is saved by recycling waste material.

3. Beneficial reuse of waste material resulting in increased economic activity.

This facility is a Class C recycling center requiring the operator to submit monthly reports to the NJDEP.

Recommendations:

Step #1 in the solid waste management hierarchy is source reduction. Policy and practices that discourage the generation of waste before they are recycled or disposed of is the most effective and efficient way to minimize cost and control negative impacts associated with waste. The existing Grasscycling program described on the Township Website is a good example of waste reduction at the source, and the leadership role of the Township.

Step #2 in the solid waste hierarchy is reuse and recycling. Recycling promotes the efficient re-use of post consumer wastes and plays a critical role in reducing the need for landfill capacity. Successful recycling programs place primary emphasis in the promotion of source reduction and the recycling program. This can be done a number of ways:

1. Municipal web page development or Township newsletter.

2. Educational brochures (co-mailed with tax bills) to increase residents' understanding how source reduction and recycling can reduce municipal expenses.

3. Establishing programs with the local school district to educate and inform students of the need, and benefits of a successful recycling program.

Recycling Enhancement Act

On January 14, 2008 the State adopted the Recycling Enhancement Act. This landmark legislation reestablishes a source of funding for recycling in New Jersey through a $3.00 per ton tax on solid waste accepted for disposal or transfer. The Recycling Enhancement Act calls for 60% of the recycling tax fund to be used for recycling tonnage grants to municipalities and counties. Municipalities are required to expend its recycling grant funds only for its recycling program.

Now that the Recycling Enhancement Act has passed and additional funding is available, the County is planning to increase the recycling of solid waste by supplying larger containers and allowing residents to leave single stream containers curbside which will make it easier for residents to store and recycle post consumer waste. This approach will allow mixed paper to be recycled in one container and not bundled or placed in brown paper bags as it was required in the past.

Incentive Based Recycling

Another area worth monitoring is the progress in "incentive based" recycling programs. For example, in Cherry Hill, Camden County NJ, residents are participating in an incentive based program run by Recyclebank (a private company). Under the Recyclebank program residents place all their recyclables in a single stream container with a microchip attached to it. When the truck picks up the container, it weighs the contents and credits each homeowner with Recyclebank Dollars that are turned into coupons at retailers like Starbucks, Borders and Acme. The pilot program has doubled the number of tons of material recycled each week.

Energy Conservation

Incorporating energy efficient land use concepts in site and building design can significantly reduce energy consumption. Substantial energy savings can be achieved by designing buildings and neighborhoods to take advantage of natural environmental systems for heating and cooling. Site and building design is a likely starting point for implementing energy-conscious land use techniques and can be used in a subdivision, neighborhood, or individual building. Techniques include southern exposure for buildings, and orienting windows toward the sun, using landscaping and natural terrain features to block or redirect winds and breezes to increase the heating or cooling efficiency of buildings, and the appropriate use of awnings and window shades to reduce solar heat entering buildings during the summer.

Energy efficient locational planning is another concept that can be used to reduce a community's demand for energy. This approach, which can be applied to small neighborhoods or large regional areas, focuses on reducing energy intensive automobile travel by locating activities such as industrial centers, shopping and recreational facilities close to centers of population. Compact communities reduce frequency and trip lengths of automobile usage.

The creation of pedestrian and bikeway systems throughout the community, particularly when they connect residential areas with nodes of commercial (shopping) and industrial (jobs) uses, also reduces automobile travel and conserves energy.

Locational planning involves decisions regarding density and location. By locating new development in areas already serviced by infrastructure, suburban sprawl is discouraged and much of the costs associated with new construction can be averted. Mixed-use developments of this type as proposed in the State Development and Redevelopment Plan will help preserve open space, farmlands and environmentally sensitive areas.

1. Energy Efficiency

   Recommended strategies for incorporating energy standards into Burlington Township's land development review include:

   a. In the planning and execution of Municipal operations, develop alternative, renewable energy, and energy efficiency initiatives in public buildings, in schools, and in the mobile fleet.

   b. Encourage the formation of a Green Initiative (a public-private partnership involving State, County, Township, and Private Sector entities) to develop specific action steps in the short term and also to develop strategic plans for achieving long range alternative energy; renewable energy; and energy efficient goals.

c. Consider energy audits to improve the energy efficiency of all public buildings.

d. Review public facilities regarding energy use and sources.

e. Require the dimming of lights at commercial and industrial facilities to security levels after business hours. This reduces energy use and light pollution.

f. Consider preparing an evaluation of Township vehicles and other machinery in terms of fuel usage and the possibility of using alternative fuels.

g. Consider energy saving activities within the municipal authority.

h. Consider the microclimate including radiation, humidity and wind in site plan and subdivision designs and reviews.

i. Provide means for solar access as appropriate such as solar easements and flexibility in the application of setback requirements.

j. Require landscaping plans that provide desirable solar access, wind protection and proper shade as needed.

k. Encourage existing property owners to have energy audits prepared for their homes and businesses.

l. Maximize the recycling of energy through resource recovery.

m. Encourage the use of efficient energy star devices.

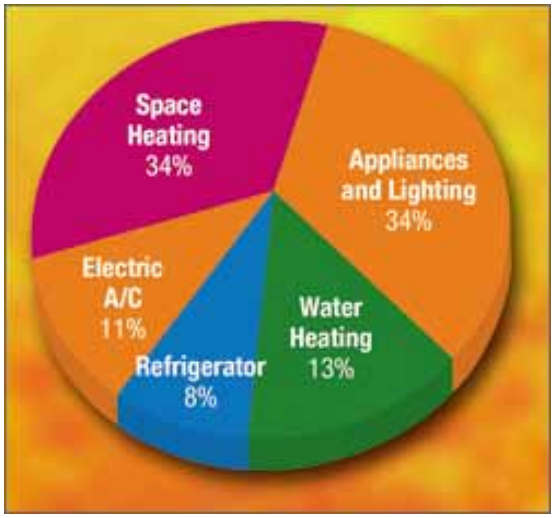
n. Encourage the use of energy efficient devices such as heat pumps, geothermal pumps, and solar collectors where feasible.

According to a 2003 study by the Northeast Recycling Council (NERC), “In 2001, New Jersey’s recycling efforts saved a total of 128 trillion BTU’s of energy, equal to nearly 17.2% of all energy used by industry in the state, with a value of $570 million. This energy savings is also an amount equal to 22 million barrels of oil saved, and enough power for nearly 1.2 million homes for a year.” For example, aluminum produced from used beverage cans requires 90-95% less energy than aluminum produced from bauxite ore. In addition, steel produced from recycled ferrous metals requires 74% less energy than steel produced from virgin ores, while recycled glass production requires 20% less energy than glass production from virgin materials. Recycled paper production also requires between 23% to 74% less energy than virgin paper production.

How We Use Energy in Our Homes

http://www1.eere.energy.gov/consumer/tips/home_energy.html

Source: 2005 Building Energy Data Book



IV. LOCAL AND REGIONAL CONSISTENCY

The Burlington Township 2008 Comprehensive Master Plan was developed in consideration of and found generally consistent with the New Jersey State Development and Redevelopment Plan, the master plans of adjacent municipalities, Burlington County planning efforts and the provisions of the Solid Waste Management Act, P.L. 1970, c. 39.

The New Jersey State Development and Redevelopment Plan has designated planning acres covering the entire state. These areas show the unique qualities and conditions that exist in different areas of the state. Each Area has Policy Objectives that guide growth in the content of these unique qualities and conditions. The Policy Objectives are intended to guide municipal and county planning in general and, specifically, to guide the location and size of centers. These objectives also shape and define the application of the State Plan's Statewide Policies to consider the unique qualities and conditions that exist in each area in meeting the goals of the State Planning Act.

Local Consistency

Burlington Township's neighboring municipalities include Burlington City; Florence Township; Springfield Township; Westampton Township; Willingboro Township and Edgewater Park Township. Burlington's land use policies remain relatively unchanged from the 1998 Master Plan, with the exception of the increased emphasis on redevelopment. It is expected that neighboring municipalities will benefit fiscally, environmentally and socially as new construction and redevelopment occurs within the Township.

The zoning maps and ordinances of the adjoining municipalities have been examined, as part of the preparation of this Master Plan. Analysis of these documents indicates that zoning of lands surrounding the Township is generally compatible with the Township's Master Plan and zoning code (See Appendix).

It should be noted that Burlington's adjoining municipalities have the right to amend or change their respective zoning ordinance and land use plans, which in turn may impact the Township's strategic land use planning goals and objectives. The Township will continue to work with municipal neighbors to avoid conflicting strategic land use planning efforts.

Consistency with Burlington County:

In conjunction with regional redevelopment efforts by Burlington County, the Township intends to continue promoting redevelopment and reinvestment within the municipality. This Master Plan is compatible with Burlington County's strategic vision.

Delaware Valley Regional Planning Commission (DVRPC) Destination 2030 Long Range Plan (LRP) Consistency:

For over 40 years, the Delaware Valley Regional Planning Commission (DVRPC) has been the principal agency charged with planning for the future of southeastern Pennsylvania and southern New Jersey (Are highlighted in image below). Since its inception, DVRPC has worked to address current issues while also looking toward the future to craft a vision for the region in a long-range plan. DVRPC's land use and transportation plans and policies affect every citizen, business and institution in the Delaware Valley and beyond, with recommendations for all modes of travel, regional goods movement, air quality, infrastructure investment and the location of future land development and protected greenspace.

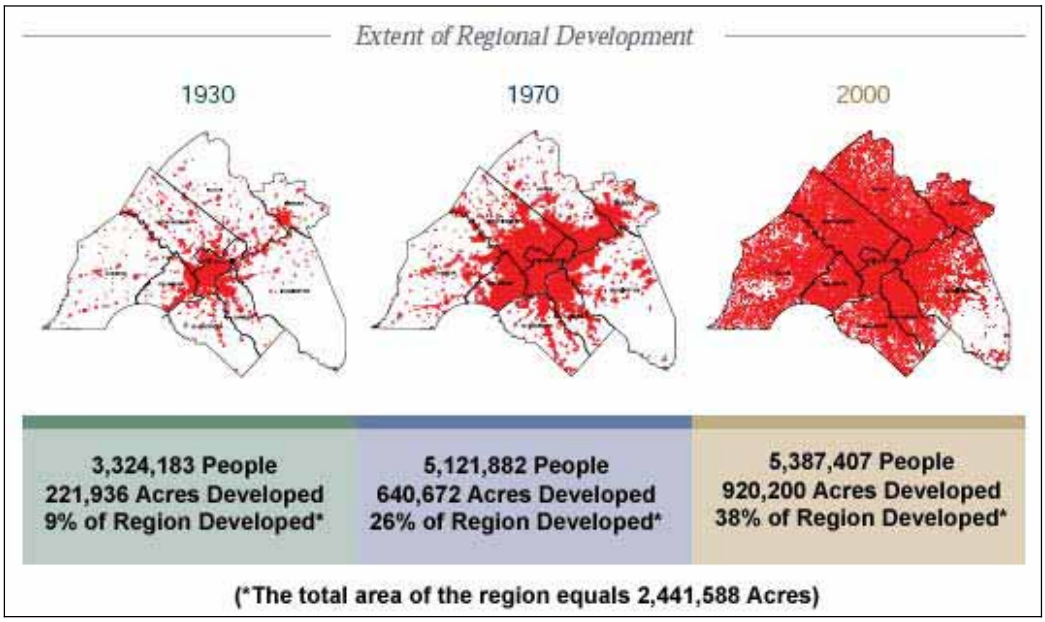
Image Source: DVRPC Destination 2030

DVRPC's designation as the Metropolitan Planning Organization (MPO) for this region and the regulations of ISTEA as well as the subsequent Transportation Equity Act of the 21st Century (TEA-21) and Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), have given the Commission an expanded and stronger role in planning to link transportation, land use and the environment. These federal regulations mandate that DVRPC prepare and maintain a long-range plan with a minimum 20-year planning horizon.

In 2003, DVRPC began preliminary work on identifying goals for the Year 2030 Plan. The result was "Regional Analysis of What-If Scenarios" which looked at several alternative scenarios and their impact on the future form of the region. "Destination 2030: A Vision for the Future" followed and analyzed current trends and articulated a singular vision as well as developing specific goals for eight critical issue areas: urban revitalization, growth management, economic

development, the environment, equity and opportunity, transportation facilities, transportation operations, and transportation finance.

The next step was development of land use and transportation policies, including transportation projects. "Destination 2030 the Year 2030 Plan for the Delaware Valley." The DVRPC Board adopted the "Destination 2030" Long Range Plan on June 23, 2005. Destination 2030 places a strong emphasis on rebuilding our existing transportation infrastructure and linking transportation investments to the land use, economic development, environmental and transportation goals set forth in the plan.



"From 1930 to 1970, land developed at three times the rate of population increase. This trend accelerated from 1970 to 2000, when land development increased at nine times the rate of population increase. Likewise, each new person added to the region took up increasingly more land. From 1930 to 1970, each new person took up less than a quarter of an acre. But from 1970 to 2000, each new person took up more than an acre of land".

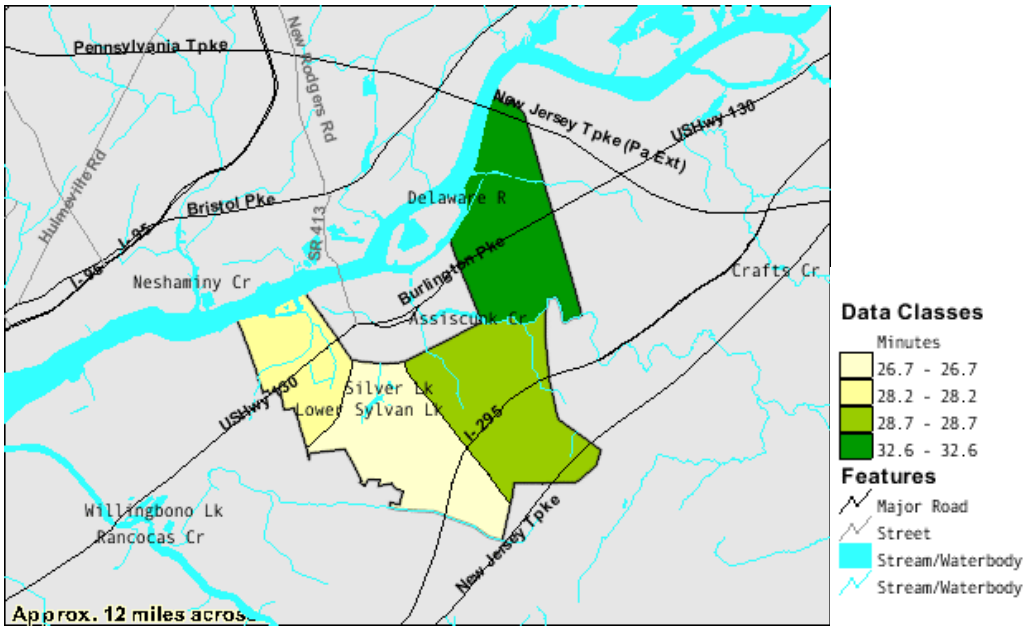
Source: Destination 2030

Destination 2030 is intended to help the DVRPC carry out its defined mission *"to plan for the orderly growth and development of the region".* DVRPC's LRP serves as the basis for the Transportation Improvement Program (TIP), a capital improvement program for numerous highway, public transport and pedestrian/bicycle projects and activities. Proposed projects must be included on the TIP to receive federal funding. The plan is also used to evaluate consistency of sewer and water projects in the region.

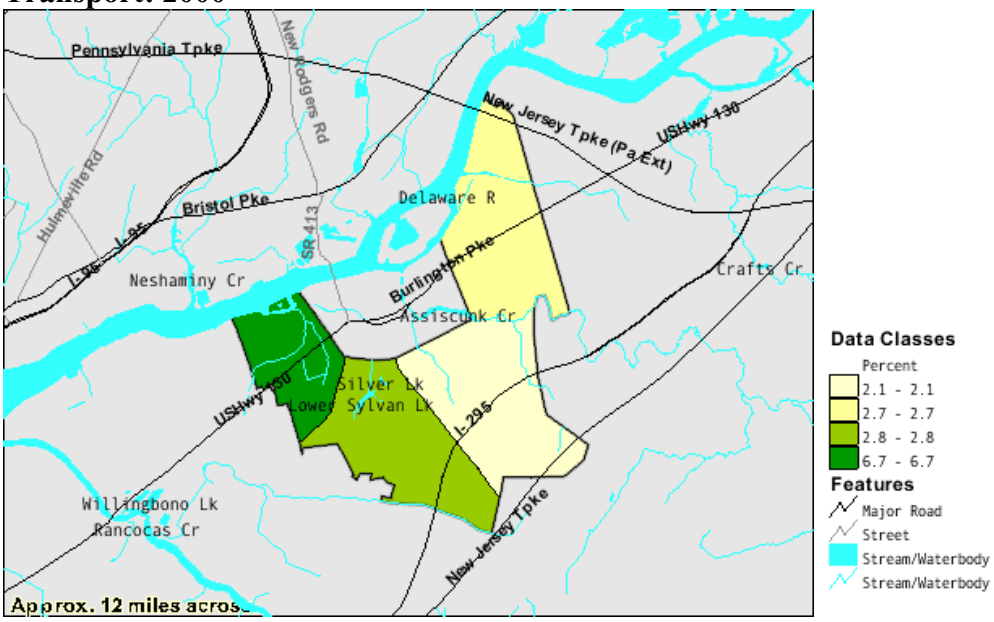
The Destination 2030 plan has identified a significant increase in the number of people driving alone to work (59.4% to 72%) and a decline in carpooling (17.8%

to 10.2%) between 1980 & 2000 for the region. Burlington Township census data shows the following trend for the decade 1990 to 2000. The number of people driving alone to work has increased from 75.9% to 82.6%, while carpooling has declined from 15.3% to 10.1%. The mean travel time to work has increased from 22.2 minutes to 29.0 minutes for this decade. Public transit usage remained relatively unchanged at 3.4% & 3.5%.

Mean Travel Time To Work: 2000



Percent of Workers 16 Years and Over Who Commute to Work By Public Transport: 2000

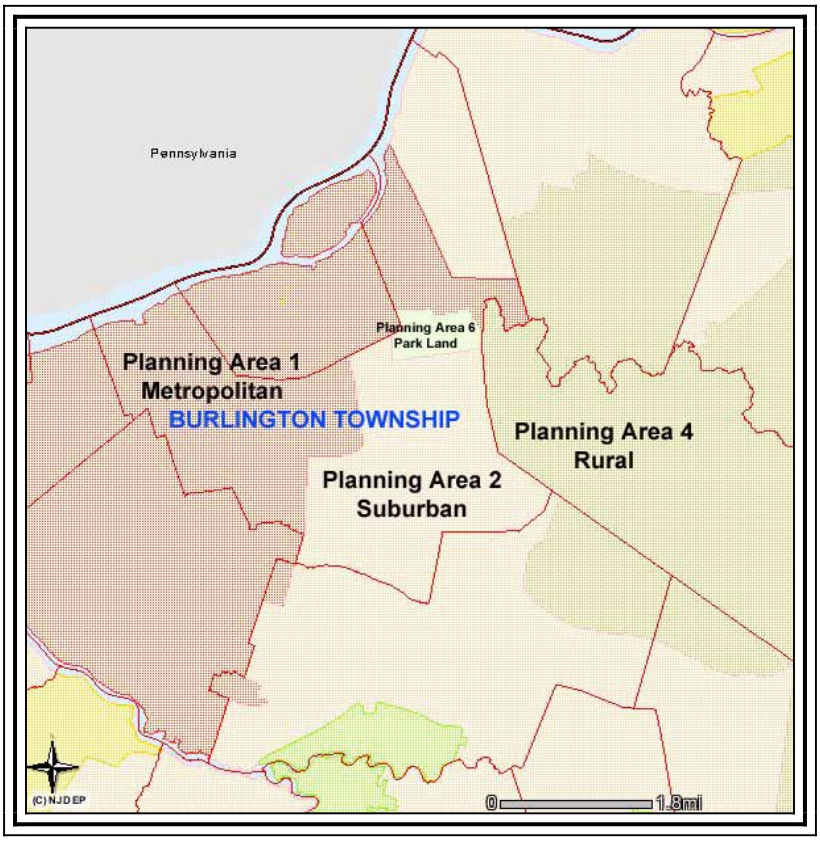


The mapping presented shows a relationship between commuting to work by Public Transport and Mean Travel Time to work. As shown above, commuters who use public transport appear to have a shorter work commute time.

New Jersey State Development and Redevelopment Plan:

The New Jersey Office of Smart Growth recently conducted Cross Acceptance discussions and State Plan comparisons with are municipalities. The boundaries of certain State Planning Areas are being negotiated with nominated municipal and county officials. It is anticipated there will be no significant changes for Burlington's Planning Areas.

