State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS
OFFICE OF SMART GROWTH
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JON S. CORZINE
Governor

JOSEPH V. DORIA, JR.
Commissioner

BENJAMIN SPINELLI
Executive Director

March 18, 2009

The Honorable James B. Begley
Mayor, City of Bridgeton
181 East Commerce Street
Bridgeton, New Jersey 08302

Re: City of Bridgeton Plan Endorsement
State Agency Opportunities and Constraints Analysis

Dear Mayor Begley:

The Office of Smart Growth (OSG) and our State agency partners have reviewed the Municipal Self Assessment Report submitted by the City of Bridgeton and would like to commend the City for its active participation and dedication to the Plan Endorsement process. Please find enclosed the State Agency Opportunities and Constraints Analysis. This analysis is intended to guide the City's community visioning process and to provide the City with preliminary consistency issues with the State Plan and relevant State regulations. This document can be found on the OSG website at the following link: http://nj.gov/dca/divisions/osg/plan/pe.html.

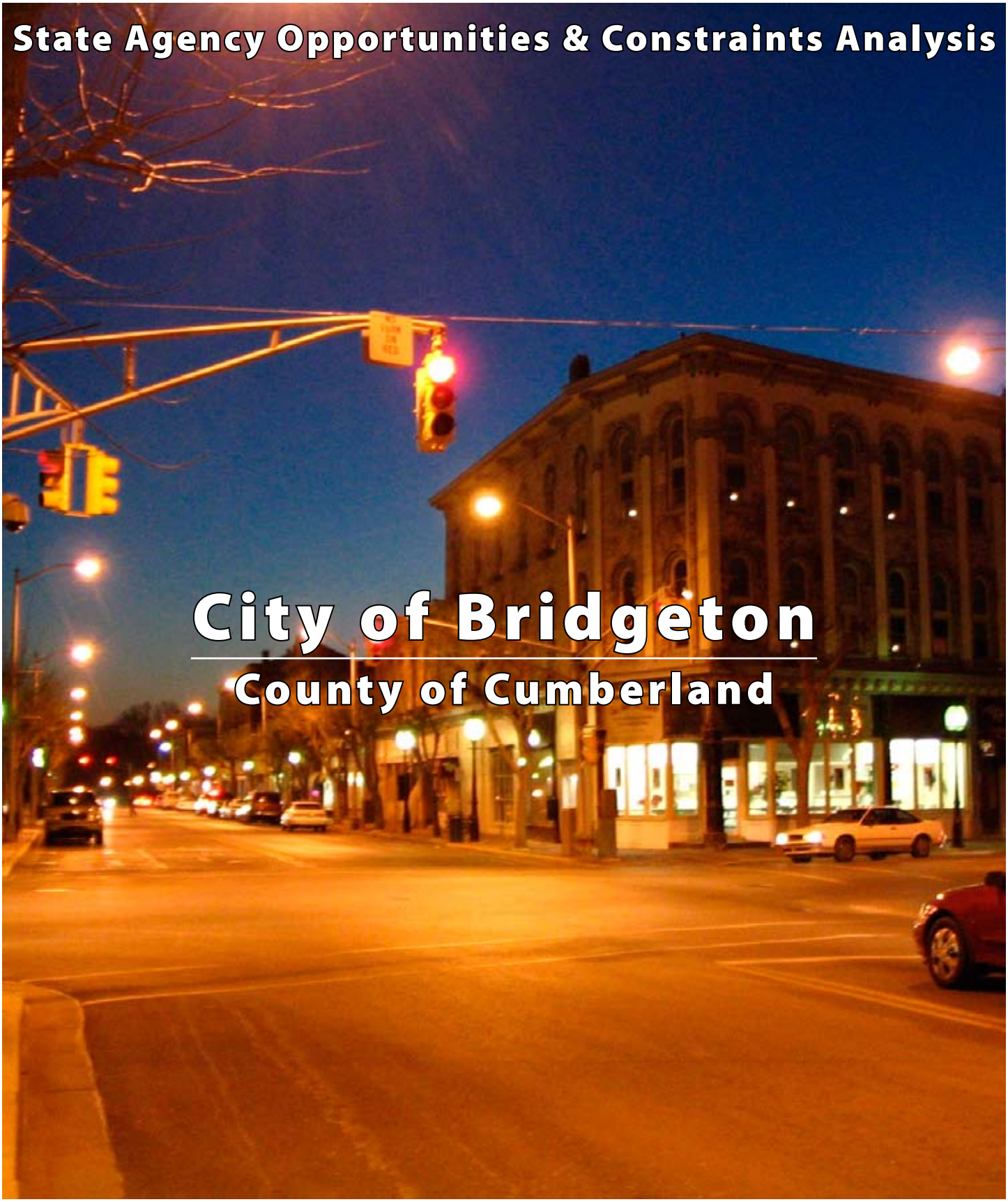
The Office of Smart Growth and its State agency partners remain committed to working with the City of Bridgeton. Should you have any questions regarding the Plan Endorsement process or the enclosed Opportunities and Constraints Analysis, please feel free to contact Leigh Jones, OSG Planner for Cumberland County, at (609) 633-6119 or via e-mail at Leigh.Jones@dca.state.nj.us.

Sincerely,

Benjamin L. Spinelli
Executive Director

BLS:lj
Enclosure
c: State agency partners (cover only, *via email*)
John L. Barry III, Director, Development & Planning, City of Bridgeton (cover only, *via email*)
Sally Birdsall, PP/AICP, Sarah Birdsall, Planning Consulting (cover only, *via email*)
Robert Brewer, PP/AICP, Planning Director, Cumberland County (cover only, *via email*)
Karl Hartkopf, PP/AICP, Planning Director, OSG (cover only, *via email*)
Leigh Jones, PP/AICP, Planner, OSG (cover only, *via email*)
City of Bridgeton Plan Endorsement File

State Agency Opportunities & Constraints Analysis



City of Bridgeton

County of Cumberland

March 18, 2009

Office of Smart Growth
Department of Community Affairs
State of New Jersey

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Introduction

On January 29, 2009, the City of Bridgeton in Cumberland County submitted its Municipal Self-Assessment Report to the New Jersey Office of Smart Growth (OSG).

To complete the next step in the Plan Endorsement process, OSG and our State agency partners have preliminarily assessed local opportunities and constraints as they relate to existing development, current zoning regulations, infrastructure and natural resources. This report provides for a comparison of information within the Municipal Self-Assessment Report with the most up-to-date regional and statewide data to determine whether TREND growth, or the continuance of existing development patterns, is sustainable and viable based on the information provided. TREND growth can then be compared to PLAN growth, or that which is aligned with the New Jersey State Development and Redevelopment Plan (State Plan) and is based on the principles of smart growth. This information is intended to guide and direct the community visioning process such that residents and other stakeholders can develop a vision for the future with a twenty-year planning horizon based on an understanding of how current land use regulations and policies will result within the context of existing infrastructure and environmental and agricultural resources. The vision shall provide for sustainable growth, recognize fiscal constraints, plan for housing needs, and call for the preservation of natural, historic and agricultural resources. By taking into consideration the findings of the Municipal Self-Assessment Report and the Opportunities and Constraints Analysis, communities can envision a both desirable and realizable future

Background

The City of Bridgeton initiated the Plan Endorsement process by attending a pre-petition meeting with OSG and our State agency partners on March 27, 2007 and an informational meeting on the new Plan Endorsement guidelines on May 27, 2008. On May 6, 2008 the City of Bridgeton passed Resolution 293-07 appointing six members to its Plan Endorsement Advisory Committee (PEAC). As previously mentioned, the City submitted its Municipal Self Assessment Report to OSG for review on January 29, 2009, as authorized by Resolution 104-08. This State Agency Opportunities and Constraints Analysis has been provided to the City on March 18, 2009 and pursuant to the proposed Plan Endorsement rule, N.J.A.C. 5:85-7.10.

Relation To The State Development & Redevelopment Plan (State Plan)

The State Plan Policy Map categorizes every area in the State into a specific Planning Area based on its suitability for growth and development. Bridgeton consists predominantly of Planning Area 1, Metropolitan Planning Area. It also contains Planning Area 5, Environmentally Sensitive Planning Area, which extends northwards along the Cohansey River from the Township's southern boundary and then continues up to its northern boundary. In addition, the City also contains designations of parkland and natural areas.

A view of the Cohansey River.

In 2001, through the center designation process, the entire City of Bridgeton was designated a regional center by the State Planning Commission. Though this designation expired on January 7, 2008, it was reestablished with modified boundaries through December 31, 2010 by the Permit Extension Act (P.L. 2008, c.78). This designation will extend past the 2010 expiration date upon receipt of Plan Endorsement from the State Planning Commission. At the present time, Bridgeton's regional center consists of all areas in the city that are within the boundary of Planning Area 1 (see Appendix E).

The State Plan's criteria for regional centers, description and policy objectives for Planning Areas 1 and 5, and goal and policies for revitalizing the state's urban areas are all relevant to Bridgeton.

As the County seat, Bridgeton plays an important civic, economic, and social role in Cumberland County. However, to say that the issues it faces are substantially different from those of its neighbors would be something of an understatement; while many surrounding towns maintain a rural feel with growth challenges centered on appropriate locations for new development and means of providing accompanying infrastructure, Bridgeton must figure out how to revitalize and prosper based on long-existing infrastructure and development patterns.

As the State Plan describes, New Jersey's urban areas once thrived as focal points for commerce, industry, government, culture, and education. As manufacturing began to decline, and as the trend towards locating employment centers in suburban environments accelerated, our urban areas began to suffer eroding tax bases, higher crime rates, and lower quality education systems. Bridgeton is no exception to this general description.

On the one hand, Bridgeton is fortunate in that it does not face the daunting battle against sprawl currently being fought by so many suburban and rural towns in New Jersey. However, effective redevelopment and revitalization—which will be the focus of the City's land use and development decisions—is equally challenging. Bridgeton's economy was built on a sector whose primacy has diminished with economic shifts and that is unlikely to see a resurgence. Aging infrastructure, poverty, land potentially contaminated with hazardous materials (brownfields), and a large portion of the housing stock being in need of substantial rehabilitation all add to this challenge.

As a regional center, Bridgeton is poised to be the locus of activity within Cumberland County in terms of employment, goods and services, and entertainment and recreation. Investment in Bridgeton must come from private sector and non-local governmental entities, as well as from the City itself. The City must work to not only attract jobs that meet the skill sets of its residents, but also new educational opportunities that will enable residents to compete for higher skilled, higher wage positions. The challenges Bridgeton faces in executing this are further complicated by inexpensive, abundant vacant land available in neighboring communities. However, Bridgeton's strengths lie in its existing infrastructure; traditional, charming downtown; waterfront; and impressive stock of historic homes whose magnitude is unmatched elsewhere in the state. Drawing on these unique assets while strategically determining

Infill development that mirrors what has been traditionally built within Bridgeton is walkable, aesthetically pleasing and sustainable compared to strip development with large setbacks and excessive amounts of parking. The latter is allowed through zoning in some areas of the city.

the areas throughout the City that should be targeted for revitalization will be Bridgeton's potential course of action with the highest probability of success.

Of course, that is not to say that Bridgeton is without remaining developable land. The TREND Analysis in the following section demonstrates that Bridgeton does have developable land on which additional growth could occur. However, this does not mean that it should focus its efforts on these areas instead of those that can be redeveloped. Rather, the city should assess where its opportunities lie and determine which parcels are most appropriate for development and which are best put to other uses, such as adding to the city's supply of passive and active open space.

Similarly, as Bridgeton moves forward with redevelopment, it should be careful to promote it in a manner consistent with its historical development patterns. Single use, low density development in redevelopment areas could move Bridgeton in the direction of so many suburban communities that must now deal with underutilized or vacant strip malls, lack of connectivity and accessibility between neighborhoods and local destinations, and increased congestion. Indeed, it is Bridgeton's good "bones" that can contribute to sustainable revitalization from economic, social, and environmental perspectives.

About The Trend Analysis

The TREND Analysis performed by OSG was based on Bridgeton's existing zoning regulations. OSG took into account known environmental constraints and other impediments to development. These constraints included identified State Plan parkland, State Agriculture Development Committee (SADC) preserved farms, wetlands (with a 25 foot buffer), presence of Category 1 (C1) streams, existing developed land including infrastructure, and identified surface water. A map of Bridgeton's constrained lands is included as Appendix A. The result from the TREND Analysis determines the amount of housing and commercial space that can potentially be built given current zoning regulations.

Ultimately, the information provided throughout this document shall be utilized to inform the community visioning process. However, the objective of this TREND Analysis is to determine what the municipality may resemble at full buildout based on current development patterns and zoning provisions.

To perform this task, OSG developed a spreadsheet tool that uses a series of worksheets in which relevant zoning information, land capacity and constraints data, and standard multipliers are used as inputs to determine residential and commercial buildout.

OSG used the most recent U.S. Census Bureau data to determine Bridgeton's average household size, which was identified as 3.11 persons per household (U.S. Census Bureau, 2005-2007 American Community Survey 3-Year Estimates).

Tables used in calculating the results of the TREND Analysis are included as Figures 1 through 3 below; Figure 1 provides a summary of the findings. At the end of the report, Appendix A presents the results of the TREND analysis as a map.

Figure 1: Trends Analysis Summary Table

category	acreage
land consumption (acres)	
environmentally constrained	660.00
currently urbanized	2,642.3
additional consumption	736.08
total urbanized land at buildout	**3,378.42**
buildings	
current residential units	6,849.00
new residential units	1,514.00
total residential units at buildout	**8,363.00**
current commercial sq ft	9,539,640.00
new commercial sq ft	10,946,381.83
total commercial sq ft at buildout	**20,486,021.83**
people	
current residents	23,522
new residents	4,704
total residents at buildout	**28,226**
currrent employment	10,044
new employment	19,929
total employment at buildout	**29,973**

Residential Buildout

The Residential Buildout (Figure 2) generally assumes buildout of existing residential zones at the maximum density permitted by the City's current zoning ordinance. However, it also assumes that in all residential zones that allow housing other than single-family detached units, fifty-percent of new development will be multi-family. In addition, in the C-2 zone, which allows apartments, offices, and retail uses, it was assumed that new development will be split evenly among the three land use categories. The development standards for the Phoenix Redevelopment Plan were not included in the analysis, as these standards apply only to redevelopment or rehabilitation projects,

while the TREND Analysis exclusively examines new/greenfield development. While the ultimate form, amount, and timing of development will be contingent upon market conditions, the information provided in the Residential Buildout could come to fruition given that existing zoning provides for such development.

Because redevelopment potential is high in Bridgeton due to the lack of contiguous undeveloped land and a recent City emphasis on both economic revitalization and designation of areas in need of redevelopment/rehabilitation, this analysis also includes a Redevelopment Ratio (Appendix B). The Redevelopment Ratio uses the Mod IV tax data to compare the value of buildings or other improvements on a parcel to the land value, with the idea that those with smaller ratios—where the land is much more valuable than the improvements—are most likely to redevelop.

According to the U.S. Census Bureau's 2005-2007 American Community Survey 3-Year Estimates, there are 23,522 people residing in the City of Bridgeton. The Residential Buildout indicates that current zoning can support an additional 4,704 residents based on land availability and average household size, bringing the build-out population to 28,226. The South Jersey Transportation Planning Organization (SJTPO)—which is the Metropolitan Planning Organization for Cumberland County—projects that Bridgeton's 2035 population will be 27, 880. As such, the TREND Analysis projects that the buildout of the City's current zoning will likely occur just beyond the next twenty-five years, assuming the accuracy of SJTPO's forecasted population estimates and that most development activity during this time occurs on remaining undeveloped sites rather than through redevelopment.

In addition to population estimates, the Residential Buildout provides current zoning can support 1,514 additional residential units. According to the 2005-2007 American Community Survey 3-Year Estimates, there are 6,849 housing units in the City. As such, the TREND Analysis estimates that buildout would occur when 8,363 residential units exist within the City. When one accounts for necessary accompanying improvements, these new units would absorb 528 acres of currently undeveloped land. However, this estimate does not consider impervious coverage limits for projects subject to the provisions of the Coastal Area Facilities Review Act, otherwise known as CAFRA, and the Coastal Zone Management Rules.

The Residential Buildout provides that the plurality of new residents would encompass the R-2 zone (2,344 people in 754 units), with the R-1 zone not far behind in residential development potential (1,670 additional people in 537 additional homes). Due to land constraints within the city, new housing units will likely take the form of infill development.

In the State Plan, Planning Area 1 (PA-1/Metropolitan Planning Area), Planning Area 2 (PA-2/Suburban Planning Area), and designated centers are known as "Smart Growth Areas," or locations in which development and redevelopment are desirable. Most of these areas available for residential development are within Planning Area 1, with a small portion within Planning

Figure 2: Residential Buildout

residential zone	total land in residential zone (acres)	total constrained land in residential zone (acres)	total developable land (acres)	total developable residential land (acres)	maximum residential density permitted (units per acre)	potential number of units	average household size (persons per unit)	number of new residents
	a	b	c=a-b	d=c*0.8	e	f=d*e	g	h=f*g
R-1	1,253.7	867.4	386.27	309.02	1.74	537	3.11	1670
R-2 (SF)	294.0	235.1	58.89	47.11	5.12	241	3.11	749
R-2 (MF)	294.0	235.1	58.89	47.11	10.89	513	3.11	1595
R-3 (SF)	62.0	51.9	10.12	8.10	8.71	70	3.11	217
R-3 (MF)	62.0	51.9	10.12	8.10	14.52	117	3.11	363
R-4 (SF)	91.4	90.4	0.98	0.79	7.26	5	3.11	15
R-4 (MF)	91.4	90.4	0.98	0.79	21.78	17	3.11	52
C-2	25.7	24.2	1.48	1.18	12.10	14	3.11	43
total	**2174.12**	**1646.38**	**527.74**	**422.19**		**1514**		**4704**
			land consumption			buildings		people

NOTES

Assumes 50% developed as detached single family, 50% developed as multi-family; R4-MF assumes developed as townhomes

b: constrained lands include conserved land, public ownership, conservation easements (deed restrictions), utility easements, or natural factors such as wetlands, floodplains & steep slopes)

d: 0.8 figure is based on 20% takeup of land for right of ways (i.e. roads)

e: data based on current zoning

g: Average Houshold Size: 2005-2007 American Community Survey 3-Year Estimates

Area 5 (PA-5/Environmentally Sensitive Planning Area) along the Cohansey River near the City's southern boundary. As nearly the entirety of Bridgeton is currently a designated regional center, most of the city is considered a Smart Growth Area. However, even growth areas contain sensitive environmental resources. As such, the city must still work towards protecting these amenities, including its waterbodies, and determining in which areas of the city growth and development should be targeted. As mentioned above, it is possible that CAFRA regulations will limit the extent of development potential in the southern half of the City.

Because it is within the R-1 zone, roughly 35% of the new residential development will likely be single-family detached residential units on lots slightly larger than ½ acre. The R-2 zone permits for a greater diversity of housing unit type, with a smaller lot size of 1/5 acre for single-family detached and two-family detached units in which a second unit is built over the ground floor unit. All other types of multi-family development allowed could occur on smaller parcels of land, averaging out to roughly ten units per acre. Lastly, the R-3 zone has some ability to accommodate new development, with the analysis showing the potential for 187 new units of varying types.

Commercial Buildout – Building Cover Method

The Commercial Buildout (Figure 3) also generally assumes buildout of commercial zones at the maximum density permitted under current zoning regulations. In some instances, modifications were made based on knowledge of local conditions and development trends. For example, though one could develop a 3-story facility in the industrial zones, it was assumed that such uses would be a single story based on the types of industrial uses prevalent in the modern economy. An additional assumption is that zones that allow more than one type of commercial use (i.e. office and industrial) would be developed equally for both types of uses. For example, the land in the C-1 zone is divided equally between office and retail uses.

While encouraging the growth of businesses in the City is admirable, zoning for such enterprises must be realistic and planned according to the City's vision – a vision that should include mixed-use center cores that encourage City residents to live within close proximity to where they work and shop in order to minimize automobile use, reduce traffic congestion, and enhance pedestrian mobility.

The City's zoning allows for an additional 10,946,381 square feet of commercial floor space, resulting in approximately 19,929 additional jobs (NOTE: the floor space per job [sq. ft.] calculations are based on the Council on Affordable Housing's standards). OSG's Commercial Buildout provides that the vast majority of this commercial growth will be absorbed by the Industrial (I) zone (8.27 million square feet of new floor space and 16,537

Figure 3: Commercial Buildout - Building Cover Method

commercial zone	total land in commercial zone (acres)	total constrained land in commercial zone (acres)	total developable land (acres)	percentage of land allowed to be covered by building (%)	maximum amount of land to be covered by building (acres)	maximum number of stories allowed	maximum amount of floorspace (sq ft)	floorspace per job (sq ft)	number of jobs
	a	b	c=a-b	d	e=a*d/100	f	g=e*f*43560	h	i=g/h
retail									
C-1	11.2	11.2	0.0	90	0.00	11	916.7	1000	1
C-2	25.7	24.2	1.5	75	1.48	5	321,531.1	1000	322
C-3	97.4	89.9	7.5	75	7.50	3	980,100.0	1000	980
C-4	19.2	18.6	0.3	75	0.27	3	35,516.4	1000	36
C-5	97.4	89.9	7.5	75	7.52	3	982,740.9	1000	983
industrial									
I	640.9	451.1	189.8	75	189.82	1	8,268,529.1	500	16,537
office									
C-1	11.2	11.2	0.0		0.00	11	0.0	333	0
C-2	25.7	24.2	1.5	75	1.48	5	321,531.1	333	965
C-3			0.0	75	0.00	3	0.0	333	0
C-4	19.2	18.6	0.3	75	0.27	3	35,516.4	333	107
total	**947.8**	**738.9**	**208.3**		**208.3**		**10,946,381.8**		**19,929**
			land consumption				buildings		people

NOTES
b: constrained lands include conserved land, public ownership, conservation easements (deed restrictions), utility easements, or natural factors such as wetlands, floodplains & steep slopes)
d, f: data based on current zoning
h: data based on COAH standards

new jobs). Naturally, this amount of economic growth can only occur when supported by market conditions, and conditions for such a substantial amount of growth may not materialize for decades in Bridgeton, if at all. Thus, zoning for such extensive growth, much of which is for industrial uses, appears both unrealistic from a market perspective and a potential contradiction to the City's vision for its future. Consequently, the City should consider rezoning some of these areas for other uses depending on their location, existing infrastructure, and environmental resources.

An industrial area near Laurel Street.

In addition to having an impractical amount of land zoned for industrial use, there are also several areas throughout the city that fall within this zoning category. Bridgeton can begin paring down this classification by determining more precisely which areas are most desired for warehousing, distribution, and similar uses, and which areas currently zoned for such would be more appropriately allocated to other uses based on economic development plans and the stakeholder-derived vision for the city's future.

After the Industrial District, the C-2, C-3, and C-5 zones would each have the ability to amass approximately 1,000 new jobs. The C-2 zone, which permits a mix of residential and commercial uses, has the potential to allow for new development to occur in a traditional neighborhood style. The C-5/highway commercial district, meanwhile, permits the type of strip corridor development generally discouraged by smart growth proponents.

Trend Analysis Implications

The TREND Analysis indicates that, as currently zoned, the City would experience a 20% increase in population at buildout with employment nearly tripling. As stated throughout, these conditions can only came to fruition with appropriate market conditions that support this amount of development. Bridgeton must be proactive in its planning efforts to ensure that development and redevelopment of occur in locations that maximize land use throughout the community and in economic sectors that promote local wellbeing and meet the skills of residents.

TREND development allows for the consumption of 736 currently undeveloped acres. This, coupled with the City's 2,642 acres of currently developed land, will result in 3,378 acres of developed land upon buildout. While it may often seem that the city does not have any land available for development, this is not true; rather, it's has a sizeable amount of such land spread across city. As such, most of this TREND development would take the form of infill, rather than larger, planned development projects.

Commerce Street in Downtown Bridgeton.

