

# **NJ Department of Environmental Protection**



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

for:

Manville Borough, Somerset County

*July 29, 2008*

*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 Tuckerton Borough and Little Egg Harbor 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**

2002 Land Use/Land Cover .....	4
Water & Wastewater Analysis.....	5
Water Availability.....	5
Wastewater Treatment .....	5
Water Quality Management Plan - Sewer Service Area Mapping .....	6
Environmental Constraints Analysis.....	8
Regulated Environmental Constraints .....	8
▪ Wetlands .....	8
▪ Category One (C1) Waterbodies & Associated Buffers .....	9
▪ Floodprone areas.....	10
▪ Total Maximum Daily Loads (TMDL).....	10
Environmental Constraints to Avoid .....	14
▪ Threatened & Endangered Species Habitat .....	14
▪ Natural Heritage Priority Sites.....	15
Environmental Constraints to Consider.....	16
▪ Groundwater recharge areas .....	16
▪ Well Head Protection Areas.....	16
▪ Priority Species Habitat .....	17
Contaminated Areas Considerations.....	18
Known Contaminated Sites List .....	18
Known Contaminated Sites - Classification Exception Areas (CEA) .....	19
Landfills .....	20
Preserved Lands & Historic Resources.....	21
Preserved Lands .....	21
Historic Resources .....	22
Regional Planning Areas.....	24
Delaware and Raritan Canal (D&R Canal) Commission .....	24
Delaware and Raritan Canal Commission .....	25
▪ Map – Delaware and Raritan Canal Commission Review ZonesSummary of Major Issues.....	25
▪ Summary of Major Issues .....	26
Maps and Additional Information.....	27
NJDEP Office of Planning and Sustainable Communities .....	42

## 2002 Land Use/Land Cover

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

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

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

Based on this analysis, Manville has the following distribution of land types:

Type	Acres
Barren	
Lands	20.14
Forest	28.87
Urban	1211.44
Water	52.33
Wetlands	258.85

Attachments:

- Map - Land Use/Land Cover in Manville

# Water & Wastewater Analysis

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

## Water Availability

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

There is one (1) Public Water Supply Systems in Manville. The Deficit/Surplus table and a map showing the system locations are provided with this report.

PWSID	Water System Name	Population Served	Water System Type
2004002	NEW JERSEY AMERICAN - ELIZABETHTOWN	11,334	Community

The Deficit/Surplus tables for NEW JERSEY AMERICAN – ELIZABETHTOWN, shows available capacity for those systems. However, the existing capacity may not be available to Manville as it is a large system serving areas beyond Manville Borough.

The Deficit/Surplus tables for Public Water Systems may be found on the Department of Environmental Protection, Division of Water Supply website at <http://www.nj.gov/dep/watersupply/pws.htm>. Not all Public Water Supply Systems will have associated Deficit/Surplus tables available on the Department's website. The website currently contains public water systems that have a demand greater than 100,000 gallons of water per day and have had some water main extension activity since January 1, 2002. 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 no Non-Community Water Systems serving Manville Borough.

## Wastewater Treatment

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

There is one regulated wastewater facility serving Manville, Somerset Raritan Valley Sewer Authority - NJPDES permit number NJ0024864. The annual average flow for this facility in 2006 was 20.9950 mgd; the permitted flow for this facility is 21.3 mgd. Based on this information, less than two percent (CHECK THIS) of the permitted flow for this facility remains available to support development in the service area. Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 1,033 new residential units. However, this facility also serves the surrounding municipalities of Branchburg Township, Bridgewater Township, Warren Township, Hillsborough Township, Green Brook Township, Raritan Borough, and Somerville Borough. Therefore, while there appears to be capacity for treatment of further development, it is not necessarily available to Manville Borough.

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

Manville falls within two (2) HUC11 watersheds – Raritan River Lower (Millstone to NB/SB) (HUC11-51), and Millstone River (below/including Carnegie Lk) The following table indicates the residential density allowed under the new nitrate limits.

		<b>2 mg/L nitrate limit</b>
Raritan River (Millstone to NB/SB)		7.1 acres/ residential unit
Millstone River (below/including Carnegie Lk)		6.5 acres/residential unit

Water Quality Management Plan - Sewer Service Area Mapping

The Department has adopted amendments to the Water Quality Management Planning rules identifying the conditions where extension of sewer service is not appropriate. N.J.A.C. 7:15-5.24 sets forth the general policy that large contiguous areas of environmentally sensitive resources, coastal planning areas where the extension of sewers

would be inconsistent with New Jersey's Coastal Zone Management program, and special restricted areas that are prone to natural hazards such as flooding, wave action and erosion should not be included in sewer service areas. The limitations on the extension of sewer service in these areas is consistent with the Department's mandate to protect the ecological integrity and natural resources of New Jersey, including water, threatened and endangered species, wetlands and unique and rare assemblages of plants.

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

In establishing the criteria for delineating a sewer service area boundary in consideration of environmentally sensitive areas, the Department identifies environmentally sensitive areas that are not appropriate for sewer service area as any contiguous area of 25 or more acres that contains any or all of the following four features: threatened and endangered species habitats, Natural Heritage Priority Sites, Category One stream buffers, and wetlands. The Department determined that 25 acres was the appropriate size threshold based on a statewide GIS analysis showing that at least 90 percent of the environmentally sensitive features will 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 through a pilot program in development of a county-wide Wastewater Management Plan based upon on the recent Water Quality Management Planning rules. Manville should continue to coordinate with the County to ensure consistency between municipal planning and the County WMP.

Attachments:

- Deficit/Surplus table – New Jersey American Elizabethtown Water Company - <http://www.nj.gov/cgi-bin/dep/watersupply/pwsdetail.pl?id=2004002>
- Map - Water Purveyor Areas
- Map - Sewer Service Areas in Manville Borough
- Map - Nitrate Dilution Concentrate Target by HUC11

# Environmental Constraints Analysis

*The following section identifies those environmental constraints that should be considered by Manville 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 and Category One Waters are environmental constraints currently regulated by DEP. Manville should recognize these environmental constraints in its visioning and planning processes.*

- Wetlands

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

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

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

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

Land Use/Land Cover data based on 2002 aerial photography identifies approximately 258 acres of wetlands in Manville. It should be noted that these wetlands are based on aerial photo interpretation and are **not** appropriate for use in determining the true extent of wetlands on a specific site.

- 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 Department of Environmental Protection recently adopted amendments to the Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B. The amendments at N.J.A.C. 7:9B-1.4 modify the definition of category one waters and add new definitions for Exceptional Ecological Significance, Exceptional Fisheries Resource(s), Exceptional Water Supply Significance, and HUC 14. The Department also adopted amendments to upgrade approximately 686 river miles to Category One antidegradation designation.

The Stormwater Management rule (NJAC 7:8) is implemented through the Department's Land Use regulations and local ordinances, and affects stormwater discharges to Category One waterways and their tributaries upstream within the same HUC14 subwatershed. The Stormwater Management rule also establishes a 300-foot Special Water Resource Protection Area (SWRPA) for major development proposed along Category One (C1) waters and certain tributaries

The recently adopted Flood Hazard Area Control Act (FHACA) rule (N.J.A.C. 7:13) (November 5, 2007 NJ Register) 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 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 C1 waterbodies in Manville Borough.

The Surface Water Quality Standards data used for this analysis is based on a DRAFT version released for general distribution as a preliminary product. NJDEP is releasing this draft version for public review and any potential data errors should be reported to the Department.

- Flood prone areas

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

The map provided shows the FEMA flood map zones. The Federal Emergency Management Agency continually updates these maps, and Manville Borough and their residents should refer to their website for current information. Additional information regarding FEMA’s Flood Insurance Rate Map (FIRM) follows the map provided. Please note that the area regulated by the Flood Hazard Area Control Act rule do not necessarily align with the FEMA flood map zones.

- Total Maximum Daily Loads (TMDL)

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

Therefore, in accordance with Section 305(b) and 303(d) of the Federal Clean Water Act (CWA), the State of New Jersey, Department of Environmental Protection (Department) is required to assess the overall water quality of the State’s waters and identify those waterbodies with a water quality impairment for which TMDLs may be necessary. A TMDL is developed to identify all the contributors of a pollutant of concern and the load reductions necessary to meet the Surface Water Quality Standards (SWQS) relative to that pollutant. The Department fulfills its

assessment obligation under the CWA through the Integrated Water Quality Monitoring and Assessment Report, which includes the Integrated List of Waterbodies (303(d) list) and is issued biennially. The *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).

