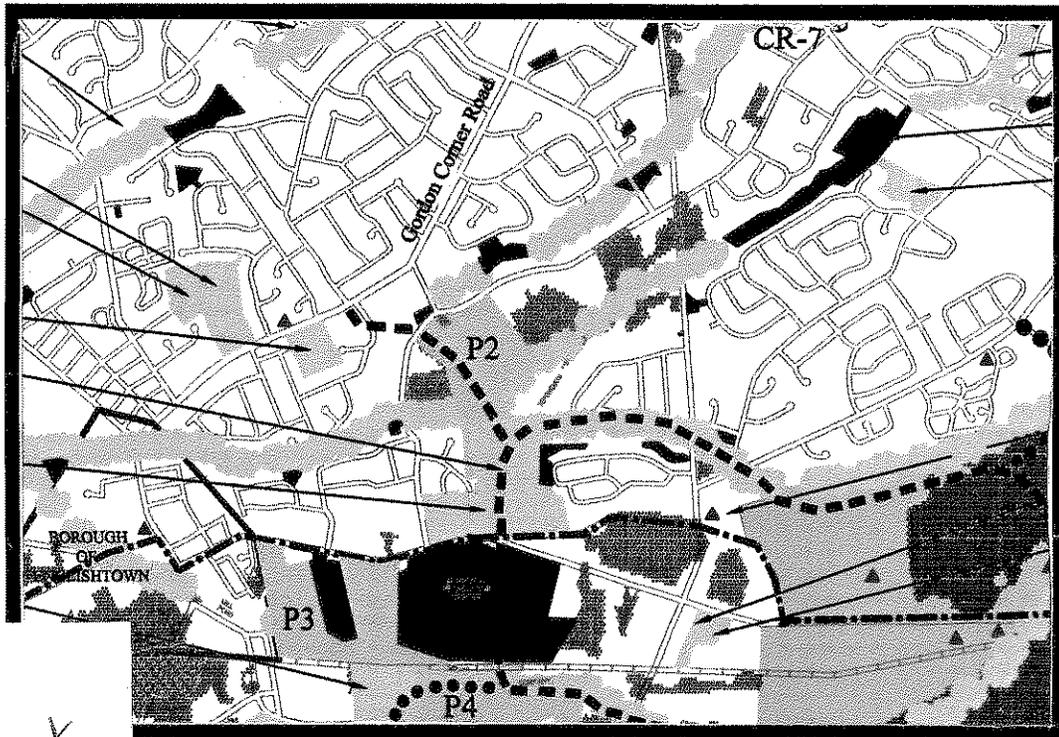


MASTER PLAN AMENDMENT

OPEN SPACE, RECREATION AND CONSERVATION ELEMENT



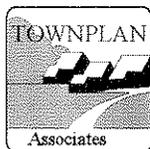
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PREPARED FOR:

**THE MANALAPAN TOWNSHIP
PLANNING BOARD**

AUGUST 1999

PREPARED BY



ELEVEN TINDALL ROAD
MIDDLETOWN, NJ 07748

MASTER PLAN

Open Space, Recreation, and Conservation Element

MANALAPAN TOWNSHIP

Prepared August 1999 by:



Eleven Tindall Road
Middletown NJ, 07748


Richard S. Cramer, PP, AICP
NJ Professional Planner
License No. 02207

Adopted on October 14, 1999 by the Manalapan Township Planning Board

This original of this document has been signed and sealed in accordance with N.J. Law.

TOWNSHIP OF MANALAPAN PLANNING BOARD

RESOLUTION ADOPTING
A MASTER PLAN AMENDMENT
DATE: OCTOBER 14, 1999

WHEREAS, the Manalapan Township Planning Consultant has prepared a proposed Master Plan Amendment dated August 1999 and amended October 1, 1999 which amends the Open Space, Recreation and Conservation Element; and

WHEREAS, after public notice as required by the Municipal Land Use Law, the Manalapan Township Planning Board considered that proposed amendment at hearings held on September 28, 1999 and October 14, 1999.

NOW, THEREFORE, BE IT RESOLVED by the members of the Manalapan Township Planning Board that the Master Plan Amendment prepared by Richard S. Cramer, P.P., Township Planning Consultant, dated August 1999 and amended on October 1, 1999 be and hereby is adopted.

This Resolution was offered by *MR. WISHART*, seconded by *MR. BENJAMIN*, adopted on roll call by the following vote:

	YES	NO	ABSTAIN	ABSENT	INELIGIBLE
Palazzo (alt.1)	()	()	()	(✓)	()
Pine (alt.2)	(✓)	()	()	()	()
Benkov	(✓)	()	()	()	()
Wishart	(✓)	()	()	()	()
Hogan	(✓)	()	(✓)	()	()
Benjamin	(✓)	()	()	()	()
Weisenberg	()	()	()	(✓)	()
Pytlik	(✓)	()	()	()	()
Hanlon	(✓)	()	()	()	()
Frenkiel	(✓)	()	()	()	()
Shapiro	()	()	()	(✓)	()

I hereby certify that the foregoing Resolution was adopted by the Planning Board of the Township of Manalapan at its meeting of October 14, 1999.



