



# **BRIDGEWATER**

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## **Somerset County**

### **State Agency Opportunities & Constraints Analysis**



**December 29, 2009**  
**Office of Smart Growth**  
**Department of Community Affairs**  
**State of New Jersey**



State of New Jersey  
DEPARTMENT OF COMMUNITY AFFAIRS  
NEW JERSEY OFFICE OF SMART GROWTH  
PO Box 204  
TRENTON NJ 08625-0204

JON S. CORZINE  
Governor

CHARLES A. RICHMAN  
Acting Commissioner

DONNA RENDEIRO  
Acting Executive Director

December 22, 2009

The Honorable Patricia Flannery  
Township of Bridgewater  
100 Commons Way  
Bridgewater, New Jersey 08807

**RE: Township of Bridgewater, Plan Endorsement Opportunities and Constraints Analysis**

Dear Mayor Flannery:

The Office of Smart Growth (OSG) and our State agency partners have reviewed the Municipal Self Assessment submitted by the Township in October 2009 and would like to commend the Township for its active participation and dedication to the Plan Endorsement process. As such, please find enclosed the State Agency's Opportunities and Constraints Analysis.

The Opportunities and Constraints Analysis is intended to guide the Township of Bridgewater's Community Visioning Process and to provide the Township with preliminary consistency issues with the State Development and Redevelopment Plan and relevant State regulations. This document can be found on the OSG website at the following link: <http://www.nj.gov/dca/osg/plan/endorsement.shtml>.

If you intend to seek a waiver from any of the visioning requirements of Plan Endorsement, please send a separate letter that addresses the Visioning sessions that have been conducted in the municipality. For example, we need the dates, attendance and minutes from charrettes or workshops that were conducted. Without this information a waiver cannot be granted since the State Planning Commission feels that community input is critical to the municipalities' planning outcome.

The Office of Smart Growth and State Agencies remain committed to working with the Township of Bridgewater and the other members of Somerset County Regional Center. Thank you for your continued interest in pursuing Plan Endorsement. Should you have any additional questions or concerns please feel free to contact Barry Ableman, Principal Planner for Township of Bridgewater at (609) 292-3228 or via email at [bableman@dca.state.nj.us](mailto:bableman@dca.state.nj.us).

Sincerely,

Donna Rendeiro

Acting Executive Director, Office of Smart Growth

DR:ba

c: State Agency Partners (Via E-Mail)  
Linda Doyle, Clerk, Township of Bridgewater (Via E-Mail)  
Scarlett Doyle, PP/AICP, Planner, Township of Bridgewater (Via E-Mail)  
Rose Evans, Somerset Regional Partnership  
Bob Bzik, PP/AICP, Assistant Planning Director, Somerset County Planning Board (Via E-Mail)  
Joy Farber, Esq, Chief Counsel and Policy Director, OSG (Via E-Mail)  
Karl Hartkopf, PP/AICP, Planning Director, OSG (Via E-Mail)  
Barry Ableman, Principal Planner, OSG (Via E-Mail)  
Township of Bridgewater Plan Endorsement File

## Table of Contents

Introduction.....	1
Background.....	1
Relation to the State Development and Redevelopment Plan (State Plan).....	1
About the Trend Analysis.....	3
Trend Analysis for Bridgewater.....	4
Residential Buildout Method.....	4
Commercial Buildout - Building Cover Method.....	5
Cross-Acceptance III .....	6
Conclusion.....	7
Critical Planning Issue.....	7
Other Issues.....	7

## Introduction

On October 6, 2009 the Township of Bridgewater in Somerset County submitted their Municipal Self-Assessment Report to the New Jersey Office of Smart Growth (OSG). As such, OSG and our partner State Agencies have preliminarily assessed local opportunities and constraints, as it relates to existing development, current zoning regulations, infrastructure and natural resources. This report provides for a comparison of information to the Municipal Self-Assessment Reports with the most up-to-date regional and statewide data to determine whether TREND growth is sustainable and viable based on the information provided. This information is intended to guide and direct the Community Visioning Process as to develop a vision with a twenty-year planning horizon. The vision shall provide for sustainable growth, recognize fiscal constraints, housing needs and protection of natural, historic and agricultural resources. Community visioning shall take into consideration the findings and conclusions of the Municipal Self-Assessment and the State Agencies' Opportunities and Constraints Analysis.

## Background

The Township of Bridgewater is part of the Somerset Regional Center (Somerville, Raritan Borough and a portion of Bridgewater Township). All of the municipalities passed resolutions directing the County Planning Board to coordinate the individual municipalities' Plan Endorsement efforts. Each of the three municipalities submitted initial planning documents along with the Somerset County Regional Center Master plan in the summer of 2007. All of the municipalities and staff from the Somerset County Board initiated the



Plan Endorsement process by attending a pre-petition meeting with OSG and our partner State agencies on July 12, 2007. On November 1, 2007 the Township of Bridgewater adopted a resolution authorizing the creation of their Plan Endorsement Advisory Committee (PEAC). As previously mentioned, the Township submitted their Municipal Self Assessment Report to OSG for review on October 6, 2009. The Municipal Self Assessment Report was authorized by the Township of Bridgewater via Resolution at the July 20, 2009 Township Committee meeting. Pursuant to the State Planning Rules, N.J.A.C. 5:85-7.10, this State Agency Opportunities and Constraints Analysis has been provided to the Township on November 21, 2009.

## Relation to the State Development and Redevelopment Plan (State Plan)

The Township of Bridgewater with a population estimate of 44,818 by the Census Bureau in 2006 or 1,379 people per square mile living within the 32.5 square mile community is one of the fastest growing communities in Central New Jersey. The population and employment growth was spurred on when Interstate Route 78 which borders the northern portion of Bridgewater at Exit 29 was fully connected in 1986. Route 78 offered a multi-lane, limited access, high speed, no traffic light alternative to the congested Route 22 that runs along Bridgewater's southern border. From 1980 – 2000 the Township population grew by 47.1%. The Township with more than 18 million square feet of commercial (industrial, retail and office) space employs more than 30,000 people according to information provided by the Township in their municipal self assessment report. Most of these people are commuting along the many highways and trains that cut through Bridgewater.

Currently the adopted 2001 State Policy Plan Map depicts Bridgewater as a community that is mainly Planning Area 2, Suburban; with its high density area within the Regional Center as a Planning Area 1 or Metropolitan Planning Area and a small portion of the municipality along its borders to the West, South and East as PA 5 or Environmentally Sensitive. This Environmentally Sensitive area borders the North Branch, Raritan River, and Middlebrook. The Preliminary State Plan Map looks very similar to the earlier map, the main differences are the addition of Parkland and Critical Environmental Sites to the map that had not previously been noted on the map.



The growth has encouraged the Township to be mindful of the importance of planning. Working with the Somerset County Planning Board and joining together with Somerville and Raritan which also contain train stations along the Raritan Valley Train Line and separate employment center has enabled them all to work together to coordinate their planning efforts and focus growth efforts toward the regional center. The Somerset County Regional Center consists of Somerville, Raritan Borough and part of Bridgewater Township was designated by the State Planning Commission on May 29, 1996.

When the Regional Center was designated, a sunset date of January 7, 2008 was established by the State Planning Commission. On that date the Regional Center expired.

The Permit Extension Act of 2008 was enacted on September 6, 2008 as L. 2008, c. 78, and codified at N.J.S.A. 40:55D-136.1 et seq. The stated purpose of the Act is to “prevent the wholesale abandonment of approved projects and activities due to the present unfavorable economic conditions, by tolling the term of these approvals for a period of time, thereby preventing a waste of public and private resources.” N.J.S.A. 40:55D-136.2m. The Act extends the “running of the period of approval” for a defined “extension period,” beginning January 1, 2007 and continuing through July 1, 2010. N.J.S.A. 40:55D-136.3; N.J.S.A. 40:55D-136.4. In the case of the Somerset County Regional Center whose boundary has been slightly modified based on the Permit Extension Act, the center is extended through December 1, 2010 or until Plan Endorsement is received. Those seeking a full 10 year extension and wishing to make boundary modifications to their center during this extension period need to complete Plan Endorsement for the entire municipality.



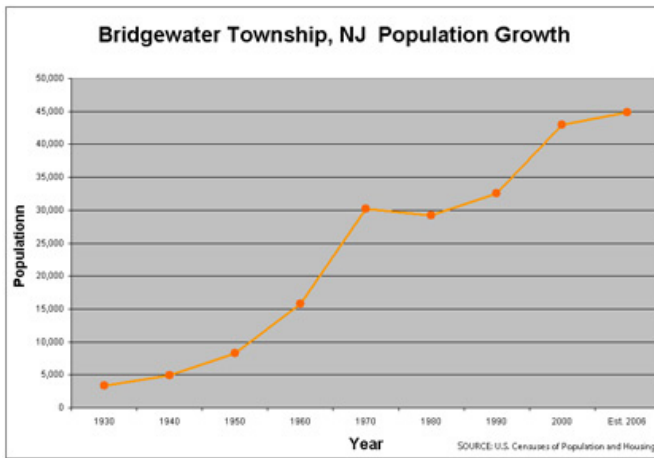
Although no areas in the Township have been designated as Areas in Need of Redevelopment at this time, there are approximately 2,000 acres of land without environmental constraints and where no land use land cover has been found. A steering committee to create an economic development element of the master plan was formed. The committee’s primary goal is to find ways to recapture some of the real estate value inherent in the Township’s location for public benefit so that tax revenues increase without significantly increasing municipal costs. The Finderne Section of the Township is ripe for infill redevelopment, since historically it has been home to small manufacturing businesses as well as the former American Cynamid property that has been closed for environmental/brownfield reasons.

As planning continues throughout the Township, it should be remembered that by encouraging mixed-use (office, retail, manufacturing/warehouse, residential and public service) development can positively affect the commercial and residential supply while minimizing the negative impacts of traffic congestion. Beyond project specific mixed-use development, opportunities that can link single use destination projects with neighboring projects should also be explored through the Township. As the Economic Development Plan Element suggests:

- Existing buildings and areas should be retrofitted to make it easier to walk or ride a bicycle. This could be a long term strategy that results in an area that is friendly to any form of mass transit.
- Implement access management techniques along the Route 22 corridor such as combining driveways and minimizing any new access points.
- Encourage sidewalks along the suburban boulevard plan of the highway.
- Encourages cross-easements for access between projects.

Utilizing techniques like these can have a positive effect on traffic circulation as well fostering community integration as growth occurs.

As NJ Transit continues its work on the Mass Transit Tunnel project (ARC), rail riders will benefit from a single seat train trip from / to Bridgewater to Manhattan. To ensure the most positive outcomes from this investment, it will be critical for Bridgewater to have an ample supply of jobs and parking near the train station. Integrating a residential component into



future plans near the Bridgewater Train Station will enable the Township to grow more efficiently without putting more people on to its already congested highways and local roads. The alternative will create more corporate parks or single destination retail opportunities that will force people into their automobiles and generate more traffic to reach their destination.

This is not to say that existing single use structures like office parks, need to go away. Instead ways must be found to expand their use and functionality by creating and finding ways to link their insular road system to those of neighboring developments, so that tenants are not forced into their cars to buy lunch and to get home. At the same time, the Route 22 Sustainable Corridor Plan examines the existing road network; seeks to slow down traffic and create a boulevard that separates travelers using the road as a regional bypass from those with local needs. The result will be better traffic flow with fewer accidents. One should not accept that the current situation cannot be improved. Instead stakeholders need to work together to find solutions. The Somerset County Regional Center of which Bridgewater is a part is an example of a community where growth within the center is being encouraged.

## About the Trend Analysis

The TREND Analysis performed by OSG was conducted based on the current zoning information that was provided in the Municipal Self-Assessment Report. OSG took into account known environmental constraints and 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. The net result from the TREND Analysis is intended to determine the amount of housing and commercial space that can potentially be built given current zoning regulations. Based on the Land Use Land Cover information collected by the Department of Environmental Protection there is approximately 2,000 acres of land that could potentially be developed or 8.5% of the Township. Infill and redevelopment efforts will also impact Bridgewater's future development potential. At the same time, Somerset County is calculating buildout based on capacity for the county wastewater quality management plan.

The Township of Bridgewater is a 32.5 square mile municipality interlaced with state, county highways, and bordered by the Raritan River. The Township whose history dates back to before the Revolutionary War was established in 1749. Currently there is approximately 2,100 acres (1,532 on land zone residential and 658 on land zoned commercial) of unconstrained land where development could possibly occur. Despite the present national economic climate, there will be development pressure for the undeveloped land along with infill development in the future.

Summary Table	
category	totals*
<b>land consumption</b>	
total acreage	23,796
currently developed or constrained	21,263
acres to be developed	2,533
<b>buildings</b>	
current housing units (2000)	15,879
residential units to be developed	2,640
total residential at buildout	18,519
current commercial sq ft	17,710,179
commercial sq ft to be developed	N/A
commercial at buildout	N/A
<b>people</b>	
current residents (2000)	42,940
additional residents at buildout	7,146
total residents at buildout	50,086
current jobs	17,400
additional jobs at buildout	N/A
total jobs at buildout	N/A
* formulas total all commercial worksheets on the basis that only one would be selected and the other two would remain zero	
** per the NOTE above, the petitioner should make sure that they are not double-counting acreage for a mixed use zone	

Typically, the information provided in the Trend Analysis portion of this document will be utilized to inform the Community Visioning Process. It is meant to provide a vision of what the objective municipality may resemble at full buildout based on current land use and zoning regulations. This series of worksheets represents a basic methodology for the TREND Analysis. Based on mapping data and zoning regulations, OSG inserted relevant data transferred from the Township's zoning language, into the Residential Buildout Method. The average household size was identified as 2.71 persons per household (median) (U.S. Census Bureau (2000). American FactFinder: Township of Bridgewater, N.J which is higher than the County average household size of 2.59.

## Trend Analysis for Bridgewater

### Residential Buildout Method

The Residential Buildout Method (Figure 1) assumes buildout of existing residential zones at the maximum density permitted by the Township's current zoning schedule from December 12, 2005. Depending on future development pressure, the information provided in the Residential Buildout Method will come to fruition as existing zoning allows and provides for such development. The Residential Buildout Method estimates that current zoning will support at least 2,640 additional residential units on 1,542 acres of land that could be developed. This does not include possible 2nd story residential conversions or permitted residential uses within commercial, mixed-use zones that might also be built.

Residential Trend								
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 total residents upon buildout
	a	b	c=a-b	d=c*0.8	e	f=d*e	g	h=f*g
<b>R-10</b>	827.3	801.7	25.7	20.5	44	89	2.71	242
<b>R-10.1</b>	11.6	11.6	0.0	0.0	44	0	2.71	0
<b>R-10A</b>	12.7	12.7	0.0	0.0	44	0	2.71	0
<b>R-10B</b>	17.6	17.6	0.0	0.0	73	0	2.71	0
<b>R-10C</b>	4.6	4.5	0.0	0.0	44	0	2.71	0
<b>R-20</b>	2,891.2	2,754.2	137.0	109.6	2.2	239	2.71	646
<b>R-20.1</b>	56.9	54.1	2.7	2.2	2.2	5	2.71	12
<b>R-40</b>	5,427.7	4,899.2	528.5	422.8	1.1	460	2.71	1,247
<b>R-40/PURD</b>	198.3	182.2	16.1	12.9	4.5	58	2.71	157
<b>R-40A</b>	18.0	16.0	2.0	1.6	44	7	2.71	19
<b>R-40B</b>	22.8	18.1	4.7	3.8	44	16	2.71	44
<b>R-40C</b>	4.9	3.7	1.2	0.9	44	4	2.71	10
<b>R-40MDU-1</b>	96.9	96.2	0.7	0.5	8.0	4	2.71	11
<b>R-50</b>	7,598.2	6,479.3	1,118.9	895.1	0.9	780	2.71	2,113
<b>R-MDU-10.5</b>	66.2	62.8	3.4	2.8	10.5	29	2.71	78
<b>R-MDU-5</b>	20.6	20.6	0.0	0.0	5.0	0	2.71	0
<b>R-MDU-6</b>	71.8	62.5	9.3	7.5	6.0	45	2.71	121
<b>R-MDU-8</b>	302.5	284.7	17.8	14.3	8.0	114	2.71	308
<b>SC/HD</b>	28.2	26.7	1.4	1.1	35.0	40	2.71	108
<b>SC/HD</b>	277.39	218.9	58.5	46.8	16.0	749	2.71	2,030
<b>total</b>	<b>17,955.38</b>	<b>16,027.32</b>	<b>1,928.06</b>	<b>1,542.44</b>		<b>2,640</b>		<b>7,146</b>
			land consumption			buildings		people
NOTES								
b: constrained lands include urbanized, 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% take up of land for right of ways (i.e. roads)								
e: data based on current zoning								



Commercial Trend - Building Cover Method												
commercial zone	total land in commercial zone (acres)	total constrained land in commercial zone (acres)	total developable land (acres)	Minimum Size of Lot	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)	FAR (Floor Area Ratio)	number of jobs	
	a	b	c=a-b		d	e=c*d/100	f	g=e*f*43560	h		i=g/h	
<b>Commercial</b>												
C-1	177.82	162.4	15.4	40,000 sf	50	8	2.5	840,296	588	15%	1,429	
C-1A	8.79	7.0	1.8	5 acres	70	1	2.5	Too Small	588	20%	n/a	
C-2	263.87	226.3	37.5	10 acres	60	23	3.0	2,942,738	588	20%	5,005	
C-3	604.27	486.9	117.4	5 acres	60	70	3.0	9,201,359	333	30%	27,632	
C-3A	953	92	0.3	30,000	50	0	2.5	Too Small	588	15%	n/a	
C-3B	926	8.5	0.8	2 acres	50	0	2.0	Too Small	588	10% - 15%	n/a	
C-4	212.4	21.2	0.0	5 acres	50	0	2.5	Too Small	588	15%	n/a	
C-5	16.86	15.9	0.9	3 acres	40	0	2.0	Too Small	385	25%	n/a	
C-6	5.76	5.6	0.1	10,000 sf	70	0	2.5	Too Small	333	25%	n/a	
GCM	243.21	213.6	29.6	5 acres	60	18	3.0	2,324,162	625	35%	3,719	
HC	11.37	8.0	3.4	6 acres	60	2	5 for hotel, 3 for others	Too Small	588	40% hotel 20% all other uses	n/a	
HIC	121.07	96.9	24.2	5	60	15	5.0	3,158,261	588	35%	5,371	
M-1	469.86	347.4	122.5	10 acres OR 5 acres (ED Plan)	60	73	3.0	9,601,678	833	35%	11,527	
M-1A	246.88	239.4	7.4	1	60	4	3.0	583,035	833	35%	700	
M-1B	96.96	78.8	18.2	2 acres	60	11	2.0	950,373	833	35%	1,141	
M-2	1,803.56	1,696.5	107.1	20 acres	60	64	3.0	8,393,701	833	35%	10,076	
M-3	430.84	430.8	0.0	100 acres	60	0	3.0	0	1,000	10%	0	
MPD	40.87	35.8	5.1	35,000	60	3	3.0	400,895	385	22%	1,041	
P	407.31	403.2	4.1	30,000	60	2	3.0	318,877	385	40%	828	
P-2	43.56	34.7	8.8	20,000	50	4	2.5	481,125	385	25%	1,250	
PRCPD	165.12	153.4	11.7	75,000 or 125,000	60	7	4.0	1,227,462	1,000	15%	1,227	
ROUTE 287	354.02	276.8	77.2			0		n/a	1,000		n/a	
STATE HWY	79.35	78.8	0.6			0		n/a	1,000		n/a	
VC	72.27	66.7	5.6	10 acres	60	3	3.0	437,888	1,000	30%	438	
SED	277.39	218.9	58.5	30 acres	50	29	3.0	3,823,873	600	20%	6,373	
<b>total</b>	<b>5,981</b>	<b>5,323</b>	<b>658</b>			<b>340</b>		<b>44,685,723</b>			<b>77,757</b>	
			land consumed	people				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 from Appendix D of COAH's 3rd round rules											

Historically, the Township has seen significant growth in its population from 1930 forward. From 1990 to 2000, the U.S. Census Bureau reported a 32.1 % population growth. They estimate as of 2006 that the current population is 44,818. The Residential Buildout Method provides that current zoning can support an additional 7,146 residents in 2,640 additional residential units, based on the small amount of available land and average household size of 2.71 person's per unit. This full buildout figure is slightly larger than the 2030 projection provided in the Township's municipal self assessment report.

Regardless of the amount of amount of growth that will occur, when conducting Community Visioning, be conscious that providing access to affordable housing is a goal of the State Plan. The Township of Bridgewater should incorporate a mix of affordable and market rate housing into future development plans.

### Commercial Buildout - Building Cover Method

The Commercial Buildout - Building Cover Method (Appendix B-2) assumes buildout of currently designated commercial zones at the maximum density of the permitted acreage coverage under current zoning regulations of Developable Land. Similar to Residential Model, built and constrained land is subtracted from the total land in the municipality. This estimates that there are approximately 658 acres were development could occur. Based on your current zoning our model has determined that over 40 million square feet space could be developed on these properties for commercial uses.

This is likely over estimating the development potential. Some properties are owned by state or county agencies and are unlikely to be developed to the highest use of their zone. Some other properties identified with development potential are parts of larger already developed tax lots. It is possible that when receiving approval



to build the existing structures open space and buffer requirements were placed on these properties that would eliminate future development. Some of the developable land may only be a portion of a tax lot that has already been developed. We have no way of knowing if there are now deed restrictions on some of these properties that would prevent further development. Attached to this section is a list of the tax lots that together make up the 658 acres that potentially could be developed. Further investigation is suggested to be sure that you are aware of all properties with development potential.

Based on today's economic climate, it is difficult to imagine that 40 million square feet of space being developed. According to information provided in the Township's Municipal Assessment Report, over 17 million square feet of space has already been built throughout the municipality with a 6% direct office vacancy rate. Without a doubt based on Bridgewater's location, infrastructure, employment base and current tenant mix that economic pressure will mount and more development should be expected in the future.

While a goal of creating jobs and fostering economic development within the state is a goal of the State Plan, this must be realized in areas which have the infrastructure to support such commercial development. Bridgewater and the Somerset Regional Center is such an area. If 5 million square feet of commercial space were added, it would certainly bring added tax revenue and economic development to the community, but there are also negative externalities to development like this. Traffic congestion is certainly one of the most severe results. While developing the vision for Bridgewater's future, it is important to remember to encourage center-based development where living and working come together in a concentrated location. By encouraging development in centers, communities can help minimize trip generation and protect the environs.

Mixed-use development provides the best opportunity to effectively address residential and commercial interests. Walkable communities help to minimize traffic congestion and the other negative transportation problems created by single use development. As the Township seeks to implement the goals of the economic development element of its master plan there are opportunities such as the following that promote development, add tax revenue while minimizing impacts on the traffic network or the school system. For example, there is an opportunity in the future to build a mixed-use,

Transit Oriented Development near the Bridgewater Train Station that could be marketed to empty nesters and to those just entering the workforce who want easy access to New York City. Creative approaches such as this will be necessary to address growth in Bridgewater.

### **Cross-Acceptance III**

On April 28, 2004, the New Jersey State Planning Commission approved the release of the Preliminary State Development and Redevelopment Plan (State 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 and initiatives with the State Plan and to identify potential changes that could be made to achieve a greater level of consistency with statewide planning policy. The Somerset County Planning Board, the Negotiating Entity for Somerset County municipalities did not make any requests to change Planning Area designations in the Township of Bridgewater.

As a result of the July 2006 Environmental Update to the Preliminary State Plan Policy Map (SPPM), there were minor modifications made to the SPPM. The Environmental Update captured open space acquisitions that occurred since the previous SPPM was adopted by the SPC in 2001. All revisions to the SPPM still require State Planning Commission (SPC) approval, which should occur when the draft Final State Development and Redevelopment Plan (State Plan) is adopted in 2010.

There were three Planning Area requests made in Bridgewater. One, Item # 6007, was requested to change the Planning Area in the quarry from a PA 5, Sensitive to PA 2, Suburban. It was conditionally agreed to change the area to PA 2, Suburban and note the Critical Environmentally Sensitive portions of the property. Item # 6005 was requested to be changed from PA2 to PA5. It was agreed as a technical correction for the Boys Camp to become part of the neighboring PA5. Item # 6006

was requested to correctly note that a portion of the item had been preserved as Open Space and the other portion was slated in the future to be acquired. In addition Critical Historic Sites were appropriately noted.

## **Conclusion**

The Township of Bridgewater along with the other municipalities that comprise the Somerset County Regional Center are actively planning and taking important steps to realize its planning goals through Plan Endorsement. Continued discussion will need to address the following as well other points made in the separate chapters of this Opportunity and Constraints Report.

### **Critical Planning Issue**

- Both DEP and OSG have questions about the proposed development of the Wyeth Property. More specific information about the final use and reclamation plans will be needed to provide the Township with technical guidance.

### **Other Issues**

- The Community Visioning should consider and plan for NJ Transit's Mass Transit Tunnel project and associated network infrastructure improvements that will positively affect the Raritan Valley Line by making it a one-seat ride into midtown Manhattan.
- If the Township intends to seek a waiver from any or the entire Community Visioning requirement for Plan Endorsement, a formal request that outlines the visioning efforts already performed. The outline should include dates and minutes of meetings that concerned community wide visioning. We understand that a great deal of planning has taken place, but the State Planning Commission is also interested in visioning for the entire community.

[As amended 5-19-1980 by Ord. No. 80-18; 6-25-1981 by Ord. No. 81-19; 6-6-1983 by Ord. No. 83-12; 10-1-1984 by Ord. No. 84-25; 9-19-1985 by Ord. No. 85-28; 12-16-1985 by Ord. No. 85-41; 12-21-1987 by Ord. No. 87-49; 7-16-1990 by Ord. No. 90-19; 11-18-1991 by Ord. No. 91-33; 10-4-1993 by Ord. No. 93-27; 1-19-1995 by Ord. No. 95-1; 4-3-2006 by Ord. No. 06-04; 5-1-2006 by Ord. No. 06-23; 9-18-2006 by Ord. No. 06-37]

1	2	3				4	5	6	7	8	9	10			11	12	13		14	15				
		Minimum Size of Lot										Minimum Yard Requirements (feet) (b)					Maximum Height				Maximum Percent of Improved Lot Coverage (d)	Stories	Feet	Maximum Floor Area Ratio (FAR)
		Interior Lots	Corner Lots	For Principal Buildings								For Accessory Structures		Maximum Height			Maximum Height							
Area (square feet) (a)	Width (feet)	Area (square feet)	Width (feet)	Front Yard	One Side Yard	Total of Two Side Yards	Rear Yard	Side Yard	Rear Yard	For Accessory Structures	For Accessory Structures	Maximum Height	Maximum Height	Maximum Floor Area Ratio (FAR)										
R-50	50,000	165	200	75	25	70	85	25	25	25	25	25	25	15	2 1/2	35	.16							
R-40	40,000	150	170	50	20	50	75	20	20	20	20	20	20	15	2 1/2	35	.15							
R-20	20,000	100	120	50	20	50	50	20	20	20	20	20	20	25	2 1/2	35	.16							
R-10	10,000	100	120	30	15	40	20	15	10	10	10	10	10	35	2 1/2	35	.25							
R-10A	10,000	80	100	25	15	30	20	15	10	10	10	10	10	35	2 1/2	35	.25							
R-10B	6,000	60	75	20	0	20	25	15	10	10	10	10	10	35	2 1/2	35	.25							
Twin houses					3	20																		
Patio houses						20																		
R-10.C	10,000	100	120	25	(c)	(c)	25	--	--	--	--	--	--	50	2 1/2	35	.25							
R-10.1																								
R-20.1																								
R-40A																								
R-40B																								
R-40C																								
R-40/MDU-1																								
SC/HD	4 acres	200**	4 acres	250**	75**	50**	50	50	50	50	50	50	50	60	7	80	--							
SC/MD																								
R-40/PURD																								
C-1	40,000	100	120	25	15	40	25	25	25	25	25	25	25	50	2 1/2	35	.15							
C-1A	5 acres	300	300	20	20	40	20	20	20	20	20	20	20	70	2 1/2	35	.20							
C-2	10 acres	500	500	100	100	200	100	100	100	100	100	100	100	60	3	45	.20							
C-3	5 acres	300	300	100	75	175	75	75	75	75	75	75	75	60	3	45	.30							
GCM	5 acres	200	200	100	50	100	75	75	75	75	75	75	75	60	3	45	.35							
M-1	10 acres	500	500	150	75	175	100	75	100	100	100	100	100	60	3	45	.35							
M-1A	5 acres	200	200	100	50	100	75	75	75	75	75	75	75	60	3	45	.35							
M-1B	2 acres	200	300(f)	60	50	100	50	75	75	75	75	75	75	60	2	35	.35							
M-2	20 acres	500	500	150	75	175	100	75	100	100	100	100	100	60	3	45	.35							

1	2		3		4		5		6		7		8		9		10		11		12		13		14		15					
	Minimum Size of Lot				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)				Minimum Yard Requirements (feet) (b)			
	Interior Lots		Corner Lots		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings		For Principal Buildings			
Zone	Area (square feet) (a)	Width (feet)	Area (square feet)	Width (feet)	Front Yard	One Side Yard	Total of Two Side Yards	Rear Yard	Side Yard	Rear Yard	For Accessory Structures	Maximum Percent of Improved Lot Coverage (d)	Stories	Maximum Height Feet	Maximum Floor Area Ratio (FAR)																	
M-3*	100 acres	500	100 acres	500	200	100	200	200	100	200	200	20	--	50	.10																	
SED	30 acres	500	30 acres	500	200	50	150	100	75	75	75	50	3	45	.20																	
R-MDU-10.5	See § 126-321.3 for all permitted uses.																															
R-MDU-8	See § 126-321.3 for all permitted uses.																															
R-MDU-6	See § 126-321.3 for all permitted uses.																															
R-MDU-5	See § 126-321.3 for all permitted uses.																															
MPD	35,000	160	35,000	160	40	25	50	25	15	10	10	60	3 (g)	35(g)	.22(f)																	
P	30,000	100	30,000	100	50	20	40	20	20	20	20	60	2½	35	.40																	

**NOTES:**

\* No quarrying shall occur within 150 feet of any property or street line.

