

McCLEES CREEK PLANNING AREA STUDY

Middletown Township Monmouth County



McClees Creek at Navesink River Road

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The Original of this Document has been signed and sealed in accordance with New Jersey State Law.



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BACKGROUND

The McClees Creek area is located on the north shore of the Navesink River in Middletown Township, Monmouth County, New Jersey. This area is significant due to its presence of sensitive natural resources including two threatened and endangered species (the Bald Eagle & Osprey), wetlands, steep slopes, historic sites and scenic qualities. The McClees Creek area has been recognized by Federal, State, County and municipal governments as a unique environmentally sensitive area. Planning for this area of



Middletown should conserve and maintain the network of open space, habitat areas, scenic qualities and larger contiguous tracts of land. Efforts from each of the governmental entities to identify and protect the McClees Creek area are reflected in planning documents, mapping and special reports prepared as recently as last year.

This report describes the environmental resources, existing land use, population and zoning of the McClees Creek area. It highlights the efforts of governmental agencies to protect the area and presents the area through a series of G.I.S. maps, photos and written descriptions.

T&M Associates recommends that further protection of the character and environmental qualities of the area can be secured by reducing the permitted density of development. To maintain open space and protect the character of the area the minimum required lot size should be increased over a large portion of the study area. In addition, the zone plan should recognize “Public” and “Federal” lands as public zones rather than zones restricted for residential development.

MCCLEES CREEK STUDY AREA

The McClees Creek study area extends from Sleepy Hollow Road to the west to the Navesink River to the east. The north border extends from and includes U.S. Naval

Weapons Station Earle and runs along Kings Highway East. The south border of the study area is the Navesink River. The study area includes notable properties such as Hartshorne Woods and Huber Woods (owned by Monmouth County), U.S. Weapons Station Earle, the Navesink River Country Club, as well as many historic homes along the river. The study area boundary includes the existing R-90, R-110 and R-220 zoning districts. The McClees Creek study area totals 5,874 acres which includes the Navesink River, or 4,896 acres which includes just the land area. See Exhibit 1. A map of the study area is shown in the Map Appendix A-1, Existing Study Area/Land Use/Zoning Map.

**EXHIBIT 1
McCLEES CREEK STUDY AREA ACREAGE**

Area	Acres
Land Area (including lakes & streams)	4,896
Navesink River	948
Lakes & Streams (not including Navesink)	14
Total Area (including Navesink)	5,874
Total Area (excluding Navesink)	4,896

EXISTING LAND USE AND ZONING



Existing land use within the McClees Creek area is a mixture of low density single family residential, farm, and public property. Over 3,000 acres (62% of the total land area) is public land, farmland, or vacant land. There are only a limited number of properties which are listed as commercial, church and charitable and vacant. A listing of each of the existing land

uses and their total acreages are shown in Exhibit 2 and a map of the area is shown in Exhibit A-1. Existing land use categories were derived from the Middletown tax assessment records.

Existing zoning within the study area is comprised of R-220, R-110 and R-90 zoning districts. These zoning districts permit single family housing on 5.0 acre, 2.5 acre and 2.0 acre lot sizes respectively. Other permitted uses include some recreational uses, agricultural uses such as orchards, vineyards, barns and other farm buildings. R-220 is the dominant zoning and comprises 2,780 acres or 47 percent of the study area. Exhibit 3 lists the zoning acreage of the study area.

**EXHIBIT 2
LAND USE ACREAGE
McCLEES CREEK STUDY AREA**

Use	Acres	Percen
Residential	1,457	29.8
Commercial	136	2.8
Farm (Regular & Qualified)	1,287	26.3
Church & Charitable	7	0.1
Cemeteries	3	0.1
Other Exempt (Public)	1,345	27.5
Vacant	156	3.2
Public Property	256	5.2
Other – Property needs verification	153	3.1
Right-of-Way	96	2.0
Total*	4,896	100.0

*Does not include Navesink River

Source: G.I.S. Base Map linked to tax assessment records as prepared by Maser Associates – September ,2002

**EXHIBIT 3
ZONING ACREAGE
McCLEES CREEK STUDY AREA**

Area	Acres	Percen
R-90	1,125	19.2
R-110	1,957	33.3
R-220	2,792	47.5
Total	5,874	100.0

Source: Zoning map of McClees Creek area prepared by T&M Associates October, 2002

POPULATION

The total population of the McClees Creek study area totals 2,978 persons according to the 2000 Census. This calculates to approximately 1 person per 1.6 acres. Map Appendix A-2, Census Block/Tract Map, shows the delineation of the 2000 Census tracts and boundaries. Census blocks do not coincide exactly to the McClees Creek study area boundaries.