Presently, Burlington Township is located within State Planning Area 1 (PA1[1], approximately 50% of the Township) and Planning Area 2 (PA2[2]). Springfield Township to the east is located primarily within the Rural Planning Area. The New Jersey State Development and Redevelopment Plan (SDRP) policies support and encourage development and redevelopment within PA1 and PA2.



[1] (PA1) Metropolitan Planning Area
[2] (PA2) Suburban Planning Area

Burlington Township promotes infill development, redevelopment and revitalization to encourage new construction consistent with smart growth design and the vision and intent of the State Development and Redevelopment Plan (SDRP)

The SDRP recognizes the following general characteristics of municipalities and communities located within PA1 and PA2:

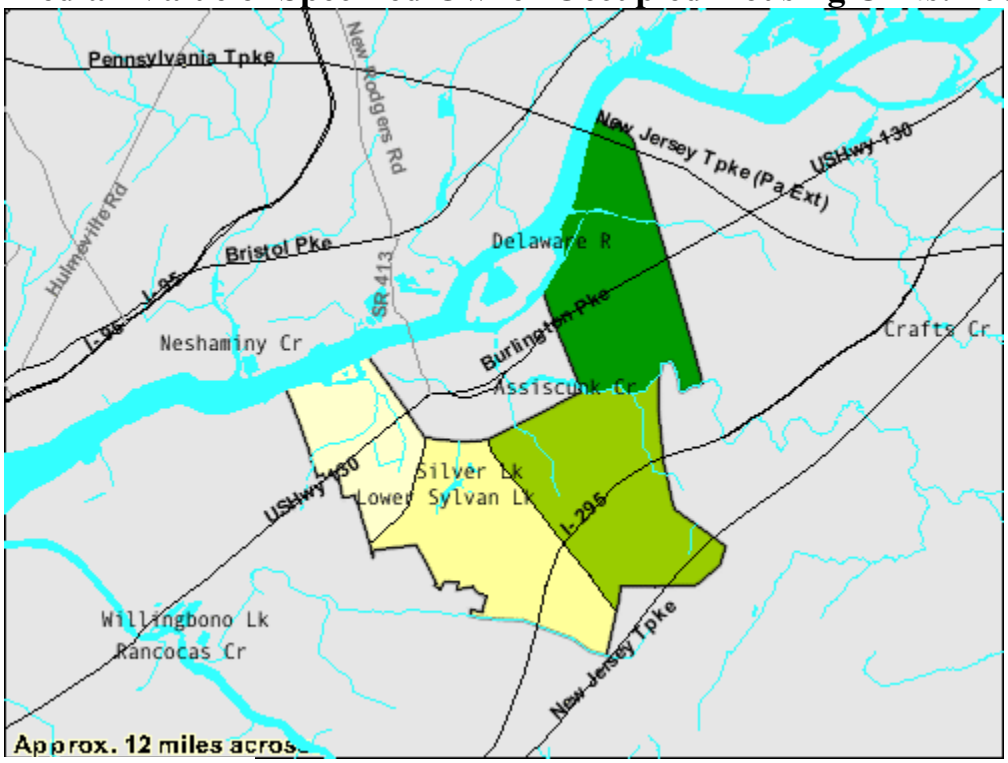
- Mature settlement patterns.
- Infrastructure systems that area approaching reasonable life expectancy.
- The need to rehabilitate housing.
- Redevelopment will be the predominant form of growth in the future.
- Growing realization of the need to rationalize services and systems.
- Changing demographics.

The intention of the SDRP for PA1 and PA2 is to:

- Provide for much of the state's future redeveloping;
- Revitalize cities and towns;
- Promote growth in compact forms;
- Stabilize older suburbs;
- Redesign areas of sprawl;
- Protect the character of existing stable communities;
- Protect natural resources;
- Reverse the current trend toward further sprawl.

The Township's Master Plan recognizes that absorbing new development and growth will largely involve redevelopment within identified areas and the continued renovation of existing structures throughout the municipality. Burlington's Master Plan maintains consistency with the policies, goals and the objectives of the SDRP. The Township is committed to redevelopment and the implementation of Smart Growth practices.

Median Value of Specified Owner Occupied Housing Units: 2000

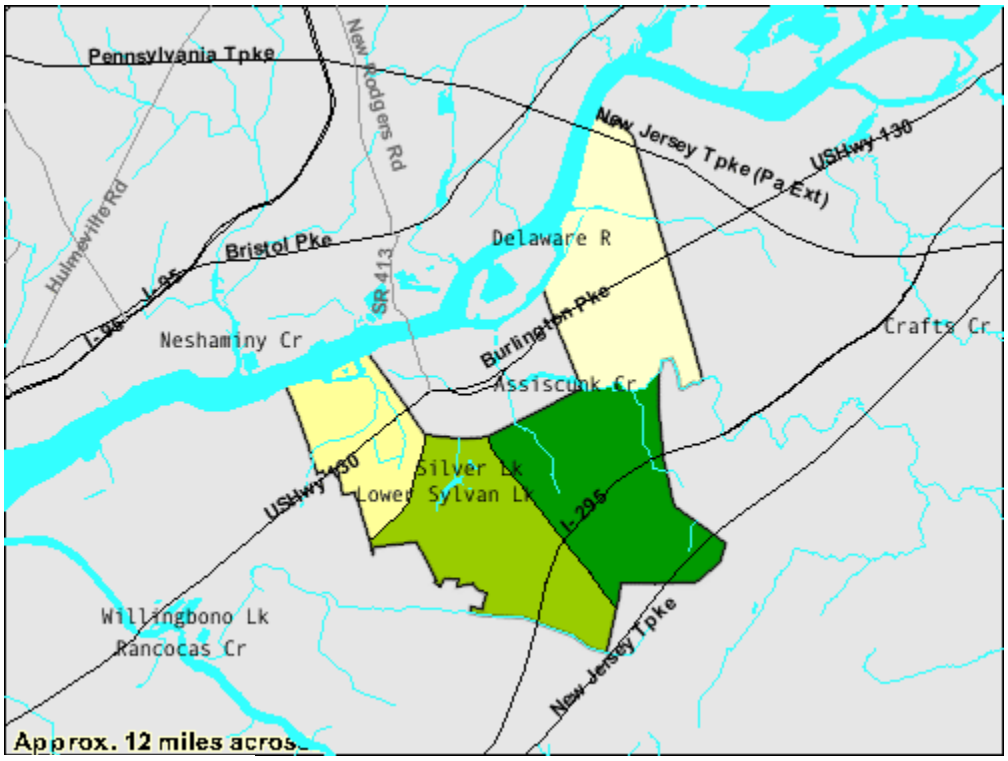


Data Classes

Dollars
- 142700 - 142700
- 145900 - 145900
- 155300 - 155300
- 162500 - 162500

Features
- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Persons 65 Years and Over: 2000



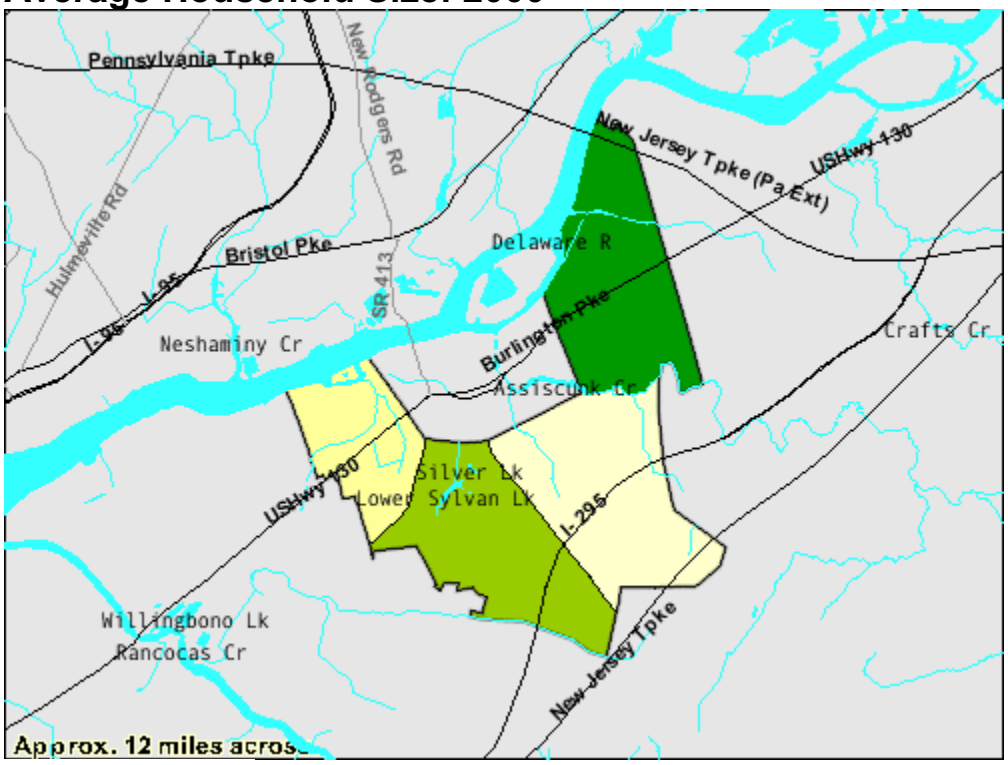
Data Classes

Percent
- 0.2 - 0.2
- 1.5 - 1.5
- 7.1 - 7.1
- 11.1 - 11.1

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Average Household Size: 2000

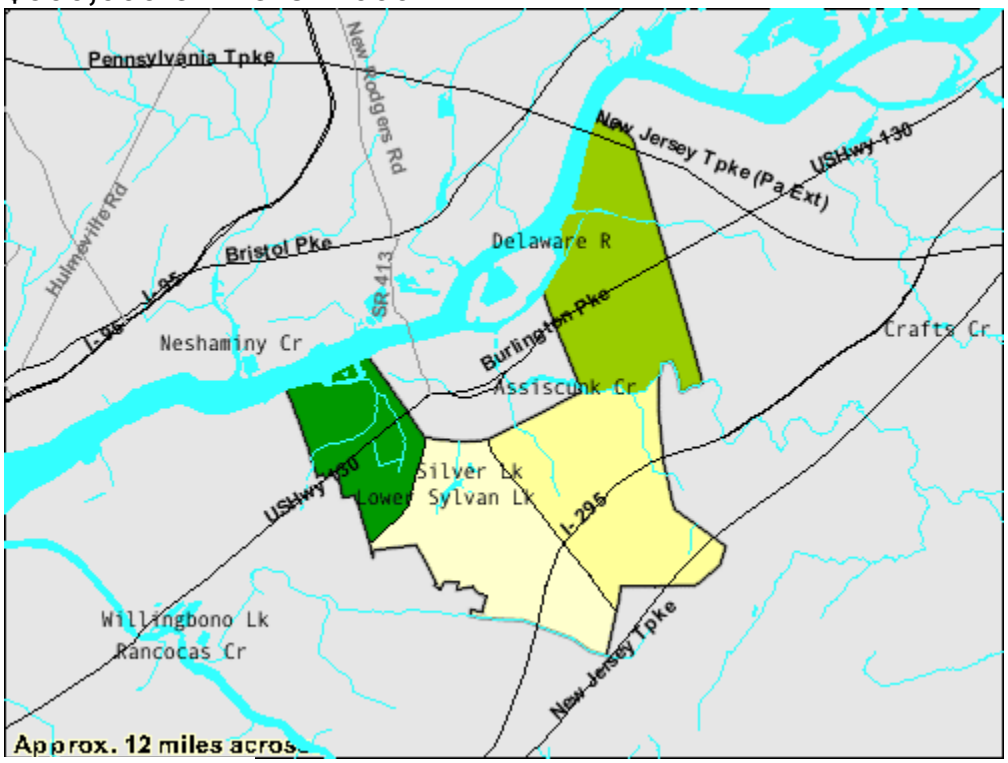


Data Classes

Persons
- 2.52 - 2.52
- 2.67 - 2.67
- 2.74 - 2.74
- 2.89 - 2.89

Features
- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Specified Owner Occupied Housing Units Values at $300,000 or More: 2000



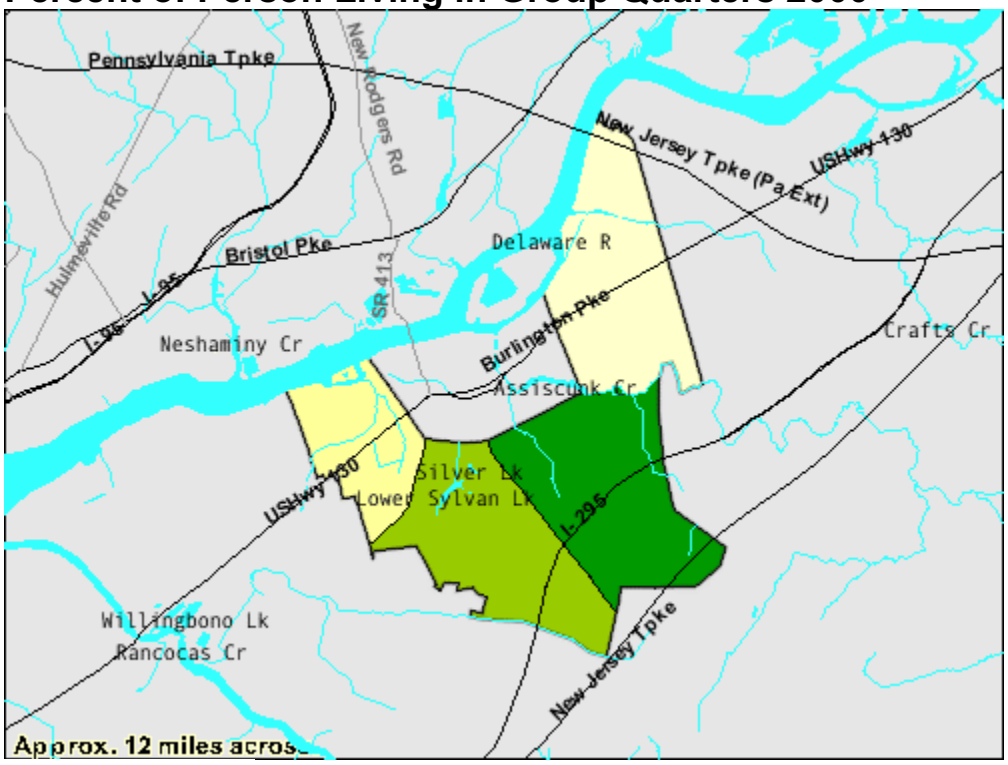
Data Classes

Percent
- 0.0 - 0.0
- 1.0 - 1.0
- 1.3 - 1.3
- 1.6 - 1.6

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Person Living in Group Quarters 2000



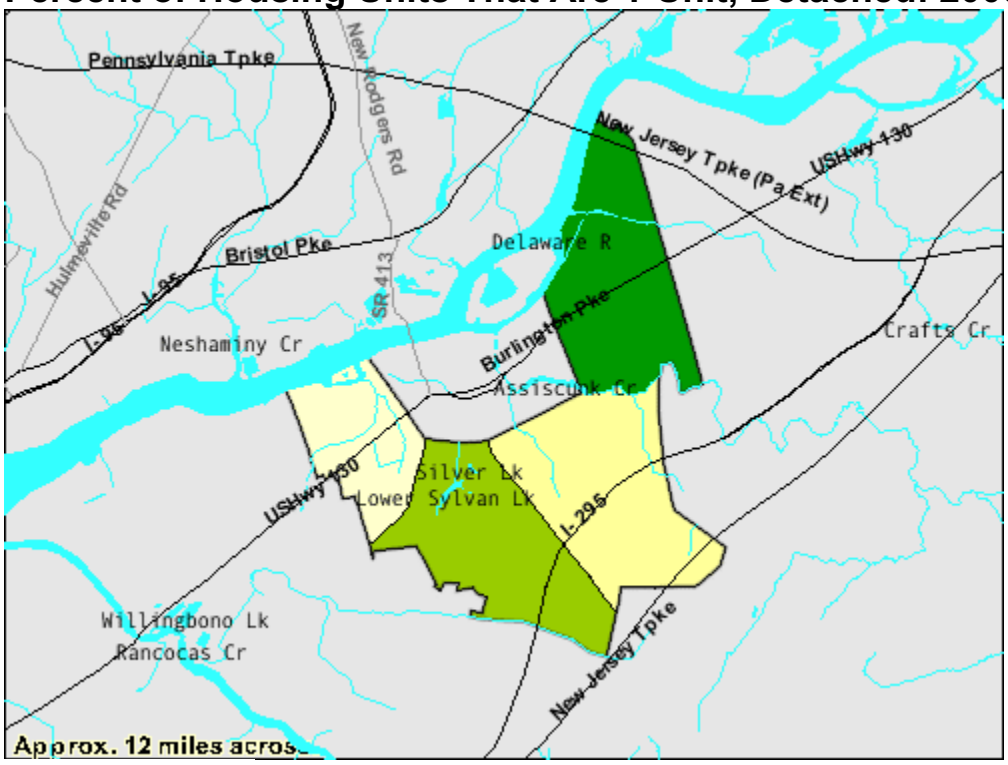
Data Classes

Percent
- 0.2 - 0.2
- 1.5 - 1.5
- 7.1 - 7.1
- 11.1 - 11.1

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Housing Units That Are 1-Unit, Detached: 2000

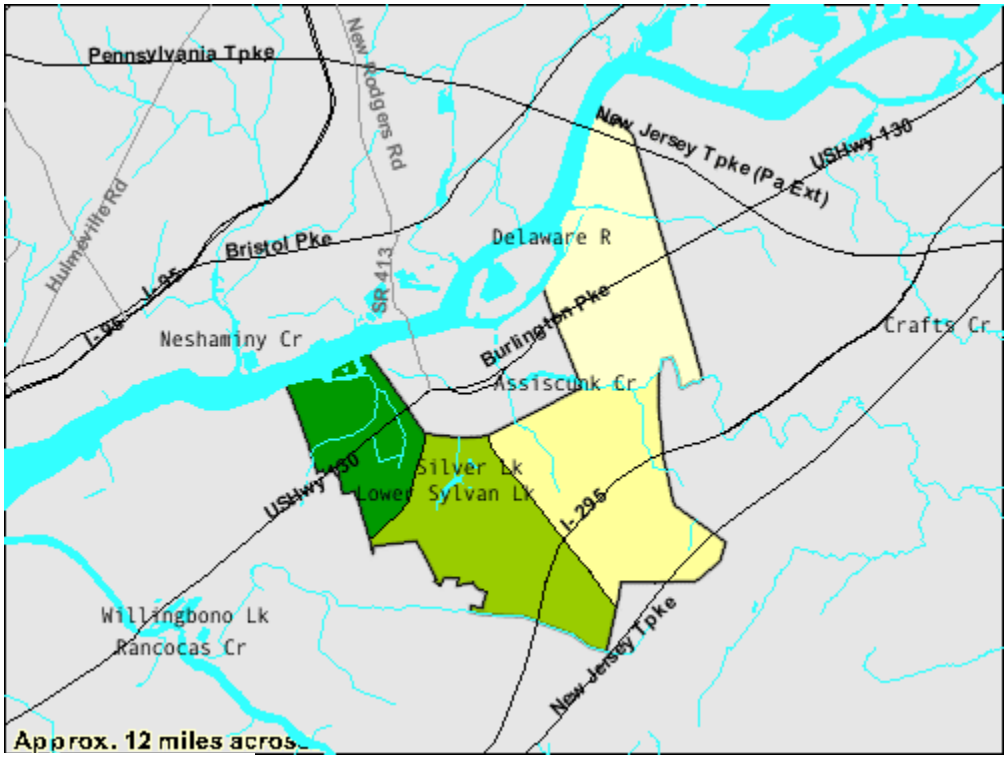


Data Classes

Percent
- 55.5 - 55.5
- 57.3 - 57.3
- 69.4 - 69.4
- 85.8 - 85.8

Features
- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Housing Units in Structures With 10 or More Units: 2000