\*\* Where a development contains more than one principal structure which is adjacent to an existing similar use, the lot width, side and front yard setbacks shall be determined as one integrated development and the individual structures shall not be considered to be on separate lots. However, the principal structures must be separated by a distance not less than the combined height of both structures.

(a) Minimum area requirements for all zones may be affected by other Township codes and ordinances and articles of this chapter, such as Hillside Development Article, Stormwater and Floodplain Article and Soil Erosion and Sediment Control Article. In any residential zone, except R-50, without public water and public sewer, the area and dimensional requirements of the R-40 Zone shall be applied.

(b) Side and rear yard requirements may be reduced to 10 feet where lot abuts an interstate highway or railroad.

(c) None required, except that if residences are included as part of any C-1 commercial use, the side yards required under the R-10 Zone shall be maintained.

(d) See § 126-329C for FAR bonus for decreases in improved lot coverage.

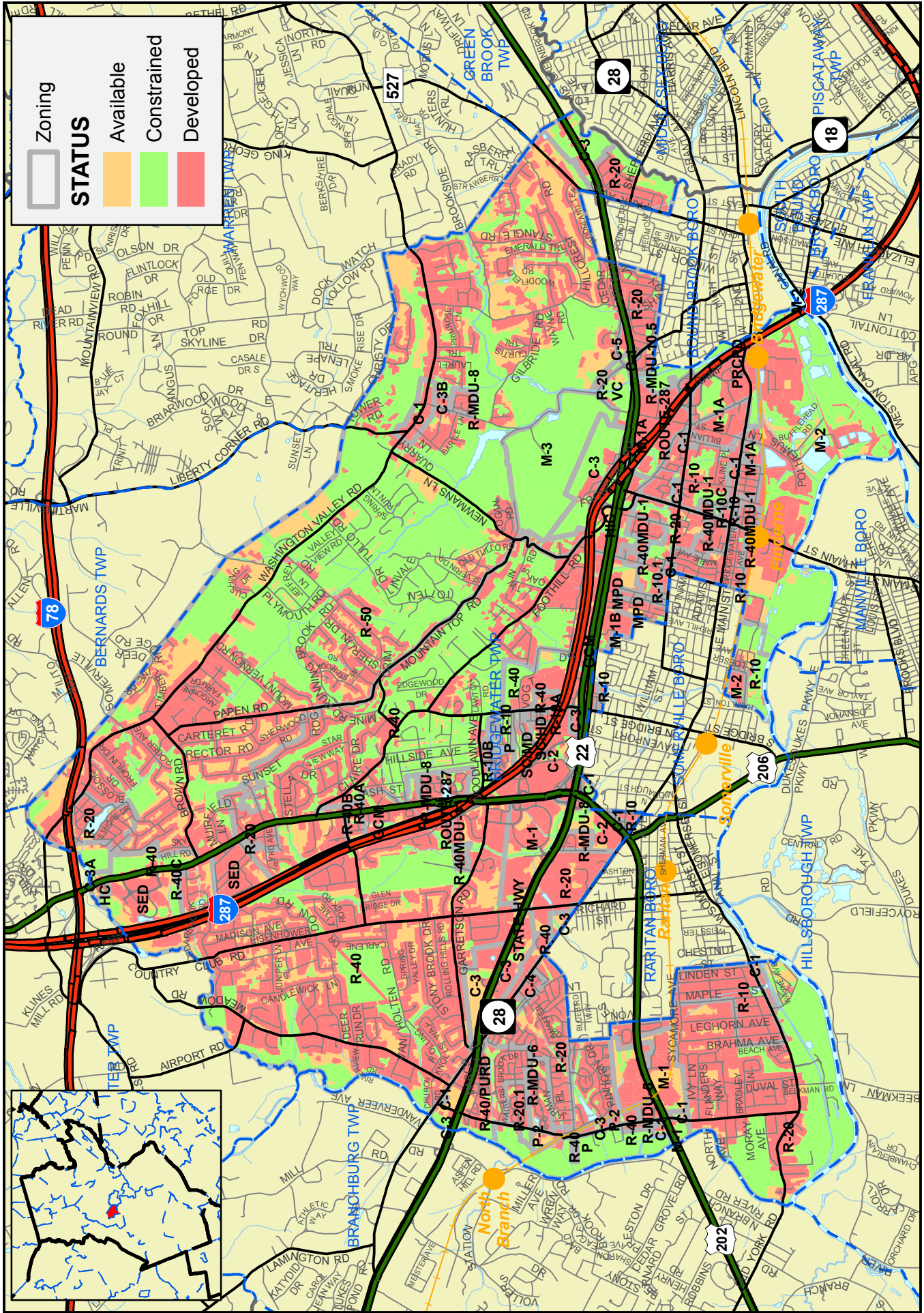
(e) The minimum front yard setback for nonresidential zones and uses fronting on Route 22 shall be 200 feet. Parking shall be permitted in the front yard setback at a minimum distance of 100 feet from Route 22 right-of-way.

(f) Corner lots must have one width of at least 300 feet.

(g) Maximum height of four stories or 50 feet shall be permitted for the following uses only: skilled nursing home and long-term care facility.

(h) Floor area ratio of .22 shall apply to all uses except for skilled nursing home and continuing-care facility, which shall be subject to the following regulation: The density shall not exceed 16 individual living units per acre.





**Zoning STATUS**

Available	Constrained	Developed
Orange	Green	Red



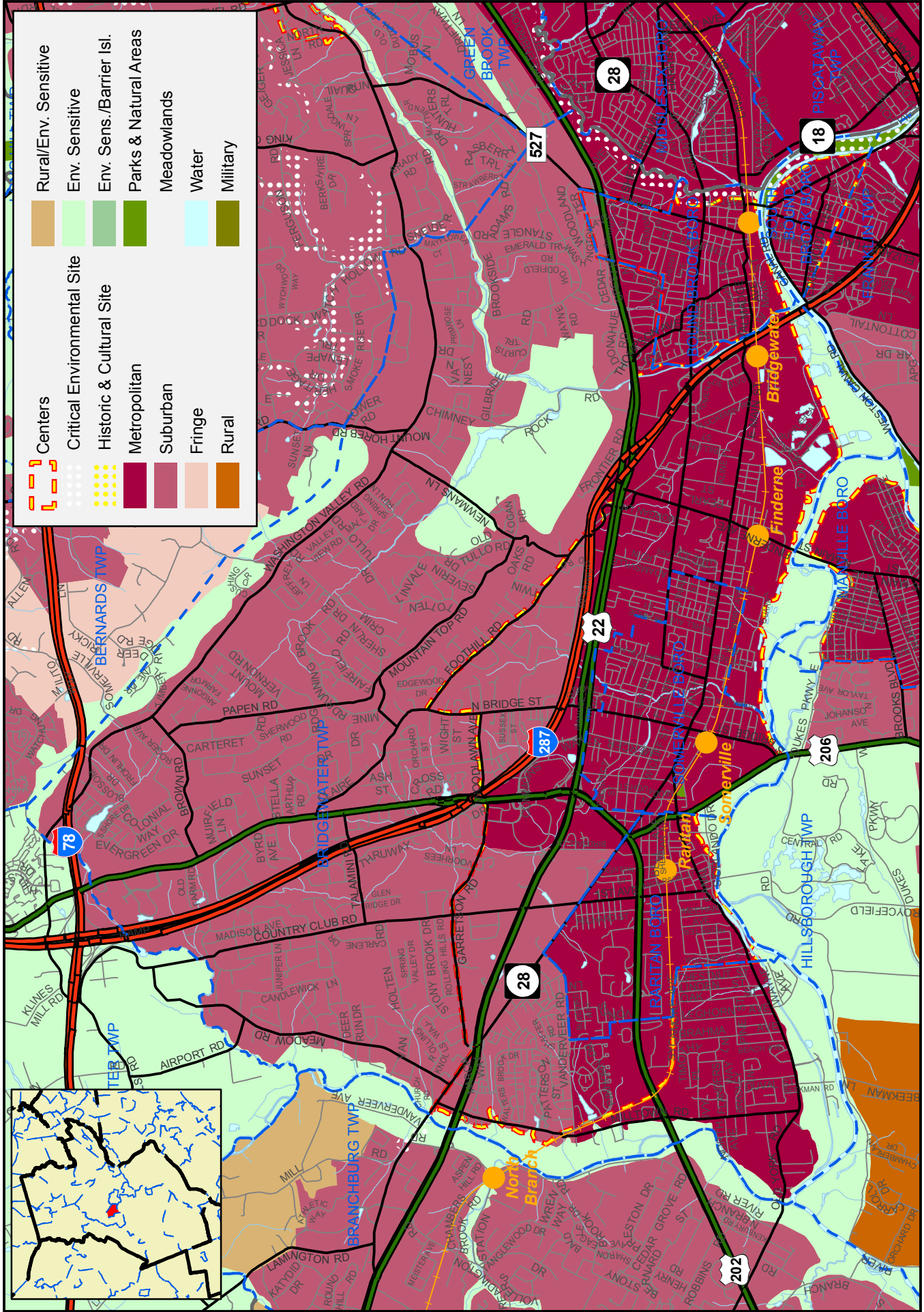
OSG Land Analysis

# Bridgewater

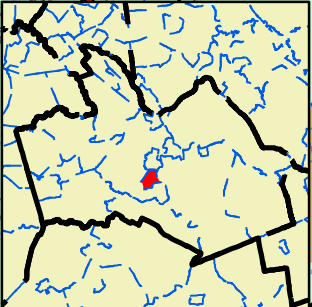
1 inch = 5,833 feet







	Centers		Rural/Env. Sensitive
	Critical Environmental Site		Env. Sensitive
	Historic & Cultural Site		Env. Sens./Barrier Isl.
	Metropolitan		Parks & Natural Areas
	Suburban		Meadowlands
	Fringe		Water
	Rural		Military



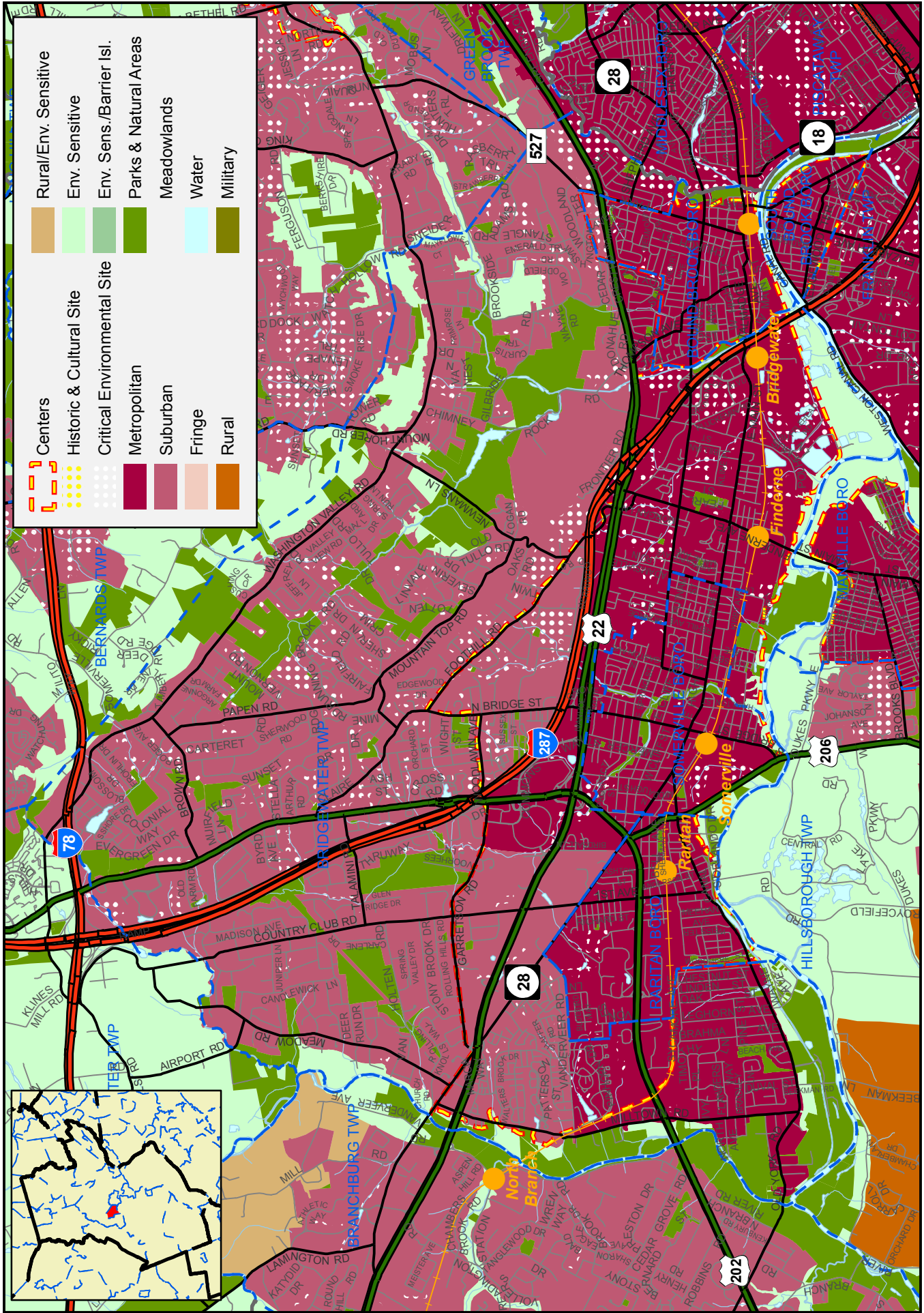
# Bridgewater

1 inch = 5,833 feet

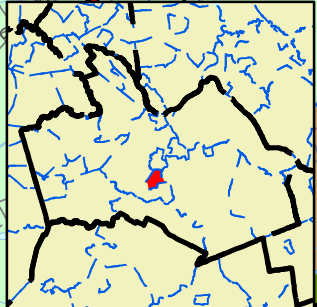
2001 State Plan Policy Map







	Centers		Rural/Env. Sensitive
	Historic & Cultural Site		Env. Sensitive
	Critical Environmental Site		Env. Sens./Barrier Isl.
	Metropolitan		Parks & Natural Areas
	Suburban		Meadowlands
	Fringe		Water
	Rural		Military



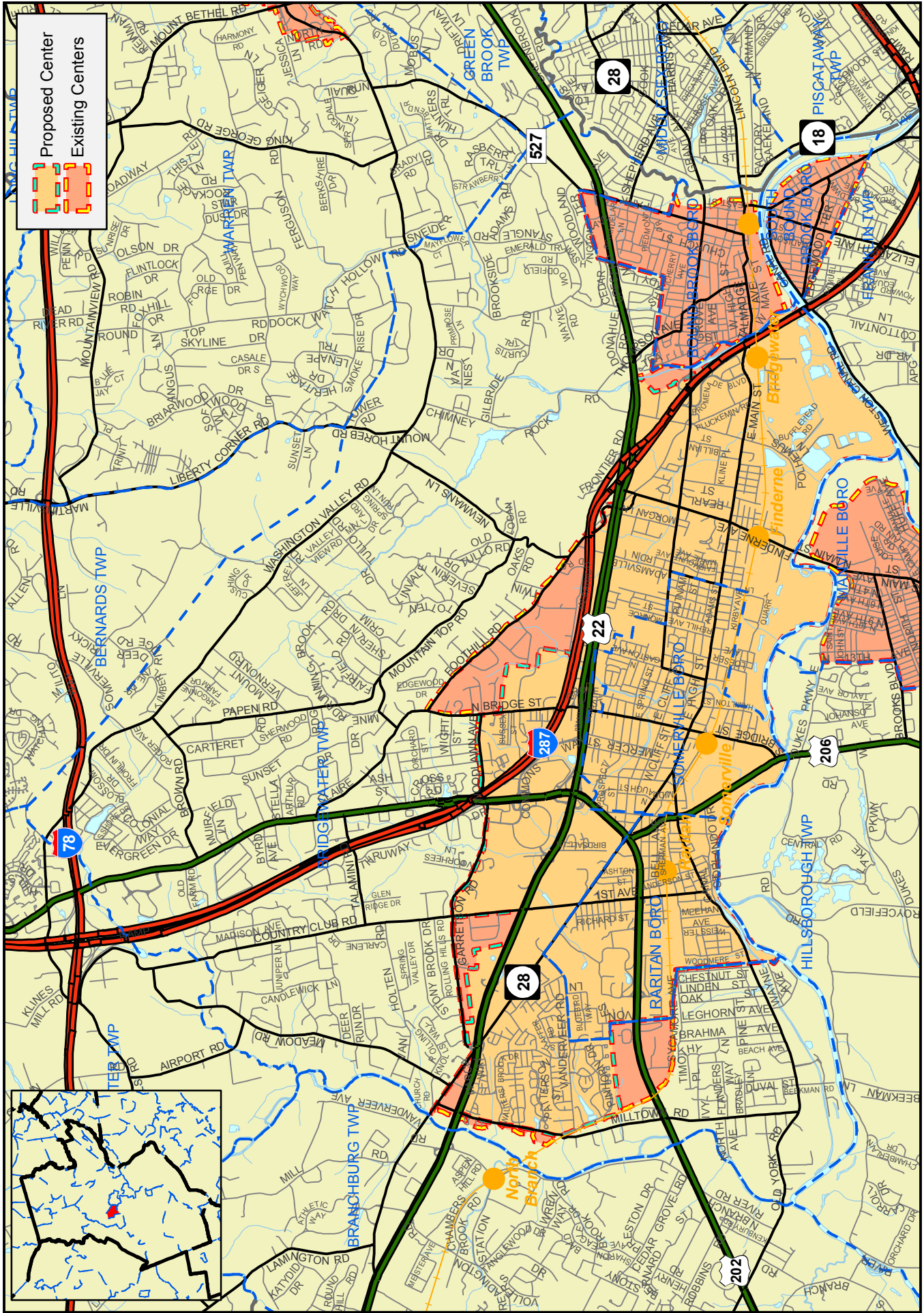
Preliminary Plan Map

# Bridgewater

1 inch = 5,833 feet







Proposed Center

# Bridgewater

1 inch = 5,833 feet





# **NJ Department of Environmental Protection**



## **State Development & Redevelopment Plan Plan Endorsement Opportunities & Constraints Analysis**

for:

Bridgewater Township, Somerset County

*November 13, 2009*

*This document constitutes the Department of Environmental Protection's component of the State Opportunity and Constraints Analysis 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 Bridgewater Township. 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.*

# Table of Contents

WATER & WASTEWATER ANALYSIS-----	4
Water Availability -----	4
Wastewater Treatment-----	7
ENVIRONMENTAL CONSTRAINTS ANALYSIS-----	9
Regulated Environmental Constraints-----	9
o Total Maximum Daily Loads (TMDLs) -----	10
Environmental Constraints to Avoid -----	16
o Threatened & Endangered Species Habitat-----	16
o Natural Heritage Priority Sites -----	17
Environmental Constraints to Consider-----	19
o Groundwater recharge areas -----	19
o Well Head Protection Areas -----	19
o Priority Species Habitat -----	20
CONTAMINATED AREAS CONSIDERATIONS -----	21
Known Contaminated Sites List -----	21
Known Contaminated Sites - Classification Exception Areas (CEA)-----	21
Landfills-----	22
PRESERVED LANDS & HISTORIC RESOURCES -----	23
Preserved Lands -----	23
Historic Resources -----	23
PERMIT EXTENSION ACT -----	25
SUMMARY OF MAJOR ISSUES -----	27
REQUESTS FOR ASSISTANCE -----	31
MAPS -----	33
ADDITIONAL ATTACHMENTS -----	49
NJDEP OFFICE OF PLANNING AND SUSTAINABLE COMMUNITIES-----	56

# 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.*

*Bridgewater Township is located in Watershed Management Areas 6, 8, 9 and 10. Fact Sheets on WMAs 8 and 9 are available at:*

<http://www.nj.gov/dep/watershedmgt/DOCS/WMAFactsheets/WMA08.pdf>

<http://www.nj.gov/dep/watershedmgt/DOCS/WMAFactsheets/WMA09.pdf>

<http://www.nj.gov/dep/watershedmgt/DOCS/WMAFactsheets/WMA06.pdf>

<http://www.nj.gov/dep/watershedmgt/DOCS/WMAFactsheets/WMA10.pdf>

## Water Availability

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

Bridgewater Township is currently served by New Jersey American Water Company – Elizabethtown (NJAW), Raritan System, PWSID 2004002. NJAW is the largest user of surface water in the Lower Raritan, South and Lawrence Watershed Management Area (WMA 9). NJAW owns and operates a public community water supply system that serves a large portion of central New Jersey, including 48 municipalities within the counties of Hunterdon, Mercer, Middlesex, Somerset and Union. NJAW diverts a substantial amount of water from surface water intakes located within WMA 9 at the confluence of the Raritan and Millstone Rivers. NJAW has a monthly surplus of 887.413 MGM and 9,653.507 MGY of water based on their current water allocation permit and surplus deficit analysis performed by the Bureau of Water Allocation.

Bridgewater Twp. is located within three hydrologic units (HUC11): Raritan River NB (SB to Lamington), Raritan River Lower (Millstone to NB/SB) and Raritan River Lower (Lawrence to Millstone). The Raritan River NB (SB to Lamington) is located in WMA 8, North and South Branch Raritan, and is identified as having a small portion of available surface water sources due to the quantified low September median and 7Q10 analysis used in the Draft 2009 New Jersey State Water Supply Plan. The Raritan River Lower (Millstone to NB/SB) is identified in the 2009 Draft New Jersey Water Supply Plan (NJWSP) as having a surplus, 9.6 mgd of water available. The surplus within this particular HUC11 is mainly attributed to Somerset Raritan Valley Sewage Authority's wastewater discharge into Cuckel's Brook which is a tributary to the Raritan River. Finally, the Raritan River Lower (Lawrence to Millstone) is identified in the 2009 Draft New Jersey Water Supply Plan as having a deficit mainly attributed due to the depletive nature of wastewater exports being exported out of basin to either the Middlesex County Utilities Authority, which discharges to the Raritan Bay/Atlantic Ocean, or Western Monmouth Utilities



Authority, which discharges to Pine Brook. This information is applicable should there be a proposed water supply expansion/withdrawal within the watershed.

Purveyor Name	Current Population Served by Purveyor	Water Systems Surplus/Deficit (Most Limiting Function of System)	Surplus/Deficit 2010 (MGD)	Surplus/Deficit 2020 (MGD)
NJ American Water Company - Elizabethtown	609,325	37.54	33.29	28.36

**NEW JERSEY AMERICAN WATER COMPANY - RARITAN SYSTEM**

**PWSID:** 2004002

**County:** Union

**Last Updated:** 05/07/09

**Water Supply Firm Capacity:** 231.500 MGD

**Available Water Supply Limits**

	Allocation	Contract	Total
<b>Monthly Limit</b>	6761.500 MGM	N/A MGM	6761.500 MGM
<b>Yearly Limit</b>	65022.500 MGY	N/A MGY	65022.500 MGY

**Water Demand**

	Current Peak	Date	Committed Peak	Total Peak
<b>Daily Demand</b>	188.460 MGD	08/2006	2.054 MGD	190.514 MGD
<b>Monthly Demand</b>	5842.250 MGM	08/2006	31.837 MGM	5874.087 MGM
<b>Yearly Demand</b>	55119.090 MGY	2007	249.903 MGY	55368.993 MGY

**Water Supply Deficit or Surplus**

Firm Capacity	Water Allocation Permit
40.986 MGD	887.413 MGM
	9653.507 MGY

Note that the available capacity identified above is available throughout the purveyor area and is not necessarily available to Bridgewater Township.

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>. For 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 multiple Non-Community Water System serving specific uses in Bridgewater Township.

PWSID	Water System Name	Population Served	Water System Type
<a href="#">1806329</a>	SAINT GOBAIN PERFORMANCE PLAST	3	Noncommunity Non-transient
<a href="#">1806329</a>	SAINT GOBAIN PERFORMANCE PLAST	15	Noncommunity Non-transient
<a href="#">1806329</a>	SAINT GOBAIN PERFORMANCE PLAST	58	Noncommunity Non-transient

<a href="#">1806329</a>	SAINT GOBAIN PERFORMANCE PLAST	70	Noncommunity Non-transient
<a href="#">1806333</a>	ALL STAR TRAINING ACADEMY	5	Noncommunity Transient
<a href="#">1806333</a>	ALL STAR TRAINING ACADEMY	120	Noncommunity Transient
<a href="#">1806355</a>	BRIDGEWATER CAR WASH	10	Noncommunity Transient
<a href="#">1806355</a>	BRIDGEWATER CAR WASH	50	Noncommunity Transient
<a href="#">1806356</a>	GARDEN STATE SIKH TEMPLE	3	Noncommunity Transient
<a href="#">1806356</a>	GARDEN STATE SIKH TEMPLE	150	Noncommunity Transient
<a href="#">1806336</a>	SOMERVILLE LUMBER CO	40	Noncommunity Non-transient
<a href="#">1806336</a>	SOMERVILLE LUMBER CO	49	Noncommunity Non-transient
<a href="#">1806336</a>	SOMERVILLE LUMBER CO	200	Noncommunity Non-transient
<a href="#">1806336</a>	SOMERVILLE LUMBER CO	300	Noncommunity Non-transient
<a href="#">1806325</a>	GREEN KNOLL GOLF COURSE MAINT BLDG	25	Noncommunity Transient
<a href="#">1806326</a>	GREEN KNOLL TENNIS CTR	2	Noncommunity Transient
<a href="#">1806326</a>	GREEN KNOLL TENNIS CTR	30	Noncommunity Transient
<a href="#">1806326</a>	GREEN KNOLL TENNIS CTR	50	Noncommunity Transient
<a href="#">1806343</a>	SCPC BALLFIELD #1	50	Noncommunity Transient
<a href="#">1806343</a>	SCPC BALLFIELD #1	100	Noncommunity Transient
<a href="#">1806354</a>	ROLLER HOCKEY RINK	30	Noncommunity Transient
<a href="#">1806354</a>	ROLLER HOCKEY RINK	50	Noncommunity Transient
<a href="#">1806302</a>	RED BULL INN INC	9	Noncommunity Transient
<a href="#">1806302</a>	RED BULL INN INC	25	Noncommunity Transient
<a href="#">1806302</a>	RED BULL INN INC	40	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	8	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	12	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	200	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	300	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	1,000	Noncommunity Transient
<a href="#">1806305</a>	DUKE ISLAND PARK	1,500	Noncommunity Transient
<a href="#">1806324</a>	DUKE ISLAND PARK MAINT	25	Noncommunity Transient
<a href="#">1806306</a>	CAMP CROMWELL	1	Noncommunity Transient
<a href="#">1806306</a>	CAMP CROMWELL	300	Noncommunity Transient
<a href="#">1806309</a>	FRATERNAL ORDER OF EAGLE	6	Noncommunity Transient
<a href="#">1806309</a>	FRATERNAL ORDER OF EAGLE	30	Noncommunity Transient
<a href="#">1806314</a>	GREEN KNOLL GRILLE	10	Noncommunity Transient
<a href="#">1806314</a>	GREEN KNOLL GRILLE	125	Noncommunity Transient
<a href="#">1806314</a>	GREEN KNOLL GRILLE	300	Noncommunity Transient

Attachments:

- o Water Supply - Map

## Wastewater Treatment

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

There are two DEP-regulated wastewater facilities serving Bridgewater Township - Somerset Raritan Valley Sewage Authority (SRVSA) and the Middlesex County Utility Authority. Most of Bridgewater Township is located within the currently adopted sewer service area.

SRVSA (NJPDES permit number NJ0024864): The average of the 30-day average flow as reported to the Department in the Discharge Monitoring Reports for this facility in 2008 was 19.43 mgd; the NJPDES Permit Flow for this facility is 24.31 mgd. As such, the facility is operating at approximately eighty percent (80%) of its permitted flow.

Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 16,267 new residential units. Note that the SRVSA serves several communities in the area and not all of the remaining flow may be available to Bridgewater Township.

Middlesex County Utility Authority (NJPDES permit number NJ0020141): The average of the 30-day average flow as reported to the Department in the Discharge Monitoring Reports for this facility in 2008 was 117.9 mgd; the NJPDES Permit Flow for this facility is 147 mgd. As such, the facility is operating at approximately eighty percent (80%) of its permitted flow.

Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 97,000 new residential units. Note that the Middlesex County Utility Authority serves several communities in the area and not all of the remaining flow may be available to Bridgewater Township.

## Water Quality Management Plan - Sewer Service Area Mapping

The Department adopted amendments to the Water Quality Management Planning rules in 2007 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 Department is currently working with the County of Somerset in development of a county-wide Wastewater Management Plan based upon on the recent Water Quality Management Planning rule. Bridgewater Township should continue to coordinate with the County to ensure consistency between municipal planning and the County WMP.

Attachments:

- Adopted Sewer Service Area- Map



# Environmental Constraints Analysis

*The following section identifies those environmental constraints that should be considered by Bridgewater Township in its planning efforts. These environmental constraints are divided into 3 sections - Regulated Constraints, Constraints to Avoid, and Constraints to Consider.*

## Regulated Environmental Constraints

*Wetlands, Category One Waters and Total Maximum Daily Loads (TMDL) are environmental constraints currently regulated by DEP. Bridgewater Township 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.

It should be noted that wetlands identified based on aerial photo interpretation are not appropriate for use in determining the true extent of wetlands on a specific site.

- **Category One (C1) Waterbodies & Associated Buffers**

Category One designations are established in the Surface Water Quality Standards (NJAC 7:9B) – specifically in the tables in N.J.A.C. 7:9B-1.15(c) through (g) - for purposes of

implementing the antidegradation policies set forth at N.J.A.C. 7:9b-1.5(d). These waters are designated to provide for their protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance (habitat, water quality, and biological functions), exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).