 WALTER PYTLIK Secretary

RESOLUTION OF THE MANALAPAN TOWNSHIP COMMITTEE
APPROVING THE OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT
AND CERTIFYING THAT SAID ELEMENT
IS CONSISTENT WITH THE TOWNSHIP MASTER PLAN :

WHEREAS, the New Jersey Department of Environmental Protection Green Acres Program provides a Planning Incentive funding category of low interest loans and grants for the acquisition of land for conservation and recreation purposes; and

WHEREAS, municipalities that have established a stable local funding source for open space preservation and prepared an open space and recreation plan that has been approved by the governing body to guide public expenditures for open space preservation are eligible for Planning Incentive funds; and

WHEREAS, Manalapan Township has prepared an Open Space, Recreation, and Conservation Element which meets the open space and recreation planning guidelines of the State Green Acres program by compiling an inventory of open spaces and recreation lands, analyzing the present and future Township need for recreation and open space, assessing resources, setting goals and objectives for recreation and open space preservation, and identifying lands within Manalapan which should be acquired for conservation and recreation purposes; and

WHEREAS, the Planning Board of Manalapan Township adopted the Open Space, Recreation, and Conservation Element on October 14, 1999 as an amendment to the Manalapan Township Master Plan; and

WHEREAS, the Shade Tree Committee has identified additional sites, attached hereto as Exhibit 1, which should be considered for conservation, and

WHEREAS, the Township Committee of Manalapan has reviewed the Open Space, Recreation, and Conservation Element of the Township Master Plan and the recommendations of the Shade Tree Committee and is in substantial agreement with their recommendations and findings, and

WHEREAS, the Township Committee has determined that the best interests of Manalapan would be served by initiating an action program to implement the Open Space, Recreation, and Conservation Element, as supplemented by the attached Shade Tree recommendations, by applying for available State funding to acquire needed conservation and recreation lands.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWNSHIP COMMITTEE OF
MANALAPAN TOWNSHIP

That the Township Committee of Manalapan hereby approves the Open Space, Recreation, and Conservation Element as supplemented by the attached Exhibit 1 of the Shade Tree Committee and certifies them to be consistent with the conservation and recreation element of the Township Master Plan.

That the Township Committee of Manalapan directs that a public hearing be scheduled and held on the submission of an application for Green Acres funding for the acquisition of conservation and recreation lands.

**Additions to the Shade Tree Sites
for the Open Space Program**

Union Hill Road to the Border of Old Bridge Township

This track of approximately 72 acres is an excellent wooded area in the northern part of the town. The topography undulates gently throughout the site. This property has uplands, transition areas, wetlands, and a pond. The forest floor is clear and mostly free of vines and briars. There is in place a system of trails (unmarked) and is a wonderful location for a park, nature trails, environmental center for education, or a campground.

Tree species are diversified and includes oaks, pines, maples, black locust, cherry and sassafras. This track offers a varied wildlife habitat. Access is available from Elisa Court (it dead ends at this track) and also by two drainage easements one on Jeanine Court and one on Donna Court.

We feel this an important track for preservation.

McBride Road

These ^{131.4}~~65~~ acres in the northern part of town have substantial slopes and land transition ranging from lowlands to a significant height affording an overlook of a large green area. Exposed sandy soil off of McBride Road provides accessibility into the interior of the site. There is a mixed variety of vegetation ranging from blueberries to giant oaks. The majority of trees are of intermediate size. Area supports a variety of wildlife and birds.

Route Nine South, north of Taylor Mills Road to the Brook

18.2 acres of green on Route Nine. Mostly lowlands, wetlands, and transition areas including a stream. There are significant size trees of water tolerant species. The site offers easy accessibility, high exposure, and a welcome break of green on a busy commercial corridor.

Union Hill Road - Block	3.02	Lots	37.02	5.1 acres
			37.03	6.8 acres
			32	17.18 acres
			39.02	38.03 acres
			31	4.5 acres
Route 9	Block10	Lots	22	6.6 acres
			23	6.18 acres
			24	5.4 acres
McBride Road	Block 47	Lot	24	65 acres ^{131.4}
		Lot	46.01	63.4 acres



EXECUTIVE SUMMARY

Manalapan Township has grown and developed in recent decades. The Township still, however, retains valuable woodland, farmland, rural areas, and neighborhood open spaces. As Manalapan enters the next century, it has an opportunity to secure its historic, rural, and suburban landscape by participating in an expanded State effort to preserve open space in New Jersey. Municipalities with plans and programs in place for open space acquisition will be in the best position to take advantage of State funding.

The Township has updated the open space, conservation, and recreation element of the Master Plan. The element will guide Township recreation and conservation efforts and provide a basis for State funding to preserve Township open space. The element addresses the following questions:

How much land is needed for Township open space and recreation use?

Where should Township open space and recreation land be located?

How should Township open space and recreation land be used?

Open space preservation is essential to maintaining a healthy environment, controlling urban sprawl, and ensuring a high quality of life for Township residents. A Township network of permanently preserved open spaces is needed to provide recreation, maintain biodiversity, control flooding, preserve farmland, and protect the significant scenic, cultural, and natural features of the community.

To identify its open space needs, the Township compiled an inventory of the existing public and private open space and recreation resources available in Manalapan. It also mapped the important natural features, habitat areas, and farm areas within the community.