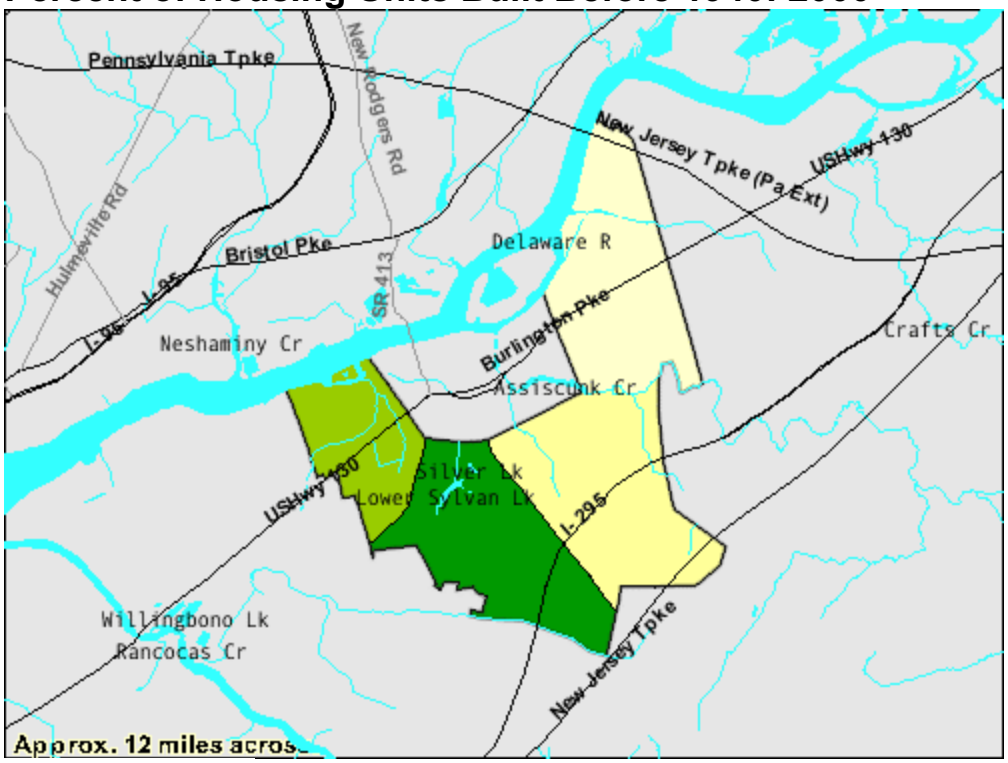
Data Classes

Percent
- 5.6 - 5.6
- 16.1 - 16.1
- 18.6 - 18.6
- 25.6 - 25.6

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Housing Units Built Before 1940: 2000



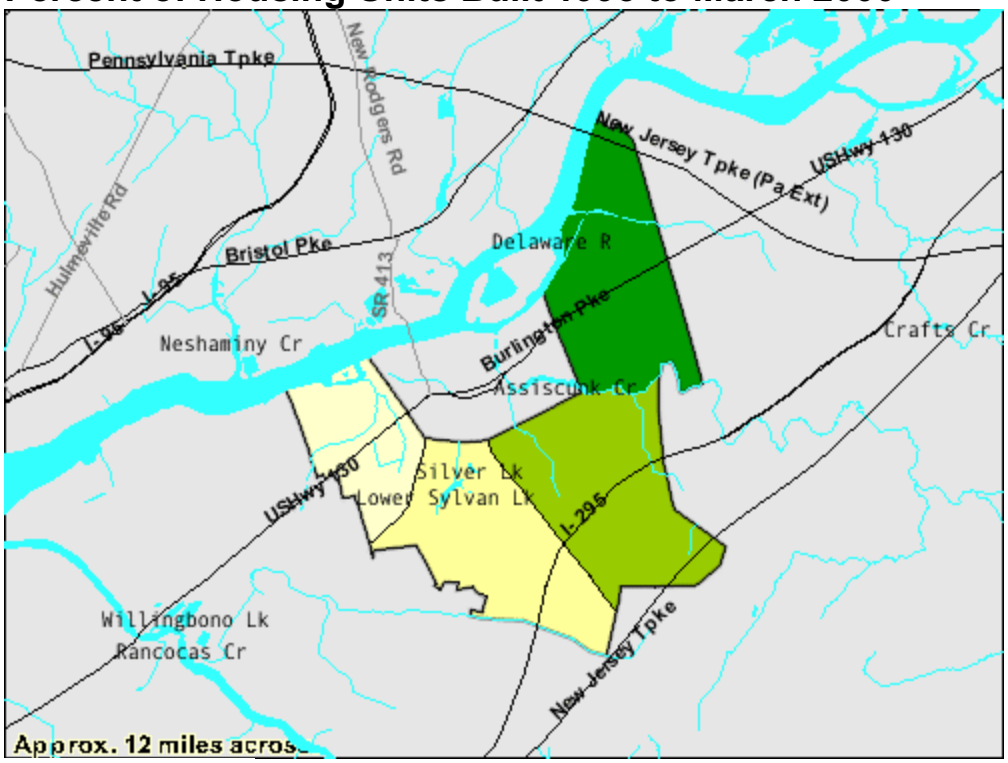
Data Classes

Percent
- 2.8 - 2.8
- 4.1 - 4.1
- 7.3 - 7.3
- 7.8 - 7.8

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Housing Units Built 1995 to March 2000



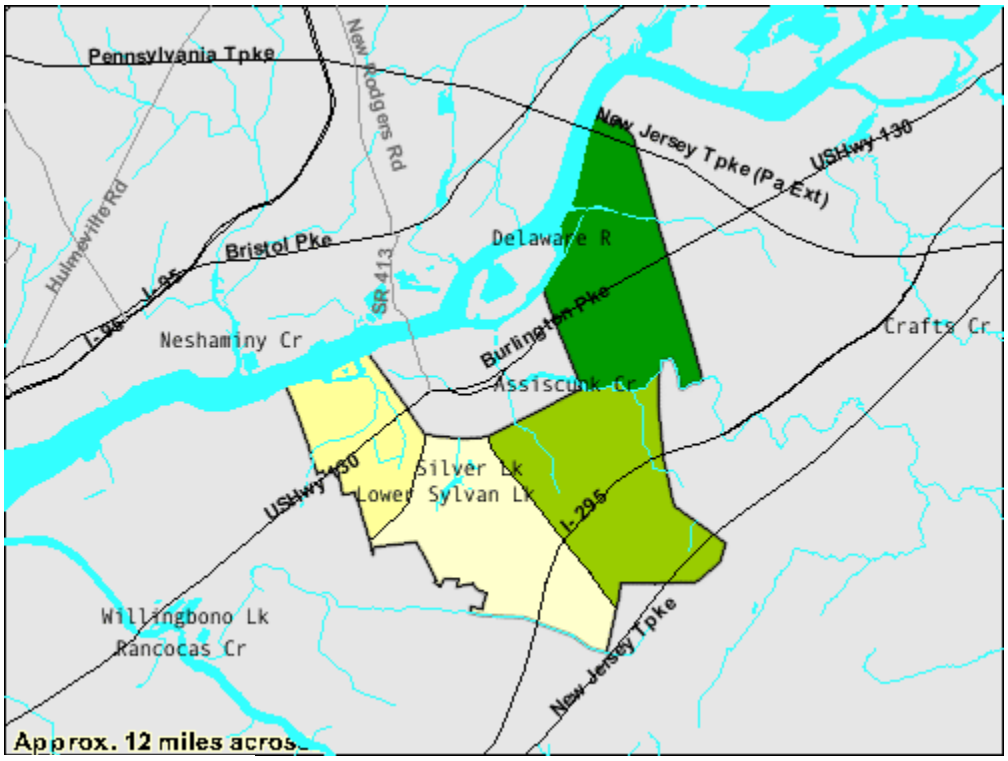
Data Classes

Percent
- 10.2 - 10.2
- 24.8 - 24.8
- 35.0 - 35.0
- 37.6 - 37.6

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Mean Travel Time To Work: 2000

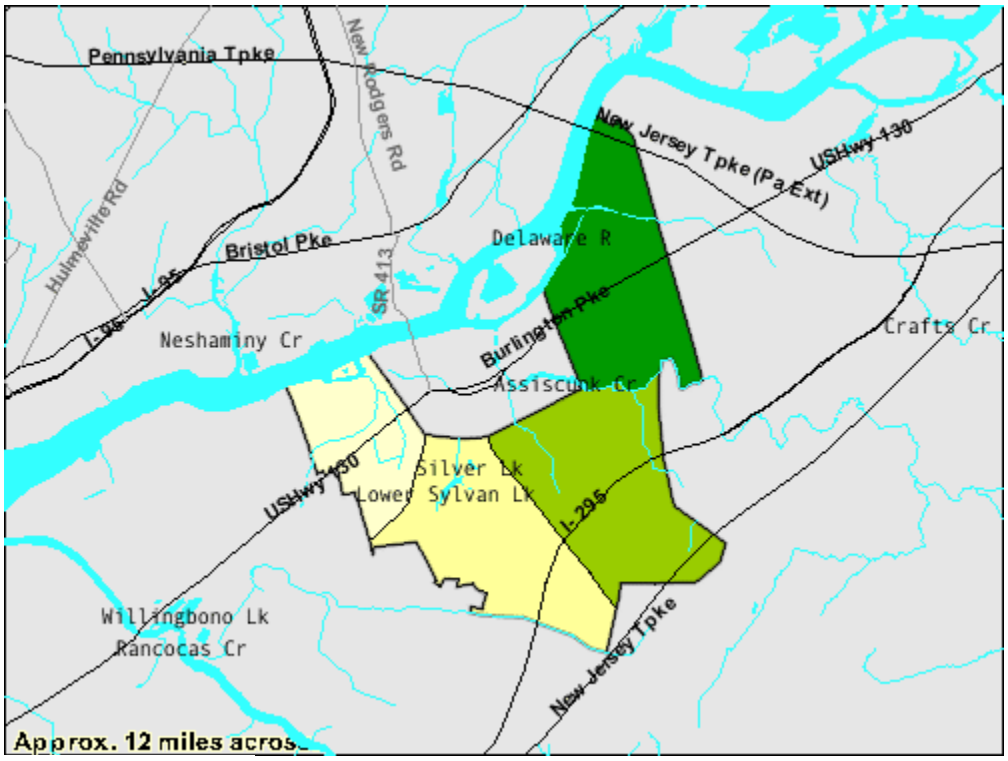


Data Classes

Minutes
- 26.7 - 26.7
- 28.2 - 28.2
- 28.7 - 28.7
- 32.6 - 32.6

Features
- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Median Household Income: 2000

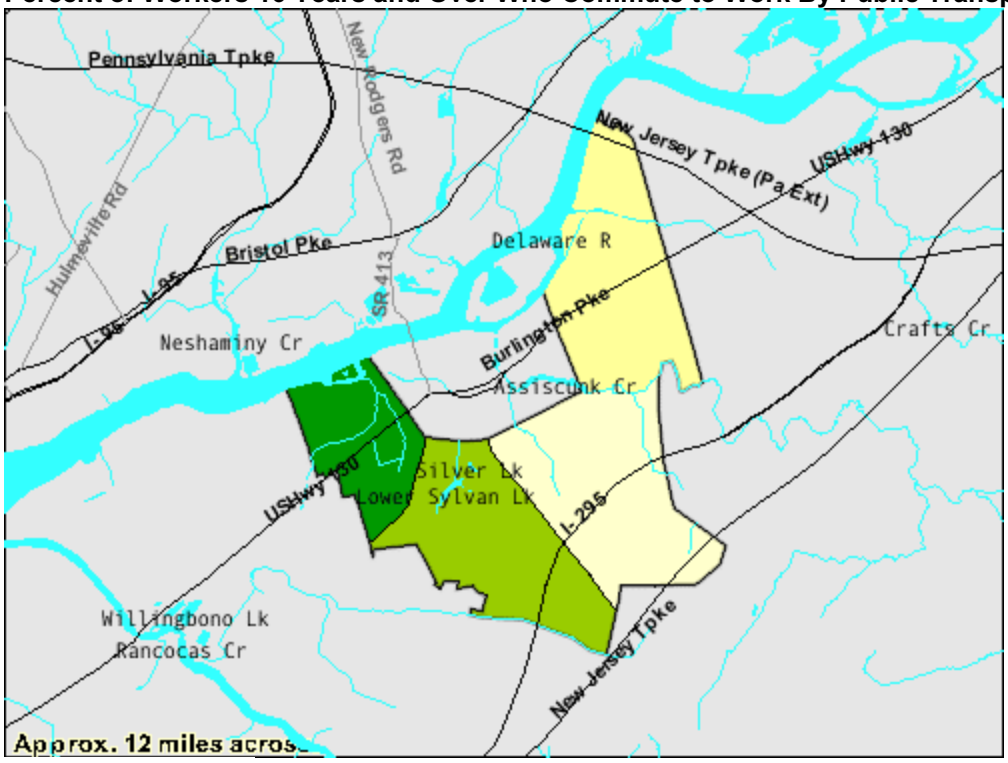


Data Classes

Dollars
- 50665 - 50665
- 62246 - 62246
- 64737 - 64737
- 66422 - 66422

Features
- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

Percent of Workers 16 Years and Over Who Commute to Work By Public Transport: 2000



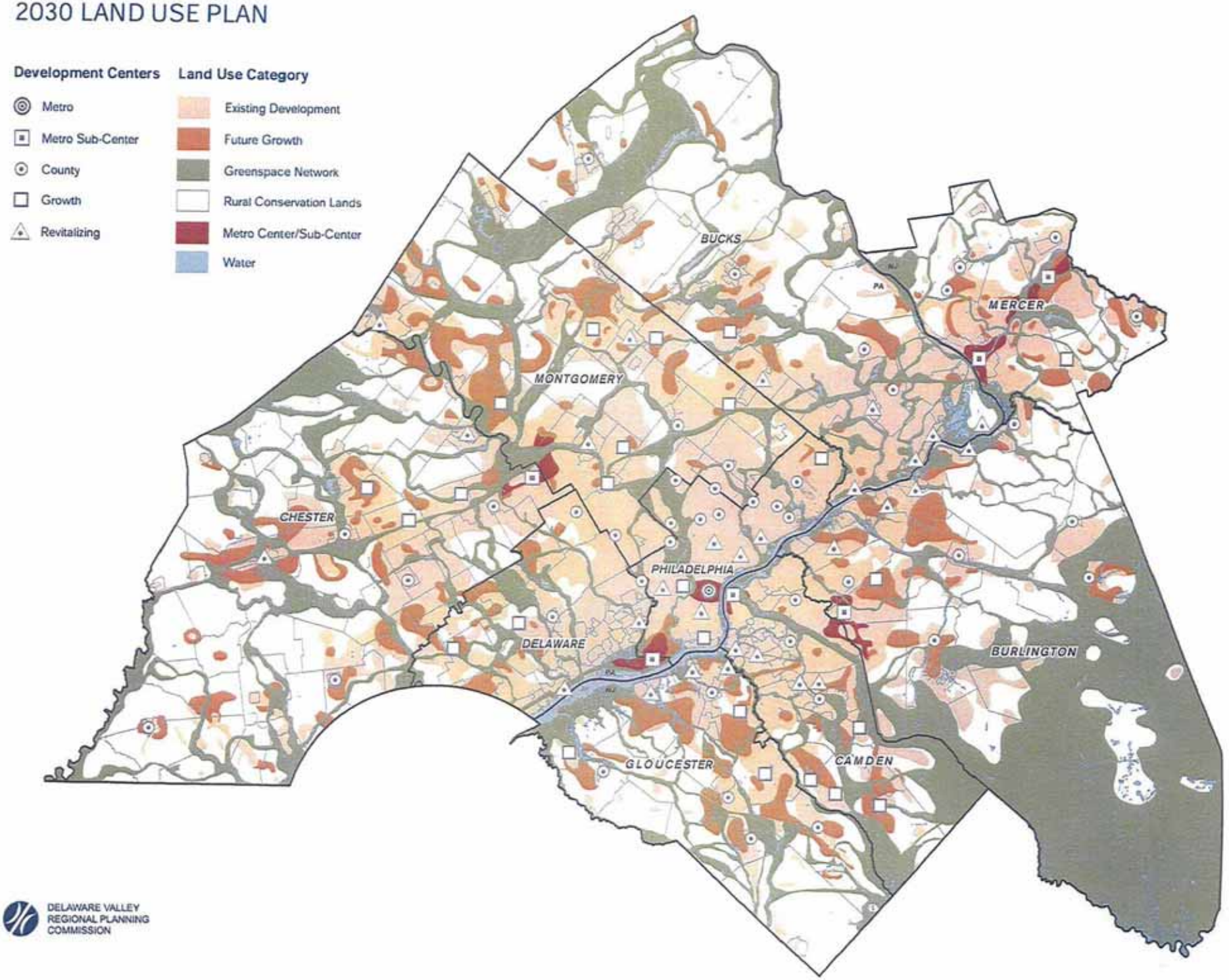
Data Classes

Percent
- 2.1 - 2.1
- 2.7 - 2.7
- 2.8 - 2.8
- 6.7 - 6.7

Features

- Major Road
- Street
- Stream/Waterbody
- Stream/Waterbody

2030 LAND USE PLAN



DELAWARE VALLEY
REGIONAL PLANNING
COMMISSION

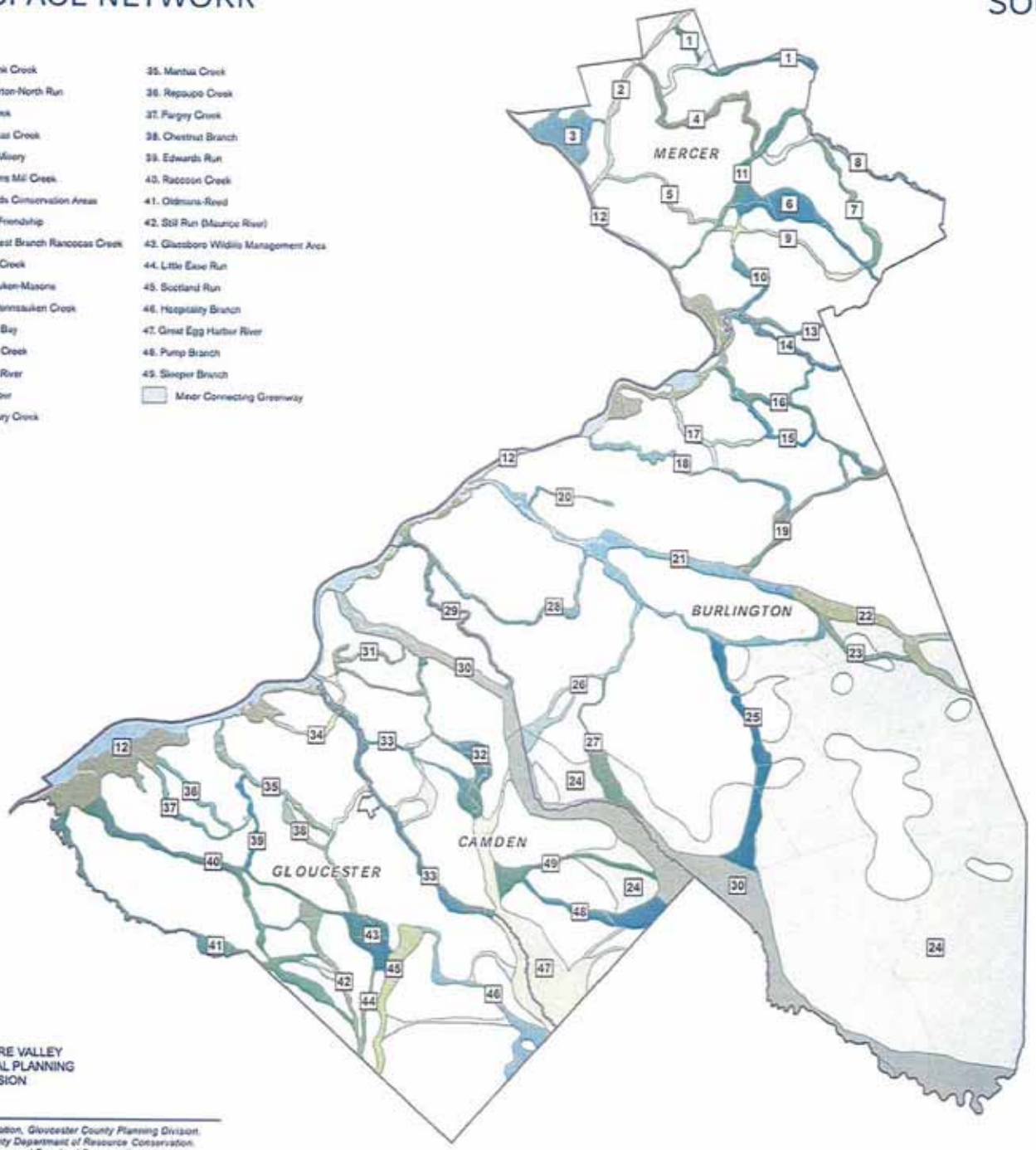
L:\Projects\C02500334000\Docs\reports\MASTER PLAN\Appendix\DVRPC Select Destination 2030 Maps.doc