The Stormwater Management rule (NJAC 7:8) is implemented through DEP Land Use and local regulation. The rule regulates development within 300 feet, and stormwater discharges within 150 feet, of Category One waterways and their tributaries, upstream within the same HUC14 subwatershed. The Stormwater rule establishes a 300-foot Special Water Resource Protection Area (SWRPA) along Category One (C1) waters and certain tributaries that applies only when a “major development” is proposed.

The Flood Hazard Area Control Act (FHACA) rule (N.J.A.C. 7:13) also establishes a 300-foot riparian zone along C1 waters and their upstream tributaries within the HUC-14. This FHACA rule applies to any activity that requires approval in the rule. The Riparian Zone under the FHACA rule is the land and vegetation both within a regulated waterbody and within either 50 feet, 150 feet or 300 feet from the top of bank of a regulated waterbody. Given the many important ecological functions that a healthy riparian zone provides, adequately preserving such areas is essential to protecting New Jersey's natural resources and water supply.

For the purposes of this analysis, the Department is providing generalized information and mapping of C1 waterbodies and associated buffers. This analysis should be used only as a general planning tool. Specific development proposals may be affected, consistent with the information provided above.

**There are no Category One Waterbodies in Bridgewater Township.**

▪ Total Maximum Daily Loads (TMDLs)

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 has developed over 400 TMDLs to date, several of which as identified in the table below encompass Bridgewater Township.

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 *Integrated 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). The Department proposes and upon approval of the United States Environmental Protection Agency Region 2 subsequently adopts the TMDL to the appropriate WQMP(s).

**Total Maximum Daily Loads**

<u>TMDL Name</u>	<u>Parameter</u>	<u>Percent Reduction</u>	<u>Document</u>	<u>EPA Approval Date</u>
Peters Brook At Rt 28 At Somerville; Site ID 01400395; HUC 14: 02030105080010	Fecal coliform	98%	TMDL for fecal coliform to address 48 streams in the Raritan Water Region	9/29/2003
Raritan R Lwr (Rt 206 N/B to SB); HUC 14: 02030105080020	Fecal coliform	92%	TMDL for fecal coliform to address 48 streams in the Raritan Water Region	9/29/2003
Raritan R NB (below Rt 28); HUC 14: 02030105070030	Fecal coliform	92%	TMDL for fecal coliform to address 48 streams in the Raritan Water Region	9/29/2003
Raritan River At Manville; Site ID 01400500	Fecal coliform	92%	TMDL for fecal coliform to address 48 streams in the Raritan Water Region	9/29/2003
NB Raritan River Near Raritan; Site ID 01400000	Fecal coliform	90%	TMDL for fecal coliform to address 48 streams in the Raritan Water Region	9/29/2003
Dead River (above Harrison's Brook); HUC 14: 02030103010080	Phosphorus	Seasonal average of 9.2 µg/L chlorophyll-a in the Wanaque Reservoir and seasonal average of 18 µg/L chlorophyll-a in Dundee Lake.	TMDL Report For the Non-Tidal Passaic River Basin Addressing Phosphorus Impairments	Adopted 4/24/08
Sunset Lake; HUC 14: 02040206080050	Pathogens	96.78%	TMDL for Pathogens to Address 4 Lakes in Raritan Water Region	Adopted 10/19/09

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 encompasses Bridgewater Township,

Somerset County are nonpoint source driven for fecal coliform. The TMDL documents were all established as amendments to the Upper Raritan Water Quality Management Plan (WQMP). 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](http://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 stormwater runoff was primarily identified in the TMDL document as the primary source of fecal NPS loading. Urban land use will be addressed primarily by stormwater regulation through the municipality's MS 4 permit.

### **Short-term and Long-term Management Strategies for Implementing Fecal TMDLs**

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 trackdown 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 the fecal TMDLs calls for goose management and proper maintenance of septic systems and identifies a series of implementation grants funded by the Department throughout the Watershed.

### **Long-Term Management Strategies**

While short-term management measures will begin to reduce sources of fecal coliform in the Raritan Water Region, additional measures will be needed to verify and further reduce or eliminate these sources. Some of these measures may be implemented now, where resources are available and sources have already been identified as causing the fecal impairment. Both short-term and long-term management strategies that address fecal reduction related to these identified sources may be eligible for future Departmental funding.

#### Source Categories for Long-Term Management Strategies

##### 1) Canada Geese

Geese are migratory birds that are protected by the Migratory Bird Treaty Act of 1918 and other Federal and State Laws. Resident Canada geese are those birds that do not migrate, but are protected by this and other legislation. The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS)-Wildlife Services program reports that the 1999 estimated population of non-migratory geese in New Jersey was 83,000. Geese and other pest waterfowl have been identified as one of several primary sources of

pathogen loading to impaired water bodies in the Northeast Region. Geese may produce up to 1½ pounds of fecal matter a day.

#### Canada Goose Damage Management Plan

Because geese are free to move about and commonly graze and rest on large grassy areas associated with schools, parks, golf courses, corporate lawns and cemeteries, solutions are best developed and conducted at the community level through a community-based goose damage management program. USDA's Wildlife Services program recommends that a community prepare a written Canada Goose Damage Management Plan that may include the following actions:

- Initiate a fact-finding and Communication Plan
- Enact and Enforce a No Feeding Ordinance
- Conduct Goose Damage Control Activities such as Habitat Modification
- Review and Update Land Use Policies
- Reduce or Eliminate Goose Reproduction (permit required)
- Hunt Geese to Reinforce Nonlethal Actions (permit required)

Procedures such as handling nests and eggs, capturing and relocating birds, and the hunting of birds require a depredation permit from either the USDA APHIS Wildlife Services or U.S. Fish and Wildlife Services. Procedures requiring permits should be a last resort after a community has exhausted the other listed measures. The Department's draft guide *Management of Canada Geese in Suburban Areas, March 2001*, which may be found at [www.state.nj.us/dep/watershedmgt](http://www.state.nj.us/dep/watershedmgt) under publications, provides extensive guidance on how to modify habitat to serve as a deterrent to geese as well as other prevention techniques such as education through signage and ordinances.

#### 2) Stormwater Detention Basins and Impoundments

Stormwater detention basins may act as sources of fecal coliform due to the accumulation of geese and pet waste in basins. Under certain conditions, coliform will increase in numbers in basins. As a result, significant quantities of fecal coliform can be discharged during storm events. Impoundments created by small dams across streams have been a measure commonly used for flood control by municipalities in New Jersey. In addition to flood control, the impoundments were often incorporated into public parks in order to provide recreational opportunities for residents. Many of the impoundments are surrounded by mowed turf areas, which in combination with open water serve as an ideal habitat for geese and an attraction for pet walking. Specific management measures to reduce fecal coliform inputs to these waterbodies include:

- Development of Stormwater Management Plan
- Establishment of Riparian Buffers and "no mow" zones
- No feed ordinances for all waterfowl and wildlife and signage
- Retrofit of detention/retention basins to achieve water quality control



- Conduct regularly scheduled stormwater basin cleanout and maintenance, storm sewer inlet cleanouts and street sweeping programs

### 3) Pet Waste

Specific management measures to reduce pet waste include:

- Adoption of pet waste disposal i.e. pooper scooper ordinances
- Signage in parks and other public recreation areas
- Provide plastic bags dispensers in public recreation areas

### 4) Malfunctioning and Older Improperly Sized Septic Systems; Illicit Connections of Domestic Sewage

Malfunctioning and older improperly sized septic systems contribute to fecal coliform loading in two ways: the system may fail hydraulically, where there is surface break out; or hydrogeologically, under conditions when soils are inadequate to filter pathogens. Specific management measures include the implementation of the NJPDES Municipal Stormwater Regulation Program, Sanitary Surveys, Septic System Management Programs and future sewer service area designations for service to domestic treatment works. Sanitary surveys are conducted in an effort to evaluate the water quality of natural surface waters and identify those components that affect water quality, including geographic factors and pollution sources. The focus of the sanitary survey is to identify nonpoint and stormwater source contribution of fecal coliform within the watershed. It is accomplished by sampling for various types of fecal indicators (fecal coliform, enterococcus, fecal streptococcus, *E. coli* and coliphage) during wet and dry weather conditions. Where potential problems with septic systems are identified, as described below, a trackdown study may be warranted. This could lead to an analysis of alternatives to address any identified inadequacies, such as rehabilitation of septic systems or connection to a sewage treatment system, as appropriate.

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 the impaired waterbodies.

### **Future TMDLs for the Raritan River Basin**

In 2010, the Department anticipates proposing TMDLs for phosphorus impairments in the Raritan River Basin. This will encompass impairments for nutrients and aquatic life that fall within the drainage of Bridgewater Township. It is anticipated that the implementation plan for the Raritan River Basin TMDLs will require municipalities in the contributory drainage area of the TMDL to adopt a Fertilizer Application ordinance consistent with a model ordinance provided by the Department as an additional measure of the Municipal Stormwater Permit. The model ordinance can be viewed at [www.state.nj.us/dep/watershedmgt/rules.htm](http://www.state.nj.us/dep/watershedmgt/rules.htm) under the section heading "Water Quality Management Planning Rule".

During a 2008 Earth Week event, the Commissioner signed a memorandum of understanding (MOU) with members of the lawn-care industry, who pledged to reduce the amount of phosphorus released by fertilizers in the Garden State by 50 percent by 2010. In signing the MOU, members of the Lawn Care Product Manufacturing Industry agreed to establish technical groups to work with the DEP and Rutgers University's Agricultural Experiment Station in developing a stewardship program to foster better public education and to review strategies to reduce the levels of phosphorus in fertilizers. The largest distributor of fertilizer in New Jersey has reported a 45% reduction in tons of P<sub>2</sub>O<sub>5</sub> from 2006 to 2008 based on sales of their no and/or low phosphorus fertilizer. The Department is confident that the MOU endeavor along with municipal adoption of the fertilizer ordinance will begin to address the urban stormwater contribution of nutrients to waterbodies in the state.

Attachments:

- SWQS – Map
- TMDLs – Map
- Flood Hazard Areas (FEMA-DFIRM) – Map

## 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 Tree frog, 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 officials 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.

Note that the Landscape Project has been updated relatively recently, and released in two versions. Bridgewater Township is partially covered by both version 2.1 and 3.0. Version 3.0 was developed specifically for the Highlands Region. This version was developed using a new methodology and based on updated species occurrence data. Version 3.0 also identifies vernal habitats. These are areas that contain pools that have been field-verified by the Department and have been determined to meet both the physical and biological characteristics of a vernal habitat in accordance with N.J.A.C. 7:7A-1.4. Version 2.1 was developed using the same protocols as Version 2.0, but updated with more recent species

siting data. For additional information on the Landscape Project, see [New Jersey's Landscape Project](#).

There are areas identified as habitat for the Long-eared Owl, Cooper’s Hawk and Wood Turtle (Rank 3), and scattered areas of Rank 2 habitat located outside of the Designated Center. Rank 4 habitat identified by the Landscape Project as Bald Eagle Foraging along the Raritan River, North Branch of the Raritan River, Peter’s Brook, Middle Brook and Green Brook throughout Bridgewater Township. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in Bridgewater Township (including habitat for priority species – Rank 2 – that is discussed below in the ‘Environmental Constraints to Consider’ section).

- **Natural Heritage Priority Sites**

Through its Natural Heritage Database, the DEP Office of Natural Lands Management (ONLM) identifies critically important areas to conserve New Jersey’s biological diversity, with particular emphasis on rare plant species and ecological communities. The database provides detailed information on rare species and ecological communities to planners, developers, and conservation agencies for use in resource management, environmental impact assessment, and both public and private land protection efforts. Using the database, ONLM has identified 343 Natural Heritage Priority Sites (NHPS), representing some of the best remaining habitat for rare species and rare ecological communities in the state. In addition, each NHPS includes a Biodiversity Rank according to its significance for biological diversity using a scale developed by The Nature Conservancy, the network of Natural Heritage Programs and the New Jersey Natural Heritage Program. The global biodiversity significance ranks range from B1 to B5. The state biodiversity significance ranks for sites in the Highlands Region range from V1 to V5. Therefore, all sites have been assigned a global biodiversity rank (B rank), but not all sites have been assigned a state biodiversity rank (V rank).

B2 - Very high significance on a global level, such as the most outstanding occurrence of any ecological community. Also includes areas containing other occurrences of elements that are critically imperiled globally, a good or excellent occurrence of an element that is imperiled globally, an excellent occurrence of an element that is rare globally, or a concentration (4+) of good occurrences of globally rare elements or viable occurrences of globally imperiled elements.

B5 - Of general biodiversity interest.

V3 - High significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state imperiled element or multiple (2+) other occurrences for state imperiled elements and/or excellent, good or moderate quality occurrences of state rare elements.

There are two NHPS located within the Highlands Planning Area in Bridgewater Township, as follows:

SITE NAME	DESCRIPTION	RANK	COMMENTS
Chimney Rock	The site contains two hilltops with steep sloped track rock cliffs that descend to two branches of the Middle Brook below. Open glade communities form just above	B2	The site contains a good occurrence of a trap rock glade natural community and occurrences of

	the steep cliffs. Elsewhere, the site is largely covered by hardwood forest.		several State Endangered and Special Concern Plant Species.
Pluckemin Overlook	Rocky woods over trap rock.	B5V3	Contains occurrences for two state imperiled plant species.

Attachments:

- Natural Heritage Priority Sites and Vernal Habitat - Map
- Threatened, Endangered & Priority Species Habitat – Map

## 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.

- 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](#).

- 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 is Rank 2 Forest, Forested Wetlands, Emergent Wetlands, and Grassland habitat identified by the Landscape Project in Bridgewater Township. The majority of this habitat is located in and around the Bridgewater Landfill. Mapping showing Priority Species Habitat is included on the *Threatened & Endangered Species Habitat map*, as discussed earlier in the 'Environmental Constraints to Avoid' section.

Attachments:

- Groundwater Recharge & Wellhead Protection Areas – Map

# 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 List for New Jersey 2005 includes those sites and properties within the state where contamination of soil or ground water has been identified, or where there has been, or there is suspected to have been, a discharge of contamination. This list of Known Contaminated Sites may include sites where remediation is either currently under way, required but not yet initiated or has been completed. The data included here dates from 2001. Additionally, new contaminated sites have been identified since the creation of this list and are not included here. For further information contact NJDEP's Site Remediation Program and Waste Management (SRWM) lead program, which are identified with each site listed in this data base. Contact information for SRWMs lead program can be acquired at <http://www.state.nj.us/dep/srp/kcs-nj/>.

Note: There are some sites found in the 'official' KSCNJ list that do not exist in the GIS mapped version. There were about 50 sites that either had poor address descriptions and could not be located accurately or are 'sites' that actually describe a case covering several locations and cannot be expressed by a single point. These problem sites were intentionally omitted from the GIS map.

The Known Contaminated Sites in New Jersey report (<http://www.nj.gov/dep/srp/kcs-nj/>) 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.).

**Bridgewater Township sufficiently addressed its Known Contaminated Sites in the Municipal Self Assessment Report and, as such, they will not be re-listed here.**

## 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 has identified multiple CEAs within Bridgewater Township. See attached table: *Groundwater Contamination Areas in Bridgewater Township*.

For further information about Classification Exception Areas see:

[http://www.state.nj.us/dep/srp/guidance/cea/cea\\_guide.htm](http://www.state.nj.us/dep/srp/guidance/cea/cea_guide.htm)

<http://www.state.nj.us/dep/srp/regs/guidance.htm#cea>

### 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.

DEP mapping identifies two Solid Waste Landfills in Bridgewater Township: Ethicon Inc. Landfill (CSLNUM: NJD002144145) and Severins Landfill (CSLNUM: NJL900001157). Both are non-operating and historic landfills identified by, or reported to, the Department as having suspected or known contamination. Working with local and regional environmental agencies, community representatives, and through review of historic materials, the Site Remediation Program is developing this inventory to prevent injury to human and ecological resources. That inventory is available at <http://www.nj.gov/dep/srp/landfills/>.

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

#### Attachments:

- Contaminated Sites – Map
- Groundwater Contamination Areas – Map
- Groundwater Contamination Areas in Bridgewater Township - Table

# Preserved Lands & 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 attached table (*Green Acres Program – Open Space Database*) represents the preserved open space lands located in Bridgewater Township. DEP recognizes that its records may be incomplete or incorrect, and appreciates all assistance in keeping its records up-to-date.

## 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. The New Jersey and National Registers of Historic Places for Somerset County can be found at <http://www.state.nj.us/dep/hpo/1identify/lists/somerset.pdf>.

# Permit Extension Act

On September 6, 2008 Governor Jon S. Corzine signed the Permit Extension Act of 2008 (P.L. 2008, Chapter 78). For your information and convenience, DEP provides information at <http://www.nj.gov/dep/opppc/extension.htm>. If the Department's Permit Extension Act website does not address the particular circumstances of a permit holder or applicant, questions may be submitted in writing to NJ Department of Environmental Protection, Office of Permit Coordination and Environmental Review, P.O. Box 423, Trenton, New Jersey 08625-0423, by phone at (609) 292-3600, or at <http://www.nj.gov/dep/opppc/permitcoor.htm>.

## Notice of Permit Extension Act Provisions

**Take notice** that, pursuant to the “Permit Extension Act of 2008” (Act), P.L. 2008, c. 78, approvals, as defined in section 3 of the Act, including any Department authorization in the form of a permit, approval, license, certification, waiver, letter of interpretation, agreement, center designation, or any other executive or administrative decision, except for administrative consent orders, which expire during the period of January 1, 2007 through July 1, 2010, are hereby extended through July 1, 2010. This Act automatically extends any approvals granted by the Department of Environmental Protection, including, but not limited to, those issued under the authority of the following statutes:

- (A) Waterfront Development Law, N.J.S.A. 12:5-1 et seq.
- (B) Wetlands Act of 1970, N.J.S.A. 13:9A-10 et seq.
- (C) Freshwater Wetlands Protection Act, N.J.S.A. 13:9B-1 et seq.
- (D) Coastal Area Facility Review Act, N.J.S.A. 13:19-1 et seq.
- (E) Water Supply Management Act, N.J.S.A. 58:1A-1 et seq.
- (F) Well Drilling Permits, N.J.S.A. 58:4A-5 et seq.
- (G) Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.
- (H) The Realty Improvement Sewerage and Facilities Act (1954), N.J.S.A. 58:11-23 et seq.; and N.J.S.A. 58:11-25.1 et seq.
- (I) Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq.
- (J) Safe Drinking Water Act, N.J.S.A. 58:12A-1 et seq.
- (K) Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq.

Nothing in the Act shall have the effect of extending:

1. any permit or approval issued within an environmentally sensitive area as defined in the Act;
2. any permit or approval within an environmentally sensitive area issued pursuant to the Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq.;
3. any permit or approval issued pursuant to the Flood Hazard Area Control Act, N.J.S.A. 58:16A-50 et seq., except where work has commenced, in any phase or section of the



development, on any site improvement, as defined in paragraph (1) of subsection a. of section 41 of the Municipal Land Use Law, N.J.S.A. 40:55D-53 or on any buildings or structures; or

4. any coastal center designated pursuant to the Coastal Area Facility Review Act, N.J.S.A. 13:19-1 et seq., that as of March 15, 2007

(a) had not submitted an application for plan endorsement to the State Planning Commission, and

(b) was not in compliance with the provisions of the Coastal Zone Management rules at N.J.A.C. 7:7E-5B.6;

5. any permit or approval issued pursuant to federal assumption or delegation. The Act shall not affect any administrative consent order issued by the Department in effect or issued during the extension period, nor shall it be construed to extend any approval in connection with a resource recovery facility as defined in N.J.S.A. 13:1E-137.

Nothing in the Act shall affect the ability of the Commissioner of the Department to revoke or modify a specific permit or approval, or extension thereof pursuant to the Act, when that specific permit or approval contains language authorizing the modification or revocation of the permit or approval by the Department.

In the event that any approval tolled pursuant to the Act is based upon connection to a sanitary sewer system, the approval's extension shall be contingent upon the availability of sufficient capacity, on the part of the treatment facility, to accommodate the development whose approval has been extended. If sufficient capacity is not available, those permit holders whose approvals have been extended shall have priority with regard to the further allocation of gallonage over those approval holders who have not received approval of a hookup prior to the date of enactment of the Act. Priority regarding the distribution of further gallonage to any permit holder who has received the extension of an approval pursuant to the Act shall be allocated in order of the granting of the original approval of the connection. Further, nothing in the Act shall be deemed to extend the obligation of any wastewater management planning agency to submit a wastewater management plan or plan update, or the obligation of a municipality to submit a wastewater management plan or plan update, pursuant to the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq. and the Water Quality Management Planning rules, N.J.A.C. 7:15, adopted by the Department effective July 7, 2008. Nothing in the Act shall be construed or implemented in such a way as to modify any requirement of law that is necessary to retain federal delegation to, or assumption by, the State of any authority to implement a federal law or program.

Finally, nothing in the Act shall be deemed to extend or purport to extend any permit or approval issued by the government of the United States or any agency or instrumentality thereof, or to any permit or approval by whatever authority issued of which the duration or effect or the date or terms of its expiration are specified or determined by or pursuant to law or regulation of the federal government or any of its agencies or instrumentalities.

Attachments:

- Permit Extension Act Environmentally Sensitive Areas – Map

# Summary of Major Issues

## 1. Watershed Management Area Planning

Additional information on WMA 8, 9 and 10 may be found at the NJ Water Supply Authority's project website at [www.raritanbasin.org](http://www.raritanbasin.org).

## 2. Transfer of Development Rights

One of the purposes of a designated center is to accommodate growth that would otherwise occur in the environs. While Bridgewater Township may be significantly developed, there is still remaining areas for development and redevelopment. As such, DEP recommends that Bridgewater Township consider participating in the Highlands Council TDR program as a means to benefit from the existence of the Region. Participation in the Highlands TDR program provides certain benefits to the Town such as enhanced planning grants from the Council of up to \$250,000; eligibility for a grant to reimburse the reasonable costs of amending municipal development regulations, and; the authorization to impose impact fees. It would also serve to protect water quality and natural resources in the Highlands Region that benefit – directly or otherwise – the citizens of the Township.

While possibly beyond the scope of this Report, DEP also recommends that the municipalities within the Somerset Regional Center consider cooperatively developing a TDR program to transfer development from the environs into the Regional Center.

Development and implementation of a TDR program are eligible activities under the DEP-managed Local Greenhouse Gas Reduction Grant Program (additional information below). That grant program provides preference and additional funding to regional projects.

## 3. Historic Preservation Issues

- There are many known historic properties in Bridgewater that are not reflected on the 'Historic Sites & Open Space' Map. Further, there are many sites identified in the Township History section of the MSA that are not present on the 'Historic Sites & Open Space' map. These were presumably generated from the *Bridgewater Township Environmental Resource Inventory Supplement, December 2005* and are listed beginning on page 54 of the MSA. All identified historic sites should appear on the map.
- The Township should adopt a historic preservation element to their Master Plan, or as part of the Designated Regional Center Plan.
- Any discussion of the history of the Township should acknowledge the Native American occupation of the area and the potential for archaeological sites related to their occupation. The section on historic sites in the MSA begins with the King George Charter of 1749.
- To what extent have the brownfields listed (beginning on page 68) been assessed for their historic significance? Many old industrial and commercial facilities meet the National Register Criteria for Evaluation. To the extent that this has not been done, it should be done prior to the creation and adoption of any redevelopment proposals for these sites.

- Many of the items requested for state agency assistance call for physical changes to the built environment (transportation project, a downtown facade program, creation of a pocket park, etc). As part of project implementation, all measures to ensure that adverse impacts to cultural resources are avoided or minimized should be undertaken.

#### 4. Open Space

DEP's open space data appears to differ from that identified in Bridgewater Township's MSA. DEP requests that Bridgewater Township submit both GIS shapefiles and its ROSI.

#### 5. Threatened & Endangered Species Habitat & Natural Heritage Priority Sites

The MSA states (on page 46) that, "there are no lands ranked State Threatened, State Endangered or Federal Threatened and Endangered" in Bridgewater Township. This is incorrect. Please refer to the discussion of Threatened and Endangered Species Habitat in this report.

The MSA also incorrectly states that there is one NHPS in the Township. There are two NHPS in Bridgewater Township – Chimney Rock and Pluckemin Overlook NHPS. Please refer to the discussion of Natural Heritage Priority Sites in this report.

#### 6. Flooding Issues

Flooding issues should be addressed within the Township's All Hazard Mitigation Plan which is required by FEMA. Somerset County has prepared a plan for its communities, which Bridgewater Township should have participated in. This plan allows the Township to be eligible for several mitigation grant programs for flood mitigation and disaster relief. These grant programs are administered through the Office of Emergency Management (OEM) within State Police.

In addition, the Township should enforce and maintain a flood damage prevention ordinance in order to remain in good standing with the National Flood Insurance Program (NFIP). Participation in the NFIP will allow residents of the Township to purchase federally backed flood insurance which is required by mortgage companies.

#### 7. Redevelopment Area(s)

- American Cyanamid/Wyeth Redevelopment Site

DEP understands this site to be Block 340, Lot 2. DEP notes that this site is within the 100-year floodplain, includes Bald Eagle foraging habitat, and is identified as a Known Contaminated Site. All of these issues should be addressed in any redevelopment plan for the site.

- DEP recommends that towns require "green buildings" (LEED, Green Globes) in redevelopment areas, to the extent practicable.

#### 8. Center Boundary

- DEP supports the inclusion of Bridgewater Township in the proposed/amended Somerset Regional Center. DEP further supports the amendments proposed to the Regional Center boundary proposed since the last adoption of the Regional Center boundary.

- DEP notes that areas identified as Environmentally Sensitive Planning Area (PA5) within the Designated Center, are, for the most part, inappropriate for growth. DEP supports including these areas in the Designated Center simply in order to allow the Center boundary to be coterminous with the municipal boundary. Should this concept prove problematic, DEP would propose modifying the Center boundary to not include areas identified as PA5.
- DEP particularly notes that inclusion of a site in a Designated Center does not lift regulations that may impact areas within that Center – the Flood Hazard Area rule, for example – nor does it indicate that specific environmentally sensitive sites and resources are undeserving of protection – such as intact areas of threatened and endangered species habitat.
- DEP notes that while the expiration date of the vast majority of the Somerset Regional Center was extended to July 1, 2010 per the Permit Extension Act, the portions of the Township identified as “environmentally sensitive areas” were not included in that extension.

## 9. Planning Areas

DEP believes that minor modifications to the Planning Areas in Bridgewater Township are needed.

- DEP believes that the block/lots listed in the table below that are currently identified as PA1 (or partially as PA1) should be identified as PA5, in their entirety (except as otherwise noted), or as parkland as appropriate, in order to properly characterize the sites. Block/lots are identified in this instance because of the difficulty of modifying the Planning Area GIS shapefile at this time.

Block	Lot	Rationale
300	13, 14, 14.01, 15, 15.01, 16, 18, 19, 20, 22	Flood prone, T&E habitat
301	1	Flood prone
340	2 - West/south of Cuckel’s Brook 3 – undeveloped portion	Flood prone, T&E habitat, wetlands
345	1	Flood prone, T&E habitat, wetlands

- DEP recommends extending PA5 north from the southeastern corner of the municipality, along Middle Brook, connecting the PA5 along the Millstone River with the Chimney Rock Natural Heritage Priority Site. Much of this corridor is already identified as park or Critical Environmental Site.
- DEP recommends extending PA5 south from Bedminster Township, across I-78, to include all of the Pluckemin Overlook Natural Heritage Priority Site, a large portion of which is currently mapped as park.

## 10. Local Greenhouse Gas Reduction Grant Program

DEP is administering a grant program that will provide approximately \$4.5 million to local governments to reduce greenhouse gas emissions. The Local Government Greenhouse Gas



Reduction Grants Program is a competitive grant process available to municipalities, counties, local authorities, school boards and county colleges.

This grant program is intended to support New Jersey's local government efforts to plan, develop and implement measures that reduce greenhouse gas emissions through projects that result in energy efficiency, renewable energy, distributed energy and sustainable land use planning. A paramount element of this program is the need for local governments to identify how their efforts result in measurable reductions in greenhouse gas emissions or energy demand.

For a full description of the grant program and pre-application form and process go to: [www.nj.gov/dep/opsc/ghggrant.html](http://www.nj.gov/dep/opsc/ghggrant.html) or e-mail questions to [GHGGrants@dep.state.nj.us](mailto:GHGGrants@dep.state.nj.us). For a copy of the Press Release go to: [http://www.nj.gov/dep/newsrel/2009/09\\_0015.htm](http://www.nj.gov/dep/newsrel/2009/09_0015.htm).

**The grant Pre-Application deadline for this Round has passed.** DEP recommends that Bridgewater Township consider submitting an application for funding in the next Round.

#### 11. Grant & Loan Programs

DEP's grant and loan programs are listed at: <http://www.nj.gov/dep/grantandloanprograms/>.

# Requests for Assistance

Following are the Bridgewater Township requests for State Assistance as provided in the MSA (*in italics*), for which DEP is the primary contact, and DEP's response. DEP also notes that several of the projects identified as Requests for Assistance for which DEP would not necessarily be the primary contact, are eligible projects under the Local Greenhouse Gas Reduction Grant Program discussed above.

