

# **NJ Department of Environmental Protection**



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

for:

Hopewell Township, Cumberland County

*March 12, 2008*

*This document constitutes the Department of Environmental Protection's component of the State Opportunity and Constraints Assessment conducted as part of the Plan Endorsement process. This document should serve as a baseline to inform the rest of the Plan Endorsement process. This document provides a general overview of the Department's regulatory and policy concerns within Hopewell 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.*

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## 2002 Land Use/Land Cover

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

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

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

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

Type	Acres
AGRICULTURE	12,222.31
BARREN LAND	64.86
FOREST	2337.21
URBAN	1896.01
WATER	796.62
WETLANDS	2460.22
BEACHES	0

Attachments:

- Map- Land Use/Land Cover in Hopewell

## 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 Hopewell Township is based upon the best data readily available to DEP at the time of this analysis. This data should be used by Hopewell Township to inform its community vision and planning processes.*

There is one Public Water Supply System in Hopewell Township. A map showing the system location within the municipality is provided with this report. Since the Township is working with the City of Bridgeton to supply water to the Suburban Planning Areas and Regional Center, additional information has also been provided on Bridgeton's main Public Water Supply System.

PWSID	Water System Name	Population Served	Water System Type
0607001	HOPEWELL PLACE SENIOR APTS	100	Community
0601001	BRIDGETON CITY WATER DEPT	22,770	Community

Hopewell Place Senior Apts - the Deficit/Surplus table is not available for this community water system.

Bridgeton City Water Dept - the Deficit/Surplus table for the Bridgeton City Water Dept system shows that there is surplus capacity based on current data provided to the Department. However, not all of this capacity may be available to Bridgeton Township and/or Hopewell 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>. Not all Public Water Supply Systems will have associated Deficit/Surplus tables available on the Department's website. The website currently contains public water systems that have a demand greater than 100,000 gallons of water per day and have had some water main extension activity since January 1, 2002. If you require safe demand and firm capacity information not available on this web site please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for water allocation information please contact the Bureau of Water Allocation at 609-292-2957.

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

There are also multiple Non-Community Water Systems serving specific uses Hopewell Township.

PWSID	Water System Name	Population Served	Water System Type
0607321	FISHERS FOOD CENTER	500	Noncommunity Transient
0607320	HOPEWELL CUSTARD	9	Noncommunity Transient
0607320	HOPEWELL CUSTARD	70	Noncommunity Transient
0607323	HOPEWELL TWP MUNICIPAL BLDG	24	Noncommunity Transient
0607323	HOPEWELL TWP MUNICIPAL BLDG	55	Noncommunity Transient
0607324	PRIOLOS PLAZA	7	Noncommunity Transient
0607324	PRIOLOS PLAZA	70	Noncommunity Transient
0607309	DUTCH NECK VILLAGE	16	Noncommunity Transient
0607309	DUTCH NECK VILLAGE	230	Noncommunity Transient
0607302	HOPEWELL CREST SCHOOL	600	Noncommunity Non-Transient
0607311	DEVEROUX FOUNDATION	57	Noncommunity Non-Transient
0607304	CAMP SHEPPARDS MILL	50	Noncommunity Transient
0607305	CAMP SHEPPARDS MILL	25	Noncommunity Transient
0607307	CUMBERLAND MUTUAL INS CO	93	Noncommunity Non-transient
0607322	CUMBERLAND MUTUAL FIRE INSURANCE-WELL#2	93	Noncommunity Non-transient
0607310	FIRST CHURCH OF NAZARINE	122	Noncommunity Non-transient
0607312	MAINLINE DELI	3	Noncommunity Transient
0607312	MAINLINE DELI	10	Noncommunity Transient
0607312	MAINLINE DELI	200	Noncommunity Transient
0607314	HOPEWELL SUB & PIZZA SHOP	18	Noncommunity Transient
0607314	HOPEWELL SUB & PIZZA SHOP	350	Noncommunity Transient
0607314	HOPEWELL SUB & PIZZA SHOP	400	Noncommunity Transient
0607319	GREEN OLIVE RESTAURANT	13	Noncommunity Transient
0607319	GREEN OLIVE RESTAURANT	250	Noncommunity Transient
0607300	CUMBERLAND COUNTY MANOR	588	Noncommunity Non-transient

Attachments:

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

## Wastewater Treatment

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

There is one DEP-regulated wastewater facility serving Hopewell Township: the Cumberland County UA or Cohansey River Basin Sewage Treatment Plant - NJPDES permit number NJ0024651. The annual average flow for this facility in 2006 was 3.2962 mgd; the permitted flow for this facility is 7 mgd. As such, this indicates that approximately 3.7 mgd of the permitted flow for this facility is available to support development within the service area. Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 12,346 new residential units. The Cohansey River Basin Sewage Treatment Plant service area covers Bridgeton City, parts of Upper Deerfield Township and the Sewer Service Areas within Hopewell Township. In their Self-Assessment report, Hopewell Township indicated that they estimated population growth is an additional 1,609 people by 2013. The Department assumes three persons per household, meaning the addition of 537 residential units will be needed in the Township by 2013. As indicated by the Surplus/Deficit Table, the Cohansey River Basin Sewage Treatment Plant has enough capacity available to sustain this new residential development; however, the capacity available is not necessarily allocated to Hopewell Township.

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

Hopewell Township falls within three (3) HUC11 watersheds - Stow Creek (HUC11-02040206070), Cohansey River (below Cormwell Run) (HUC11-02040206080) and Cohansey River (above Sunset Lake) (HUC11-02040206090). The septic density for areas outside the sewer service area within the Township is indicated in the Septic Density Comparison Chart that follows.

### Septic Density Comparison Chart

HUC-11	5.2 mg/L nitrate limit	2 mg/L nitrate limit
Stow Creek (02040206070)	2.6 acres/ residential unit	6.7 acres/ residential unit
Cohansey River (below Cormwell Run) (02040206080)	2.7 acres/ residential unit	6.9 acres/ residential unit
Cohansey River (above Sunset Lake) (02040206090)	2.6 acres/ residential unit	7.0 acres/ residential unit

### Water Quality Management Plan - Sewer Service Area Mapping

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

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

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

Hopewell Township is part of the Cohansey River Basin Wastewater Management Plan (WMP) prepared by the Cumberland County Utilities Authority, and it is currently under review by the DEP Bureau of Watershed Regulation. WMPs that are not approved prior to adoption of the proposed WQMP rule (expected adoption date of May 21, 2008) may be required to meet the standards and criteria of the amended rule.

Attachments:

- Map- Sewer Service Areas in Hopewell Township
- Map- Nitrate Dilution Concentrate Target by HUC11

## **Environmental Constraints Analysis**

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

### **Regulated Environmental Constraints**

*Wetlands and Category One Waters are environmental constraints currently regulated by DEP. Hopewell 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.

Land Use/Land Cover data based on 2002 aerial photography identifies approximately 2460.22 acres of wetlands in Hopewell Township. It should be noted that these wetlands are based on aerial photo interpretation and are **not** appropriate for use in determining the true extent of wetlands on a specific site.

- Floodprone areas

Flood Hazard Areas - The recently adopted Flood Hazard Area Control Act rule (NJAC 7:13) regulates development within the floodplain and the Riparian Zone (50 - 300 feet adjacent to the water). Under this rule all projects that are adjacent to a “regulated water” that is designated C1 or is upstream within the HUC 14 of a “regulated water”, regardless of whether they are mapped, require a Flood Hazard Area Control Act permit. Hopewell Township has expressed in its Self-Assessment Report that it plans to develop and adopt a Stream Corridor Protection Plan that should also address the buffers and permits required by the Flood Hazard Area Control Act.