Local Park and Recreation Needs

A substantial area of Manalapan Township has been preserved as public open space in State, County, and Township park and recreation areas. In addition, there are recreation facilities at public school sites and on private land developed for recreational use. State and County park facilities and



school and private recreation areas satisfy some, but not all, of the community need for recreation and open space. To ensure that the Township can provide residents with a variety of needed recreation programs and facilities, there should be a core system of lands owned and controlled by the Township and dedicated to local public recreation use.

Given the growth in population and participation in local recreation programs, Manalapan should expand the existing Township park system to include an additional 200 acres for use as community parks and active recreation areas.

The plan also recommends establishing conservation park and recreation areas to preserve important woodland and habitat areas.

The plan recommends community parks for active recreation be distributed throughout the Township and have at least twenty developable acres of land. Large community parks can achieve economies of scale for park development, maintenance, and operation. Facilities in the expanded park system will include additional all purpose fields, baseball/softball fields, tot lots, passive facilities, nature center, amphitheater, boating and camping, garden areas, playgrounds, and multi-use paths.

With this expansion, more than 2,300 acres in the Township will be publicly owned and permanently preserved as Township, County, or State park and recreation areas. The Township park system itself will total more than 1,000 acres.

Greenways and Resource Protection

In addition to public recreation, the Township needs open space to preserve environmentally critical lands and natural resources. Such open space provides habitat needed for biodiversity, helps maintain water quality and air quality, and provides flood control.

The open space system planned for Manalapan will include a greenway network that connects the public parks and provides natural habitat linkages, stream corridor protection, and opportunities for development of a trail system. The trail locations will need to be compatible with adjacent land uses, habitat protection, and the desires of landowners and neighborhoods. Some greenways may simply provide stream corridor and habitat protection and have no public access or trail provisions. The Township has already succeeded in preserving greenway segments as passive open space protected by conservation easements.



Farmland Preservation

Farming contributes to the economic base of the Township and is essential to maintaining the open rural landscape that characterizes much of the community. Active farms with fertile soil are located throughout the Township. As part of the State open space preservation effort, there will be an increase in State funding to preserve farmland. The farmland preservation program ensures the preservation of farms through public purchase of the development rights. The farm remains in private hands and farm operations continue. However, the land can no longer be developed for non-farm uses. A farmer or farmland owner voluntarily enters into an agreement with the County and the State to sell the development rights to the public. On average, the County pays for 35% of the cost and the State pays 65%.

Currently, there are six farmland preservation applications totaling 392 acres in Manalapan. The plan recommends preserving at least 1,000 acres in Manalapan as farmland.

Implementation

To implement the plan, the Township should establish a land conservation program that is coordinated with State and County programs to finance the preservation of open space and farms and to acquire and develop parkland for public recreation. In addition, the Township should manage, regulate, and direct growth to ensure that development design and location are compatible with and support the open space plan for Manalapan.

Implementation of the plan will require a stable funding source. The Township should establish, by referendum, an Open Space Trust Fund that would be used to pay the costs of implementing the plan and to leverage additional State, County, and Federal funds. Open space trust funds have been successfully used in many other New Jersey communities. If the Township establishes a Trust Fund by referendum, it will qualify for State grants that can cover 50% to 75% of the cost of acquisition of land for recreation and conservation purposes.



MANALAPAN TOWNSHIP PLANNING BOARD



DREW SHAPIRO, CHAIRMAN

HOWARD BENKOV, VICE CHAIRMAN

RICHARD FRENKIEL, MAYOR

NOREEN HANLON, COMMITTEEWOMAN

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RICHARD S. CRAMER, P.P., TOWNPLAN ASSOCIATES, PLANNING CONSULTANT

GREGORY VALES, P.E., CME ASSOCIATES, ENGINEER

ELEANOR RUGGIERO, ADMINISTRATIVE OFFICER



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INTRODUCTION

Manalapan Township has grown and developed in recent decades. The Township still, however, retains valuable woodland, farmland, rural areas, and neighborhood open spaces. As Manalapan enters the next century, it has an opportunity to secure its historic, rural, and suburban landscape by participating in an expanded State effort to preserve open space in New Jersey. In June 1999 Governor Whitman signed the Garden State Preservation Trust Act into law. The bill responds to the overwhelming voter approval of an open space referendum in November 1998. The State goal is to add a million acres to the inventory of preserved open spaces, recreation areas, and historic sites in New Jersey. One billion dollars in dedicated sales tax revenue will be expended over the next ten years to achieve the goal. A significant portion of the revenue will be earmarked for open space preservation by local government. Municipalities with plans and programs in place for open space acquisition will be in the best position to take advantage of State funding.

The current recreation and conservation elements of the Township Master Plan were adopted in 1991. In 1997, the Township Department of Parks and Recreation compiled a new five-year plan for Township

park and recreation programs. The Township Environmental Commission has, periodically, compiled additional information and mapping and issued reports to update the Township Natural Resource Inventory. As part of a general reexamination of the Township plan, the Planning Board concluded that the Master Plan recreation and conservation elements should be updated. This open space plan will guide future Township recreation and conservation projects and provide a basis for State funding. It addresses the following questions:

How much land is needed for Township open space and recreation use?

Where should Township open space and recreation land be located?

How should Township open space and recreation land be used?

To address these questions, the Planning Board, with the help of the Environmental Commission, the Shade Tree Committee, and the Board of Recreation Commissioners, has developed this plan. The Board has compiled an inventory of existing open space and recreation resources in the Township, analyzed present and future open space needs, and identified lands that have the potential for meeting community needs.