The McClees Creek study area has 1,102 housing units according to the 2000 Census. This calculates to approximately 1 dwelling unit per 4.4 acres.

INVENTORY OF ENVIRONMENTAL RESOURCES

The McClees Creek area includes a variety of natural resources including lakes and streams, shellfish habitat, steep slopes, wetlands, threatened and endangered species and high groundwater recharge areas.

Water Resources

The Navesink River is the major water feature of the study area. The Navesink forms the southern and eastern boundaries of the study area and flows to the Sandy Hook Bay. The Navesink River is further classified below as a shellfish habitat area.

Several stream segments and a few small lakes are located within the study area and account for approximately 14 acres. McClees Creek and its tributaries are one of the major water features located in the western portion of the study area and drain into the Navesink River; Claypit Creek and its tributaries are located in the eastern portion of the study area and also drains into the Navesink River. Other small tributaries of the Navesink River are also present. Appendix A-3, Environmental Resources Map, shows the location of streams, lakes and rivers within the study area.

Wetlands

Freshwater wetlands account for 518 acres or approximately 10.5 percent of the McClees Creek study area (excluding the Navesink River). Wetland locations are mapped by the

New Jersey Department of Environmental Protection and are found in their G.I.S. mapping.

Steep Slopes



Steep slopes are a predominate environmental feature found throughout the area. Steep slopes were mapped based on soil characteristics. Soils exhibiting slopes of 15 percent or greater were selected and in two instances, soils with slope characteristics of 10-25 percent were also mapped (Tinton loamy sand and Phalanx loamy sand). Together these steep slope soils account for 1,593 acres, or 32.5 percent of the McClees Creek study area.

There are three high points within the study area with elevations at or exceeding 200 feet above sea level. The highest point is within Hartshorne Woods with an elevation of 240 feet. The second highest point is near the intersection of Stillwell Road and Kings Highway East with an elevation of 212 feet. The final point is along Bowne Road near the intersection of McClees Road with an elevation of 196 feet.

Shellfish Habitat (Navesink River)

The Navesink River is recognized as a shellfish habitat by the New Jersey Division of Fish, Game and Wildlife. The waters are classified in one of five categories as shown on Appenix A-4, Shellfish Classification Map:

- Prohibited - harvest not allowed under any conditions.
- Special Restricted - harvest allowed with a special permit requiring further purification of the shellfish before sale.
- Seasonal (Nov - Apr) - and Seasonal (Jan - Apr) - where harvest is permitted only during certain seasons of the year.
- Approved - harvest permitted under any conditions.

The Division has designated the majority of the Navesink River within the study area as “Special Restricted”. This includes the Navesink River and Claypit Creek from the Oceanic Bridge westward. The “Seasonal – November – April)” classification includes the area from the Oceanic Bridge east to approximately Sea Bright.

Classification of the waters is based on the National Shellfish Sanitation Program. As specified in this program, classifications are based on three components: 1) Regular monitoring of water quality 2) Field surveys of shoreline conditions 3) Study of water currents and flows (hydrography). These functions are performed by New Jersey's Bureau of Marine Water Monitoring which monitors about 2,500 locations a minimum of five times a year.

Appendix A-4 is a graphic representation of the classification regulations and is provided for general information only. See 7:12-1et. Seq. for the full text and area descriptions.

Groundwater Recharge

A groundwater recharge map for the McClees Creek area is shown on Appendix A-5. This map was produced by the New Jersey Geological Survey. Ground-water recharge (GWR) is defined as the water that infiltrates the ground and reaches the water table regardless of the underlying geology. It supports aquifer recharge, stream baseflow and wetlands. The methodology used to estimate groundwater recharge is outlined in NJ Geological Survey Report GSR-32, "A Method of Evaluating Ground-Water-Recharge Areas in New Jersey" by E. G. Charles and others (1993).