2030 GREENSPACE NETWORK

SOUTHERN NEW JERSEY

1. North Mercer
2. Jacobs Creek
3. Washington Crossing
4. Stony Brook
5. Shabakunk-Ewing
6. Assunpink Creek
7. Big Bear Brook
8. Millstone River
9. Miry Run
10. Pond Run-Back Creek
11. Delaware and Raritan Canal
12. Delaware River
13. Doctors Creek
14. Crosswicks Creek
15. Bacons Run
16. Blacks Creek
17. Crafts Creek
18. Assiscunk Creek
19. Pemberton-North Run
20. Mill Creek
21. Rancocas Creek
22. Mount Misery
23. Bishops Mill Creek
24. Pinelands Conservation Areas
25. Buttes-Friendship
26. Southwest Branch Rancocas Creek
27. Haynes Creek
28. Pennsauken-Masons
29. South Pennsauken Creek
30. River to Bay
31. Newton Creek
32. Cooper River
33. Big Timber
34. Woodbury Creek
35. Mantua Creek
36. Repaupo Creek
37. Pargey Creek
38. Chestnut Branch
39. Edwards Run
40. Raccoon Creek
41. Oldmans-Reed
42. Still Run (Maurice River)
43. Glassboro Wildlife Management Area
44. Little Ease Run
45. Scotland Run
46. Hospitality Branch
47. Great Egg Harbor River
48. Pump Branch
49. Sleeper Branch

Minor Connecting Greenway



DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Sources: DVRPC, NJDEP, NJ Conservation Foundation, Gloucester County Planning Division, Mercer County Planning Division, Burlington County Department of Resource Conservation, Camden County Division of Open Space and Farmland Preservation

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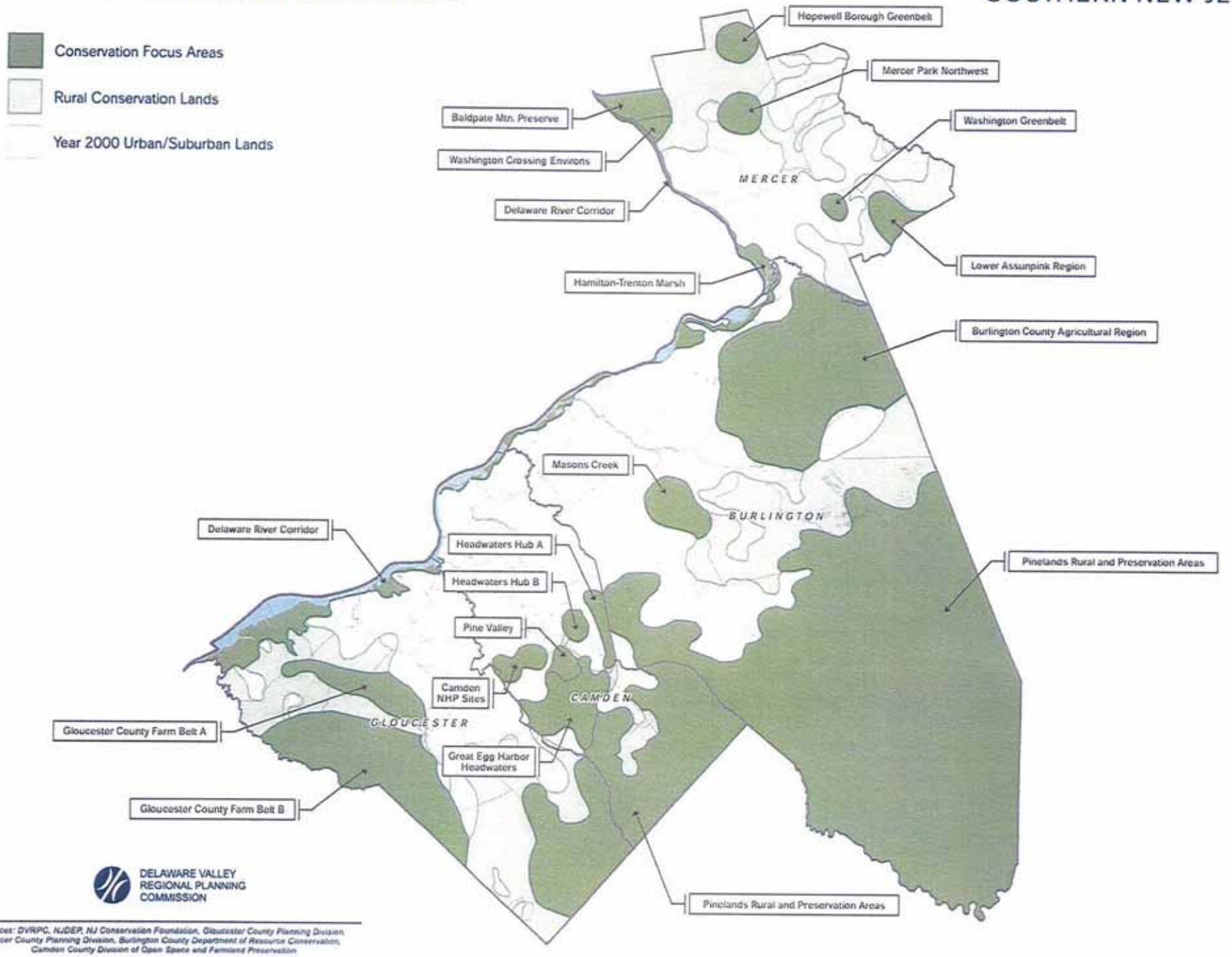
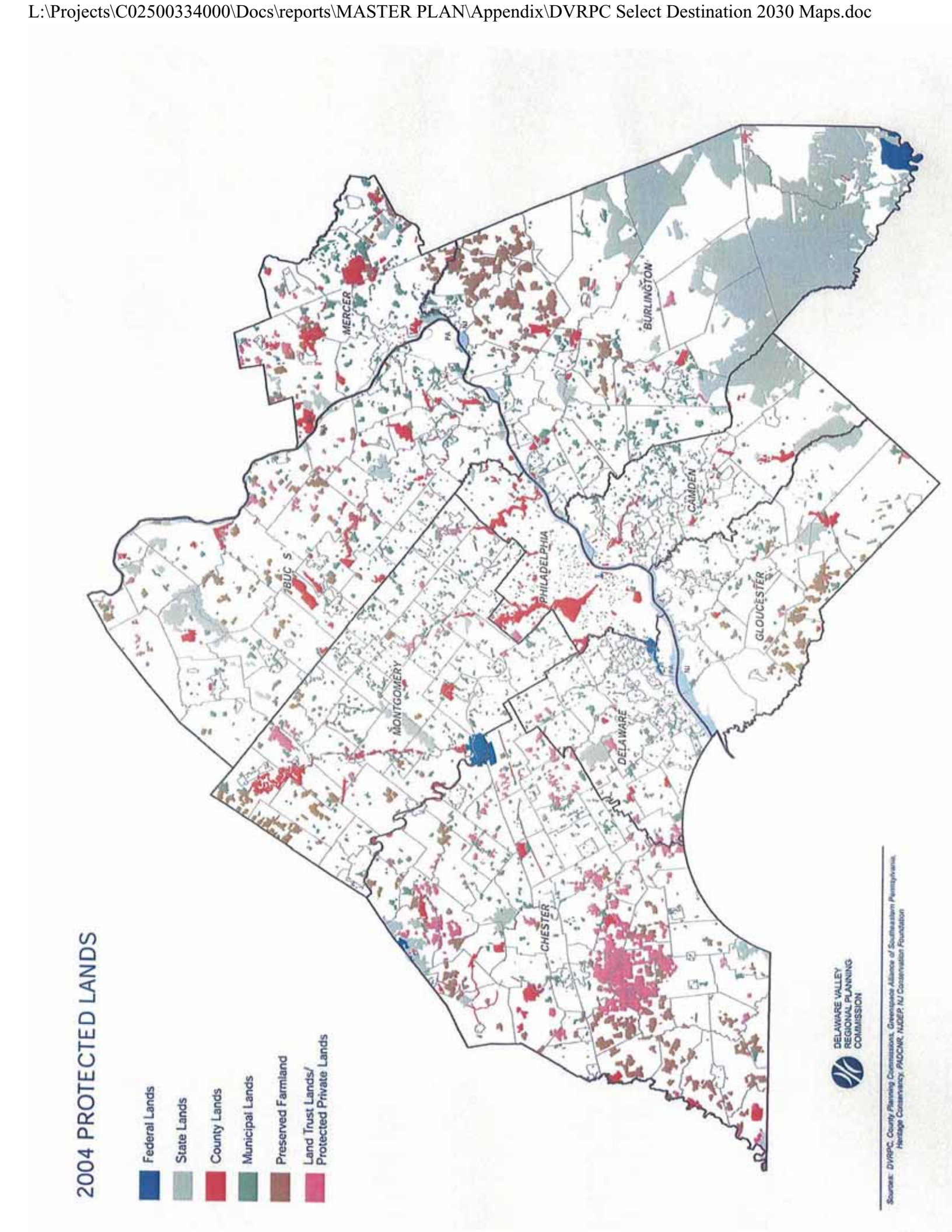
2030 CONSERVATION FOCUS AREAS

SOUTHERN NEW JERSEY



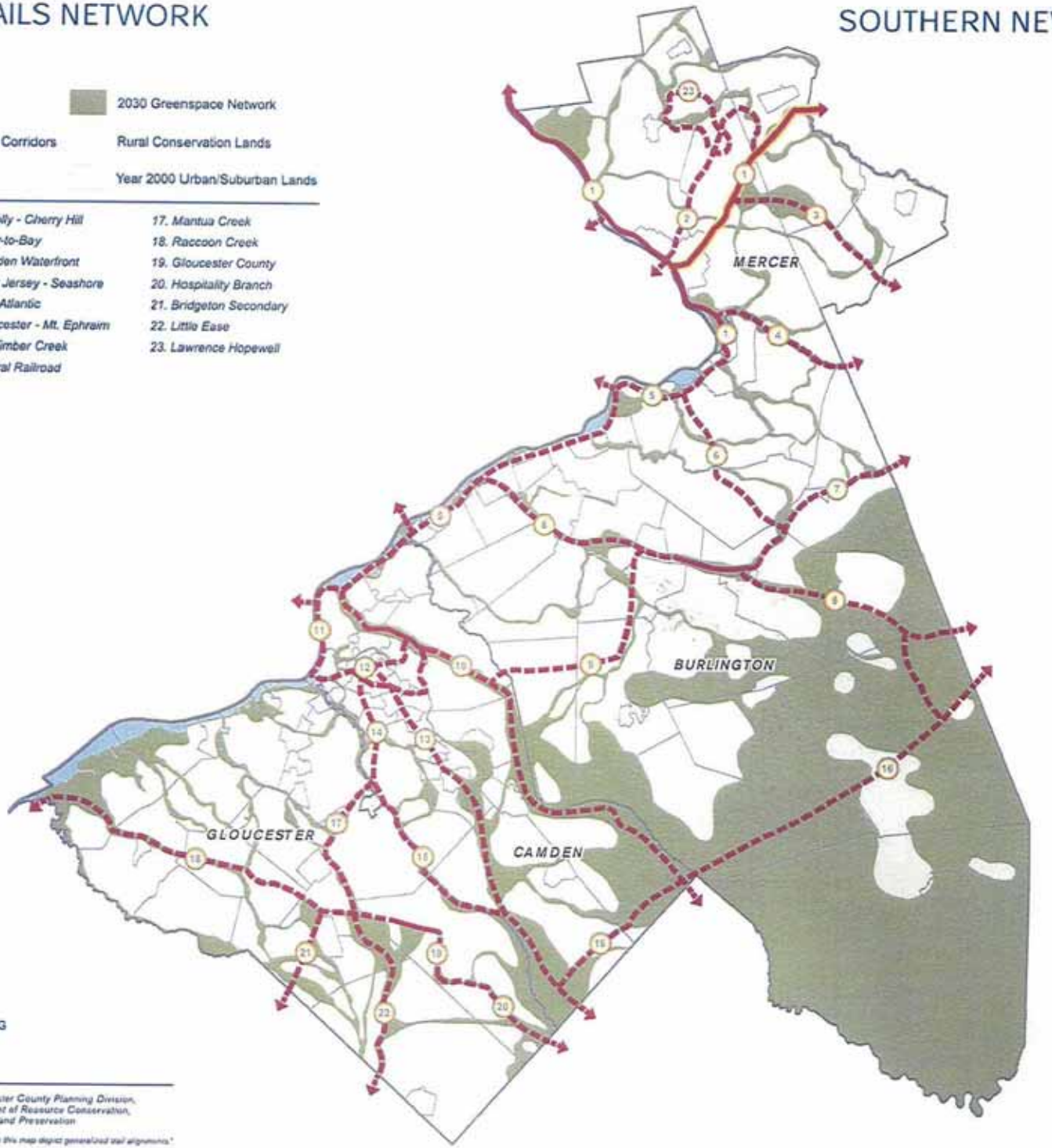
DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Sources: DVRPC, NJDEP, NJ Conservation Foundation, Gloucester County Planning Division, Mercer County Planning Division, Burlington County Department of Resource Conservation, Camden County Division of Open Space and Farmland Preservation


2004 PROTECTED LANDS
Federal Lands
State Lands
County Lands
Municipal Lands
Preserved Farmland
Land Trust Lands/
Protected Private Lands
MERCER
BURLINGTON
BUCKS
PHILADELPHIA
CAMDEN
GLOUCESTER
MONTGOMERY
DELAWARE
CHESTER
DELAWARE VALLEY
REGIONAL PLANNING
COMMISSION
Sources: DVRPC, County Planning Commissions, Greenspace Alliance of Southeastern Pennsylvania,
Heritage Conservancy, PADCNR, NJDEP, NJ Conservation Foundation

2030 REGIONAL TRAILS NETWORK

SOUTHERN NEW JERSEY



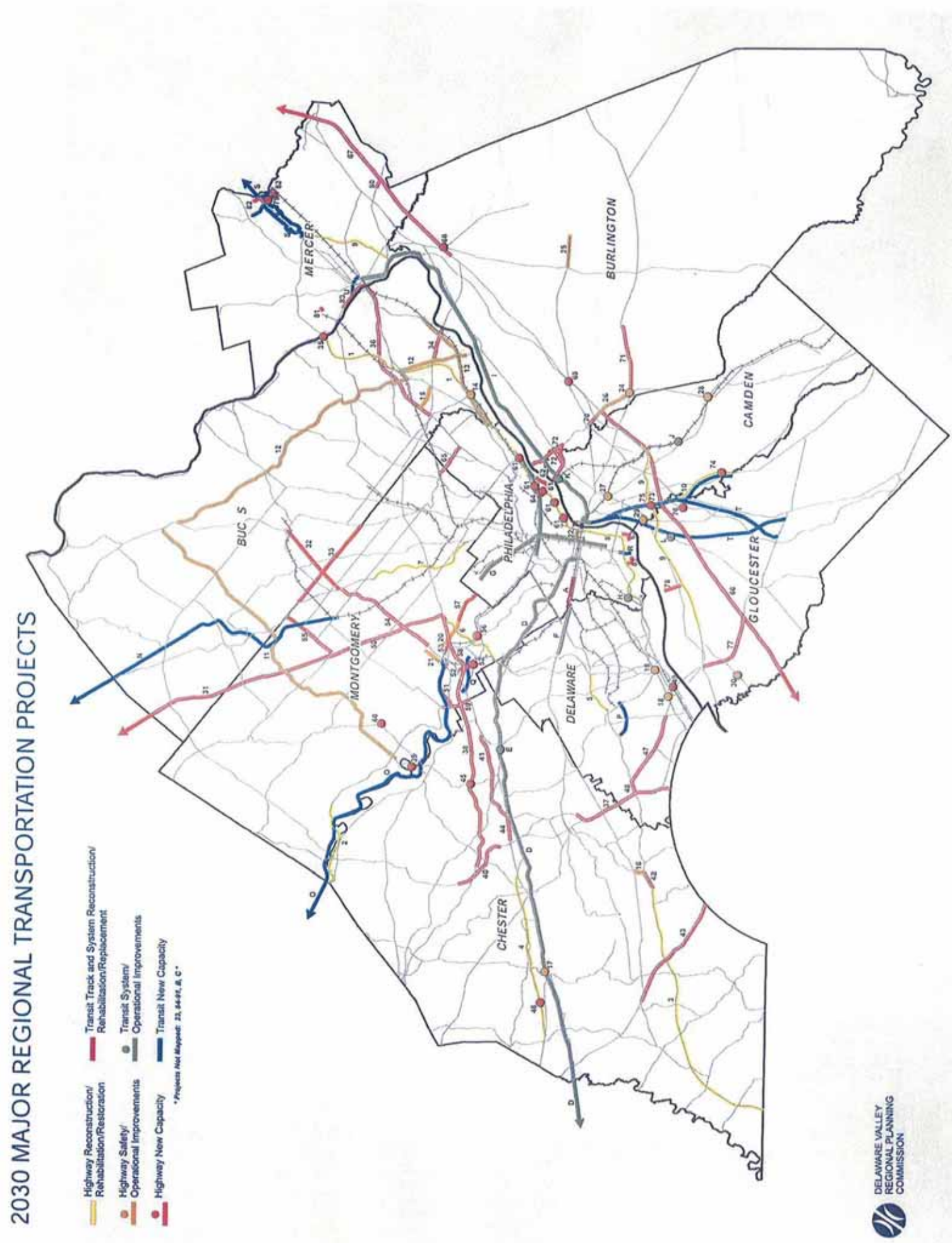
- Existing Trails
- Planned and Proposed Trails and Trail Corridors
- Planned East Coast Greenway Route
- 2030 Greenspace Network
- Rural Conservation Lands
- Year 2000 Urban/Suburban Lands

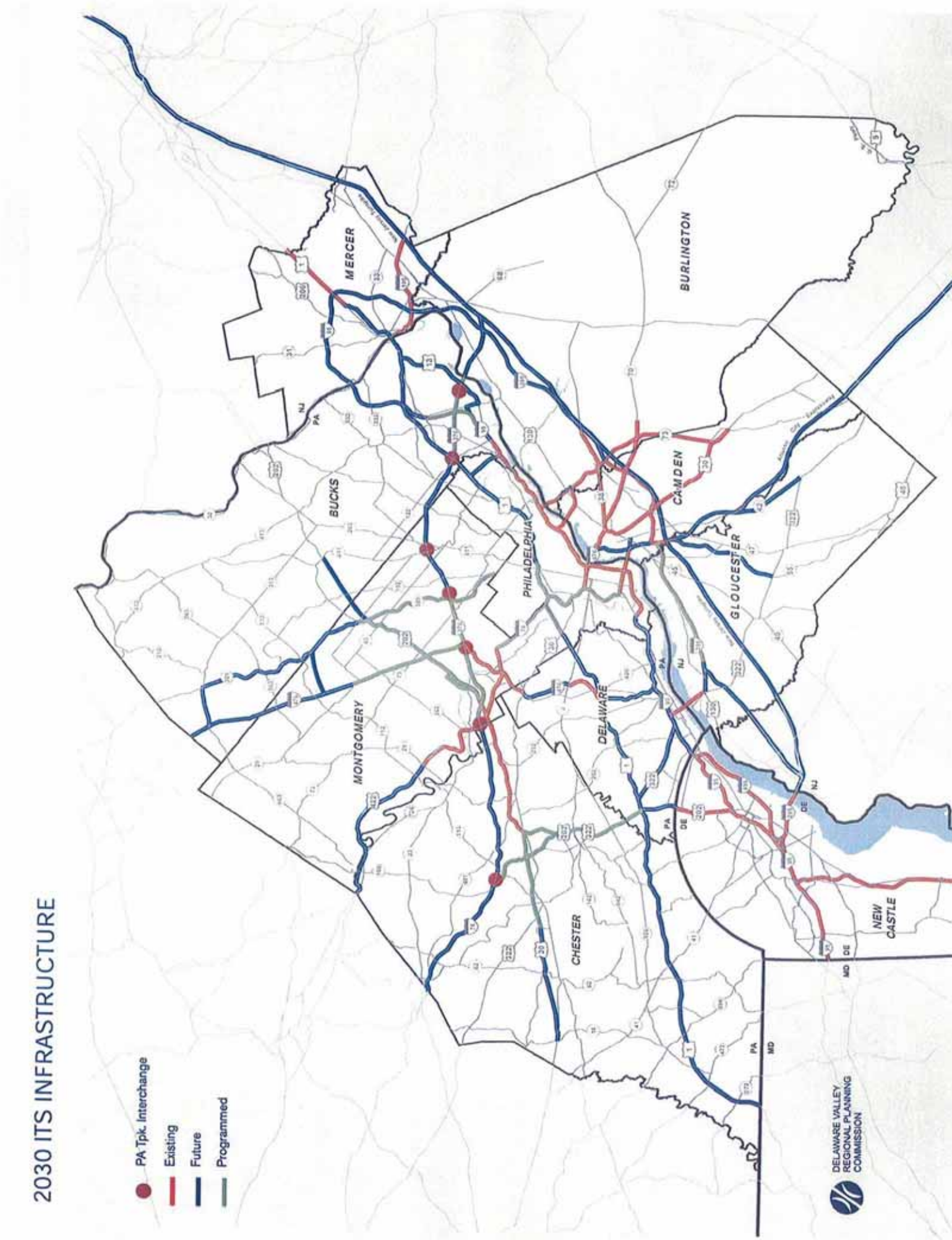
1. Delaware and Raritan Canal
2. Trenton - Princeton
3. Assunpink Creek
4. Crosswicks Creek
5. Delaware River Heritage
6. Kinkora
7. Pemberton
8. Rancocas Creek
9. Mt. Holly - Cherry Hill
10. River-to-Bay
11. Camden Waterfront
12. West Jersey - Seashore
13. East Atlantic
14. Gloucester - Mt. Ephraim
15. Big Timber Creek
16. Central Railroad
17. Mantua Creek
18. Raccoon Creek
19. Gloucester County
20. Hospitality Branch
21. Bridgeton Secondary
22. Little Ease
23. Lawrence Hopewell

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Sources: DVRPC, NJDEP, NJ Conservation Foundation, Gloucester County Planning Division, Mercer County Planning Division, Burlington County Department of Resource Conservation, Camden County Division of Open Space and Farmland Preservation

This map depicts existing, planned, and proposed trails and trail corridors. The lines on this map depict generalized trail alignments.