The plan establishes open space objectives, identifies the actions needed to achieve the objectives, and maps a proposed open space and recreation system for the Township.

INVENTORY

The starting point for a needs assessment is the inventory of existing public and private open space, recreation resources and natural resources within the Township. The Township, in compiling its inventory, has also reviewed State and County plans for open space preservation to determine how they impact Manalapan. The inventories and mapping compiled by the Township provide a baseline of information for developing a local open space plan to meet public recreation and resource protection needs.

Public Park and Recreation Facilities

There are 1,867 acres within Manalapan Township, or 9.44 % of the Township land area, that are owned by the State, County or Township and permanently dedicated and preserved for public access and use as open space, parks, or recreation facilities (see Exhibit 1). The location of public open spaces is shown on Exhibit 2. Each level of government is responsible for providing certain types of open space and recreation facilities. Typically, the State government protects and manages the natural or cultural environment by preserving tracts or locations that have statewide significance and attracts users from a wide geographic area. County government provides recreation and open space facilities which are designed to serve the County as a whole

EXHIBIT 1

**DEDICATED PUBLIC PARK AND RECREATION LAND
MANALAPAN TOWNSHIP, NEW JERSEY**

	Area (Acres)	% of Township Land Area
State of New Jersey Parks	1,291	6.53
Monmouth County Parks	52	0.26
Manalapan Township Parks	524	2.65
Total Township Land Area	19,777	100.00



or to serve larger areas consisting of several communities within the County. Users of State and County park and recreation areas will frequently travel longer distances to enjoy the unique features of such areas. Municipal government provides the close-to-home and easily accessible park and recreation facilities that meet the immediate needs of their residents. Playgrounds, athletic fields, court sports, picnic areas, passive areas for enjoyment of local scenery and views, and opportunities for water contact sports, are typical recreation opportunities found in local park facilities.

State Parks

The largest tract of dedicated public open space in Manalapan is Monmouth Battlefield State Park. The park, owned by the State of New Jersey, is a major battlefield of the Revolutionary War and is listed on the National Register of Historic Places. The battle, fought June 28, 1778, was the Continental Army's first major combat following the hardships of the winter at Valley Forge. At Valley Forge, a German officer, von Steuben, drilled and disciplined the Continentals using European methods. The battle at Monmouth was the longest sustained engagement of the Revolution. It demonstrated the effectiveness of von Steuben's efforts. The Continental Army, led

by Washington, maneuvered and held the battlefield against the King's finest troops. In addition to preserving the battlefield and a number of architecturally significant buildings, the State Park contains hiking and biking trails and a visitor's center.

Also located in Manalapan Township is the historic route taken by the Continental Army to the battle. The State plans to preserve a broad greenway corridor of farms and open spaces across central New Jersey linking Washington Crossing State Park, the Princeton Battlefield, and Monmouth Battlefield State Park. The greenway will include a trail for public access and use. The State anticipates that some acquisitions will be made in Manalapan, either as fee simple purchase or as easements, to create the greenway.

Private development has taken place or been approved in Manalapan along the periphery of the State Park. The Township Planning Board, through the review and approval process, has secured public access easements in key areas to permit neighborhood access and trail links to the Park for the benefit of Manalapan residents. Trail access has been reserved along the Weamaconk Creek, along General Greene's advance across Battleground Country Club,



and through the Parkview development across McGellaird's Brook.

County Parks

There is one County recreation site in Manalapan. The Pine Brook Golf Course is operated by the Monmouth County Park System and consists of a 60.0 acre 18 hole executive golf course with a course clubhouse.

The Monmouth County Open Space Plan proposes a system of linear open spaces, called greenways, across Manalapan. The greenways will connect County Park facilities that are located outside Manalapan, such as Turkey Swamp Park and Charleston Springs Golf Course, to Battlefield State Park and Manalapan Township park sites. Greenways are shown on the County Plan along Weamaconk Creek, McGellairds Brook, Manalapan Brook and the Manalapan Utility R.O.W. The greenway system would extend into Middlesex County and is also shown in the Middlesex County Plan.

Manalapan Township Parks

Manalapan Township owns fifty-four sites dedicated to recreation and open space use. The sites total 524.1 acres. Of the total

acreage, 299.7 acres, or 57%, is upland. The remainder is wetland, floodplain or drainageways (see Exhibit 3). The lands are dedicated to passive and active recreation and open space conservation. Approximately 50 percent of the total area is developed with athletic fields, court sports, playgrounds, and other outdoor activity areas.