The McClees Creek area is one of the highest groundwater recharge areas in Monmouth County with the majority of the area recharging 12 to 15 inches per year and many portions averaging 16 to 19 inches per year.

SEWER SERVICE AREA/ SANITARY SEWER SYSTEM

The McClees Creek area was identified by its 1983 CAFRA permit as an area specifically prohibited from the expansion of the Township of Middletown Sewerage Authority (TOMSA) sewer system. This was due to the area’s environmental sensitivity. The permit indicates that large lot zoning was appropriate for the McClees Creek area. Appendix 6,

Sewer Service Area/Sanitary Sewer System, delineates the sewer service area and shows the locations of sanitary sewers, manholes, forcemains and pump stations within and around the study area. Generally, the McClees Creek study area is within a non-sewered area. There have been a few minor residential subdivisions which have occurred within the study area over the past several years. These subdivisions constructed “dry” sewer lines in conjunction with the development in the event a sewer line extension was constructed along Navesink River Road. There is no plan for TOMSA to extend sewer to this area in the future.

WATER SERVICE

The New Jersey American Water Company is the service provider within the McClees Creek area. Mapping of specific water lines is not released due to security issues but the company has indicated water service is available for approximately 90 percent of the area.

THREATENED & ENDANGERED SPECIES (LANDSCAPE PLAN)

The forests, wetlands, grasslands, beaches and emergent areas of the McClees Creek area provide a suitable habitat for a variety of plant and animal species. The New Jersey Division of Fish & Wildlife prepared the Landscape Project in 2001. Part of the project included G.I.S. mapping which delineated critical environmental habitat. The purpose of the Landscape Project was to provide planners and decision makers information on threatened and endangered species and critical habitat prior to actions such as proposed development and resource extraction.

The Landscape Plan utilizes G.I.S. to map and delineate critical habitat. Appendix A-7 overlays the Landscape Project mapping onto the McClees Creek site. Five (5) categories of habitat are defined and mapped:

Value	Definition
1	Suitable Habitat – designates a patch as suitable habitat, no species have
2	Special Concern – patch where species of special concern have been
3	State Threatened – patch where state threatened species have been
4	State Endangered – patch where state endangered species have been
5	Federal T&E – patch where federal T&E species have been documented

The methodology for identifying and delineating critical wildlife habitat is discussed in the Landscape Plan found on the New Jersey Division of Fish and Wildlife website:

<http://www.state.nj.us/dep/fgw/ensp/landscape/index.htm>

The Bald Eagle and Osprey are the two threatened and endangered species that have been observed in within the McClees Creek area:



Bald Eagle –listed as endangered by the U.S. Fish and Wildlife Society

Picture courtesy of National Audobon Society



Osprey – listed as threatened by the State of New Jersey

Picture courtesy of Nature of New England

MONMOUTH COUNTY PLANNING

County Lands

Huber Woods and Hartshorne Woods are two Monmouth County Parks located in the McClees Creek area. Huber Woods is located off Navesink River Road in the central portion of the study area. The 258 acre Park offers seven miles of multi-use trails through forest and meadow areas, and the Environmental Center with hands-on nature displays.

Hartshorne Woods is located in the eastern portion of the study area. The park totals 736 acres and includes group cabin camping (by reservation), cross-country ski trails, fishing in the Navesink River, rest rooms, and trails for walking, hiking, biking, and horseback riding. Trails include 3 miles of paved paths closed to vehicular traffic in the Rock Point Section.