Total Maximum Daily Loads that encompass Manville Borough, Somerset County

<b>TMDL Name</b>	<b>WMA</b>	<b>Parameter</b>	<b>Percent Reduction</b>	<b>Document</b>	<b>EPA Approval</b>	<b>Affected WQMP</b>
Raritan River at Manville 01400500	9	Fecal Coliform	92%	TMDL for Fecal Coliform to Address 48 Streams in Raritan Water Region	September 29, 2003	Upper Raritan WQMP
Millstone River at Weston 01402540	10	Fecal Coliform	92%	TMDL for Fecal Coliform to Address 48 Streams in Raritan Water Region	September 29, 2003	Upper Raritan WQMP

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 two TMDLs that encompass Manville Borough, Somerset County are nonpoint source driven. Although the TMDL document is an amendment to multiple Water Quality Management Plans (WQMPs), Manville Borough falls within the purview of the Upper Raritan WQMP.

The two TMDLs for fecal coliform impairment that encompass Manville Borough both require a 92% load reduction for this parameter. However, the Department recognizes that TMDLs alone are not sufficient to restore impaired stream

segments. The TMDL establishes the required pollutant reduction targets while the implementation plan identifies some of the regulatory and non-regulatory tools to achieve the reductions, matches management measures with sources, and suggests responsible entities for non-regulatory tools. This provides a basis for aligning available resources to assist with implementation activities. Projects proposed by the State, local government units and other stakeholders that would implement the measures identified within the impaired watershed are a priority for available State (for example, CBT) and federal (for example, 319(h)) funds. In addition, the Department's ongoing watershed management initiative will develop detailed watershed restoration plans for impaired stream segments in a priority order that will identify more specific measures to achieve the identified load reductions. Urban and agricultural land use sources must be the focus for implementation. Urban land use will be addressed primarily by stormwater regulation. Agricultural land uses will be addressed by implementation of conservation management practices tailored to each farm. Urban land use will be addressed primarily by stormwater regulation through the municipality's MS 4 permit.

### **Short-term and Long-term Management Strategies**

Short term management measures include projects recently completed, underway or planned that are designed to address the targeted impairment. Whereas long term strategies include source track-down as well as selection and implementation of specific management measures that will address the identified sources. Overall, the TMDL implementation plan for these two TMDLs recommends addressing goose management and implementation of the Phase II Stormwater Permit requirements.

### **Raritan River at Manville (#1400500)**

The area consists of mainly agricultural and residential areas. Some possible sources of fecal contamination include suburban stormwater, agriculture and wildlife, including deer and geese. Strategies: prioritize for EQIP funds to install agricultural BMPs; organize local community based goose management programs; and Phase II Stormwater permit.

### **Millstone River at Weston (#1402540)**

This area of the watershed is very flat and has shale soils. There are large deer and geese populations located throughout the area, particularly where there are large tracts of green lawns (sod farms, parks, golf courses). Griggs Street Area: Land uses in the area include forest, fields, and residential. Possible sources in this area include domestic pets, geese, and wildlife. Wilhousky Street Area: Land uses in the area include forest, fields, agriculture, and residential. Possible sources of fecal coliform include geese, wildlife, and domestic pets. Monitoring: confirm impairment. Strategies: prioritize for EQIP funds to install agricultural BMPs; organize local community based goose management programs; and Phase II stormwater permit.

The report entitled, “TMDL for Fecal Coliform to Address 48 Streams in Raritan Water Region” 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).

Attachments:

- Map – Wetlands and TMDLs
- Map – FEMA Flood Zones

## Environmental Constraints to Avoid

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

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

- Threatened & Endangered Species Habitat

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

ENSP has developed the Landscape Project to identify and systemically map the habitat most critical for New Jersey's fish and wildlife populations. This tool is being used to gauge healthy ecosystems and help identify areas appropriate for protection while giving citizens and local government 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.

There are approximately 294 acres of threatened and endangered species habitat in Manville. This habitat supports a wide range of species, including Great Blue Heron, Eastern Box Turtle, and Bald Eagle. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in Manville (including habitat for priority species – Rank 2 – that are discussed below in the 'Environmental Constraints to Consider' section).

Note that this analysis is based on recently updated Landscape Project data that was released in May, 2008. This data is available for download on the DEP website at: <http://www.nj.gov/dep/gis/landscape.html>.

- 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.

There are no Natural Heritage Priority sites located within Manville Borough.

Attachments:

- Map - Threatened, Endangered & Priority Species Habitat

## Environmental Constraints to Consider

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

- Groundwater recharge areas

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

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

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

There is a small, half-acre area of high volume groundwater recharge area located within Manville.

- 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 is described in [Well Head Delineations List](#).

There are 482 acres of Well Head Protection area in Manville Borough.

- Priority Species Habitat

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

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

There are approximately 384 acres of Priority Species Habitat located within Manville. Mapping showing Priority Species Habitat is included on the *Threatened & Endangered Species Habitat map*, as discussed earlier in the 'Environmental Constraints to Avoid' section.

# 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.

## **Somerset: Manville Borough**

### *Sites with On-Site Sources of Contamination*

<b>Site Name</b>	<b>Site Address</b>	<b>Site Zip</b>	<b>Pref. ID</b>	<b>Site Link</b>
115 SEVENTEENTH STREET	115 17TH ST	08835-1621	255243	<a href="#">More Info</a>
150 SOUTH 14TH AVENUE	150 14TH AVE S	08835	221937	<a href="#">More Info</a>
1817 ROOSEVELT AVENUE	1817 ROOSEVELT AVE	08835	262091	<a href="#">More Info</a>
729 SOUTH MAIN STREET	729 S MAIN ST	08835	166930	<a href="#">More Info</a>
DUKES PARKWAY LANDFILL	DUKES PWY	08835	G000004418	<a href="#">More Info</a>
FEDERAL CREOSOTE	VALERIE DR & E	08835	G000031228	<a href="#">More Info</a>

COMPANY	CAMPLAIN RD			
MANVILLE AUTO PARTS INC	341 N MAIN ST	08835	026162	<a href="#">More Info</a>
MANVILLE BORO	50 WILLIAM ST	08835	003641	<a href="#">More Info</a>
MANVILLE SALES CORPORATION	200 N MAIN ST	08835--0	000511	<a href="#">More Info</a>
NJ DOT BRIDGE ST BRIDGE REPLACEMENT	NJ DOT BRG ST	08835	132871	<a href="#">More Info</a>
PENN COLOR INC	1501 KENNEDY BLVD	08835	013998	<a href="#">More Info</a>
SENZA LLC	205 E FRECH ST	08835	266594	<a href="#">More Info</a>
SPECIALTY ASSAYS INC	1117 KENNEDY BLVD	08835	266234	<a href="#">More Info</a>
WESTON SERVICE CENTER INC	710 MAIN ST	08835	010839	<a href="#">More Info</a>

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.).

#### Known Contaminated Sites - Classification Exception Areas (CEA)

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

The Department currently identifies two (2) CEAs within Manville:

- Manville Auto Parts (Also CEA-VO)
- Dukes Parkway Landfill (Johns Manville)

For further information about Classification Exception Areas:

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

## Landfills

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

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

The Department's GIS coverage indentified three solid waste landfills in Manville.

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

### Attachments:

- Map - Known Contaminated Sites and Groundwater Contamination Areas  
(Note: This map does not show the extent of contamination, therefore a buffer should be placed around the site for planning purposes.)

# 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 following two tables represent all of the preserved open space lands located in Manville. The total acreage of these lands is approximately 82.5 acres. DEP recognizes that its records may be incomplete or incorrect, and appreciates all assistance in keeping its records up-to-date.