2030 MAJOR REGIONAL TRANSPORTATION PROJECTS
Highway Reconstruction/ Rehabilitation/Restoration
Highway Safety/ Operational Improvements
Highway New Capacity
Transit Track and System Reconstruction/ Rehabilitation/Replacement
Transit System/ Operational Improvements
Transit New Capacity
* Projects Not Mapped: 23, 64-67, B, C *
BUCKS
MERCER
BURLINGTON
CAMDEN
GLOUCESTER
PHILADELPHIA
MONTGOMERY
DELAWARE
CHESTER
DELAWARE VALLEY REGIONAL PLANNING COMMISSION


2030 ITS INFRASTRUCTURE
PA Tpk. Interchange
Existing
Future
Programmed
MERCER
BURLINGTON
BUCKS
PHILADELPHIA
CAMDEN
GLOUCESTER
MONTGOMERY
DELAWARE
CHESTER
NEW CASTLE
NJ
PA
DE
MD
DELAWARE VALLEY REGIONAL PLANNING COMMISSION

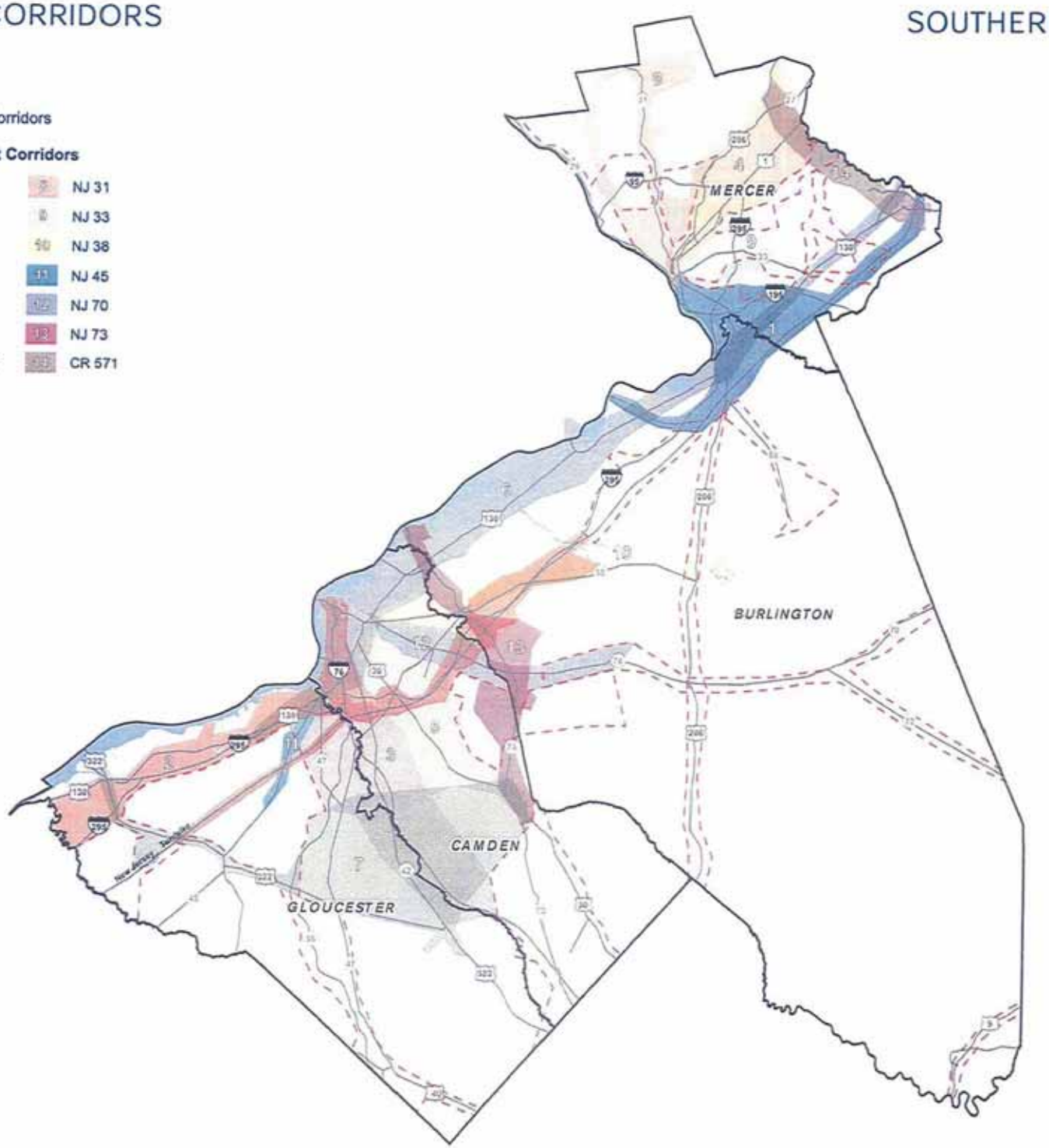
CONGESTED CORRIDORS

SOUTHERN NEW JERSEY

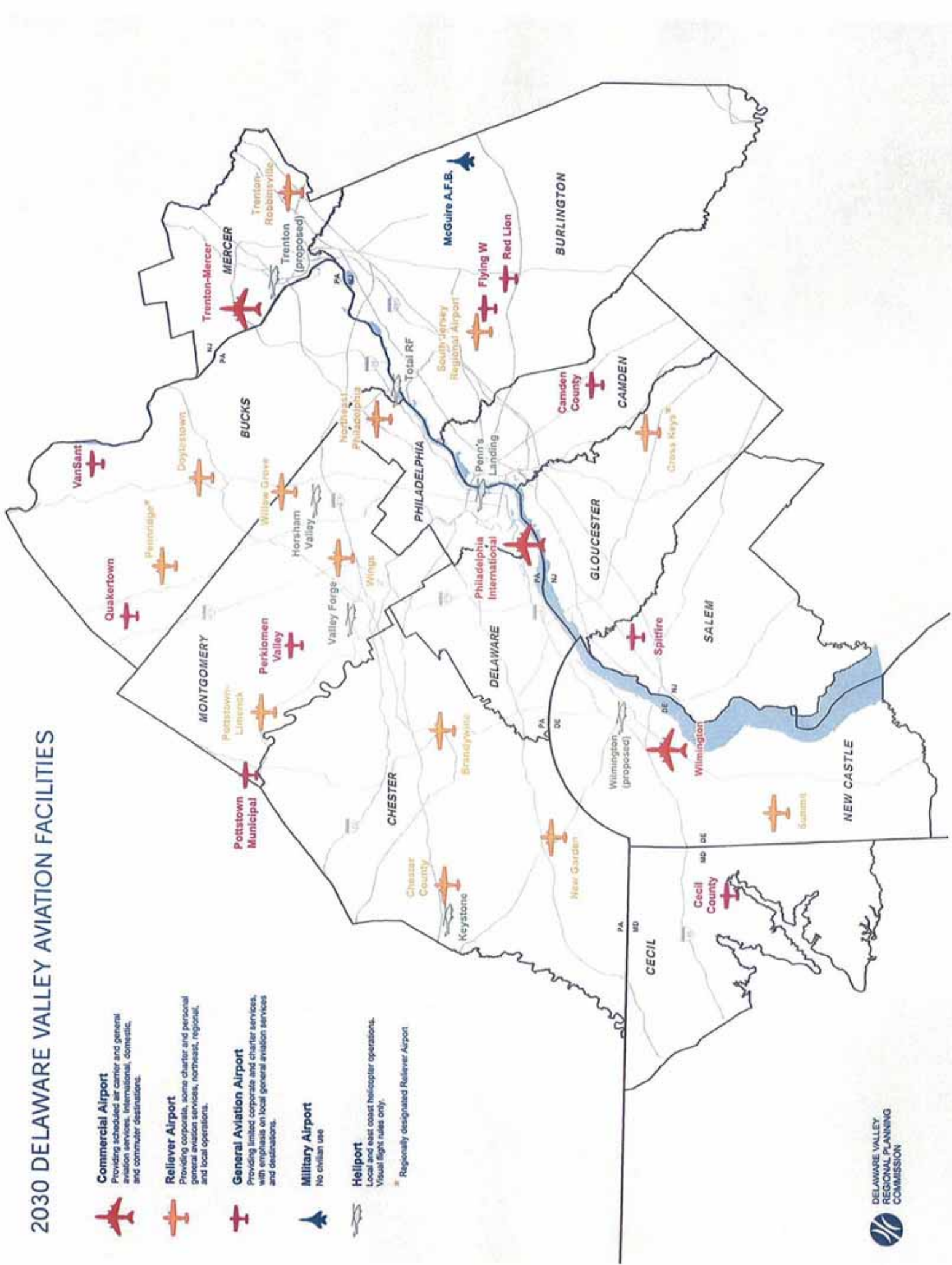
Emerging Corridors

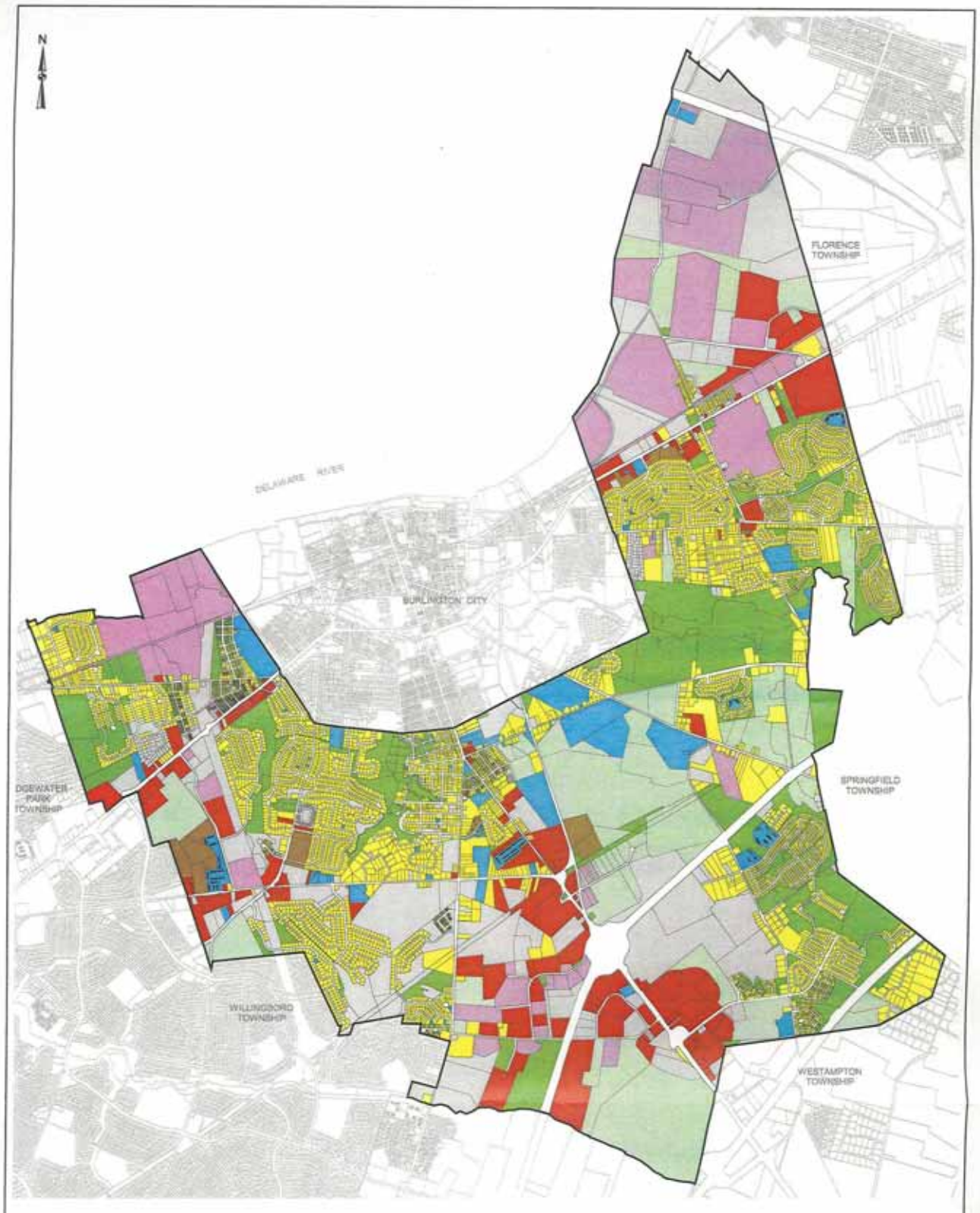
Regionally Significant Corridors

- I-295 & NJ Turnpike (N)
- I-295 & NJ Turnpike (S)
- AC Expressway/NJ 42
- US 1 & US 206
- US 30
- US 130
- US 322 & Cross Keys area
- NJ 31
- NJ 33
- NJ 38
- NJ 45
- NJ 70
- NJ 73
- CR 571



DELAWARE VALLEY REGIONAL PLANNING COMMISSION


2030 DELAWARE VALLEY AVIATION FACILITIES
Commercial Airport
Providing scheduled air carrier and general aviation services. International, domestic, and commuter destinations.
Reliever Airport
Providing corporate, some charter and personal general aviation services, northeast, regional, and local operations.
General Aviation Airport
Providing limited corporate and charter services, with emphasis on local general aviation services and destinations.
Military Airport
No civilian use
Heliport
Local and east coast helicopter operations. Visual flight rules only.
* Regionally designated Reliever Airport
DELAWARE VALLEY REGIONAL PLANNING COMMISSION
MERCER
BUCKS
MONTGOMERY
CHESTER
DELAWARE
PHILADELPHIA
BURLINGTON
CAMDEN
GLOUCESTER
SALEM
CECIL
NEW CASTLE
Trenton-Mercer
Trenton (proposed)
Trenton-Robbinsville
McGuire A.F.B.
Flying W
Red Lion
Total RF
Southjersey Regional Airport
Camden County
Cross Keys*
Northeast Philadelphia
Penn's Landing
Philadelphia International
Spitfire
Wilmington
Wilmington (proposed)
Summit
Cecil County
New Garden
Keystone
Chester County
Brandywine
Pottstown Municipal
Pottstown-Limerick
Perkiomen Valley
Valley Forge
Wings
Horsham Valley
Willow Grove
Doylestown
Pennridge*
Quakertown
VanSant



NOTES:

1. PARCEL MAPPING PREPARED BY BURLINGTON COUNTY DEPARTMENT OF INFORMATION TECHNOLOGY, OCTOBER 2007.
2. THIS MAP WAS DEVELOPED USING BURLINGTON COUNTY GIS DATA'S DATA, BUT THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY THE COUNTY AND IS NOT COUNTY AUTHORIZED.

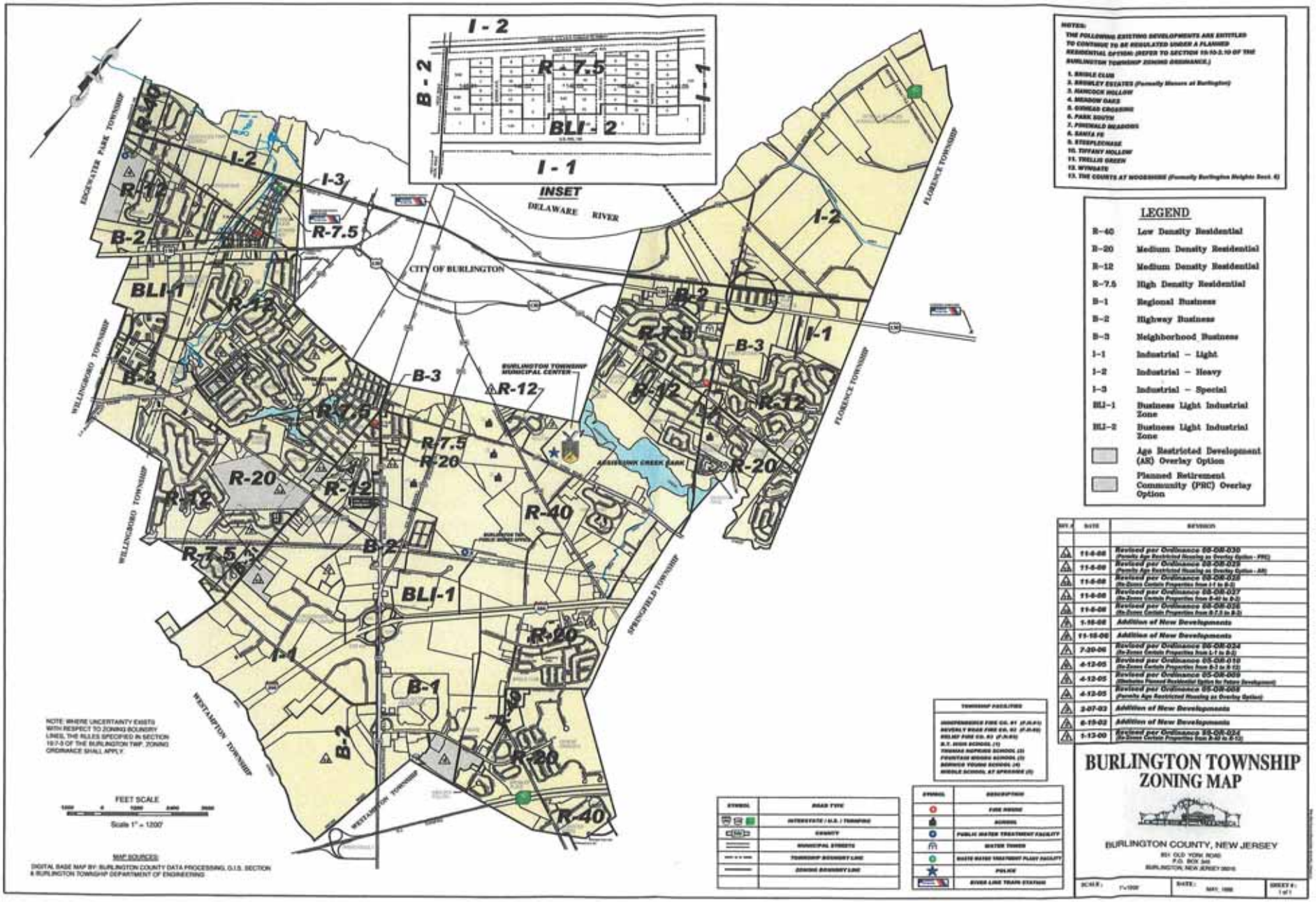
RICHARD A. ALAIMO ASSOCIATES OF ENGINEERS

2008 COMPREHENSIVE MASTER PLAN

LAND USE MAP

BURLINGTON TOWNSHIP

1



NOTES:
THE FOLLOWING EXISTING DEVELOPMENTS ARE ENTITLED TO CONTINUE TO BE REGULATED UNDER A PLANNED RESIDENTIAL OPTION: (REFER TO SECTION 19-10-3.10 OF THE BURLINGTON TOWNSHIP ZONING ORDINANCE.)