## **INFRASTRUCTURE IMPROVEMENTS**

*Sound sanitary sewer infrastructure and well engineered drainage ways support a municipality's ability to make its operational budget costs predictable. Funds for drainage and sanitary sewer projects are critically important to Bridgewater. The following initiatives need immediate funding:*

1. *Funding for a televising and rehabilitation program (Infill/Infiltration) for sanitary sewer lines is needed to deal with infiltration and inflow. The Township is paying substantial funds to the treatment facility (SRVSA) to treat extraneous flows of clean water due to leakage of old sanitary sewer lines. It is cost-effective and an improvement to the environment (less chemical and power usage and a cleaner effluent) to remove the excessive wet weather flows.*
  - DEP's Municipal Finance Element (<http://www.nj.gov/dep/dwq/mface.htm>) and the NJ Infrastructure Trust (<http://www.njeit.org/>) are two potential sources of funding for this type of project.
2. *Cuckholds Brook Drainage Project: Technical and funding assistance is needed for design and permitting to eliminate the drainage problems facing residents. These funds will be used to improve drainage problems caused by Cuckholds Brook thru Finderne. This is essentially a flood control project affecting Municipal, County, and State infrastructure. State and County bridges are affected. Storm water enters houses near the stream. The stream is a depository for debris. Excessive flood flows cause both the sanitary and storm sewers to surcharge, sending untreated sewage into homes and stormwater into the streets. The flooding is both an imminent danger to persons and homes and a health hazard by way of flood debris and stagnant water.*
  - This project should be identified in the Township's All Hazard Mitigation Plan, if not already. The project would be eligible for the grant programs identified in the discussion of Flooding Issues above.

## **RECREATIONAL IMPROVEMENTS**

*In order to serve a growing recreational need, Bridgewater needs to increase the number of field hours. Additional land for fields is at a premium.*

1. *Funding for installation of lights and installation of turf fields on underutilized Green Acres lands is needed.*
2. *Funding for bleachers is needed.*

- Projects such as these are eligible for Green Acres funding under the Park Development – Outdoor Recreation Development category. Bridgewater Township should apply to the Green Acres program. Additional information can be found at:  
<http://www.nj.gov/dep/greenacres/>.

## **MISCELLANEOUS IMPROVEMENT NEEDS**

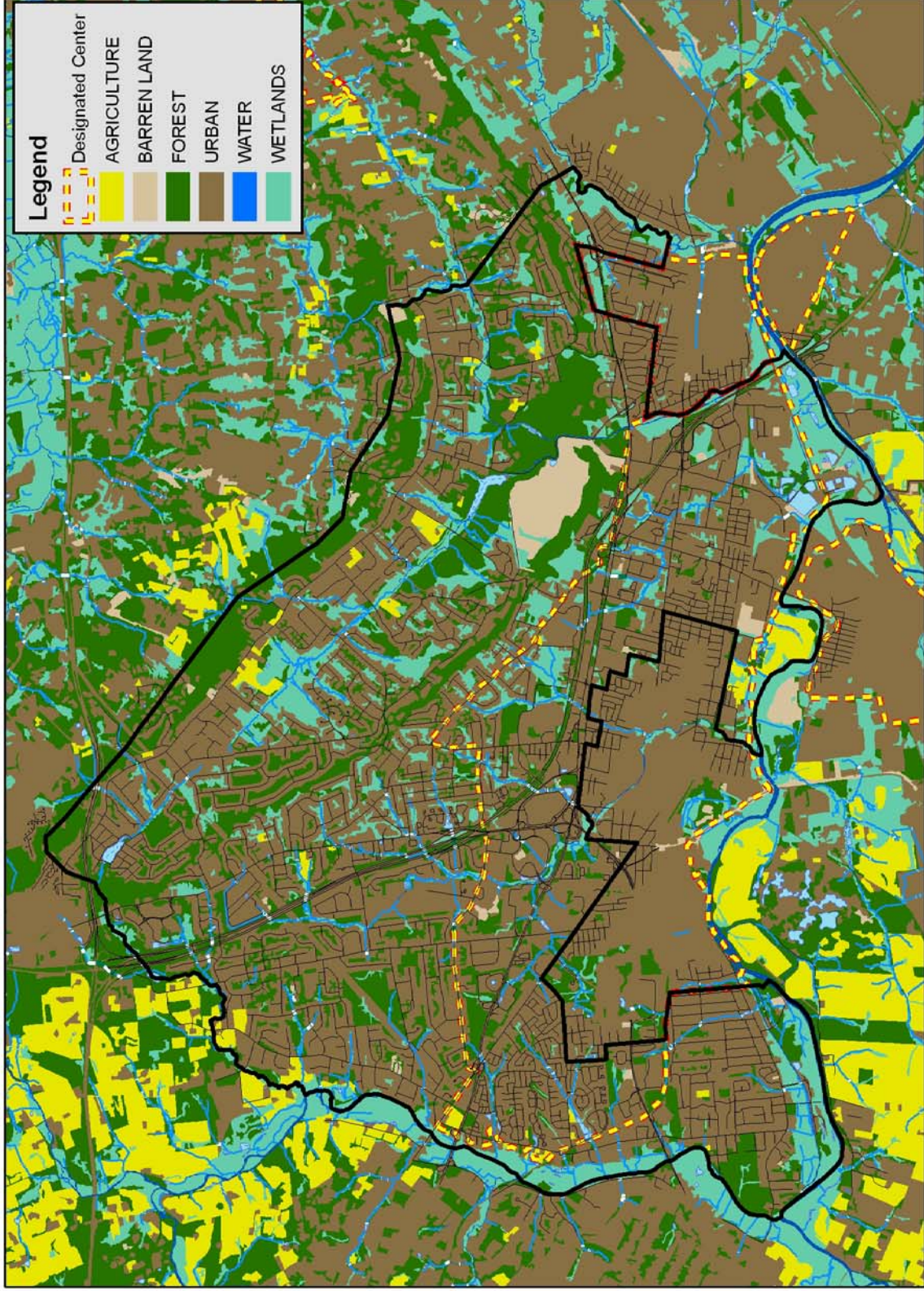
*The following needs also require assistance and funding*

1. *Technical services and funding should be available to help Bridgewater implement energy and cost-efficient building design with tax benefits incentives*
  - Staff from the DEP Office of Planning & Sustainable Communities is available to provide technical assistance at the Township’s request. Energy and cost-efficient building design is an eligible project under the Local Greenhouse Gas Reduction Grant Program discussed above. Additional information on Sustainable Communities-Related Grants for New Jersey Municipalities may be found at:  
<http://www.nj.gov/dep/opsc/docs/njstategrants.pdf>.
2. *The site vision for the former American Cyanamid site, a USEPA designated “superfund” site, includes the preservation of 95 acres along the Raritan River as a wildlife habitat. The site is commonly known as the Wyeth Property. The current site vision includes the development of site-wide comprehensive wetlands program. This site-wide program will include new and enhanced wetlands planning elements. This plan is consistent with Wildlife Habitat Council Certification, Raritan River Greenways and other established programs. As Bridgewater works to develop a reclamation plan for the Wyeth site, state assistance is needed to expedite the permitting of wetlands credits for the governing body.*
  - Additional information is need on this request before DEP can provide a response.

# Maps

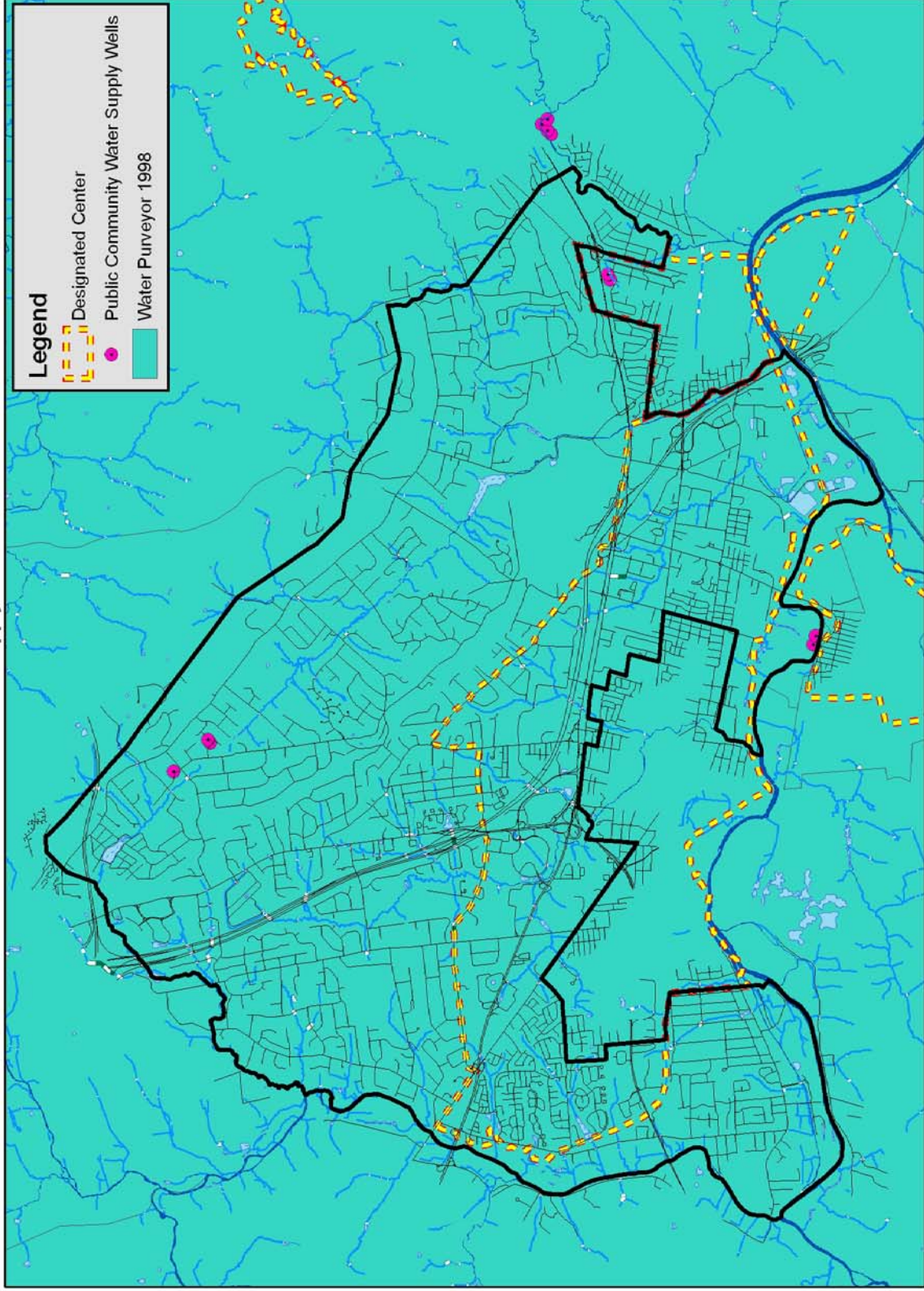


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Land Use/Land Cover**



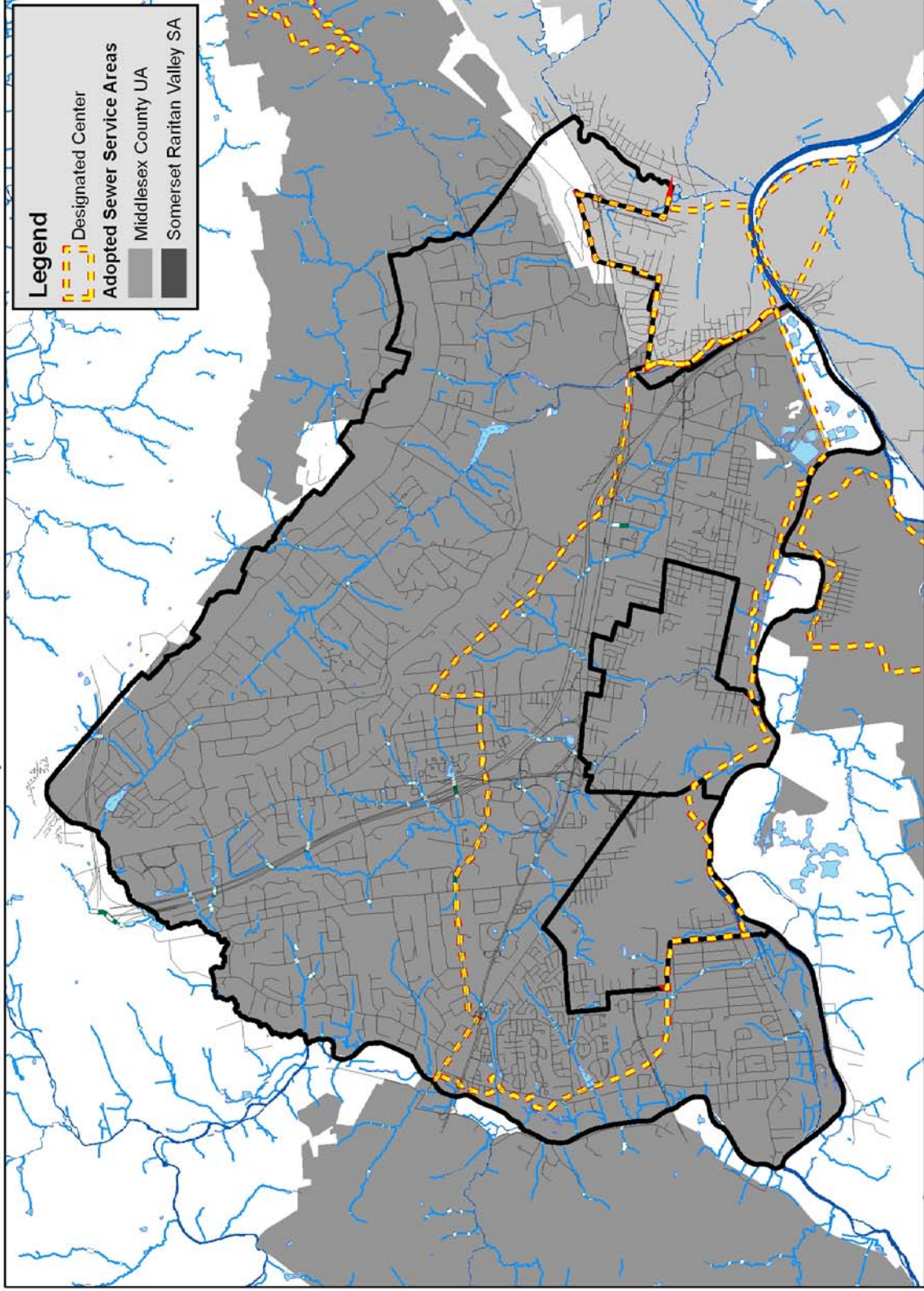


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Water Supply**



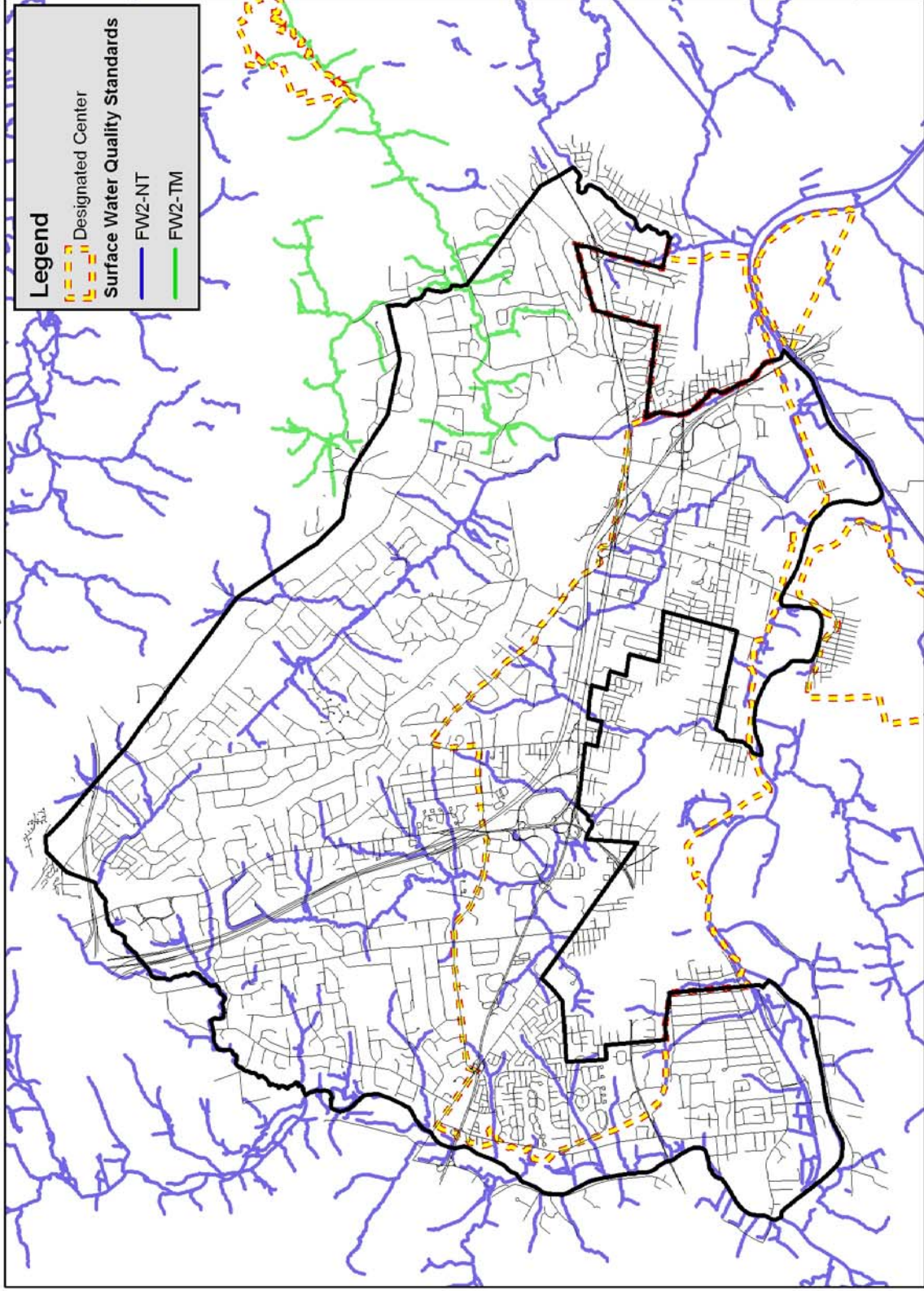


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Adopted Sewer Service Areas**



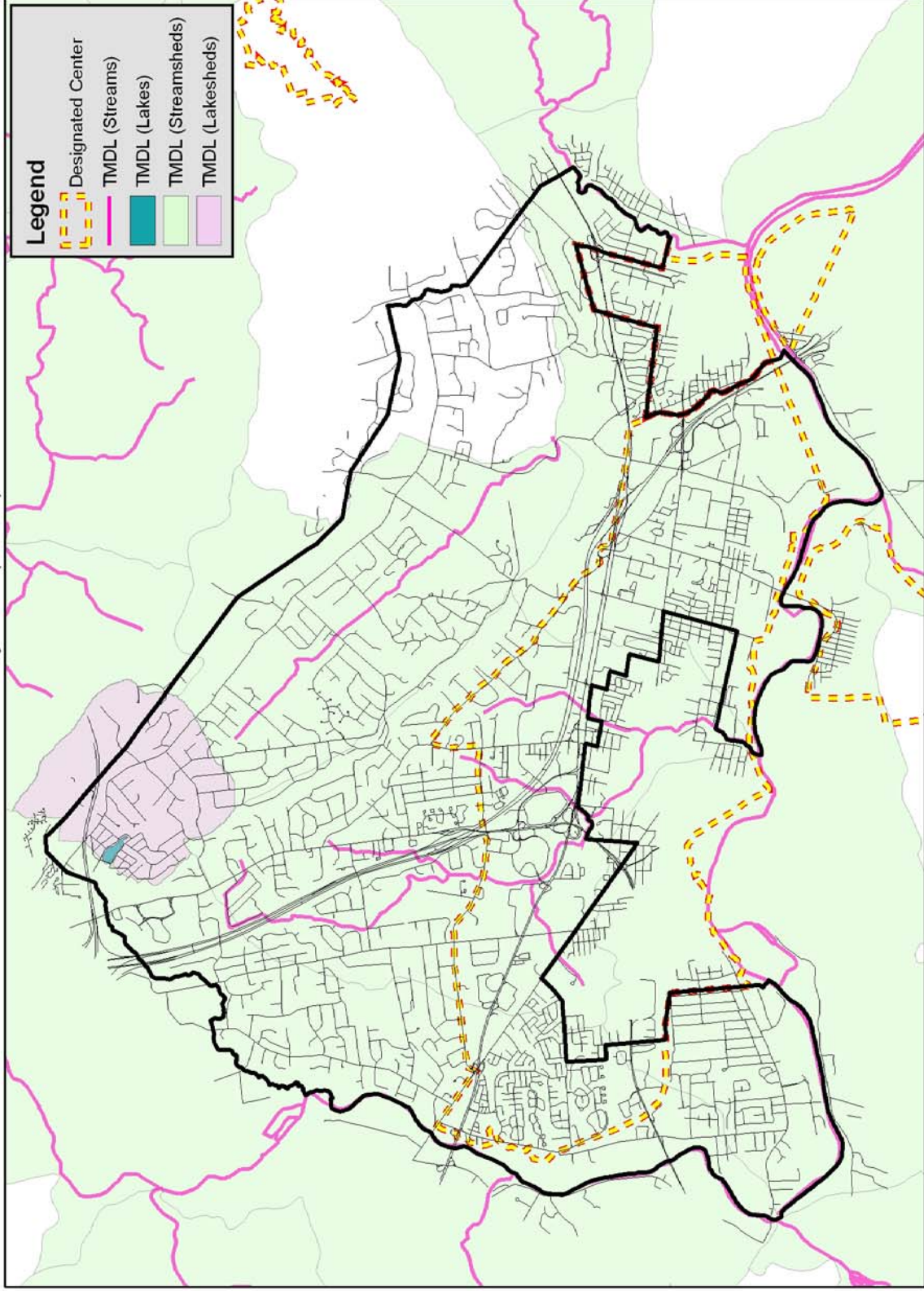


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Surface Water Quality Standards**



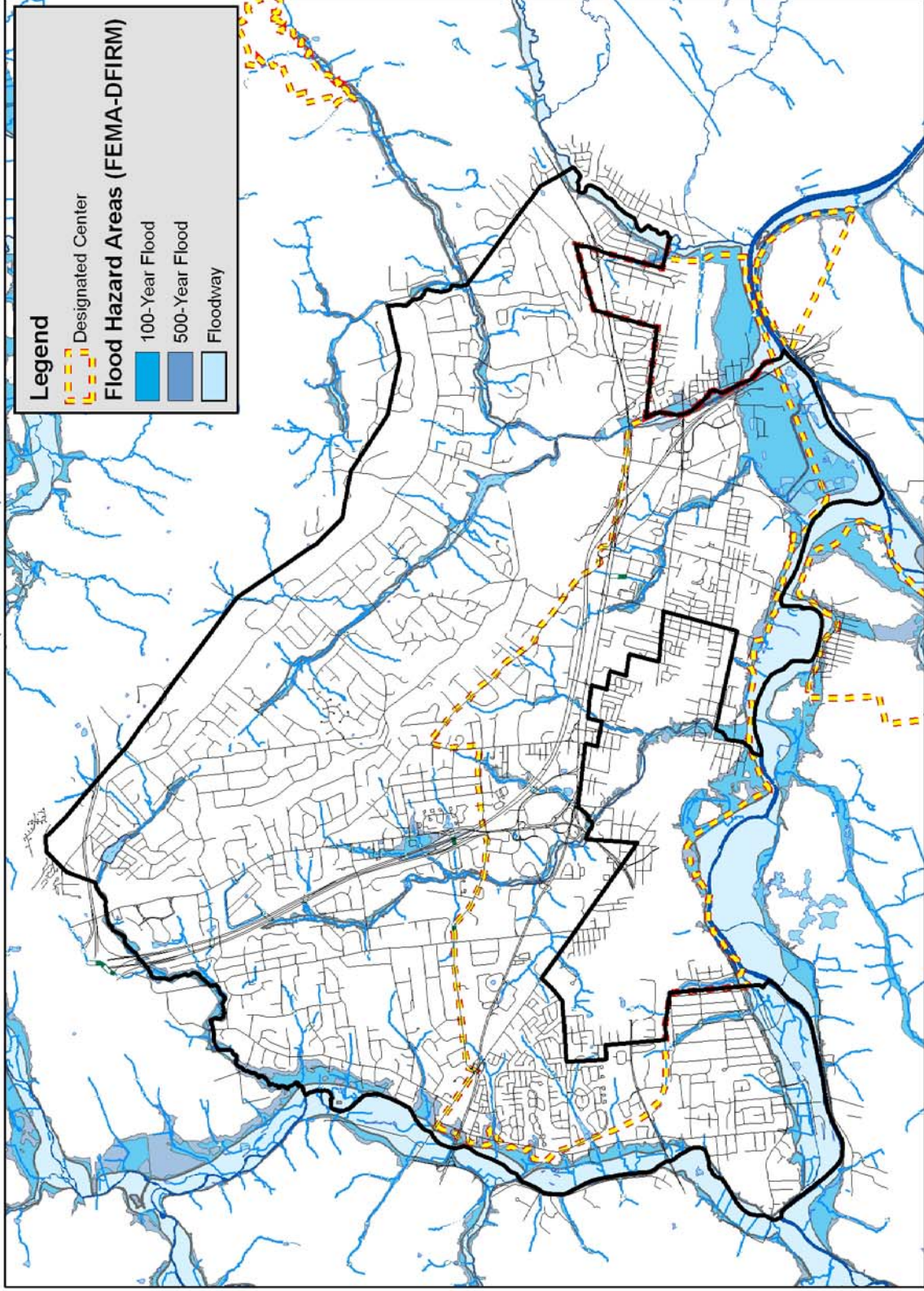


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Total Maximum Daily Loads (TMDLs)**



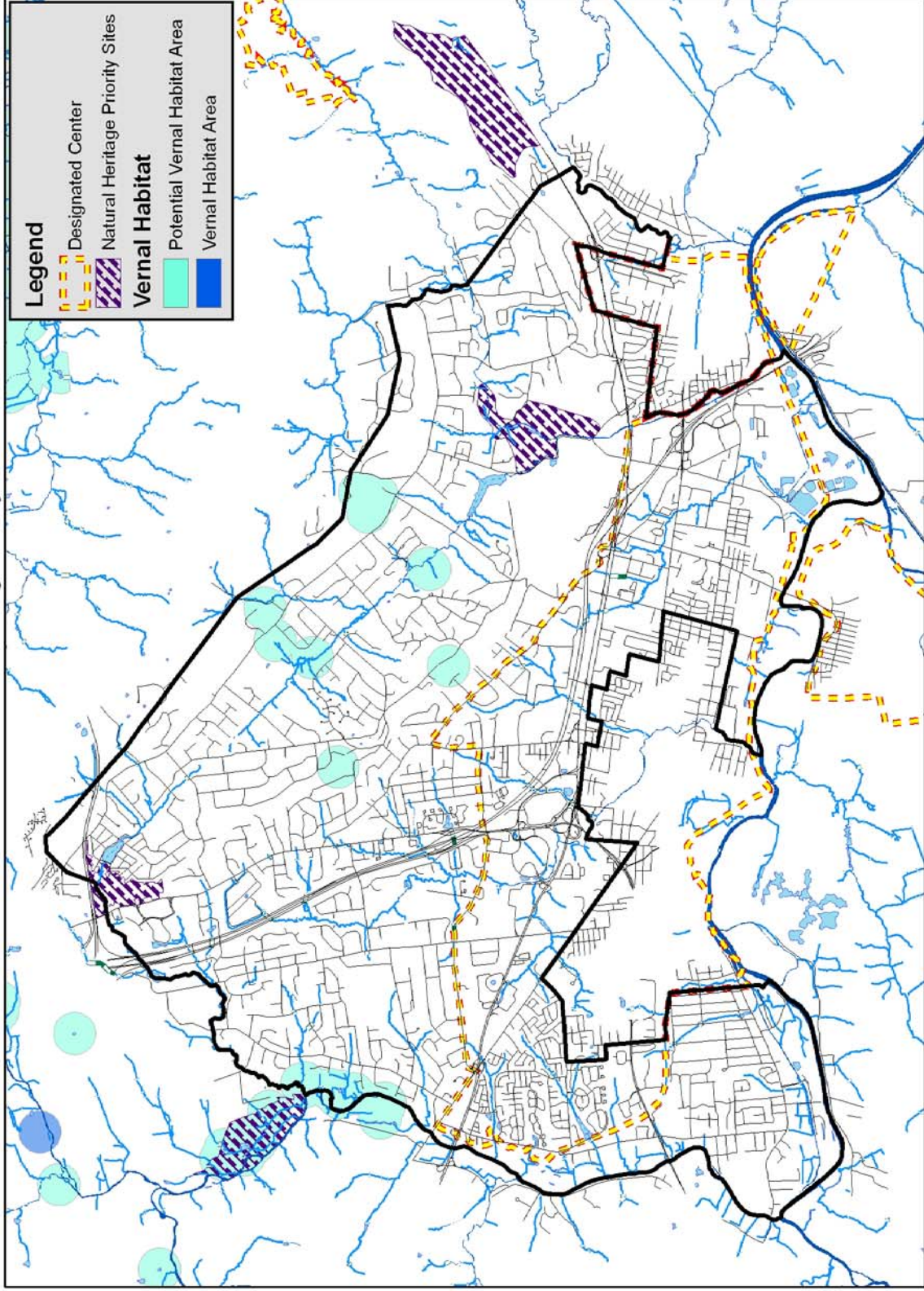


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Flood Hazard Areas (FEMA-DFIRM)**