The distribution of municipal recreation and open space by parcel size is skewed toward smaller parcels (see Exhibit 4). Sixty three percent of the 54 open space and recreation parcels are two acres or less in size and just under 80 percent are four acres or under in size. About 17%, or 52 acres, of the upland acreage is located on parcels of 4 acres or less in area. Three tracts, Thompson Grove, the Manalapan Recreation Center, and the Lafayette Mills Road tract are each over 50 acres in size. Thompson Grove is an important habitat area for a threatened species, the grasshopper sparrow. Consequently, it has limited development potential for active recreation facilities. The Lafayette Mills Road tract is a forest and largely encumbered by a conservation easement. It, too, has limited potential for the development of active recreation facilities. The Manalapan Recreation Center, located in the geographic center of the Township, is the largest concentration of



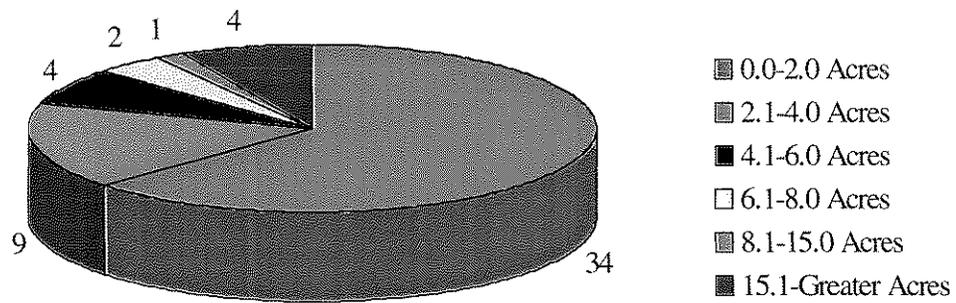
EXHIBIT 3
MANALAPAN TOWNSHIP
EXISTING TOWNSHIP PARKS AND OPEN SPACE

Number/Letter	Name	Acres	Wetlands	Upland
I	Locust Grove	2.4	0	2.4
2	Holiday Park	11.2	5	6.2
3	Manor Drive	3.8	0	3.8
4	Tennent Road	0.8	0	0.8
5	Kelso	3.0	0	3.0
6	Thompson Grove	65.0	3.25	61.8
7	Pinewood	1.9	0	1.9
9	Gettysburg	5.6	0	5.6
12	Pension Hall	0.5	0	0.5
13	Recreation Center	93.5	23	70.5
14	Dreyer's Tract	37.5	9.4	28.1
15	Bucks Head	2.5	0.2	2.3
16	Knolls	5.5	0	5.5
17	Short Oaks	0.5	0	0.5
18	Balmar	6.1	0.1	6.0
19	Forest Hills	2.0	0	2.0
21	Dreyer's Additional Lot	17.1	5.1	12.0
A	Colonial	11.5	8	3.5
AA	Highway 33	0.1	0	0.1
B	Scenery Hill	4.0	3.5	0.5
BB	Smithburg Road	0.6	0	0.6
C	Ogden Lane	3.0	3	0.0
CC	Shilling Road	6.2	1.5	4.7
D	Ryan Road	7.0	7	0.0
DD	Oxford Road	10.0	8	2.0
E	McGellards	19.7	17.7	2.0
EE	Newport Drive	1.0	0	1.0
F	Route 33	1.9	0	1.9
FF	Tennent Road Rear	11.4	11.4	0.0
G	Wynn Group	37.2	30	7.2
GG	Tennent Road	2.1	1.5	0.6
H	Grant Road	3.0	0.1	2.9
HH	Thomas Drive	1.6	1	0.6
I	Doral-Sold 11/85	2.0	0	2.0
II	Pine Hill Est.	7.6	4	3.6
J	Tennenant Manor	2.6	0.6	2.0
JJ	Briarheath	2.4	2.4	0.0
K	Connack	0.9	0.75	0.2
KK	Lafayette Mills Road	79.3	39.6	39.7
L	Caitlin Way	5.0	3	2.0
M	Longstreet Road	2.7	2.7	0.0
N	Jared Lane	3.1	0.5	2.6
O	Pease Road	1.5	1.5	0.0
P	Foreman Lane	0.2	0	0.2
Q	Tracey Drive Walkway	0.2	0.05	0.2
R	Timber Lane	1.7	0	1.7
S	Westbrook Way	10.1	8	2.1
T	Eastwood Blvd.	1.9	1	0.9
U	Pease Road	2.3	1.2	1.1
V	Taylor Mills	1.1	1.1	0.0
W	Dey Street	4.8	4.8	0.0
X	Freehold Road	4.2	4.2	0.0
Y	Iron Ore Road	10.1	10.1	0.0
Z	Highway 33	1.2	0.2	1.0
		524.1	224.5	299.7



**EXHIBIT 4
DISTRIBUTION OF TOWNSHIP OPEN SPACE PARCELS BY SIZE**

Upland ROSI Lots	Number	Acres	Percent of Number
0.0-2.0 Acres	34	26.2	63.0%
2.1-4.0 Acres	9	26.2	16.7%
4.1-6.0 Acres	4	21.8	7.4%
6.1-8.0 Acres	2	13.4	3.7%
8.1-15.0 Acres	1	12	1.9%
15.1-Greater Acres	4	200.1	7.4%
	54	299.7	100.0%





active recreation facilities in the Township. It provides facilities for many of the Township recreation activities and programs and includes fields that are illuminated for night time play.

Most of the Township sites are north of the rail line which bisects Manalapan. Eight of the sites, totaling 88.6 acres, are located in the southern half of the Township. The largest of the southern sites is Thompson Grove.