1. BRIDLE CLUB
2. BRIDLEY ESTATES (Formerly Manors at Burlington)
3. HANCOCK HOLLOW
4. MEADOW OAKS
5. OSREAD CROSSING
6. PARK SOUTH
7. PINEWALD MEADOWS
8. SANTA FE
9. STEEPLECHASE
10. TIFFANY HOLLOW
11. TRELLIS GREEN
12. WINDGATE
13. THE COURTS AT WOODSHIRE (Formerly Burlington Heights Sect. 6)

LEGEND

R-40	Low Density Residential
R-20	Medium Density Residential
R-12	Medium Density Residential
R-7.5	High Density Residential
B-1	Regional Business
B-2	Highway Business
B-3	Neighborhood Business
I-1	Industrial – Light
I-2	Industrial – Heavy
I-3	Industrial – Special
BLI-1	Business Light Industrial Zone
BLI-2	Business Light Industrial Zone
	Age Restricted Development (AR) Overlay Option
	Planned Retirement Community (PRC) Overlay Option

REV. #	DATE	REVISION
1	11-6-08	Revised per Ordinance 08-08-036 (Permits Age Restricted Housing as Overlay Option - PRC)
2	11-6-08	Revised per Ordinance 08-08-032 (Permits Age Restricted Housing as Overlay Option - AR)
3	11-6-08	Revised per Ordinance 08-08-035 (Re-Zones Certain Properties from I-1 to B-2)
4	11-6-08	Revised per Ordinance 08-08-037 (Re-Zones Certain Properties from B-40 to B-2)
5	11-6-08	Revised per Ordinance 08-08-038 (Re-Zones Certain Properties from R-7.5 to B-2)
6	1-15-08	Addition of New Developments
7	11-15-06	Addition of New Developments
8	7-20-06	Revised per Ordinance 06-06-024 (Re-Zones Certain Properties from I-1 to B-2)
9	4-12-05	Revised per Ordinance 05-05-010 (Re-Zones Certain Properties from B-3 to B-12)
10	4-12-05	Revised per Ordinance 05-05-009 (Obsolesces Planned Residential Option for Future Development)
11	4-12-05	Revised per Ordinance 05-05-008 (Permits Age Restricted Housing as Overlay Option)
12	2-07-03	Addition of New Developments
13	6-19-02	Addition of New Developments
14	1-13-00	Revised per Ordinance 99-06-024 (Re-Zones Certain Properties from B-40 to B-12)

TOWNSHIP FACILITIES
INDEPENDENCE FIRE CO. #1 (F.H.#1)
BEVERLY ROAD FIRE CO. #2 (F.H.#2)
RELIEF FIRE CO. #3 (F.H.#3)
B.T. HIGH SCHOOL (1)
TOWNSEND HOPKINS SCHOOL (2)
FOUNTAIN WOODS SCHOOL (3)
BERWICK YOUNG SCHOOL (4)
MIDDLE SCHOOL AT SPRINGSIDE (5)

SYMBOL	ROAD TYPE
	INTERSTATE / U.S. / TURNPIKE
	COUNTY
	MUNICIPAL STREETS
	TOWNSHIP BOUNDARY LINE
	ZONING BOUNDARY LINE

SYMBOL	DESCRIPTION
	FIRE HOUSE
	SCHOOL
	PUBLIC WATER TREATMENT FACILITY
	WATER TOWER
	WASTE WATER TREATMENT PLANT FACILITY
	POLICE
	RIVER LINE TRAIN STATION

NOTE: WHERE UNCERTAINTY EXISTS WITH RESPECT TO ZONING BOUNDRY LINES, THE RULES SPECIFIED IN SECTION 19-7-3 OF THE BURLINGTON TWP. ZONING ORDINANCE SHALL APPLY.

FEET SCALE

Scale 1" = 1200'

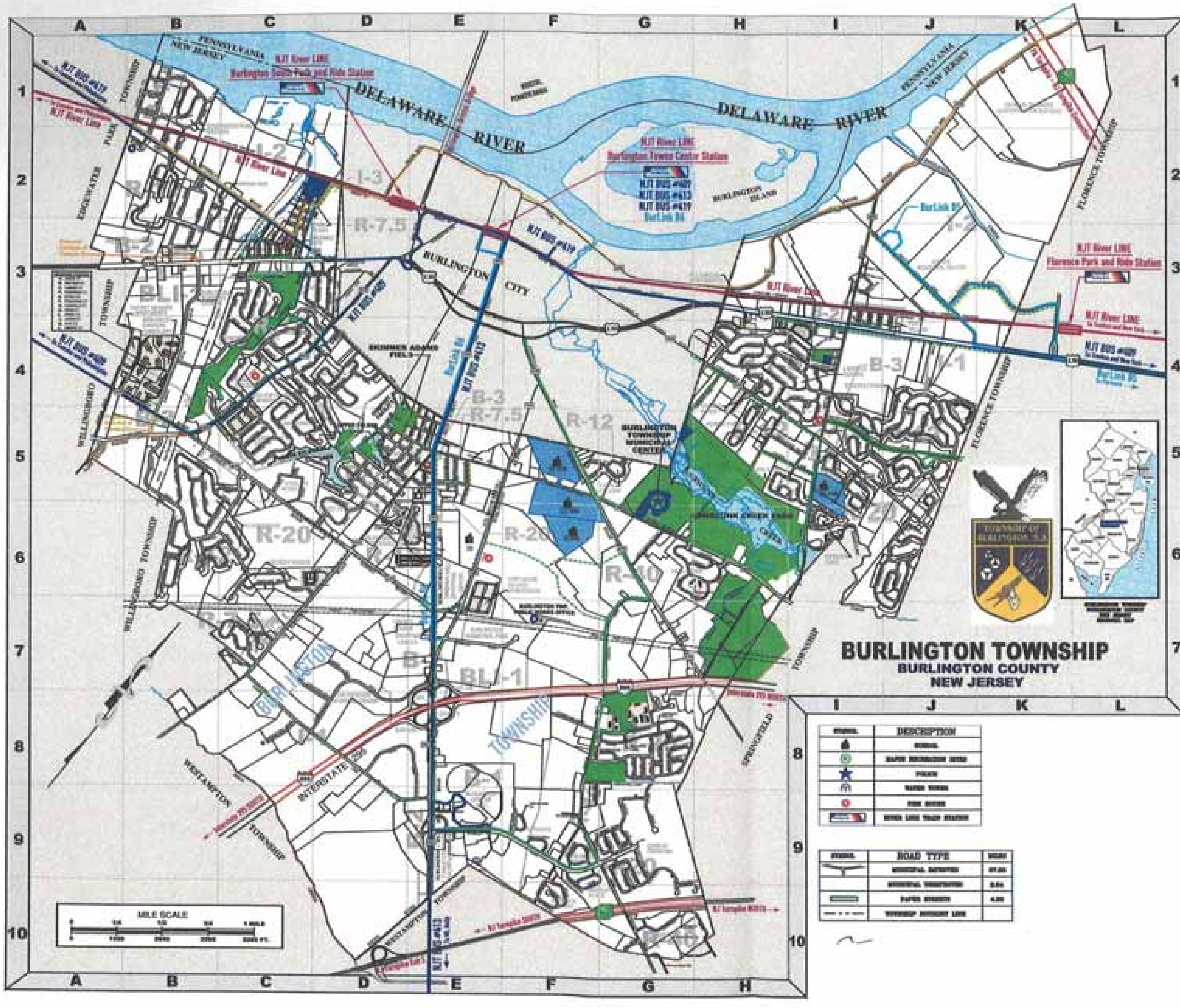
MAP SOURCES:
DIGITAL BASE MAP BY: BURLINGTON COUNTY DATA PROCESSING, G.I.S. SECTION & BURLINGTON TOWNSHIP DEPARTMENT OF ENGINEERING

BURLINGTON TOWNSHIP ZONING MAP

BURLINGTON COUNTY, NEW JERSEY

851 OLD YORK ROAD
P.O. BOX 348
BURLINGTON, NEW JERSEY 08016

SCALE: 1"=1200' | DATE: MAY, 1999 | SHEET #: 1 of 1


DELAWARE RIVER
PENNSYLVANIA
NEW JERSEY
NJT River LINE
Burlington South Park and Ride Station
Burlington Towne Center Station
Florence Park and Ride Station
NJT BUS #409
NJT BUS #413
NJT BUS #419
BurLink B6
BurLink B1
BURLINGTON ISLAND
BURLINGTON CITY
EDGEWATER PARK TOWNSHIP
WILLINGBORO TOWNSHIP
WESTAMPTON TOWNSHIP
SPRINGFIELD TOWNSHIP
FLORENCE TOWNSHIP
BURLINGTON TOWNSHIP
INTERSTATE 295
I-2
I-3
R-7.5
R-12
R-20
R-40
B-3
BL-1
BURLINGTON TOWNSHIP
BURLINGTON COUNTY
NEW JERSEY
MILE SCALE

SYMBOL	DESCRIPTION

SYMBOL	ROAD TYPE	MILES

BURLINGTON TOWNSHIP STREET LIST

TOWNSHIP FACILITIES

COMMUNITIES FACILITIES PLAN

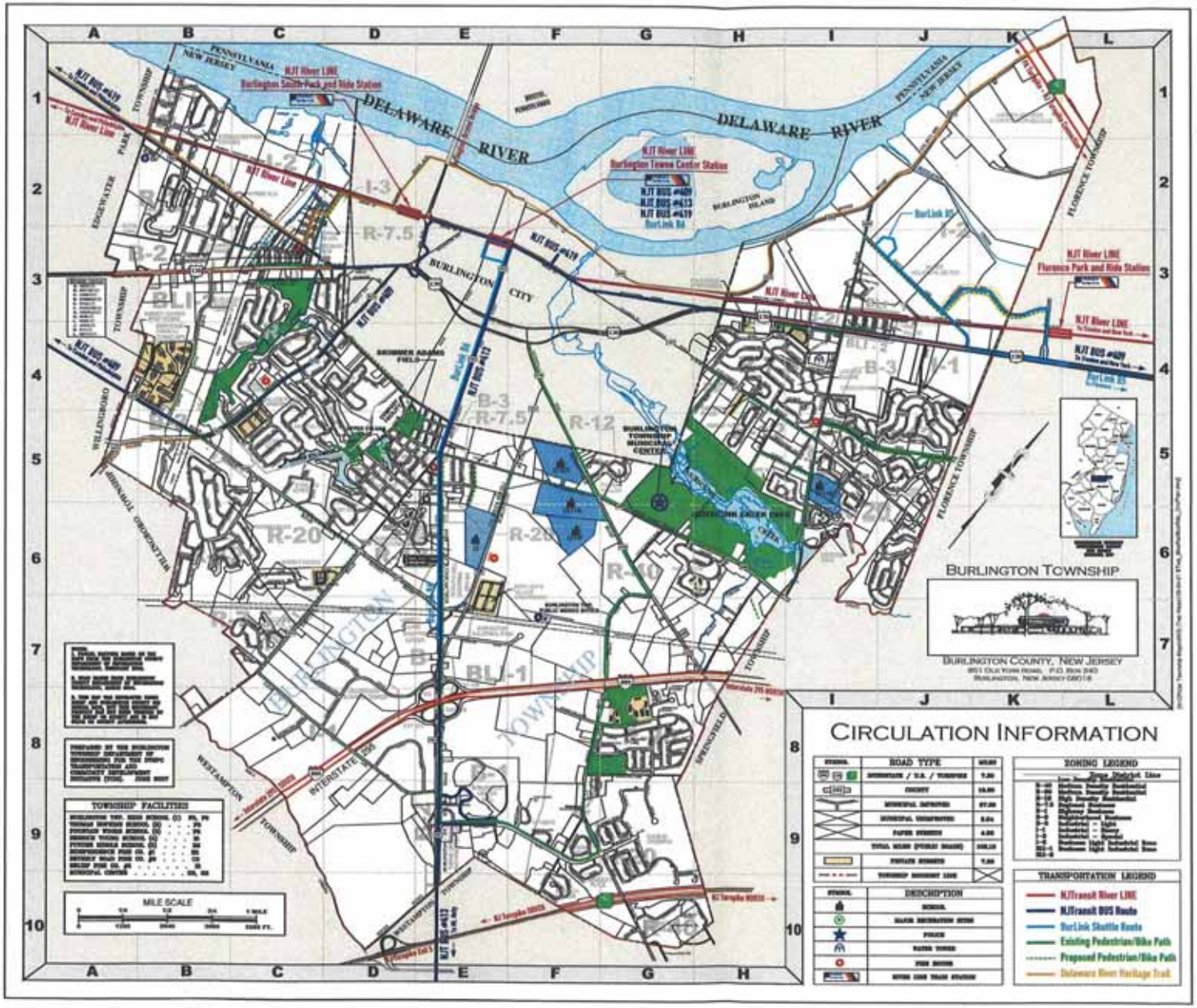
REV. DATE

BURLINGTON TOWNSHIP

BURLINGTON COUNTY, NEW JERSEY

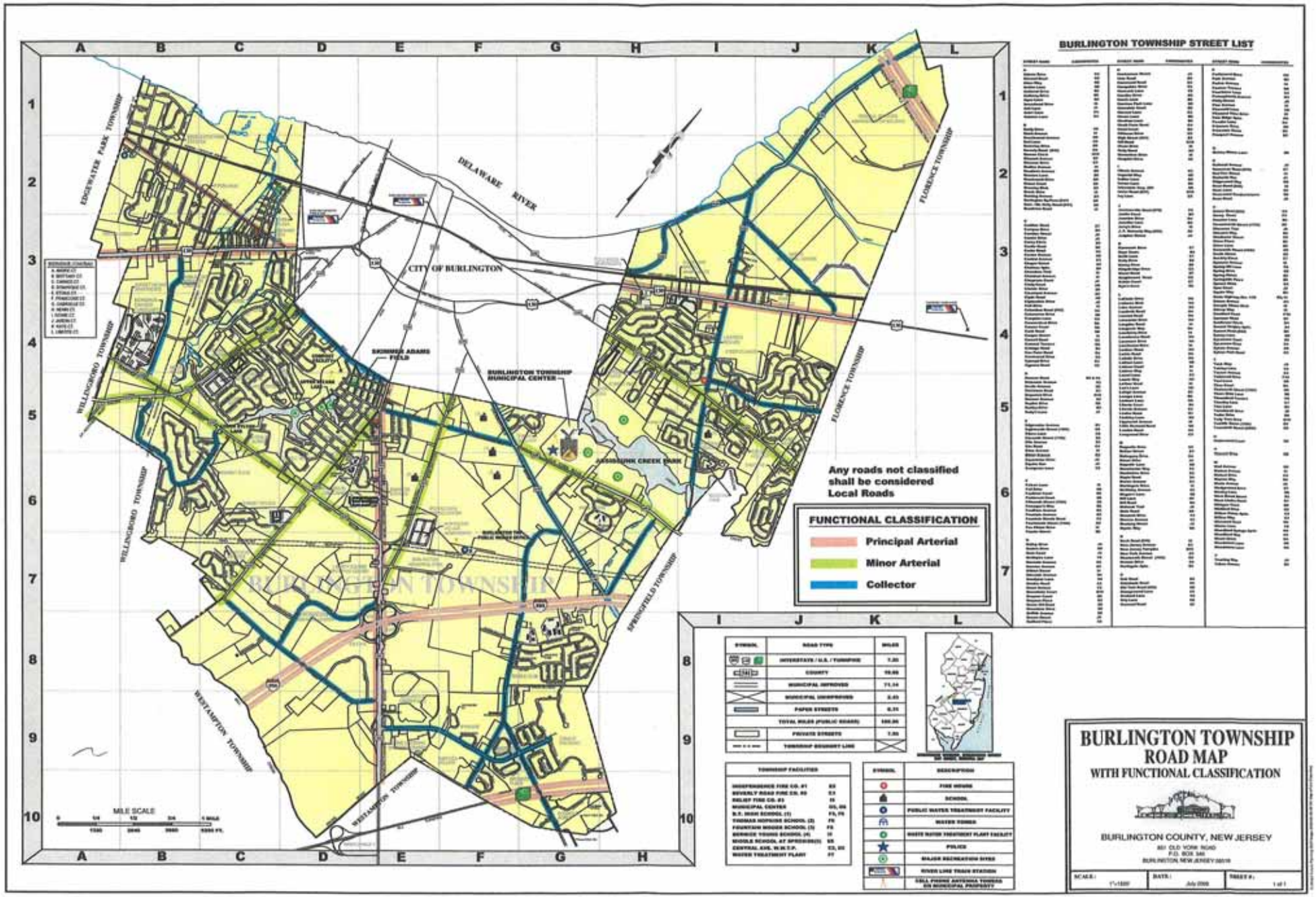
851 OLD YORK ROAD
P.O. BOX 340
BURLINGTON, NEW JERSEY 08016

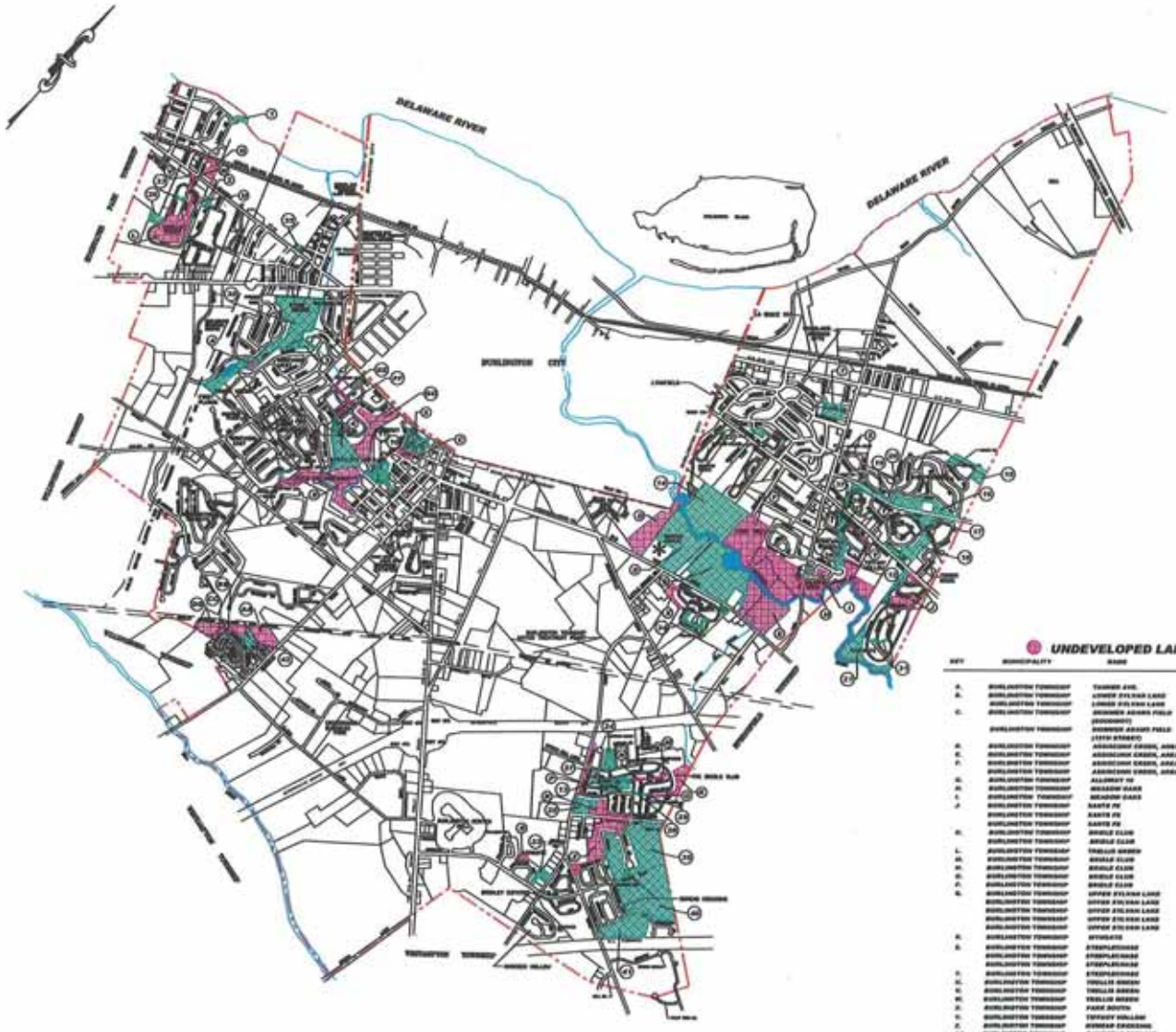
SCALE:	DATE: JULY, 2008	SHEET #: 1 of 1



BURLINGTON TOWNSHIP
STREET LIST

BURLINGTON TOWNSHIP
CIRCULATION PLAN


BURLINGTON TOWNSHIP STREET LIST
DELAWARE RIVER
EDGEWATER PARK TOWNSHIP
FLORENCE TOWNSHIP
CITY OF BURLINGTON
WILLINGBORO TOWNSHIP
SKIRMISH ADAMS FIELD
BURLINGTON TOWNSHIP MUNICIPAL CENTER
ASSISUNK CREEK PARK
SPRINGFIELD TOWNSHIP
WESTAMPTON TOWNSHIP
Any roads not classified shall be considered Local Roads
FUNCTIONAL CLASSIFICATION
Principal Arterial
Minor Arterial
Collector
MILE SCALE
BURLINGTON TOWNSHIP
ROAD MAP
WITH FUNCTIONAL CLASSIFICATION
BURLINGTON COUNTY, NEW JERSEY
851 OLD YORK ROAD
P.O. BOX 346
BURLINGTON, NEW JERSEY 08016
SCALE: 1"=1500'
DATE: July 2009
SHEET #: 1 of 1