However, Bridgeton does not have to take TREND development as a given and can instead plan for a more sustainable future—rather than focusing on undeveloped land to accommodate growth, Bridgeton is in the position to redevelop existing areas that have long suffered from decline. This will serve the dual purposes of reducing additional land consumption and ameliorating struggling areas of the city that suffer the consequences of blight, such as high crime rates. It is also an opportunity to remediate many of the city's identified brownfields sites to put potentially

harmful, underutilized areas back to productive use. Bridgeton should begin by focusing its efforts on its downtown—already an asset with room for improvement—and looking at the potential for allowing apartments over storefronts in the core of its commercial area. By strategically targeting areas for revitalization, by undertaking redevelopment in a mixed-use, higher density manner, and by focusing on existing assets such as the waterfront and historic resources, Bridgeton can revitalize itself in a sustainable manner.

Cross Acceptance III

On April 28, 2004, the New Jersey State Planning Commission (SPC) approved the release of the Preliminary State Development and Redevelopment Plan and the Preliminary State Plan Policy Map. This action launched the third round of Cross-acceptance.

Cross-acceptance is a bottom-up approach to planning, designed to encourage consistency between municipal, county, regional, and state plans to create a meaningful, up-to-date and viable State Plan (N.J.S.A. 52:18A-202.b.).

This process is meant to ensure that all New Jersey residents and levels of government have the opportunity to participate and shape the goals, strategies and policies of the State Plan. Through Cross-acceptance, negotiating entities work with local governments and residents to compare their local master plans with the State Plan and to identify potential changes that could be made to achieve a greater level of consistency with statewide planning policy.

State Development and Redevelopment Plan Policy Map

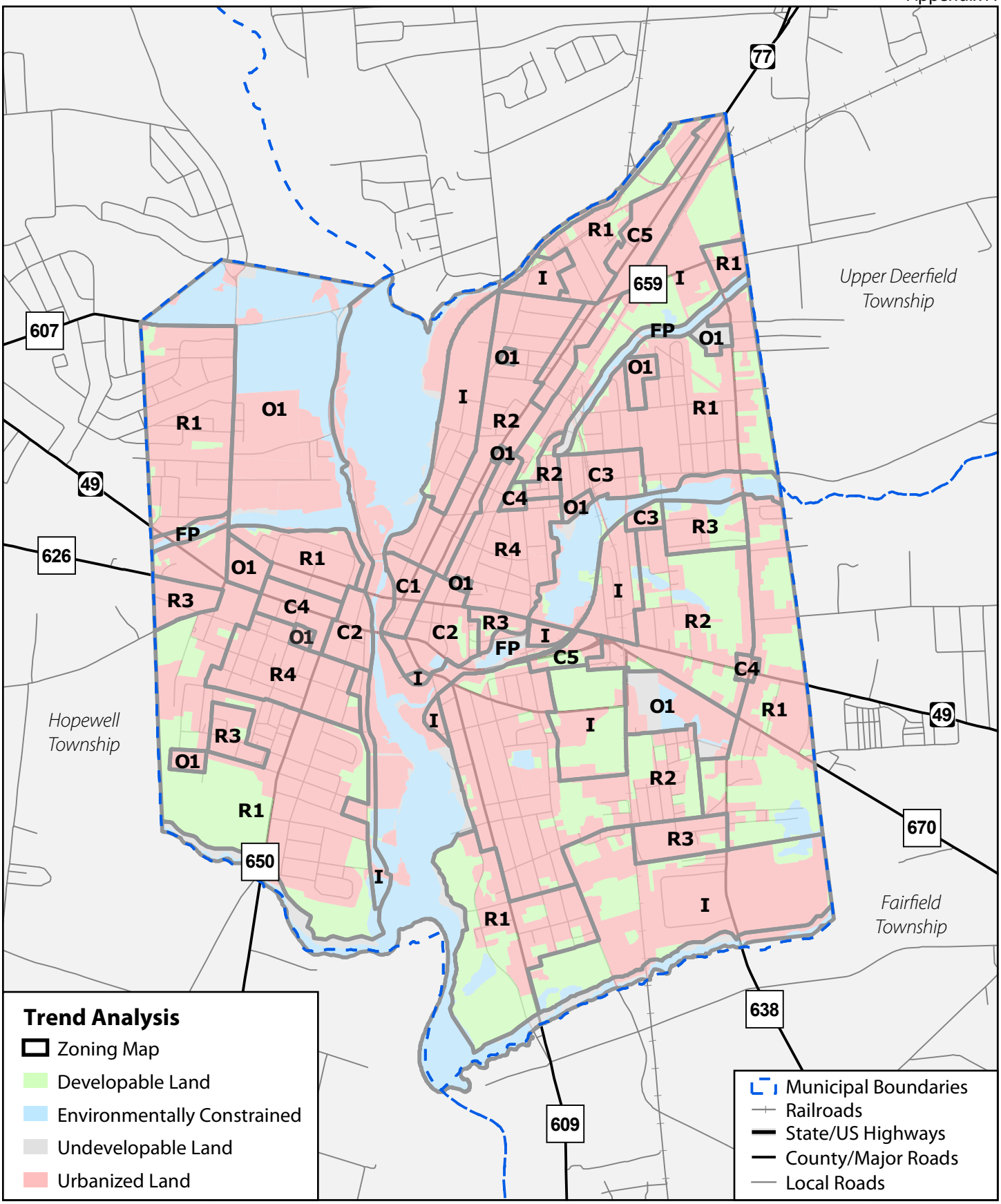
The City of Bridgeton provided one (1) comment to the Cumberland County Board of Chosen Freeholders—the Negotiating Entity for Cumberland County municipalities—for negotiation with OSG and the SPC, as it relates to policy issues. Because the issue was determined to be outside the purview of the State Plan (the City requested that its CAFRA boundary be redrawn to exclude urbanized areas along the Cohansey River), the recommendation on the item is that the decision be deferred to the Plan Endorsement process (Item No. 54). The worksheet addressing this issue has been provided in Appendix C.

The current State Plan Policy Map, adopted in 2001, depicts two Planning Areas within Bridgeton: Metropolitan Planning Area 1 and Environmentally Sensitive Planning Area 5. Per the 2001 State Plan Policy Map, there are 3,574 acres of Metropolitan Planning Area 1 and 489 acres of Environmentally Sensitive Planning Area 5. The forthcoming 2009 State Plan (based on the 2004 Preliminary State Plan Policy Map) is proposing amendments to these Planning Areas with the addition of land to be designated in the Parks and Natural Areas category. As such, there will be 3,470 acres of Metropolitan Planning Area 1; 143 acres of Environmentally Sensitive Planning Area 5; and 450 acres of Parks and Natural Areas once the State Plan is finalized and adopted.

The 2001 State Plan Policy Map, as well as the draft final 2009 State Plan Policy Map, have been enclosed for reference as Appendix D and Appendix E, respectively. The State Planning Commission will make the final determination on all amendments to the State Plan Policy Map. Additional changes proposed beyond those indicated on the draft final 2009 Policy Map, such as the re-designation of all SPC designated centers beyond the new 2010 expiration date, shall occur through the Plan Endorsement process.

Regional Planning in Cumberland County

The City of Bridgeton is participating in the development and completion of the Western-Southern Cumberland Regional Strategic Plan, a land use and economic development strategy for a twelve-municipality portion of the county. Because the plan is a partnership in which the oft-competing interests of many municipalities are attempting to be balanced, it is an opportunity for Bridgeton to discuss with its neighbors its own vision for the future to determine how it can be achieved in concert with that of surrounding communities. It is an opportunity for the towns to plan together, and one that should be seized—failure to do so will likely result in each community's inability to achieve individual goals due to unnecessarily competitive and antagonistic actions from which no one benefits in the long run. By working together, mutually beneficial solutions are possible.



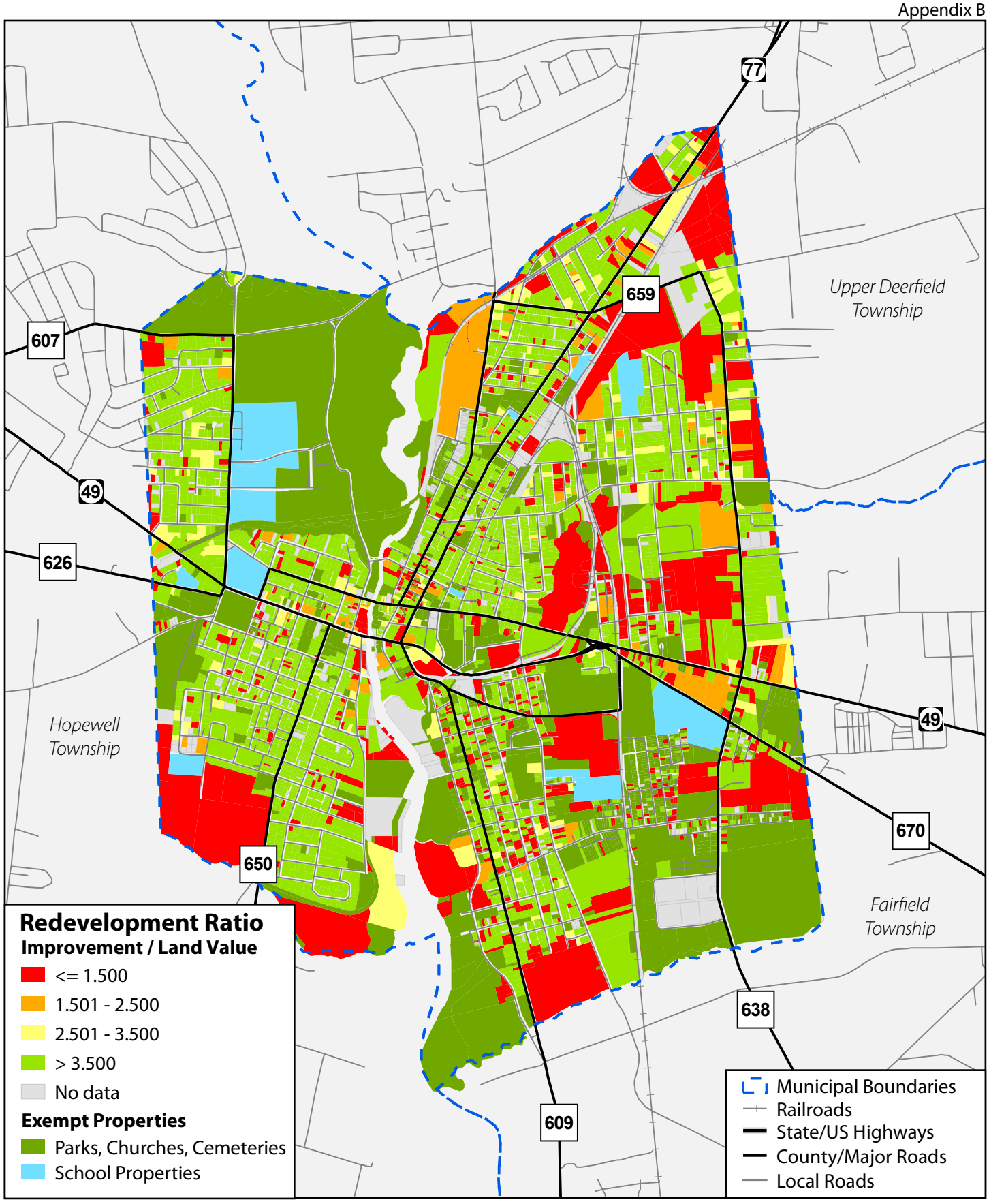
Trend Analysis

Available, developed and constrained lands within zones

1 inch = 2,640 feet

1 Mile

N



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Redevelopment Susceptibility

Ratio of the assessed improvement value to the assessed value of the land as an indicator of underutilization

1 inch = 2,640 feet

1 Mile

N

New Jersey State Planning Commission
Negotiation Worksheet
Policy Issues

County:	CUMBERLAND COUNTY	OSG Item No.	54
Source:	County Report	Approved by OSG Director	
NE Item No.	54	Preliminary Staff Recommendation:	Defer to PE
NegRptPage	23		

General Topic:
Other

County/NE Proposed Change to State Plan Section:

Plan Endorsement

Although not technically in the province of the State Plan, Bridgeton as a Regional Center, is requesting cooperation from the DEP in redrawing its boundary to exclude the urbanized portions of the Cohansey River.

Preliminary State Plan Section as Currently Proposed:

I. Plan Endorsement

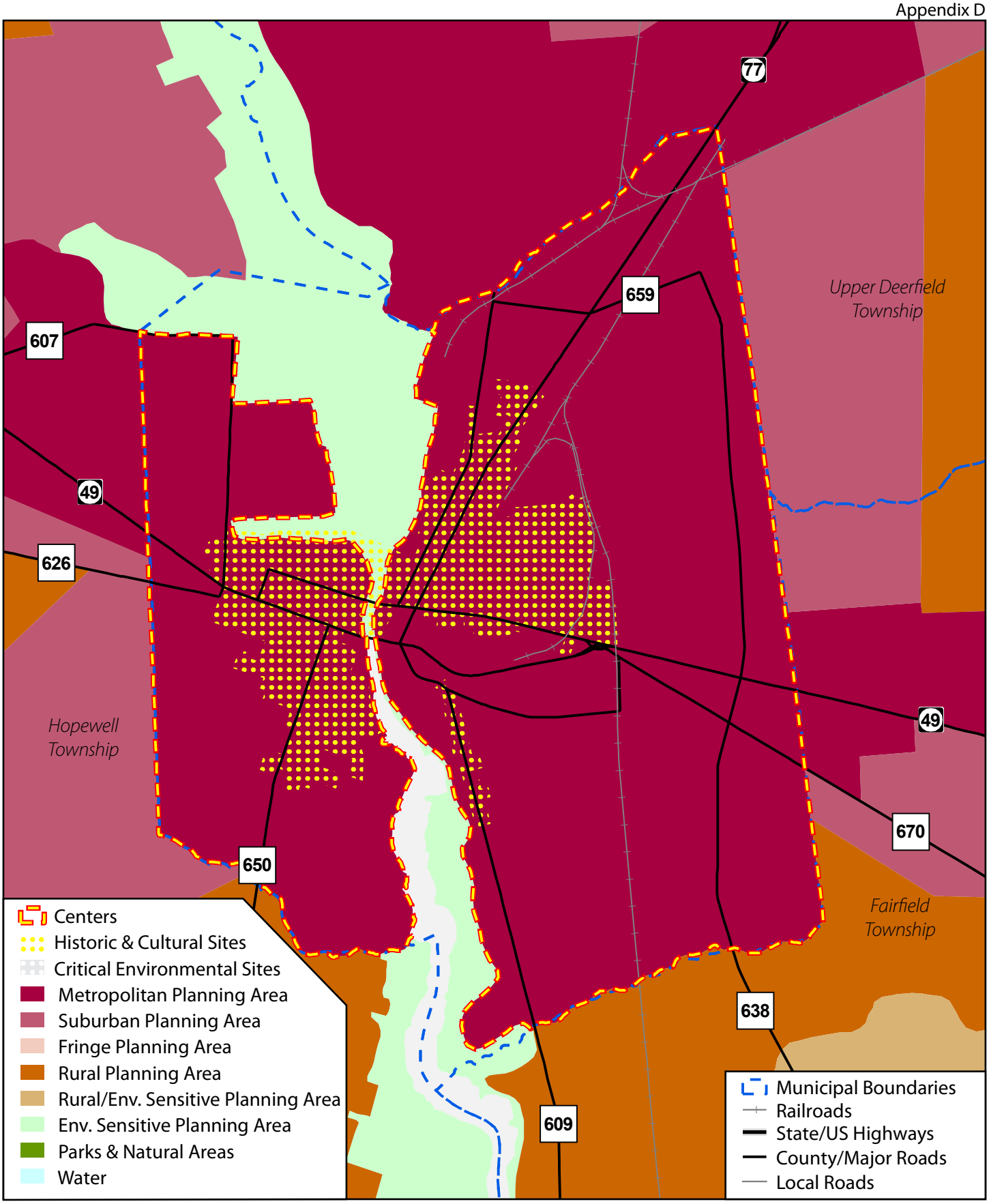
Section in Existing State Plan:

Plan Endorsement, Center Designation

Additional Information Regarding Proposal:

Staff Response:

Changes to center boundaries should be addressed through Plan Endorsement (PE). Bridgeton is currently pursuing the PE process.



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State Plan Planning Areas

Planning Areas & Centers of the 2001 State Plan

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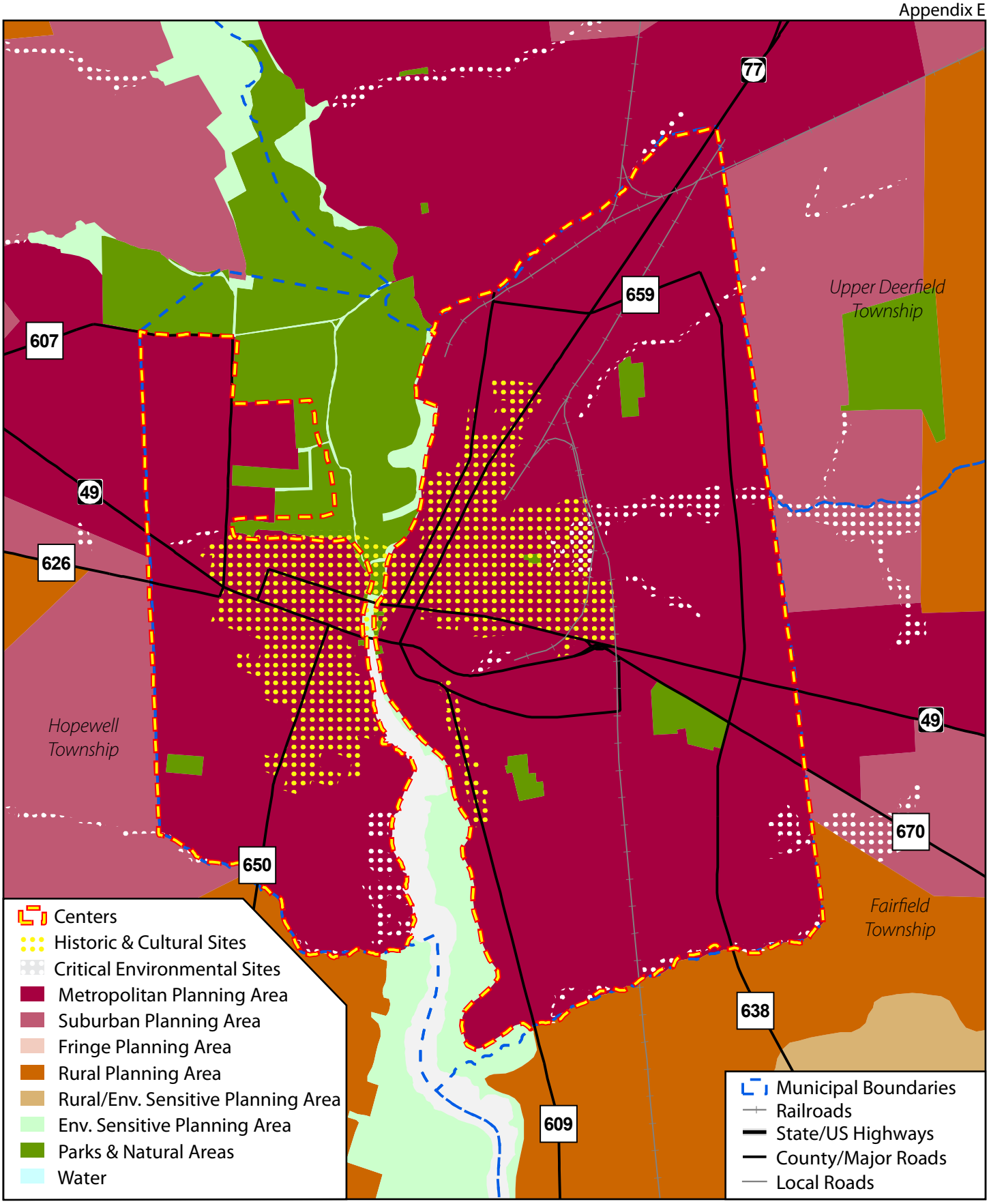
1 inch = 2,640 feet

1 Mile

N



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State Plan Planning Areas

Planning Areas & Centers of the forthcoming 2009 State Plan

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1 inch = 2,640 feet

1 Mile

N

NJ Department of Environmental Protection

State Development & Redevelopment Plan
Plan Endorsement
Opportunities & Constraints Analysis

for:

City of Bridgeton, Cumberland County

March 10, 2009

This document constitutes the Department of Environmental Protection's component of the State Opportunity and Constraints Assessment conducted as part of the Plan Endorsement process. This document should serve as a baseline to inform the rest of the Plan Endorsement process. This document provides a general overview of the Department's regulatory and policy concerns within the City of Bridgeton. While all efforts have been made to address all major issues, the ever evolving nature of regulatory programs and natural conditions dictates that the information contained within this document will need to be updated on a regular basis. No portion of this document shall be interpreted as granting any specific regulatory or planning approvals by the Department. This document is to be used solely as guidance for municipal planning purposes.

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2002 Land Use/Land Cover

The 2002 Land Use/Land Cover (LULC) dataset captures the state of the land use and natural land cover statewide. The land use/land cover data sets contain important land use data used in a wide variety of environmental analyses, including this analysis, as well as in other DEP programs. This data set is intended to serve as a resource for analysis rather than regulatory delineations.

This latest series is based on photography captured in the Spring of 2002 and were produced by visually interpreting color infrared photography. Every effort has been made to ensure that all land use data sets are as accurate as possible. However LULC data are not intended to substitute for on the ground jurisdictional boundaries.

Freshwater wetlands were first mapped under the New Jersey Freshwater Wetlands Mapping Program and were incorporated into the land use land cover datasets. The freshwater wetlands delineations in these data are for screening purposes only and are not regulatory. The Division of Land Use Regulation of the NJDEP determines the extent and final determination of freshwater wetlands in the State of New Jersey.

Based on this analysis, the following land use/land cover types, and their approximate acreages, are found in Bridgeton:

Type	**Acres**
AGRICULTURE	149.45
BARREN LAND	20.37
FOREST	888.20
URBAN	2,645.09
WATER	184.17
WETLANDS	258.05

Attachment:

- Map- Land Use/Land Cover in Bridgeton

Water & Wastewater Analysis

Sufficient water supply and the ability to treat wastewater are essential to any community. The following information on Water Availability and Wastewater Treatment should be used by the community to evaluate its ability to meet current and future demand for water and wastewater treatment. Using this information to plan for future development allows a municipality to estimate the number of people the current (and/or future systems) can sustain. It also provides a way for a municipality to determine where growth is most appropriate, taking into account where water can be treated and supplied.

Water Availability

The following information on Water Availability in the City of Bridgeton is based upon the best data readily available to DEP at the time of this analysis. This data should be used by the City of Bridgeton to inform its community vision and planning processes.

There is one Public Water Supply System in the City of Bridgeton. A map showing the system location within the municipality is provided with this report.

PWSID	Water System Name	Population Served	Water System Type
0601001	BRIDGETON CITY WATER DEPT	22,770	Community

Bridgeton City Water Dept - the Deficit/Surplus table for the Bridgeton City Water Dept system shows that there is a deficit in water supply based on the current data provided to the Department.

Presently the pumping of the wells within the City are significantly below their potential, because the City is not able to utilize all of the water that has been allocated due to water quality issues. The Department has recently received two well treatment permit applications from the City of Bridgeton. One has been approved for wells #18 and #19 and the second permit is still under review. Upon completion of the water quality abatement/treatment, there should be an increase in the *'Firm Capacity'*. Accordingly, the City is presently taking the appropriate steps to cure the problem.

The Deficit/Surplus tables for Public Water Systems may be found on the Department of Environmental Protection, Division of Water Supply website at http://www.nj.gov/dep/watersupply/pws.htm. Not all Public Water Supply Systems will have associated Deficit/Surplus tables available on the Department's website. The website currently contains public water systems that have a demand greater than 100,000 gallons of water per day and have had some water main extension activity since January 1, 2002. If you require safe demand and firm capacity information not available on this web site please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for water allocation information please contact the Bureau of Water Allocation at 609-292-2957.