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

Attachments:

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

## Environmental Constraints to Avoid

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

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

- **Threatened & Endangered Species Habitat**

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

ENSP has developed the Landscape Project to identify and systemically map the habitat most critical for New Jersey's fish and wildlife populations. This tool is being used to gauge healthy ecosystems and help identify areas appropriate for protection while giving citizens and local government 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 11,246 acres of threatened and endangered species habitat in Hopewell Township. This habitat supports a wide range of species, from the federally listed Bald Eagle, Savannah Sparrow, Grasshopper Sparrow, and Osprey. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in Hopewell Township (including habitat for priority species – Rank 2 – that are discussed below in the 'Environmental Constraints to

Consider' section). Please note that this data is based on DRAFT Landscape Project mapping that the Department expects to publicly release in the spring of 2008.

- Total Maximum Daily Loads (TMDL)

A TMDL represents the assimilative or carrying capacity of a waterbody, taking into consideration point and nonpoint sources of pollutants of concern, natural background, and surface water withdrawals. A TMDL quantifies the amount of a pollutant a water body can assimilate without violating a state's water quality standards and allocates that load capacity to known point and nonpoint sources in the form of waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, a margin of safety (MOS) and, as an option, a reserve capacity (RC). The TMDLs that encompass Hopewell Township Cumberland County are nonpoint source driven.

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 Hopewell Township, Cumberland County

<b>TMDL Name</b>	<b>Parameter</b>	<b>Percent Reduction</b>	<b>Document</b>	<b>EPA Approval</b>
Mary Elmer Lake	Phosphorus	91%	TMDL for Phosphorus to Address 13 Eutrophic Lakes in the Lower Delaware Water Region	September 30, 2003
Sunset Lake	Phosphorus	92%	TMDL for Phosphorus to Address 13 Eutrophic Lakes in the Lower Delaware Water Region	September 30, 2003
Cohansey River at Seeley Station ID No. 01412800	Fecal Coliform	66%	TMDL for Fecal Coliform to Address 27 Streams in Lower Delaware Water Region	September 29, 2003
Cohansey River at Seeley Station ID No. 01412800	Phosphorus	92%	TMDL for Phosphorus to Address 5 streams in the Lower Delaware Water Region	September 20, 2005
Barrett Run at Bridgeton Station ID No. 01413013	Phosphorus	91%	TMDL for Phosphorus to Address 5 streams in the Lower Delaware Water Region	September 20, 2005

A TMDL is considered "proposed" when NJDEP publishes the TMDL Report as a proposed Water Quality Management Plan Amendment in the New Jersey Register (NJR) for public review and comment. A TMDL is considered to be "established" when NJDEP finalizes the TMDL Report after considering comments received during the public comment period for the proposed plan amendment and formally submits it to EPA Region 2 for thirty (30)-day review and approval. The TMDL is considered "approved" when the NJDEP-established TMDL is approved by EPA Region 2. The TMDL is considered to be "adopted" when the EPA-approved TMDL is adopted by NJDEP as a water quality

management plan amendment and the adoption notice is published in the NJR. The Department is in the process of adopting each of the approved TMDLs affecting Hopewell Township to the appropriate management plan and does not anticipate that there will be significant, if any change to TMDL implementation plans upon its adoption.

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.

TMDL Documents for the Lakes and Streams in Hopewell can be found at:  
[http://www.nj.gov/dep/watershedmgt/DOCS/TMDL/Coastal\\_Pathogen\\_TMDLs\\_WMA17.pdf](http://www.nj.gov/dep/watershedmgt/DOCS/TMDL/Coastal_Pathogen_TMDLs_WMA17.pdf)  
and  
[http://www.nj.gov/dep/watershedmgt/DOCS/TMDL/lowerdel\\_tmdl092807.pdf](http://www.nj.gov/dep/watershedmgt/DOCS/TMDL/lowerdel_tmdl092807.pdf)

Please visit the Department's [TMDL website](http://www.state.nj.us/dep/watershedmgt/tmdl.htm) at:  
<http://www.state.nj.us/dep/watershedmgt/tmdl.htm>

Attachments:

- Map—Threatened, Endangered & Priority Species Habitat
- Map—TMDL Streams and Lakes in Hopewell Township

## Environmental Constraints to Consider

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

- **Groundwater Recharge Areas**

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

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

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

There are approximately 1,767.13 acres of high volume groundwater recharge areas located within Hopewell Township.

- **Well Head Protection Areas**

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

Well Head Protection Areas (WHPA) are mapped areas calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the

horizontal extent of ground water captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. The confined wells have a fifty foot radius delineated around each well that defines the well head protection area, which must be acquired and controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1).

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

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

Public Community Water Supply Well Head Protection Area delineations are described in [Well Head Delineations List](#).

There are approximately 2335 total acres of WHPA in Hopewell Township.

- 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 6,497 acres of Priority Species Habitat located within Hopewell Township. 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:

- Map - Groundwater Recharge Areas and Well Head Protection Areas

## Contaminated Areas Considerations

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

### Known Contaminated Sites List

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

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

There are two active known contaminated sites in Hopewell Township.

Active					
Site ID	PI Number	County	Municipality	PI Name	Line1 Address
9462	001824	Cumberland	Hopewell Twp	DURHAMS AUTO REPAIRS (C2)	620 SHILOH PK
65048	G000026179	Cumberland	Hopewell Twp	HOPEWELL TOWNSHIP SANITARY LANDFILL	TRENCH RD

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

## Landfills

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

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

- The Department currently identifies two Solid Waste Landfills in Hopewell Township- the Hopewell Township Sanitary Landfill and the Stow Creek Sanitary Landfill #2.

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 (Note: This map does not show the extent of contamination, therefore a buffer should be placed around the site for planning purposes.)

## Preserved Lands and Historic Resources

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

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

### Preserved Lands

Based on the Department's records, the following two tables represent all of the preserved open space lands located in Hopewell Township. The total acreage of these lands is approximately 1,053 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

<u>BLOCK</u>	<u>LOT</u>	<u>NAME</u>	<u>APPROX. ACRES</u>
194	34	COHANSEY RIVER	8.9
89	28	COHANSEY RIVER	48.4
83	4	COHANSEY RIVER	17.1
89	27	COHANSEY RIVER	135.2
89	30	COHANSEY RIVER	7.5
89	29	COHANSEY RIVER	134.4
89	25.01	COHANSEY RIVER	69.5
86	6	COHANSEY RIVER	19.7
89	31	COHANSEY RIVER	6.4
86	7	COHANSEY RIVER	4.2
89	35	COHANSEY RIVER	14.7
86	7	COHANSEY RIVER	0.4
86	7.01	COHANSEY RIVER	6.5
86	7.01	COHANSEY RIVER	6.9
86	3.03	COHANSEY RIVER	1.9

86	3.06	COHANSEY RIVER	2.2
86	3.07	COHANSEY RIVER	2.5
86	3.09	COHANSEY RIVER	2.3
86	3.08	COHANSEY RIVER	2.2
89	34	COHANSEY RIVER	5.0