### **State Owned Lands**

<b>NAME</b>	<b>APPROX. ACRES</b>
D&R Canal	8.15

### **Municipal, County and Non-Profit Owned Lands**

<b>NAME</b>	<b>Acres</b>
	0.88
COOPER ST PARK	4.35
DUKES MEMORIAL PARK - COMP	1.65
DUKES PARKWAY	0.93
DUKES PARKWAY PARK	1.99
FUCILLO ST PARK	2.77
LINCOLN AVE PARK	13.68

LINCOLN PARK	3.72
MEMORIAL PARK	3.27
PAPAWICK PARK	3.80
RARITAN RIVER GREENWAY	36.67
SOUTH 10TH AVE PARK	0.50
VILLAGE GREEN PARK	0.10

### 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 DOEs are listed by their historic name, when known.

## **New Jersey and National Registers of Historic Places**

Manville Borough

### **Bridge Street Bridge over Conrail (SI&A #1850167) (ID#4012)**

Bridge Street over Conrail, Milepoint 56.66

SHPO Opinion: 6/7/2002

### **Delaware and Bound Brook (Reading) Railroad Historic District (ID#4540)**

SHPO Opinion: 9/9/2005

### **Lehigh Valley Railroad Historic District (ID#4154)**

SHPO Opinion: 3/15/2002

**See Main Entry / Filed Location:**

Warren County, Phillipsburg Town

### **Lehigh Valley Railroad Bridge (ID#3605)**

Conrail over Raritan River

SHPO Opinion: 7/30/1990

**Also located in:**

Somerset County, Bridgewater Township

### **Manville Municipal Building (ID#2905)**

101 South Main Street

SHPO Opinion: 11/27/1995

### **Prehistoric Archaeological Site (28-So-109) (ID#3606)**

SHPO Opinion: 7/30/1990

### **Reading Railroad Bridge (Eastern) (ID#3607)**

Conrail over Raritan River

SHPO Opinion: 7/30/1990

**Also located in:**

Somerset County, Bridgewater Township

### **Reading Railroad Bridge (Western) (ID#3608)**

Conrail over Raritan River

SHPO Opinion: 7/30/1990

**Also located in:**

Somerset County, Bridgewater Township

### **Water Tower Stone Foundation**

SHPO Opinion: 7/30/1990

# Regional Planning Areas

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

## Delaware and Raritan Canal (D&R Canal) Commission

The Delaware and Raritan Canal Commission was established in October 1974 with the adoption of the Delaware and Raritan Canal State Park Law. The Commission was created to accomplish three objectives: review and approve, reject or modify an action by the State in the Canal Park, or any permit for action in the park; undertake planning for the development of the Canal Park; and prepare and administer a land use regulatory program that will protect the Canal Park from the harmful impacts of new development in central New Jersey. Construction of the D&R Canal began in 1830 and was completed in 1834 with the main canal being 44 miles long, 75 feet wide and 7 feet deep and the feeder being 22 miles long, 50 feet wide and 7 feet deep. The upper portion of the feeder canal follows the Delaware River through historic New Jersey towns such as Frenchtown, Stockton and Lambertville. The main canal passes the Port Mercer bridge tender's house, through the charming villages of Kingston and Griggstown to Blackwells Mills, ending up in New Brunswick.

The 70-mile Delaware and Raritan Canal State Park is one of central New Jersey's most popular recreational corridors for canoeing, jogging, hiking, bicycling, fishing and horseback riding. The canal and the park are part of the National Recreation Trail System. This linear park is also a valuable wildlife corridor connecting fields and forests. A recent bird survey conducted in the park revealed 160 species of birds, almost 90 of which nested in the park. The New Jersey Department of Environmental Protection, Division of Parks and Forestry, State Park Service owns and manages the D&R Canal as a state park. The D&R Canal Commission, legislated in 1974, assists with the development of the park and regulates land use in the park's 400-square-mile watershed. The New Jersey Water Supply Authority operates and maintains the water transmission complex of the canal as a water supply resource, pumping out about 75 million gallons of water a day.

The D&R Canal Commission administers a land-use regulatory program within the area where new development could have drainage, visual or other ecological impact on the Canal Park. The drainage impact is almost 400 square miles, including parts of Mercer, Hunterdon, Somerset, Middlesex, and Monmouth counties. Major projects with an acre or more of impervious cover are subject to the Commission's standards for managing storm water run-off. Additionally, any project proposed for an area within 1,000 feet of the canal is reviewed for its visual impact on the park. The Commission also reviews

large projects within one mile of the park for their traffic impact, and the Commission requires the preservation of corridors along the major streams that enter the park.

Portions of Manville are along the Delaware and Raritan Canal, and the Department will consult with the Delaware and Raritan Canal Commission regarding your petition for Plan Endorsement. All planning documents and specifically, Manville's Open Space Plan, will need to be consistent with the objectives of Delaware and Raritan Canal State Park Law.

**D&R Canal State Park**

145 Mapleton Road  
Princeton, NJ 08540  
Phone: (609) 924-5705

**Delaware and Raritan Canal Commission**

Route 29, Prallsville Mills  
PO Box 539  
Stockton, NJ 08559  
Phone: (609) 397-2000  
Fax: (609) 397-1081

Attachments:

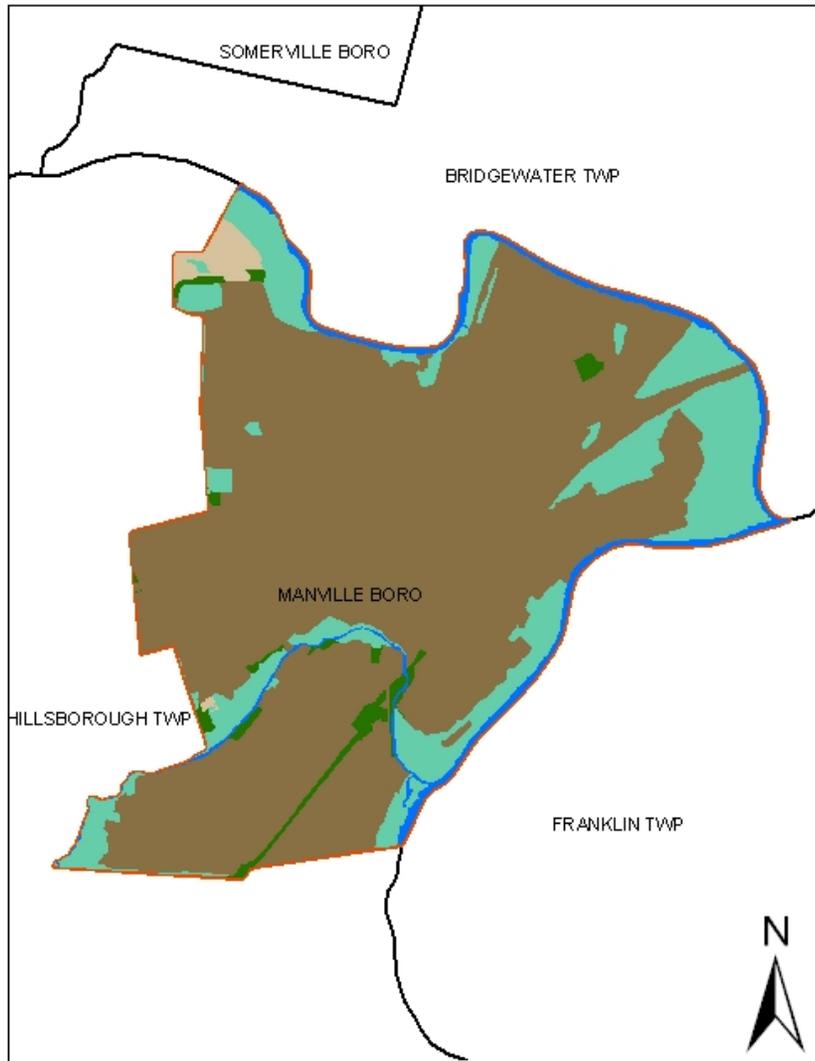
- Map – Delaware and Raritan Canal Commission Review Zones

# Summary of Major Issues

1. Manville does not appear to have an adopted Natural Resources Inventory. An adopted NRI is a requirement for Plan Endorsement.
2. The submitted petition materials include a Master Plan Reexamination but not the original Master Plan.
3. Redevelopment plan – the MSA makes mention of a redevelopment plan but this plan does not appear in the submission materials.
4. Conservation District – the most recent Master Plan reexamination calls for the development of a Conservation District within the Borough. The Department strongly supports the development of a Conservation District within Manville. Moreover, an adopted Conservation Plan is a requirement for Plan Endorsement. The Department will work with the Borough to ensure that local measures are implemented to protect habitat and other natural resources within the borough.
5. Threatened and Endangered species habitat – Manville’s MSA states that DEP Landscape Project data shows no Threatened and Endangered species habitat within the borough. In fact, the Landscape project does show some small areas of threatened and endangered species habitat within Manville Borough. These areas can be seen on the attached Threatened, Endangered, and Priority Species map.
6. D&R Canal issues – All planning activities and development within Manville should be consistent with the Delaware and Raritan Canal Commission’s regulatory program.
7. There are a number of contaminated sites within Manville Borough. The municipality should ensure that any redevelopment activity that takes place on these sites is consistent with the remediation that has taken place on site.
8. All local planning efforts should take consideration of and attempt to mitigate the on-going flooding problems that Manville faces.