Refer to Firm Capacity and Water Allocation Analysis document for a detailed description of the methodology used to calculate capacity limitations.

There are no Non-Community Water Systems serving specific uses in the City of Bridgeton.

Attachments:

- Deficit/Surplus table - Bridgeton City Water Department
  http://www.nj.gov/cgi-bin/dep/watersupply/pwsdetail.pl?id=0601001
- Map - Water Purveyor Areas

Wastewater Treatment

The following information on Wastewater Treatment in the City of Bridgeton is based upon the best data readily available to DEP at the time of this analysis. This data should be used by the City of Bridgeton to inform its community vision and planning processes.

There is one DEP-regulated wastewater facility serving the City of Bridgeton: the Cumberland County UA or Cohansey River Basin Sewage Treatment Plant - NJPDES permit number NJ0024651. The annual average flow for this facility in 2007 was 3.2186 mgd; the permitted flow for this facility is 7 mgd. As such, this indicates that approximately 3.78 mgd of the permitted flow for this facility is available to support development within the service area. Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 12,600 new residential units. The Cohansey River Basin Sewage Treatment Plant service area covers Bridgeton City, parts of Upper Deerfield Township and the Sewer Service Areas within Hopewell Township. In their Self-Assessment report, the City of Bridgeton indicated that they estimated a 12.5 percent growth in population, from 24,257 residents in 2007 to 27,284 residents by 2030. The Department assumes three persons per household, meaning the addition of 1,009 residential units will be needed in the City by 2030. As indicated by the Surplus/Deficit Table, the Cohansey River Basin Sewage Treatment Plant has enough capacity available to sustain this new residential development; however, the capacity available is not necessarily all allocated to the City of Bridgeton.

Amendments to the Groundwater Quality Standards (N.J.A.C. 7:9C) have recently been proposed. The primary amendment related to this analysis is the proposal to establish 2 mg/L (or parts per million, or ppm) nitrate as representative of the existing ground water quality statewide, for the purpose of evaluating compliance with the antidegradation policy at N.J.A.C. 7:9C-1.8(a). Currently, the adopted Groundwater Quality Standard for nitrate is 5.2 mg/L. The implications of this proposal are that the Department will not approve a wastewater plan amendment unless the Department first determines that the existing ground water quality of 2 mg/L nitrate will be maintained on a HUC 11 watershed basis. Based on this proposal, the Department has developed a "septic density" for each HUC 11 watershed in the State that identifies what the *comparable residential zoning density* would be in order to meet the groundwater quality goal. Note that the Department does not recommend uniformly zoning at these densities across the HUC 11 watershed. DEP intends this comparable residential zoning density to represent the total number of units that, if built, would not result in a degradation of groundwater quality by exceeding the 2 mg/L nitrate limit. Instead, the Department advocates center-based development, clustering, and protection of environmental features and agriculture land.

The City of Bridgeton falls within one (1) HUC11 watershed – The Cohansey River (below Cornwell Run): HUC11-02040206090. The areas not covered by public sewer service areas are primarily wetlands and are highly regulated as it relates to development suitability. The septic density for areas outside the sewer service area within the City is indicated in the Septic Density Comparison Chart that follows.

Septic Density Comparison Chart

HUC-11	5.2 mg/L nitrate limit	2 mg/L nitrate limit
Cohansey River (below Cornwell Run) (02040206090)	2.6 acres/ residential unit	6.9 acres/ residential unit

Water Quality Management Plan - Sewer Service Area Mapping

The Department has proposed amendments to the Water Quality Management Planning rules identifying the conditions where extension of sewer service is not appropriate. N.J.A.C. 7:15-5.24 sets forth the general policy that large contiguous areas of environmentally sensitive resources, coastal planning areas where the extension of sewers would be inconsistent with New Jersey's Coastal Zone Management program, and special restricted areas that are prone to natural hazards such as flooding, wave action and erosion should not be included in sewer service areas. The limitations on the extension of sewer service in these areas is consistent with the Department's mandate to protect the ecological integrity and natural resources of New Jersey, including water, threatened and endangered species, wetlands and unique and rare assemblages of plants.

Centralized wastewater is inappropriate for these areas because it subsidizes and otherwise encourages development in and around these natural resources at a density that is inconsistent with their protection and the environmental protection mandate of the Department. The Department has determined that the appropriate wastewater management alternative for these areas is individual subsurface sewage disposal systems that discharge less than 2,000 gallons per day, typically thought of as septic systems. Therefore, though excluded from the extension of sewer service, these areas have a wastewater management alternative that will promote a density of development consistent with the conservation of these resources.

In establishing the criteria for delineating a sewer service area boundary in consideration of environmentally sensitive areas, the Department identifies environmentally sensitive areas that are not appropriate for sewer service area as any contiguous area of 25 or more acres that contains any or all of the following four features: threatened and endangered species habitats, Natural Heritage Priority Sites, Category One stream buffers, and wetlands. The Department determined that 25 acres was the appropriate size threshold based on a statewide GIS analysis showing that at least 90 percent of the environmentally sensitive features would be excluded from sewer service area, but that the threshold should be large enough to permit the reasonable application of zoning.

The City of Bridgeton is part of the Cohansey River Basin Wastewater Management Plan (WMP) prepared by the Cumberland County Utilities Authority, and it is currently under review by the DEP Bureau of Watershed Regulation. WMPs that are not approved prior to adoption of the WQMP rule (July 7, 2008) may be required to meet the standards and criteria of the amended rule.

Attachment:

- Map- Sewer Service Areas and HUC11 areas in the City of Bridgeton

Environmental Constraints Analysis

The following section identifies those environmental constraints that should be considered by the City of Bridgeton in its planning efforts. These environmental constraints are divided into three sections - Regulated Constraints, Constraints to Avoid, and Constraints to Consider.

Regulated Environmental Constraints

Wetlands and Category One Waters are environmental constraints currently regulated by DEP. The City of Bridgeton should recognize these environmental constraints in its visioning and planning processes.

- Wetlands

  Freshwater wetlands and transition areas (buffers) are regulated by the Freshwater Wetlands Protection Act rules (NJAC 7:7A). The Highlands rule (NJAC 7:38), which implements the Highlands Water Protection and Planning Act, prohibits nearly all disturbance within all wetlands within the Highlands Preservation Area.

  Wetlands are commonly referred to as swamps, marshes, or bogs. However, many wetlands in New Jersey are forested and do not fit the classic picture of a swamp or marsh. Previously misunderstood as wastelands, wetlands are now recognized for their vital ecological and socioeconomic contributions. Wetlands contribute to the social, economic, and environmental health of our state in many ways:

  - Wetlands protect drinking water by filtering out chemicals, pollutants, and sediments that would otherwise clog and contaminate our waters.
  - Wetlands soak up runoff from heavy rains and snow melts, providing natural flood control.
  - Wetlands release stored flood waters during droughts.
  - Wetlands provide critical habitats for a major portion of the state's fish and wildlife, including endangered, commercial and recreational species.
  - Wetlands provide high quality open space for recreation and tourism.

  There are on-site activity limits on lands identified as wetlands. The NJ Freshwater Wetlands Protection Act requires DEP to regulate virtually all activities proposed in the wetland, including cutting of vegetation, dredging, excavation or removal of soil, drainage or disturbance of the water level, filling or discharge of any materials, driving of pilings, and placing of obstructions. The Department may also regulate activities within 150 feet of a wetland - called the transition area or buffer.

  Land Use/Land Cover data based on 2002 aerial photography identifies approximately 258.05 acres of wetlands in the City of Bridgeton. It should be noted that these wetlands are based on aerial photo interpretation and are **not** appropriate for use in determining the true extent of wetlands on a specific site.

- Floodprone areas

  Flood Hazard Areas - The recently adopted Flood Hazard Area Control Act rule (NJAC 7:13) regulates development within the floodplain and the Riparian Zone (50 - 300 feet adjacent to the water). Under this rule all projects that are adjacent to a “regulated water” that is designated C1 or is upstream within the HUC 14 of a “regulated water”, regardless of whether they are mapped, require a Flood Hazard Area Control Act permit.

  The map provided shows the FEMA flood map zones. The Federal Emergency Management Agency continually updates these maps, and the City of Bridgeton and its residents should refer to their website for current information. Additional information regarding FEMA’s Flood Insurance Rate Map (FIRM) follows the map provided.

Attachments:

- Map—Wetlands and Waterways
- Map—FEMA Flood Zones

Environmental Constraints to Avoid

Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are geographically-identified environmental constraints prioritized for protection by DEP's mandate to protect the ecological integrity and natural resources of New Jersey. DEP recommends avoidance of these areas, to the extent possible, in order to protect these ecosystems from degradation and destruction.

While Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are not specifically regulated as such, the species and sites that are the basis for this information are considered in several DEP regulatory and planning programs - such as the Freshwater Wetlands Program, Water Quality Management Planning, and the Flood Hazard Area Control Act rule.

- Threatened & Endangered Species Habitat

  The New Jersey Endangered Species Conservation Act was passed in 1973 and directed the New Jersey Department of Environmental Protection (DEP) to protect, manage and restore the state's endangered and threatened species. The DEP Endangered and Nongame Species Program (ENSP) has since become the voice for more than 400 species of wildlife in New Jersey, with success stories related to the Bald Eagle, the Peregrine Falcon, the Pine Barrens Treefrog, the Osprey, and others. There are currently 73 endangered and threatened wildlife species in New Jersey. Wildlife professionals within DEP's Endangered and Nongame Species Program oversee research, conservation and protection of rare wildlife species such as the bog turtle, great blue heron, piping plover, bobcat, and other animals that are struggling to survive here in New Jersey.

  ENSP has developed the Landscape Project to identify and systemically map the habitat most critical for New Jersey's fish and wildlife populations. This tool is being used to gauge healthy ecosystems and help identify areas appropriate for protection while giving citizens and local government official's valuable scientific information about their municipalities. The Landscape Project ranks habitat patches by the status of the species present, as follows:

  - **Rank 5** is assigned to patches containing one or more occurrences of at least one wildlife species listed as endangered or threatened on the Federal list of endangered and threatened species.
  - **Rank 4** is assigned to patches with one or more occurrences of at least one State endangered species.
  - **Rank 3** is assigned to patches containing one or more occurrences of at least one State threatened species.

  There are approximately 705.95 acres of threatened and endangered species habitat in the City of Bridgeton. This habitat supports a wide range of species, from the federally listed Bald Eagle, Savannah Sparrow, Grasshopper Sparrow, and Osprey. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in the City of Bridgeton (including habitat for priority species – Rank 2 – that are discussed below in the 'Environmental Constraints to

Consider' section). Please note that this data is based on the Landscape Project mapping that was publicly released by the Department on May 19, 2008.

- Total Maximum Daily Loads (TMDL)

  In accordance with Section 303(d) of the Federal Clean Water Act (CWA) (33 U.S.C. 1315(B)), the State of New Jersey is required biennially to prepare and submit to the USEPA a report that identifies waters that do not meet or are not expected to meet SWQS after implementation of technology-based effluent limitations or other required controls. This report is commonly referred to as the 303(d) List. In accordance with Section 305(b) of the CWA, the State of New Jersey is also required biennially to prepare and submit to the USEPA a report addressing the overall water quality of the State's waters. This report is commonly referred to as the 305(b) Report or the Water Quality Inventory Report. The Integrated Water Quality Monitoring and Assessment Report combine these two assessments and assigns waterbodies to one of five sublists on the Integrated List of Waterbodies. Sublists 1 through 4 include waterbodies that are generally unimpaired (Sublist 1 and 2), have limited assessment or data availability (Sublist 3), or are impaired due to pollution rather than pollutants or have had a TMDL or other enforceable management measure approved by EPA (Sublist 4). Sublist 5 constitutes the traditional 303(d) list for waters impaired or threatened by one or more pollutants, for which a TMDL may be required.

  Therefore, in accordance with Section 305(b) and 303(d) of the Federal Clean Water Act (CWA), the State of New Jersey, Department of Environmental Protection (Department) is required to assess the overall water quality of the State's waters and identify those waterbodies with a water quality impairment for which TMDLs may be necessary. A TMDL is developed to identify all the contributors of a pollutant of concern and the load reductions necessary to meet the Surface Water Quality Standards (SWQS) relative to that pollutant. The Department fulfills its assessment obligation under the CWA through the Integrated Water Quality Monitoring and Assessment Report, which includes the Integrated List of Waterbodies (303(d) list) and is issued biennially. The I*ntegrated List of Waterbodies* is adopted by the Department as an amendment to the Statewide Water Quality Management Plan, as part of the Department's continuing planning process pursuant to the Water Quality Planning Act at N.J.S.A.58:11A-7 and the Statewide Water Quality Management Planning rules at N.J.A.C. 7:15-6.4(a).

Total Maximum Daily Loads that encompass Bridgeton City, Cumberland County

TMDL Name	WMA	Parameter	Percent Reduction	Document	EPA Approval	Affected WQMP
Cohansey River at Seeley Sample Station ID# 01412800	17	Fecal coliform	66%	TMDL for Fecal Coliform to Address 27 Streams in the Lower Delaware Water Region	9/29/2003	Lower Delaware WQMP
Mary Elmer Lake HUC14 02040206090010	17	phosphorus	90%	TMDL to address 13 Eutrophic Lakes in the Lower Delaware Water Region	9/30/2003	Lower Delaware WQMP
Sunset Lake HUC14 02040206090030	17	phosphorus	90%	TMDL to address 13 Eutrophic Lakes in the Lower Delaware Water Region	9/30/2003	Lower Delaware WQMP
Sunset Lake* HUC14 02040206090030	17	pathogen	98%	TMDL for pathogens to address 17 lakes in the Lower Delaware Water Region	9/28/2007	Lower Delaware WQMP
Barrett Run at Bridgeton** Sample Station ID# 01413013	17	phosphorus	91%	TMDL for Total Phosphorus to address 5 stream segments in the Lower Delaware	9/30/2005	Lower Delaware WQMP

				Water Region		
Cohansey River Estuary	17	Total Coliform	72%	Six TMDLs for Total Coliform to Address Shellfish-Impaired Waters in Watershed Management Area 17 Lower Delaware Water Region	9/27/2006	Lower Delaware WQMP

* Streamshed located within the lakeshed and the lake reduction required for Sunset Lake TMDL is nested with the watershed of Cohansey River at Seeley.

**The station lies at the outlet of Mary Elmer Lake; because this lake has an approved TMDL it is expected that the water quality at this station will be reflective of attainment of the lake criterion, and therefore 0.05mg/l of total phosphorus was used as the target concentration.

A TMDL represents the assimilative or carrying capacity of a waterbody, taking into consideration point and nonpoint sources of pollutants of concern, natural background, and surface water withdrawals. A TMDL quantifies the amount of a pollutant a water body can assimilate without violating a state's water quality standards and allocates that load capacity to known point and nonpoint sources in the form of waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, a margin of safety (MOS) and, as an option, a reserve capacity (RC). The TMDLs that encompass Bridgeton City, Cumberland County are nonpoint source driven. Although the TMDL documents are amendments to multiple Water Quality Management Plans (WQMPs), Bridgeton City, Cumberland County falls within the purview of the Lower Delaware WQMP. All of the Department's TMDL Reports may be downloaded from the Division of Watershed Management's web site at www.state.nj.us/dep/watershedmgt/tmdl.htm.

The Department recognizes that TMDLs alone are not sufficient to restore impaired stream segments. The TMDL establishes the required pollutant reduction targets while the implementation plan identifies some of the regulatory and non-regulatory tools to achieve the reductions, matches management measures with sources, and suggests responsible entities for non-regulatory tools. This provides a basis for aligning available resources to assist with implementation activities. Projects proposed by the State, local government units and other stakeholders that would implement the measures identified within the

impaired watershed are a priority for available State (for example, CBT) and federal (for example, 319(h)) funds. In addition, the Department's ongoing watershed management initiative will develop detailed watershed restoration plans for impaired stream segments in a priority order that will identify more specific measures to achieve the identified load reductions. Urban and agricultural land use sources must be the focus for implementation. Urban land use will be addressed primarily by stormwater regulation. Agricultural land uses will be addressed by implementation of conservation management practices tailored to each farm. Wherein urban land use will be addressed primarily by stormwater regulation through the municipality's MS 4 permit.

Short-term and Long-term Management Strategies

Short term management measures include projects recently completed, underway or planned that are designed to address the targeted impairment. Whereas long term strategies include source track down as well as selection and implementation of specific management measures that will address the identified sources. The Department recognizes that TMDLs alone are not sufficient to restore impaired waterbodies. The TMDL establishes the required reduction target and provides the regulatory framework to effect these reductions. The TMDL implementation plan for both TMDLs calls for the collection of additional monitoring data in order to target measures to realize reduction.

The Fecal TMDL for Cohansey River at Seeley calculated that a 66% load reduction was required in order to attain surface water quality standards for this 33 miles stream segment. Source identification for the monitoring site from the TMDL Report states, the land use for the watershed is 69% agriculture with poor riparian buffers. Many cow, horse and chicken farms observed, as well as livestock in the stream. Upstream of monitoring site there are old homes on septic systems around Seeley Lake. This lake also attracts a large Canada Goose population. Load duration curve consistent with storm driven sources. Strategies: prioritize for EQIP funds to install agricultural BMPs; organize local community based goose management programs.

In 2006 the Department adopted changes to the SWQS to replace the fecal coliform criteria for those waters designated for primary contact recreation (FW2, SE1 and SC) with enterococcus (SE1 and SC waters) and *E. coli* as pathogen indicators (FW2 waters), respectively. The United States EPA recommends the use of E. *coli* and enterococcus as pathogen indicators for fresh waters and enterococcus for marine waters. Thus, the Department now monitors these parameters to determine if the specific designated use for recreation is being attained for this waterbody.

The Coastal Pathogen TMDL for Cohansey River Estuary that encompasses Millville City requires a 72% load reduction of pathogens. To address the impairment the TMDL implementation plan discusses the Department's existing long term monitoring effort. The Department maintains a large network of monitoring stations throughout the State's coastal region. The Department's Bureau of Marine Water Monitoring collects water quality data to determine compliance with the National Shellfish Sanitation Program, for the evaluation of

the ecological health of coastal waters, and to monitor, identify and track pollution sources impacting the State's coastal waters. Shellfish monitoring data collected by the Bureau and information on pollution sources within each watershed and waterbody were used to identify the shellfish-impaired waters that are the subject of these TMDLs. Pathogen indicator data will continue to be collected by the Bureau on a routine basis to assess changes in water quality over time and to determine compliance with the NSSP criteria for shellfish growing areas.

Overall the TMDL implementation plan for New Jersey's Coastal Pathogens TMDLs recommend addressing goose management, manure management for livestock, adoption of pollution prevention measures as articulated in the New Jersey Clean Marinas Program and supports municipalities to seek federal grants under the Clean Vessel Act.

Mary Elmer Lake

Mary Elmer Lake is a small protozoan shaped lake owned by the City of Bridgeton. Mean depth has been estimated at 6 feet reaching a maximum of 10 feet. Total lake volume is about 164,000 m3. The lake's surface area is 22 acres and the lakeshed area is 4,800 acres making the watershed-to-lake surface area ratio approximately 218:1. The estimated mean detention time is about 6 days Depth and discharge information taken from NJDEP, 1983. The lake is an impoundment of Barret Run a tributary of the Cohansey River and is also a headwater of Sunset Lake.

Much of the land use within the Mary Elmer lakeshed consists of agriculture, although substantial residential development also exists. Historically efforts have been made to improve the condition of the lake by performing restorative techniques such as drawdowns and dredging. Recreational uses of the lake included boating fishing and swimming. Today although fishing still occurs, the bathing beach has been closed.

Sunset Lake

Sunset Lake is located on the Cohansey River in Bridgeton City Park. Sunset Lake has displayed symptoms of accelerated eutrophication since as early as the 1940's. The lake provides swimming, boating and fishing, however the quality of the lake's recreational potential has diminished. While numbers of fish individuals per species is low, the species diversity of the lake's fishery is good (NJDEP, 1983).

The watershed area of Sunset Lake is over 29,000 acres, resulting in an extremely large watershed area to surface area ratio of about 300 to 1. Sunset Lake itself is approximately 89 acres in size with mean and maximum depths of 2.0 and 3.4 meters, respectively, and a total volume of approximately 700,000 m^3. Groundwater seepage is assumed to contribute the difference between discharge (66,000,000 m3/yr) and inflow (58,000,000 m3/yr). Hydraulic detention time has been estimated at about 4 days. Depth and discharge information were taken from NJDEP, 1983.

The next steps toward implementation for the Mary Elmer Lake and Sunset Lake phosphorus TMDLs are the preparation of lake characterizations and lake restoration plans. In the development of these plans, the loads by source will be revised, as necessary, to reflect refinements in source contributions. It will be on the basis of refined source estimates that specific strategies for reduction will be developed. These will consider issues such as cost and feasibility when specifying the reduction target for any source or source type.

A long-term NPS implementation project near fruition is the Watershed Restoration Plan for the Upper Cohansey River Watershed. The goal of this 319(h) Nonpoint source grant provided by the Department to Rutgers University is to improve the water quality of the Upper Cohansey River by developing a watershed restoration plan that achieves the required 66% fecal TMDL reductions in nonpoint source bacteria loads from this agriculturally dominated watershed. TMDL reductions and reduce the nonpoint source pollutant loading that is contributing to the surface water quality impairments for phosphorus, lead, pH, and aquatic life.

This watershed-based plan will:

- Identify the causes and sources that will need to be controlled to achieve the load reductions that are estimated as part of this watershed-based plan;
- Estimate the load reductions expected for the management measures that are identified as part of this watershed-based plan;
- Identify nonpoint pollution sources (NPS) management measures that will need to be implemented to achieve the load reductions estimated as part of this watershed-based plan;
- Identify critical areas for the implementation of these NPS management measures;
- Estimate the amounts of technical and financial assistance needed to implement the plan;
- Identify potential sources of funding to implement each management measure that is identified in the plan;
- Outline an informational/educational plan to enhance public understanding of the project and encourage early and continued participation in implementing the plan;
- Develop a ranking system to identify where resources should be targeted;
- Provide a schedule for implementing the NPS management measures that are identified in the plan;
- Outline a set of criteria that can be used to determine whether load reductions are being achieved over time and if substantial progress is being made toward attaining water quality standards, and
- Detail a monitoring component to evaluate the effectiveness of the implementation efforts over time.

Please visit the Department's TMDL website at:

http://www.state.nj.us/dep/watershedmgt/tmdl.htm

Attachments:

- Map—Threatened, Endangered & Priority Species Habitat
- Map—TMDL Streams and Lakes in the City of Bridgeton

Environmental Constraints to Consider

Groundwater Recharge Areas, Wellhead Protection Areas, and Priority Species Habitat are geographically-identified environmental constraints recognized as important for the protection of water quality and biodiversity of New Jersey. DEP recommends avoidance of these areas, to the extent possible, in order to minimize the impact to water quality and species habitat.

- Groundwater Recharge Areas

  Groundwater recharge areas are those sites where a high volume of precipitation and surface waters infiltrate into the soil and act to resupply surface and ground waters. Protection of these areas from over-development, and addressing stormwater runoff for these areas, directly affects the water quality of both drinking water supplies and water-based habitats.

  The New Jersey Geological Survey (NJGS) has developed ground water recharge data sets using several data factors, such as land use patterns, impervious surface amounts, soil types, precipitation, and evaporation rates, among others, to calculate the amount of water each area of the state normally contributes to the underlying aquifers. The data are reported and mapped in several standard categories, in units of inches per year.

  For the State Planning process, the original ground water recharge data, calculated for each Watershed Management Area, were converted to a volume-based rating, and then grouped into three classes to simplify further analysis, based on the percent contribution to the total recharge amounts. Those undeveloped areas contributing the highest one-third of the recharge volume in each Watershed Management Area were selected as high priority for protection. The final Ground Water Recharge layer used for this analysis includes all undeveloped areas in the state that were identified as contributing the highest one-third of the recharge volume in the appropriate Watershed Management Area.

