Township of Brick

Conservation and Open Space Element

Township of Brick
Division of Land Use and Planning
401 Chambers Bridge Road
Brick, NJ 08723

Table of Contents

Conservation	**1**
Goals and Policies	**1**
Natural Resources	**1**
Geology & Soil Discussion	**1**
Relationship between Geology and Soils	**2**
Soils	**2**
Soils Subject to Flooding	**2**
Floodplains	**2**
Wetlands	**3**
Natural Drainage – Watersheds	**3**
Fig1 Surface Water Resources	4
Habitat	**4**
Open Space	**6**
Goals	**8**
Policies	**8**
Inventory	**8**
Preservation Goals	**9**
Water Quality Protection	**10**
Conservation	**10**
Zoning	**11**
Funding	**12**
Priority Acquisition Plan	**12**
Analysis	**12**

MAPS

NJ Geology	**A**
Soils	**B**
Wetlands	**C**
Waterways	**D**
Habitat	**E**
Recreation	**F**
Conservation	**G**

Conservation and Open Space Plan Element

Conservation

Certain lands naturally lend themselves to the purposes of conservation and open space preservation than do others. These lands include those, which are most sensitive to development in the Township, is necessary for a continued favorable quality of life and for protection of health, safety and general welfare of the public.

Brick Township's quality of life and unique character are shaped by its natural environment. Vistas to the Barnegat Bay and the Metedeconk River, interconnected wetland systems, forested areas, fallow fields and coastal landscapes define the natural environment. The conservation of these areas minimizes the impact of development upon the quality of life for all of the Township's residents and creates a desirable suburban destination. The purpose of the Conservation and Open Space Plan is to provide for the recognition, protection and preservation of these natural resources.

Goals and Policies

- Identify and map critical environmental resources including wetlands, floodplains, soils, rare and endangered species, aquifer recharge areas, surface water systems, watersheds and habitats
- Provide for floodplain overlay zoning
- Prepare and implement a plan for the preservation of stream corridors, greenways and greenbelts
- Encourage acquisition and expansion of preserved areas that encourages consolidation of contiguous areas of open spaces
- Create linkages between recreational and conservation areas

Natural Resources

Geology & Soil Discussion

Geology is a function of sediment, which is deposited, sometimes consolidated, and then eroded. Brick Township lies adjacent to the existing shoreline of the Atlantic Ocean and the riverine areas of the Manasquan River, Metedeconk River and Barnegat Bay. The sediments, which make up the region's geology, are some of the youngest sediments along the coastal plain. They were deposited during the Tertiary Period of the Cenozoic Era.

The different layers or strata of sediments have been divided into map units called formations. When exposed at the surface, a formation is called an outcrop area. These surface formations are the parent material for the local soils. Brick Township has two outcropping geologic formations; the Kirkwood Sand formation and the Cohansey Sand formation.

The Kirkwood is the older of the two formations. The Kirkwood sediments were deposited during the Miocene Epoch of the Tertiary Period. The Miocene Epoch occurred between twenty-five and eleven million years ago. Near the end of this epoch, Cohansey sediments began to be deposited. This deposition lasted into the Pliocene Epoch, which occurred between eleven and one million years ago.

The Kirkwood Sand Formation was deposited as sea level rose and the ocean advanced northwestward. The sediments reflect shallow near shore and marginal marine environments. Fine sands overlie a black clay. Gravel and sand beds are interspersed.

The Cohansey Sand Formation sediments were deposited during a period of sea level drop, which caused the ocean to retreat southeastward. This formation is primarily made up of course sands. Occasional clay lenses are, however, interspersed. A thin layer of deposits from the Quaternary period, mostly sand, clay and gravel, were deposited here through glacial outwash, or the melting water from the glaciers that once covered northern New Jersey. These deposits are on top of the Tertiary formations. *See MAP A – NJ Geology.*

Relationship between Geology and Soils

Geologic formations are the parent material for soils. As such, the composition of surface formations dictates the composition and texture of the soils. Some of the Agronomic Soil Series which formed from the Cohansey and Kirkwood Formations are Atsion, Berryland, Downer, Evesboro, Fripp, Klej, Hammonton, Humaquempts, Lakehurst, Lakewood, Manahawkin, Mullica, Pits, Phalanx, Psamments, Sulfaquents and Sulfeheims and Urban land. *See MAP B – Soils.*

Soils

A Soil Survey of Ocean County, New Jersey, was compiled in April 1980 by the United States Department of Agriculture Soil Conservation Service, in cooperation with the New Jersey Agricultural Experiment Station and the New Jersey Department of Agriculture.

The soil survey is used as a general planning guide for determining the areas most suited to farming, recreation, construction, wildlife management, and waste disposal to name a few. It presents a preliminary view of the problems which may be encountered in the field, and therefore, warns the potential developer to test the soil properties.

This Soil Survey is not intended to replace field investigations, and on-site inspections must always be performed. Soil properties do not alone determine the develop ability of land, and other factors such as utilities and roadways must be considered to prevent potential construction problems relating to soils.

Soils Subject to Flooding

Soils hold water. Their ability to store water varies by texture. Organic and larger grained soils hold more water because there is more air between the soil particles for water to occupy. Fine grained silts and clays hold less water because they are more compacted. The water table is the contact point between saturated and unsaturated soils. Groundwater is the water that is stored below the water table. Groundwater recharge only occurs when percolating water reaches the water table. Soils are classified into hydrologic soil groups that indicate their capacity for infiltration. These groups were defined by the USDA in 1955. The USDA classifies agronomic soil series into four basic hydrologic soil groups: Group A, soils with low runoff potential and high infiltration rates, Group B, soils with moderate infiltration rates, Group C, soils with low infiltration rates and Group D, soils with high runoff potential and very low infiltration rates. Soils are also classified into recharge soil groups to indicate their ability to add to the quantity of water stored in the water table. The New Jersey Geologic Survey defines twelve recharge groups, A through L.

If a proposed development site is shown as having a seasonally high water table, soils tests should be performed in order to accurately determine the soil properties and water table level. Special design parameters may be required against flooding, frost action, septic systems, compaction, or any number of potential dangers. For example, basements might not be able to be constructed without their flooding or a house might need pilings.

For an additional reference of areas in Brick where problems may be encountered, the two "Flood Insurance Rate Maps" for Brick Township prepared by the U.S. Department of Housing and Urban Development, Federal Insurance Administration, are enclosed in the Inventory. These maps delineate the areas of 100-year to 500-year flooding. For example, if a site is located within zone b, it can be assumed that it will flood with less than one foot of water in 100 years or will flood once in 100 to 500 years. Therefore, flooding is not likely to be a major setback.

Each site must be evaluated on its own merit before construction is approved. However, if land is suspected of having detrimental soil properties, the Environmental Commission, Planning Board and public should request data from specialists and the individuals involved which either show evidence to the contrary or which specify precautions that will be undertaken to prevent flooding and other water-related problems.

Floodplains

Floodplains in the Township of Brick are identified through Federal Emergency Management Agency maps and are located along the streams and tributaries of the Metedeconk and Manasquan Rivers, the Barnegat Bay and its tributaries and the Atlantic Ocean. Floodplains are low, flat areas located on one or both sides of a stream channel which are subject to frequent flooding. Floodplains generally contain either hydric soils, wetlands or soils with a high water table. Floodplains are a valuable natural resource which should be preserved as part of any conservation plan. Development in floodplains should be limited because of the potential for flood damage. More restrictive development regulations should be established for floodplains to limit floodplain development and ensure adequate drainage.