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

<u>BLOCK</u>	<u>LOT</u>	<u>APPROX. ACRES</u>	<u>NAME</u>	<u>OWNER</u>	<u>TYPE</u>
93	2	64.19	UNLABELED	UPPER DEERFIELD TWP	M
93	31	33.14	UNLABELED	UPPER DEERFIELD TWP	M
20	12	100.42	UNLABELED	HOPEWELL TWP	M
97	7	37.98	UNLABELED	UPPER DEERFIELD TWP	M
34	1	57.51	UNLABELED	HOPEWELL TWP	M
30	1.01	1.00	UNLABELED	BRIDGETON CITY	M
305	3	0.46	UNLABELED	BRIDGETON CITY	M
282	2	39.51	UNLABELED	BRIDGETON CITY	M
304	2	5.99	UNLABELED	BRIDGETON CITY	M
304	3	24.76	UNLABELED	BRIDGETON CITY	M
282	3	6.31	UNLABELED	BRIDGETON CITY	M
71	17, 17.01	77.19		NJCF	NP
67	40.03	23.97	TAX# 0607-05-710	WEST CUMBERLAND LITTLE LEAGUE	NP

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

### Conservation Easements

<u>BLOCK</u>	<u>LOT</u>	<u>NAME</u>	<u>APPROX. ACRES</u>
84	3	COHANSEY RIVER	56.6
83	5	COHANSEY RIVER	15.3

### Historic Resources

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

The most effective way to protect historic resources and promote our architectural and archaeological heritage is through local stewardship. When implemented at the local level, historic preservation activities may take the form of master plan elements, comprehensive zoning ordinances, regulated code enforcement, or public education and

outreach programs. Local initiatives have far reaching effects on preserving historic resources for future generations. The HPO provides technical assistance, training, and other resources for historic preservation to New Jersey's communities through a variety of programs.

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

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

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

<b>Site</b>	<b>ID #</b>	<b>Details</b>
Elwell Farm Archaeological Site (28-Cu-76) (ID# 1047)	(ID# 1047)	SHPO Opinion: 11/6/1979

## **Regional Planning Areas**

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

### **COASTAL AREA FACILITY REVIEW ACT (CAFRA)**

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

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

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

that they are consistent with the Department's rules and regulations as well as reach the Department's goal, to bring environmental planning and resource management in coastal areas to a higher level. The Department's guidelines for areas within the CAFRA region are attached to this document.

Attachments:

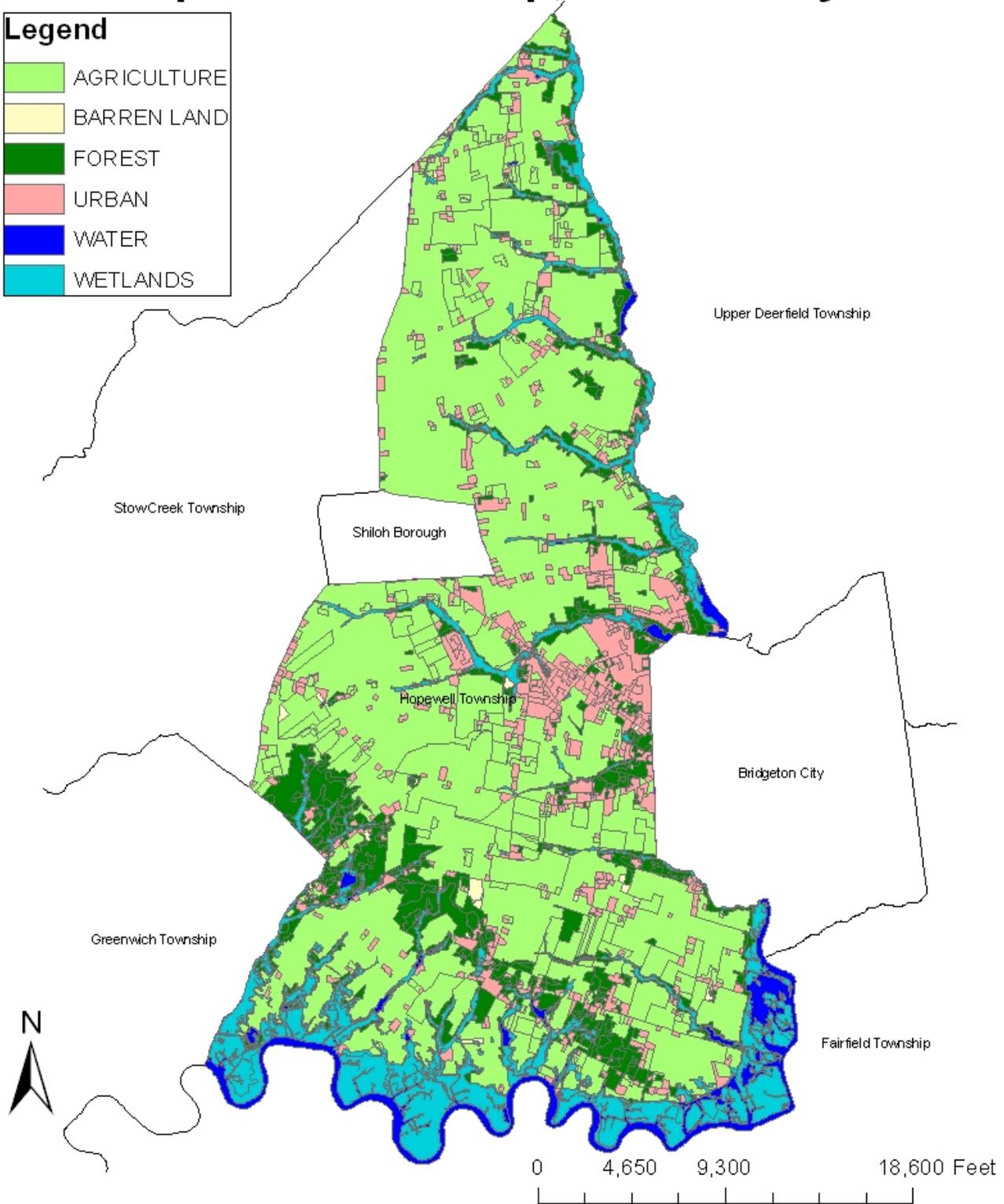
- Map—CAFRA Area Map

## Summary of Major Issues

1. The Township will need to identify how it plans to secure enough water to support the growth planned for its TDR receiving area. From its Self-Assessment report, the Township has explained that public water will also serve Planning Area 2, the center and receiving area, but this is in the planning stages. This will need to be finalized prior to the endorsement of the Township's petition.
2. The Township's wastewater service will also need to be secured during the plan endorsement process. Hopewell needs to work with the County, the Cumberland County Utilities Authority and the City of Bridgeton to ensure that allocation of wastewater treatment capacity is sufficient to support the future population of Hopewell's TDR receiving area. Additionally, the Township will need to show how they are going to meet the groundwater quality protection standard of 2 mg/L (or parts per million, or ppm) nitrate level requirement as prescribe by N.J.A.C. 7:9C-1.8(a).
3. As indicated in their Self-Assessment Report, Hopewell Township will need to work with the Department to develop a Stream Corridor Protection Ordinance and a Habitat Protection Program, which may result in a Habitat Conservation Plan.
4. For those areas in the CAFRA zone, the Township will need to meet the Coastal Zone Management policies for Coastal Planning Areas.
5. The Department will most likely recommend a Well Head Protection Ordinance for areas within Well Head Protection Areas.
6. The Township should use this opportunity to address changes in Land Use by developing a new land-use plan for their Master Plan using the information gathered for the Opportunity and Constraints Report, the TDR plan, and Community Visioning. This should also include provisions for the protection of Historic Resources (noted as very important to Hopewell in the ERI), which could prevent the need to develop a Historic Element to the Master Plan.