  There are approximately 326 acres of high volume groundwater recharge areas located within the City of Bridgeton.

- Well Head Protection Areas

  Areas of land surrounding public community wells, known as Well Head Protection Areas, from which contaminants may move through the ground to be withdrawn in water taken from the well, have been delineated. Protection of the public health, safety and welfare through protection of ground water resources, ensures a supply of safe and healthful drinking water.

  Well Head Protection Areas (WHPA) are mapped areas calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. The confined wells have a fifty foot radius delineated around each well that defines

the well head protection area, which must be acquired and controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1).

WHPA delineations are conducted in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Assessment Program (SWAP). The delineations are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the NJDEP SWAP. WHPA delineation methods are described in "Guidelines for Delineation of Well Head Protection Areas in New Jersey" .

Updates for Public Community Water Supply Well Head Protection Areas are described in Well Head Delineations Updates List. A complete list of individual

Public Community Water Supply Well Head Protection Area delineations are described in Well Head Delineations List.

There are approximately 1,227 total acres of WHPA in the City of Bridgeton.

- Priority Species Habitat

  Similar to threatened and endangered species, the DEP Endangered Non-Game Species Program also considers "priority species." Priority Species are nongame wildlife that are considered to be species of *special concern* as determined by a panel of experts. These species warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state. The Landscape Project ranks habitat patches by the status of the species present, as follows:

  - **Rank 2** is assigned to patches containing one or more occurrences of at least one non-listed State priority species.

  There are approximately 1,649.38 acres of Priority Species Habitat located within the City of Bridgeton. Mapping showing Priority Species Habitat is included on the *Threatened & Endangered Species Habitat map*, as discussed earlier in the 'Environmental Constraints to Avoid' section.

Attachment:

- Map - Groundwater Recharge Areas and Well Head Protection Areas

Contaminated Areas Considerations

All New Jersey municipalities can be home to contaminated sites, whether the contamination comes from industrial, agricultural, retail, or even residential sources. The information provided in this section is intended to help municipal officials identify known contaminated areas and incorporate consideration of these areas into planning efforts. The existence of a contaminated area does not necessarily mean that it is inappropriate for development or redevelopment. Nonetheless, the severity of the contamination, the potential for remediation, and the potential impact on human health must be considered before development or redevelopment plans are underway.

Known Contaminated Sites List

The Known Contaminated Sites in New Jersey Reports was recently updated in March 2008, and it represents the first revision in a move from a static report towards a dynamic report, providing real-time contaminated site status. The new approach to reporting contaminated sites involves three reports where past reporting has involved a single report. The three reports are: Active Sites with Confirmed Contamination, Pending Sites with Confirmed Contamination, and Closed Sites with Confirmed Contamination. The reports consider ALL cases and activities at a site. Detail information describing the case history at a site, including active cases, is available through the Data Miner reporting tool using the Site Remediation Program Interest (PI) Number provided in the report.

- Active Sites are those sites having one or more active case with any number of Pending and Closed cases.
- Pending Sites are those sites having one or more pending cases, no active cases, and any number of closed cases.
- Closed sites are those sites having only closed cases. Sites in this category have no active or pending cases.

There are thirty-five active known contaminated sites in the City of Bridgeton.

Site ID	PI Number	County	Municipality	PI Name	Line1 Address
358531	443368	Cumberland	Bridgeton City	115 LAKE STREET	115 LAKE ST
89887	127676	Cumberland	Bridgeton City	469 SOUTH AVE	469 SOUTH AVE
219090	285991	Cumberland	Bridgeton City	584 BACK NECK ROAD	584 BACK NECK RD
372790	461818	Cumberland	Bridgeton City	647 BUCKSHUTEM ROAD	647 BUCKSHUTEM RD
50120	031670	Cumberland	Bridgeton City	AGWAY INC BRIDGETON	50 MANHEIM AVE

				FERTILIZER	
9502	010812	Cumberland	Bridgeton City	AL SCARANI GULF SERVICE	25 W BROAD ST
9503	001185	Cumberland	Bridgeton City	BINDRA INVESTMENTS LLC	748 RT 49
63829	G000004603	Cumberland	Bridgeton City	BRIDGETON CITY LANDFILL	MAYOR AITKEN DR
64100	G000008934	Cumberland	Bridgeton City	BRIDGETON CITY WD WELLFIELD CONTAM	BURLINGTON RD
46324	007772	Cumberland	Bridgeton City	BRIDGETON GETTY	BROAD ST & E COMMERCE ST
14590	025900	Cumberland	Bridgeton City	BRIDGETON HIGH SCHOOL	111 N WEST AVE
153104	202096	Cumberland	Bridgeton City	BRIDGETON HOPE VI	280 WALNUT ST
9533	011633	Cumberland	Bridgeton City	BRIDGETON OPERATIONS	66 68 COHANSEY ST
16941	004116	Cumberland	Bridgeton City	CARTER FORD LINCOLN MERCURY	693 N PEARL ST
9506	011950	Cumberland	Bridgeton City	COASTAL #0856 0682	176 N PEARL ST
9532	292334	Cumberland	Bridgeton City	COURT HOUSE CLEANERS	80 ATLANTIC ST
46311	007705	Cumberland	Bridgeton City	DAN D OIL CO INC	BELMONT AVE & WATER ST
73295	G000033424	Cumberland	Bridgeton City	DEPOT PLAZA	N PEARL ST & BROAD ST
164834	216650	Cumberland	Bridgeton City	FORMER 4 STAR FOODS	50 GROVE ST
63612	G000000471	Cumberland	Bridgeton City	JERSEY TYLER FOUNDRY	47 ROSENHAYN AVE
9474	010813	Cumberland	Bridgeton City	JOHNNY'S ATLANTIC STATION	255 BRIDGETON FAIRTON RD
14522	013924	Cumberland	Bridgeton City	LEONE INDUSTRIES	443 S EAST AVE
9518	004120	Cumberland	Bridgeton City	MAGOR OIL CO	860 N PEARL ST

49943	030596	Cumberland	Bridgeton City	MANUFACTURED GAS PLANT	VINE & WATER ST
14584	012954	Cumberland	Bridgeton City	MINOT FOOD PACKERS INC	PENN ST & BANK ST
27309	G000004204	Cumberland	Bridgeton City	NATIONAL REFRIGERANTS INC	89 WATER ST
27311	161983	Cumberland	Bridgeton City	NATIONAL REFRIGERANTS INC	517 E COMMERCE ST
341208	421951	Cumberland	Bridgeton City	NJDOT RTE 49 COHANSEY RIVER BRIDGE	RT 49
9497	G000001854	Cumberland	Bridgeton City	OWENS ILLINOIS INCORPORATED	450 N LAUREL ST
193016	253500	Cumberland	Bridgeton City	PEARL STREET REALTY ASSOC LLC	E BROAD ST & PEARL ST
123183	162069	Cumberland	Bridgeton City	ROSENHAYEN AVENUE	ROSENHAYEN AVE
45144	012099	Cumberland	Bridgeton City	SMITH & RICHARDS LUMBER CO INC	110 S LAUREL ST
360140	458332	Cumberland	Bridgeton City	TRI COUNTY COMMUNITY ACTION PARTNERSHIP	10 WASHINGTON ST
46862	010442	Cumberland	Bridgeton City	WILLIAMS GARAGE	BROAD ST & S EAST AVE
9515	009340	Cumberland	Bridgeton City	WOODRUFF DISTRIBUTING CO	175 WATER ST

The Known Contaminated Sites in New Jersey report (http://www.nj.gov/dep/srp/kcsnj/) is produced by NJDEP in response to N.J.S.A. 58:10-23.16-17 that requires preparation of a list of sites affected by hazardous substances. It also satisfies the Site Remediation Program's obligations under the New Jersey New Residential Construction Off-Site Conditions Disclosure Act (N. J.S.A 46:3C1 et seq.).

Known Contaminated Sites - Classification Exception Areas (CEA)

Classification Exception Areas are DEP designated areas of groundwater contamination meeting certain criteria and associated with Known Contaminated Sites or sites on the Site Remediation Program (SRP) Comprehensive Site List. CEAs are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (NJGWQS) for specific contaminants have been exceeded. When a CEA is designated for an area, the constituent standards and designated aquifer uses are suspended for the term of the CEA. A public understanding of where groundwater is known to be contaminated can help prevent inappropriate well placement, preventing potential health risks and can minimize unintended contaminant plume migration. Contaminants of concern within a CEA record are described in one of two ways, either in a field named for the contaminant, e.g., benzene; or listed in a general contaminant field, e.g., VO.

The Department currently identifies five (3) CEAs within the City of Bridgeton:

- Minot Food Packers, Inc.: Penn & Bank Streets (Block 62, Lots 1, 2, & 3) – CEA-VO
- Amoco Service Station: 860 N. Pearl Street (Block 1, Lots 3 & 4) - CEA-VO
- Owens-Illinois, Inc., N. Laurel Street (Block 77, Lots 3, 4, 5, 6, & 7) – CEA-VO

For further information about Classification Exception Areas:
http://www.state.nj.us/dep/srp/guidance/cea/cea_guide.htm

Landfills

NJDEP maintains a list of landfills in the state, including active facilities, properly closed facilities, those being remediated with public funds, those proposed for redevelopment, and inactive landfills. The state has a landfill strategy to notify and work with owners or other responsible parties to bring into compliance inactive landfills that are out of compliance with closure requirements. Two organizations in NJDEP oversee landfill permitting, remedial, and closure work: the vast majority of operating and inactive landfills come under the jurisdiction of the Solid and Hazardous Waste Program in the Department's Environmental Regulation Program. Those landfills that are being remediated with public funding are overseen by the Site Remediation Program, as are sites that are proposed for redevelopment with any component of future use that might directly impact human health, including industrial, commercial or residential use.

Landfills often represent some of the largest tracts of potentially developable land that a municipality and/or county can include in its smart growth and planning efforts. Turning a former landfill into a beneficial use may then enable the protection of other sensitive areas in a community. Innovative uses of landfills include passive open space, active open space, renewable energy "farms" for wind turbines, gas collection and use, and/or solar collection, shopping centers, and mixed use developments.

- The Department currently identifies two Solid Waste Landfills in the City of Bridgeton - the Bridgeton City Landfill (closed 1987) and the Owens Illinois Incorporated Landfill (closed 1973).

For questions regarding the redevelopment of landfill sites, please contact the Office of Brownfield Re-Use at (609) 292-1251.

Attachments:

- Map – Contaminated Areas Consideration - Underground Storage Tanks
- Map – Contaminated Areas Consideration - Known Contaminated Sites (Note: This map does not show the extent of contamination, therefore a buffer should be placed around the sites for planning purposes.)

Preserved Lands and Historic Resources

Open space preservation helps to protect New Jersey's rich natural, historic, and cultural heritage. It ensures that animal and plant habitats are protected and that areas of scenic beauty and agricultural importance are preserved. It safeguards streams and water supplies and provides opportunities to enjoy the outdoors. Open space preservation lies at the core of the quality of life of New Jersey's communities - from the most urbanized cities to the most remote rural areas of the state. Besides enhancing the quality of life, protecting open space can provide economic benefits. It can help a community avoid the costly mistakes of misusing available resources. Protected open space usually raises the taxable value of adjacent properties and is less costly to maintain than the infrastructure and services required by residential development. Even taking into account the increased tax base that results from development, open space usually proves easier on the municipal budget in the long-run.

Historic preservation is the identification, evaluation, and protection of historic and archaeological resources so that they continue to play an integral, vibrant role in their communities. New Jersey's historic properties and the environment in which they exist are irreplaceable assets that contribute to the quality of life that residents enjoy and expect. Historic properties are the physical links to our past, providing meaning to the present and continuity with the future. They are the physical records of the events and people that shaped New Jersey's history. Historic properties add visual and intellectual spirit to the physical environment that New Jersey residents experience daily.

Preserved Lands

Based on the Department's records, the following two tables represent all of the preserved open space lands located in the City of Bridgeton. The total acreage of these lands is approximately 515 acres. DEP recognizes that its records may be incomplete or incorrect, and appreciates all assistance in keeping its records up-to-date.

State Owned Lands

BLOCK	LOT	NAME	APPROX. ACRES
194	24	COHANSEY RIVER	4.4
194	29	COHANSEY RIVER	16.5
194	34	COHANSEY RIVER	8.4
192	29	CLARKS POND	2.5
193	21	CLARKS POND	25.2
193	22	CLARKS POND	10.9

Municipal, County and Non-Profit Owned Lands

BLOCK	LOT	APPROX. ACRES	NAME	OWNER	TYPE
20	12	1.00	UNLABELED	HOPEWELL TWP	M
34	1	0.04	UNLABELED	HOPEWELL TWP	M
305	3	0.06	UNLABELED	BRIDGETON CITY	M
282	2	37.29	UNLABELED	BRIDGETON CITY	M
304	2	5.85	UNLABELED	BRIDGETON CITY	M
304	3	24.41	UNLABELED	BRIDGETON CITY	M
282	3	4.64	UNLABELED	BRIDGETON CITY	M
280	1	144.44	UNLABELED	BRIDGETON CITY	M
281	1	0.24	UNLABELED	BRIDGETON CITY	M
283	1	80.62	UNLABELED	BRIDGETON CITY	M
17	63	11.19	UNLABELED	BRIDGETON CITY	M
285	2	33.64	UNLABELED	BRIDGETON CITY	M
284	3	7.48	UNLABELED	BRIDGETON CITY	M
284	2	8.09	UNLABELED	BRIDGETON CITY	M
279	1	15.91	UNLABELED	BRIDGETON CITY	M
279	3.01	2.01	UNLABELED	BRIDGETON CITY	M
285	3	5.41	UNLABELED	BRIDGETON CITY	M
277	15	4.19	UNLABELED	BRIDGETON CITY	M
277	68	6.33	UNLABELED	BRIDGETON CITY	M
277	69	1.39	UNLABELED	BRIDGETON CITY	M
101	1	1.32	UNLABELED	BRIDGETON CITY	M
278	1	4.58	UNLABELED	BRIDGETON CITY	M
89	22	0.07	UNLABELED	BRIDGETON CITY	M
278	2	0.16	UNLABELED	BRIDGETON CITY	M
79	21	0.11	UNLABELED	BRIDGETON CITY	M
79	20	0.05	UNLABELED	BRIDGETON CITY	M
79	19	0.03	UNLABELED	BRIDGETON CITY	M
86	20	0.01	UNLABELED	BRIDGETON CITY	M
86	19	0.07	UNLABELED	BRIDGETON CITY	M
116	1	0.69	UNLABELED	BRIDGETON CITY	M
116	25.01	0.19	UNLABELED	BRIDGETON CITY	M
116	27	0.36	UNLABELED	BRIDGETON CITY	M
116	36	0.40	UNLABELED	BRIDGETON CITY	M
116	36.01	0.25	UNLABELED	BRIDGETON CITY	M
124	1.01	0.12	COHANSEY RIVERFRONT ADDITIONS	CITY OF BRIDGETON	M
124	1	0.23	COHANSEY RIVERFRONT ADDITIONS	CITY OF BRIDGETON	M
124	2.01	0.20	UNLABELED	BRIDGETON CITY	M
124	2	0.36	UNLABELED	BRIDGETON CITY	M
173	61	27.94	UNLABELED	BRIDGETON CITY	M
207	2	6.29	UNLABELED	BRIDGETON CITY	M
142	11	9.48	UNLABELED	BRIDGETON CITY	M

Type: M - Municipal; C - County; NP - Non Profit

Historic Resources

The NJ Historic Preservation Office administers a variety of programs that offer protection for historic properties. The HPO consults with federal agencies under Section 106 of the National Historic Preservation Act for federally funded, licensed or permitted projects. At the state level, the New Jersey Register of Historic Places Act requires that actions by state, county, or local governments, which may impact a property listed in the New Jersey Register of Historic Places, be reviewed and authorized through the HPO. The HPO also provides advice and comment for a number of permitting programs within the Department of Environmental Protection, including some permits required under the Land Use Regulation Program.

The most effective way to protect historic resources and promote our architectural and archaeological heritage is through local stewardship. When implemented at the local level, historic preservation activities may take the form of master plan elements, comprehensive zoning ordinances, regulated code enforcement, or public education and outreach programs. Local initiatives have far reaching effects on preserving historic resources for future generations. The HPO provides technical assistance, training, and other resources for historic preservation to New Jersey's communities through a variety of programs.

The following New Jersey and National Registers of Historic Places listings include properties and historic districts in New Jersey for which a formal action was taken by the State Historic Preservation Officer or designee. The listings are current through the end of 2002, and the HPO will update these listings on a periodic basis to reflect ongoing additions and corrections.

The listings itemize the buildings, structures, sites, objects, and districts listed on the New Jersey Register of Historic Places (SR) and the National Register of Historic Places (NR).They also include resources that have received Certifications of Eligibility (COE), opinions of eligibility from the State Historic Preservation Officer (SHPO Opinion), or Determinations of Eligibility (DOE) from the Keeper of the National Register. These properties and historic districts all meet the New Jersey and National Register criteria for significance in American history, archaeology, architecture, engineering or culture, and possess integrity of location, design, setting, materials, workmanship, feeling and association. Properties that have been entered on the New Jersey and/or National Registers of Historic Places are listed by their historic names, which may be different from their current names. Properties that have SHPO Opinions or DOE's are listed by their historic name, when known.

New Jersey and National Registers of Historic Places

Site	ID #	Details
Angie's Bridgeton Grille: 2 East Broad Street	4457	SHPO Opinion: 6/10/2005
Bethel Pentecostal Church: 128 South Avenue	4794	COE: 3/20/2008
Bridgeton Historic District: Central Bridgeton, east and west of the Cohansey River.	1020	NR: 10/29/1982 (NR Reference #: 82001043); SR: 2/22/1982 (Irregular Boundaries)
Jeremiah Buck House: 297 East Commerce Street	1021	NR: 12/30/1975 (NR Reference #: 75001130); SR: 10/17/1975
Cumberland Nail and Iron Works Site: Mayor Aitken Drive in the City Park	1022	SHPO Opinion: 4/18/1980 (Previous SHPO Opinion 11/30/77)
East Commerce Street Historic District: East Commerce Street	1023	SHPO Opinion: 6/25/1981
General Giles House: 143 West Broad Street	1024	NR: 3/8/1978 (NR Reference #: 78001754); SR: 12/19/1977
9 Manheim Avenue: 9 Manheim Avenue	1025	SHPO Opinion: 2/24/1993
Mulford Property: S.W. Corner of Atlantic and Vine Streets	1026	SHPO Opinion: 11/30/1977
:Nellie & Mary" Schooner: 9 Atlantic Street	1027	COE: 6/18/1990
North Pearl Street (NJ Route 77): North of Irving Street to Carlis Corner. (Also located in: Upper Deerfield Township, Cumberland County).	1028	SHPO Opinion: 11/30/1977
Old Broad Street Presbyterian Church and Cemetery: Broad and Lawrence Streets.	1029	NR: 12/2/1974 (NR Reference #: 74001159); SR: 12/27/1973
Old Cumberland Bank Building: Bank and East Commerce Streets.	1030	SHPO Opinion: 6/25/1981 (Previous SHPO Opinion 2/21/1979)
Potter's Tavern: 49-51 Broad Street	1031	NR: 9/10/1971 (NR Reference #: 71000501); SR: 5/6/1971
Samuel Seeley House: 274 East Commerce Street.	1032	NR: 5/13/1976 (NR Reference #: 76001150); SR: 11/18/1975
"127 South Avenue": 127 South Avenue	3066	SHPO Opinion: 9/4/1986

Attachments:

- Map – State and local Open Space
- Map – Historic Sites

Regional Planning Areas

New Jersey and the State Plan have recognized several regional planning areas with a varying degree of regulatory and planning controls. These areas may be specifically identified by an act of the NJ Legislature (Highlands, Meadowlands, Pinelands, Coastal areas) or recognized by the State Plan as Special Resource Areas in order to establish a receptive environment for regional planning efforts (Sourland Mountains, Delaware Bayshore). Information on applicable regional planning areas is included below.

COASTAL AREA FACILITY REVIEW ACT (CAFRA)

As updated and amended in 1993, the Coastal Area Facility Review Act seeks to protect the coastal areas in New Jersey by regulating projects near coastal waters and environmentally sensitive lands in the southern part of the State. The CAFRA law regulates almost all development activities involved in residential, commercial, or industrial development, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation. The Department of Environmental Protection carries out CAFRA through Coastal Zone Management Rules and the CAFRA planning map identifies the boundaries of CAFRA centers, cores, and nodes, Coastal Planning Areas and coastal centers. The CAFRA area begins where the Cheesequake Creek enters Raritan Bay in Old Bridge, Middlesex County. It extends south along the coast around Cape May, and then north along the Delaware Bay ending at the Kilcohook National Wildlife Refuge in Salem County. The inland limit of the CAFRA area follows an irregular line drawn along public roads, railroad tracks, and other features.

New Jersey's coastline greatly contributes to New Jersey's economy, including tourism and recreational opportunities, and coastal areas provide crucial habitat for a wealth of wildlife, including migratory birds, commercially valuable fish and shellfish, and sporting and recreational species. Regulation is necessary to prevent pollution, destruction of vital wildlife habitat, increases in rainwater runoff, and destruction of the natural beauty that attracts visitors. Regulation of coastal activities is also necessary in some cases to prevent loss of life and property from coastal storms, erosion, and flooding. The CAFRA law was amended in 1993 to address these issues as well as require that the rules implementing the amendments be closely coordinated with the State Plan. In response to those statutory amendments, the Department in February 2000 adopted new rules for determining impervious cover limes and vegetative cover percentages for developments requiring a CAFRA permit based on the proposed development's location in a CAFRA center, CAFRA core, CAFRA node, Coastal Planning Area or coastal center.

The Department's CZM rules set forth general conditions under which the Department may accept, reject, or reject and revise boundaries of center and planning areas approved by the State Planning Commission as CAFRA centers and Coastal Planning Areas. The City of Bridgeton is partially within the CAFRA regulated area, and the Department will be reviewing your petition for Plan Endorsement and will require additional work and/or plans. Bridgeton's Master Plan and planning documents will be reviewed to ensure that they are consistent with the Department's rules and regulations as well as reach the

Department's goal, to bring environmental planning and resource management in coastal areas to a higher level.

As of September 6, 2008, the City of Bridgeton's Coastal Center has been extended, pursuant to the provisions of the Permit Extension Act of 2008 (C.40:55D-136.1 to 40:55D-136.6). The *'Extension period'* commences January 1, 2007 and continues through until July 1, 2010. However, while the Bridgeton CAFRA regional center is largely within the Metropolitan Planning Area (Planning Area 1) under the State Plan, a corridor along the Cohansey River, located in the extreme southern end of the center is delineated as Environmentally Sensitive Planning Area (Planning Area 5) under the State Plan. With regard to the provisions of the Permit Extension Act, this area reverts to the Coastal Environmentally Sensitive Planning Area.