Wetlands

The Township of Brick is fortunate to have hundreds of acres of wetlands preserved through the open space preservation program. However, due to the rapid rate of development in the latter part of the 20th century and the lack of regulatory control until the 1980's, hundreds of acres of wetlands were lost to development.

Efforts are now focused on preserving and protecting the remaining wetland systems in the municipality through open space preservation and improved land use controls.

Fortunately, the New Jersey Department of Environmental Protection has the ultimate governing power over wetland regulation; however, local land use controls can help to minimize the piece meal filling of isolated wetland areas for development. The wetlands located within Brick Township may be seen on the Wetlands of Brick Township map. *See MAP C - Wetlands*

Wetlands are commonly referred to as swamps, marshes or bogs. Wetlands provide critical habitats for fish and wildlife. They can serve as areas where species can protect themselves from predators and they serve as a place for many juvenile species of fish can mature in the protection of the dense vegetation.

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, provide flood control and help release stored flood waters during droughts. Wetlands also provide open spaces and opportunity for recreation and tourism.

Wetlands are an integral part of our economic wellbeing because they supply the habitat for most fish and shellfish species harvested for the commercial fishing industry along the Eastern seaboard. In addition, wetlands provide habitat for the fish that drive the large recreational boating industry which is a large part of the economy in the Township of Brick.

Natural Drainage – Watersheds

A watershed is the area of land that drains into a body of water such as a river, lake, stream or bay. Ridges or high points, such as hills or slopes separate watersheds from each other. A watershed includes the waterway itself, the land bounded by the divides and all of the land uses contained within the watershed. Conglomerations of watersheds make up drainage basins. These basins usually encompass the watersheds of many smaller rivers and streams that eventually drain into a larger water body, such as the Barnegat Bay or the Atlantic Ocean.

Watershed boundaries do not follow political divides. Most municipalities are located partially within watersheds. Brick Township is located within two large watershed areas identified by the NJDEP. The extreme northern portion of the Township drains to the Manasquan Watershed while the southern portion of the Township drains entirely to the Barnegat Bay Watershed. However, the Township has sub-watersheds located entirely or partly within the municipality. These sub-watersheds include: The Manasquan River, North Branch of Metedeconk River, Beaverdam Creek, Metedeconk River, Kettle Creek, Metedeconk Neck, the Barrier Island and the Atlantic Coastal Watersheds. *See MAP D – Waterways.*

Surface Water Resources

Waterway	Mileage
Atlantic Ocean	1.79
Barnegat Bay	11.93
Beaver Dam Creek	5.0
Kettle Creek	10.37
Lake Riviera (Irisado)	3.32
Manasqan River	2.92
Metedeconk River & Forge Pond	17.98

Fig. 1

The Township is spanned by five watershed areas – the Manasquan River, Metedeconk River, Beaver Dam Creek, Kettle Creek, and Reedy Creek Watersheds. A one mile stretch of barrier island also exists which drains to the Barnegat Bay and Atlantic Ocean. The Manasquan River watershed contains the Sawmill Creek, Godfrey Lake and a number of unnamed tributaries, creeks and streams. The Metedeconk River watershed contains the Main Branch of the Metedeconk River, the North Branch of the Metedeconk River, Beaver Dam Creek, North Branch of Beaver Dam Creek, and the Cedar Bridge Branch. The Kettle Creek Watershed contains Kettle Creek, Lake Irisado, Tunes Branch, Long Causeway Branch and Polhemus Branch which drain into the Barnegat Bay. The Reedy Creek Watershed contains only the Reedy Creek and many lagoons and unnamed tributaries of the Barnegat Bay Watershed. The Barrier Island drains into the Barnegat Bay and Atlantic Ocean.

Habitat

A variety of vegetation needs to be preserved for aesthetic, educational and ecological reasons. In the past, tracts of land have been cleared of indigenous vegetation without measures being taken to replace the lost plant life or prevent soil erosion and sedimentation. The adverse result of the clearing of vegetation can also cause an increase in noise and wind problems since trees and other plants are natural buffers. Wildlife depends on woodlands for their habitats.

Since some ecosystems are more environmentally valuable that others, it is necessary to locate the different areas in the Township and determine how to protect the more valuable areas while encouraging development on the least valuable sites. The importance of preserving the woodlands is greater at the present time than ever before. Population growth and the demand for housing are increasing daily and the prime construction sites in Brick have long been developed. Therefore, planners must offer suggestions and alternatives to the clearing of habitats for development and encourage the protection of vegetation, while at the same time allow development to continue. Cluster zoning, preserving green areas, and prohibiting building on floodplains are some examples of planning techniques that can be employed.

Several factors are important in the distribution of vegetation throughout Brick Township. Among these factors are the soil types, rainfall, topography and human activity. The soil moisture is perhaps the most important factor in determining the distribution of the vegetation throughout the Township. Those plants requiring an abundant supply of water will be located along the streams and lowland areas, while those plant species that requires less water will be able to survive in higher, drier grounds.

The soils which are generally considered wet are the tidal marsh, alluvial, musk, Berryland and Atsion, with the drier soils being the Evesboro, Lakewood, Downer and Sassafras. The Lakehurst, Klej and Hammonton soils are either wet or dry soils depending on their location. An understanding of the soil types and moisture conditions of the soils will indicate which type of vegetation is indigenous to the area.

The vegetation within Brick Township can be broken into three major categories; 1. The Dry Upland; 2. the Wet Lowland Forest and, 3. The Pitch Pine Lowland Forest (which is a transition zone between the Dry Upland and Wet Lowland Forest).

There are two types of Dry Upland forests; the oak-pine is the first in the succession. After the pine trees establish themselves, an accumulation of leaf litter builds upon the forest floor; the oak trees then infiltrate the area. If left undisturbed, the oak trees will eventually take over the pine forest and the forest will become the oak-pine variety. However, human disturbance or forest fires sometimes stop this natural evolution.

The Wet Lowland Forest is comprised of Cedar swamp, hardwood swamp and marshland. The cedar forest generally consists of pure stands of white cedar. As the white cedar forest is invaded by deciduous tree species (such as the red maple, black gum and sweet bay magnolia), the cedar swamp will change into a hardwood forest. This is a very gradual transition unless it is accelerated by the interference of man.

By using the soil and soil moisture content information in reviewing the potential development of a site, certain things can be determined prior to construction. It is easier and less expensive to develop in the Dry Upland Forest, because the soils and the moisture content permit standard development techniques. The environmental impact is also the least in the Upland Forest.

The Pitch Pine Lowland Forest is somewhat more difficult to develop due to the high water table and the soil types that are found in these areas.

The Wet Lowland Forest areas are subject to the greatest environmental impact from development due to the abundance of water. In order to minimize this impact, more effort and expense must be put into their development than is required in the Dry Upland Forest Areas.