The recreation facilities provided in each Township park are shown on Exhibit 5. They include the following active recreation facilities:

- 11 Basketball Courts
- 11 Playgournds/Tot Lots
- 10 Football/Soccer Fields
- 7 Softball/Baseball Fields
- 8 Tennis Courts
- 5 Picnic Areas
- 2 Handball Courts
- 2 Bocce Courts
- 2 Shuffleboard Courts
- 2 Volleyball Courts
- 1 Roller Hockey Rink
- 1 Fitness Trail
- 1 Multi-use Building

Board Of Education Recreation Facilities

There are seven developed public school sites in Manalapan Township and one proposed school site. Of the eight sites,

seven are under the jurisdiction of the Manalapan-Englishtown Regional School System. One site, the Manalapan High School, is under the jurisdiction of the Freehold Regional High School District. The schools provide indoor and outdoor active recreation facilities. The public school districts control 221.8 acres of developed land and one 31 acre site for a future school. In total 1.3% of the Township land area has been designated for public school use. School recreation facilities include the following facilities:

- 18 Softball/Baseball Fields
- 18 Soccer/Football Fields (8 Soccer, 2 Football, 10 Combo)
- 9 Gymnasiums
- 6 Tennis Courts
- 6 Basketball Courts
- 4 Tot Lots
- 2 All Purpose Rooms
- Weight Room
- Running Track

The recreation facilities at each developed public school site are shown on Exhibit 6.





**EXHIBIT 5
INVENTORY OF PUBLIC PARK AND RECREATION FACILITIES**

PARK	SITE ACREAGE	CURRENT FACILITIES
State		
Battlefield State Park	1,520.0	visitor center, lake, 2 picnic areas, 1 tot lot, 25 mile trail, nature center
Monmouth County		
Pine Brook Golf Course	60.0	18 hole executive golf course, club house
Manalapan Township		
Locust Grove	2.4	basketball court, playground
Holiday Park	11.2	playground, softball field, ice skating pond
Colonial Court	3.9	open area
Manor Drive	3.8	Playground
Tennent Road	0.8	open area
Kelso Place	3.0	open area
Scenery Hill	1.0	open area
Scenery Hill Extension	3.0	open area
Thompson Grove	65.0	open area, bird sanctuary, lake
Pinewood Drive	1.9	Playground
Village Green	5.1	gazebo, open field
Gettysburg Drive	5.6	open area
Ogden Lane	3.0	open area
Ryan Road	7.0	open area
Tennent Manor	2.6	open area
Caitlin Way	5.0	open area
Old Town Hall (Senior Center)	1.6	open area, picnic area, building
Community Building	5.0	multi use building
Pension Hill	1.0	basketball court
Manalapan Recreation Center a – Phase	193.5	2 handball courts, 2 softball/baseball fields, fitness trail, 7 football/soccer fields, street hockey court, 3 tot lots, 6 basketball courts, 6 tennis courts, 2 bocce courts, 2 shuffleboard courts, 2 volleyball courts, hosehshoe pit, concession stand, 2 picnic areas, 2 maintenance buildings, shelter building, headquarters building
b – Phase 2 Dreyer Tract	37.5	3 softball/baseball fields, 2 football/soccer fields, 1 tot lot, snackbar/shelter building
Bucks Head	2.5	1 tennis court, 1 basketball court, playground, open field, picnic area
Knolls Playground	5.5	1 basketball court, open field
Short Oaks	0.5	tot lot
Balmar	6.1	tennis court, tot lot, open field
Foreman Lane	0.2	walkway



Exhibit 5 Continued

PARK	SITE ACREAGE	CURRENT FACILITIES
Tracey Drive	0.2	walkway
Timber Lane	1.7	open area
Eastwood	1.9	open area
West Brook Way	10.1	open area
Forest Hills	2.0	playground, open field
Sanford Park	6.4	baseball/softball field, soccer field, basketball court, tot lot, picnic area

Source: Manalapan Department of Parks and Recreation
 Prepared by: Townplan Associates
 July 13, 1999

EXHIBIT 6
INVENTORY OF PUBLIC SCHOOL RECREATIONAL FACILITIES

SCHOOL	SITE ACREAGE	CURRENT FACILITIES
Pine Brook	17.7	2 gymnasiums, 2 softball/baseball fields, 1 soccer field
Lafayette Mills	16.3	1 gymnasium, 1 all purpose room, 3 softball/baseball fields, 4 football/soccer fields, 1 tot lot, 4 outdoor basketball courts
Clark Mills	28.0	1 gymnasium, 3 softball/baseball fields, 4 soccer fields, 1 tot lot, 2 outdoor basketball courts, 1 practice football field (lighted)
Taylor Mills	18.0	1 gymnasium, 3 softball/baseball fields, 1 soccer field, 1 tot lot
Milford Brook	15.3	1 gymnasium, 1 all purpose room, 3 tennis courts, 1 softball/baseball field, 2 football/soccer fields, 1 tot lot
Manalapan-Englishtown Middle School	67.5	2 gymnasiums, 1 auditorium, 2 softball/baseball fields, 2 football/soccer fields
Manalapan High School	59.0	2 gymnasiums, 1 auditorium, 1 weightroom, 3 tennis courts, 1 football stadium, 2 softball fields, 2 baseball fields, 2 soccer fields, 1 running track

Source: Manalapan Department of Parks and Recreation
 Prepared by: Townplan Associates
 July 13, 1999