Attachment:

- Map—CAFRA Area Map

Summary of Major Issues

1. The City's wastewater service agreements should be consistent with the City's vision, petition for Plan Endorsement, planning documents, and land-use regulations. Additionally, the City should be included in a County-wide Wastewater Management Plan in accordance with the Water Quality Management Planning (WQMP) rules (NJAC 7:15). The City should actively participate with Cumberland County to determine where areas of existing sewer service (SSA), if applicable, are inconsistent with the WQMP rules. For areas outside the SSA, the City will need to show consistency with the groundwater quality protection standard of 2 mg/L (or parts per million, or ppm) nitrate level requirement as prescribed by N.J.A.C. 7:9C for areas outside of the sewer service area.
2. The City should rely on the SJTPO 2030 population numbers in any analysis related to their wastewater management planning.
3. The City should take into account this OCA report and the development of their amended Wastewater Management Plan and Water Supply Plans during the visioning process.
4. In August, 2007, the Bridgeton City Council declared the entire City an Area in need of Rehabilitation. As part of their ongoing rehabilitation and redevelopment activities, items of concern that may come up for discussion prior to the endorsement of the City's petition for a Regional Center are: the provision of adequate affordable housing opportunities, hazardous site clean–up issues, parking, infill, treatment of stormwater, environmentally sensitive areas, consistency with the Coastal Zone Management rules, especially traffic, secondary impacts and habitat protection concerns.
5. Given the economic, environmental and social importance of the Cohansey River to the City of Bridgeton, the City should proactively amend its land use ordinance and zoning ordinance to reflect the policies and implementation strategies contained within the Riverfront Redevelopment and Open Space Strategy (2003), and the Lower Cohansey River Management Plan (1998).
6. The City will need to work with the Department to develop a Stream Corridor Protection Plan and adopt a Stream Corridor Protection ordinance that is consistent with the Flood Hazard Rules and Surface Water Quality Rules.
7. The City will need to demonstrate consistency with CAFRA for areas of the City located in this region.
8. The Department will likely recommend that the City of Bridgeton adopt a Well Head Protection Ordinance for areas of the City within Well Head Protection Areas.
9. The City should continue to be proactive in its approach to correcting the deficiencies with regard to water quality associated with its public wells.
10. Even though the City has a significant level of developed areas, there still exist specific areas of threatened and endangered species habitat. The City should identify measures currently in place and identify additional steps that it could take

to further protect these habitats. The Department supports and is willing to assist the City in developing zoning overlays for critical areas, mandatory clustering, protection for stream corridors and steep slopes, and requirements for environmental impact statements for new development (as applicable).

11. Sustainability Statement (Municipal Self Assessment Report; P. 30) - The City needs to expand this further to include water conservation, habitat restoration/ protection, green buildings, recycling, public outreach and consider the addition of other "Green" initiatives such as an 'Energy Audit' of all municipal buildings, and activities that promote green house gas reduction and energy efficiency.
12. The City is encouraged to work with the Department in the promotion and preparation of environmentally friendly design guidelines for site planning.
13. The City is encouraged to develop an inventory of all of its brownfield sites and work with the Department to establish a program and plan for their remediation and redevelopment.
14. Page 1 of the Municipal Self Assessment Report indicates that the City "suffers from aging housing stock". Accordingly, there is likelihood of a significant lead-based paint exposure. The City should practice increased vigilance in the area of property maintenance violations that could provoke public health risks to its residents.
15. The City should be aware that as of September 6, 2008, its Coastal Center has been extended, pursuant to the provisions of the Permit Extension Act of 2008 (C.40:55D-136.1 to 40:55D-136.6). The 'Extension period' commenced January 1, 2007 and will continue through until July 1, 2010. However, while the CAFRA Regional Center is largely within the Metropolitan Planning Area (Planning Area 1) under the State Plan, a corridor along the Cohansey River, located in the extreme southern end of the center is delineated an as Environmentally Sensitive Planning Area (Planning Area 5) under the State Plan. With regard to the provisions of the Permit Extension Act, this area reverts to the Coastal Environmentally Sensitive Planning Area.
16. The City should ensure that all current and planned development within the CAFRA, as well as all applicable ordinances and site planning documents are consistent with Department policies as well as the CZM rules.
17. The Department is willing to review and provide input into the City's draft Master Plan in order to ensure its consistency with the State Development and Redevelopment Plan as well as with DEP regulations and policies.
18. The NJ Municipal Land Use Law requires the inclusion of four distinct elements: a statement of objectives, principles, and assumptions; a Land Use Plan Element; a Housing Plan Element; and a Recycling Plan Element. A review of the Bridgeton draft master plan (http://www.cityofbridgeton.com/City%20of%20Bridgeton%20Master%20Plan.html) and a review of the Summary Response from the June 30, 2008 Bridgeton Planning Board meeting demonstrates an absence of a Recycling Plan Element within the draft Master Plan. Accordingly, the Department would recommend the

City's consideration to expand the Master Plan to include a Recycling Plan Element.

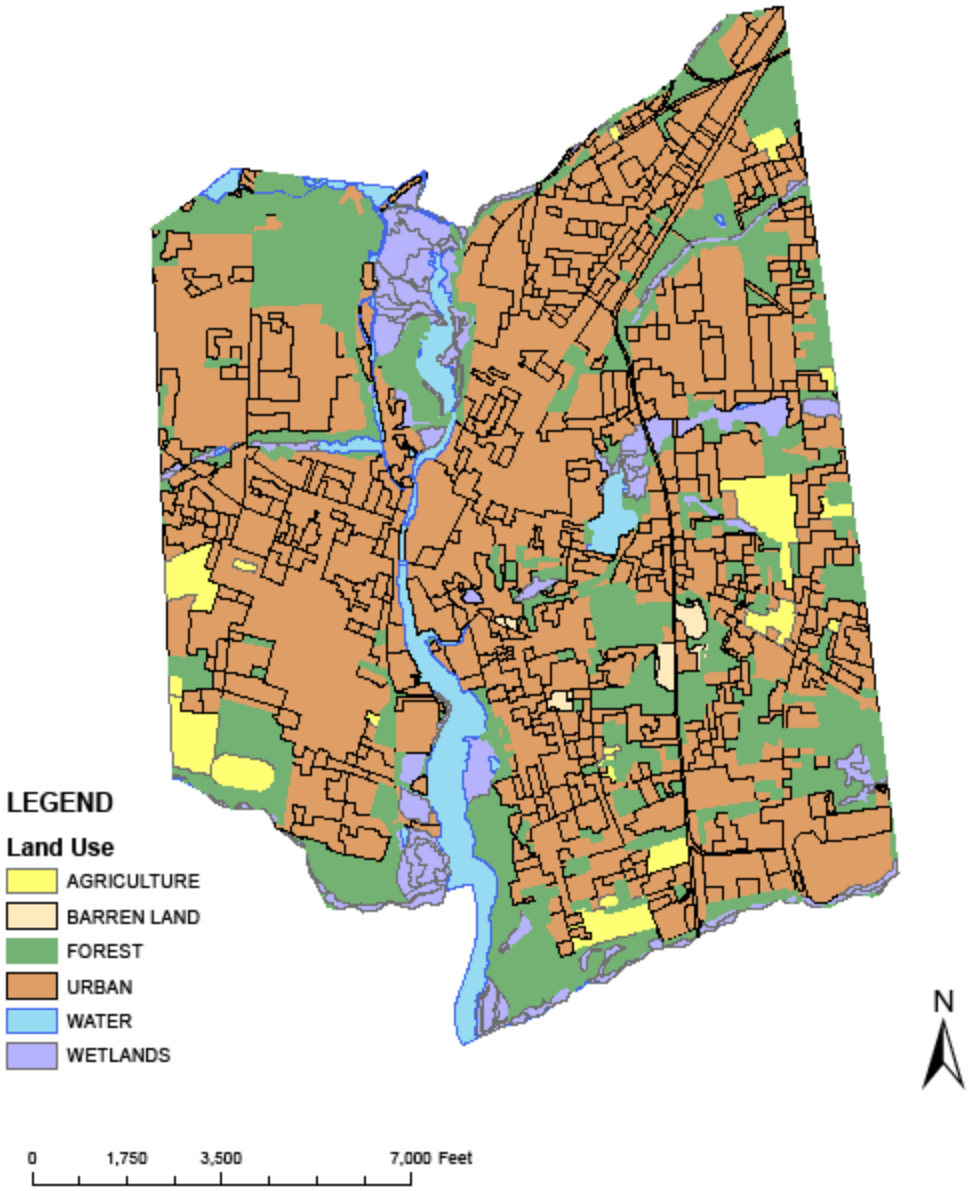
19. The City should consider the inclusion of Greenhouse Gas reduction goals and Global Warming and Sea Level Rise goals within their Master Plan.
20. The City should provide a map of its Community Facilities.
21. The City is currently in negotiation with the Rutgers Marine Center to implement conservation plans and research for the Cohansey River corridor. The City should additionally consider the inclusion of such plans within the context of an expanded Conservation Plan Element or a Sustainability Plan Element in their Master Plan.
22. The City of Bridgeton has the largest Historic District in the State of New Jersey with over 2,200 sites. While the City does have an Historic Commission which reviews all actions requiring a Certificate of Appropriateness the Department recommends that the City work with the State Historic Preservation Office in order to provide greater clarity in regard to the implementation of the Historic District regulations, design guidelines and Funding programs. The Summary of responses at the Public Hearing on the Master Plan, dated November 27, 2007 indicated public concerns in this area.
23. The City is encouraged to work with the Department in regard to reducing the phosphorus TMDLs within both Mary Elmer Lake and Sunset Lake. The Department has proposed the preparation and implementation of lake characterizations and lake restoration plans.
24. The City should continue to cooperate and work closely with Rutgers University in the preparation of a Watershed Restoration Plan for the Upper Cohansey River Watershed. This plan has been underwritten by a 'nonpoint source grant' provided by the Department to Rutgers University. The primary goal of the Plan is to improve the water quality of the Upper Cohansey River to the required 66% fecal TMDL reductions in nonpoint source bacteria loads.
25. The City is encouraged to work with the Department in developing its stated strategy for greenways.
26. The Department encourages the City to work closely with the County and the five municipalities that border the Cohansey River in order to establish interlocal agreements that specifically result in the preparation of the "Lower Cohansey River Management Plan" and the Delaware Estuary Study.
27. The City of Bridgeton will need to coordinate with the neighboring Township of Hopewell in order to identify how it can assist the Township with plans to secure enough water to support the growth planned for Hopewell's TDR receiving area. While this is still in the planning stages, it is anticipated that discussions should be ongoing and implementation strategies finalized prior to the endorsement of the City's petition.
28. The City has identified two potential zoning conflicts on page 28 of their Municipal Self Assessment report with regards to prospective development in

Fairfield Township and in Upper Deerfield Township. As a part of the Plan Endorsement process, the City should work with both of the Townships respectively to resolve the conflicts.

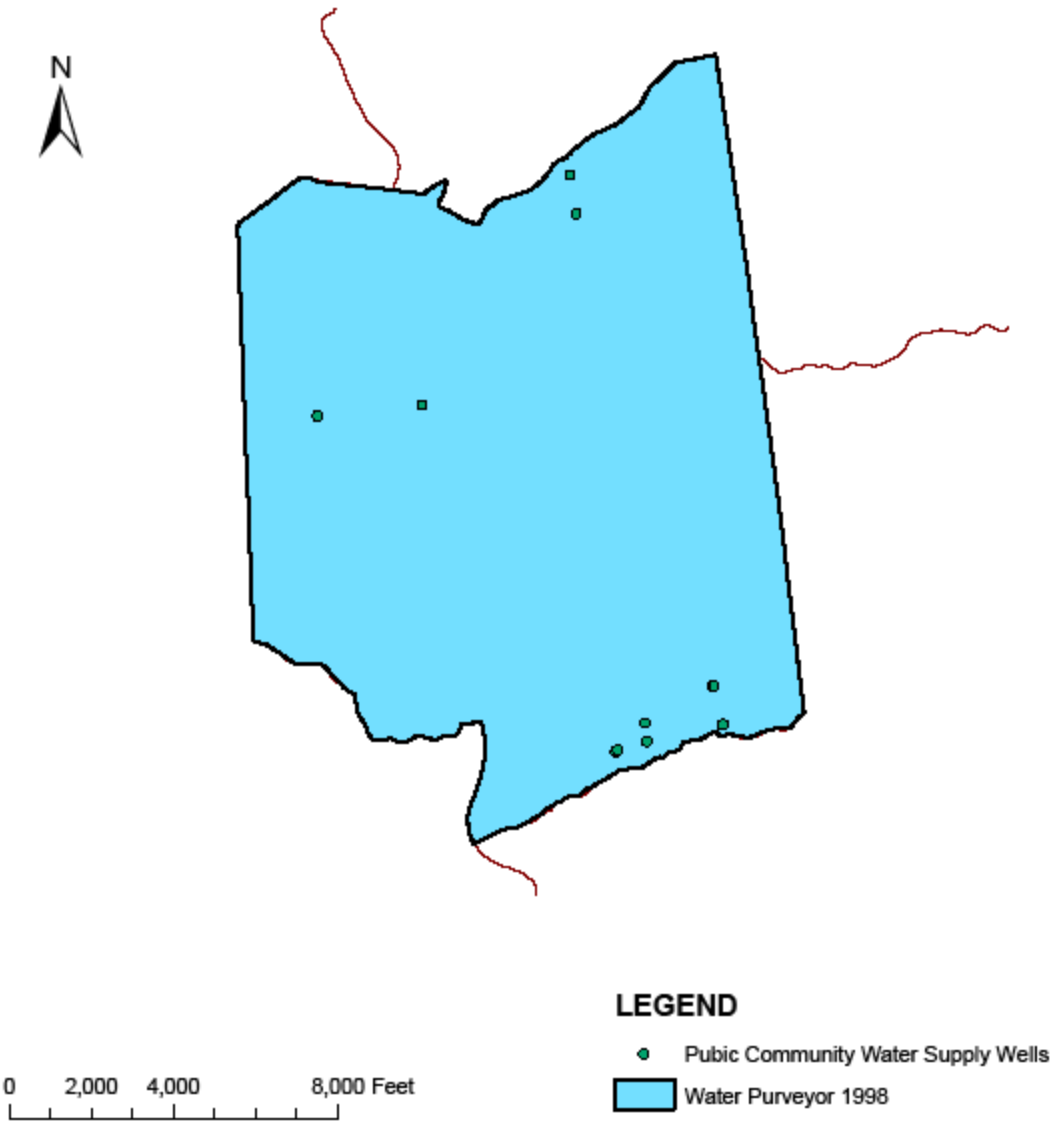
29. The City should work closely with the Hopewell, Upper Deerfield and Fairfield Townships with respect to the expansion of the boundaries of the Bridgeton Regional Center within their municipalities.
30. The Department encourages the City to coordinate and cooperate with the Cohansey River Basin Sewage Treatment Plant to ensure that the quality of the Cohansey River is not compromised by the operation of the Plant.

Maps and Additional Information

Land Use/Land Cover 2002



Public Community Water Supply Wells and Water Purveyor Area



Public Water System Deficit/Surplus

BRIDGETON CITY WATER DEPARTMENT

PWSID: 0601001
County: Cumberland

Last Updated: 10/10/08

Glossary of Terms Listed Below

Water Supply Firm Capacity: 2.851 MGD

Available Water Supply Limits

	Allocation	Contract	Total
Monthly Limit	170.000 MGM	N/A MGM	170.000 MGM
Yearly Limit	1500.000 MGY	N/A MGY	1500.000 MGY

Water Demand

	Current Peak	Date	Committed Peak	Total Peak
Daily Demand	3.995 MGD	07/2007	0.068 MGD	4.063 MGD
Monthly Demand	123.859 MGM	07/2007	1.054 MGM	124.913 MGM
Yearly Demand	1198.295 MGY	2007	8.273 MGY	1206.568 MGY

Water Supply Deficit or Surplus

Firm Capacity	Water Allocation Permit
-1.212 MGD	45.087 MGM
	293.432 MGY

Note: Negative values (a deficit) indicate a shortfall in firm capacity and/or diversion privileges or available supplies through bulk purchase agreements.

Bureau of Water System and Well Permitting Comments:
Updated with WCP080002 WRT Z-88 radionuclide treatment.

Bureau of Water Allocation Comments:
no comments provided

For more information concerning water supply deficit and surplus, please refer to:

Firm Capacity and Water Allocation Analysis (Pdf Format)
Currently Effective Water Allocation Permits by County
This report displays all effective water allocation permits issued by the department.

- Pending Water Allocation Permits with Requests for a Hearing
  All pending water allocation permits with public hearing requests.
- Water Allocation Permits Made Effective within a Selected Timeframe
  This report displays water allocation permits based on a specified date range.

Questions regarding safe demands and firm capacity please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for questions concerning water allocation and status please contact the Bureau of Water Allocation at 609-292-2957.

Questions may also be sent to the Division of Water Supply

back to search results

Glossary of Terms

Allocation Limit: The maximum allowed by a valid Water Allocation Permit issued by the Bureau of Water Allocation. This may be surface or ground water, and may be expressed in MGD, MGM, MGY or some combination thereof. Withdrawals may also be limited by other factors and have seasonal or other restrictions such as passing flow requirements.

Committed Peak Demand: The demand associated with projects that have been approved for ultimate connection to the system, but are not yet constructed as indicated through the submission of construction certifications or certificates of occupancy. This is calculated by totaling the demand as included in Water Main Extension (WME) permits and the demand associated with projects not requiring a WME permit. For various review purposes this quantity may be represented as MGD, MGM and/or MGY.

Contract Limit: Purchased water, where regulated by an approved service contract, may be included in the overall allocation quantity where appropriate. Contracts may exist with minimum, maximum, seasonal or other restrictions. In some instances, the value is an estimate, not an exact limit.

Current Peak Demand: This is the average day of the highest recorded demand month occurring within the last five (5) years. (For the purpose of this table, the calculation for current peak demand was based on 31 days. Systems will be reviewed on an individual basis.) This includes water from a system's own sources and all other sources of water (i.e. purchased water).

Firm Capacity: Adequate pumping equipment and/or treatment capacity (excluding coagulation, flocculation and sedimentation) to meet peak daily demand, when the largest pumping unit or treatment unit is out of service. The value is represented in MGD.

Firm Capacity Deficit or Surplus = (Firm Capacity - Total Peak Daily Demand): The difference between the Firm Capacity and the sum of the peak daily

demand and committed daily demand. This is a measure of the physical ability to provide treated water at adequate pressure when the largest pumping unit or treatment unit is out of service. Negative values indicate a shortfall in Firm Capacity.

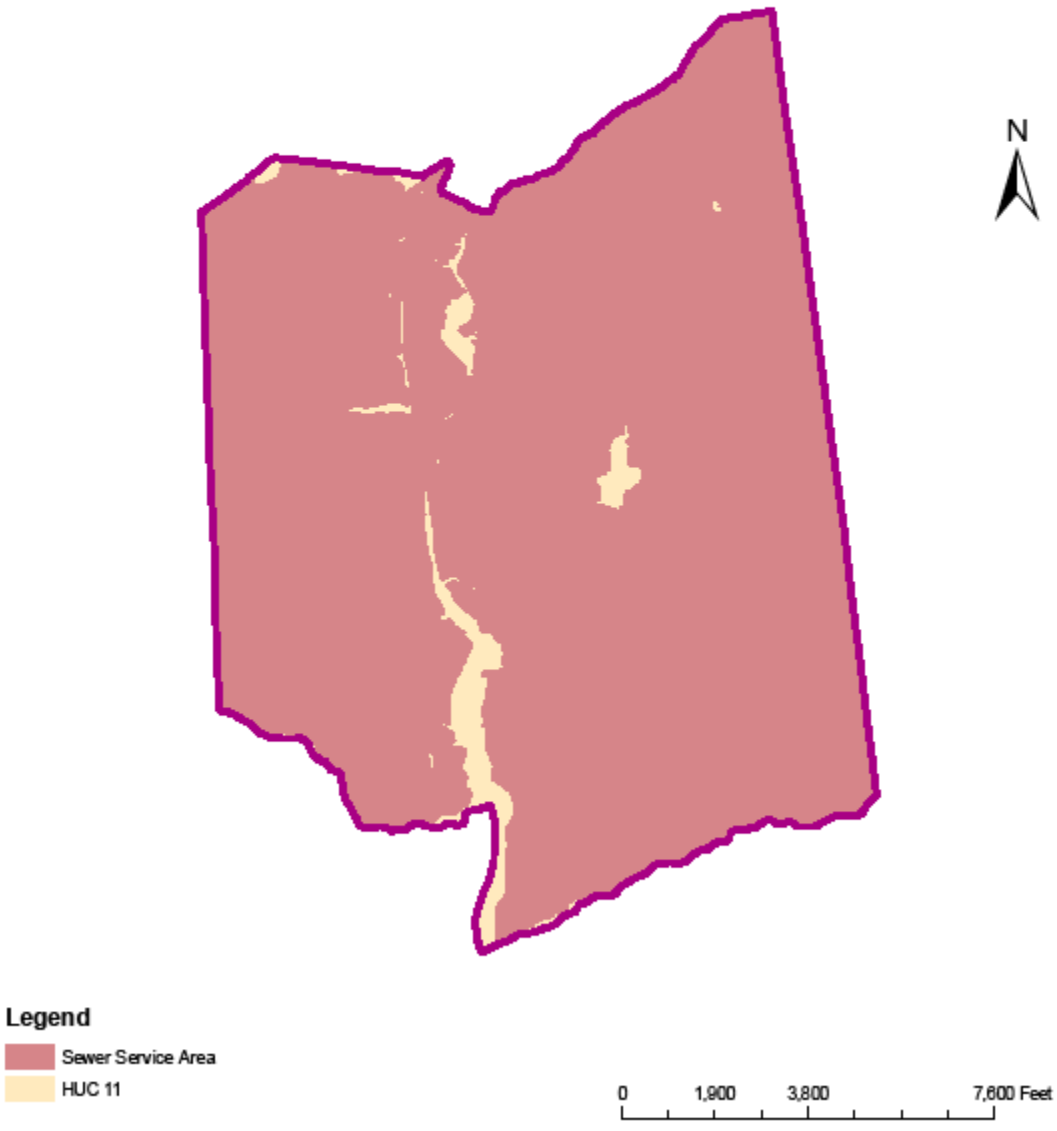
Requested Allocation: The amount of water the public water system is requesting as part of its water allocation permit application, including existing allocations. This value is represented in MGM and MGY.

Total Peak Water Demand: The sum of the public water system's current peak demand and committed peak demand. The value is represented in MGD, MGM, and MGY.

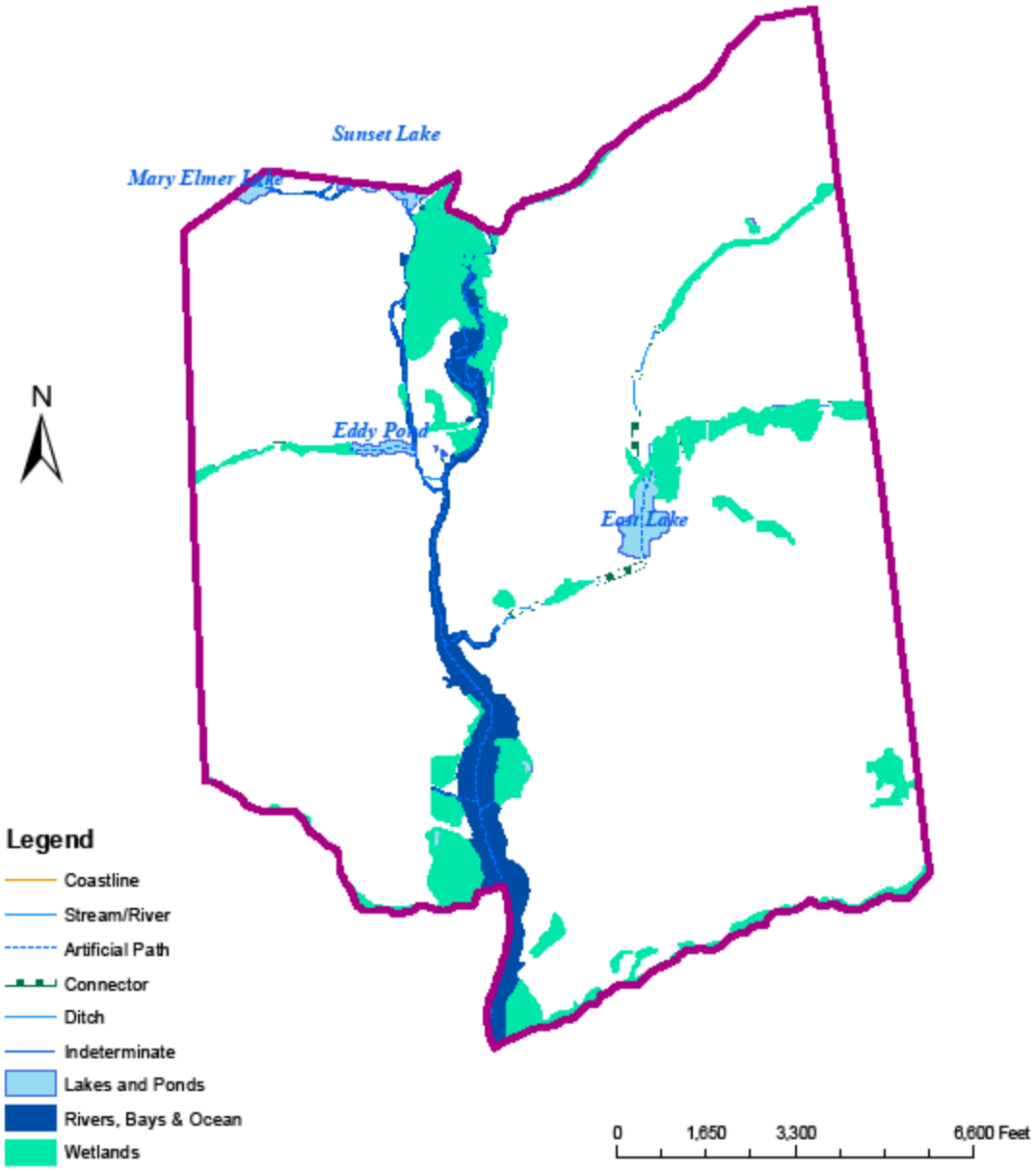
Total Available Water Supply: The sum of the Allocation Limit and Contract Limit. This value is represented in MGM and MGY.