The developed lands on the Habitat Map *(See MAP E - Habitat)* are those areas in Brick Township that have been disturbed by man. This includes the residential and commercial areas, farmlands and gravel pits. The sandy, well-drained soils in the township support both the pine-oak and the oak-pine forests. The existing soil and water conditions here are generally more conducive to development than the cedar and hardwood swamps. The soils with a low water table support forests which have open under-story with fewer varieties of vegetation such as lowbush, blueberry and black huckleberry. The drier soils support forests which are composed of generally pitch pine or oak trees. The pitch pine dominates those areas that have recently been cleared of leaf flitter by either fire of for agricultural purposes. The oak trees, on the other hand, grow better in areas that have a deep leaf litter build up on the bottom of the forest floor.

The oak-pine forests are those areas in which more than half of the trees are oak trees. The most common species of oak trees found in these forests are black, scarlet, white, chestnut and post oak; pitch pine and sort leaf pine are present in smaller quantities throughout this forest. The oak-pine forest is one of the two types in the upland vegetation. The forest canopy is between 35 and 50 feet high. The soils found in the oak-pin forest are Evesboro, Lakewood, Downer and Sassafras with a water table of 5 feet or lower.

The pine-oak forest consists primarily of pitch pine. Generally 10 to 20% of the trees are black oaks with some scarlet, white or chestnut oaks present. The canopy of the pine-oak forest is about 35 feet high. This forest is the second type of upland vegetation found in the Pine Barrens. The soils found in the pine-oak forests are Evesboro, Lakewood, Downer and Sassafras with a water table of 5 feet or lower.

The pitch pine lowland forests occur in low areas and along the edges of cedar and hardwood swamp forests. The canopy of this forest is generally 15 to 20 feet high. The pitch pine forest is a transition between the lowland and upland vegetation types, and is made up primarily of pitch pine. Small quantities of red maple, black gum and grey birch are also found in these forests. The soils found in the pitch pine forest are Lakehurst, Klej and Hammonton with water table between 1 ½ to 4 feet.

The hardwood swamp forest occurs along the streams and the upland edge of cedar forests. The forest canopy is 25 to 30 feet high. The principal tree type found in this forest the trident red maple; however, sweet bay magnolia, black gum grey birch and sassafras are also found, as well as pitch pines. The soils found in the hardwood swamp are the alluvial, muck, Berryland and Atsion soils with a water table of 0 to 1½ feet.

The cedar swamp forest is made up almost exclusively of American white cedar, with small quantities of pitch pine red maple, black gum and sweet bay magnolia. The canopy of this forest is between 50 and 60 feet high. The cedar swamp forest usually lines Pine Barren streams, flood plains, drainage ways and bogs, and are underlayed with saturated organic peat deposits. The soils found in the cedar swamp forest are the alluvial, muck, Berryland and Atsion soils with a water table of 0 to 1½ feet.

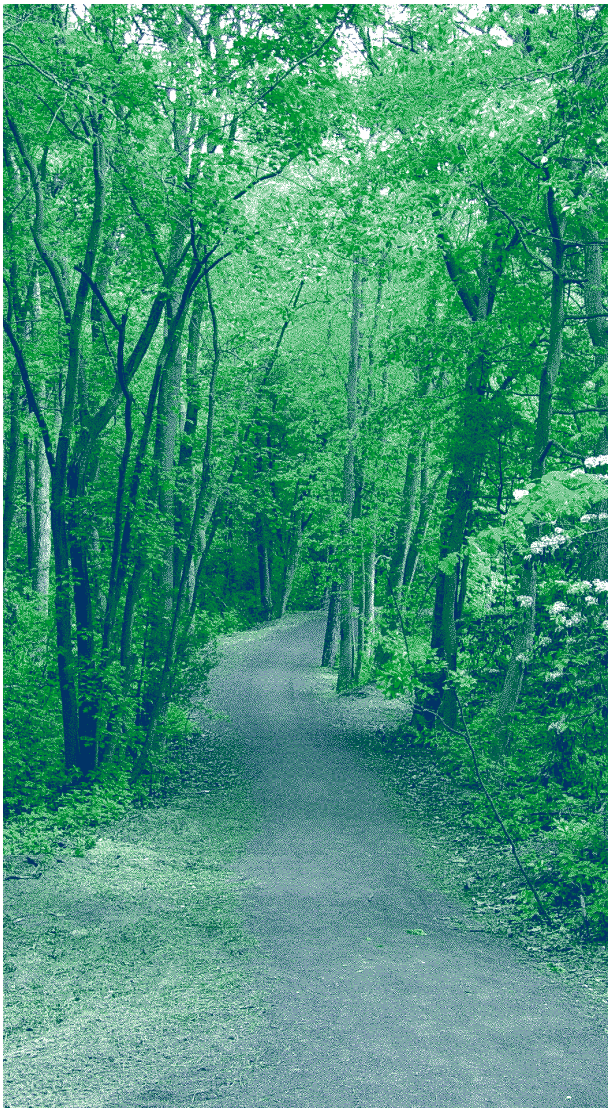
Open Space

The Township of Brick recognizes the need to preserve open spaces for conservation and recreational purposes. Conservation of environmentally sensitive areas provides protection from flooding, provides food and shelter for endangered and threatened species protects surface and drinking water quality and quantity and provides for better planning and watershed protection. Presently, the Township has approximately 3,000 acres of preserved lands owned by the Federal, State, County, Municipal governments and non-profit entities. *(See MAP F – Recreation)*

The origin of the Open Space Preservation initiative in Brick Township began as a series of recommendations in the 1981 Natural Resource Inventory (NRI). As a part of the NRI, a Green Belt Study was produced to identify undeveloped lands in the Township, to inventory the surface and subsurface conditions, soil types, vegetation, fish and wildlife, and as a result of the inventory, make recommendations concerning the potential for preservation of the subject areas. These areas were prioritized by value, both monetary and ecological. The process for preservation not only looked at fee simple purchase but also the utilization of the acquisition through development rights, conservation easements and other options resulting in less costly alternatives. The municipality took action from these recommendations to preserve open spaces to provide areas of passive and active recreation.

The purpose of the initial preservation campaign was to preserve sensitive areas for open space, recreation and/or preservation, while still allowing for growth through zoning and responsible planning. These purposes include the following:

a. To encourage municipal action to guide the appropriate use of or development of all lands in the Township in a manner which will promote the public health, safety and general welfare;
b. To secure safety from fire, flood, panic and other natural and man-made disasters;
c. To provide adequate light, air and open space;
d. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods and communities, and the preservation of the environment;
e. To provide sufficient space in appropriate locations for a variety of residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all Brick Township citizens.
f. To protect water supply sources through preservation and management of headwaters, aquifer recharge and drainage areas.



As a result of the initial plan, Brick began to acquire property through Green Acres funding, private non-profit partnerships and partnerships with other agencies such as the U.S. Department of Interior, Fish, Game and Wildlife Service and Ocean County. Since the 1981 plan, many parcels have been preserved. Since 1994, more urgency has been placed on preserving parcels to provide contiguous areas of protection for surface water, ground water, drinking water quality, wildlife protection, and flood plain management and to preserve areas subject to significant development pressures. These areas have been preserved through Green Acres funding, partnerships with other agencies and non-profit organizations as well as fee simple purchases.

Goals and Policies

Brick Township has a tradition of the protection of natural resources as a means for providing a better quality of life for its residents. To that end, we have continued to pursue the preservation of sensitive areas and the acquisition of appropriate recreational areas into the 21st century.