## **Maps and Additional Information**

# Land Use/Land Cover 2002 Hopewell Township, New Jersey



## Public Water System Deficit/Surplus

### BRIDGETON CITY WATER DEPARTMENT

**PWSID:** 0601001  
**County:** Cumberland

**Last Updated:** 09/13/06

► [Glossary of Terms Listed Below](#)

**Water Supply Firm Capacity:** 5.616 MGD

#### Available Water Supply Limits

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

#### Water Demand

	<b>Current Peak</b>	<b>Date</b>	<b>Committed Peak</b>	<b>Total Peak</b>
<b>Daily Demand</b>	3.015 MGD	08/2005	0.068 MGD	3.083 MGD
<b>Monthly Demand</b>	93.472 MGM	08/2005	1.054 MGM	94.526 MGM
<b>Yearly Demand</b>	949.090 MGY	2005	8.273 MGY	957.363 MGY

#### Water Supply Deficit or Surplus

<b>Firm Capacity</b>	<b>Water Allocation Permit</b>
2.533 MGD	75.474 MGM
	542.637 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:

Most recent approved permit: WCP060002 Thunderbolt Raceway

#### Bureau of Water Allocation Comments:

no comments provided

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

- [Firm Capacity and Water Allocation Analysis](#) (Pdf Format)
- [Currently Effective Water Allocation Permits by County](#)  
This report displays all effective water allocation permits issued by the department.
- [Pending Water Allocation Permits with Requests for a Hearing](#)  
All pending water allocation permits with public hearing requests.
- [Water Allocation Permits Made Effective within a Selected Timeframe](#)  
This report displays water allocation permits based on a specified date range.

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

292-2957.

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

[back to search results](#)

## Glossary of Terms

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

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

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

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

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

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

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

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

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

**Water Supply Deficit or Surplus = (Total Water Allocation Permit Limit- Total Peak Demand):** The monthly and/or annual limitations of an Allocation Permit minus the sum of the monthly and/or annual demands recorded based on the water use records plus the

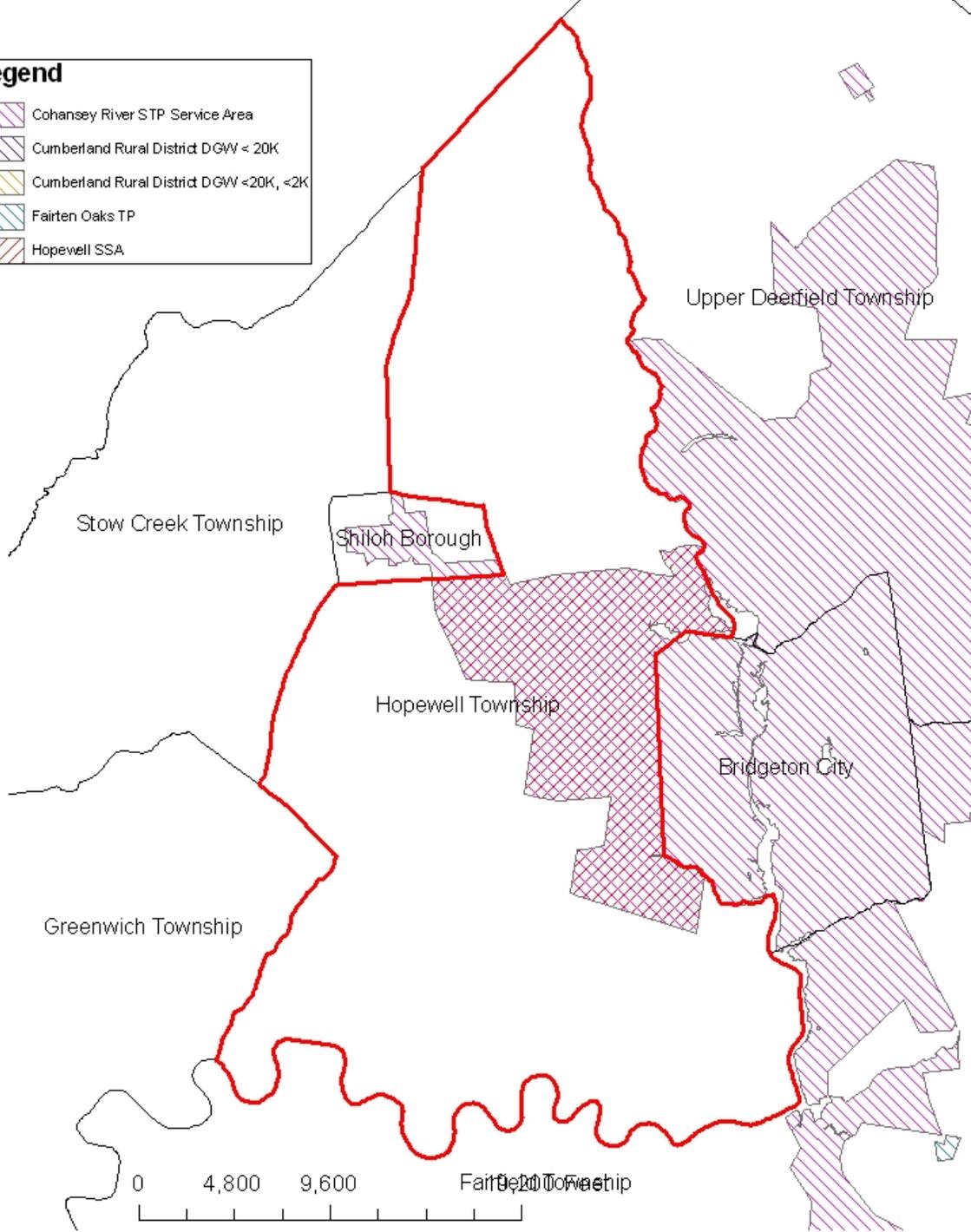
monthly and/or annual demand projected for approved but not yet constructed projects. Negative values indicate a shortfall in diversion privileges or available supplies through bulk purchase agreements.