Roadways & Scenic Roadways

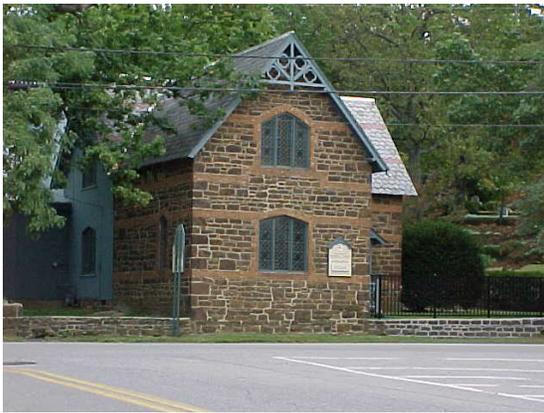
The major roadways through the area are three County Roads; Navesink River Road (CR 12A), Locust Point Road (CR 8A), Navesink Avenue (CR 8B). Other major roads are Kings Highway East and Chapel Hill Road. Unpaved roads are also a feature of the area

and allow access between major roads and within the interior of the McClees Creek area. Unpaved roads include Whipporwill Valley and portions of Browns Dock Road and Bowne Road.

Monmouth County prepared a Scenic Roadway Plan which identified scenic roadways and provided design considerations for these roadways. The Navesink River Road, Oceanic Bridge, Locust Avenue and Navesink Avenue (C.R. 12A, 8A, 8B)

Historic Sites/Districts

A number of historic sites and two (2) historic districts are located within the McClees



Creek study area. There are a total of 36 sites that are listed in the Monmouth County Historic Sites Inventory Summary Report, issued by the Office of New Jersey Heritage, the Monmouth County Park System and the Monmouth County Historical Association. Eight of these landmarks are eligible for inclusion on the National Register of Historic Places. Exhibit 4 lists these sites. Appendix

A-8 shows the location of the historic sites and districts.

**EXHIBIT 4
HISTORIC SITES
McCLEES CREEK STUDY AREA**

Site	Address or Site
1331-1-1	148 Kings Highway East
1331-1-2	151 Kings Highway East
1331-1-3	152 Kings Highway East
1331-1-4	153 Kings Highway East
1331-1-5	154 Kings Highway East
1331-10	Hans Huber Estate
1331-107	Luffburrow House/Haskell Estate Buildings
1331-108	Portland Place
1331-11	Joseph M. Huber Estate
1331-22	Riker Homestead/Haskell Estate
1331-23	Cooper-Paterson House
1331-25	Cooper Farm/Haskell Estate Building
1331-35	Hartshorne House
1331-36	John H. Stephens House – 108 Hartshorne Road
1331-37	Hartshorne House – 180 Hartshorne Road
1331-41	161 Kings Highway East
1331-42	Chapel Hill Beacon – 162 Kings Highway East
1331-43	170 Kings Highway East
1331-57	23 Locust Point Road
1331-58	33 Locust Point Road
1331-59	55 Locust Point Road
1331-61	83 Locust Point Road
1331-62	106 Locust Point Road
1331-74	All Saints Memorial Church
1331-75	Stone Arch Bridge
1331-76	176 Navesink River Road
1331-77	458 Navesink River Road
1331-78	Andrew Varick Stout House – 520 Navesink River Road
1331-79	562 Navesink River Road
1331-80	Allen House – 758 Navesink River Road
1331-81	799 Navesink River Road
1331-82	828 Navesink River Road
1331-83	858 Navesink River Road
1331-84	868 Navesink River Road
1331-85	928 Navesink River Road
1331-86	Nathaniel Smith House 946 Navesink River Road

Monmouth County Park, Recreation and Open Space Plan

The Park, Recreation and Open Space Plan for Monmouth County was adopted in 1992 and amended in 1998. The plan identifies several areas of acquisition including a 55 acre addition to Hartshorne Woods Park which would connect to Huber Woods Park and the Navesink River; a 96 acre addition to the west of Huber Woods Park; and the Woodland Site, known as the Haskell Estate, a +/- 480 acre site. Specific properties are not identified in the County Plan.

Farmland Preservation

The preservation of farmland has been a long-standing goal of the Monmouth County Planning Board. The Monmouth County Growth Management Guide, adopted in 1982,



identified Agriculture/Conservation Areas that generally coincided with the Limited Growth Areas consisting primarily of farmlands and woodlands.