DEVELOPED & PARTIALLY DEVELOPED LANDS

KEY	MUNICIPALITY	NAME	BLOCK	LOT	ACRES
A.	BURLINGTON TOWNSHIP	LINDEN ROAD	84.07	1	0.92
B.	BURLINGTON TOWNSHIP	BISHOP PLACE	95.08	4	0.92
C.	BURLINGTON TOWNSHIP	ALSTON EDGE FIELD	101.14	26	3.24
D.	BURLINGTON TOWNSHIP	MILLOUT DRIVE	104	29	10.40
E.	BURLINGTON TOWNSHIP	LONGWOOD DRIVE	104.21	7	0.40
F.	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	68	10	0.28
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	69	1	0.28
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	70	1	0.28
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	71	1	0.28
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	76	11	0.28
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	77	1	0.41
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	78	1	0.69
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD	80	23	0.11
J.	BURLINGTON TOWNSHIP	LANDING SVC. FIELD	143.01	1.02	0.92
K.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA I	139	PID 0	19.00
L.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA II	140	PID 11	22.00
M.	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80	1	0.10
N.	BURLINGTON TOWNSHIP	STILVAN LANE REC. SITE	47	1	0.64
	BURLINGTON TOWNSHIP	STILVAN LANE REC. SITE	56	1	0.65
	BURLINGTON TOWNSHIP	STILVAN LANE REC. SITE	56	1	0.62
	BURLINGTON TOWNSHIP	STILVAN LANE REC. SITE	48	1	0.64
O.	BURLINGTON TOWNSHIP	MEADOW OAKS	142.01	22	1.62
P.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.06	24	0.89
	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.04	24	1.56
Q.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN PARK (AREA III)	144	PID 12	74.01
R.	BURLINGTON TOWNSHIP	STEEPLECHASE	147.14	14	0.80
S.	BURLINGTON TOWNSHIP	STEEPLECHASE	147.07	PID 23	0.26
T.	BURLINGTON TOWNSHIP	STEEPLECHASE	143.07	PID 23	0.30
U.	BURLINGTON TOWNSHIP	STEEPLECHASE	143.02	37	0.40
V.	BURLINGTON TOWNSHIP	STEEPLECHASE	147.05	11	1.26
W.	BURLINGTON TOWNSHIP	STEEPLECHASE	147.04	PID 45	0.11
X.	BURLINGTON TOWNSHIP	SAINTE FE	142.12	PID 41	10.00
Y.	BURLINGTON TOWNSHIP	OXFORD PLACE	142.20	PID 19.01	0.07
Z.	BURLINGTON TOWNSHIP	WYOMOTE	137	1	0.20
AA.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131	PID 1.01	2.62
BB.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.05	19	0.80
CC.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.13	6	0.28
DD.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.03	4	0.27
EE.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.11	17	0.23
FF.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.12	17	0.23
GG.	BURLINGTON TOWNSHIP	STONEBRIDGE	101.14	24.04	48.10
HH.	BURLINGTON TOWNSHIP	SAINTE FE	142	PID 1.04	0.92
	BURLINGTON TOWNSHIP	SAINTE FE	142.13	6	0.10
	BURLINGTON TOWNSHIP	SAINTE FE	142.14	21	0.10
II.	BURLINGTON TOWNSHIP	STEEPLECHASE	143.03	39	0.23
JJ.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.11	10	0.27
KK.	BURLINGTON TOWNSHIP	PARK SOUTH	104.05	1.01	0.04
LL.	BURLINGTON TOWNSHIP	CENTRAL AVE. TOT LOT	93	PID 15	0.01
MM.	BURLINGTON TOWNSHIP	TIFFANY MEADOW	142	41	2.02
NN.	BURLINGTON TOWNSHIP	FAIRDALE MEADOWS	142.07	10.01	1.62
OO.	BURLINGTON TOWNSHIP	FAIRDALE MEADOWS	142.07	12	0.76
PP.	BURLINGTON TOWNSHIP	EARHAM CROSSING	106.10	6	15.00
QQ.	BURLINGTON TOWNSHIP	EARHAM CROSSING	106.13	1	35.01
RR.	BURLINGTON TOWNSHIP	EARHAM CROSSING	106.11	10	13.00
SS.	BURLINGTON TOWNSHIP	RANCOCAS ESTATES	103.07	19	3.77
TT.	BURLINGTON TOWNSHIP	OLD MILL RUN	104.01	11	0.01

UNDEVELOPED LANDS

KEY	MUNICIPALITY	NAME	BLOCK	LOT	ACRES
A.	BURLINGTON TOWNSHIP	TANNER AVE.	104.14	31	2.00
B.	BURLINGTON TOWNSHIP	LOWER SYLVAN LANE	39.07	1	17.10
	BURLINGTON TOWNSHIP	LOWER SYLVAN LANE	39	1	3.20
C.	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD (ROADWAY)	83	1	1.09
	BURLINGTON TOWNSHIP	BROWNER ADAMS FIELD (15TH STREET)	83	8	0.10
D.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA I	139	PID 0	49.00
E.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA III	144	PID 11	20.00
F.	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA IV	140	3.02	0.11
	BURLINGTON TOWNSHIP	ASSOCIATION GREEN, AREA IV	140	34.07	0.10
G.	BURLINGTON TOWNSHIP	ALLAWAY RD	80.01	14	3.92
H.	BURLINGTON TOWNSHIP	MEADOW OAKS	142.01	32	19.07
I.	BURLINGTON TOWNSHIP	MEADOW OAKS	142.02	12	4.20
J.	BURLINGTON TOWNSHIP	SAINTE FE	142.10	22	0.40
	BURLINGTON TOWNSHIP	SAINTE FE	142.11	8	0.32
	BURLINGTON TOWNSHIP	SAINTE FE	142.05	45	1.07
K.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.06	23	0.01
	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.10	PID 53	1.71
L.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.13	PID 57	7.00
M.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.17	10	0.02
N.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.11	9	0.31
O.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.10	10	0.02
P.	BURLINGTON TOWNSHIP	BRIDLE CLUB	131.02	10	0.20
Q.	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80	2	0.20
	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80	10	0.01
	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80	11	0.11
	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80	12	0.11
	BURLINGTON TOWNSHIP	UPPER SYLVAN LANE	80.01	22	0.10
R.	BURLINGTON TOWNSHIP	HYDRATE	137	1	1.10
S.	BURLINGTON TOWNSHIP	STEEPLECHASE	147.03	47	0.07
	BURLINGTON TOWNSHIP	STEEPLECHASE	147.03	48	0.07
	BURLINGTON TOWNSHIP	STEEPLECHASE	147.03	49	0.13
T.	BURLINGTON TOWNSHIP	STEEPLECHASE	143.06	31	0.12
U.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.17	7	0.01
V.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.16	1	0.01
W.	BURLINGTON TOWNSHIP	TRELLIS GREEN	99.01	1	0.04
X.	BURLINGTON TOWNSHIP	PARK SOUTH	104.05	56	1.34
Y.	BURLINGTON TOWNSHIP	TIFFANY HOLLOW	142	15	0.00
Z.	BURLINGTON TOWNSHIP	EARHAM CROSSING	106.06	34	15.11
AA.	BURLINGTON TOWNSHIP	RANCOCAS ESTATES	103.17	2	18.30
BB.	BURLINGTON TOWNSHIP	RANCOCAS ESTATES	103.17	14	0.17
CC.	BURLINGTON TOWNSHIP	RANCOCAS ESTATES	103.21	22	1.01
DD.	BURLINGTON TOWNSHIP	RANCOCAS ESTATES	103.21	1	0.01
EE.	BURLINGTON TOWNSHIP	OLD MILL RUN	104.06	12	1.01
FF.	BURLINGTON TOWNSHIP	OLD MILL RUN	104.01	9	0.01
GG.	BURLINGTON TOWNSHIP	OLD MILL RUN	104.01	26	10.04

1-16-08	Addition of New Developments
6-03-05	Addition of New Developments
3-07-03	Addition of New Developments
6-19-02	Addition of New Developments

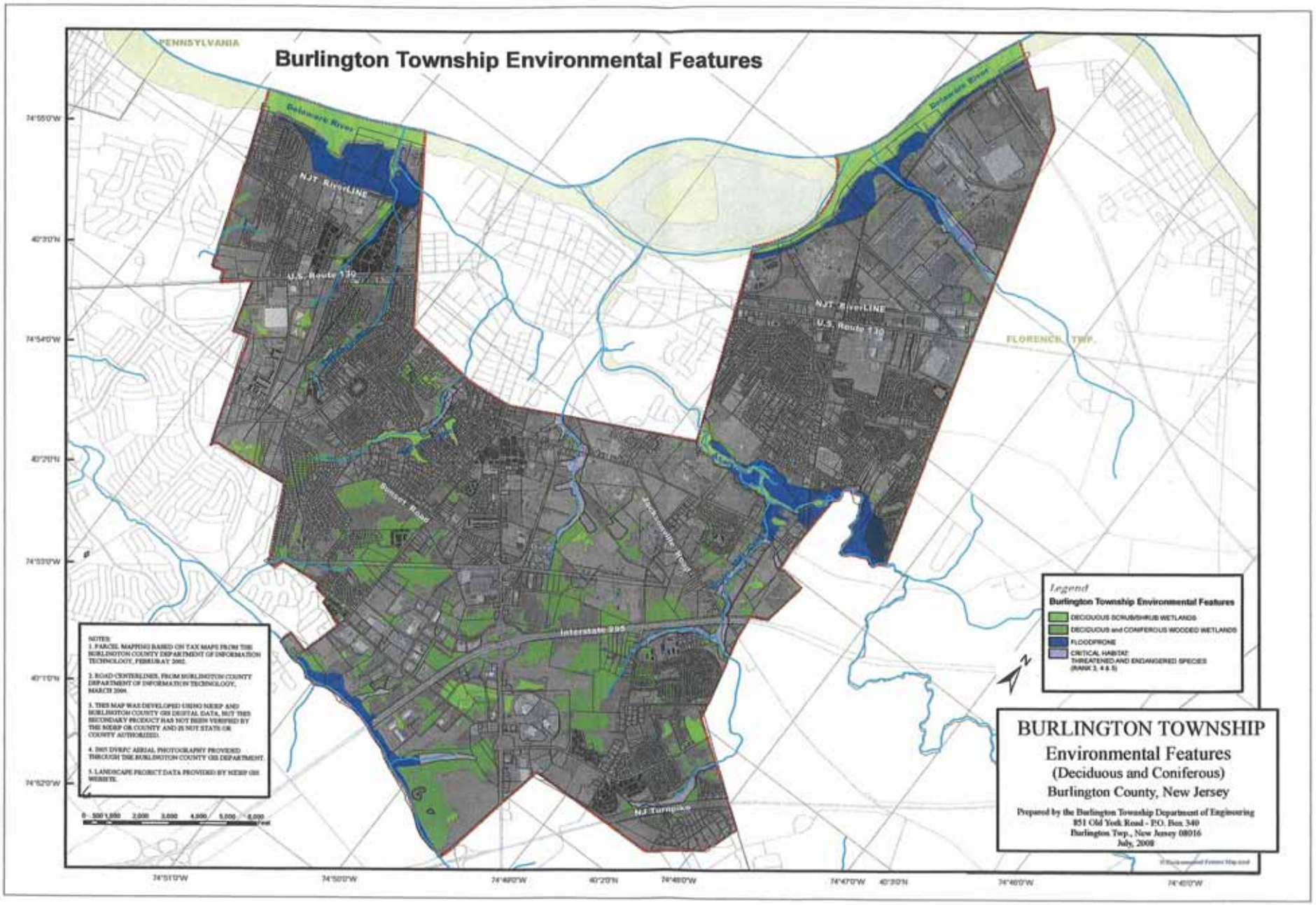
BURLINGTON TOWNSHIP RECREATION AND OPEN SPACE INVENTORY PLAN

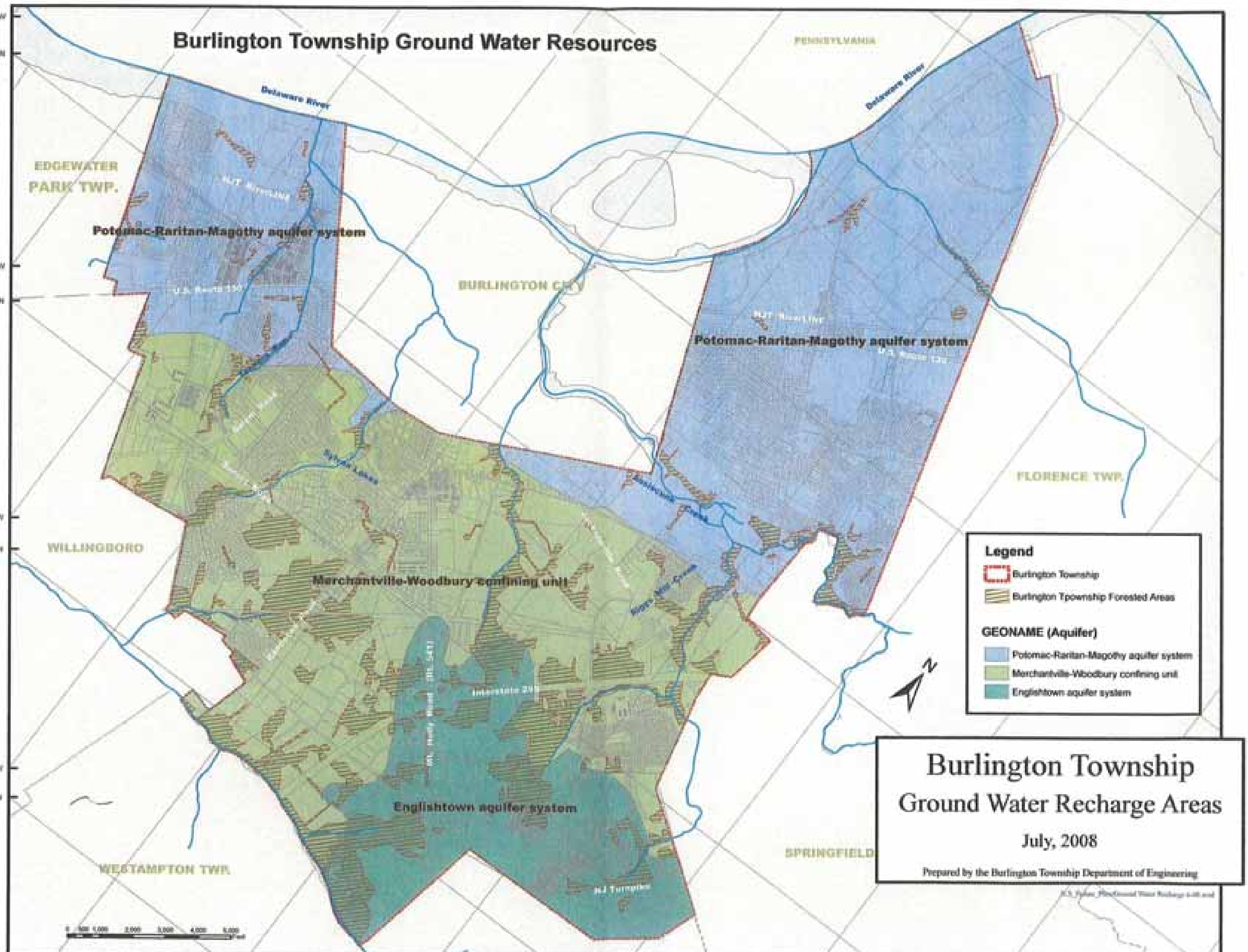
BURLINGTON COUNTY NEW JERSEY

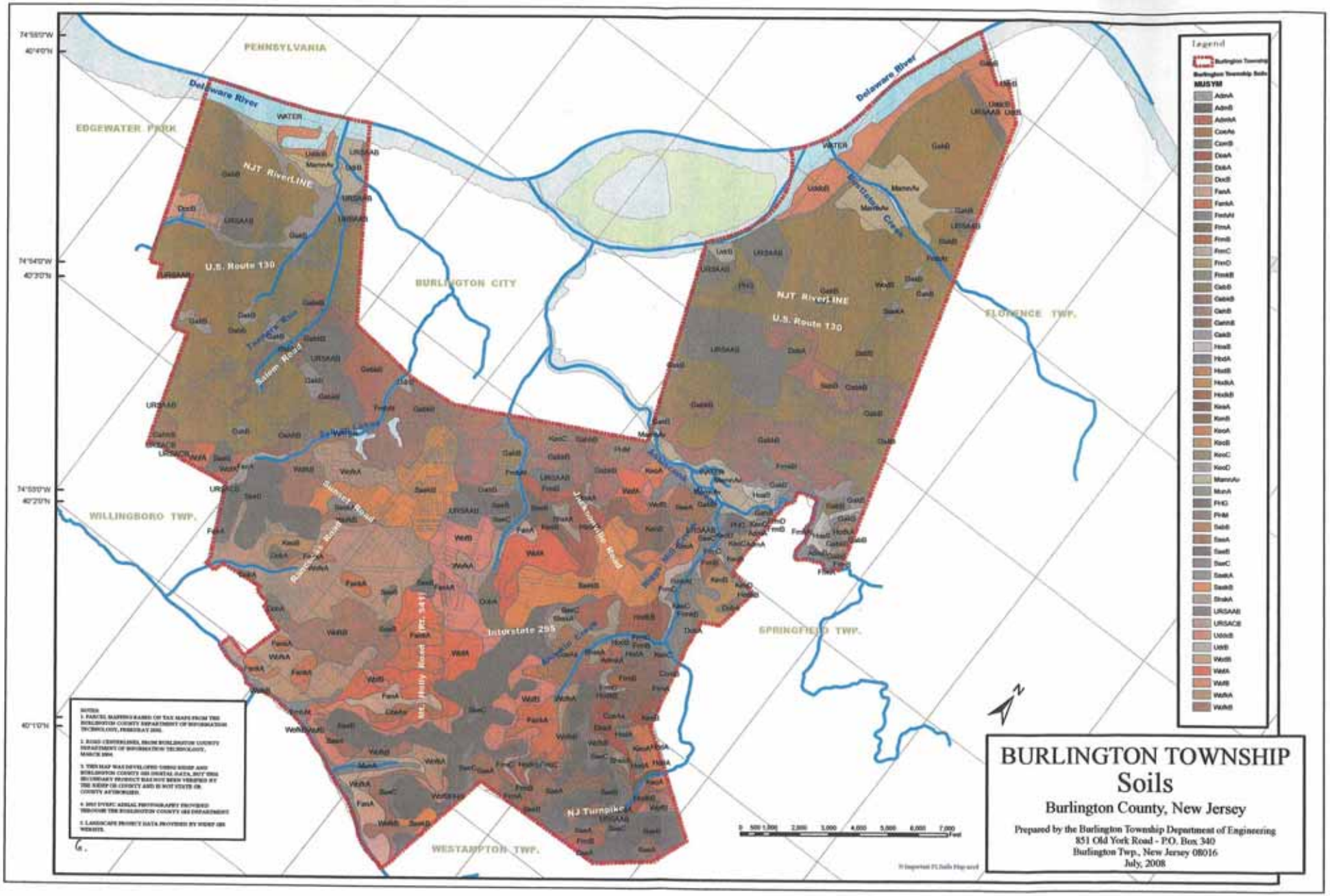
Burlington Township
Department of Engineering
851 OLD YORK ROAD
P.O. BOX 96
BURLINGTON TWP. NEW JERSEY 08016