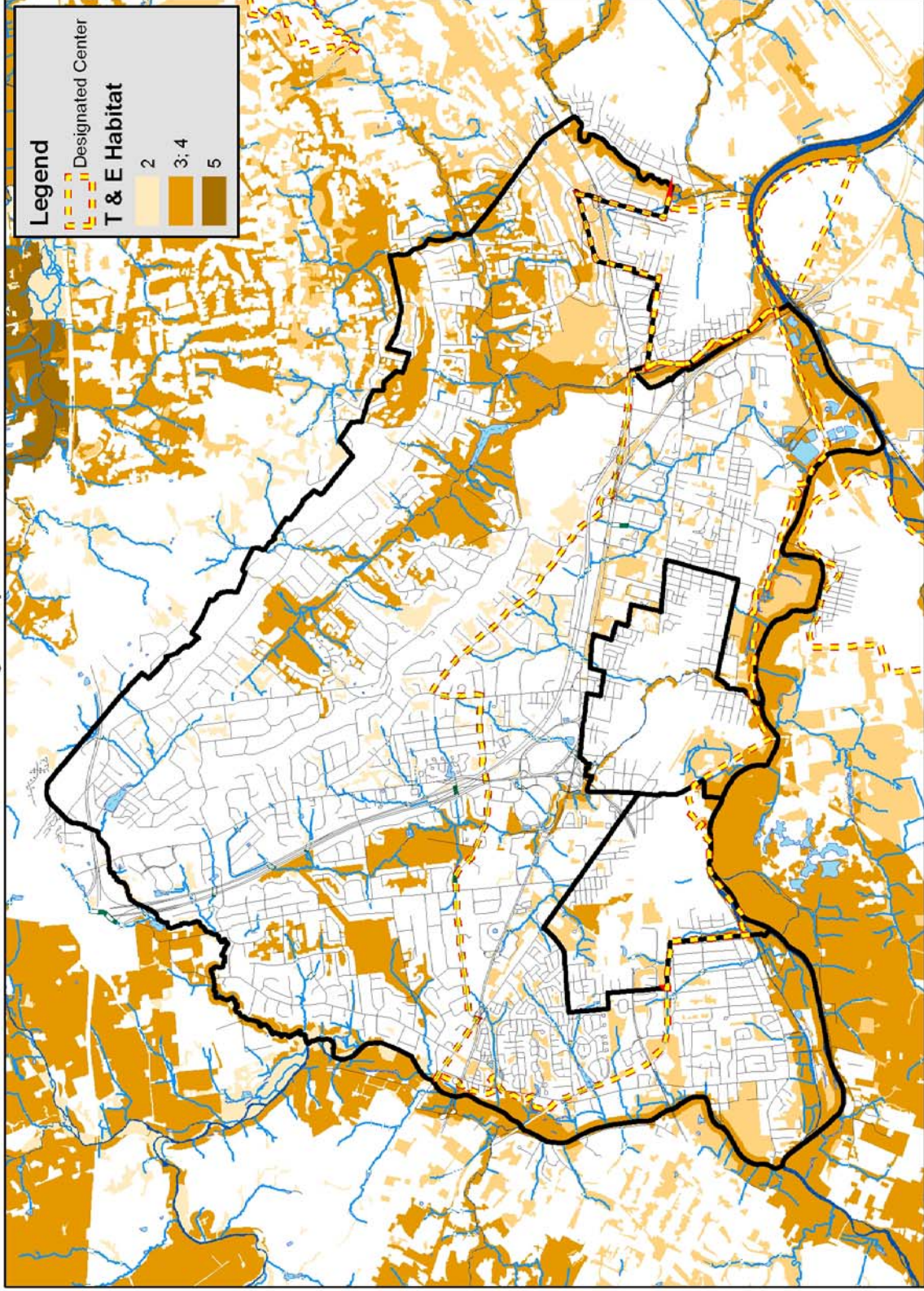


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Vernal Habitats & Natural Heritage Priority Sites**



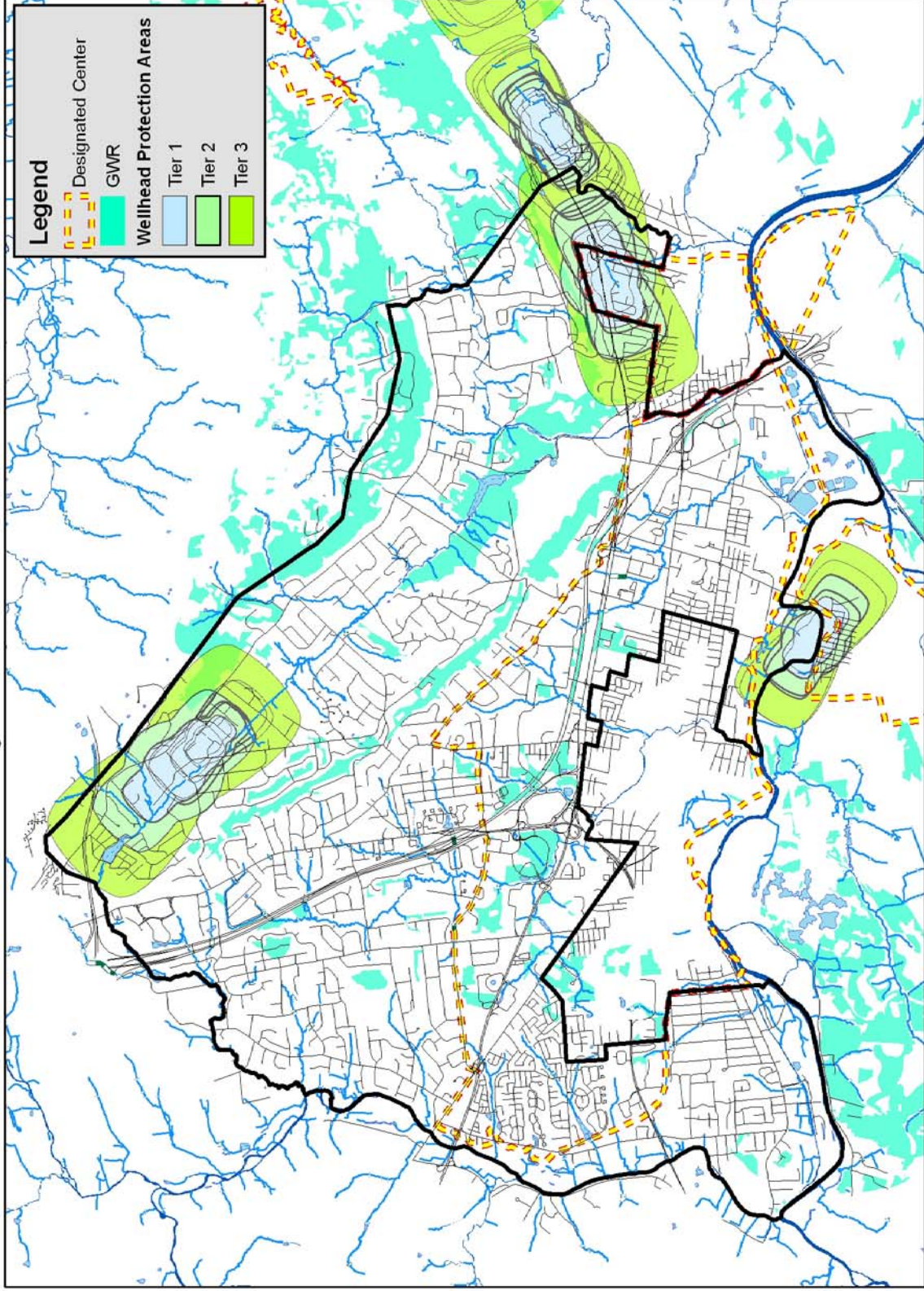


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Threatened & Endangered Species Habitat**



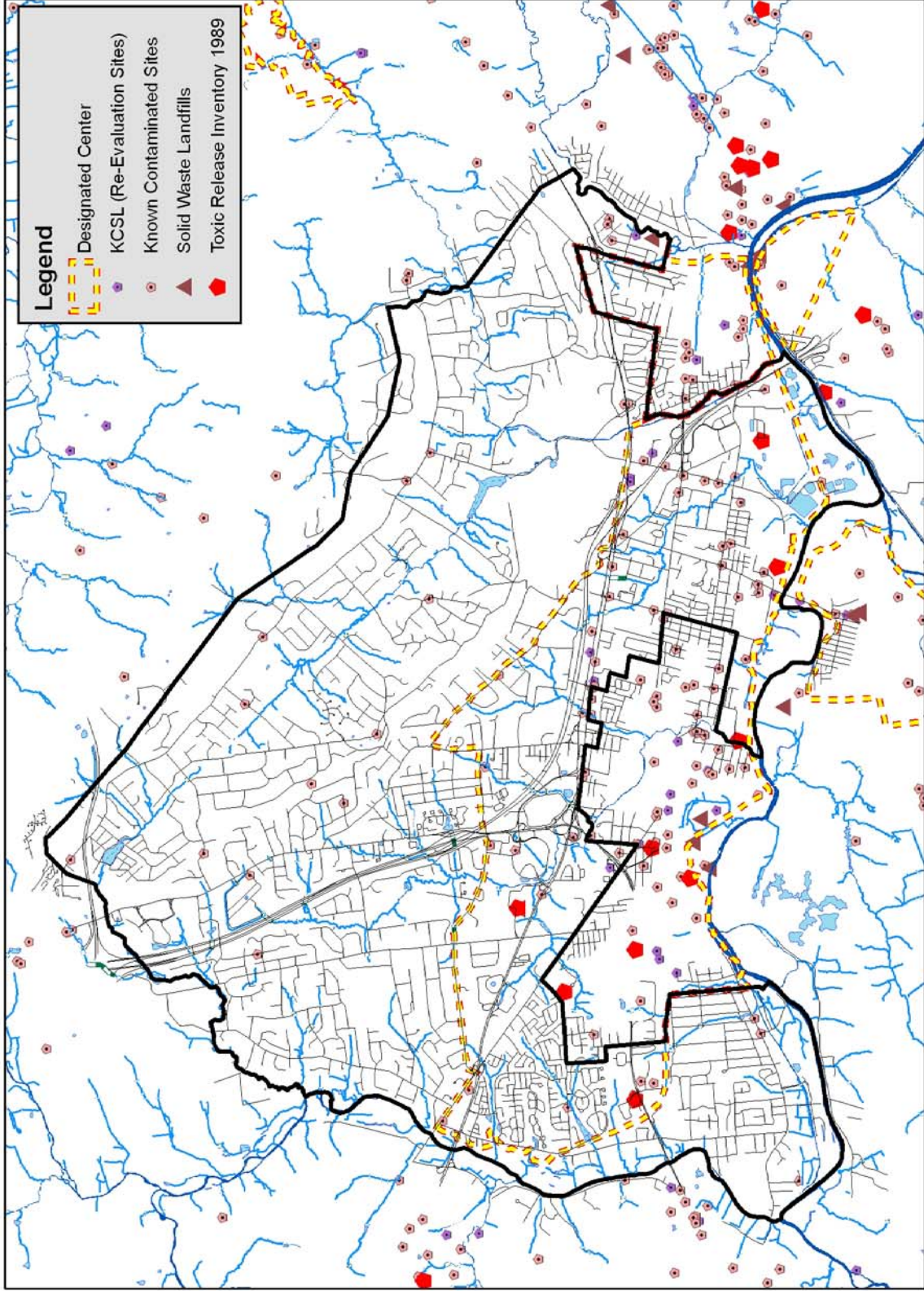


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Groundwater Recharge Areas & Wellhead Protection Areas**



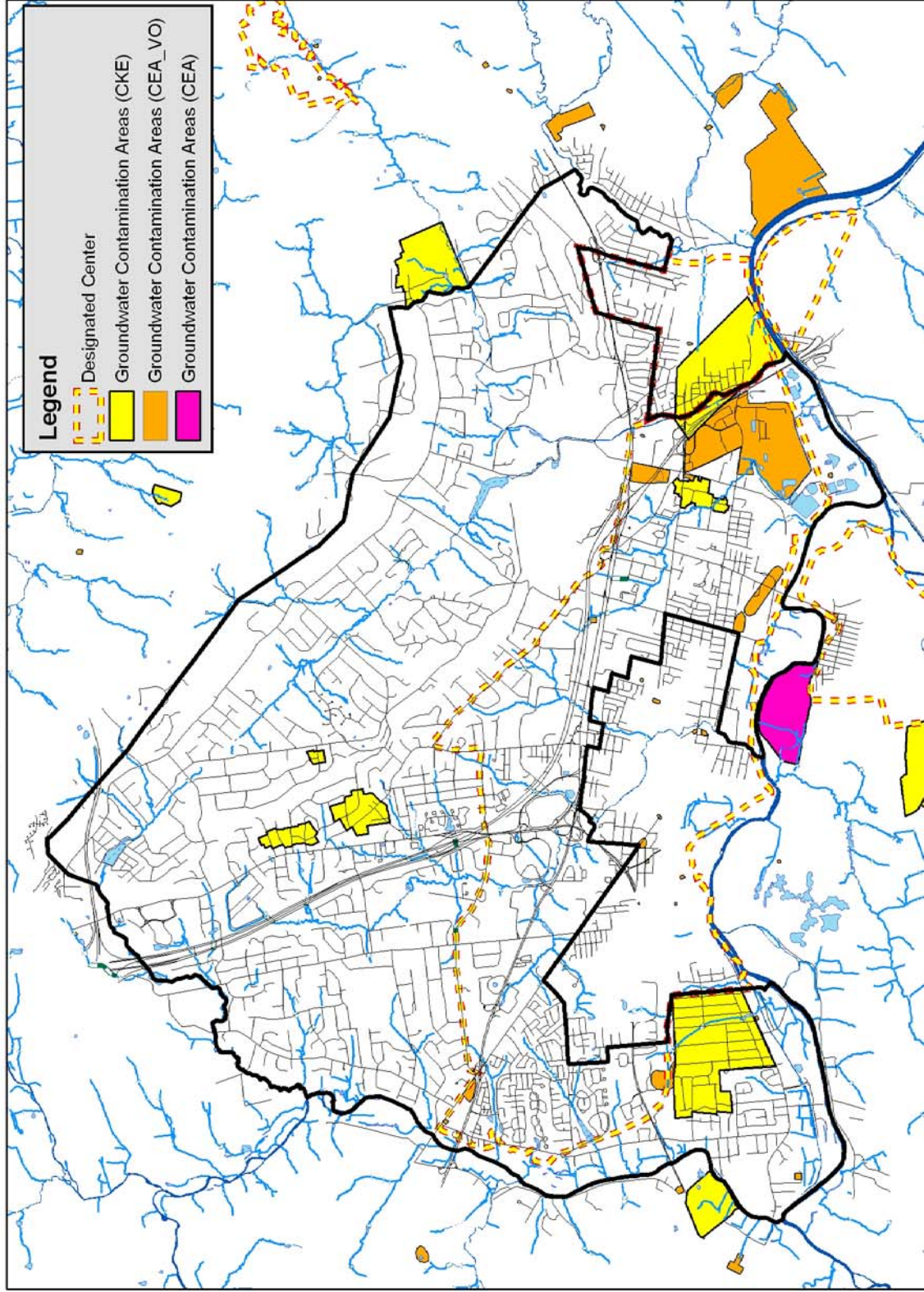


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Contaminated Sites**



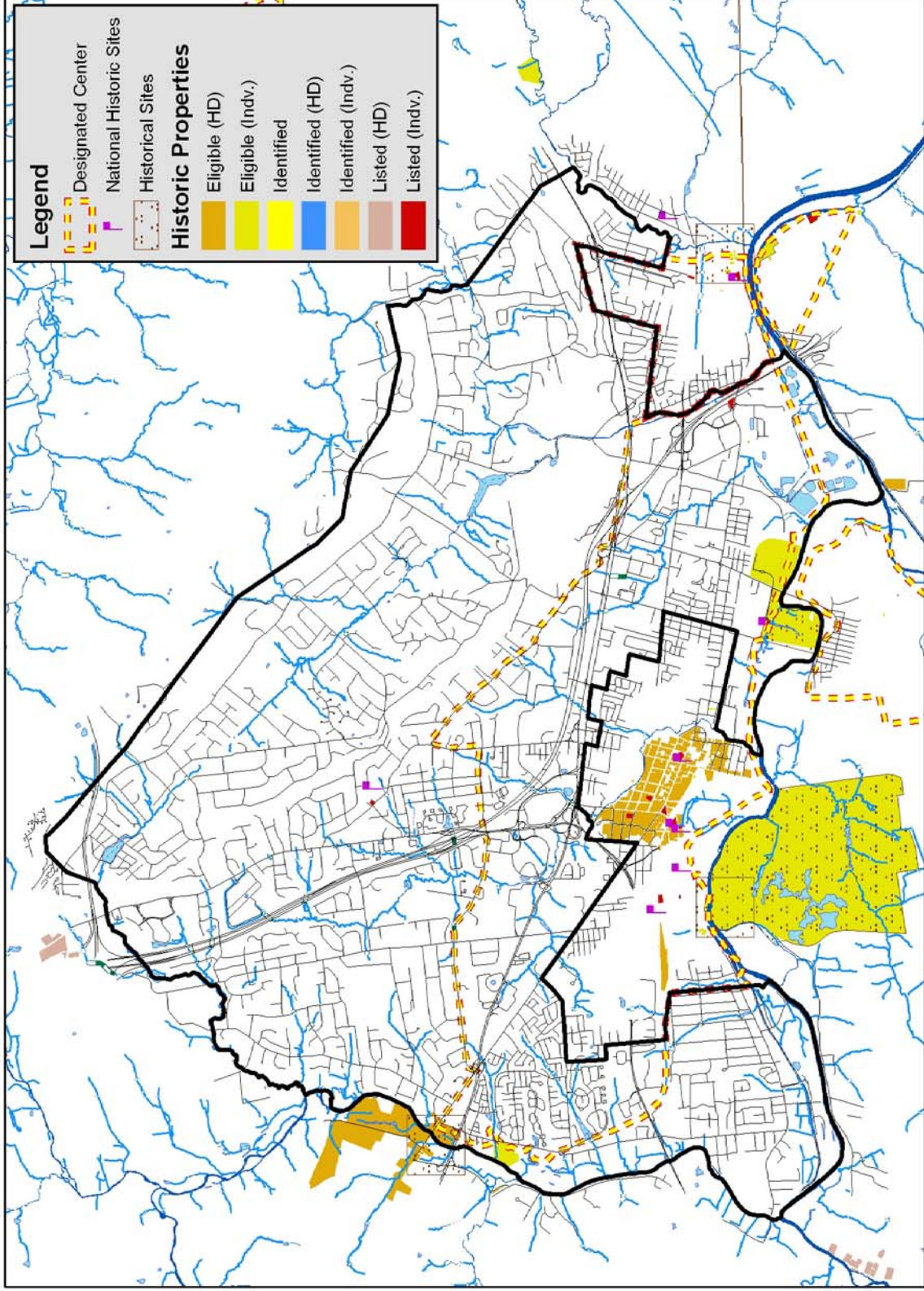


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Groundwater Contamination Areas**



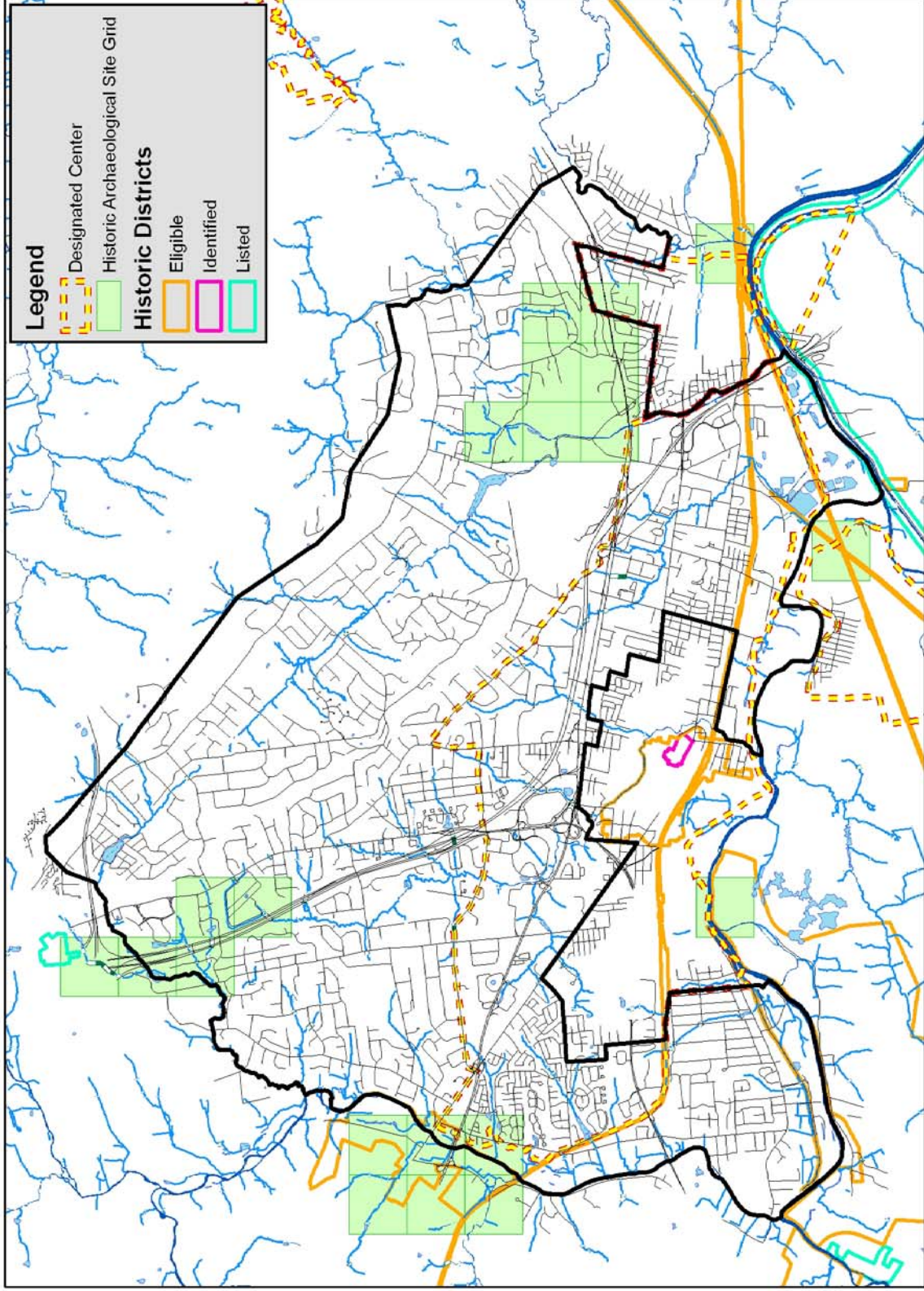


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Historic Sites**



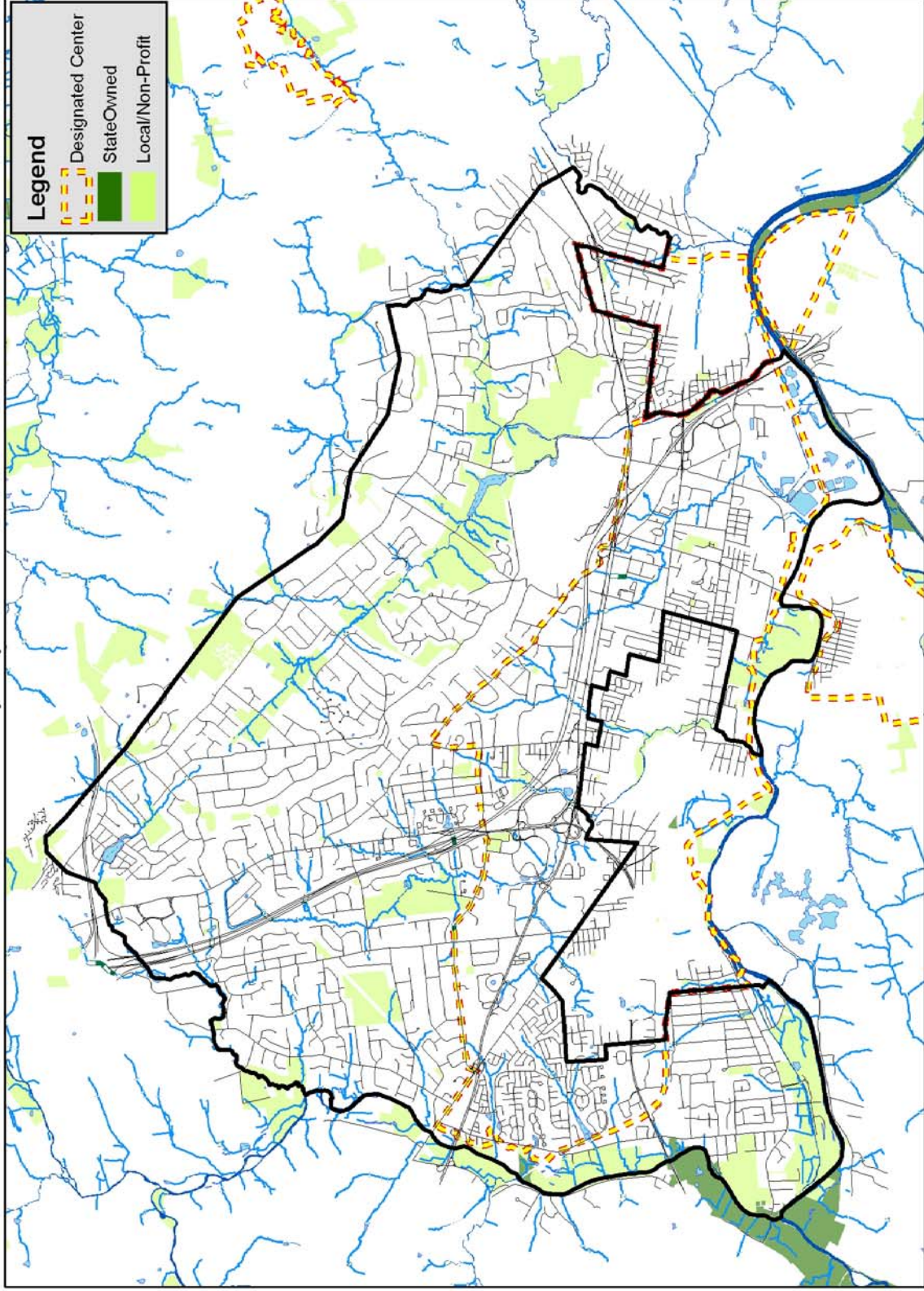


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Historic Districts**



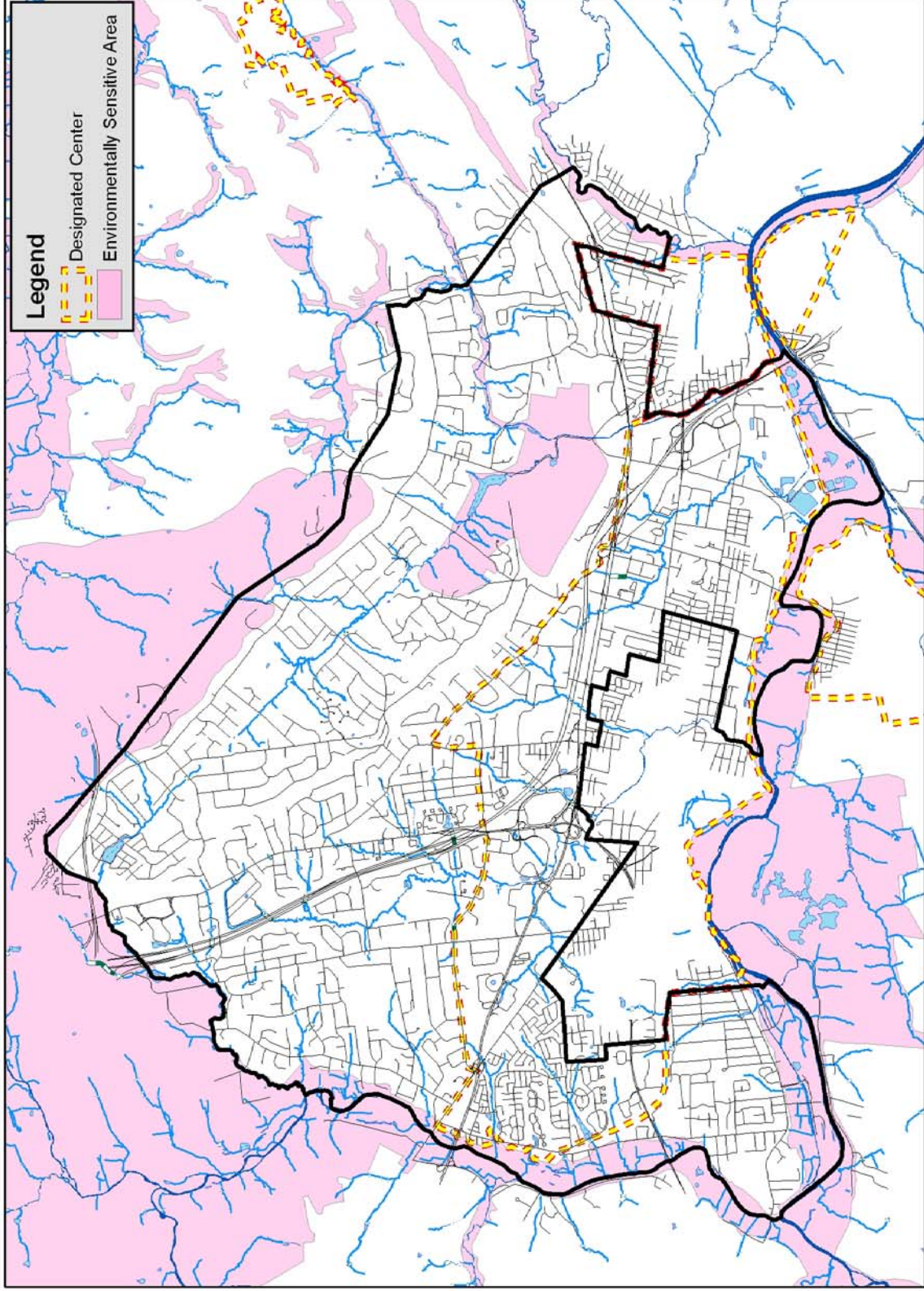


**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Open Space**





**Bridgewater Township, Somerset County  
Opportunities & Constraints Analysis  
Permit Extension Act**



# Additional Attachments

## Groundwater Contamination Areas

NAME	ADDRESS	FINAL REM	CLOSED	WRA	GW CLASS	BENZENE	MTBE	TBA	TCE	PCE	VC	LEAD PB	CHRO	CAD	TICS	VO	PEST PCBS
Active Trucking Services, Inc.	9 Findeme St.		No	Yes	II-A	Yes			Yes	Yes							
American Cyanamid, Hill Proper	Main St. E.		No	Yes	II-A				Yes								
Bell Atlantic Bridgewater Wrkc	Rt. 22 & Easton Tpke.		No	Yes	II-A	Yes											
Bradley Gardens																	
Bridgewater Auto Body	208 Rt. 28	Yes	No	Yes	II-A	Yes											
Central Jersey Industrial Park	Chimney Rock Rd.	Yes	No	Yes	II-A	Yes										1,1-Dichloroethene	
Clare Drive GW Contam	Claire & Arthur Rd. & Stella Dr.															Carbon Tetrachloride	Chlordane
Courier-News Inc	1201 Rt. 22	Yes	No	Yes	II-A		Yes	Yes									
Dave's Automotive	59 Old York Rd.		No	Yes	II-A	Yes											
Egan Machinery Co.	550 Central Ave.	Yes	No	Yes	II-A				Yes	Yes	Yes	Yes	Yes	Yes		Cis-1,2-dichloroethylene	
Elizabethtown Water Co.	Chimney Rock Rd.	No	No	Yes	II-A						Yes						
Fisher Scientific Co.	755 Rt. 202		No	Yes	II-A	Yes			Yes	Yes						Bromoform, carbon tetrachloride, chlorobenzene, chloroform, 1,1-dichloroethene, 1,2-dichloroethane, ethylbenzene, toluene, 1,1,1-trichloroethane, xylenes	
Gateway Oldsmobile/Lexus	Rt. 22	No	No	Yes	II-A	Yes											