# Sewer Service Areas Hopewell Township, New Jersey

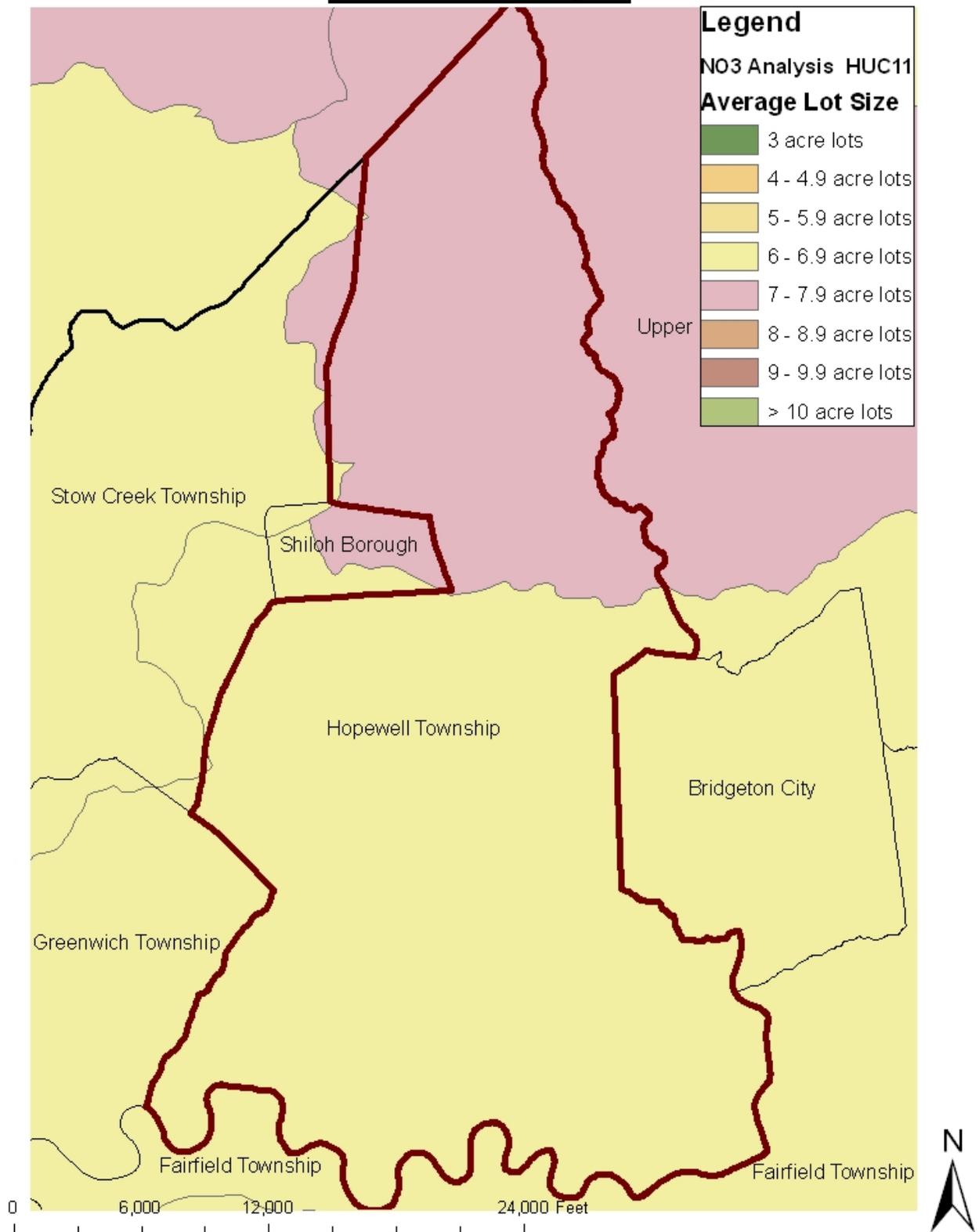


**Legend**

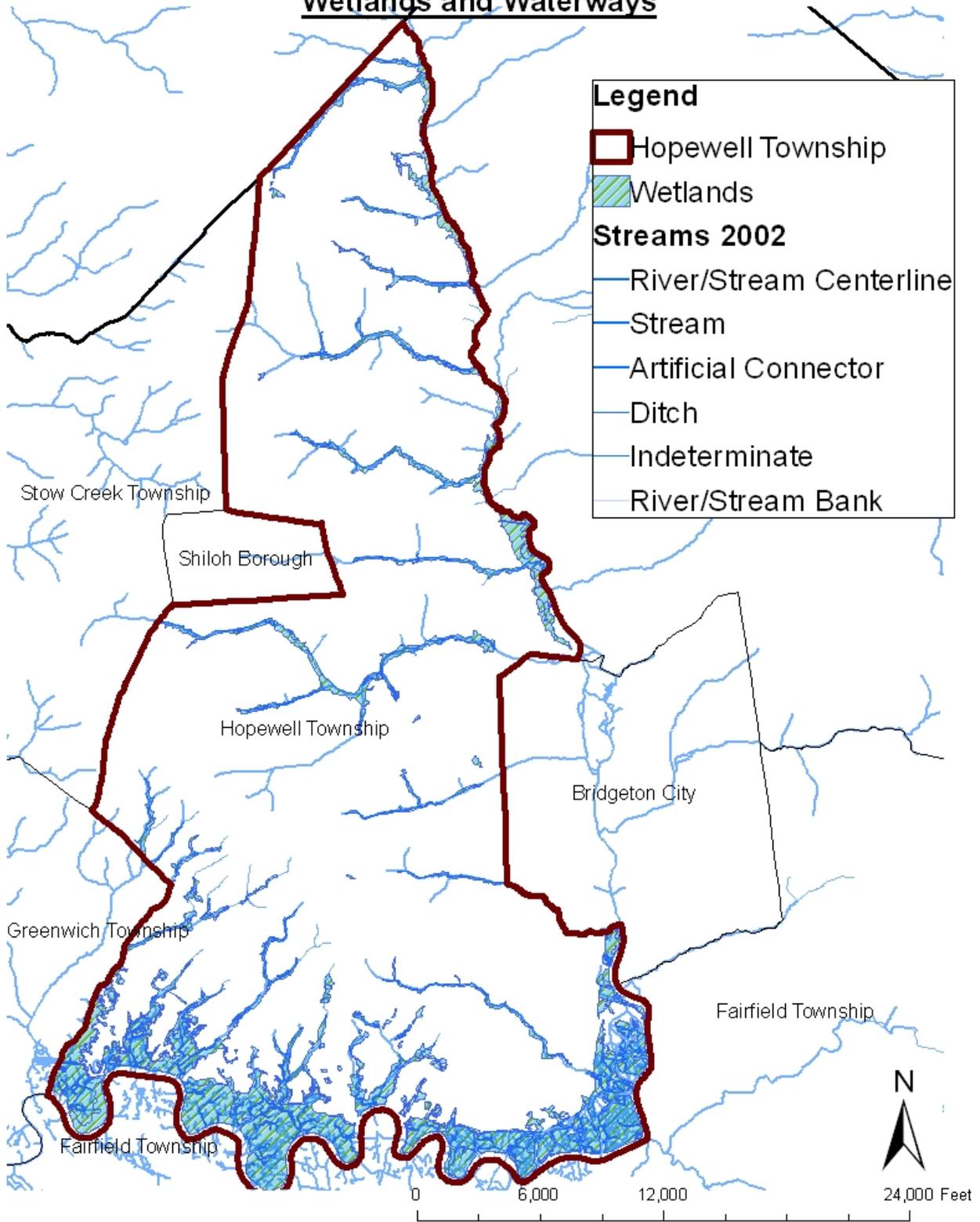
- Cohansey River STP Service Area
- Cumberland Rural District DGW < 20K
- Cumberland Rural District DGW <20K, <2K
- Fairten Oaks TP
- Hopewell SSA