Goals

The main goals and policies of the Open Space and Recreation Plan have been designed to reflect this philosophy. They include the following:

- To enhance, preserve or restore unique natural areas or land types
- Protect the natural and historic resources for the maintenance and enhancement of the quality of life in Brick Township
- Preserve land and natural areas in order to provide an aesthetically pleasing environment
- To reduce potential of inappropriate development and protect environmentally sensitive areas from land use shifts
- To reduce the future impacts of development in inappropriate areas on traffic congestion, stormwater management and floodplain protection
- To maintain recreational and conservation areas to be useable and enjoyed by all citizens
- To protect potable water supply sources and the drainage areas that supply them
- To provide open space and recreation opportunities on an equal and accessible basis for all citizens
- To protect stream corridors with adequate buffers
- Acquire environmentally sensitive properties threatened by inappropriate development.
- Acquire lands to "fill in" areas where some preservation exists. This will provide contiguous preservation areas along stream corridors for floodplain management, water quality protection, non-point source pollution control, and stream buffering and wildlife corridors.

We also recognize that conserving open space makes great economic sense. The economic benefits of conservation include:

- Enhanced quality of life in the vicinity of the protected area
- Enhanced property values in the vicinity of the protected area
- Avoidance of costs that accompany development that are ultimately paid by the taxpayer for schools, police, fire, emergency services, sewage, trash collection and roads
- Relatively low costs of maintaining public lands, particularly passive recreation
- Potential enhancement of outdoor recreation and ecotourism
- Improved bond ratings for communities having a conservation plan

Policies

- Provide accurate, current information on the supply, demand and need for outdoor recreation facilities and open space in Brick Township
- To encourage designated conservation areas in development applications, where appropriate
- To foster partnerships with other government agencies and non-profit groups towards the preservation of open spaces
- To utilize a consistent funding source for the preservation, acquisition and maintenance of recreational and conserved areas through an Open Space Tax
- To provide consistency between the Master Plan and all other planning documents for conservation and preservation purposes
- To preserve properties in an orderly, planned, contiguous fashion to create protected greenways
- To provide adequate walking and bicycling trails along greenways for citizen recreation and utilization of preserved areas
- To protect water supply sources so that they may be continued to be used as a potable water supply source

Inventory

Through GIS mapping, all existing conservation and recreation properties were identified in the Township. These areas were used as a basis for identifying available properties adjacent to or in the vicinity of the existing preserved areas. These available properties were then prioritized by size, existence of structures, zoning, ecological value and current development pressures.

Other public and private land and waters maintained as conservation areas dedicated to the preservation of natural and cultural resources are currently maintained by the municipality in numerous locations. Over the past ten years, many of these areas have been the target of preservation initiatives. Parcels have been preserved, as funding became available, resulting in a "puzzle piece" effect. It is the goal of this plan to include those areas still available for preservation to "fill in" those missing preservation areas. Specific planning areas have been identified in this plan to include all areas worthy of preservation to provide contiguous, preservation areas akin to a greenway plan.

Preservation Goals

The Township, through various partnerships, has successfully preserved over 3,000 acres of recreational and open space lands. Although this is a very impressive fact, more still needs to be accomplished. Through the Open Space and Recreation Plan submitted to the Green Acres program and additional funding sought at the New Jersey Environmental Infrastructure Trust, approximately 2,000 acres of additional lands are planned for preservation over the next five years. These areas include those planned preservation areas identified above in addition to infill areas where preservation efforts can provide contiguous areas for wetland, habitat and floodplain protection.

(See MAP G – Conservation)

In reviewing the abovementioned plan for the purpose of this document, it is important to note that the amount of acreage identified for preservation includes all environmentally sensitive lands that may not be developable due to current environmental regulation such as CAFRA, the NJ Freshwater Wetlands Act or current zoning laws.

Water Quality Protection

The Township's drinking water supply is provided through wells and surface water from the Metedeconk River. These water supplies must be protected from non-point source pollution through the process of education and land conservation. Preserving properties that drain to the river will ensure the quality of the water supply source for future generations. Preservation of these areas will act as filtration buffers for pollution sources, aquifer recharge areas for well supply sources and floodplain protection from eroding shorelines.

Conservation

Vacant, privately owned and privately owned, underutilized parcels were identified in the plan inventory. These parcels have been identified as potential preservation areas depending on their proximity to preserved areas and the intensity of the development on the individual parcel. Some of the parcels are appropriate for subdivision to provide for consistency with zoning. These parcels will also provide additional acreage to existing conservation areas. Other vacant, privately owned parcels may add to already preserved areas to provide contiguous areas for water supply, wildlife, and water quality protection. In addition, those areas identified, as proposed conservation areas will support community objectives for buffers along stream corridors, stormwater protection, contiguous greenways, floodplain protection and areas of passive recreation through the use of walking and biking trails.

Parcels of two acres or more with small residential structures and accessory structures on them were identified as Privately Owned, Underutilized and parcels of two acres or more with no structures on them were identified as Privately Owned, Vacant. After these parcels were identified, they were prioritized by ecological value and vicinity to other preserved areas. Those parcels, which were identified as having preservation potential, were added to the Proposed Conservation category to provide a more generalized plan.

Areas located along stream corridors including the North and South Branches of Beaver Dam Creek, Kettle Creek, Reedy Creek and the South Branch of the Metedeconk River will provide potential areas of access to inland and coastal waters for passive recreation purposes. These areas will also protect associated inland and coastal wetlands from surrounding developments through providing significant stream buffer areas. These buffer areas will also provide wildlife mobility corridors and protection from non-point source pollution to the receiving waters.

Zoning

Zoning regulation is a tool used by local governments to provide direction for the orderly and coordinate execution of development. Zoning can also be used to protect environmentally sensitive areas. The Township of Brick has zoned many of the parcels targeted for development as R-R –1 zone. R-R Zoning specifies rural-residential, low density, large lot development. Areas along stream corridors within the township have been zoned as Rural Residential development for many years. This large lot zoning restricts densely developed areas within these zones and provides for buffers to waterways. In addition, many of these areas have wetland areas associated with them, providing for wildlife and water quality protection. The yard, area and building requirements in the R-R Zones allow for a minimum of 40,000 square foot per building lot or approximately one acre.

Permitted uses in the R-R-1 zone include:

A. Customary and conventional farming operations
B. One-family dwellings
C. Public and accredited private schools and institutions which may be conducted as a business
D. Municipal parks, playgrounds and other such municipally owned buildings and uses as are deemed appropriate and necessary by the Township Council or the Township of Brick.

In a densely populated municipality such as Brick Township, one-acre zoning serves to discourage large tract developers from attempting to sub-divide these areas for more dense housing developments. It would be necessary for developers to seek variances to increase the density on these parcels through the Zoning Board of Adjustment, making development potential more speculative. Thus, these areas have remained undeveloped and still available for open space acquisition.

To continue protection of conservation lands, all areas currently deed restricted through the Green Acres or New Jersey Environmental Infrastructure Trust program and all Federal and State owned properties should be designated as Conservation on the Official Tax Map of the Township of Brick. This will prohibit any publicly owned properties from any future development potential and will more accurately reflect land uses in the Township. In addition, it will provide for the establishment of standards for development of adjacent properties regarding buffer requirements and setbacks. These standards will help to protect against encroachment of surrounding uses and development upon these preserved areas.