**Green Acres Program – Open Space Database**

<b>Block</b>	<b>Lot</b>	<b>Facility Name</b>	<b>Interest</b>	<b>Type</b>	<b>Funded?</b>
100	1	DUKE ISLAND	ET/FE	C	Y
100	2	DUKE ISLAND	ET/FE	C	Y
100	3	DUKE ISLAND	ET/FE	C	N
100	4	DUKE ISLAND	ET/FE	C	Y
100	5	DUKE ISLAND	ET/FE	C	N
100	7	DUKE ISLAND	ET/FE	C	N
100	8	DUKE ISLAND	ET/FE	C	N
101	1	DUKE ISLAND	ET/FE	C	Y
102	10	DUKE ISLAND	ET/FE	C	Y
102	39	DUKE ISLAND	ET/FE	C	Y
102	8	DUKE ISLAND	ET/FE	C	Y
102	9	DUKE ISLAND	ET/FE	C	Y
108	13	CHIPMAN TRACT	ET/FE	C	N
108	2	CHIPMAN TRACT P/DIV	PT/FE	C	N
121	76	ALFRED S BROWN PARK	ET/FE	M	N
122	1	DUKE ISLAND	ET/FE	C	Y
122	11	DUKE ISLAND	ET/FE	C	Y
122	2	DUKE ISLAND	ET/FE	C	Y
122	3	DUKE ISLAND	ET/FE	C	Y
132	1	DUKE ISLAND	ET/FE	C	Y
139	1	ARDMAER PARK	ET/FE	M	N
166	1	NORTH BRANCH	ET/FE	C	Y
166	2.01	NORTH BRANCH	ET/FE	C	Y
166	3	NORTH BRANCH	ET/FE	C	Y
166	5	NORTH BRANCH	ET/FE	C	Y
168	14	NORTH BRANCH GREENWAY	ET/FE	C	N
168	15.06	NORTH BRANCH GREENWAY	ET/FE	C	N
168	16.06	NORTH BRANCH GREENWAY	ET/FE	C	N
168	17	NORTH BRANCH GREENWAY	ET/FE	C	N
168	20	NORTH BRANCH	ET/FE	C	N
222	29	DARTMOUTH AVE	ET/FE	M	N
245	1	BEL AIRE PARK	ET/FE	M	N
254	10.01	HARRY ALLY MEMORIAL PARK	ET/FE	M	Y
254	11	HARRY ALLY MEMORIAL PARK	ET/FE	M	Y
254	29-44	HARRY ALLY MEMORIAL PARK	ET/FE	M	Y
303	1	RARITAN GREENWAY	ET/FE	C	N
303	1.03	RARITAN GREENWAY	ET/FE	C	N
303	8	RARITAN GREENWAY	ET/FE	C	N
362	11	GLEN PARK	ET/FE	M	N
365	20	SHADY LANE PARK	ET/FE	M	N
368	17	CATHY COURT	ET/FE	M	N
380	8	THOMAE PARK	ET/FE	M	N
408	27	GARRETSON RD	ET/FE	M	N
408	47	MILCRIP RD	ET/FE	M	N
411.01	41	GREEN KNOLL BALLFIELDS	PT/FE	M	N
411.01	42	SLATTERY PARK	PT/FE	M	N
418	25	ROLLING KNOLLS WAY	ET/FE	M	N
424	7	HILL LANE	ET/FE	M	N

426	12	DARBY TRACT	ET/FE	M	Y
426	14	DARBY TRACT	ET/FE	M	Y
441	1.31	NORTH BRANCH GREENWAY	ET/FE	C	N
442	19	REYNARD RD	ET/FE	M	N
461	41	COUNTRY CLUB RD	ET/FE	M	N
462	1.02	TOLOMINI RD	ET/FE	M	N
472	40	THRUWAY DR	ET/FE	M	N
472	76	GARRETSON RD	ET/FE	M	N
472	17	GARRETSON RD	ET/FE	M	N
472	77	GREEN KNOLL GOLF & TENNIS	ET/FE	C	Y
472	8	FAIRWAY CT	ET/FE	M	N
476	12	PETRON PLACE	ET/FE	M	N
484	17	CEDARBROOK PARK	ET/FE	M	N
500	21	CRESTWOOD DR	ET/FE	M	N
504	13	PETER PAN PARK	ET/FE	M	N
515.01	1	NORTH BRIDGE PARK	ET/FE	M	N
515.01	1	NORTH BRIDGE PARK	ET/FE	M	N
515.02	1	PRINCE RODGERS PARK	ET/FE	M	N
515.02	6	PRINCE RODGERS PARK	ET/FE	M	N
515.03	1	PRINCE RODGERS PARK	ET/FE	M	N
515.03	2	PRINCE RODGERS PARK	ET/FE	M	N
515.03	3	PRINCE RODGERS PARK	ET/FE	M	N
515.03	4	PRINCE RODGERS PARK	ET/FE	M	N
515.03	5	PRINCE RODGERS PARK	ET/FE	M	N
515.04	1	PRINCE RODGERS PARK	ET/FE	M	N
515.05	1	PRINCE RODGERS PARK	ET/FE	M	N
515.05	2	PRINCE RODGERS PARK	ET/FE	M	N
515.06	1	PRINCE RODGERS PARK	ET/FE	M	N
515.01	4p/o	NORTH BRIDGE PARK	PT/FE	M	N
515	1	PRINCE RODGERS PARK	ET/FE	M	N
518	10	SOMERVILLE MANOR PARK	ET/FE	M	N
518	11	SOMERVILLE MANOR PARK	ET/FE	M	N
518	6	SOMERVILLE MANOR PARK	ET/FE	M	N
518	7	SOMERVILLE MANOR PARK	ET/FE	M	N
518	8	SOMERVILLE MANOR PARK	ET/FE	M	N
518	9	SOMERVILLE MANOR PARK	ET/FE	M	N
5601	23B	MIDDLEBROOK CORRIDOR 2	PT/FE	M	Y
574	1	BRIDGEWATER	ET/FE	M	N
575	1	SENIOR CITIZEN CENTER	ET/FE	M	N
618	35	GENE G KING PARK	ET/FE	M	Y
622	27	ROGER AVE	ET/FE	M	N
622	50	BROWN RD	ET/FE	M	N
624	63	BLUESTONE LANE	ET/FE	M	N
633	27	SUNSET RIDGE	ET/FE	M	N
638	28	FOOTHILL RD	ET/FE	M	N
642	34	WREN WAY	ET/FE	M	N
649	21	WASHINGTONCEDARS	ET/FE	M	N
649	32	WASHINGTON CEDARS	ET/FE	M	N
649	60	MT. VERNON RD / MIDDLEBROOK CORR.	ET/FE	M	Y
649	8	WASHINGTON PASS	ET/FE	M	N

652	15	GATESHEAD	ET/FE	M	N
652	201	RUNNING BROOK	ET/FE	M	N
5701	75	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
652	45.01	DORSI	ET/FE	M	N
652	48	BOE	ET/FE	M	N
652	48.01	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
652	75	CRIM RD / MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
652	75.01	MOUNTAIN VIEW	ET/FE	M	N
652	83	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
652	83	MOUNTAIN VIEW	ET/FE	M	N
700	74	CRIM ROAD SOCCER FIELDS	ET/FE	M	Y
6701	7.01	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
706	2	KOLVITES	ET/FE	M	N
706	3	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
706	3	SKYLANE	ET/FE	M	N
706	51	BOUND BROOK MANOR	ET/FE	M	N
706	52	LAUREL RISE	ET/FE	M	N
706	6	WASHINGTON VALLEY WEST	ET/FE	C	N
706	7	WASHINGTON VALLEY WEST	ET/FE	C	N
706	8	WASHINGTON VALLEY WEST	ET/FE	C	N
707	27	WASHINGTON VALLEY WEST	ET/FE	C	N
707	52	WASHINGTON VALLEY WEST	PT/FE	C	N
707	53	WASHINGTON VALLEY WEST	PT/FE	C	N
707	54	WASHINGTON VALLEY WEST	ET/FE	C	N
711	5	WASHINGTON VALLEY WEST	ET/FE	C	N
717	24	NARRAGANSETT	ET/FE	M	N
721	113	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
721	113	PIZZO	ET/FE	M	N
721	64	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
721	64	NARRAGANSETT	ET/FE	M	N
7401	36	WASHINGTON VALLEY EAST	ET/FE	C	N
7401	37	WASHINGTON VALLEY EAST	ET/FE	C	N
801	14	WASHINGTON VALLEY EAST	ET/FE	C	N
801	15	WASHINGTON VALLEY EAST	ET/FE	C	N
801	16	WASHINGTON VALLEY EAST	ET/FE	C	N
801	17.01	WASHINGTON VALLEY EAST	ET/FE	C	N
801	18	WASHINGTON VALLEY EAST	ET/FE	C	N
801	19	WASHINGTON VALLEY EAST	ET/FE	C	N
801	20	WASHINGTON VALLEY EAST	ET/FE	C	N
801	40	WASHINGTON VALLEY EAST	ET/FE	C	N
801	55	WASHINGTON VALLEY EAST	ET/FE	C	N
801	56	WASHINGTON VALLEY EAST	ET/FE	C	N
801	61	WASHINGTON VALLEY EAST	ET/FE	C	N
802	114	FARVIEW	ET/FE	M	N
802	124	WASHINGTON VALLEY EAST	ET/FE	C	N
802	125	WASHINGTON VALLEY EAST	ET/FE	M	Y
802	126	MARTINSVILLE PARK	ET/FE	M	Y
802	55	ARBOR WAY	ET/FE	M	N
7501	52	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
802	79	EASTFIELDS	ET/FE	M	N

8601	21.37	MIDDLEBROOK CORRIDOR 2	ET/FE	M	Y
806	12	EASTFIELDS	ET/FE	M	N
806	23	PERRINE RD	ET/FE	M	N
813	6	BROOKSIDE DR	ET/FE	M	N
814	22	REDWOOD RD	ET/FE	M	N
901	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
902	38	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
902	50	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
903	10	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
903	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5901	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5901	6	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
904	1.01	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
904	11	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
904	44	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
905	2	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5606	24.A	BROOKDALE DR	ET/FE	M	N
905	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
905	5.01	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
906	21	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
906	22	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
6801	31	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
906	39.02	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
906	6.2	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
907	60.1	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
908	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	15	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	17	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	5	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	7	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
908	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
909	4	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
909	6	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
910	2	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
910	5	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	10	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	11	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	6	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	7	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	8	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
912	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
913	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
913	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
913	5	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	10	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
914	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	6	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y



914	2	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	2	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	7	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	8	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
914	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
915	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
915	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
915	5	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
915	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
916	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	N
5902	4	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	40	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	41	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	5	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	6	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	7	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	8	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5902	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
917	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	3	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	4	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
917	7	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	9	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
917	8	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	20	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	21	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	22	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	23	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	24	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	26	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	27	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	28	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	32	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
5903	33	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y
918	1	2ND WATCHUNG MOUNTAIN	ET/FE	C	Y

Interest: ET/FE - Entire Taking/Fee Simple;

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

Funded?: Y - Park received Green Acres funding; N - Park did not receive Green Acres funding

## **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.

### **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:

Township of Bridgewater, Somerset County

*November 4, 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 22 – MP 30.83 – 38.42  
MP 39.01 – 39.70

Route 28 – MP 0.00 – 2.51  
MP 4.55 – 6.73

I-78 – MP 31.58 – 32.47

Route 202 – MP 21.75 – 22.86  
MP 24.43 – 24.77  
MP 24.86 – 29.25

Route 206 – No mileposts shown – runs coincident with Route 202 in Bridgewater

I-287 – MP 12.35 – 20.83

Straight Line Diagram sheets are attached.

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

According to the attached table, Route 22 from milepost 28.60 – 31.50 is classified as Access Level 3 (right-turn access with provision for left-turn access via jughandle), with a desirable typical section (DTS) of 4A (four lanes, divided, with shoulders or parking). Milepost 31.50 – 37.10 is classified as AL 3 with a DTS of 6A (six lanes, divided, with shoulders or parking). Milepost 37.10 – 38.80 is classified as AL 3 with a DTS of 4A. Milepost 38.80 – 39.26 is classified as AL with a DTS of 4A, but the technical update of Appendix B of the Access Code revealed the need change the DTS for this segment from DTS 4A to DTS 6A based on current information. Milepost 39.26 – 41.59 is classified as AL 3 with a DTS of 4A. The designation of a Center would not change the Access Levels for any portion of these segments.



Route 28 from milepost 0.00 – 2.22 is classified as Access Level 4 (driveway with provision for left turn access via left turn lane) with a desirable typical section (DTS) of 2A (two lanes, with shoulders or parking). The technical update of Appendix B revealed the need to change the Access Level between mileposts 0.00 and 2.22 from AL 4 to AL 5 (driveway with provision for left-turn access limited by spacing requirements and safety considerations), based on current information. Milepost 2.22 – 5.08 is classified as Access Level 5 with a DTS of 2A. Milepost 5.08 – 6.25 is classified as AL 4 with a DTS of 2A. The technical update of Appendix B revealed the need to change the Access Level to 5 from milepost 3.70 – 5.08, and the DTS to 4D (four lanes, undivided, without shoulders) from milepost 6.23 – 6.25. Milepost 6.25 – milepost 6.80 is classified as AL 4, with a DTS of 4D. The designation of a Center would not change the Access Levels for any portion of these segments.

I-78 from milepost 29.85 – 33.13 is classified as Access Level 1 (fully controlled access) with a DTS of 8A (eight lanes, divided, with shoulders or parking). The designation of a Center would not change the Access Levels for any portion of this segment.

Route 202 from milepost 19.04 – 26.25 is classified as Access Level 3, with a DTS of 4A. Milepost 26.25 – 28.70 is classified as AL 4 with a DTS of 4G (four lanes, undivided, without shoulders, with a 14-foot two-way left-turn lane). Milepost 28.70 – 29.00 is classified as AL 4 with a DTS of 4A. The technical update of Appendix B revealed the need to change the DTS between mileposts 28.67 and 28.70 from 4G to 4A and to change the Access Level between mileposts 28.67 and 29.00 from AL 4 to AL 3, based upon current information. Milepost 29.00 – 29.54 is classified as AL 3 with a DTS of 4A. The designation of a Center would not change the Access Levels for any portion of these segments.

I-287 from milepost .73 – 17.82 is classified as AL 1 with a DTS of 8A. Milepost 17.82 – 21.20 is classified as AL 1 with a DTS of 1A (same lane, shoulder and parking conditions as exist). The designation of a Center would not change the Access Levels for any portion of these segments.

### **Congestion Management System**

According to the attached chart, this section of Route 22 is classified as “Severely Congested.” The intersection of Route 22 and Milltown Road (MP 31.01) and the intersection of Route 22 and Somerset Corporate Center (MP 33.30) are ranked #67 and 77 respectively out of 372 high need signalized intersections on state highways. The interchange at MP 33.88 (Route 22/202 and County Route 643) is on the list of top 100 problem area interchanges on state highways.

Part of this section of Route 28 is classified as “Severely Congested.” The intersections of Route 28 at MP 0.66, 1.03, 2.07 and 5.54 are ranked #363, 310, 224 and 39 respectively out of 372 high need signalized intersections on state highways.

This section of I-78 is “Not Congested.”

Much of this section of Route 202 is “Severely Congested.” The intersections of Route 202 with Milltown Road (MP 21.99), Muirfield Lane (MP 28.07 and Brown Road (MP 28.31) are ranked #85, 329 and 323 respectively out of 372 high need signalized intersections on state highways. The interchanges at MP 25.03 (Route 202/22/CR 643) and at MP 25.88 (Route 202/I-287) are on the list of top 100 problem area interchanges on state highways.

Part of this section of I-287 is “Very Congested.” The interchange at MP 17.73 (I-287/Route 202) is on the list of top 100 problem area interchanges on state highways.

### **Major Capital Projects/Initiatives and Mitigation Projects**

The FY 2010-2019 Statewide Transportation Improvement Program (STIP) and the FY 2010 Transportation Capital Program contain a project to provide interchange improvements at Route 22 and Chimney Rock Road. Special Federal appropriations (TEA-21) in the amount of \$17,682,965 were allocated to this project.

The FY 2010-2019 STIP and the FY 2010 Capital Program contain a project to address short-term improvements between Route 202/206 and Chimney Rock Road. Work will be designed to improve safety as well as eliminate bottlenecks at various locations. The project also adds CCTV at the Route 22/28 intersection, as well as four VMS/DMS. The project is in Preliminary Design.

The FY 2010-2019 STIP, the FY 2010 Capital Program and the FY 2010-11 Study and Development Program contain a project to investigate long-term improvements between Route 202/206 and Chimney Rock Road. Proposed improvements should address the high crash rates as well as eliminate congestion. A full Alternatives Analysis is to be undertaken by Somerset County in order to determine the needs and most cost-effective solution(s). The project is about to begin Concept Development.

The FY 2010-11 Study and Development Program contains a project for a proposed pedestrian bridge over Route 202/206 north of the Somerville Circle. This new structure would provide a connection with the Peters Brook Greenway Trail. This is a Local Lead project; Somerset County is developing the design plans and will build the facility. The project is in the late stages of design.

The FY 2010-11 Study and Development Program contains a project to provide for operational improvements along Route 202/206 from the vicinity of I-78 to I-287. Signal modifications, lane modifications, and a new local road around the historic Pluckemin District would improve the efficiency of the Washington Valley Road and Route 202/206 intersection.

The FY 2010-2011 Study and Development Program contains a project for Route 202/206 and Route 22 Interchange Operational and Safety Improvements in Somerville, Bridgewater and Raritan, from North Thompson Street to Commons Way. The improvements would focus on reducing the congestion and weaving problems that occur in the vicinity of Route 202/206 and the Route 22 interchange. The project is on hold pending the results of the Route 22 Sustainable Corridor Short-term Improvements project currently in Design.

The FY 2010-11 Study and Development Program contains a project to provide operational and safety improvements to the substandard merge of Route 206 southbound and the ramp from I-287 southbound. The project is in Concept Development.

The FY 2010-2019 STIP and the FY 2010 Capital Program contain a project for interstate interchange improvements at the I-78 and I-287 interchange and at the ramps from I-287 to the Route 202/206 interchange. The improvements will include widening of the I-287 southbound ramp to I-78 westbound from one to two lanes and associated merging modifications with mainline I-78 westbound and I-287 northbound to the I-78 westbound ramp. In addition, the I-78 eastbound to I-287 northbound ramp will be shifted from a left-lane entrance onto I-287 northbound to a right-lane entrance onto I-287 northbound. This modification will eliminate the five-lane weave required for vehicles traveling on I-78 eastbound that use I-287 northbound to access Route 202/206 (Pluckemin). Finally, the project will modify the interchange at Route 202/206 and I-287 by introducing a new ramp from 202/206 northbound to I-287 southbound, requiring the shift in the I-287 southbound to 202/206 northbound and southbound ramp.

The FY 2010-2019 STIP and the FY 2010 Capital Program contain a project for the resurfacing of I-287 from the vicinity of Main Street to south of I-78. This section of roadway has reached terminal serviceability and is considered to be severely distressed. The section has received a Final Pavement Ranking of 1.96 and was ranked third in the FY 2007 Pavement Project List generated by the Pavement Management System. Skid resistance along portions of this roadway is below the recommended threshold. A structural overlay is recommended, which will restore the structural capacity and skid resistance of the pavement and improve the riding quality. The roadway will be milled to a two- to four-inch depth and resurfaced with four to six inches of hot mix asphalt.

**Designated Transit Villages**

Not Applicable

**Designated Scenic Byways**

Not Applicable

### **Open Local Aid Grant Projects**

Bridgewater was awarded FY 2010 Municipal Aid funds for improvements to Brown Road in the amount of \$150,000.

FY 2009 Bikeway Program – Peters Brook Greenway – Clark Woods Extension in the amount of \$400,000 in Somerville Borough and Bridgewater Township.

Somerset County received \$2,057,000 in American Recovery and Reinvestment Act (ARRA) Transportation Enhancement Funds for the Peters Brook Greenway Extension and Pedestrian Bridge over Route 202/206 in Somerville and Bridgewater.

### **Corridor Studies**

Not Applicable

### **Local Planning Assistance Projects**

Not Applicable

### **Bicycle and Pedestrian Local Planning Assistance Projects**

Not Applicable

### **Public Use/General Aviation Airports**

Not Applicable.

### **Rail Freight Lines**

Conrail freight service is available on the same line that provides passenger service to the NJ TRANSIT Raritan Valley Line.

The Bureau of Rail Services encourages retention of industrial use along freight-served rail lines.

### **Traffic Engineering and Safety Initiatives**

Traffic Engineering and Investigations has existing jobs at:

Route 202 and Washington Valley Road – Signal upgrades, addition of left-turn arrows to signal heads and other improvements if needed

Route 202/206 and Commons Way – Possible pedestrian upgrades at signal



Staff was assigned to investigate:

Route 28 and Post Road for possible signing additions

Route 28 and Finderne Avenue for a possible left-turn lane for Route 28 eastbound and lead left arrows

### **Existing and Planned Park-and-Rides**

NJ TRANSIT owns a rail station park-and-ride in Bridgewater for the Raritan Valley Line. It is located at the intersection of Main Street (County Route 533) and has 451 parking spaces.

### **Other Significant Issues**

Regarding the Municipal Self-Assessment Report, under State Agency Assistance on pages 141-145, several projects already in the pipeline are listed. However, there is one request for a “critically important” direct connection from I-287 southbound to Route 22 westbound. This request needs to be supported by documentation, as the move already can be made almost directly via the I-287 southbound ramp to Route 202/206 southbound to Route 22 westbound. Providing a direct connection ramp would prove very costly and almost certain to be rejected by FHWA unless a new, full-access interchange is built. The FHWA no longer permits construction of partial interchanges. If this were to be pursued, interchange spacing also would come into play, as there are existing interchanges at Route 202/206 and at Route 22 to the east, approximately three miles apart.

### **ATTACHMENTS**

**Straight Line Diagram Sheets**  
**Access Classification Table**  
**Congestion Management System Chart**

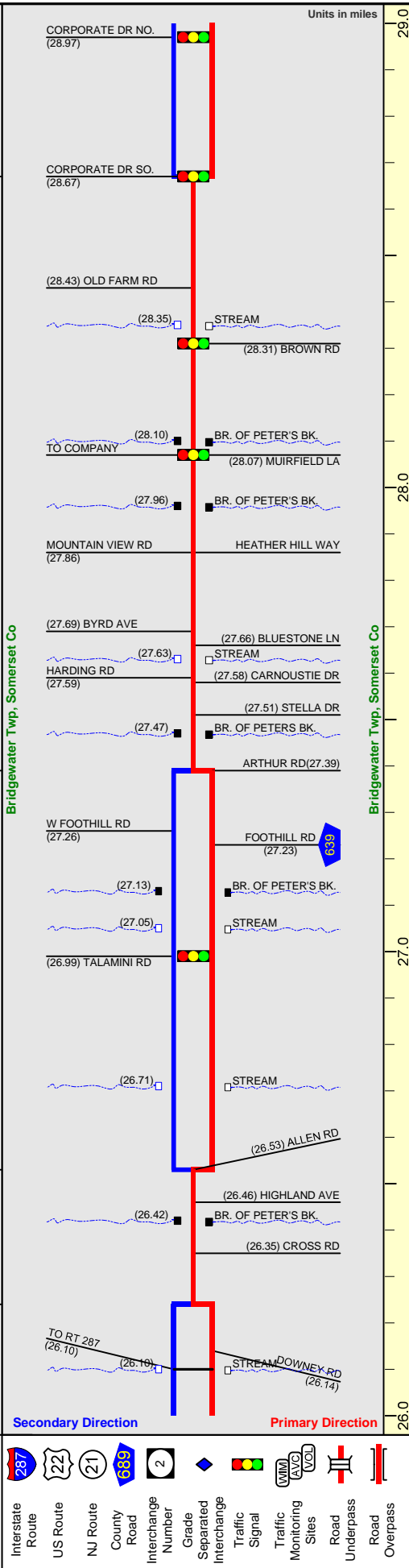
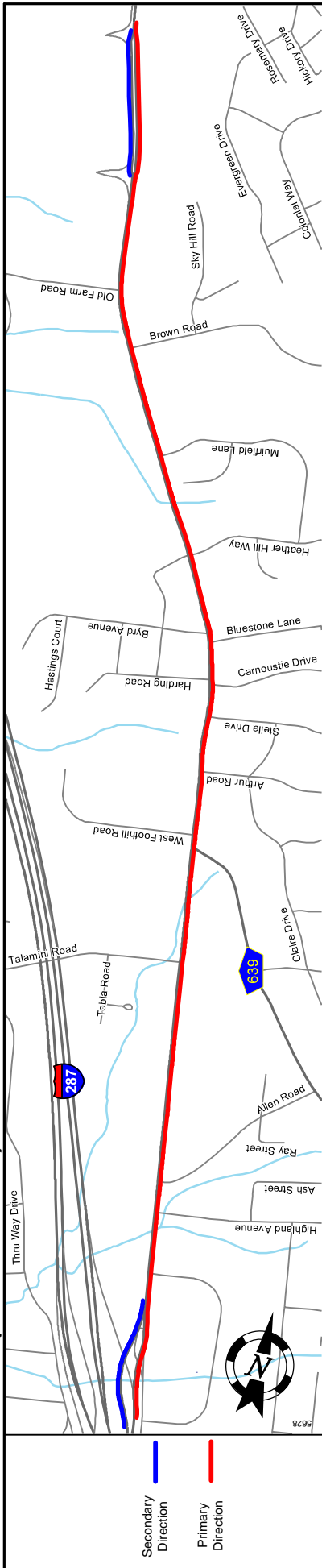
**NOTE: GIS data layers have been provided to the OSG GIS unit by the NJDOT GIS unit.**





Mile Posts: 26.000 - 29.000

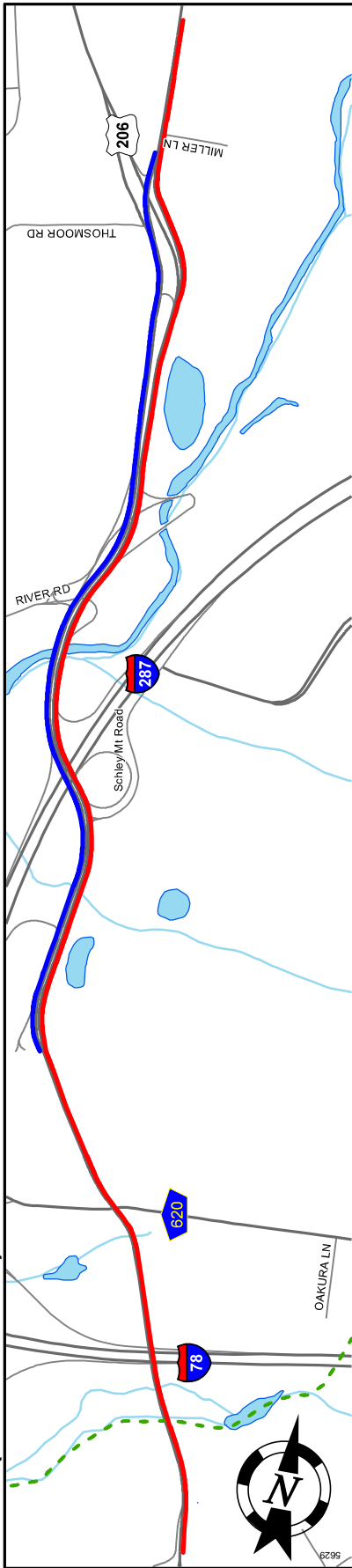
US 202 (South to North)





Mile Posts: 29.000 - 32.000

US 202 (South to North)



Pavement	24
Shoulder	12
Number of Lanes	2
Speed Limit	50
Street Name	US 202
Interstate Route	
US Route	
NJ Route	
County Road	
Interchange Number	
Grade	
Separated Interchange	
Traffic Signal	
Traffic Monitoring Sites	
Road Underpass	
Road Overpass	

Street Name	Hillside Avenue
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Principal Arterial
Federal Aid - NHS Sy	NHS
Control Section	1808
Speed Limit	40
Number of Lanes	3
Med. Type	Painted/Unprotected
Med. Width	VAR
Pavement	12
Shoulder	10
Traffic Volume	18
Traffic Sta. ID	1809163 1817155,156
Structure No.	1809165 1815154,155
Enlarged Views	See Enlarged View #59