## **Maps and Additional Information**

# Manville Borough Land Use Land Cover



## Legend

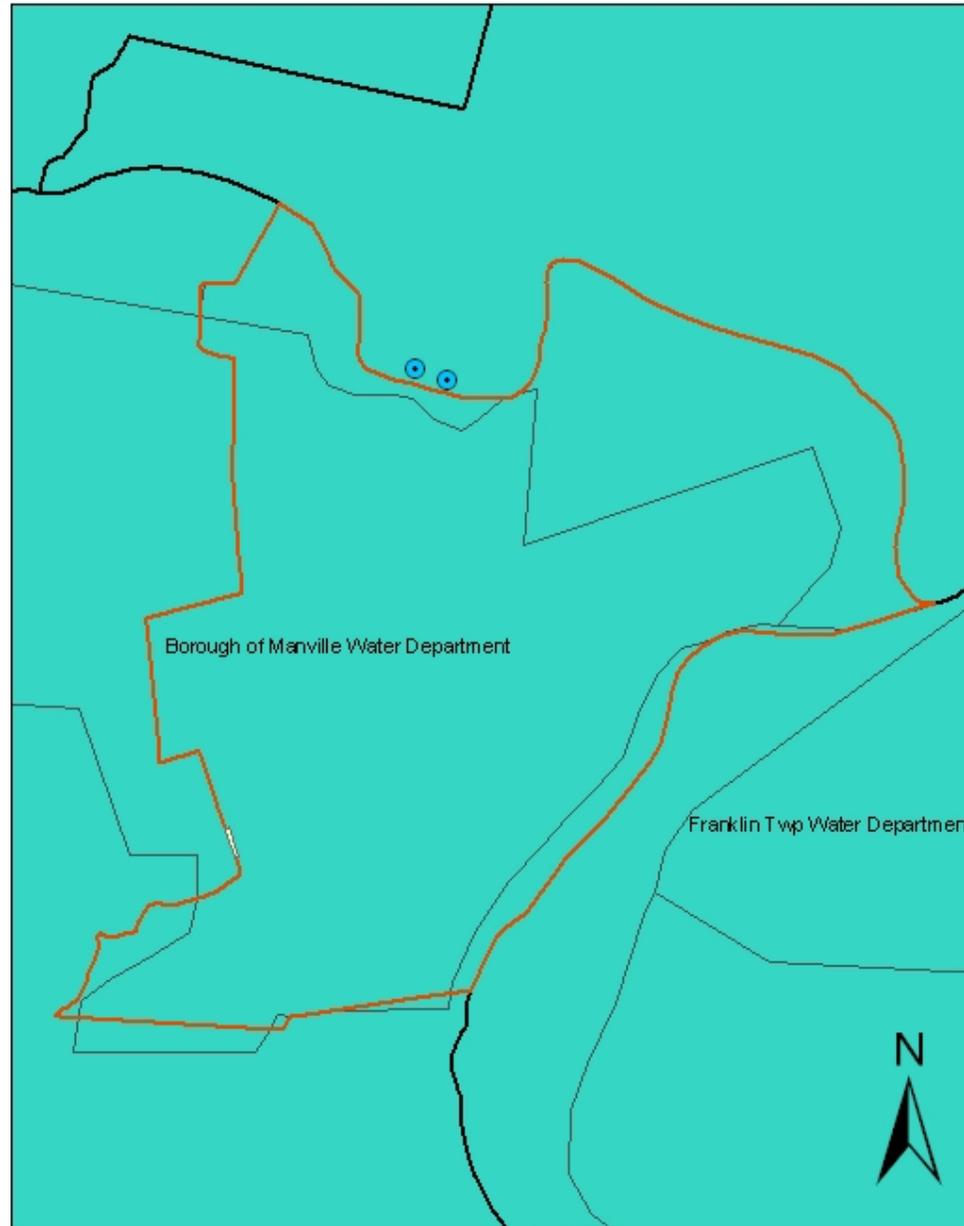
### Manville Land Use Land Cover

-  BARREN LAND
-  FOREST
-  URBAN
-  WATER
-  WETLANDS
-  Manville





# Manville Borough Water Purveyor Areas and Community Water Supply Wells



## Legend

-  Manville
-  Municipalities
-  Public Community Water Supply Wells
-  Water Purveyor 1998

0 2,125 4,250 8,500 Feet



## **Public Water System Deficit/Surplus**

### **ELIZABETHTOWN WATER COMPANY**

**PWSID:** 2004002  
**County:** Union  
**Last Updated:** 04/15/08

**Water Supply Firm Capacity:** 231.500 MGD

#### **Available Water Supply Limits**

	<b>Allocation</b>	<b>Contract</b>	<b>Total</b>
<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**

	<b>Current Peak</b>	<b>Date</b>	<b>Committed Peak</b>	<b>Total Peak</b>
<b>Daily Demand</b>	188.460 MGD	08/2006	1.423 MGD	189.883 MGD
<b>Monthly Demand</b>	5842.250 MGM	08/2006	22.056 MGM	5864.306 MGM
<b>Yearly Demand</b>	55119.090 MGY	2007	173.131 MGY	55292.221 MGY

#### **Water Supply Deficit or Surplus**

<b>Firm Capacity</b>	<b>Water Allocation Permit</b>
41.617 MGD	897.194 MGM
	9730.279 MGY

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

#### **Bureau of Water System and Well Permitting Comments:**

Well source capacity as reported is 16.50 MGD

#### **Bureau of Water Allocation Comments:**

Contractual commitments for the bulk sale of water may reduce any water supply surplus  
For more information concerning water supply deficit and surplus, please refer to:

▶ [Firm Capacity and Water Allocation Analysis](#) (Pdf Format)

▶ [Currently Effective Water Allocation Permits by County](#)

This report displays all effective water allocation permits issued by the department.

▶ [Pending Water Allocation Permits with Requests for a Hearing](#)

All pending water allocation permits with public hearing requests.

▶ [Water Allocation Permits Made Effective within a Selected Timeframe](#)

This report displays water allocation permits based on a specified date range.

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

Questions may also be sent to the [Division of Water Supply](#)

## Glossary of Terms

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

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

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

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

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

**Firm Capacity Deficit or Surplus = (Firm Capacity - Total Peak Daily Demand):** The difference between the Firm Capacity and the sum of the peak daily demand and committed daily demand. This is a measure of the physical ability to provide treated water at adequate pressure when the largest pumping unit or treatment unit is out of service. Negative values indicate a shortfall in Firm Capacity.

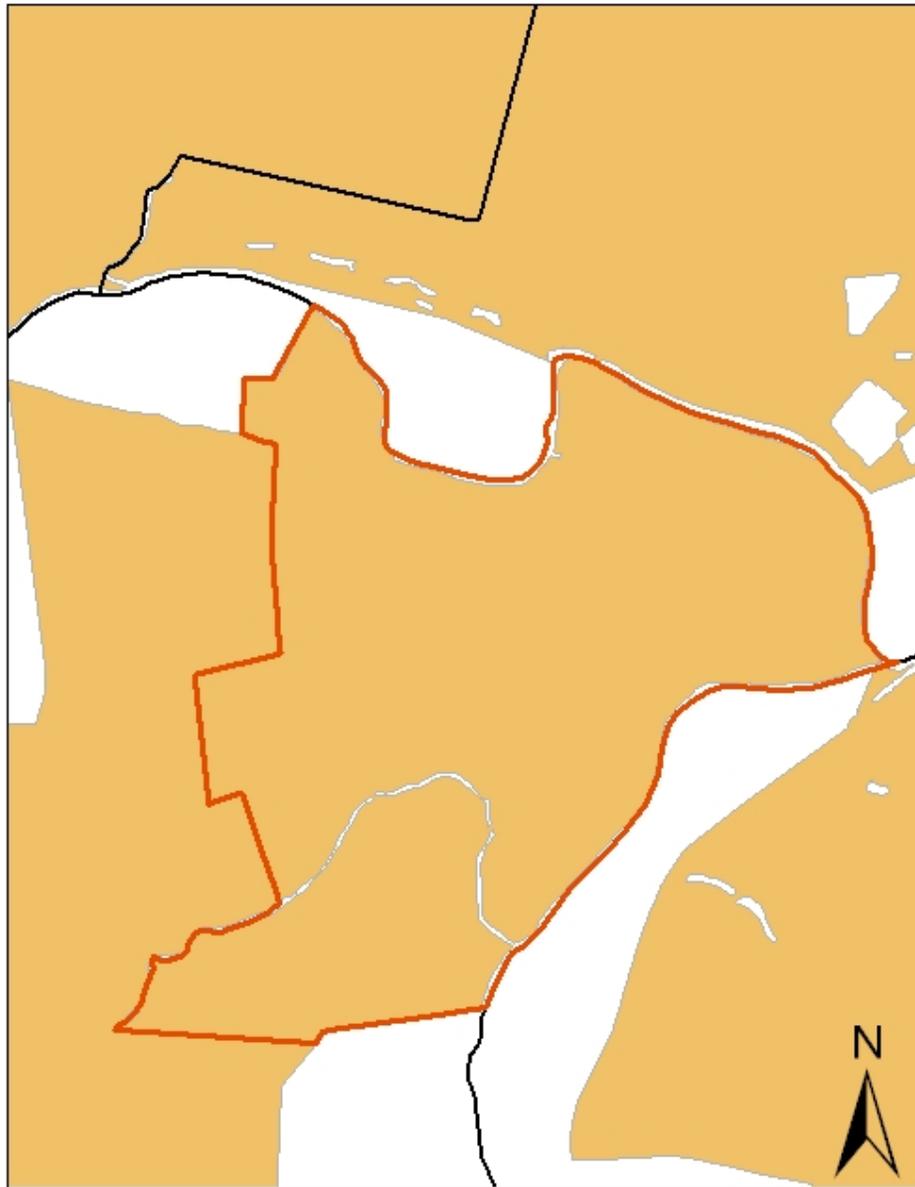
**Requested Allocation:** The amount of water the public water system is requesting as part of its water allocation permit application, including existing allocations. This value is represented in MGM and MGY.