Water Supply Deficit or Surplus = (Total Water Allocation Permit Limit-Total Peak Demand): The monthly and/or annual limitations of an Allocation Permit minus the sum of the monthly and/or annual demands recorded based on the water use records plus the monthly and/or annual demand projected for approved but not yet constructed projects. Negative values indicate a shortfall in diversion privileges or available supplies through bulk purchase agreements.

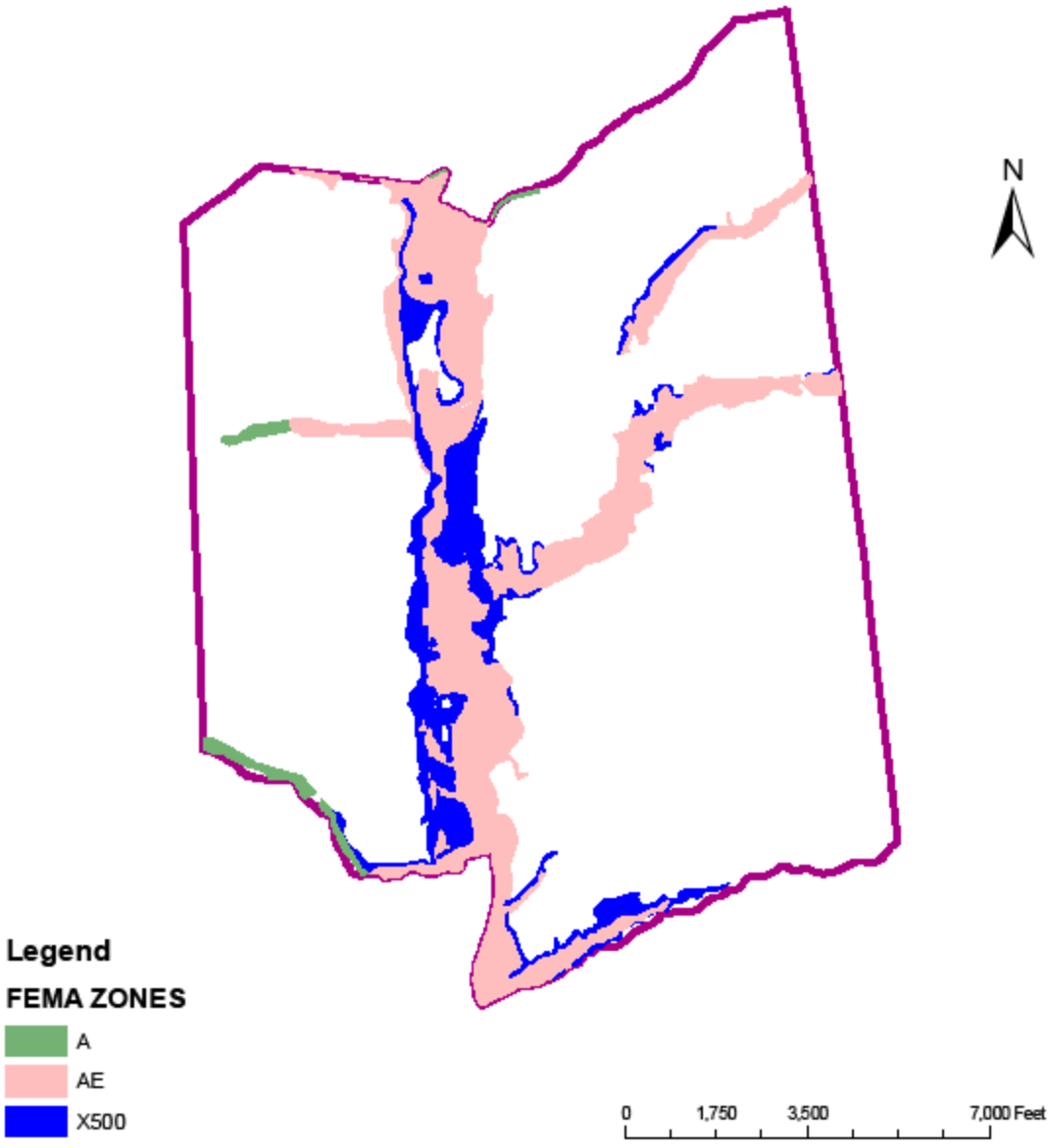
Sewer Service Areas and HU-11 Analysis



Wetlands and Waterways



FEMA Flood Zones



Flood Hazard Areas

Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X- 500 (shaded on a FIRM map) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded on a FIRM map). The following FEMA Zones exist within the City of Bridgeton:

- **Zone A**
  Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone AE**
  Areas subject to inundation by the 1-percent-annual chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone X500**
  An area inundated by 500-year flooding; an area inundated by 100-year flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 100-year flooding.

Flood insurance is available for all eligible buildings within a community that participates in the NFIP. However, the NFIP currently has no floodplain management criteria for B, C, and X Zones—those areas that lie outside of the SFHA—and no requirements for communities to take action to reduce or prevent losses in these areas. The result is significant financial losses for the NFIP, including the cost of insuring repetitive loss properties. Here are some statistics that show the cost of localized flooding to the NFIP:

- Since 1978 the NFIP has paid over $2.8 billion in claims in B, C, and X Zones.
- Of that, $1.1 billion was paid for claims on repetitive loss properties.
- Between 20 percent and 25 percent of all repetitive loss properties are rated as being in B, C, and X Zones.
- In some communities, over half of the repetitive loss buildings are in B, C, and X Zones.

What is Localized Flooding?

Localized flooding refers to flooding outside the scope of criteria that apply to the SFHA as depicted on a community's FIRM. This includes areas within and outside the B, C, and X Zones.

Such floods are often referred to as:

- stormwater flooding
- nuisance flooding
- flooding on small streams
- carpet wetters
- poor drainage
- ponding

Familiarize yourself with these terms to help identify a flood hazard:

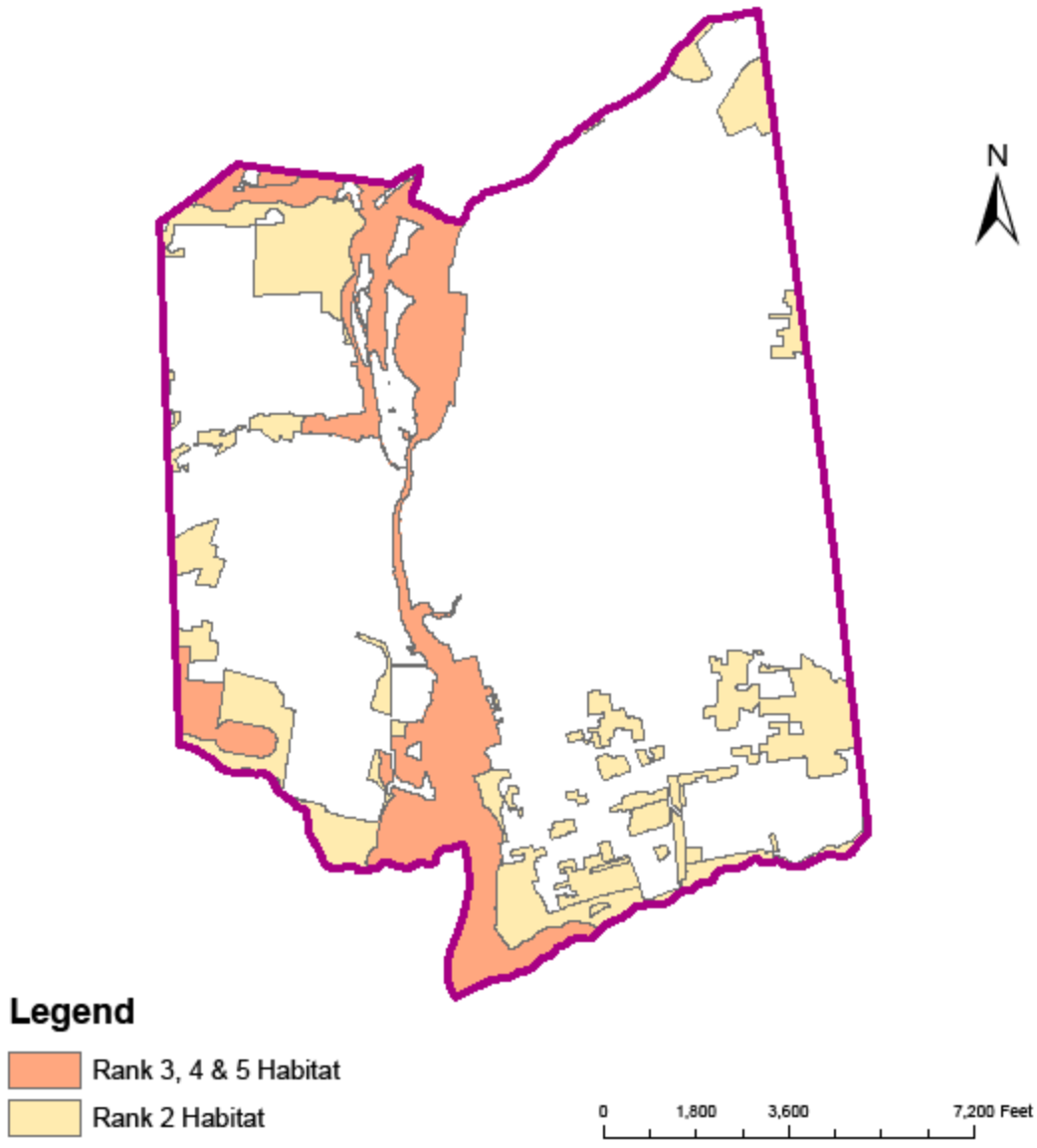
Flood Watch:
Flooding is possible. Tune in to NOAA Weather Radio, commercial radio, or television for information.

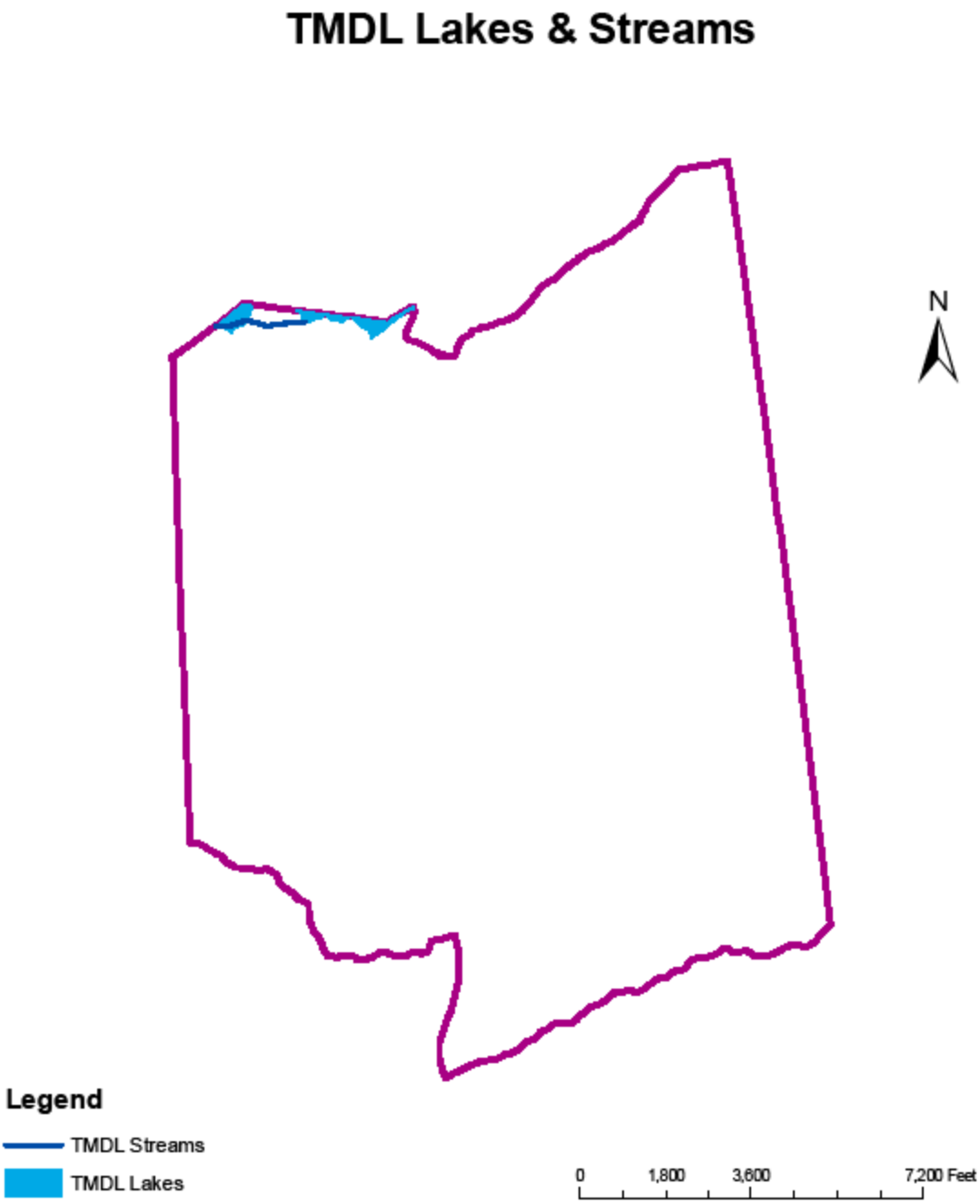
Flash Flood Watch:
Flash flooding is possible. Be prepared to move to higher ground; listen to NOAA Weather Radio, commercial radio, or television for information.

Flood Warning:
Flooding is occurring or will occur soon; if advised to evacuate, do so immediately.

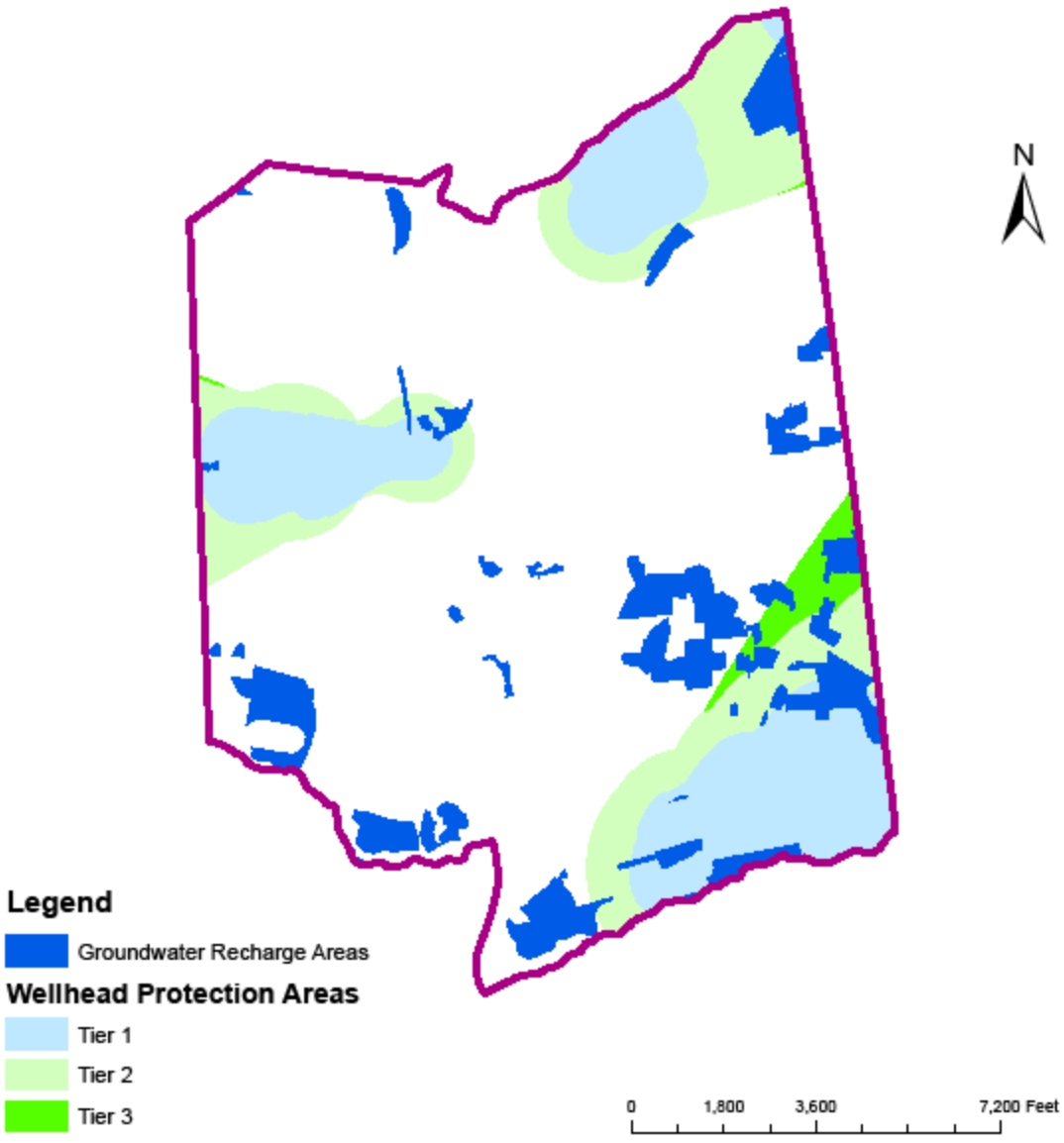
Flash Flood Warning:
A flash flood is occurring; seek higher ground on foot immediately.