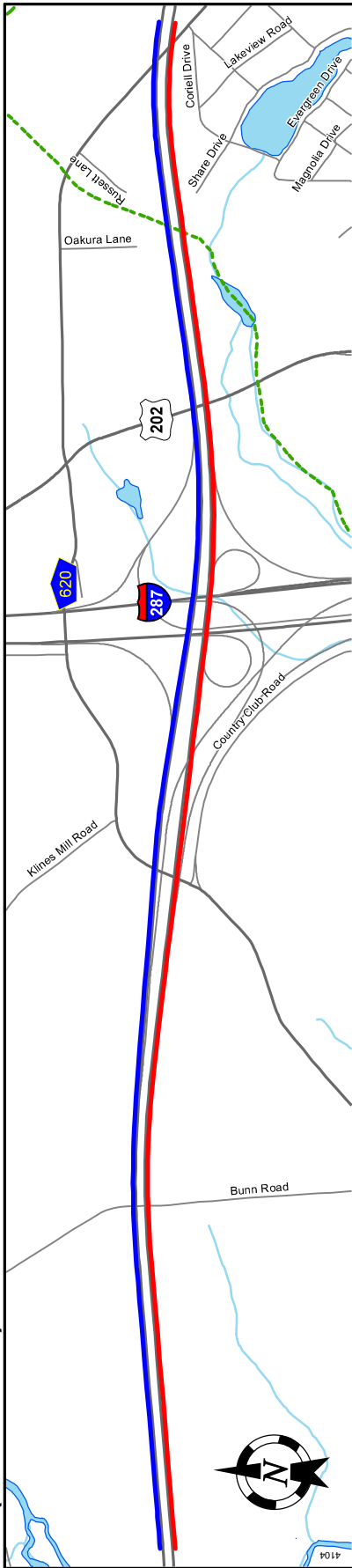
MP 31.51 = End Duplic. With US 206 MP=78.32

Date last inventoried: July 2006

SRI = 00000202

I-78 (West to East)

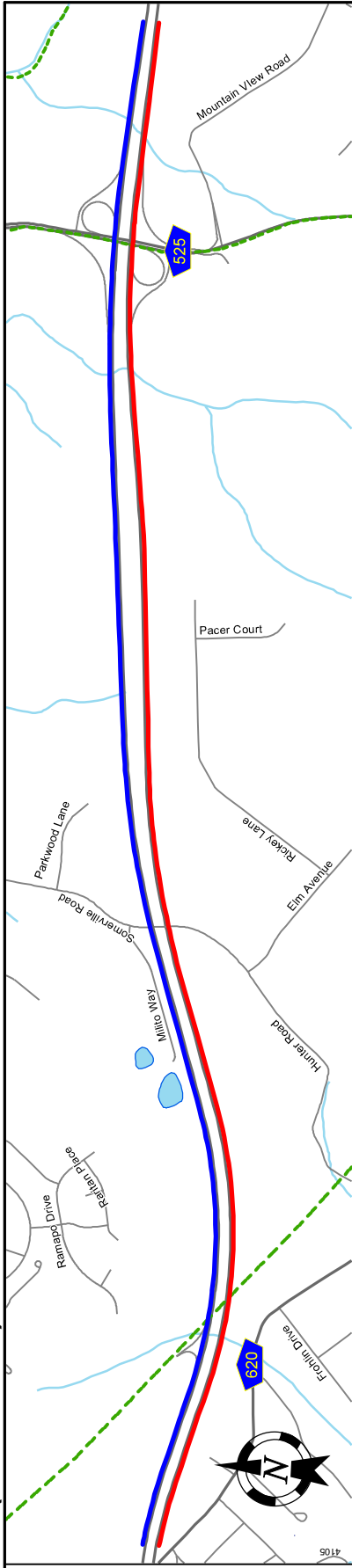
Mile Posts: 29.000 - 32.000



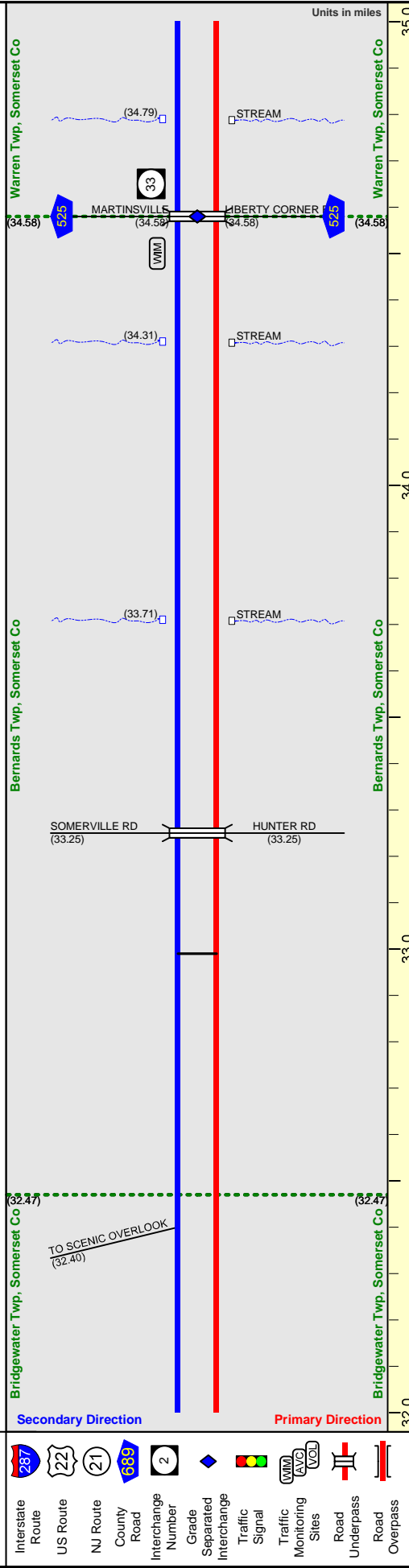
Pavement	36	12	24	36	36
Shoulder					
Number of Lanes	3	3	2	3	3
Speed Limit		65			
Street Name	Lightning Division Memorial Highway				
Interstate Route	287				
US Route	202				
NJ Route	21				
County Road	689				
Interchange Number	2				
Grade	Separated Interchange				
Traffic Signal	Traffic Signal				
Traffic Monitoring Sites	Traffic Monitoring Sites				
Road Underpass	Road Underpass				
Road Overpass	Road Overpass				
Street Name	Lightning Division Memorial Highway				
Jurisdiction	Lightning Division Memorial Highway				
Functional Class	Urban Interstate				
Federal Aid - NHS Sy	Urban Interstate				
Control Section	1816				
Speed Limit	65				
Number of Lanes	3				
Med. Type	Positive				
Med. Width	50				
Pavement	36				
Shoulder	12				
Traffic Volume	1817				
Traffic Sta. ID	1817				
Structure No.	1817156				
Enlarged Views	1817157, 1817158, 1817159, 1817150, 1817151, 1817152, 1817153, 1817154, 1817155, 1817156				

Mile Posts: 32.000 - 35.000

I-78 (West to East)



Pavement	36
Shoulder	12
Number of Lanes	3
Speed Limit	65



Street Name	Lightning Division Memorial Highway
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Interstate
Federal Aid - NHSS Sy	STRAHNET Inter.
Control Section	1817
Speed Limit	65
Number of Lanes	4
Med. Type	Positive
Med. Width	VAR
Pavement	48
Shoulder	12
Traffic Volume	70,319 (2008)
Traffic Sta. ID	1-5111
Structure No.	1817, 1816, 1817, 1816, 1817, 1816
Enlarged Views	N/A

SRI = 00000078

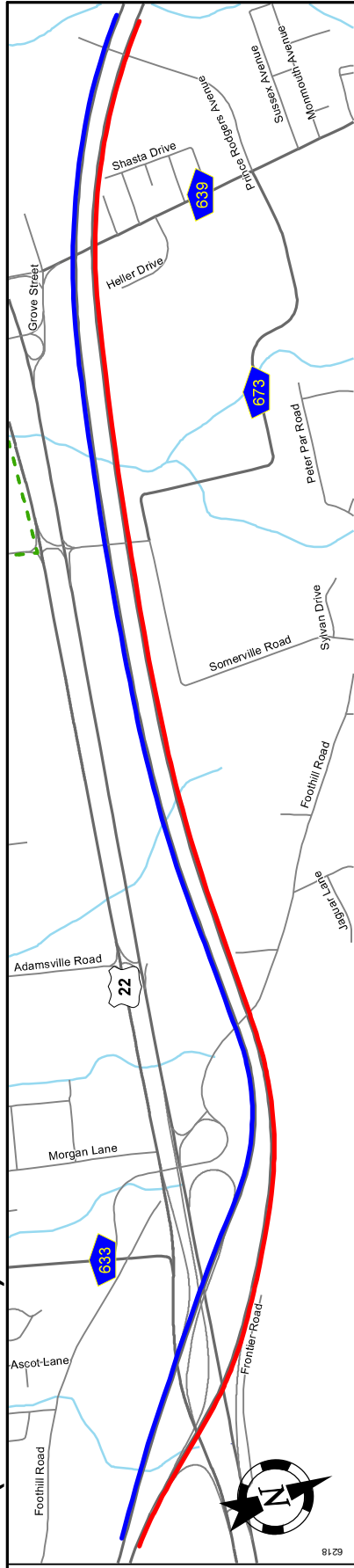
Date last inventoried: January 2009



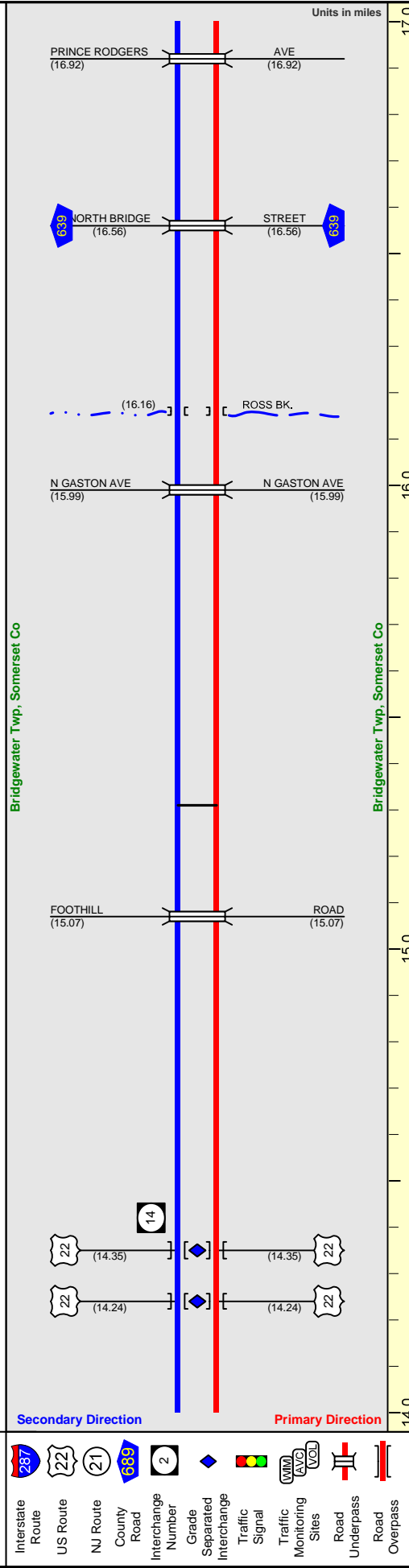


Mile Posts: 14.000 - 17.000

I-287 (South to North)



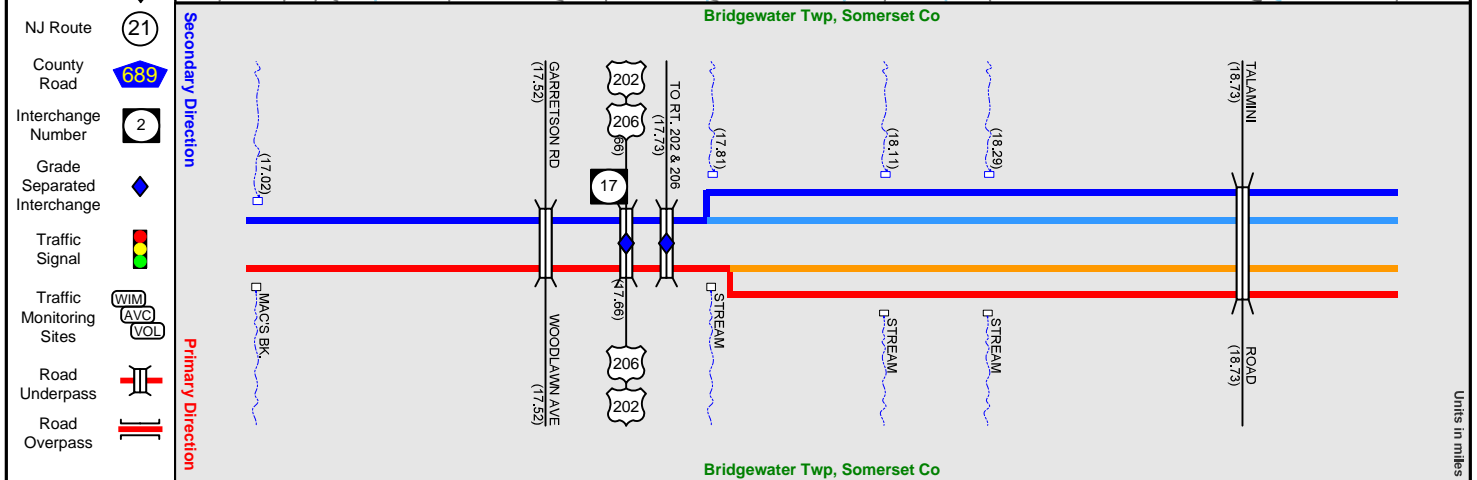
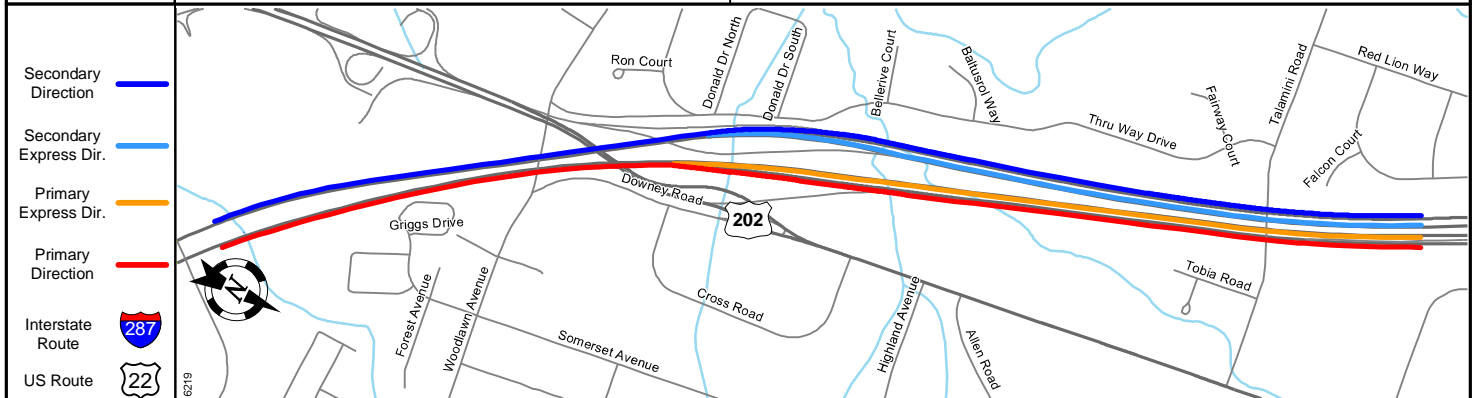
Pavement	36
Shoulder	12
Number of Lanes	3
Speed Limit	65
Street Name	Capt. Joseph Azzolina Highway Bridgewater Twp, Somerset Co



Street Name	Capt (Ret) Joseph Azzolina, US Navy Highway
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Interstate
Federal Aid - NHS Sy	STRAHNET Inter.
Control Section	1813
Speed Limit	65
Number of Lanes	3
Med. Type	Positive
Med. Width	VAR
Pavement	36
Shoulder	12
Traffic Volume	71,324 (2008)
Traffic Sta. ID	4-5-051
Structure No.	1813152,153 1813150,151 1813154,156 1813157,158 1813159,160 1813161,162
Enlarged Views	See Enlarged View #58

SRI = 00000287 Date last inventoried: May 2008

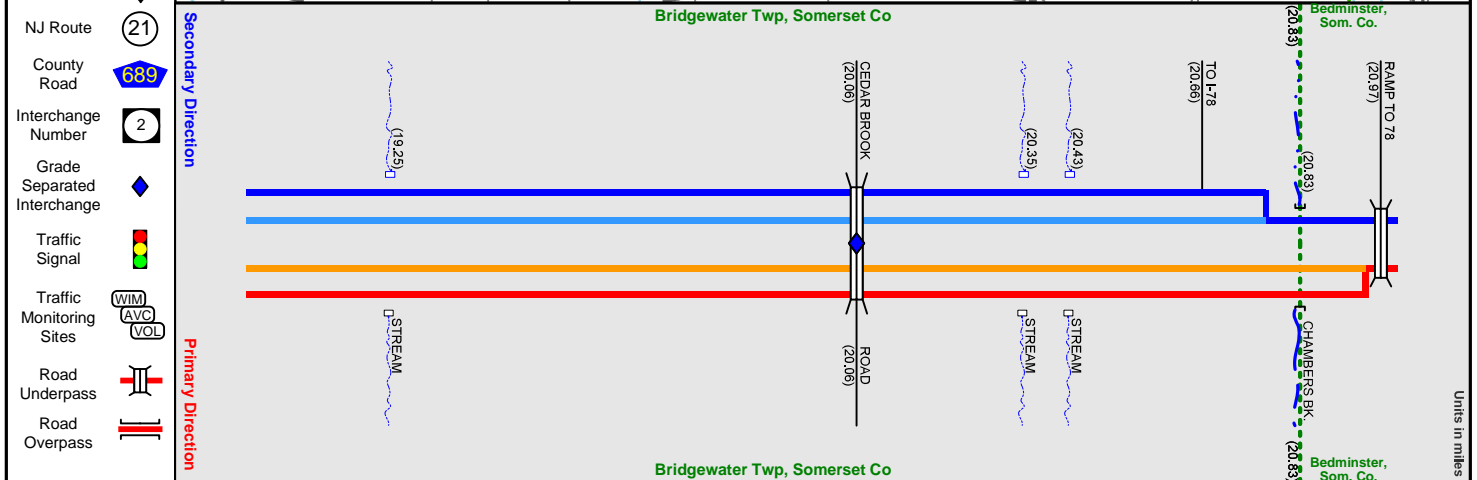
Local	Shoulder	12
	Pavement	36
	Number of Lanes	3
Express	Shoulder	3
	Median Type	Unprotected
	Median Width	VAR
	Shoulder	12
	Pavement	36
Local	Shoulder	3
	Pavement	36
	Number of Lanes	2
Local	Shoulder	3
	Structure No.	
	Street Name	Capt. Joseph Azzolina Highway
Express	Median Width	VAR
	Median Type	Curbed



MILES	17.0	18.0	19.0
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Street Name	Capt (Ret) Joseph Azzolina, US Navy Highway						
Jurisdiction	N.J.D.O.T.						
Functional Class	Urban Interstate						
Federal Aid - NHS Sy	STRAHNET Inter.						
Control Section	1813	1815	1814				
Speed Limit	65						
Express	Shoulder		5				
	Number of Lanes		3				
	Pavement		36				
	Shoulder		12				
Median Type	Positive						
Median Width	VAR						
Local	Shoulder	0	5				
	Number of Lanes	3	1	3			
	Pavement	36	18	36			
	Shoulder		12				
Structure No.	1813164,165	1813167	1809156	1814151,152	1814154,155	1814156	1814157
Traffic Volume							125,453 (2005)
Traffic Sta. ID							4-5-052
Enlarged Views	See Enlarged View #58						

Local	Shoulder	12		
	Pavement	36		24
	Number of Lanes	3		
	Shoulder	3		
Median Type		Unprotected		
Median Width		VAR		
Express	Shoulder	12	6	
	Pavement	36	24	
	Number of Lanes	2		
	Shoulder	3	6	
Structure No.				
Street Name		Capt. Joseph Azzolina Highway		Vincent R. Kramer Interchange
Median Width		VAR		
Median Type		Curbed		

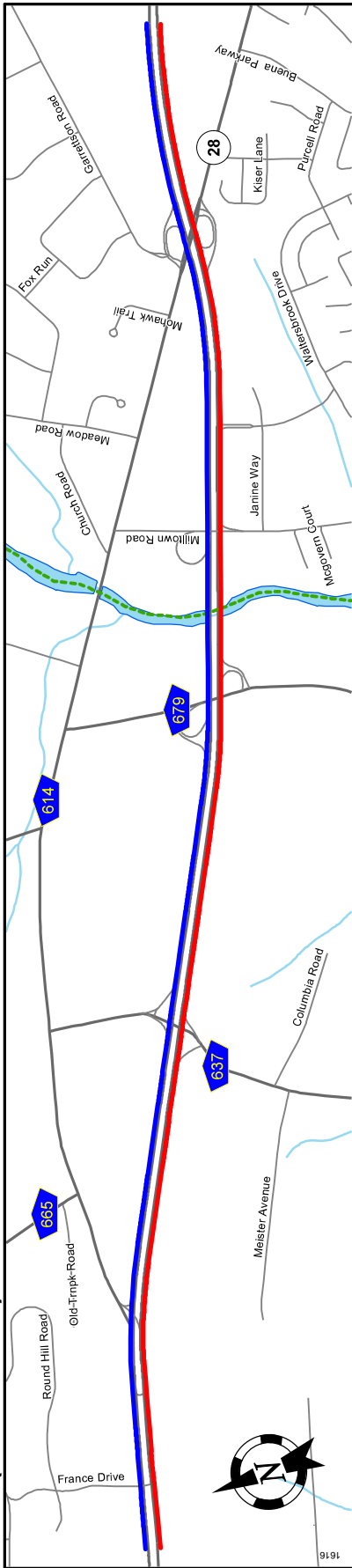


MILES	19.0	20.0	21.0
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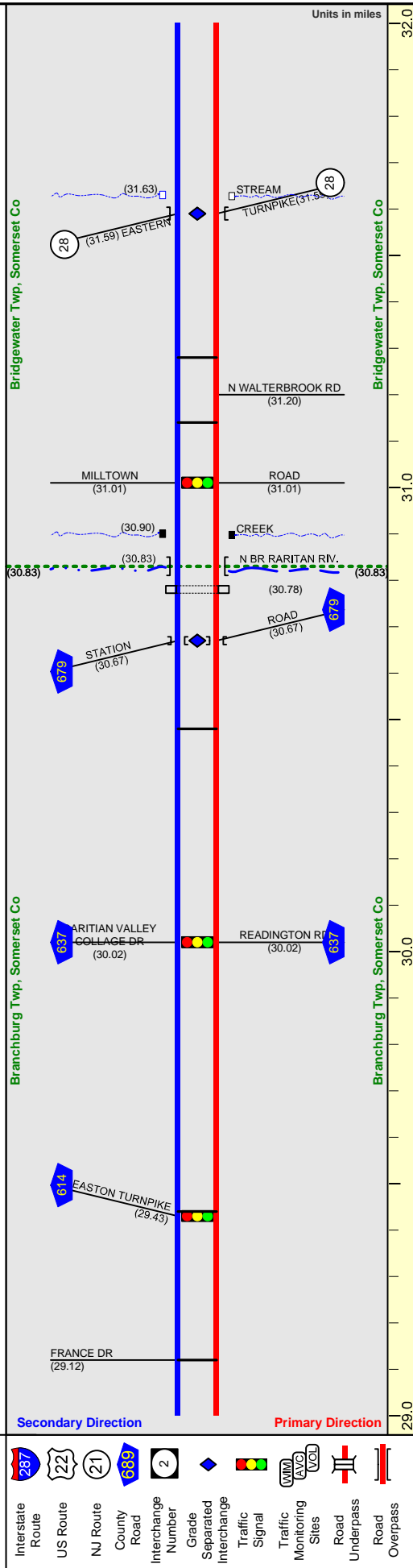
Street Name		Capt (Ret) Joseph Azzolina, US Navy Highway			Vincent R Kramer Interchange	
Jurisdiction		N.J.D.O.T.				
Functional Class		Urban Interstate				
Federal Aid - NHS Sy		STRAHNET Inter.				
Control Section		1814				
Speed Limit		65				
Express	Shoulder	5				
	Number of Lanes	3			2	
	Pavement	36			24	
	Shoulder	12				
Median Type		Positive				
Median Width		VAR				
Local	Shoulder	5				
	Number of Lanes		2			
	Pavement		24			
	Shoulder		12			
Structure No.		1814158,159	1814160,161	N/A	N/A	1814162,163
Traffic Volume						
Traffic Sta. ID						
Enlarged Views						<a href="#">See Enlarged View #59</a>

Mile Posts: 29.000 - 32.000

US 22 (West to East)



Pavement	24
Shoulder	10
Number of Lanes	2
Speed Limit	55
Street Name	US 22



Street Name	US 22
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Minor Arterial
Federal Aid - NHS Sy	STP
Control Section	1801
Speed Limit	55
Number of Lanes	2
Med. Type	Unprotected
Med. Width	VAR
Pavement	24
Shoulder	10
Traffic Volume	33,004 (2008)
Traffic Sta. ID	4-5-202
Structure No.	1801151, 1801153, 154, 1801152, 1801155
Enlarged Views	N/A

Date last inventoried: March 2006

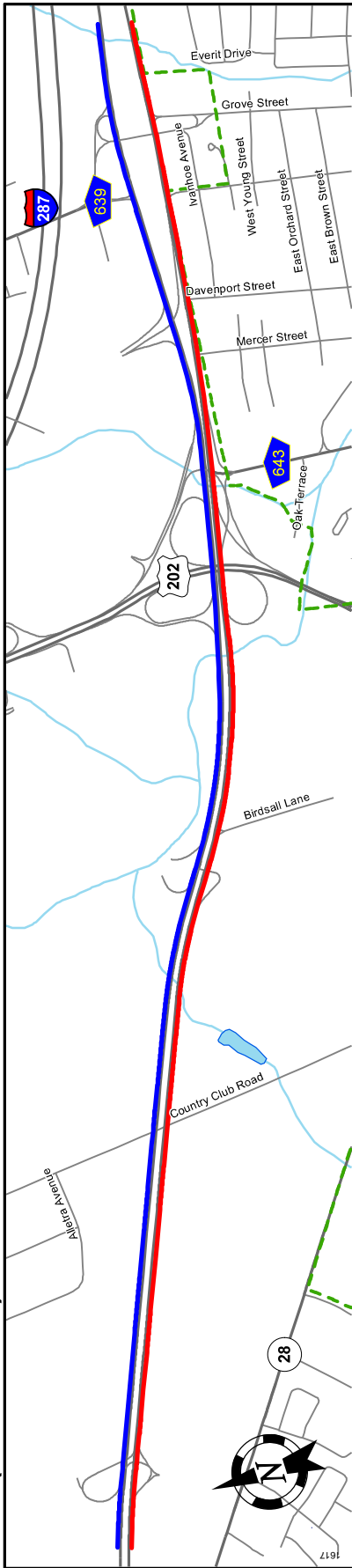
SRI = 00000022

1801156, 157

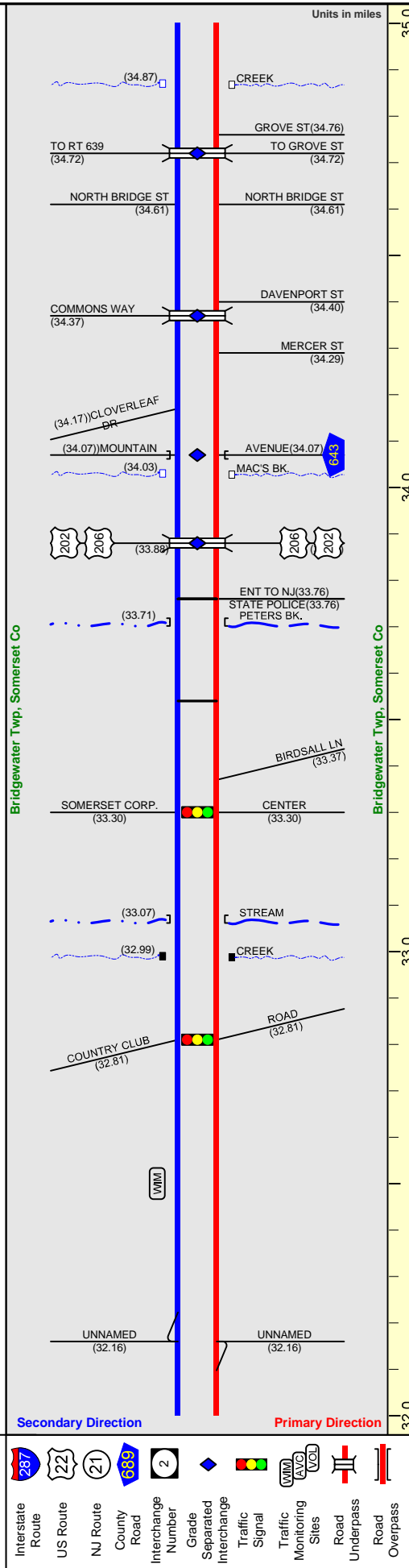


Mile Posts: 32.000 - 35.000

US 22 (West to East)



Pavement	24	10	3	55	36	2	12	3
Shoulder								
Number of Lanes	2							
Speed Limit				55				
Street Name	US 22							