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

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

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

# Manville Borough Sewer Service Areas



0 2,300 4,600 9,200 Feet



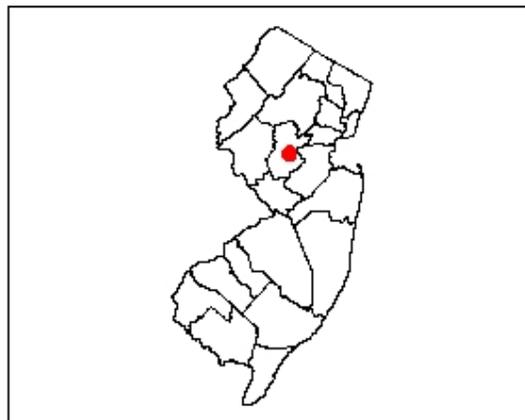
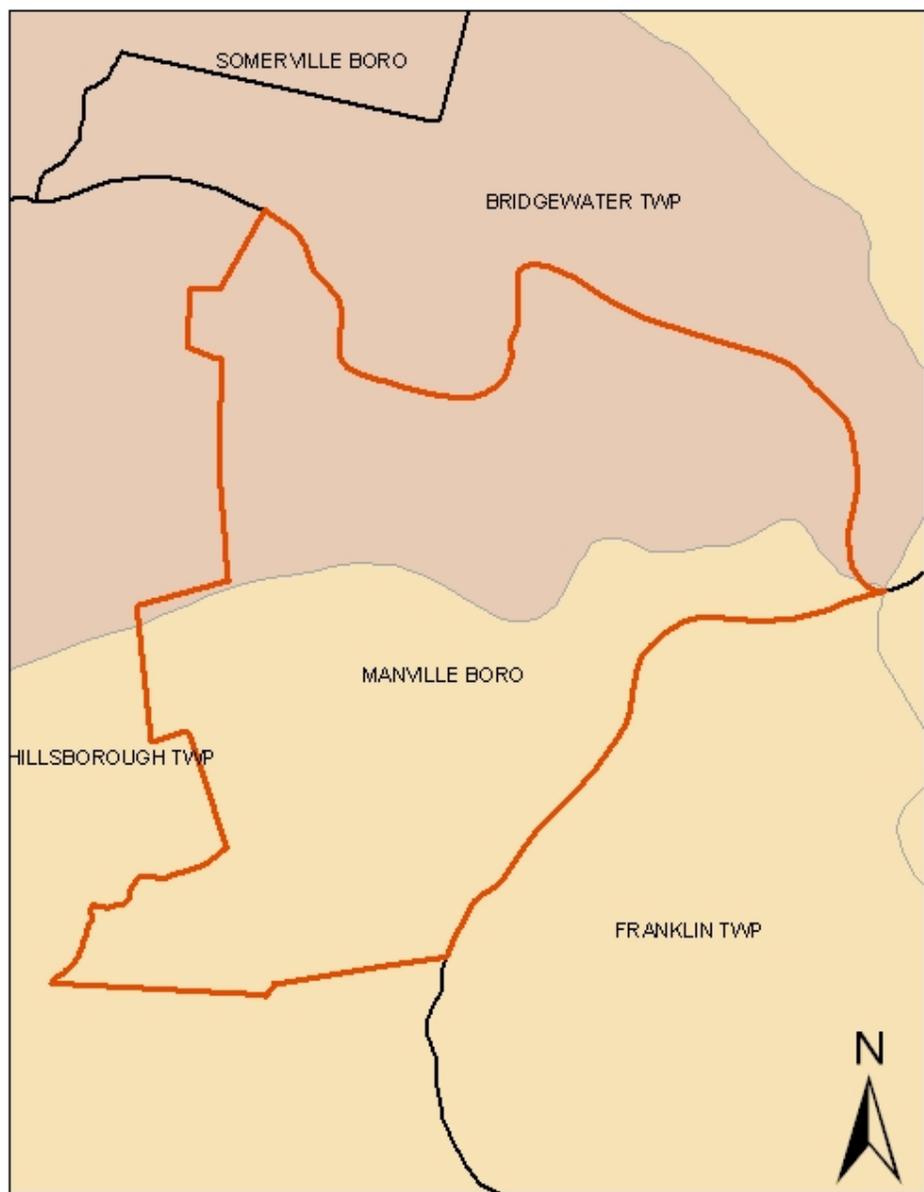
## Legend

-  Manville
-  Municipalities

## Sewer Service Areas - Existing TYPE

-  GW < 20,000; GW < 20K, < 2K
-  GWIND; Holding Tank
-  SW; SW/GW

# Manville Borough Residential Density at Nitrate Dilution Standard 2 ppm



## Legend

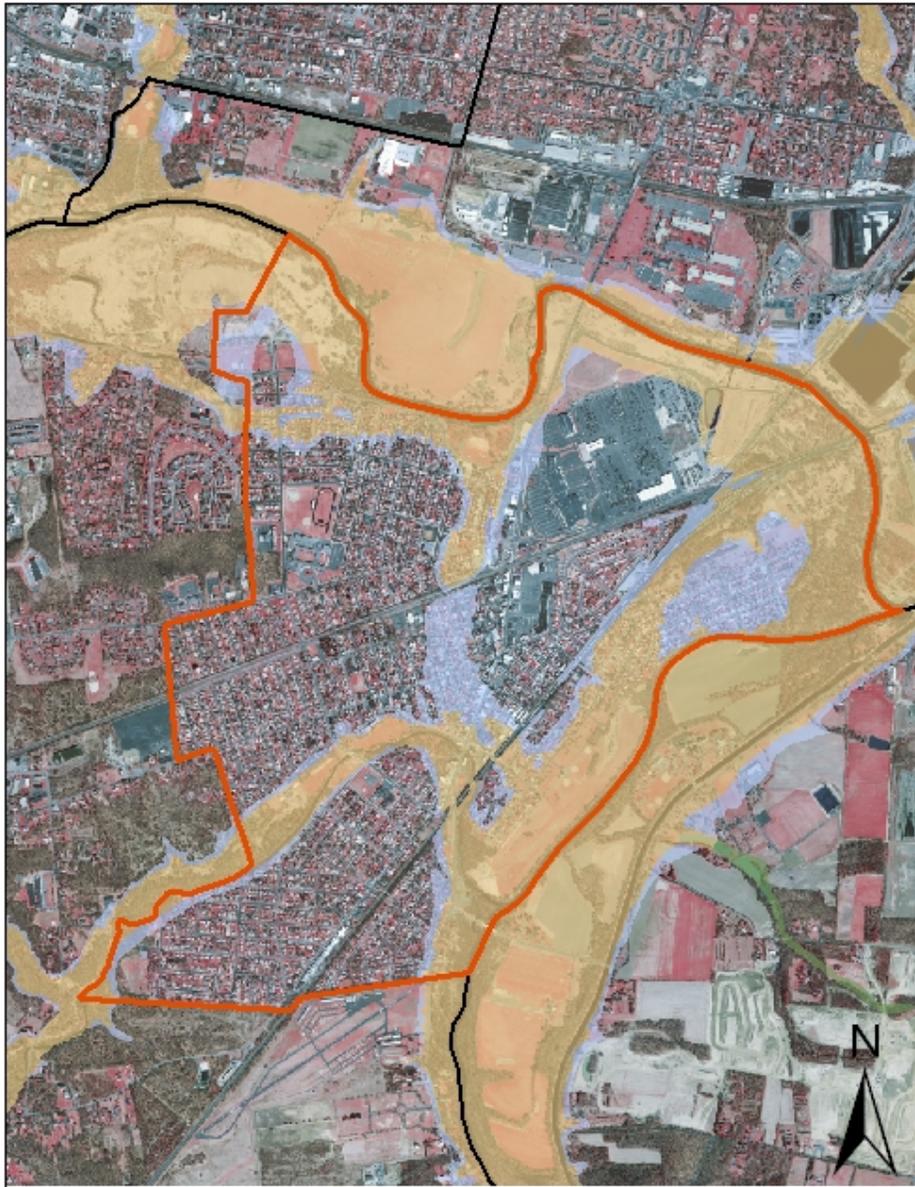
-  Manville
-  Municipalities

## NO3 Density Analysis by HUC11

### Descript

- 
-  3 acre lots
-  4 - 4.9 acre lots
-  5 - 5.9 acre lots
-  6 - 6.9 acre lots
-  7 - 7.9 acre lots
-  8 - 8.9 acre lots
-  9 - 9.9 acre lots
-  > 10 acre lots