Funding

Brick Township has been very successful in working with local groups towards the betterment of the community. The local government has a very close relationship with local environmental groups including the Izzack Walton League - Save Barnegat Bay to preserve lands. These partnerships have shared the responsibility of purchasing and maintaining these lands. In addition, the Township has partnered with the New Jersey Department of Environmental Protection, Green Acres Program, the New Jersey Environmental Infrastructure Trust, the Department of the Interior, Division of Fish, Game and Wildlife and the New Jersey Division of Parks and Forestry and the Ocean County Natural Lands Trust to preserve lands.

Brick Township has accomplished its portion of the funding for preservation through floating bonds and using taxpayer funds for fee simple purchases. The municipality has also taken advantage of acquiring conservation easements to protect sensitive areas. These financial strategies have worked in the past; however, due to the increased need to preserve lands at a more rapid pace, the municipality overwhelmingly passed an Open Space Tax during the general election in November 2000. This tax now will provide the municipality with a steady source of funding for open space and recreational acquisitions. However, the municipality will continue to foster its partnering relationship with other groups to lessen the burden of open space purchases.

Priority Acquisition Plan

The municipality has benefited from the relationships developed with NJDEP, Green Acres program, Ocean County Freeholders, the Izzack Walton League – Save Barnegat Bay and the Department of Interior, Edwin B. Forsythe Wildlife Refuge program. It will continue to foster these relationships and looks forward to the preservation of remaining critical environmental areas in the Township.

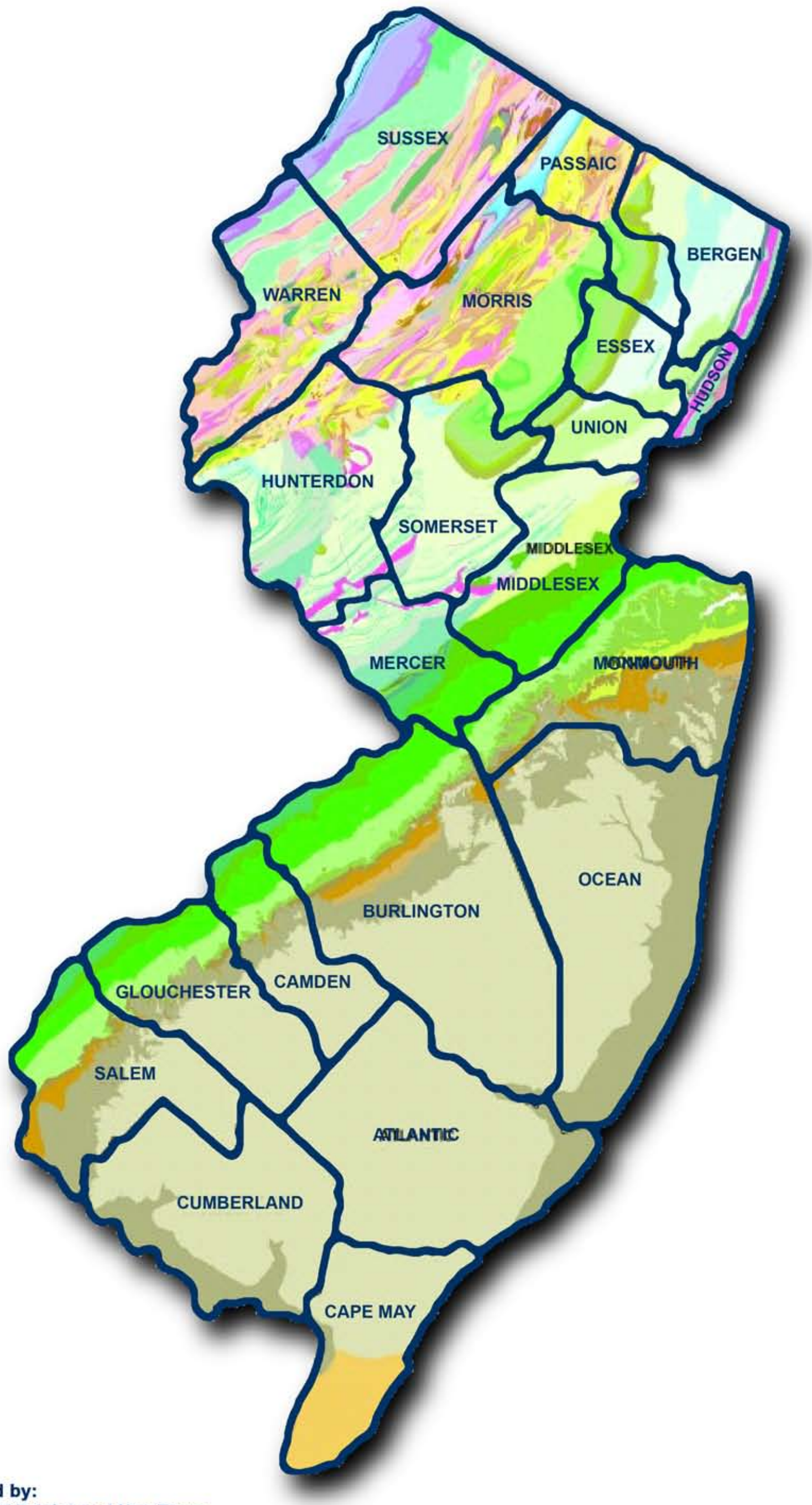
The Priority Acquisition goals include the continued fostering partnerships to achieve acquisition of the properties identified in the Open Space and Recreation Plan in addition to utilizing the Open Space tax to purchase lands.

Analysis

The preservation of the additional acres of open space identified by the Township will have numerous benefits including;

- contiguous areas of wildlife habitat,
- floodplain protection,
- aquifer protection,
- surface, ground and drinking water quality and quantity protection,
- watershed protection,
- more recreational areas
- buffers for non-point source pollution controls