SCALE: 1"=1500' DATE: MAY, 1999 SHEET #: 1 of 1

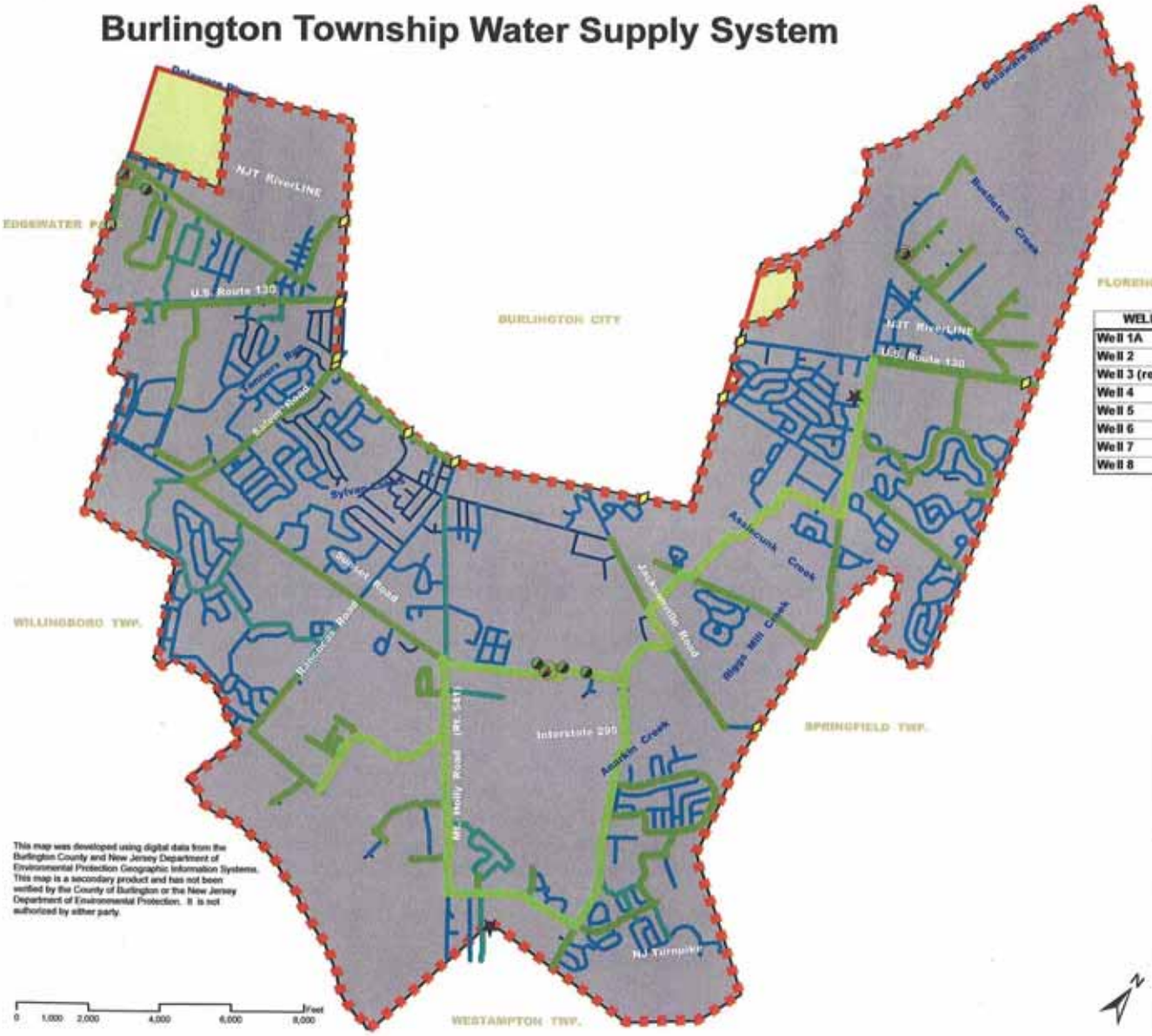
MAP SOURCES:
DIGITIZED BASE MAP BY: F. X. BROWNE ASSOCIATES, INC., LANSDALE, PA.
& BURLINGTON TOWNSHIP DEPARTMENT OF ENGINEERING


Burlington Township Environmental Features
PENNSYLVANIA
Delaware River
NJT RiverLINE
U.S. Route 130
Sunset Road
Interstate 295
NJ Turnpike
FLORENCE TWP.
74°55'0"W
40°3'0"N
74°54'0"W
40°2'0"N
74°53'0"W
40°1'0"N
74°52'0"W
74°51'0"W
74°50'0"W
74°49'0"W
40°2'0"N
74°48'0"W
74°47'0"W
40°3'0"N
74°46'0"W
74°45'0"W
NOTES:
1. PARCEL MAPPING BASED ON TAX MAPS FROM THE BURLINGTON COUNTY DEPARTMENT OF INFORMATION TECHNOLOGY, FEBRUARY 2005.
2. ROAD CENTERLINES, FROM BURLINGTON COUNTY DEPARTMENT OF INFORMATION TECHNOLOGY, MARCH 2004
3. THIS MAP WAS DEVELOPED USING NJDEP AND BURLINGTON COUNTY GIS DIGITAL DATA, BUT THIS SECONDARY PRODUCT HAS NOT BEEN VERIFIED BY THE NJDEP OR COUNTY AND IS NOT STATE OR COUNTY AUTHORIZED.
4. 2005 DVRPC AERIAL PHOTOGRAPHY PROVIDED THROUGH THE BURLINGTON COUNTY GIS DEPARTMENT.
5. LANDSCAPE PROJECT DATA PROVIDED BY NJDEP GIS WEBSITE.
0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet
Legend
Burlington Township Environmental Features
DECIDUOUS SCRUB/SHRUB WETLANDS
DECIDUOUS and CONIFEROUS WOODED WETLANDS
FLOODPRONE
CRITICAL HABITAT THREATENED AND ENDANGERED SPECIES (RANK 3, 4 & 5)
BURLINGTON TOWNSHIP
Environmental Features
(Deciduous and Coniferous)
Burlington County, New Jersey
Prepared by the Burlington Township Department of Engineering
851 Old York Road - P.O. Box 340
Burlington Twp., New Jersey 08016
July, 2008


Burlington Township Ground Water Resources
PENNSYLVANIA
Delaware River
Delaware River
EDGEWATER
PARK TWP.
NJT RiverLine
Potomac-Raritan-Magothy aquifer system
U.S. Route 130
BURLINGTON CITY
NJT RiverLine
Potomac-Raritan-Magothy aquifer system
U.S. Route 130
Sylvan Lakes
FLORENCE TWP.
WILLINGBORO
Merchantville-Woodbury confining unit
Interstate 295
Englishtown aquifer system
NJ Turnpike
WESTAMPTON TWP.
SPRINGFIELD
74°55'0"W
40°4'0"N
74°54'0"W
40°3'0"N
74°53'0"W
40°2'0"N
74°52'0"W
40°1'0"N
Legend
Burlington Township
Burlington Tpownship Forested Areas
GEONAME (Aquifer)
Potomac-Raritan-Magothy aquifer system
Merchantville-Woodbury confining unit
Englishtown aquifer system
N
0 500 1,000 2,000 3,000 4,000 5,000
Burlington Township
Ground Water Recharge Areas
July, 2008
Prepared by the Burlington Township Department of Engineering


PENNSYLVANIA
Delaware River
EDGEWATER PARK
BURLINGTON CITY
FLORENCE TWP.
WILLINGBORO TWP.
SPRINGFIELD TWP.
WESTAMPTON TWP.
NJT RiverLINE
U.S. Route 130
Interstate 295
NJ Turnpike
Legend
BURLINGTON TOWNSHIP
Soils
Burlington County, New Jersey
Prepared by the Burlington Township Department of Engineering
851 Old York Road - P.O. Box 340
Burlington Twp., New Jersey 08016
July, 2008

Burlington Township Water Supply System



Intrcon_to	StreetAddr	Pipe_Size
Florence Twp	US Route 130	12
Burlington City	US Route 130	8
Burlington City	Co. 543 - Columbus	8
Burlington City	Hale Road	8
Burlington City	Wood St. & Mill Rd.	6

WELLNAME	WELLADD	LAT	LON	FDEPTH
Well 1A	Oxmead Rd	400316.752	745000.541	216
Well 2	Oxmead Rd	400320.175	744952.346	234
Well 3 (redrill)	Oxmead Rd	400316.343	744956.614	273
Well 4	Oxmead Rd	400323.166	744944.541	366
Well 5	Aqua Ln & Beverly Rd	400354.67	745343.6	132
Well 6	Aqua Lane	400355.028	745333.771	120.5
Well 7	Aqua Lane	0	0	125
Well 8	Dulty's Ln & Neck Rd	0	0	140

Legend

- Treatment Plants (3)
- Elevated Water Storage Tanks (2)
- Inter-Municipal Meters (10)
- pows_Burlington_Twp (Burlington Township's 8 Wells)
- 16 inch
- 12 inch
- 10 inch
- 8 inch
- 6 inch
- watpurv1998_Burlington_Twp (Twp. Water Purvayor Area)
- burling_twp_muni (Twp. Municipal Boundry)
- Twp_nonpurv (Twp. Areas Not Supplied)

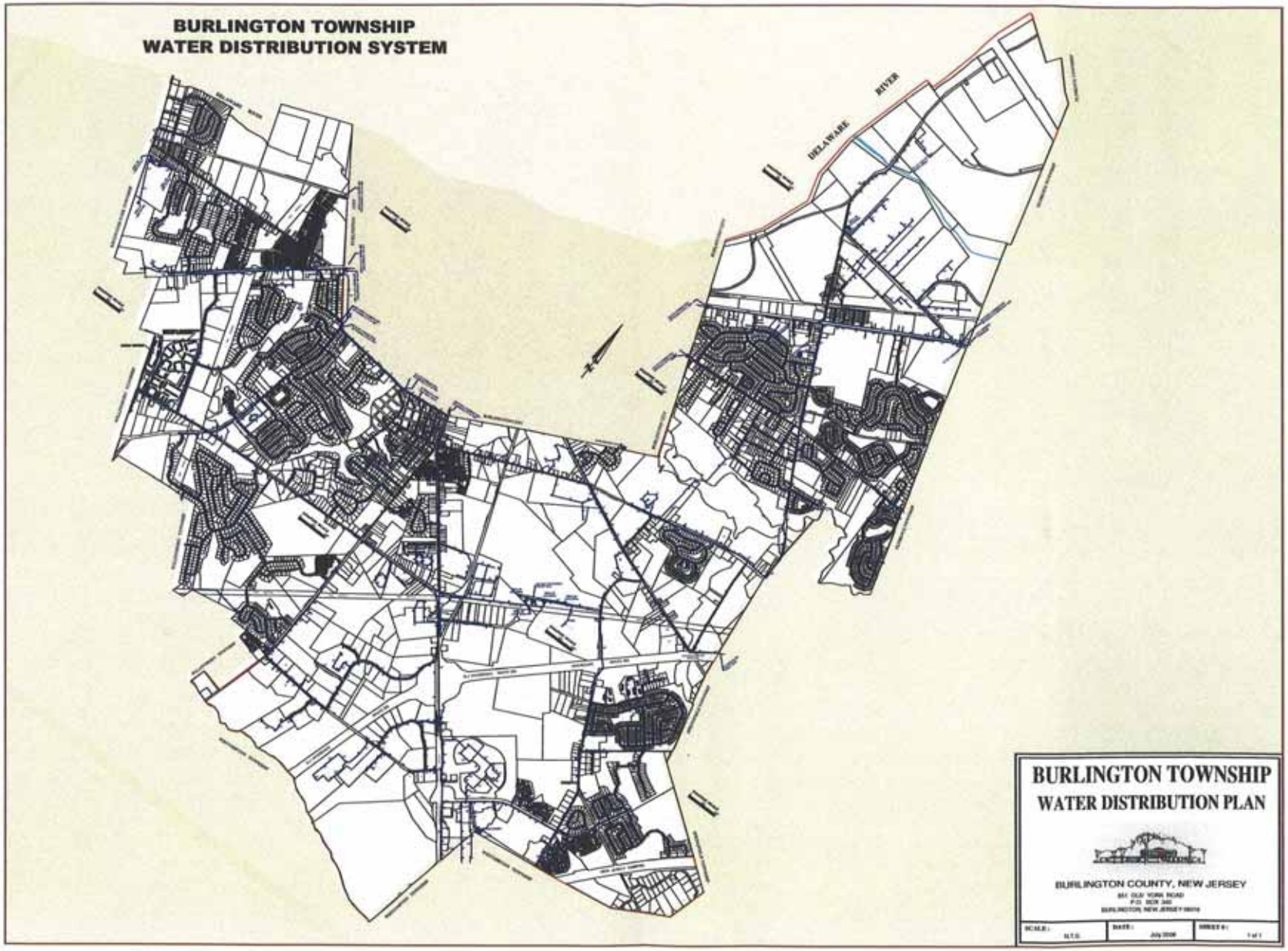
This map was developed using digital data from the Burlington County and New Jersey Department of Environmental Protection Geographic Information Systems. This map is a secondary product and has not been verified by the County of Burlington or the New Jersey Department of Environmental Protection. It is not authorized by either party.

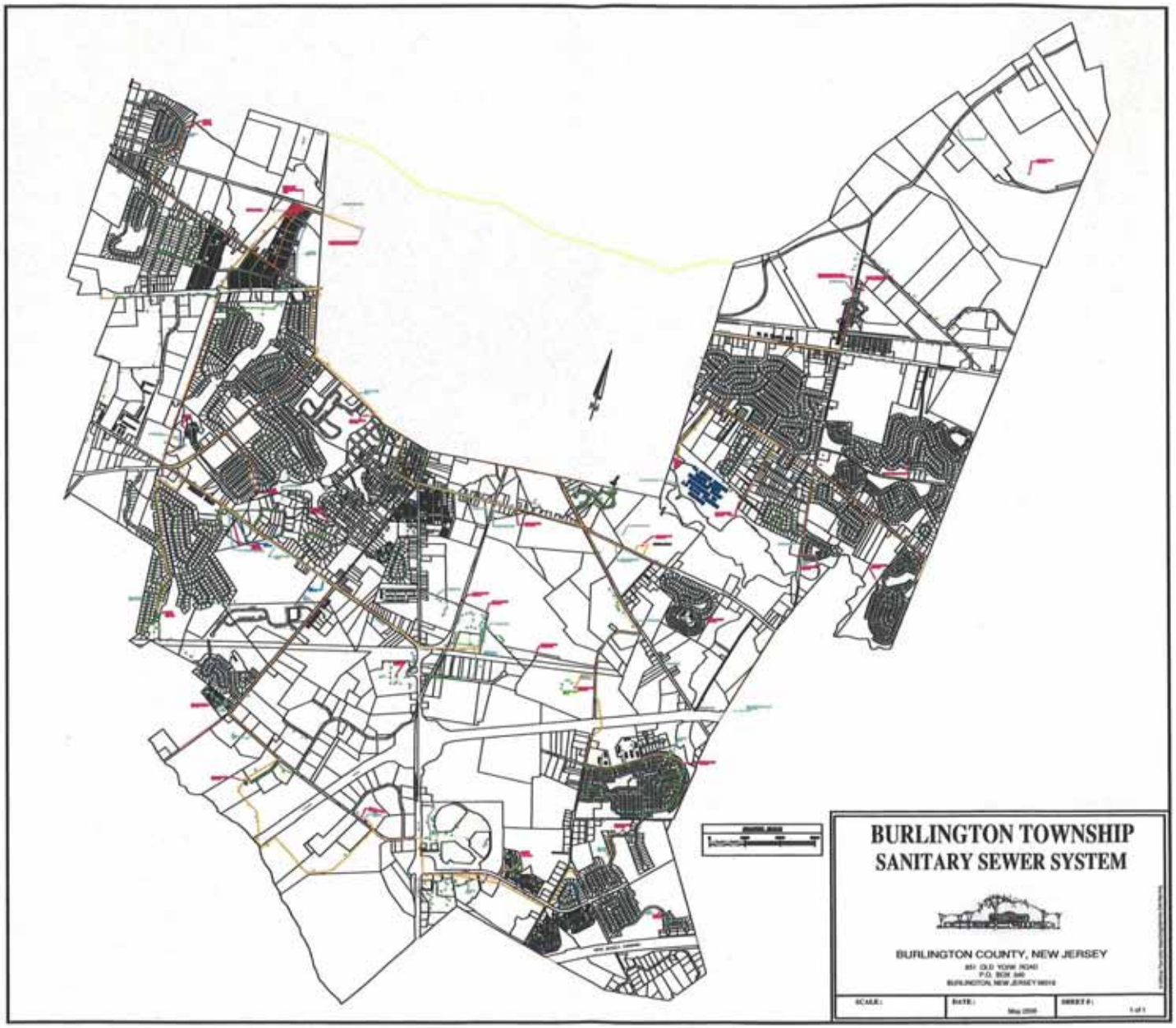
BURLINGTON TOWNSHIP

Water Supply System

Prepared by the Burlington Township Department of Engineering
851 Old York Road - P.O. Box 340
Burlington Twp., New Jersey 08016
July, 2008

N:\S_Future_Plan_2008\Water_Sys 6-08.mxd


BURLINGTON TOWNSHIP
WATER DISTRIBUTION SYSTEM
DELAWARE RIVER
BURLINGTON TOWNSHIP
WATER DISTRIBUTION PLAN
BURLINGTON COUNTY, NEW JERSEY


BURLINGTON TOWNSHIP
SANITARY SEWER SYSTEM
BURLINGTON COUNTY, NEW JERSEY
851 OLD YORK ROAD
P.O. BOX 340
BURLINGTON, NEW JERSEY 08016
SCALE:
DATE:
SHEET #:

RESOLUTION OF THE BURLINGTON TOWNSHIP PLANNING BOARD ADOPTING THE COMPREHENSIVE MASTER PLAN PREPARED BY THE ALAIMO GROUP IN CONJUNCTION WITH THE PERIODIC REEXAMINATION OF THE TOWNSHIP OF BURLINGTON MASTER PLAN

WHEREAS, the Burlington Township Planning Board ("BTPB") has engaged in the periodic reexamination of the Township of Burlington's Master Plan throughout 2008 at several regularly scheduled BTPB meetings; and

WHEREAS, *N.J.S.A.* 40:55D-89 requires that a governing body shall, at least every six years, provide for a general reexamination of its master plan and development regulations by the Planning Board; and

WHEREAS, the BTPB has provided notice in accordance with the Municipal Land Use Law of the hearing held on July 10, 2008 for consideration of the master plan and development regulations of the Township of Burlington; and

WHEREAS, the members of the BTPB reviewed the "COMPREHENSIVE MASTER PLAN" prepared by the Alaimo Group at the public hearing held on July 10, 2008 wherein Joseph S. Augustyn, P.P., A.I.C.P., the BTPB Planner, presented the findings and recommendations set forth in the "2008 COMPREHENSIVE MASTER PLAN;" and

WHEREAS, BTPB Planner Augustyn reported that comments had been solicited and received from several Township departments and agencies, which comments were considered and incorporated into the 2008 Comprehensive Master Plan; and

WHEREAS, the BTPB Planner advised that the most significant zoning change would be the inclusion of regulations governing continuing care retirement communities to address the needs of the community and to accommodate the Masonic Home Charity Foundation in fulfilling its charitable purposes while aiding in municipal costs through a payment in lieu of taxes agreement;

and

WHEREAS, BTPB Planner Joseph S. Augustyn also discussed the various elements of the 2008 Comprehensive Master Plan, particularly the need to accommodate the areas which have been designated in need of redevelopment and to improve the circulation within the Township by improving the sidewalk network and bikeways; and

WHEREAS, it was requested that the 2008 Comprehensive Master Plan add the preference in the development regulations for underground power lines; and

WHEREAS, the professional staff expressed its support for the 2008 Comprehensive Master Plan.

NOW, THEREFORE, BE IT RESOLVED by the Planning Board of the Township of Burlington as follows:

1. The 'COMPREHENSIVE MASTER PLAN" prepared by the Alaimo Group, dated July 10, 2008 is hereby adopted as the report setting forth the findings of the periodic reexamination of the master plan and development regulations of the Township of Burlington and shall serve as the new master plan for the Township.

2. A copy of the resolution and Comprehensive Master Plan shall be sent to the Burlington County Planning Board and to the municipal clerks of the Townships of Edgewater Park, Willingboro, Westampton, Springfield and Florence and to the City Clerk of the City of Burlingoton.

3. The policies set forth in the 2008 Comprehensive Master Plan furthers the goals of strengthening the tax base and maximizing the preservation of open space and creation of recreational opportunities for Township residents. As a result of significant growth there is a need to redevelop older commercial portions of the Township and reinvigorate the regional mall through creative redevelopment plans. There is also recognition of the need to accommodate the Masonic

Home Charity Foundation to continue as a vibrant member of the community through the development of a continuing care retirement community.

Members voting in favor of adopting the 2008 Comprehensive Master Plan prepared by the Alaimo Group: Mayor Stephen George, Brian Carlin, Charleen George, Robert Davis, Louis Schimenti, William Diamond, Delbert Rife, Charles Kelly, Lacey Walker, Josph Sabatino, Celeste Niles

EILEEN R. LISS, SECRETARY
Burlington Township Planning Board

Dated: August 14, 2008
S:\MyFiles\BTPB2008-3\master plan res