# Manville Borough FEMA Flood Map Zones



## Legend

-  Manville
-  Counties
-  Municipalities
-  C1 Waters

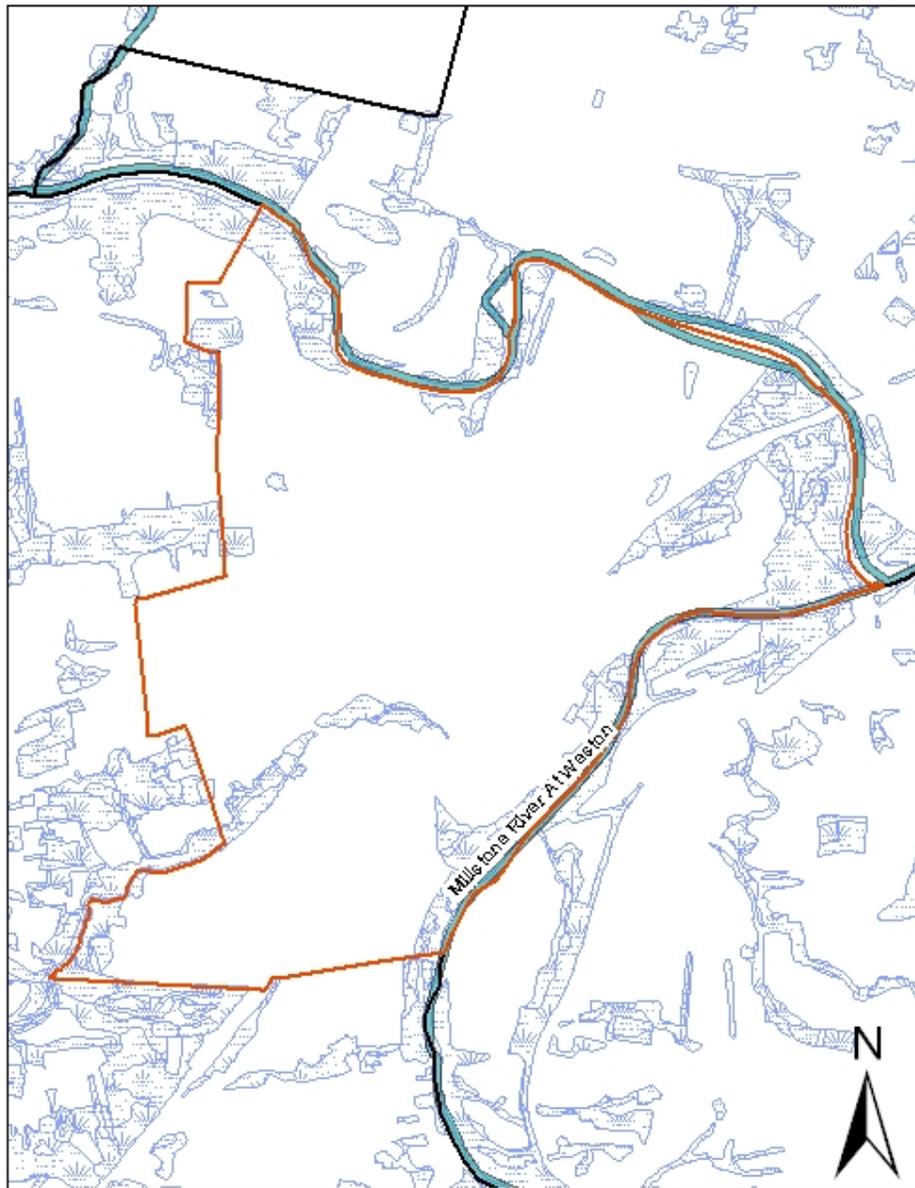
## NJFEMA

### ZONE

-  A
-  AE
-  X500

0 2,350 4,700 9,400 Feet

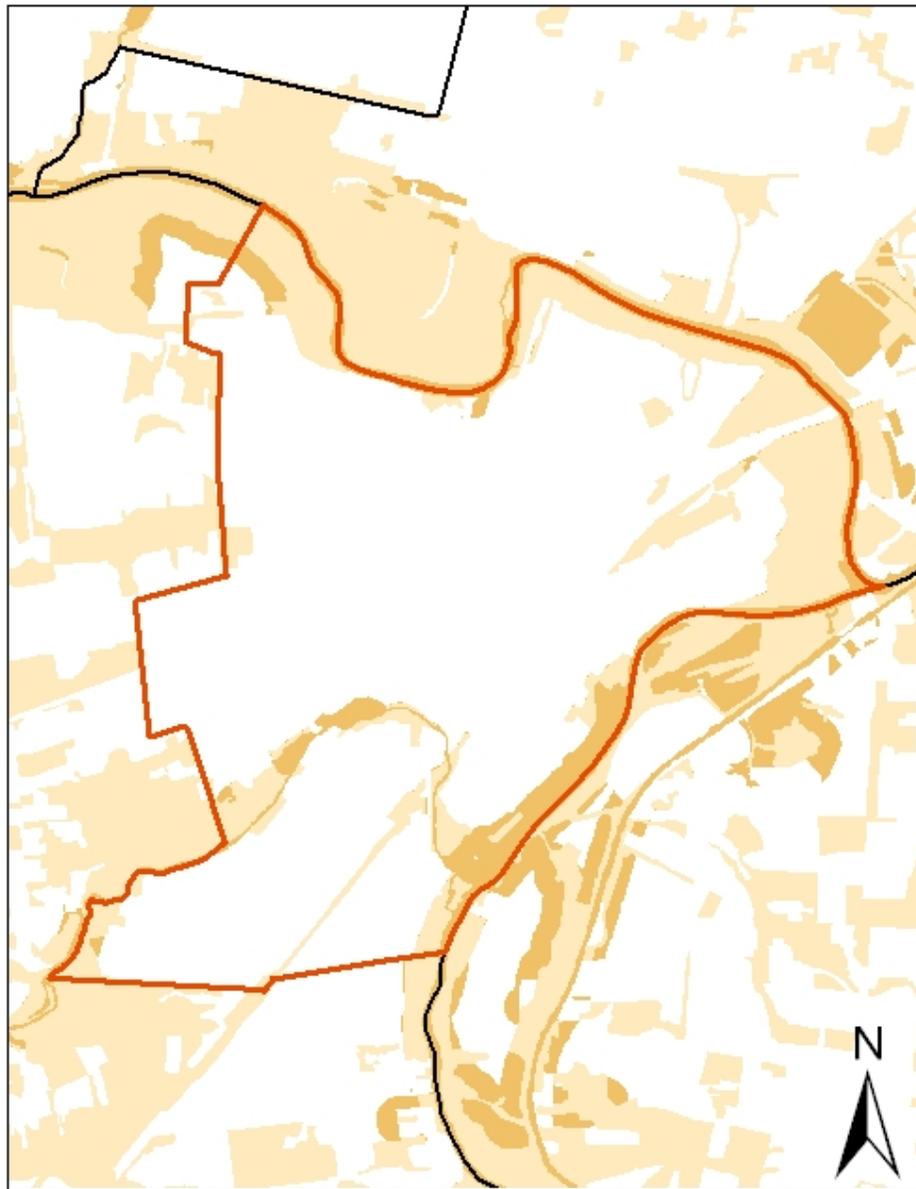
# Manville Borough TMDLs and Wetlands



## Legend

-  Manville
-  Municipalities
-  TMDL (Streams)
-  TMDL (Lakes)
-  Wetlands

# Manville Borough Threatened, Endangered, and Priority Species Habitat



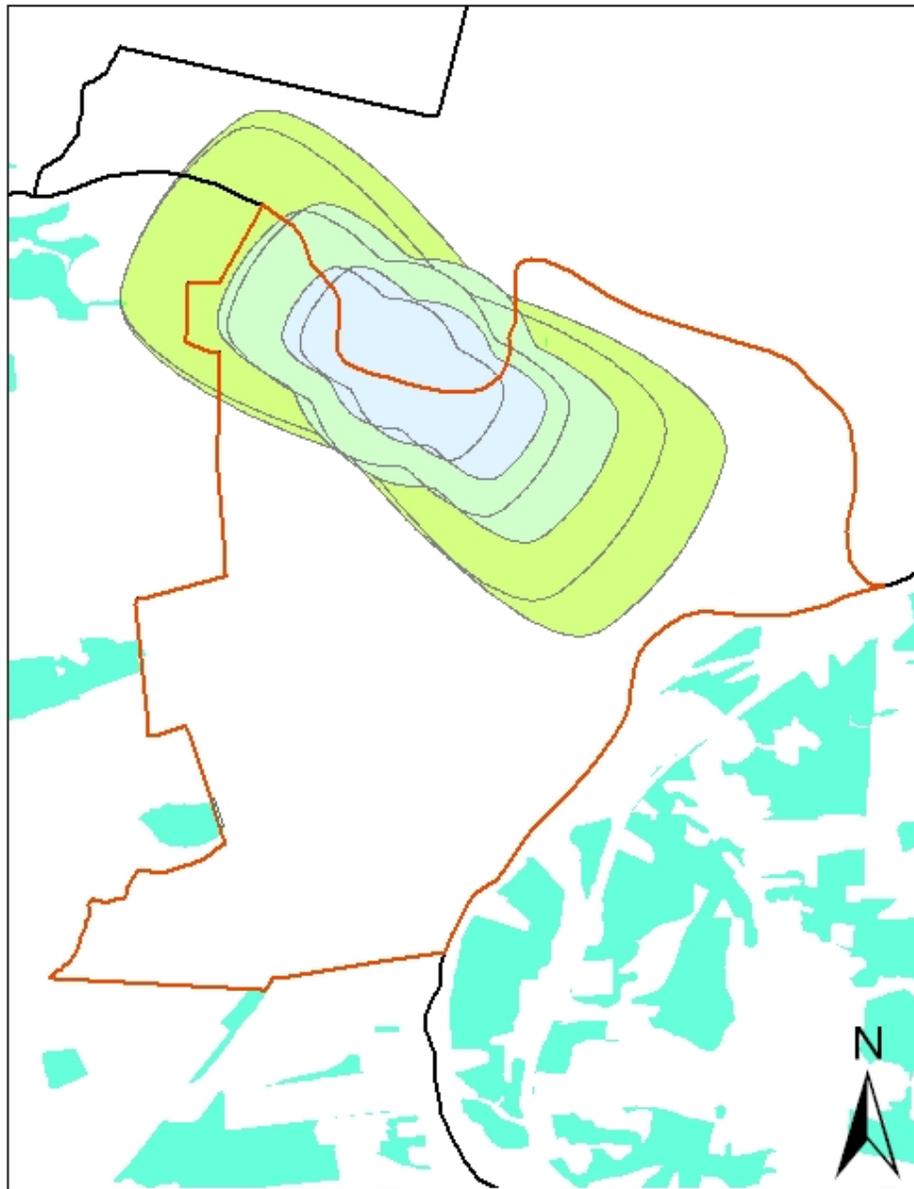
## Legend

-  Manville
-  Municipalities
-  Rank 2 Habitat
-  LandscapeProjectUpdate-Rank345-NJ
-  Natural Heritage Priority Sites