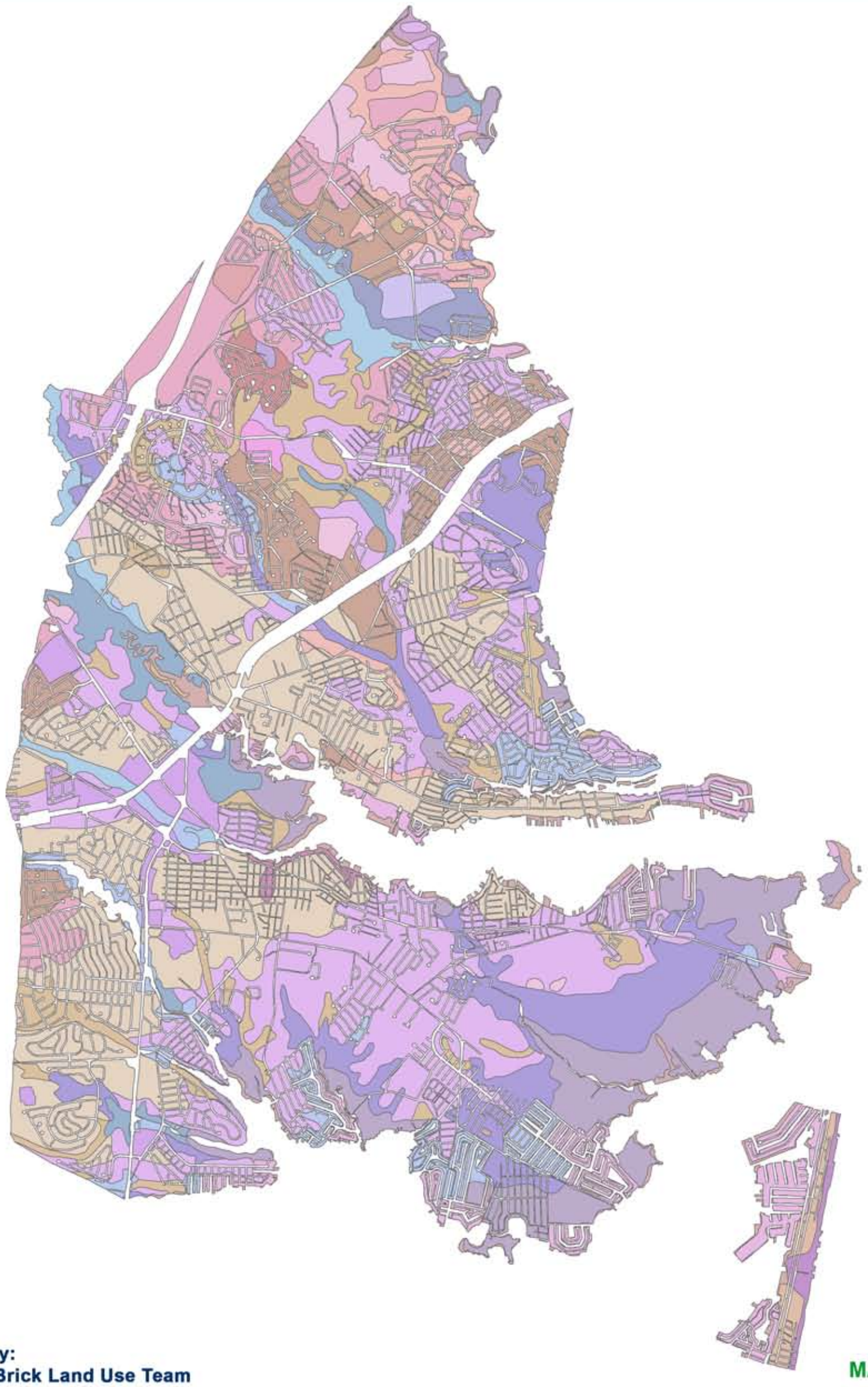
In addition, the preservation of these areas will reduce the amount of developable land that when developed, place a drain on the local tax base, contribute to traffic congestion and increase non-point source pollution.



Prepared by:
Township of Brick Land Use Team

MAP A

Township of Brick Master Plan
Soils

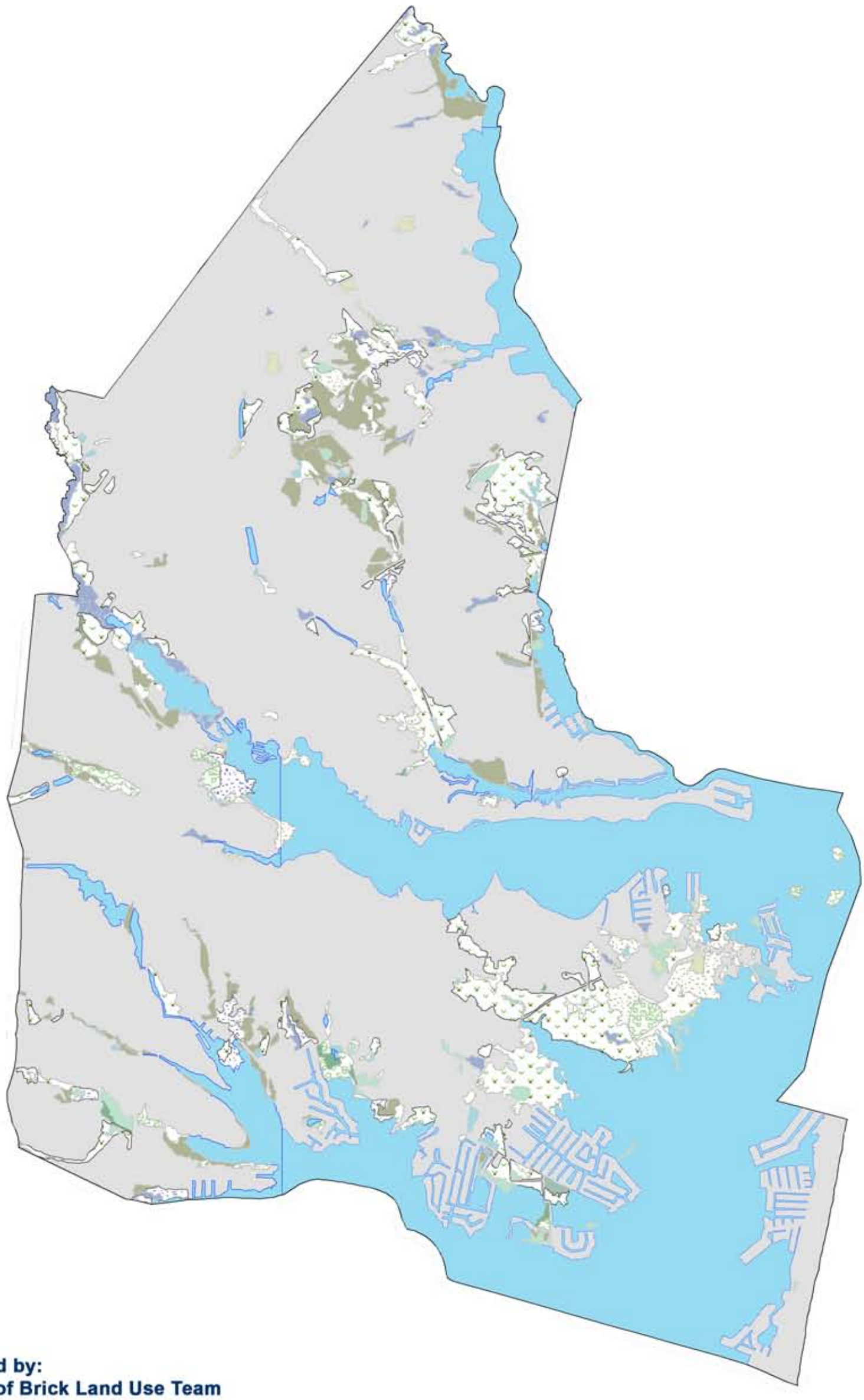


Prepared by:
Township of Brick Land Use Team

MAP B

other	DoeB	Humt	PHG	UR
Ats	EveB	LakB	PhbC	URFRB
Ber	EveC	LasB	Ps	WATER
Bert	FrzC	LasC	Ptt	
DocB	GamB	Makt	Pu	
DoeA	HboA	Mum	SUBT	