Endangered, Threatened, & Priority Species Habitats

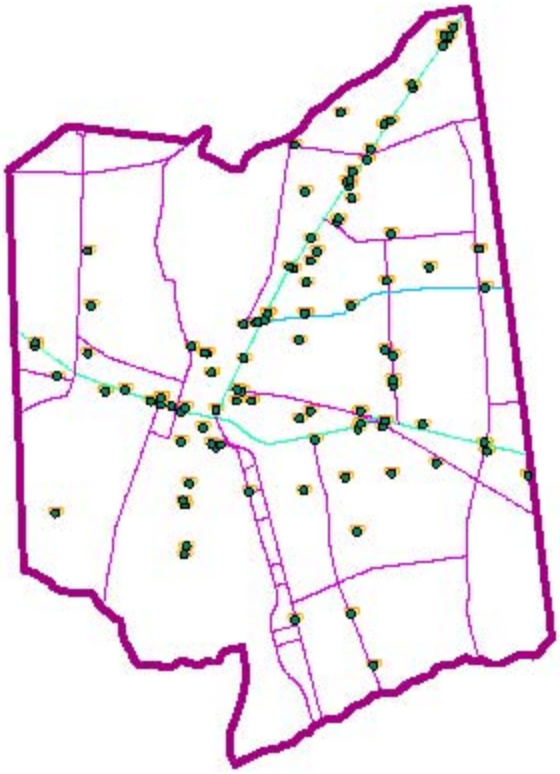



TMDL Lakes & Streams
N
Legend
TMDL Streams
TMDL Lakes
0
1,800
3,600
7,200 Feet

Wellhead Protection and Groundwater Recharge Areas



Contaminated Areas Considerations
Underground Storage Tanks



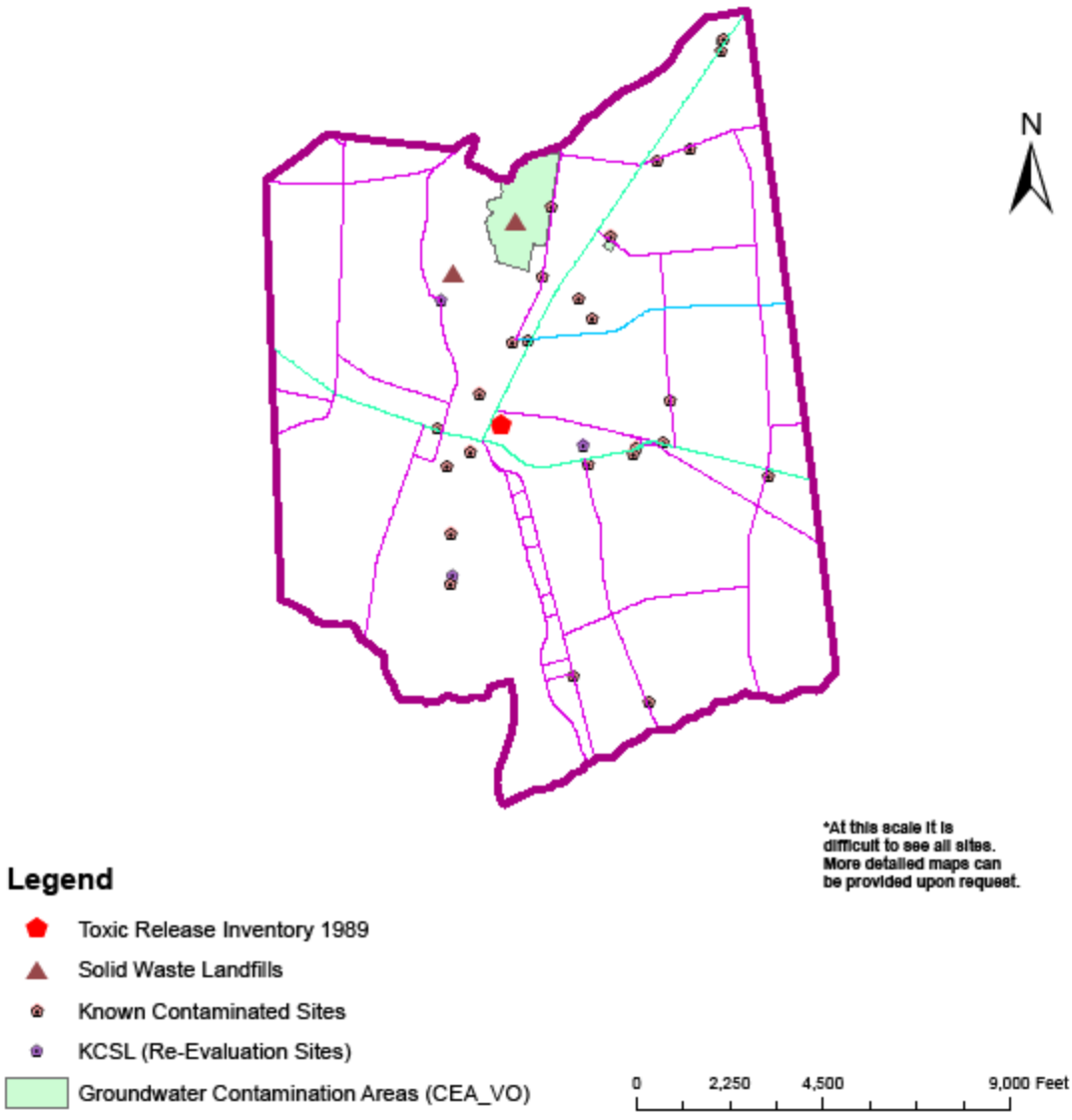
N

Legend

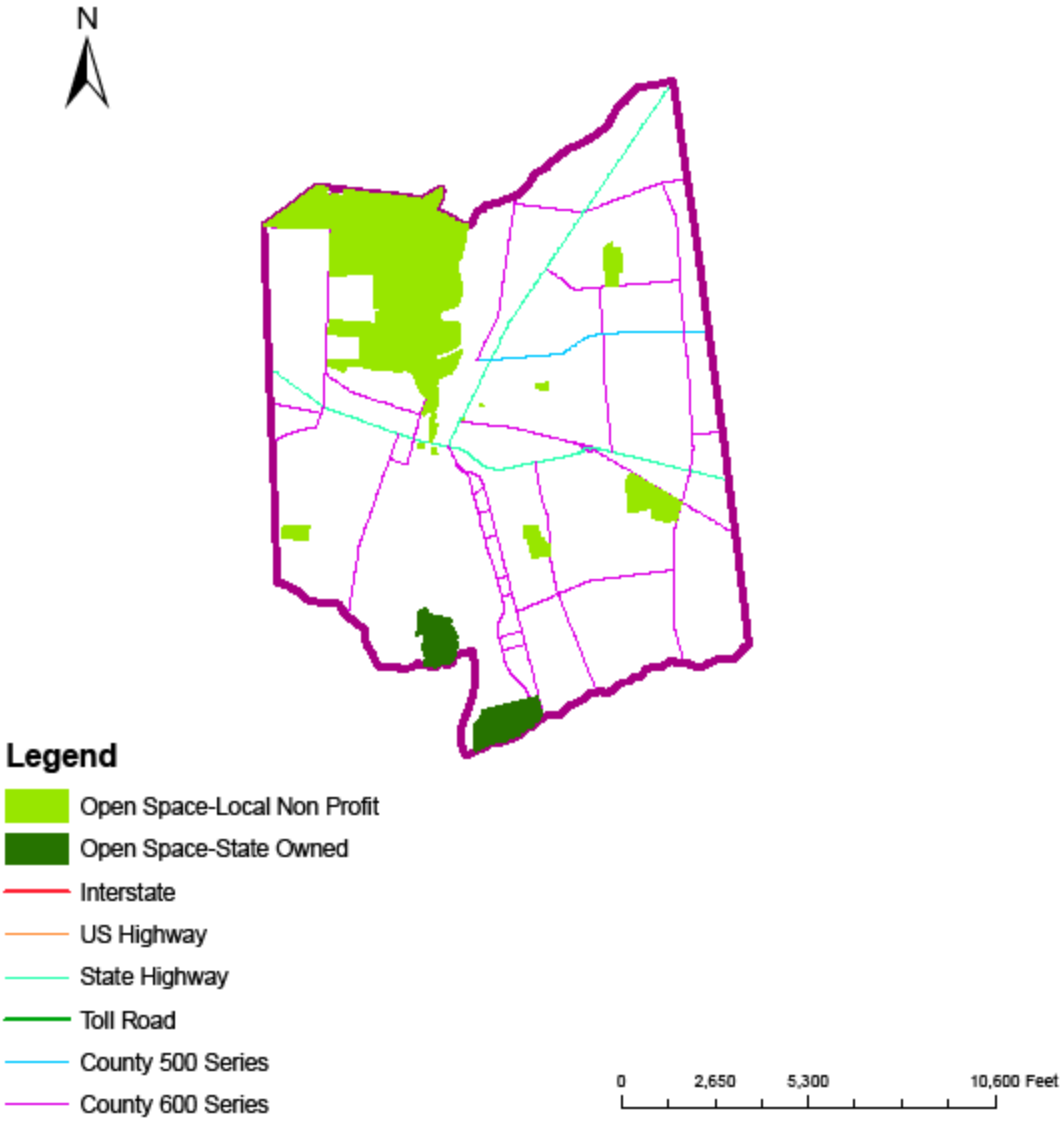
- Underground Storage Tanks

0 2,375 4,750 9,500 Feet

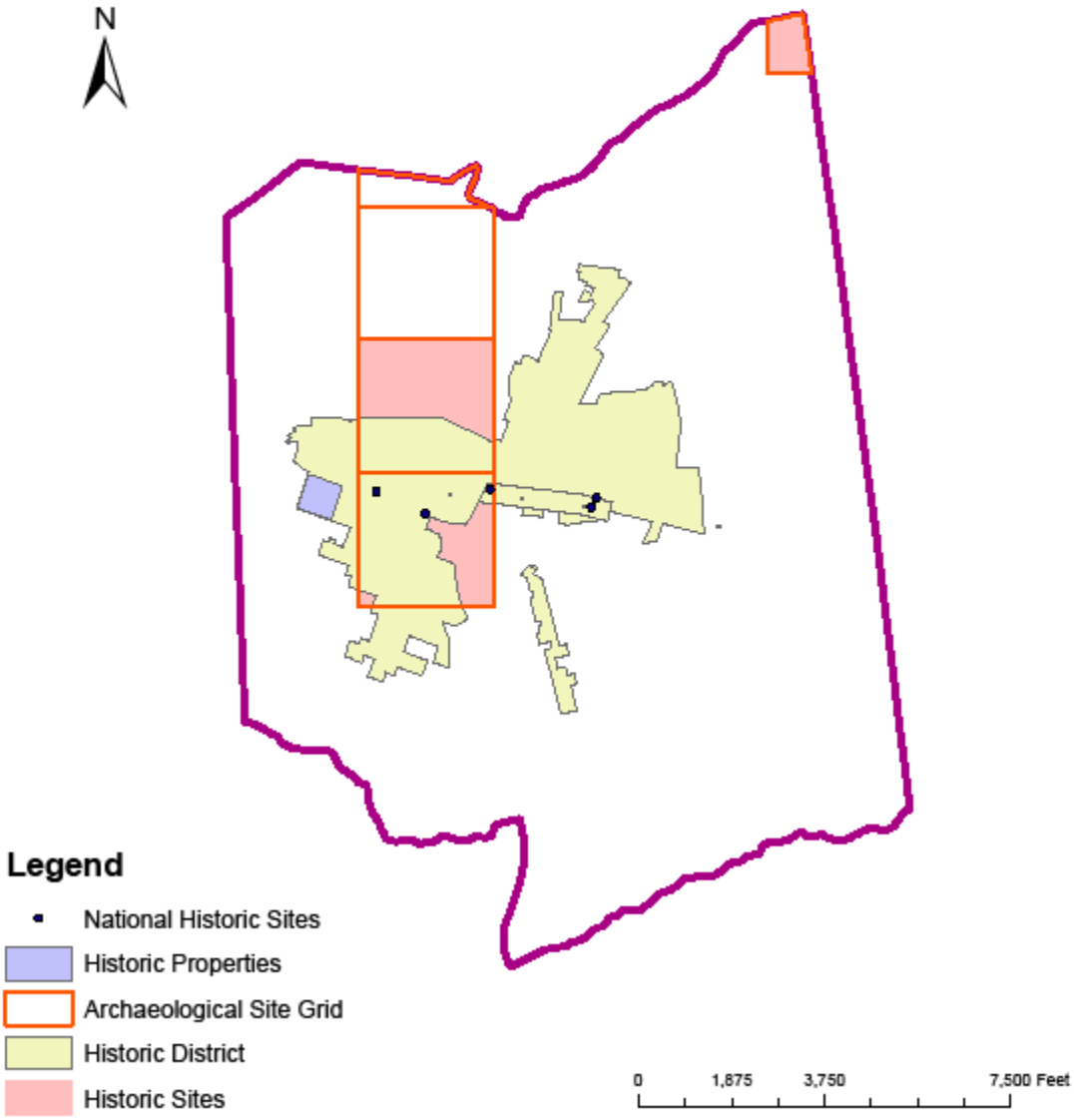
Contaminated Areas Considerations*



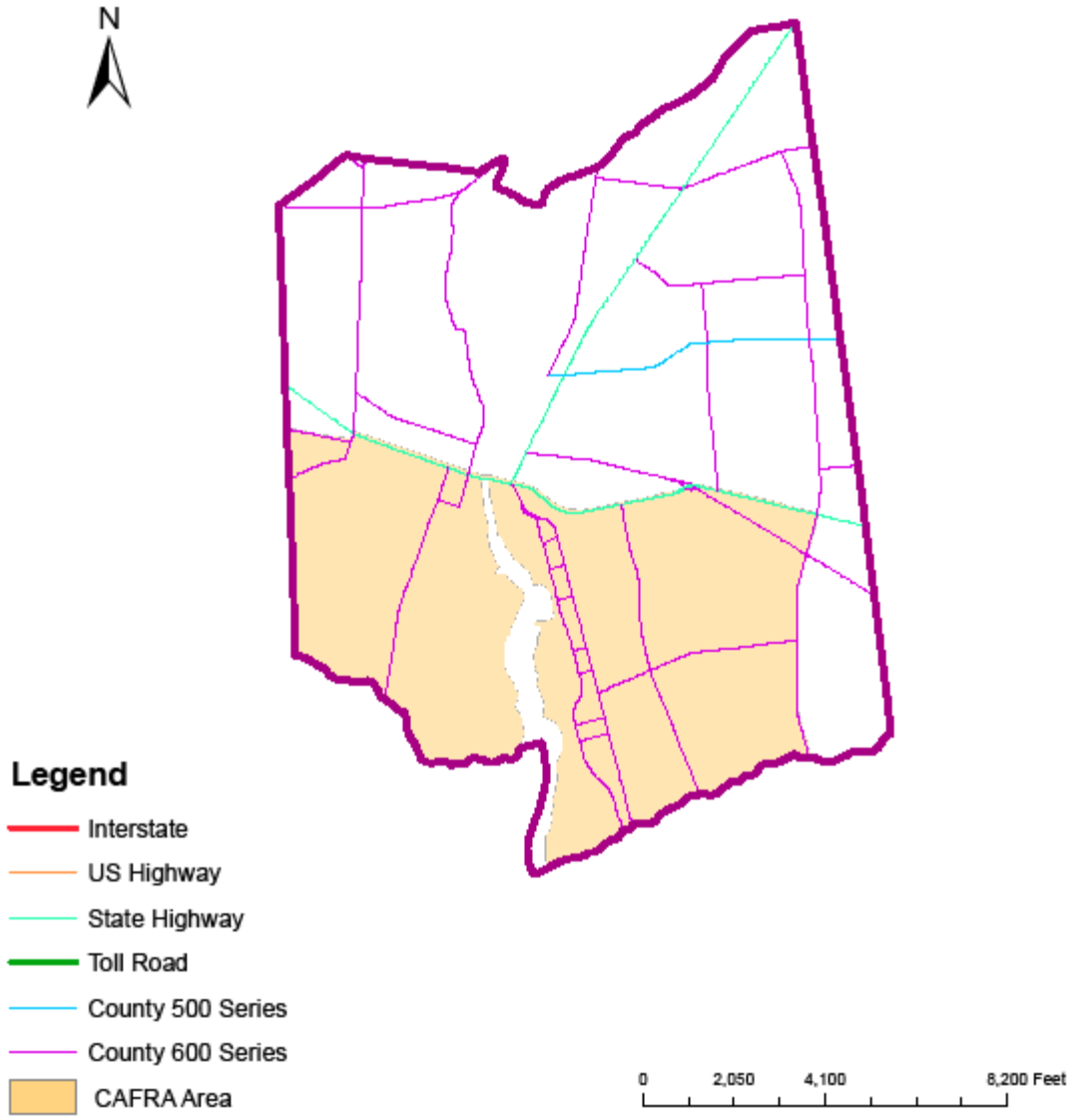
State and Local Open Space



Historic District and Sites



Coastal Area Facilities Review Act Area



NJDEP Office of Planning and Sustainable Communities

The Office of Planning and Sustainable Communities was formed to facilitate the Department's move toward a proactive planning approach based on principles of sustainability and environmental capacity-based planning.

Mission

To coordinate the sustainable development and environmental capacity-based planning policies of the Department and proactively work with other state agencies, regional entities, local governments and other groups to incorporate these policies into all levels of land use and environmental planning.

Background

In January, 2007, the Department of Environmental Protection (DEP) adopted its Policy Priorities and Action Plan which outlines the strategic direction of the agency over the next three years. The Plan identifies eight broad goal areas and underlying objectives.

One of the eight goal areas is Sustainable Growth:

> Maximize use of department resources to encourage sustainable growth and livable communities by incorporating consistent criteria for the protection of natural resources and development of smart growth and green design principles into DEP rulemaking, priority setting and planning efforts, other state smart and economic growth priorities, and in regional and local planning efforts.

The first objective of this goal is:

> "Incorporate sustainable growth and environmental protection criteria into state, regional and local planning."

At the core of this goal is a recognized need for more progressive statewide environmental planning by the Department to help inform the local land use development and redevelopment process. Historically, the Department has engaged primarily in environmental planning in targeted areas based on statutory direction. Critically important work has been done in such areas as water quality management planning, water supply master planning, habitat protection planning (Landscape Project) and county/state solid waste planning. DEP is now committed to ensuring that these various planning programs are integrated and coordinated so that our guidance to regional and local planning agencies is consistent, comprehensive and supportive of both local and state priorities.

In a significant business practice improvement, DEP is also committed to implementing the Sustainable Growth goal by broadening the scope of its major project review process

by requiring consideration and rewarding incorporating of green design the principles and practices.

The Department's extensive and innovative application of information technology systems, such as the New Jersey Environmental Management System (NJEMS), DEP's Geographic Information System, i-MapNJ, and Data Miner now provide us with unprecedented opportunities to share information to help guide the development and redevelopment process.

Taken together, our advances with information technology and business practice reform now enable us to engage in progressive environmental planning to address such pressing statewide issues such as sustainable growth, environmental justice, greenhouse gas emissions reduction, and water resource protection in new, innovative ways.

Office of Planning and Sustainable Communities

401 E. State Street, 7 Floor East
P.O. Box 402
Trenton, NJ 08625-0402
Phone: (609) 341-5311
Fax: (609) 292-3268

NJ DEPARTMENT OF TRANSPORTATION

State Development and Redevelopment Plan
Plan Endorsement
Opportunities and Constraints Analysis

For:

City of Bridgeton, Cumberland County

March 3, 2009

This document constitutes the New Jersey Department of Transportation's component of the State Opportunities and Constraints Analysis conducted as part of the Plan Endorsement process. This document provides a collection of the most recent data and information that exists in the Department pertaining to transportation features, studies, projects, grants, designations and other significant issues as applicable. The document should serve as a baseline to inform the remainder of the Plan Endorsement process. It should be understood that this assessment reflects conditions as they presently exist, and that changes may occur at any time during the Plan Endorsement process.

NJDOT has examined the following categories for pertinent data:

State Highways

Route 49 – MP 24.51 – 27.14
Route 77 - MP 0 – 2.34

Straight Line Diagram sheets are attached.

State Highway Access Management Code – Access Levels and Desirable Typical Sections

The attached table shows the Access Code classifications for the state highways located within the City of Bridgeton. There are no proposed AL or DTS changes.

The designation of a Center would not change the access levels for any portion of these segments.

Congestion Management System

According to the attached charts, a part of this section of Route 49 is classified as "Very Congested."

Most of Route 77 is "Very Congested", with one part being "Severely Congested." The intersection of Route 77 and CR 552/Irving Avenue (MP 0.52) is ranked 345, the intersection at CR 659 (M) 1.46) is ranked 281 and the intersection at Laurel Plaza Drive (M) 2.34) is ranked 359 out of 372 high need intersections on state highways.

Major Capital Projects/Initiatives and Mitigation Projects

The FY 2009-10 Study and Development Program contains the following item:

Route 49 Buckshutem Road (CR 670) Intersection Improvements:

The existing geometric layout is a six-legged, unsignalized intersection separated by grass and concrete medians. Existing geometry contributes to driver confusion upon entering the intersection. Median openings and unclear signing make turning maneuvers from minor street approaches difficult and confusing. In addition to geometric deficiencies, the existing Route 49, Buckshutem Road intersection also experiences operational and safety deficiencies. The proposed alternative improves the existing alignment of Route 49 and creates a new, signalized intersection. The signal would be located at the intersection of Route 49, Manheim Avenue and the realigned Buckshutem Road. Florida Avenue would be realigned to intersect with the Buckshutem Road Connector at a slight right angle. North Elm Street would not have direct access to Route 49. A short connection from East Commerce Street to Route 49 would be provided, forming an unsignalized "T" intersection with Route 49. Only right in/right out turning movements would be permitted at this new intersection. Minor changes to the intersection of Route 49 and East Avenue are also proposed to alleviate problems for turning vehicles.

Designated Transit Villages

Not Applicable

Designated Scenic Byways

The Bayshore Heritage Scenic Byway runs through Bridgeton (see map attached), as follows:

To continue on the main route, take Bayside Road back to the "T" intersection with Tindall Road and turn right onto Tindall Island Road, then left onto Bacons Neck Road/CR 642 into Greenwich. At intersection, turn right onto Ye Greate Street/CR 623. After 0.3 miles on Ye Greate Street/CR 623, turn left onto Maple Street/Bridgeton-Greenwich Road/CR 607. Take Greenwich Road/Bridgeton Road/CR 607 north toward Bridgeton and make a right onto Sheppards Mill Road/CR 650. Take to "T" intersection and turn left onto Dutch Neck Road/CR 650 and take into Bridgeton where it becomes Fayette Street. Turn right onto Route 49. Take Route 49 east over the Cohansey River and turn right onto Grove Street/Bridgeton-Fairton Road. South/Spur CR 609 (Spur CR 609 is one way south out of Bridgeton and CR 609 is one way north into Bridgeton. South of Bridgeton the two roads merge and become Bridgeton-Fairton Road/CR 609 and merge with CR 553 into Fairton. At intersection, bear right, continuing on Cedarville Road/CR 553.

The Bayshore Heritage Byway is applying for a National Scenic Byway grant this March (2009) to complete a Corridor Management Plan.

Open Local Aid Grant Projects

The City received $198,272 for improvements to Bank Street under FY 2009 Municipal Aid formula funding.

Corridor Studies

Not Applicable

Local Planning Assistance Projects

Not Applicable

Bicycle and Pedestrian Local Planning Assistance Projects

Not Applicable

Public Use/General Aviation Airports

Li Calzi Airpark is located on Dutch Neck Road in Hopewell Township, 2 miles south of Bridgeton (see attachment).

Rail Freight Lines

Bridgeton is well-served by rail. The Winchester and Western Railroad is headquartered in Bridgeton. The Mainline extends 28 miles from Millville in the east through Bridgeton; then south to Commercial Township; the Deerfield Branch extends three miles north; and the Bridgeton Port Branch extends through town toward the Cohansey River. NJDOT has supported this transportation resource and its potential for job creation. Manufacturing accounts for about 1200 jobs, or 17.6% of employment in Bridgeton. The City is encouraged to incorporate rail freight and goods movement into its planning efforts.

The Bureau of Rail Services has made the following investments in rail services in the Bridgeton area through the Rail Freight Assistance Program:

2008	W & W Railroad	Construction of a Runaround Track and Rehabilitation of a Siding	413,410.00
2005	W & W Railroad	Upgrade to CWR C&M, Southern Main Deerfield WYE	300,066.00
2005	W & W Railroad	Rehabilitation of Bridgeton Junction	212,700.00
2005	W & W Railroad	Upgrade C&M Main Line between MP 6.9 and 7.37	112,965.00
2004	W & W Railroad	Southern Main Line, Thermal weld rail joints and replace worn track where required	92,665.20

Note: The Main Line originates in Bridgeton. The number shown is the full value of the investment. The NJDOT grant has been for 90% of that amount, with the remainder, including any cost overruns, provided by the railroad.

Traffic Engineering and Safety Initiatives

Traffic Engineering has two signal revision assignments on Route 77:

The timing and operation of the Route 77 and Commerce Street signal is being reviewed due to congestion concerns.

Pedestrian signal indicator installations are planned for Route 77 and Route 49 (Broad Street).

Existing and Planned Park-and-Rides

Not Applicable

Other Significant Issues

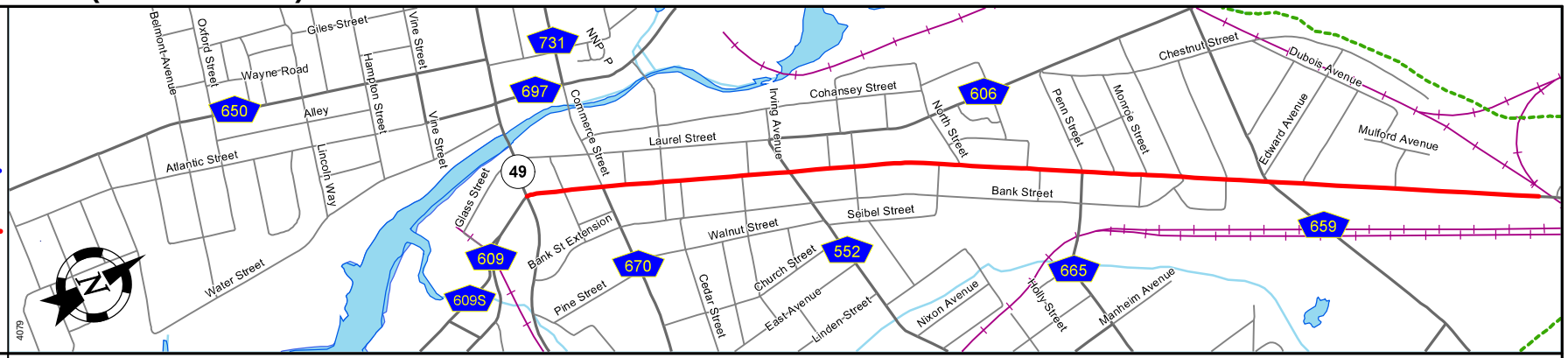
ATTACHMENTS

Straight Line Diagram Sheets
Access Classification Table
Congestion Management System Chart
Bayshore Heritage Byway Map
Li Calzi Airport Profile

NOTE: GIS data layers have been provided to the OSG GIS unit by the NJDOT GIS unit.