# Hopewell Township, Cumberland County NO3 HUC11 Analysis



**Hopewell Township, Cumberland County**  
**Wetlands and Waterways**



# Hopewell Township, Cumberland County FEMA Flood Zones

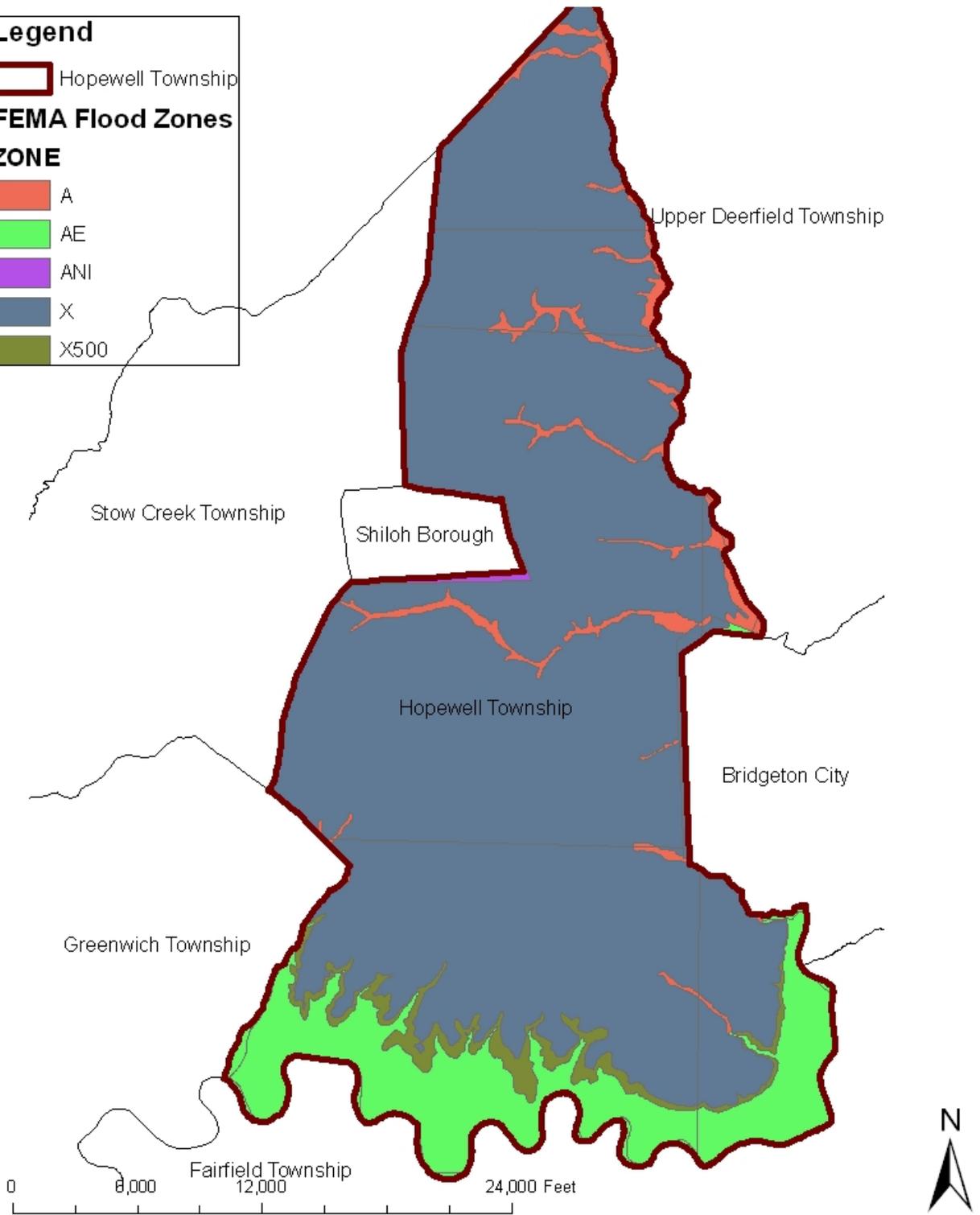
**Legend**

 Hopewell Township

**FEMA Flood Zones**

**ZONE**

-  A
-  AE
-  ANI
-  X
-  X500



## **Flood Hazard Areas**

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

- **Zone A**  
Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone AE**  
Areas subject to inundation by the 1-percent-annual chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

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

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

### **What is Localized Flooding?**

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

Such floods are often referred to as:

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

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

**Flood Watch:**

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

**Flash Flood Watch:**

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

**Flood Warning:**

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

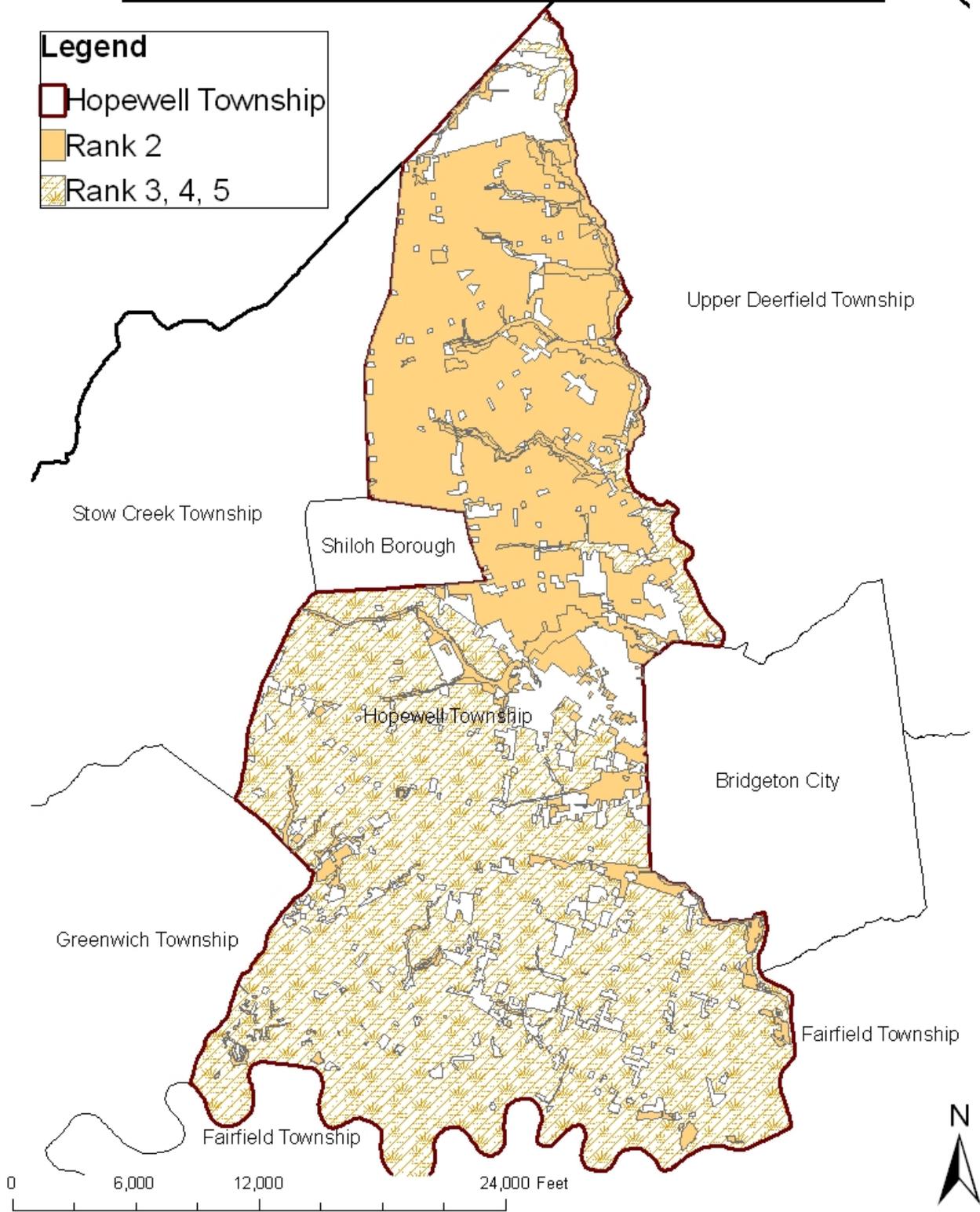
**Flash Flood Warning:**

A flash flood is occurring; seek higher ground on foot immediately.