Township of Brick Master Plan
Wetlands



Prepared by:
Township of Brick Land Use Team

MAP C

- AGRICULTURAL WETLANDS (MODIFIED)
- ARTIFICIAL LAKES
- ATLANTIC WHITE CEDAR WETLANDS
- CONIFEROUS SCRUB/SHRUB WETLANDS
- CONIFEROUS WOODED WETLANDS
- DECIDUOUS SCRUB/SHRUB WETLANDS
- DECIDUOUS WOODED WETLANDS
- DISTURBED WETLANDS (MODIFIED)
- HERBACEOUS WETLANDS
- MANAGED WETLANDS (MODIFIED)
- MIXED FORESTED WETLANDS (CONIFEROUS DOM.)
- MIXED FORESTED WETLANDS (DECIDUOUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (CONIFEROUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)
- NATURAL LAKES
- SALINE MARSHES
- STREAMS AND CANALS
- TIDAL WATER
- UPLANDS
- WETLAND RIGHTS-OF-WAY (MODIFIED)

Township of Brick Master Plan
Waterways

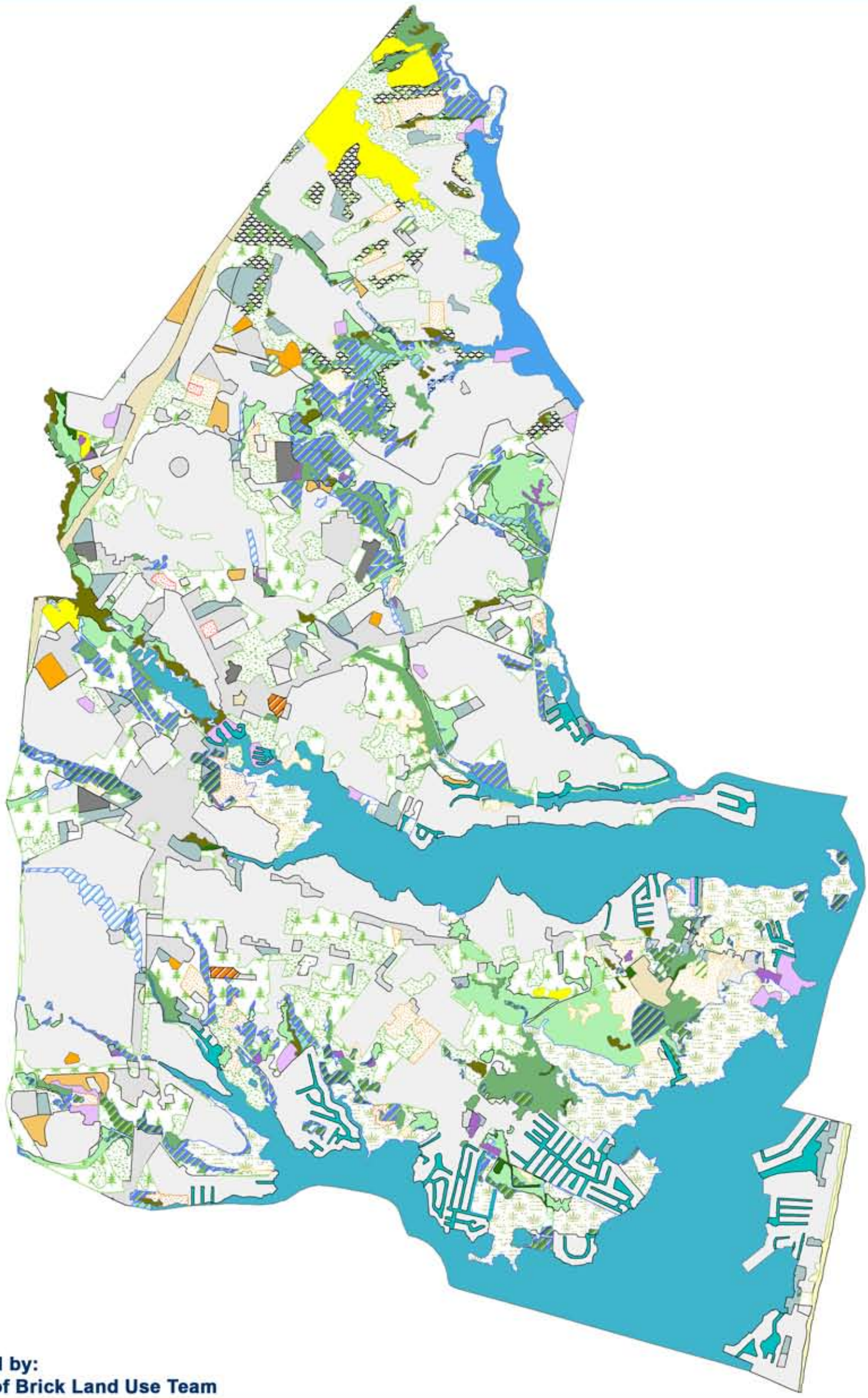
Prepared by:
Township of Brick Land Use Team