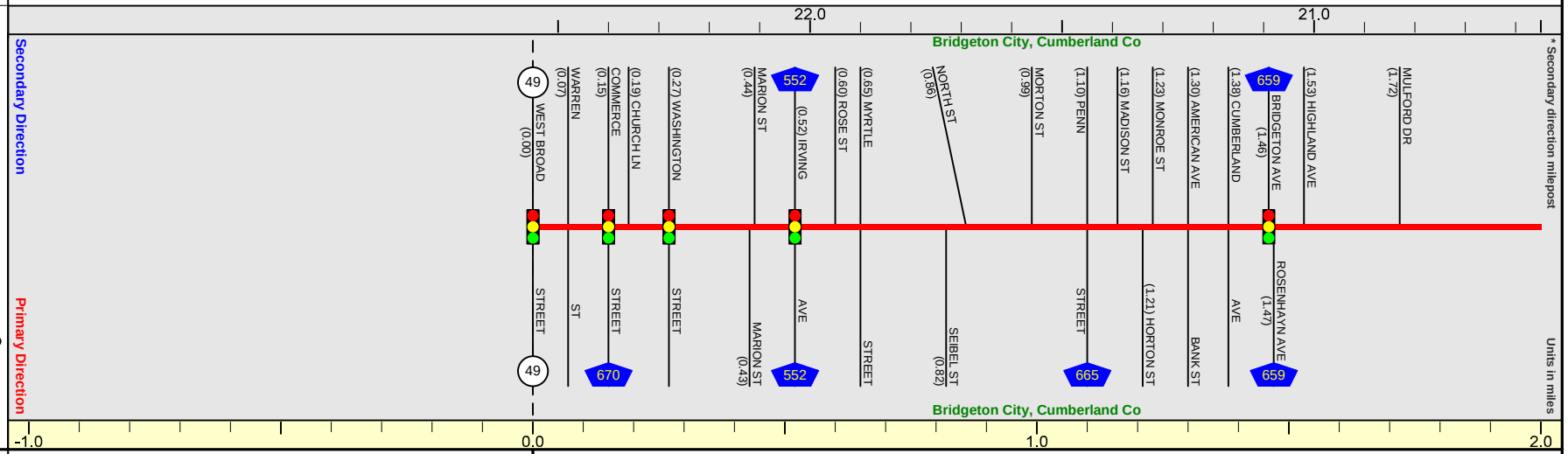
NJ 77 (South to North)

Mile Posts: 0.000 - 2.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	

Interstate Route 287
US Route 22
NJ Route 21
County Road 689
Interchange Number 2
Grade Separated Interchange
Traffic Signal
Traffic Monitoring Sites VMM AVC VOL
Road Underpass
Road Overpass



Street Name	Pearl Street
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Minor Arterial
Federal Aid - NHS Sy	STP
Control Section	0607
Speed Limit	30 | 35
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	45 | 48 | 30
Shoulder	0
Traffic Volume	13,032 (2005)
Traffic Sta. ID	7-4-382
Structure No.	
Enlarged Views	

Begin NJ 77 MP=0.00

Page Created: May 2008

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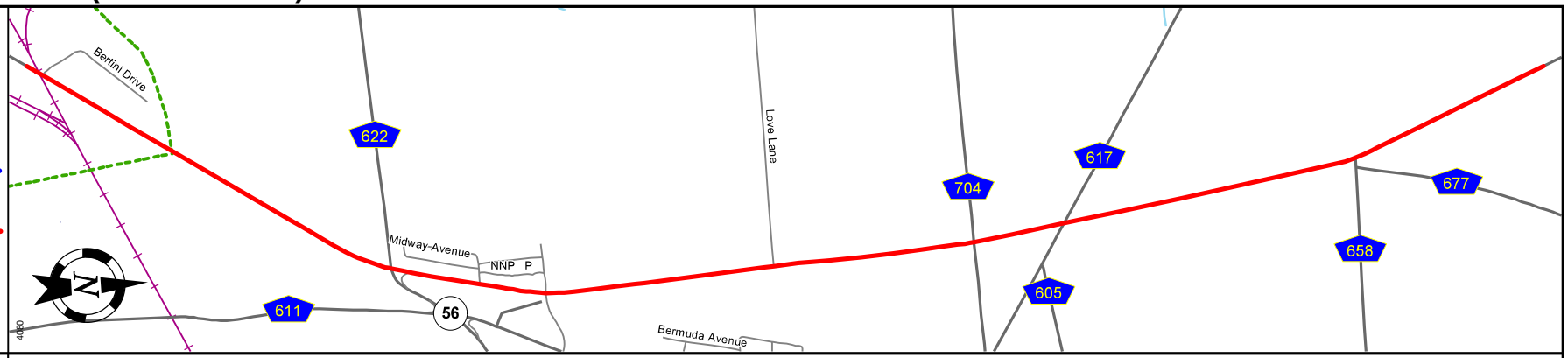
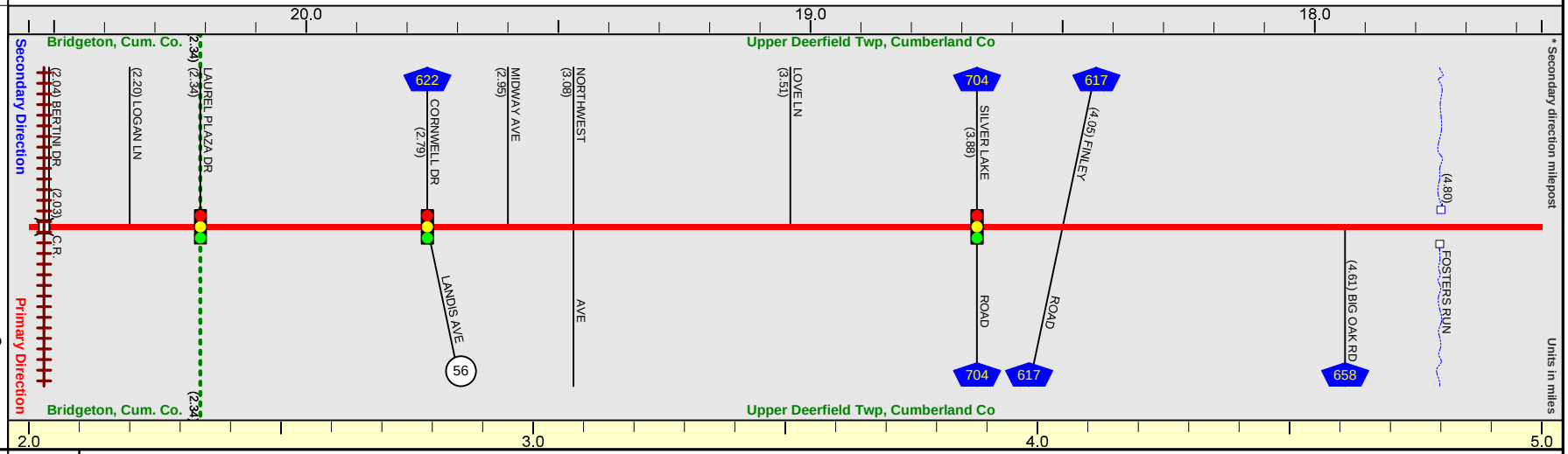
Date last inventoried: March 2007

NJ 77 (South to North)

Mile Posts: 2.000 - 5.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Pearl Street		NJ 77	
Jurisdiction			N.J.D.O.T.	
Functional Class			Urban Minor Arterial	
Federal Aid - NHS Sy			STP	
Control Section	0607		0608	
Speed Limit	35	45	50	
Number of Lanes	2	4	2	
Med. Type			None	
Med. Width			0	
Pavement	30	24	57	24
Shoulder	0	12	0	9
Traffic Volume		14,355 (2005)		8,440 (2006)
Traffic Sta. ID		7-5-014		7-6-015
Structure No.	0607150			0608150
Enlarged Views				

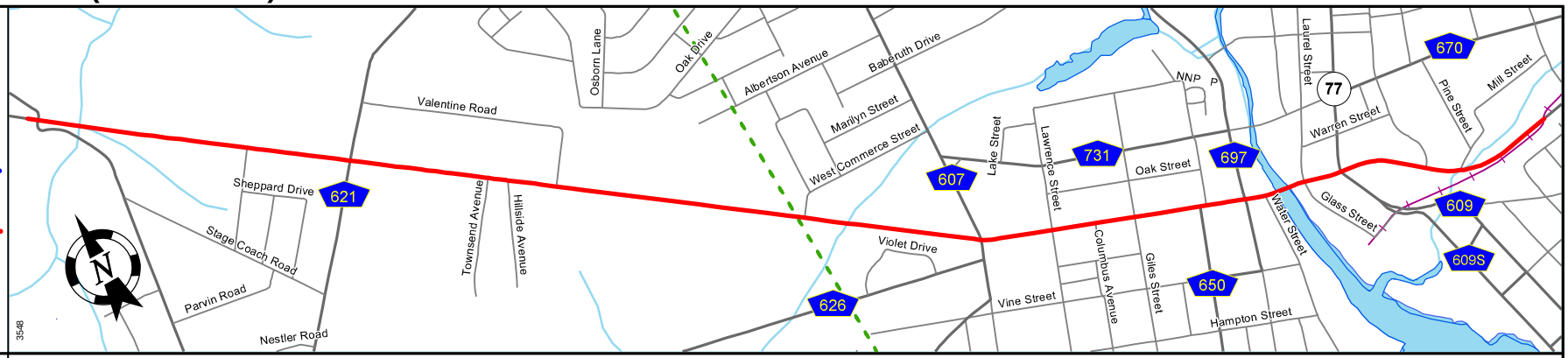
SRI = 00000077__

Date last inventoried: March 2007

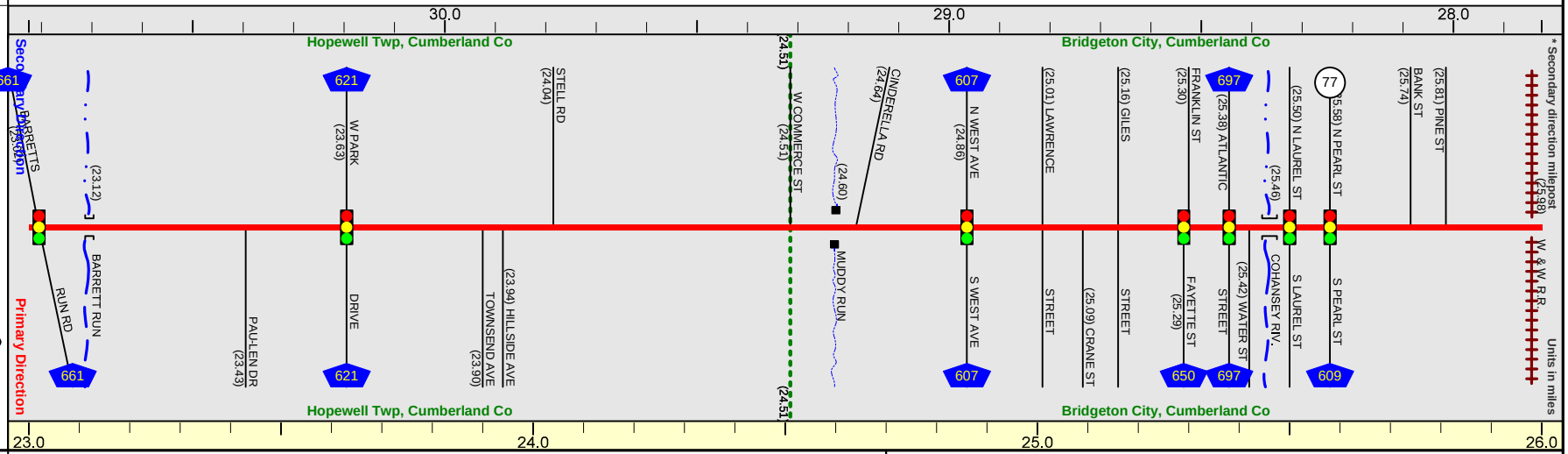
Page Created: May 2008

NJ 49 (West to East)

Mile Posts: 23.000 - 26.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Interstate Route 287 · US Route 22 · NJ Route 21 · County Road 689 · Interchange Number 2 · Grade Separated Interchange · Traffic Signal · Traffic Monitoring Sites (WIM, AVC, VOL) · Road Underpass · Road Overpass

Street Name	Shiloh Pike | West Broad Street
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Principal Arterial
Federal Aid - NHS Sy	NHS
Control Section	0604 | 0605
Speed Limit	50 | 40 | 30 | 40
Number of Lanes	2 | 4 | 2
Med. Type	None
Med. Width	0
Pavement	24 | 30 | 60 | 50 | 24
Shoulder	8 | 3 | 0 | 10
Traffic Volume	8,351 (2005) | 15,552 (2006)
Traffic Sta. ID	7-4-379 | 7-4-380
Structure No.	0604150 | 0604151 | 0604152
Enlarged Views	

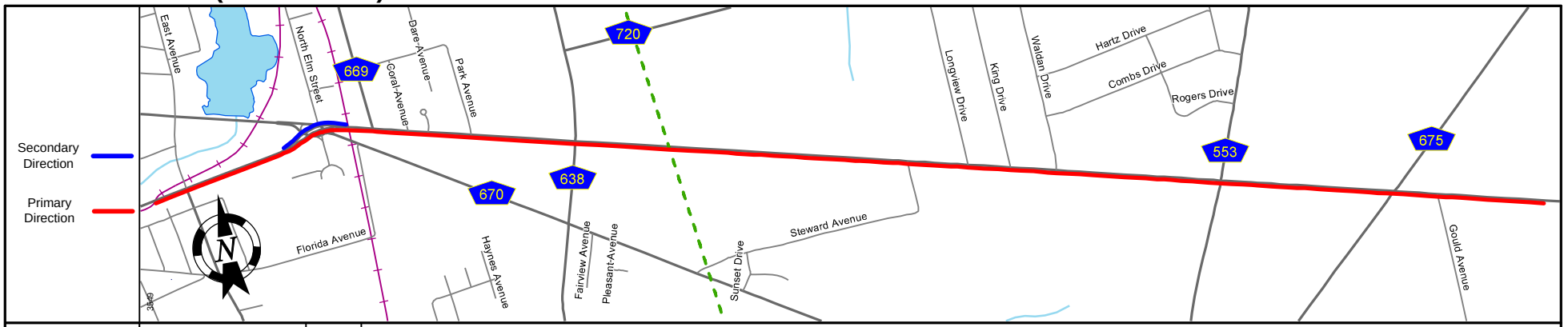
SRI = 00000049__

Date last inventoried: June 2005

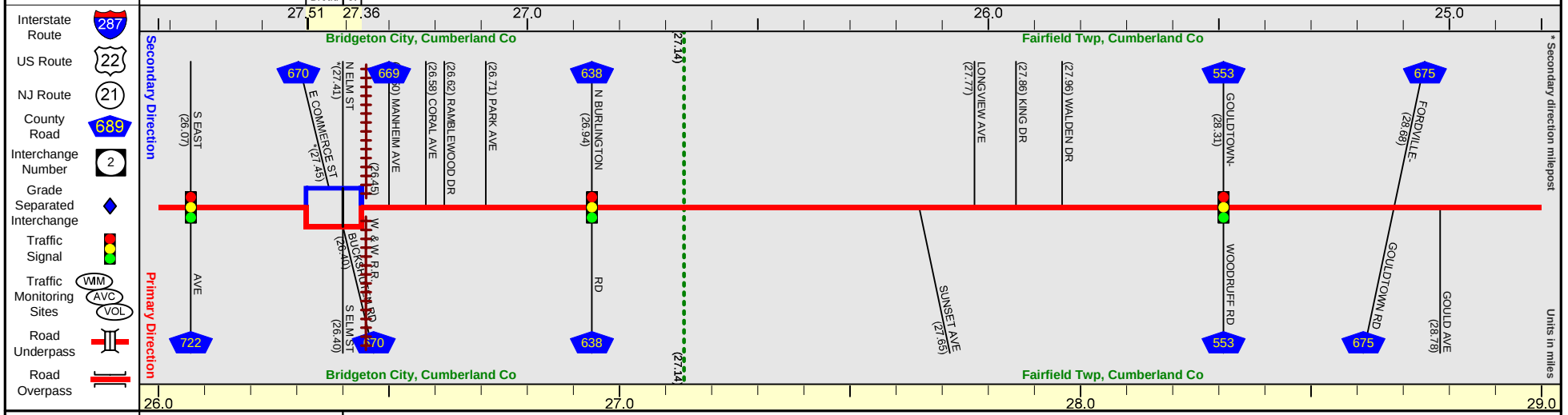
Page Created: May 2008

NJ 49 (West to East)

Mile Posts: 26.000 - 29.000



Pavement	12
Shoulder	10
Number of Lanes	1
Speed Limit	40
Street Name	West Broad st / Ea



Street Name	West Broad Street		East Commerce Street
Jurisdiction	N.J.D.O.T.		
Functional Class	Urban Principal Arterial		
Federal Aid - NHS Sy	NHS		
Control Section	0605		
Speed Limit	40	35	45
Number of Lanes	2	1	2
Med. Type	None	Curbed	None
Med. Width	0	VAR	0
Pavement	24	12	24
Shoulder	10		
Traffic Volume	13,020 (2006)	12,347 (2006)	
Traffic Sta. ID	7-7-002	7-5-001	
Structure No.			
Enlarged Views			

SRI = 00000049__

Date last inventoried: June 2005

Page Created: May 2008

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000049_	24.50	26.25	4C	4	5	4C	4	5
00000049_	26.25	26.50	4B	3	4	4B	3	4
00000049_	26.50	26.60	4C	4	5	4C	4	5
00000049_	26.60	26.71	4C	4	2	4C	4	5
00000049_	26.71	27.20	4C	4	2	4C	4	2

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000077_	0.00	2.19	4D	4	5	4D	4	11
00000077_	2.19	2.20	4D	4	2	4D	4	11
00000077_	2.20	2.70	4D	4	2	4D	4	8

New Jersey Department of Transportation

Bureau of Systems Development & Analysis

CMS Priority Ranking

NJ 77 (MP 0.00 - 2.34), Bridgeton City, Cumberland County

CMS Link Number	Route	Begin Milepost	End Milepost	One-Way ADT (2006) (Veh./Day)	No. of Lanes (NB/EB)	No. of Lanes (SB/WB)	VC Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
3073	77	0.00	0.05	5018	1	1	1.10	5.24	Medium	49	Cumberland	29	SJTPO	31
3074	77	0.05	0.15	6504	1	1	1.10	5.70	Medium	41	Cumberland	22	SJTPO	25
3075	77	0.15	0.45	6664	1	1	1.10	5.75	Medium	41	Cumberland	20	SJTPO	24
3076	77	0.45	0.65	6876	1	1	1.07	5.72	Medium	41	Cumberland	21	SJTPO	25
3077	77	0.65	1.10	6876	1	1	0.81	4.85	Low	55	Cumberland	34	SJTPO	38
3078	77	1.10	1.50	7000	1	1	1.37	6.75	Medium	24	Cumberland	7	SJTPO	11
3079	77	1.50	1.90	7000	1	1	0.95	5.35	Medium	47	Cumberland	27	SJTPO	29
3080	77	1.90	2.12	7083	1	1	0.62	4.26	Low	65	Cumberland	42	SJTPO	49
3081	77	2.12	2.70	7208	1	1	1.23	6.35	Medium	30	Cumberland	11	SJTPO	15

Most of NJ 77 is "Very Congested" with one part being "Severely Congested".

- Highest Score in this section

NOTE: The Overall Score shown above considers V/C ratio and ADT per lane. Each factor is weighted 50%.
Priority Ratings are based on the Overall Score, as follows:

RED HIGH = 7.00+ **ORANGE** MEDIUM = 5.00 - 6.99 **GREEN** LOW < 5.00

Note: The intersection of NJ 77 and CR 552/Irving Ave. (MP 0.52) is ranked 345, the intersection at CR 659 (MP 1.46) is ranked 281 and the intersection at Laurel Plaza Dr. (MP 2.34) is ranked 359 out of 372 high need signalized intersections on State highways.
There are approximately 2500 signalized intersections on State highways.

New Jersey Department of Transportation

Bureau of Systems Development & Analysis

CMS Priority Ranking

NJ 49 (MP 24.51 - 27.14), Bridgeton City, Cumberland County

CMS Link Number	Route	Begin Milepost	End Milepost	One-Way ADT (2006) (Veh./Day)	No. of Lanes (NB/EB)	No. of Lanes (SB/WB)	VC Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
2553	49	23.70	24.54	4197	1	1	0.28	2.24	Low	93	Cumberland	86	SJTPO	85
2554	49	24.54	24.89	5268	1	1	0.69	3.95	Low	70	Cumberland	49	SJTPO	54
2555	49	24.89	25.44	8940	2	2	0.83	4.16	Low	67	Cumberland	43	SJTPO	51
2556	49	25.44	25.62	10090	2	2	0.88	4.51	Low	61	Cumberland	36	SJTPO	42
2557	49	25.62	26.25	7754	1	1	0.90	5.42	Medium	46	Cumberland	26	SJTPO	28
2558	49	26.25	26.50	6554	1	1	0.45	3.54	Low	77	Cumberland	61	SJTPO	62
2559	49	26.50	27.00	6322	1	1	0.72	4.38	Low	63	Cumberland	40	SJTPO	46
2560	49	27.00	27.20	6650	1	1	0.52	3.80	Low	72	Cumberland	51	SJTPO	57

A part of this section of NJ 49 is "Very Congested".

- Highest Score in this section

NOTE: The Overall Score shown above considers V/C ratio and ADT per lane. Each factor is weighted 50%.
Priority Ratings are based on the Overall Score, as follows:

RED HIGH = 7.00+ **ORANGE** MEDIUM = 5.00 - 6.99 **GREEN** LOW < 5.00

BAYSHORE HERITAGE BYWAY

New Jersey State Scenic Byway Application Project - Intrinsic Qualities

Salem, Cumberland & Cape May Counties
October, 2008

RBA

Legend

- Bayshore Heritage Byway

Intrinsic Qualities

- Scenic Resources
- Natural Resources
- Historic Resources
- Recreational Resources
- Cultural Resources
- Archeological Resources
- Points of Interest

Significant Features

- Wetlands
- Salt Marshes
- Atlantic White Cedar Wetland
- Lakes and Ponds
- Protected Open Space, Parks and Recreation Areas
- Historic Districts/Properties
- Railroad
- Billboards
- Woodlands
- Tower/Utilities

CUMBERLAND

BRIDGETON CITY

MILLVILLE CITY

FAIRFIELD TWP

LAWRENCE TWP

COMMERCIAL TWP

DOWNE TWP

MAURICE RIVER T

Delaware Bay

Potter's Tavern

George Woodruff Indian Museum

Bethel African Methodist Episcopal Church

Cumberland County Prehistorical Museum

Greenwich Historic District

Greenwich Tea Burning Monument

Hancock's Harbor Marina

Green Swamp Area, Cohansey River Watershed Restoration Site

Dix Wildlife Management Area

Cedar Lake

Millville (Bevans) Wildlife Management Area

Nantuxent Wildlife Management Area

Newport Landing

Glades Wildlife Preserve

NPS NJ Coastal Heritage Trail Route Headquarters

Fortescue State Marina

Fortescue Beaches

Turkey Point Nature Drive & Egg Island Wildlife Management Area

Commercial Township Wetland Restoration Site

Rutgers Haskins Shellfish Research Laboratory

Bayshore Discovery Project and Schooner A.J. Meerwald

Matt's Landing, Heislerville Wildlife Management Area

Maurice River Bridge

Mauricetown and Mauricetown Waterfront Park

Maurice River Township Restoration Site

East Point Lighthouse

Thompson's Beach

Cohansey River

Back Creek

Nantuxent Creek

Maurice River

STATHEM'S NECK RD

WHEATON HILL RD

TINDALL ISLAND RD

BAYSIDE RD

BACON'S NECK RD.

GREENWICH RD

BOWENTOWN RD

GREATE ST

SHEPPARDS MILL RD

DUTCH NECK RD

BROAD ST

BRIDGETON-FAIRTON RD

MAIN ST

CEDARVILLE RD

S. MAIN ST

BAPTIST RD

METHODIST RD

FORTESCUE RD

BEAVER DAM RD

TURKEY POINT RD

MAPLE ST

MAURICETOWN CAUSEWAY

HIGH ST

NORTH AVE

N. MAIN ST

RIVER RD

MEHLHAGEN RD

EAST POINT RD

GLADE RD

LIGHTHOUSE RD

623

607

650

609

553

555

552

55

49

47

649

616

347

12

13

Li Calzi Airpark (N50)
Bridgeton, NJ

Li Calzi Airpark

Mailing Address: 39 Dutch Neck Rd.
Bridgeton, NJ
08302
Phone: (856) 456-1354

Location: Dutch Neck Rd.
Hopewell Twp.
2 miles S of Bridgeton
Variation: 12 West

Latitude	Longitude	Elevation
N 39°24.51'	W 75°14.23'	42'

Runways

Runway:	Length:	X	Width:	Surface:
12-30	2773'	X	100'	Turf

Approaches/Lighting

Lights: No
Beacon: No

Navaids

Type: **Freq:**

Services

Attended: Mon.-Sat. daylight hours
Food: No
Restroom: No
Phone: No
Customs: No

Communication

Type:	Freq:
CTAF	122.9

APP/DEP Frequencies

Type: **Freq:**

Other

Traffic Patterns: Standard
TPA: 800(758)
Weather: ASOS at MIV (8 nm E): 128.125: (856) 327-3455

Notes

Transient aircraft limited to one take off and landing. Airport closed to all transient aircraft between February 15 and April 15 due to soft R/W conditions.