0 2,350 4,700 9,400 Feet



# Manville Borough Wellhead Protection Areas and Groundwater Recharge Areas

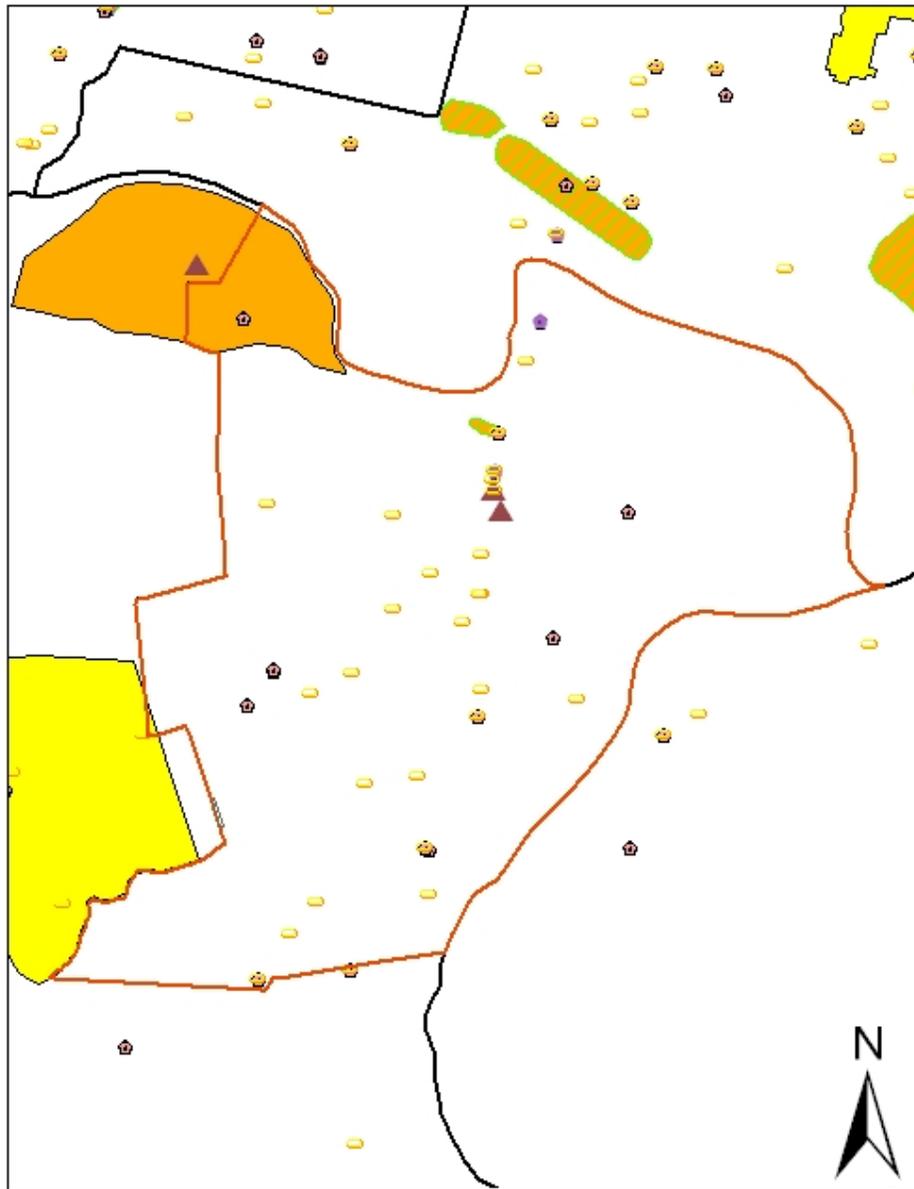


## Legend

- Manville
- Municipalities
- Tier 1
- Tier 2
- Tier 3
- gwr3\_ca\_muni

0 2,350 4,700 9,400 Feet

# Manville Borough Known Contaminated Sites and Groundwater Contamination Areas



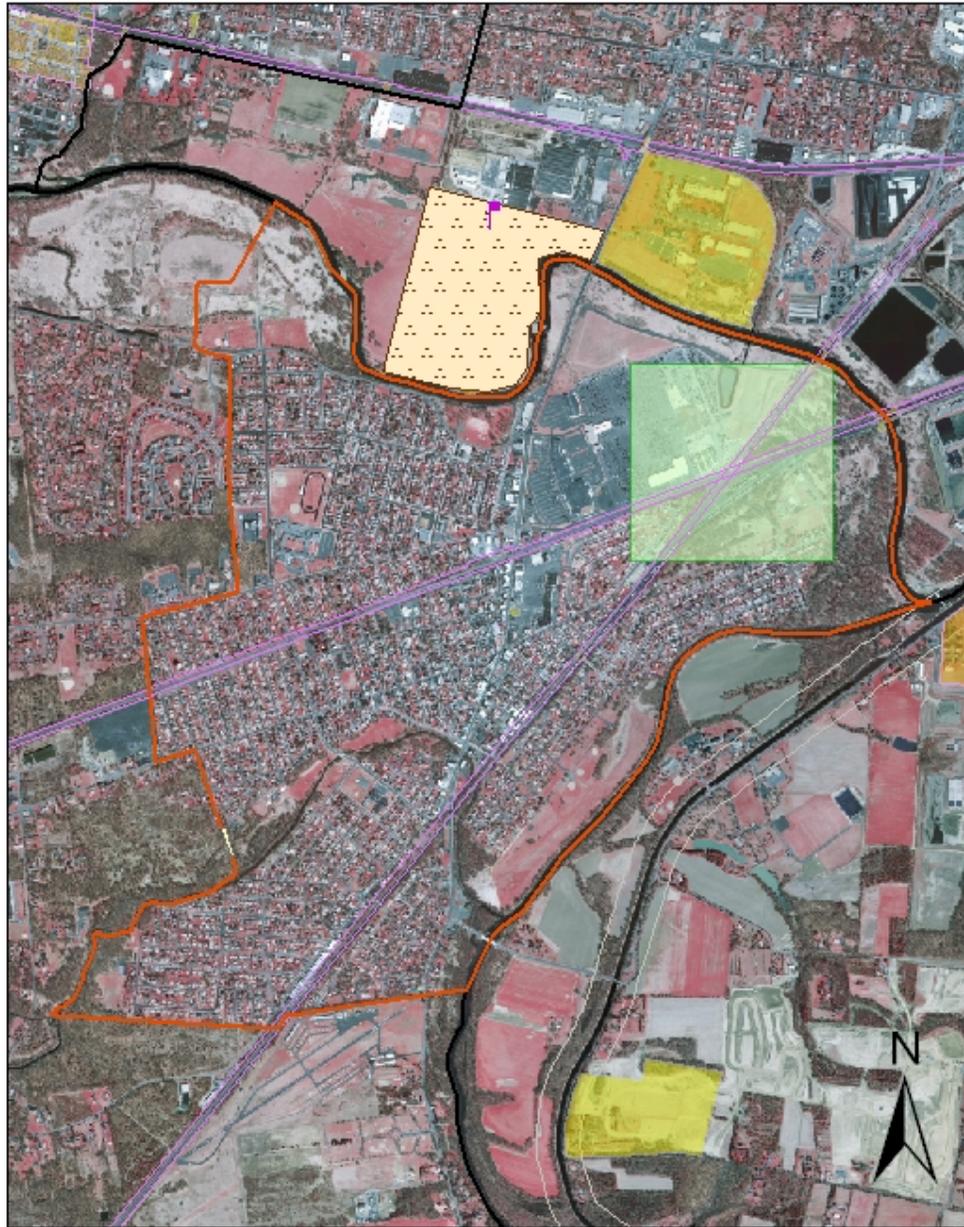
## Legend

-  Manville
-  Municipalities
-  UST Facilities
-  Solid Waste Landfills
-  Known Contaminated Sites
-  KCSL (Re-Evaluation Sites)
-  Chromate Waste Sites
-  Groundwater Contamination Areas (CKE)
-  Groundwater Contamination Areas (CEA\_VO)
-  Groundwater Contamination Areas (CEA)

0 2,350 4,700 9,400 Feet



# Manville Borough Historic Resources



## Legend

- Manville
- Municipalities
- National Historic Sites
- Historical Sites

## Historic Properties

### STATUS

- Eligible (HD)
- Eligible (Indv.)
- Identified
- Identified (HD)
- Identified (Indv.)
- Listed (HD)
- Listed (Indv.)

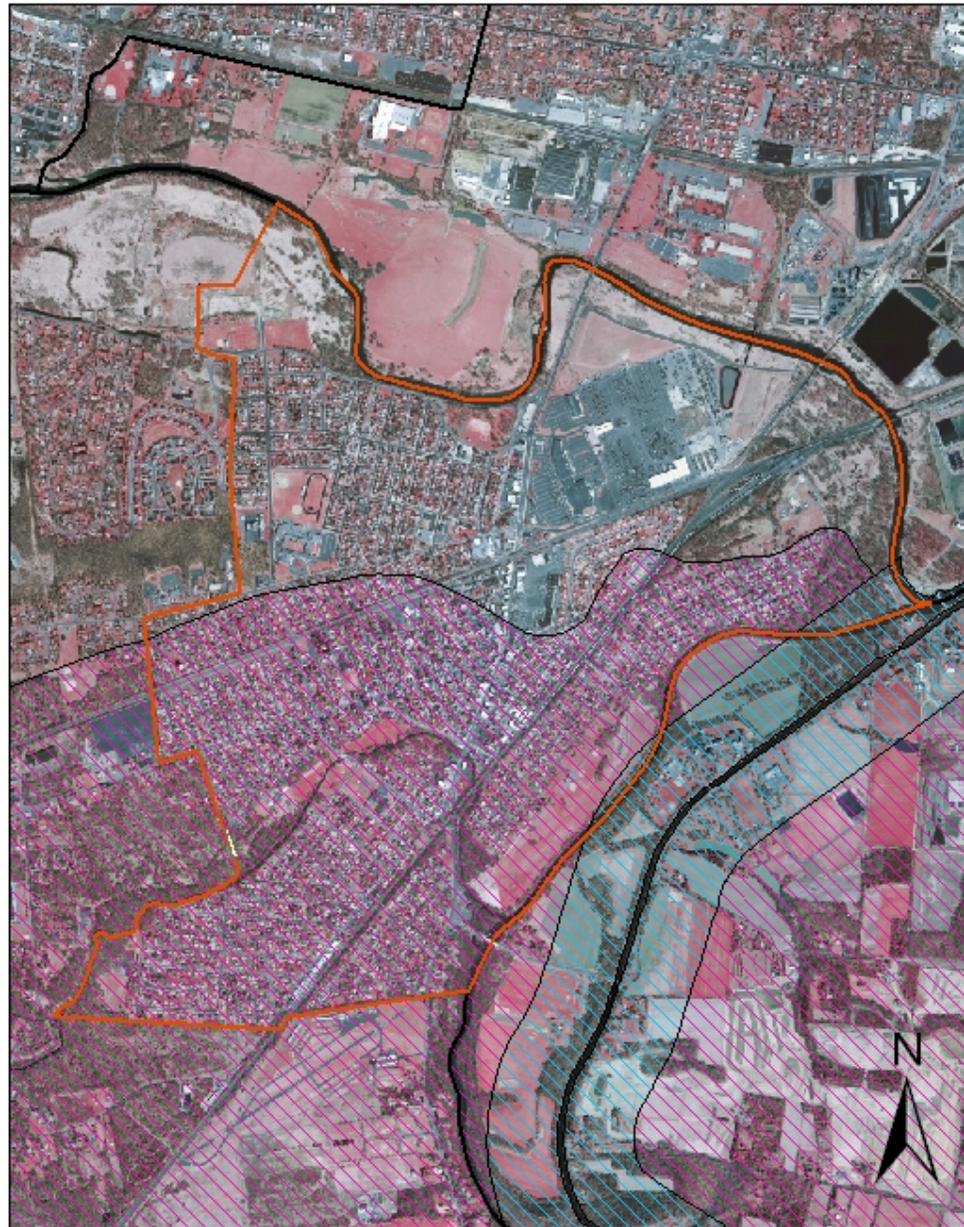
## Historic Districts

### STATUS

- Eligible
- Identified
- Listed
- Historic Archaeological Site Grid

0 2,200 4,400 8,800 Feet

# Manville Borough Delaware and Raritan Canal Commission Review Zones



## Legend

- Manville
- Municipalities

## Delaware and Raritan Canal Commission Review Zones

### ZONE

- A
- B
- Canal

0 2,200 4,400 8,800 Feet

## **NJDEP Office of Planning and Sustainable Communities**

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

### **Mission**

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

### **Background**

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

One of the eight goal areas is Sustainable Growth:

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

The first objective of this goal is:

“Incorporate sustainable growth and environmental protection criteria into state, regional and local planning.”

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

In a significant business practice improvement, DEP is also committed to implementing the Sustainable Growth goal by broadening the scope of its major project review process by requiring consideration and rewarding incorporating of green design the principles and practices.

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

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

**Office of Planning and Sustainable Communities**

401 E. State Street, 7 Floor East

P.O. Box 402

Trenton, NJ 08625-0402

Phone: (609) 341-5311

Fax: (609) 292-3268