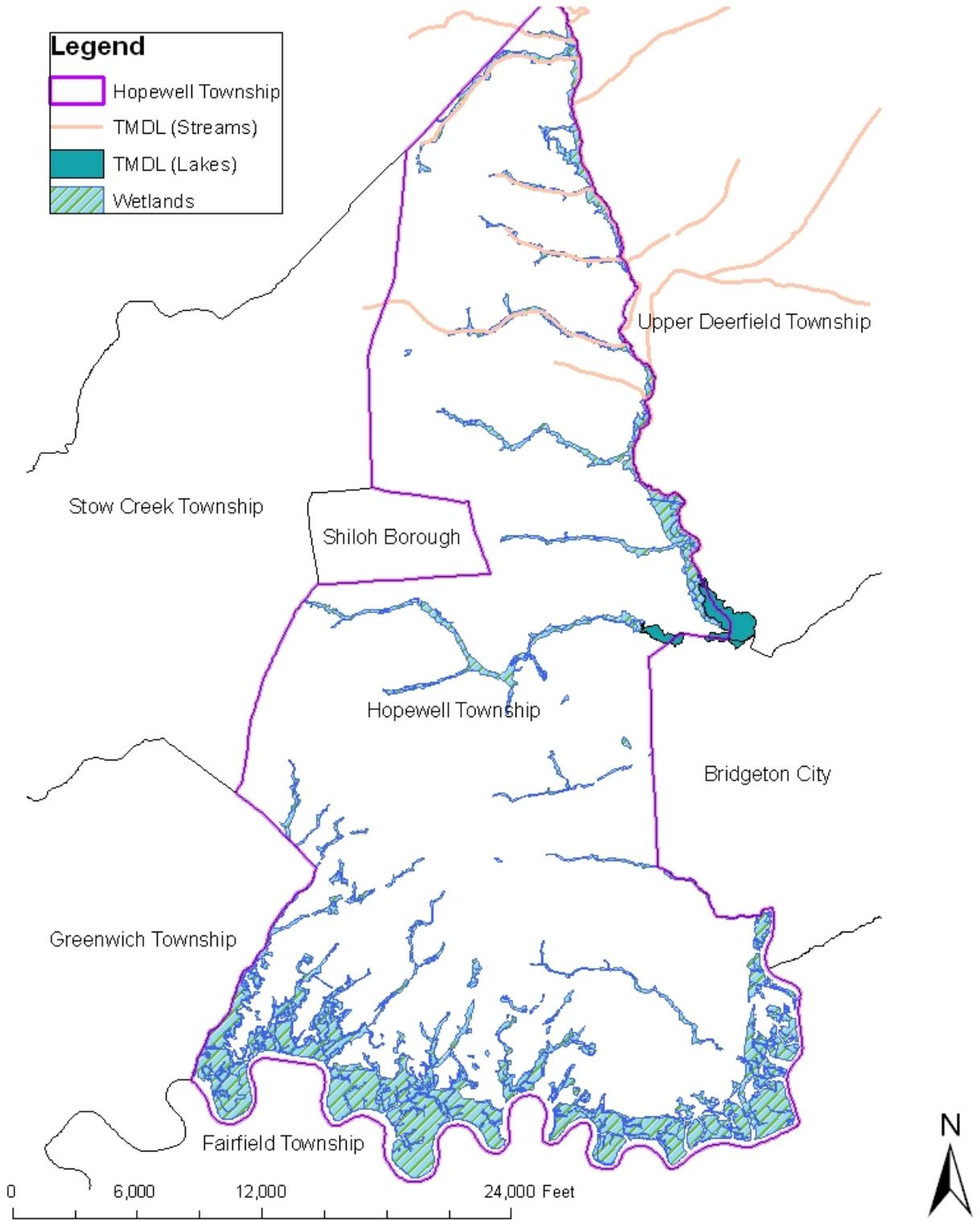
**Hopewell Township, Cumberland County**  
**Threatened, Endangered, and Priority Species Habitat**

**Legend**

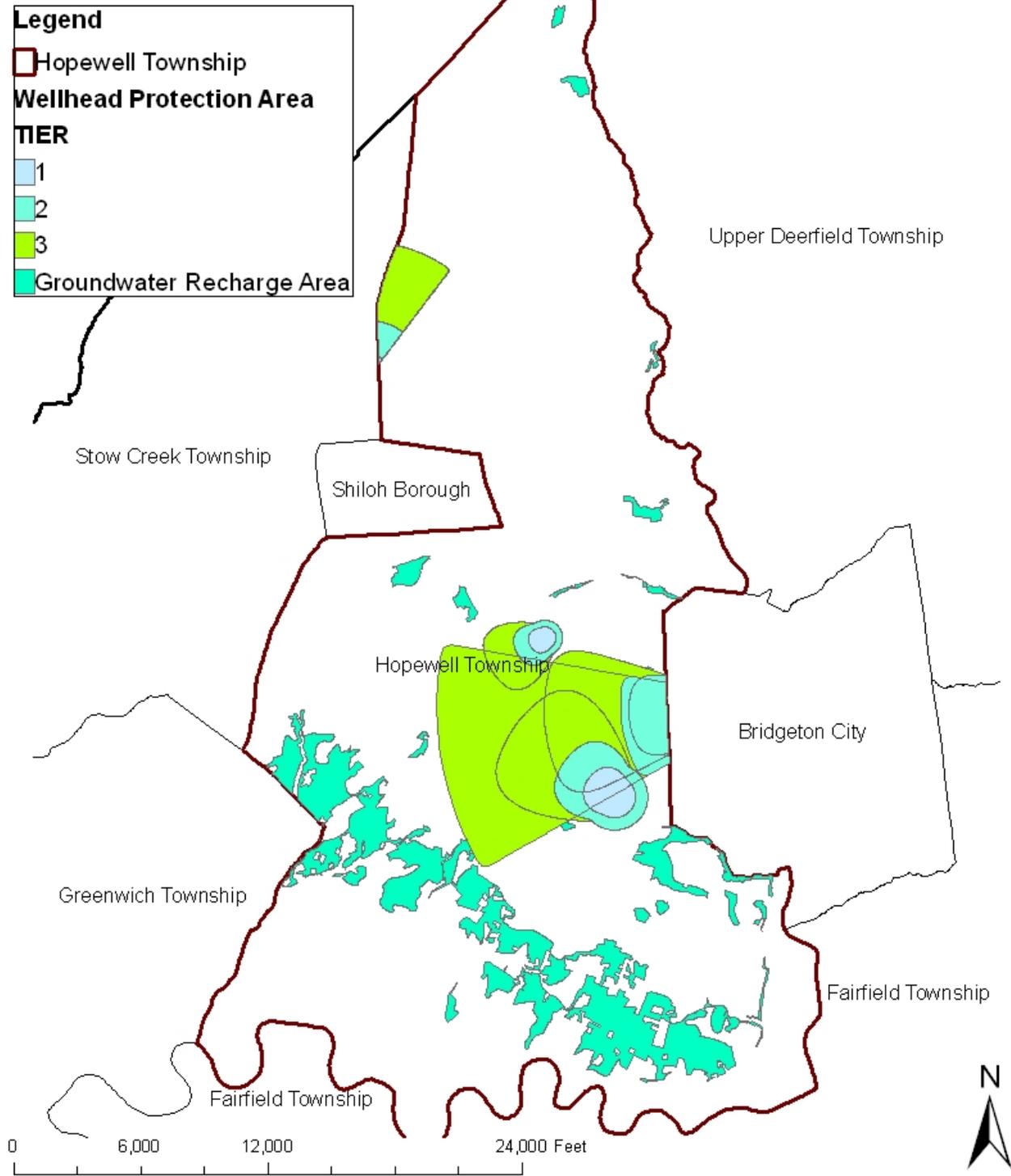
-  Hopewell Township
-  Rank 2
-  Rank 3, 4, 5