MAP D

Streams

Lakes & Rivers

Township of Brick Master Plan
Habitat

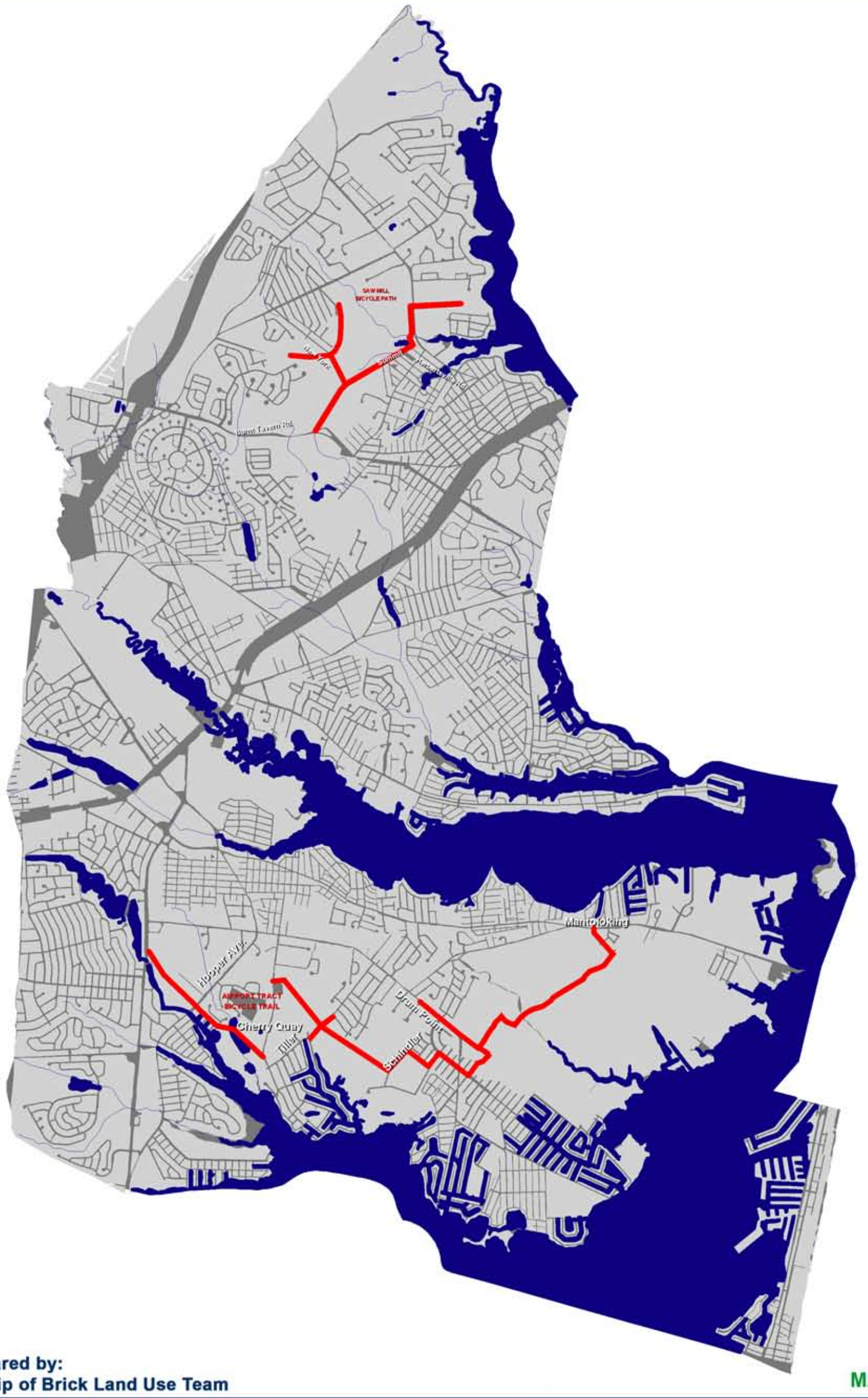


Prepared by:
Township of Brick Land Use Team

MAP E

- OTHER
- AGRICULTURAL WETLANDS (MODIFIED)
- ALTERED LANDS
- ARTIFICIAL LAKES
- ATHLETIC FIELDS (SCHOOLS)
- ATLANTIC WHITE CEDAR WETLANDS
- BEACHES
- BRUSHLAND/SHRUBLAND
- COMMERCIAL/SERVICES
- CONIFEROUS FOREST
- CONIFEROUS SCRUB/SHRUB WETLANDS
- CONIFEROUS WOODED WETLANDS
- CONIFEROUS/DECIDUOUS FOREST
- CROPLAND AND PASTURELAND
- DECIDUOUS FOREST
- DECIDUOUS SCRUB/SHRUB WETLANDS
- DECIDUOUS WOODED WETLANDS
- DECIDUOUS/CONIFEROUS FOREST
- DISTURBED WETLANDS (MODIFIED)
- DREDGED LAGOON
- EXTRACTIVE MINING
- HERBACEOUS WETLANDS
- INDUSTRIAL
- MANAGED WETLANDS (MODIFIED)
- MIXED FORESTED WETLANDS (CONIFEROUS DOM.)
- MIXED FORESTED WETLANDS (DECIDUOUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (CONIFEROUS DOM.)
- MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)
- NATURAL LAKES
- OTHER AGRICULTURE
- OTHER URBAN OR BUILT-UP LAND
- RECREATIONAL LAND
- RESIDENTIAL
- SALINE MARSHES
- STREAMS AND CANALS
- TIDAL WATERS
- TRANSITIONAL AREAS
- TRANSPORTATION/COMMUNICATIONS/UTILITIES
- VEGETATED DUNE COMMUNITIES
- WETLAND RIGHTS-OF-WAY (MODIFIED)

Township of Brick Master Plan
Recreation



Prepared by:
Township of Brick Land Use Team

MAP F

Waterways
Bicycle Trail
Trail along existing roadway
Possible future trail connection
Roadways

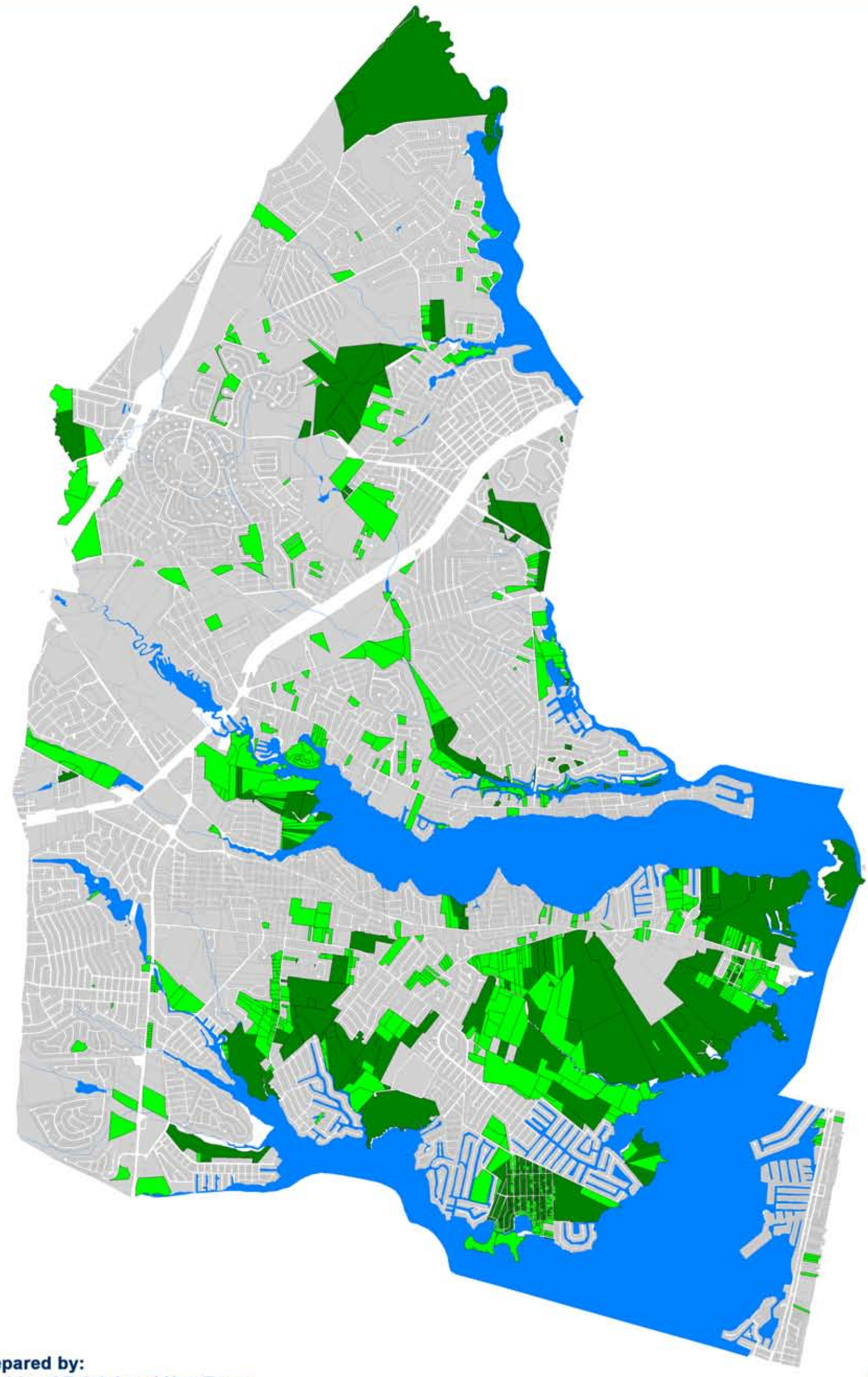
Revised 5/7/03

Miles

0 0.25 0.5 1

N
W E
S

Township of Brick Master Plan
Conservation



Prepared by:
Township of Brick Land Use Team

MAP G

Proposedconserarea.shp	Bricklakesall.shp
Existingconservationareas.shp	Parcels1.shp
Brickstreamsall.shp	