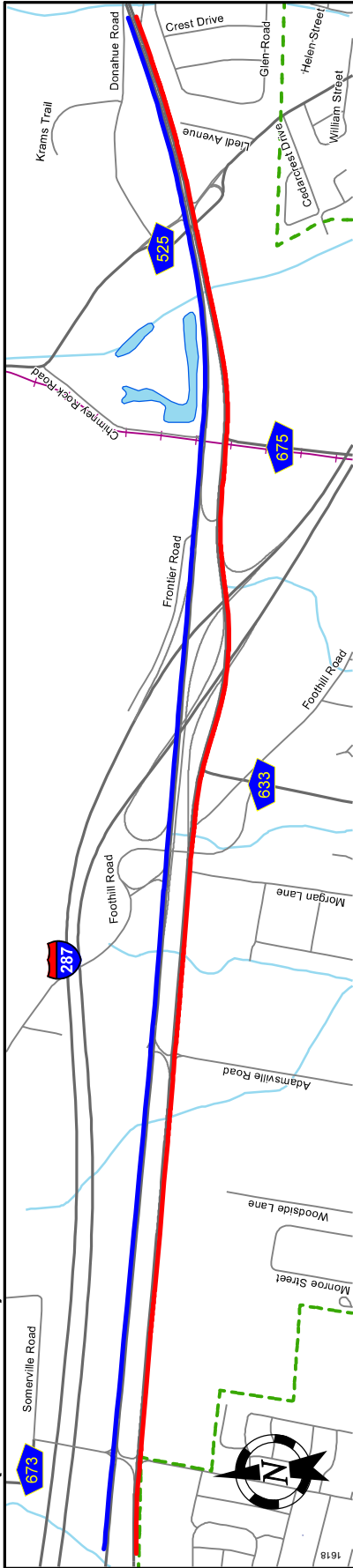
Street Name	US 22							
Jurisdiction	N.J.D.O.T.							
Functional Class	Urban Principal Arterial							
Federal Aid - NHS Sy	NHS							
Control Section	1801							
Speed Limit	55							
Number of Lanes	2							
Med. Type	Unprotected							
Med. Width	VAR							
Pavement	24							
Shoulder	10							
Traffic Volume	39,838 (2006)							
Traffic Sta. ID	4-1-008							
Structure No.	1801159	1801160	1801161	1801151	1801162	1802160	1802153,152	
Enlarged Views	See Enlarged View #58							

Date last inventoried: March 2006

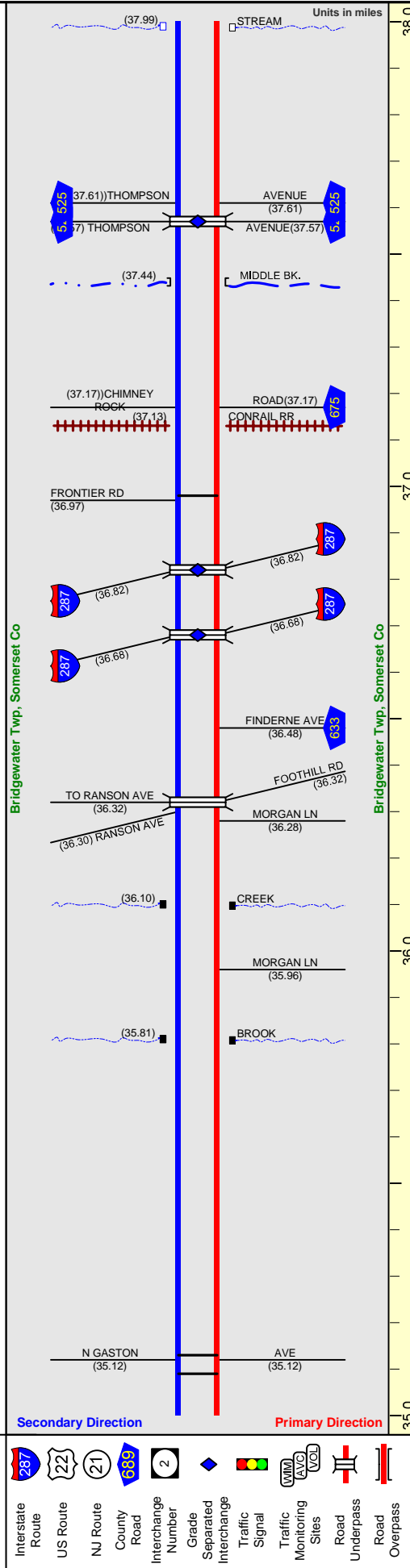
SRI = 00000022

Mile Posts: 35.000 - 38.000

US 22 (West to East)



Pavement	12	36	10	24
Shoulder				
Number of Lanes		3		2
Speed Limit			55	
Street Name			US 22	



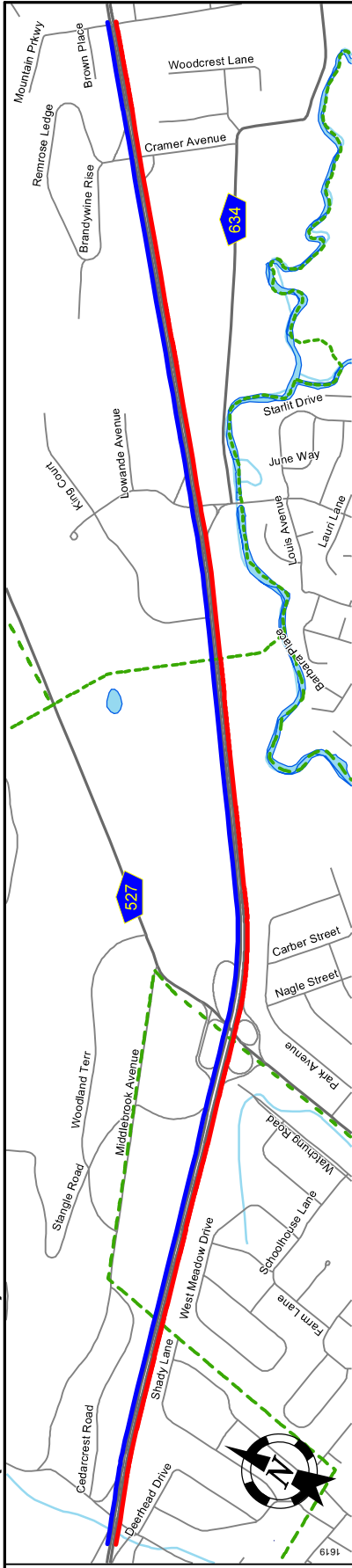
Street Name	US 22	
Jurisdiction	N.J.D.O.T.	
Functional Class	Urban Principal Arterial	
Federal Aid - NHS Sy	NHS	
Control Section	1802	
Speed Limit	55	
Number of Lanes	3	2
Med. Type	Unprotected	Positive
Med. Width	VAR	
Pavement	36	24
Shoulder	12	10
Traffic Volume	87,729 (2003)	69,046 (2005)
Traffic Sta. ID	4-4212	4-7837
Structure No.	1802154,155	1813150,151
Enlarged Views		N/A

Date last inventoried: March 2006

SRI = 00000022

Mile Posts: 38.000 - 41.000

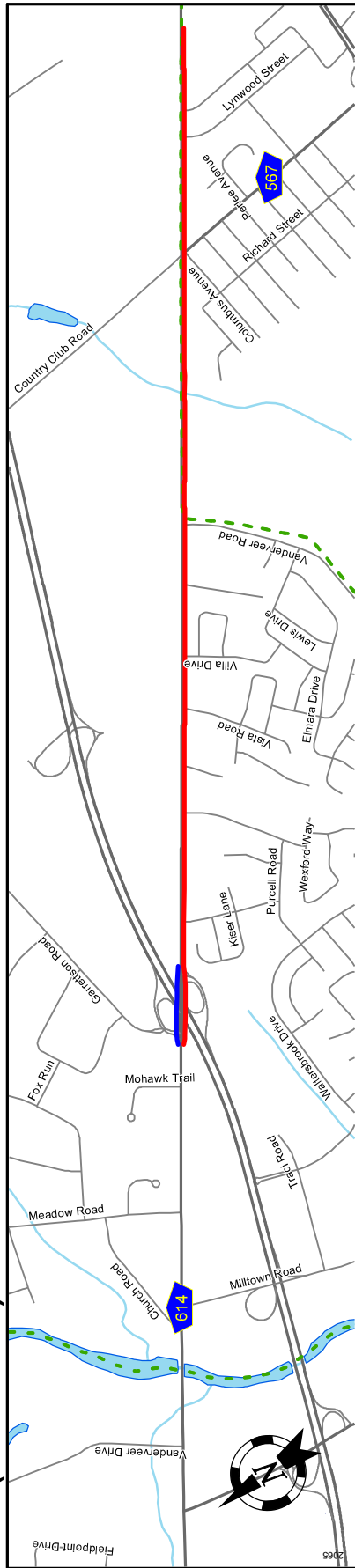
US 22 (West to East)



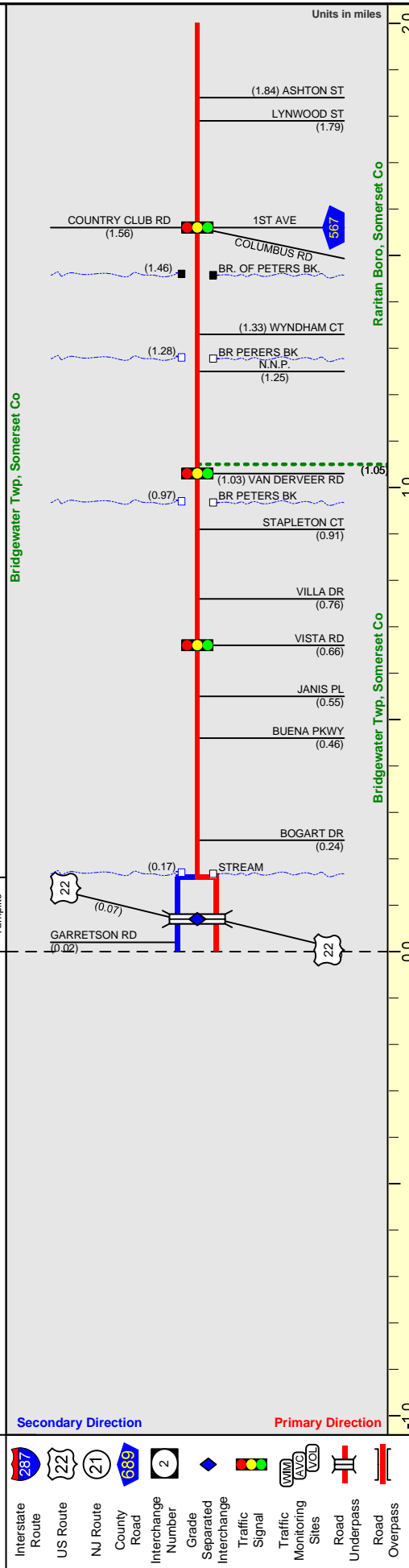
Pavement	24	10	2	36	0	10	24	2	8	
Shoulder										
Number of Lanes	2	2	3	3	3	3	3	2	2	
Speed Limit	24	10	2	36	0	10	24	2	8	
Street Name	US 22									
Interstate Route	287									
US Route	22									
NJ Route	21									
County Road	689									
Interchange Number	2									
Grade	◆									
Separated Interchange	◆									
Traffic Signal	◆									
Traffic Monitoring Sites	◆									
Road Underpass	◆									
Road Overpass	◆									
Street Name	US 22									
Jurisdiction	N.J.D.O.T.									
Functional Class	Urban Principal Arterial									
Federal Aid - NHS Sy	NHS									
Control Section	1803									
Speed Limit	55									
Number of Lanes	Positive									
Med. Type	5									
Med. Width	5									
Pavement	24									
Shoulder	10									
Traffic Volume	48,830 (2006)									
Traffic Sta. ID	4-7897									
Structure No.	1803152									
Enlarged Views	N/A									

Mile Posts: 0.000 - 2.000

NJ 28 (West to East)



Pavement	22
Shoulder	0
Number of Lanes	1
Speed Limit	45
Street Name	Easton Turnpike



Street Name	Easton Turnpike
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Minor Arterial
Federal Aid - NHS Sy	STP
Control Section	1804
Speed Limit	45
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	22
Shoulder	0
Traffic Volume	20,241 (2003)
Traffic Sta. ID	4-4-334
Structure No.	1804150
Enlarged Views	1804153, 1804157, 1804151, 1804152

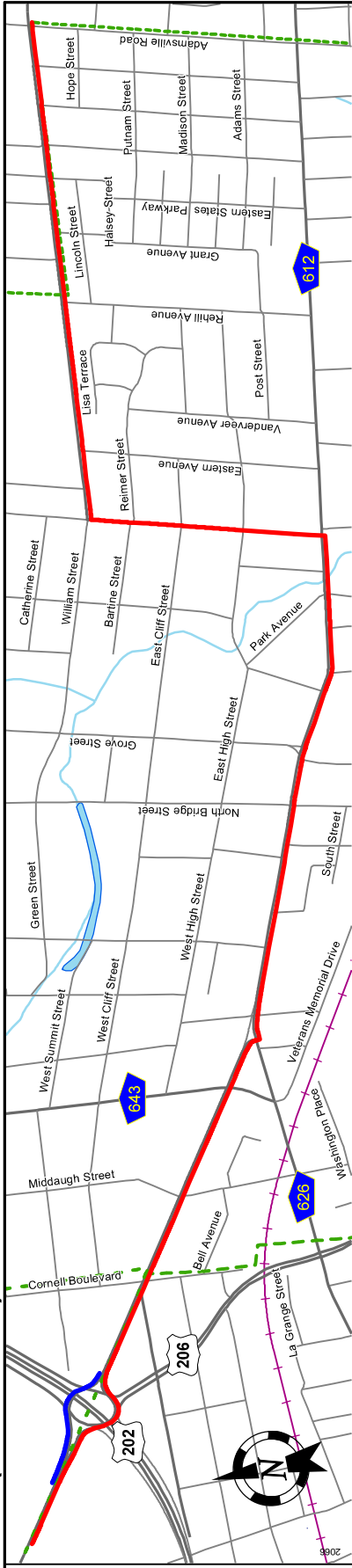
Date last inventoried: April 2008

SRI = 00000028



Mile Posts: 2.000 - 5.000

NJ 28 (West to East)



Pavement	24
Shoulder	10
Number of Lanes	2 + 4
Speed Limit	45
Street Name	Easton Turnpike

Interstate Route	
US Route	
NJ Route	
County Road	
Interchange Number	
Grade	
Separated Interchange	
Traffic Signal	
Traffic Monitoring Sites	
Road Underpass	
Road Overpass	

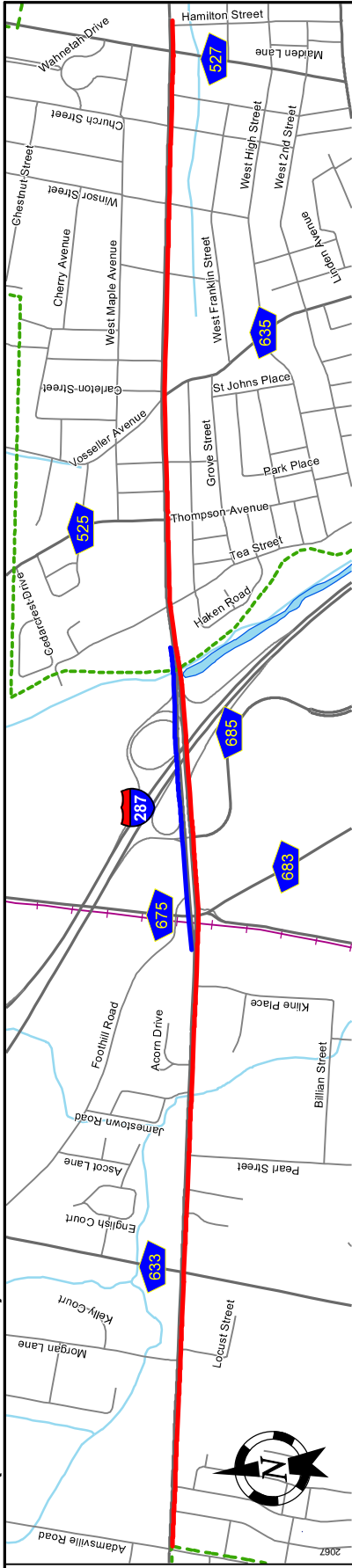
Street Name	Easton Turnpike	West End Avenue	Main Street	Gaston Avenue	Union Avenue
Jurisdiction	N.J.D.O.T.				
Functional Class	Urban Principal Arterial				
Federal Aid - NHS Sy	STP				
Control Section	1804	1805	1806	1807	1808
Speed Limit	45	35	30	40	40
Number of Lanes	4	2	None	24	6
Med. Type	None	None	None	44	24
Med. Width	0	0	0	66	6
Pavement	48	42	44	40	24
Shoulder	10	6	0	0	6
Traffic Volume	10,813 (2006)	7,278 (2006)	14,987 (2003)		
Traffic Sta. ID	4-4-335	4-4-337	4-4-338		
Structure No.	1807157	1805150	1805151		
Enlarged Views					

Date last inventoried: April 2008

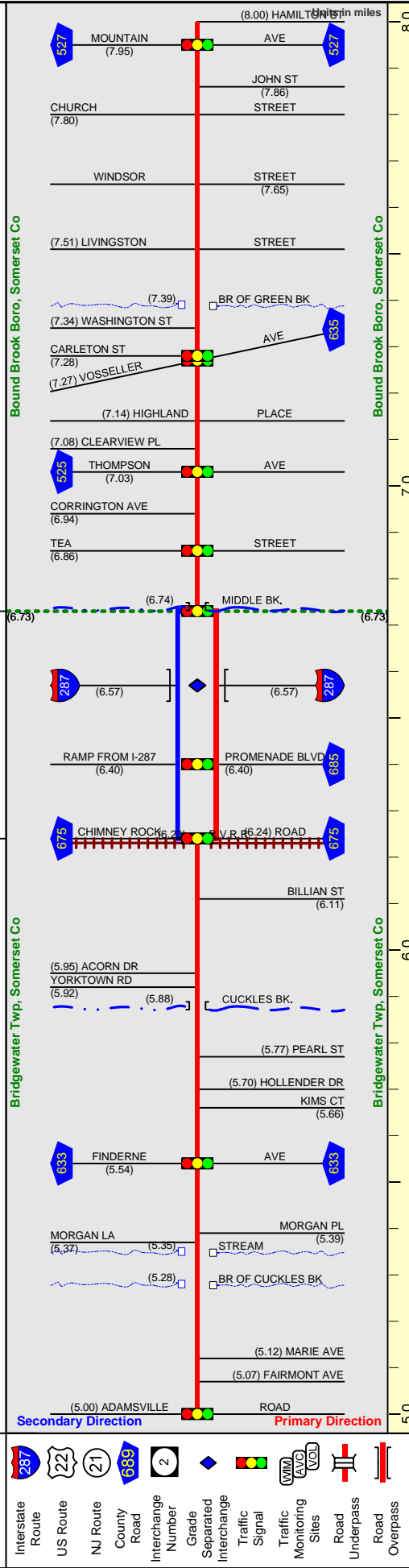
SRI = 00000028

Mile Posts: 5.000 - 8.000

NJ 28 (West to East)



Pavement	25
Shoulder	0
Number of Lanes	2
Speed Limit	40
Street Name	Union Avenue



Street Name	Union Avenue
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Principal Arterial
Federal Aid - NHS Sy	STP
Control Section	1806
Speed Limit	40
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	24
Shoulder	5
Traffic Volume	8
Traffic Sta. ID	N/A
Structure No.	180p151
Enlarged Views	180p152
	180p153
	180p154
	180p155

Date last inventoried: April 2008

SRI = 00000028

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000022	28.60	31.50	4A	3	1	4A	3	7
00000022	31.50	33.88	6A	3	1	6A	3	7
00000022	33.88	37.10	6A	3	1	6A	3	1
00000022	37.10	38.80	4A	3	1	4A	3	1

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000022	38.80	39.26	4A	3	1	6A	3	1
00000022	39.26	41.59	4A	3	1	4A	3	1

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000028	0.00	2.22	2A	4	3	2A	5	9
00000028	2.22	2.25	2A	5	6	2A	5	9
00000028	2.25	3.00	2A	5	6	2A	5	6

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000028	3.70	5.08	2A	5	6	2A	5	6
00000028	5.08	6.23	2A	4	3	2A	5	6
00000028	6.23	6.24	2A	4	3	4D	4	5
00000028	6.24	6.25	2A	4	3	4D	4	2
00000028	6.25	6.80	4D	4	2	4D	4	2
ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000078	29.85	33.13	8A	1	0	8A	1	0

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000202	19.04	26.25	4A	3	1	4A	3	1

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000202	19.04	26.25	4A	3	1	4A	3	1
00000202	26.25	28.67	4G	4	2	4G	4	2
00000202	28.67	28.70	4G	4	2	4A	3	1
00000202	28.70	29.00	4A	4	2	4A	3	1
00000202	29.00	29.54	4A	3	1	4A	3	1

ROUTE (SRI)	MILEPOST		Existing Appendix B			Proposed Appendix B		
	BEGIN	END	DTS	AL	CELL	DTS	AL	CELL
00000287	0.73	17.82	8A	1	0	8A	1	0
00000287	17.82	21.20	1A	1	0	1A	1	0



# New Jersey Department of Transportation

Bureau of Systems Planning

## CMS Priority Ranking

### US 22 (MP 30.83 - 38.42, 39.01 - 39.70) Bridgewater Twp., Somerset 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)	V/C Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
1106	22	30.00	31.60	20304	2	2	1.20	8.17	High	7	Somerset	14	NJTPA	9
1107	22	31.60	32.60	19724	2	2	1.18	7.01	High	19	Somerset	31	NJTPA	23
1108	22	32.60	33.70	22567	2	2	1.20	8.53	High	5	Somerset	10	NJTPA	6
1109	22	33.70	33.92	27469	2	3	1.20	8.59	High	4	Somerset	9	NJTPA	5
1110	22	33.92	34.25	39652	2	3	1.20	9.65	High	1	Somerset	3	NJTPA	2
1111	22	34.25	34.77	41687	2	3	1.20	10.00	High	1	Somerset	1	NJTPA	1
1112	22	34.77	35.37	48664	3	3	1.19	8.98	High	3	Somerset	6	NJTPA	4
1113	22	35.37	36.35	47716	3	3	1.18	8.89	High	3	Somerset	8	NJTPA	4
1114	22	36.35	36.60	47801	3	3	1.18	8.91	High	3	Somerset	7	NJTPA	4
5316	22	36.60	36.81	34892	3	3	1.00	6.97	Medium	20	Somerset	33	NJTPA	23
5317	22	36.81	37.13	30397	3	3	0.88	6.08	Medium	35	Somerset	52	NJTPA	40
1116	22	37.13	37.45	26541	2	2	1.00	7.48	High	14	Somerset	23	NJTPA	17
1117	22	37.45	38.50	25022	2	2	1.00	7.25	High	16	Somerset	28	NJTPA	20
1118	22	38.50	39.75	30944	2	2	1.20	9.81	High	1	Somerset	2	NJTPA	2

This section of roadway is "Severely Congested".

- Highest Score in this section

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 of 0 to 10, as follows:

**HIGH = 7.00+**

**MEDIUM = 5.00 - 6.99**

**LOW < 5.00**

**Note:** The intersection of US 22 and Milltown Rd. (MP 31.01) and the intersection of US 22 and Somerset Corp. Center (MP 33.30) are ranked # 67 and #77 respectively out of 372 high need signalized intersections on State highways.

The interchange at MP 33.88 (I19 22 / I19 202 / CR613) is on the list of top 100 problem area interchanges on State highway





# New Jersey Department of Transportation

Bureau of Systems Planning

## CMS Priority Ranking

### I-287 (MP 12.35 - 20.83) Bridgewater Twp., Somerset 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)	V/C Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
1442	287	12.28	13.50	54581	3	3	0.85	6.61	Medium	26	Somerset	43	NJTPA	30
1443	287	13.50	13.70	54581	3	3	0.85	6.61	Medium	26	Somerset	43	NJTPA	30
1444	287	13.70	14.10	54581	3	3	0.85	6.61	Medium	26	Somerset	44	NJTPA	30
1445	287	14.10	14.28	54581	3	3	0.85	6.61	Medium	26	Somerset	44	NJTPA	30
1446	287	14.28	14.50	37289	3	3	0.58	4.52	Low	60	Somerset	85	NJTPA	65
1447	287	14.50	15.12	37289	3	3	0.58	4.52	Low	60	Somerset	85	NJTPA	65
1448	287	15.12	16.50	37289	3	3	0.85	5.44	Medium	46	Somerset	67	NJTPA	51
1449	287	16.50	17.50	37289	3	3	0.85	5.44	Medium	46	Somerset	67	NJTPA	51
1450	287	17.50	17.81	37289	3	3	0.58	4.52	Low	60	Somerset	86	NJTPA	65
1451	287	17.81	18.25	60581	5	6	0.56	4.40	Low	62	Somerset	89	NJTPA	67
1452	287	18.25	19.57	60581	6	6	0.69	4.42	Low	62	Somerset	88	NJTPA	67
1453	287	19.57	20.57	60581	5	6	0.79	5.17	Medium	50	Somerset	73	NJTPA	55
1454	287	20.57	21.10	60581	3	4	0.94	7.34	High	15	Somerset	26	NJTPA	19

Part of this section of roadway is "Very Congested".

- Highest Score in this section

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 of 0 to 10, as follows:

**HIGH = 7.00+**

**MEDIUM = 5.00 - 6.99**

**LOW < 5.00**

Note: The interchange at MP 17.73 (US 287 / US 202 / NJ 17) is on the list of top 100 problem area interchanges on State highways.



# New Jersey Department of Transportation

Bureau of Systems Planning

## CMS Priority Ranking

### US 202 (MP 21.75 - 22.86, 24.43 - 24.77, 24.86 - 29.55) Bridgewater Twp., Somerset 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)	V/C Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
766	202	21.04	22.00	20954	2	2	1.20	7.64	High	12	Somerset	21	NJTPA	15
767	202	22.00	22.50	21365	2	2	1.20	7.47	High	14	Somerset	25	NJTPA	17
768	202	22.50	23.40	21827	2	2	1.20	7.61	High	13	Somerset	21	NJTPA	16
771	202	24.43	25.04	44122	3	3	1.18	8.54	High	4	Somerset	9	NJTPA	5
772	202	25.04	25.17	35000	2	2	1.20	9.22	High	2	Somerset	4	NJTPA	3
773	202	25.17	25.50	36564	2	2	1.20	9.36	High	2	Somerset	3	NJTPA	2
774	202	25.50	26.00	28773	2	2	1.09	8.14	High	8	Somerset	15	NJTPA	10
775	202	26.00	26.19	8987	2	1	0.55	4.64	Low	59	Somerset	79	NJTPA	63
776	202	26.19	26.52	8987	1	1	0.55	4.64	Low	59	Somerset	80	NJTPA	63
777	202	26.52	27.80	8987	1	1	0.79	5.44	Medium	45	Somerset	66	NJTPA	51
778	202	27.80	28.82	8987	1	1	1.10	6.48	Medium	28	Somerset	47	NJTPA	33
5266	202	28.82	29.36	8987	1	1	0.93	5.91	Medium	38	Somerset	58	NJTPA	43
5267	202	29.36	29.82	11024	1	1	1.20	8.45	High	5	Somerset	10	NJTPA	6

Much of this section of roadway is "Severely Congested".

- Highest Score in this section

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 of 0 to 10, as follows:

**HIGH = 7.00+**

**MEDIUM = 5.00 - 6.99**

**LOW < 5.00**

Note: The intersections on US 202 with Milltown Rd. (MP 21.99), Muirfield Ln.(MP 28.07) and Brown Rd.(MP 28.31) are ranked # 85, 329 & 323 respectively out of 372 high need signalized intersections on State highways.

The interchanges at MP 25.03 (US 202 / US 22 / CR 643) and at MP 25.88 (US 202 / I-287 / NJ 17) are on the list of top 100 problem area interchanges on State



# New Jersey Department of Transportation

Bureau of Systems Planning

## CMS Priority Ranking

### I-78 (MP 31.58 - 32.47) Bridgewater Twp., Somerset 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)	V/C Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
3131	78	31.25	32.47	30000	4	3	0.66	4.27	Low	65	Somerset	90	NJTPA	69

This section of roadway is "Not Congested".



- Highest Score in this section

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 of 0 to 10, as follows:

**HIGH = 7.00+**

**MEDIUM = 5.00 - 6.99**

**LOW < 5.00**



# New Jersey Department of Transportation

Bureau of Systems Planning

## CMS Priority Ranking

### NJ 28 (MP 0.00 - 2.51, 4.55 - 6.73) Bridgewater Twp., Somerset 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)	V/C Max	Overall Score	Priority Rating	System Top Percentile	County	County Top Percentile	MPO	MPO Top Percentile
1341	28	0.00	0.17	8011	2	2	0.53	3.02	Low	85	Somerset	99	NJTPA	87
1342	28	0.17	1.00	8011	1	1	1.14	6.30	Medium	31	Somerset	49	NJTPA	36
1343	28	1.00	2.22	9535	1	1	1.20	7.78	High	11	Somerset	18	NJTPA	13
1344	28	2.22	2.34	6198	2	2	0.65	3.14	Low	83	Somerset	98	NJTPA	86
1345	28	2.34	2.68	5496	1	1	0.82	4.44	Low	62	Somerset	88	NJTPA	66
1350	28	3.79	5.00	5207	1	1	0.97	4.86	Low	55	Somerset	76	NJTPA	60
1351	28	5.00	5.42	10000	1	1	1.10	6.79	Medium	23	Somerset	37	NJTPA	27
1352	28	5.42	5.56	10000	1	1	1.20	8.13	High	8	Somerset	16	NJTPA	10
1353	28	5.56	6.25	11000	1	1	1.13	7.19	High	17	Somerset	29	NJTPA	20
1354	28	6.25	6.62	11000	2	2	0.40	3.05	Low	84	Somerset	99	NJTPA	87
1355	28	6.62	6.90	11309	2	2	0.44	3.23	Low	82	Somerset	98	NJTPA	85

Part of this section of roadway is "Severely Congested".

- Highest Score in this section

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 of 0 to 10, as follows:

**HIGH = 7.00+**

**MEDIUM = 5.00 - 6.99**

**LOW < 5.00**

Note:

The intersections of NJ 28 at MP 0.66, 1.03, 2.07 and 5.54 are ranked # 363, 310, 224 and 39 respectively out of 372 high need signalized intersections on State highways.