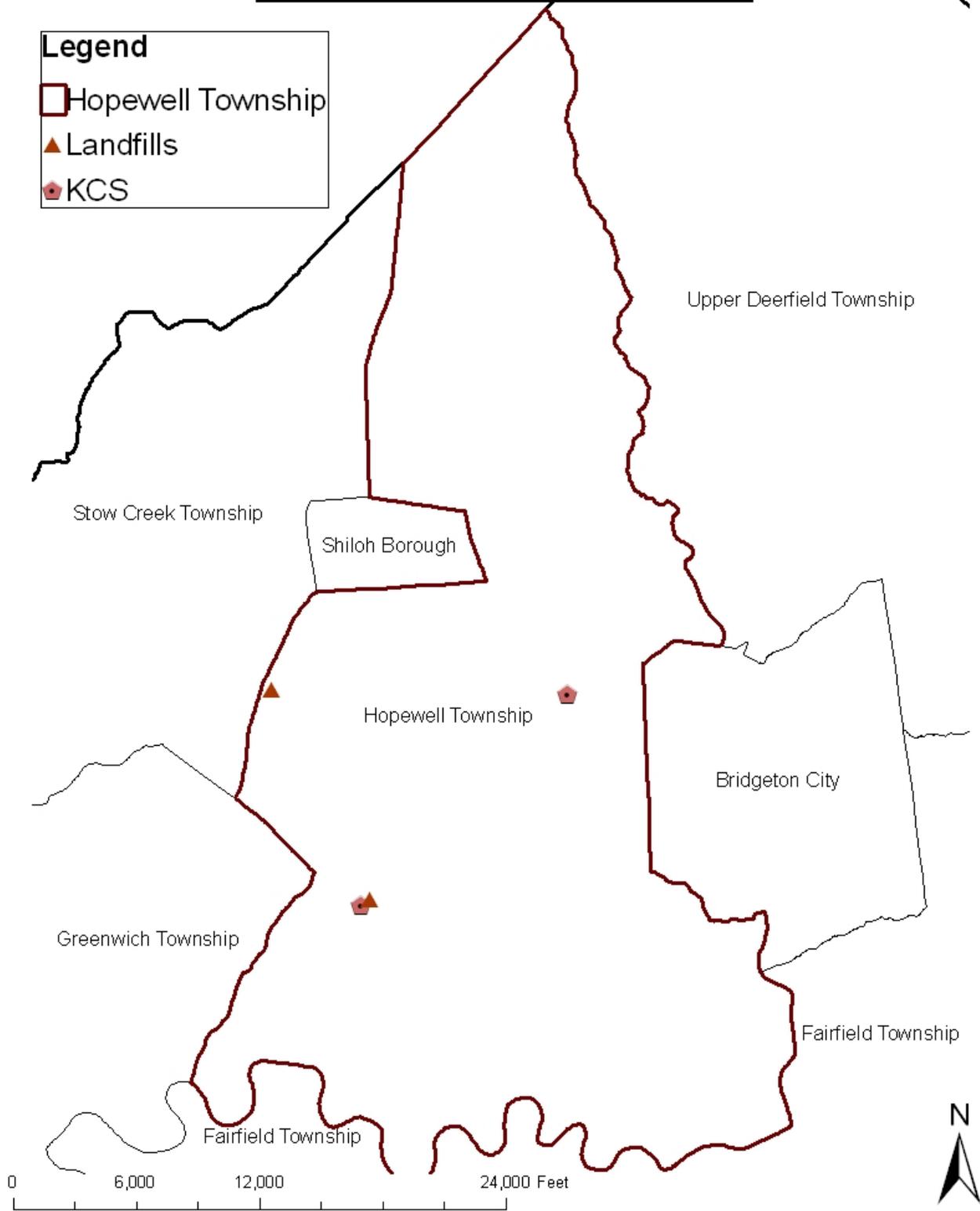
# Hopewell Township, Cumberland County TMDL Water Bodies and Wetlands



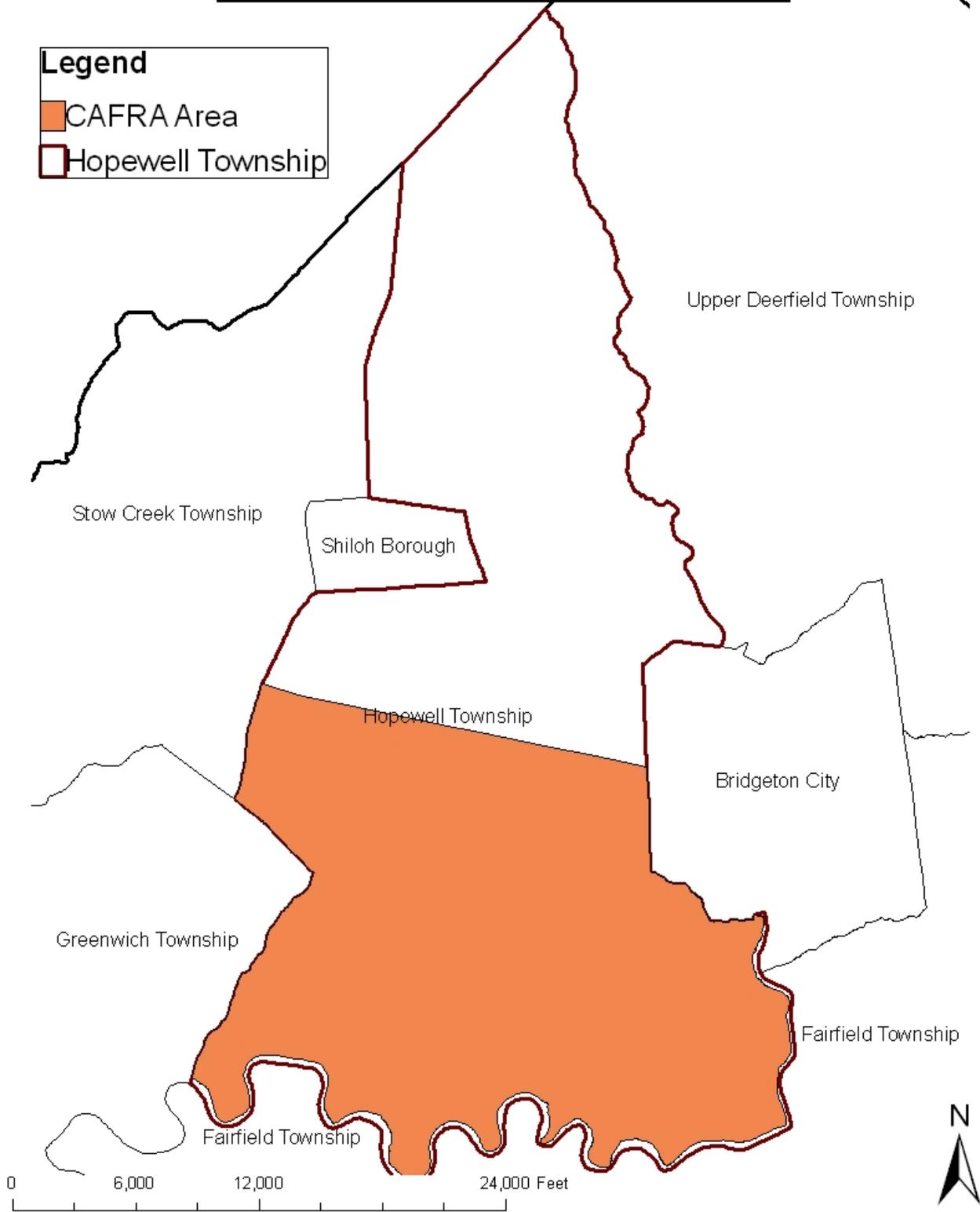
# Hopewell Township, Cumberland County Groundwater Recharge and Well Head Protection Areas



# Hopewell Township, Cumberland County Contaminated Area Considerations



**Hopewell Township, Cumberland County**  
**Coastal Area Facilities Review Act Areas**



## **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**

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P.O. Box 402  
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Phone: (609) 341-5311  
Fax: (609) 292-3268