Main objectives of the Guide include the preservation of prime agricultural land and the maintenance and expansion of the agricultural potential of the county. The Guide proposed a regional approach to farmland preservation through a coordinated effort with municipalities, other regional agencies and the state. The county's planning goals were updated and revised in the Growth Management Guide, Goals, Objectives and Policies adopted in 1995. One of the main goals of the plan is to promote and preserve the agricultural industry and to provide assistance in farmland preservation. The County adopted a Farmland Preservation Plan in 2000 which establishes a goal of preserving 1,110 acres of farmland in Middletown. Appendix A-9, Prioritization of Farmland Preservation in Monmouth County, shows the general location of areas prioritized for acquisition. The map is not intended to be site specific but shows regions of the county where preservation efforts should be focused. Active agricultural lands have been assigned a priority ranking based on several general factors to assist in preservation efforts,

including State Planning Area delineation and soil type. In the McClees Creek area farmland is designated as priority 3 and 4 out of a scale of 5. Priorities are as follows:

First Priority – Currently active farmland containing prime agricultural soils located in Planning Areas 4 and 4B.

Second Priority – Currently active farmland containing soils of statewide significance located in Planning Areas 4 and 4B.

Third Priority – Currently active farmland containing prime agricultural soils located in Planning Areas 3 and 5.

Fourth Priority – Currently active farmland containing soils of statewide significance located in Planning Areas 3 and 5.

Fifth Priority – All remaining currently active farmland.

STATE PLAN

The New Jersey State Development and Redevelopment Plan, adopted March 2001, recognizes the McClees Creek Area as an Environmentally Sensitive Planning Area (PA5). A small portion of the area along Chapel Hill Road and Kings Highway East are designated as Metropolitan Planning Area. (PA1). Huber Woods and Hartshorne Woods are designated as “Park” (PA6). There are no Centers within the McClees Creek area.

According to the State Plan the Environmental Sensitive Planning Area (PA5) contains large contiguous land areas with valueable ecosystems, geological features and wildlife habitats. The State Plan also describes Environmentally Sensitive Planning Areas as watersheds of pristine waters, trout streams and drinking water supply reservoirs; recharge areas for potable water aquifers; habitats of endangered and threatened plant and animal species; coastal and freshwater wetlands; prime forested areas; scenic vistas; and other topographical, geological or ecological features. This description of the Environmentally Sensitive Planning Area is consistent with the McClees Creek area.

The policy objectives for the Environmentally Sensitive Planning Area (PA5) as stated in the State Plan that are applicable to the McClees Creek area can be summarized as follows:

Land Use – “Maintain open space networks, critical habitat and large contiguous tracts of land in the Environs by a variety of land use techniques.”

Natural Resource Conservation – “Protect and preserve large, contiguous tracts and corridors of recreation, forest or other open space land that protects natural systems and sensitive natural resources, including endangered species, ground and surface water resources, wetland systems, natural landscapes of exceptional value, critical slope areas, scenic vistas and other significant environmentally sensitive features.”

Agriculture – “Encourage farmland retention.” “Ensure the availability of adequate water resources and large, contiguous tracts of land with minimal land use conflicts.”

Recreation - “Provide regional recreation and tourism opportunities by targeting parkland acquisitions and improvements that enhance large contiguous open space systems. Ensure meaningful access to public lands.”

Historic Preservation - “Encourage the preservation and adaptive reuse of historic or significant buildings, Historic and Cultural Sites, neighborhoods and districts in ways that will not compromise either the historic resource”... “Outside centers, coordinate historic preservation needs with open space preservation efforts. Coordinate historic preservation with tourism efforts.”

Public Facilities and Services – “to protect large contiguous areas of environmentally sensitive features and other open spaces; to protect public investments in open space preservation programs.”

The intent of the Environmentally Sensitive Planning Area (PA5) is to:

- Protect environmental resources through the protection of large contiguous areas of land
- Protect the character of existing stable communities
- Confine programmed sewers and public water services to Centers; and
- Revitalize cities and towns

CAFRA

The Coastal Areas Facility Review Act (CAFRA) has jurisdiction of a large portion of the McClees Creek area. The delineation of the CAFRA boundary is shown in Map Appendix A-10. CAFRA permits are required for most construction activities within CAFRA boundaries. This includes: major residential (25 units or more), industrial, transportation, utility and energy-related facilities. The CAFRA area is also within the Environmentally Sensitive Planning Area of the New Jersey State Plan. According to Section 7:7E-5B.4, Impervious cover limits for a site in the CAFRA area, a limit of 3 percent impervious cover is mandated for this area.

U.S. NAVAL WEAPONS STATION – EARLE

The Earle Naval Weapons Station is divided into two sections: Mainside, located in Colts Neck, and the Waterfront area, on Sandy Hook Bay adjacent to the town of Leonardo. Both areas are connected by Normandy Road, a 15 mile military road and rail line. The military road runs through Middletown Township and the northern portion of the McClees Creek study area. In addition to the railroad and Normandy Road, a 590 acre parcel of property is also located within the study area. This property is primarily wooded and within the property the railroad line branches off into a series of termination points connected to underground bunkers used to store munitions.

PROPOSED REZONING

T&M Associates recommends further protection of the McClees Creek area through municipal zoning regulations to implement the objectives of state, county and township for this area. We recommend the following zone plan for the McClees Creek area:

Public Zone – The new public zone will include government and publicly owned lands. This will include Hartshorne Woods and Huber Woods owned by Monmouth County and U.S. Weapons Station Earle. The purpose of the public zone would be to establish land use and development controls to permit public recreational uses and maintain open space.

R-40 Zone (1.0 Acre) – A small residential area of developed lots on Tan Vat Road is recommended to be classified as R-40.

R-90 Zone (2.0 acres) - The proposed R-90 zone is generally consistent with the existing R-90 zone for the area. An area west of Chapel Hill Road is proposed to change from R-90 to R-220 due to the size of existing lots which range from 7.0 acres to the south to 64.6 acres at the intersection of Kings Highway East. Additional R-90 zones are proposed in areas which have developed based on 1-2 acre lot sizes, including two developments off of Hartshorne Road.

R-110 Zone (2.5 acres) – Currently the R-110 zone generally extends along Navesink River Road and Hartshorne Road outside of Hartshorne Woods Park. This area is proposed to be reduced in size along Navesink River Road. The proposed zoning is R-150 (3.4 acre) and R-435 (10.0 acres). This is a new lower density based on the size of the existing lots and the character of the area. A small area (5 lots) north of the Navesink River Country Club is proposed to be rezoned from R-220 to R-110. These lots are existing residential lots and are consistent with the R-110 zoning. Two existing residential lots on Cooper Road of 2.5 acres and 3.6 are also proposed to be rezoned from R-220 to R-110.

R-150 Zone (3.4 acres) – The R-150 zone is a proposed new zone with a minimum lot size of 3.4 acres. R-150 is proposed for much of the existing R-110 zone with the exceptions noted above. R-150 is also proposed for two lots east of Patterson Avenue on Navesink River Road. These lots are 0.8 and 1.8 acres respectively and are currently zoned R-220.

R-220 Zone (5.0 acres) – The R-220 zone currently contains the largest percentage of property. In general, the area subject to the R-220 zoning is being reduced and is recommended R-435 or R-110. Certain areas now classified as R-90 are recommended to be reclassified as R-220. These areas are east of Chapel Hill; along Patterson Avenue; and between Hartshorne Road and the river. It is recommended that a cluster option be considered to be added to the zoning regulations for R-220 classification. The option would allow development to be clustered down from a density of 1 unit per 5 acres to 1 unit per 3 acres with at least 50% of the lot to remain in open space.

R-435 Zone (10.0 acres) – A new R-435 zone is proposed for large tracts and open space areas within the McClees Creek Study Area. This new zone requires a 10 acre minimum lot size.

The R-435 zone includes areas currently zoned R-220 located north of Huber Woods and the area surrounding Cooper Road and Whipporwill Valley Road. The new zone contains the most environmentally sensitive land and largest contiguous open space areas within the McClees Creek Study Area. This proposed zoning area contains 1,798 total acres.

Proposed rezoning acreage is shown in Exhibit 5. Map Appendix A-11 delineates the proposed rezoning for the McClees Creek area.

**EXHIBIT 5
PROPOSED REZONING ACREAGE
McCLEES CREEK STUDY AREA**

Area	Acres
R-40	7
R-90	472
R-110	652
R-220	710
R-150	502
R-435	1,798
Public	1,812
Total	5,874