**EXHIBIT 7
INVENTORY OF PRIVATE RECREATION FACILITIES**

SITE	ACREAGE	CURRENT FACILITIES
ABC Spectrum	5.1	pool, 1 tot lot, activity building, picnic area, playground
American Legion	2.5	baseball field, building
Battleground Country Club *	195.0	18-hole championship golf course, club house, restaurant
Country Roads Summer Camp	26.0	4 swimming pools, sports pavilion, baseball/soccer field, basketball
Covered Bridge I *	9.7	club house, 2 tennis courts, swimming pool, bocce court, 6 shuffleboard courts
Covered Bridge II *	3.8	club house, 2 tennis courts, swimming pool, 3 shuffleboard courts
Holiday Swim Club	12.0	3 swimming pools, 1 diving pool, 5 tennis courts, baseball field, recreation building, street hockey court, jacuzzi
KinderCare	1.4	swings, multi purpose field
Little Red School House Nursery	2.0	tot lot
Manalapan Country Lanes Bowling Center	3.1	40 lanes, arcade, billiards
Monmouth Heights Swim Club	5.5	2 swimming pools, 2 tennis courts, basketball court, recreation building, 2 volleyball courts, 1 shuffleboard court, 1 horseshoe pit, playground
Oak Knoll	1.4	swimming pool, cabana, club house, tennis courts, basketball court
Old Tennent		tot lot, multi purpose fields
Pied Piper Playhouse Nursery	4.0	tot lot
Playtime	0.5	indoor play area
Quail Hill Boy Scout Camp *	205.0	camping facilities, swimming pool, clubhouse, archery range, multi purpose room
Chesterbrook Academy	10.0	playground
Knob Hill Golf Course *	141	18-hole golf course

* These recreation facilities may be considered permanent by virtue of easements or conditions of development approvals.

Source: Manalapan Department of Parks and Recreation
 Prepared by: T&M Associates
 July 13, 1999



Private Recreation and Open Space Land

Private recreation facilities total 528 acres in Manalapan Township, or 2.7% of the total Township land area. The largest of these facilities is the Quail Hill Boy Scout Camp.

The 205.0 acre camp is popular for both summer and winter Scout activities and contains areas for camping, swimming, archery as well as a clubhouse and multi-purpose room. Monmouth County has acquired an easement to the camp that permanently preserves it as open space. The easement requires that the facility be made available to other organized groups when not in use by the Boy Scouts. Also located in Manalapan are two privately owned 18-hole golf courses. The 195-acre Battleground Country Club adjoins Monmouth Battlefield State Park. It contains a clubhouse in addition to the 18-hole golf course. The Country Club has been approved for redevelopment as a golf course residential community. The approval requires that the residences be clustered and that the golf course be preserved permanently as a golf course or as open space. Knob Hill Golf Course is a 141 acre 18 hole course. It was constructed as part of a planned development which required that

the course be preserved permanently as a golf course or as open space. The remaining 87 acres of private recreation land includes commercial recreation facilities such as the bowling center, day care centers and nursery schools, summer camps, swim clubs, and common recreation areas for the private enjoyment of residential developments.

NATURAL AND CULTURAL RESOURCES

The Township Environmental Commission compiled a Natural Resource Inventory in 1976. The Commission has maintained and periodically updated the inventory. The most recent update to the inventory addresses biodiversity. Monmouth County compiled an inventory of historic sites in Monmouth County in 1984. The County Inventory is the basis for the current historic preservation element of the Master Plan.

The important natural and cultural resources of the Township include:

- Freshwater wetlands and transition areas
- Floodways and flood hazard areas
- Stream corridors
- Watersheds of public water supply (Manalapan Brook and Matchaponix Brook)
- Category One watersheds (Weamaconk Creek and McGellairds Brook)



- Habitats of threatened and endangered species and wildlife corridors
- Mature woodlands
- Major aquifer outcrop areas (Englishtown formation, Mount Laurel and Wenonah formations)
- Steep slopes
- Prime Farmland
- Historic Sites

The extent of floodplains, wetlands, and steep slopes is shown on Exhibit 8. A description of the distinct habitats in the Township for wildlife and plant life has been provided by the Environmental Commission.

WILDLIFE/BIOLOGICAL DIVERSITY

Major Vegetation Communities

Manalapan Township is comprised of various vegetation community types. Major vegetation communities or habitats can be characterized as terrestrial and aquatic/semi-aquatic. The terrestrial or land-based habitats within Manalapan are further divided into subcategories. Exhibit 9 identifies the habitats with dominant vegetation species noted for each. Exhibit 10 provides a breakdown of the semi-aquatic/aquatic habitats or lowlands present in the Township.

Land use coverage information obtained from the Department of Environmental Protection & Energy (March 1993) indicates that the Township contains the following vegetation types:

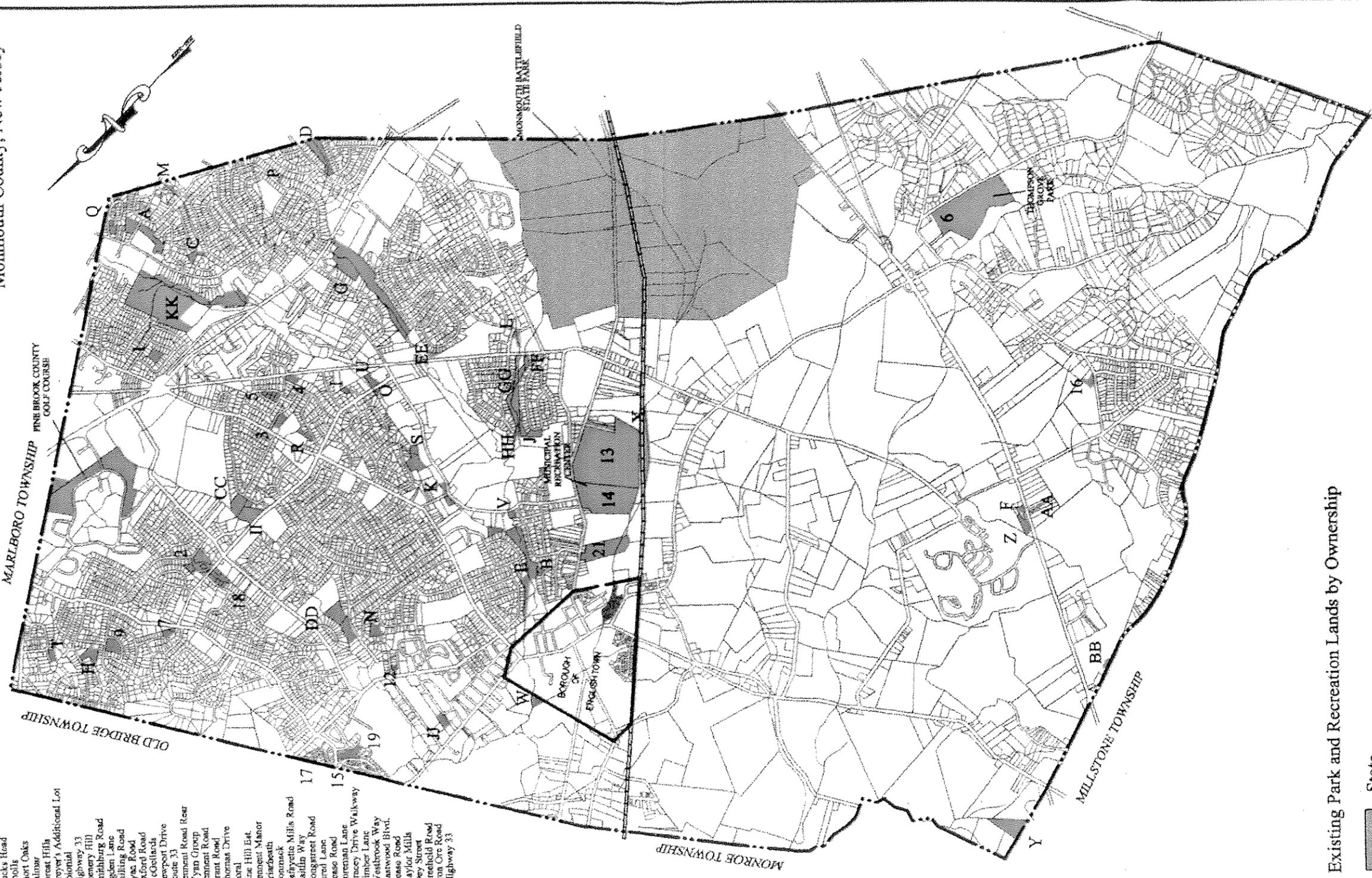
- ◆ cropland and agricultural
- ◆ fruit tree orchards
- ◆ deciduous upland forest
- ◆ deciduous wooded wetlands
- ◆ non-tidal emergent marshes
- ◆ brush dominant/scrubland wetlands
- ◆ reservoirs/ponds/open water areas
- ◆ old field uplands



Swamp pink (Helonias bullata)

EXHIBIT 2 EXISTING PUBLIC PARK AND RECREATION LANDS MANALAPAN TOWNSHIP Monmouth County, New Jersey

- 1 Locust Grove
- 2 Holiday Park
- 3 Manor Drive
- 4 Tennent Road
- 5 Kelso
- 6 Thornspoor Grove
- 7 Pinewood
- 8 Gettysburg
- 9 Pension Hall
- 12 Recreation Center
- 13 Dwyer's Tract
- 14 Bucks Head
- 15 Knolls
- 16 Short Oaks
- 17 Belmar
- 18 Forest Hills
- 19 Dwyer's Additional Lot
- 21 Colonial
- AA Highway 33
- A Scenery Hill
- B Smithburg Road
- BB Oyster Lane
- CC Riva Road
- D Oxford Road
- DD McGellards
- E Newport Drive
- EE Route 33
- FF Tennent Road Rear
- G Wynn Group
- GG Tennent Road
- H Grant Road
- HH Thomas Drive
- I Doral
- J Pine Hill East
- K Tennent Manor
- KK Briarbeath
- L Lafayette Mills Road
- M Caidin Way
- N Longmead Road
- O Jural Lane
- P Pease Road
- Q Foreman Lane
- R Tracey Drive Walkway
- S Timber Lane
- T Westbrook Way
- U Eastwood Blvd.
- V Pease Road
- W Taylor Mills
- X Dey Street
- Y Freefield Road
- Z Iron Ore Road
- 1 Highway 33



Existing Park and Recreation Lands by Ownership

- State
- County
- Manalapan Township



Prepared: May 31, 1989
Revised: August 3, 1989

Number and letter are keyed to Recreation and Open Space Inventory List

EXHIBIT 8 ENVIRONMENTAL FACTORS MANALAPAN TOWNSHIP

Monmouth County, New Jersey



-  Wetlands
-  Floodplain
-  Slopes (10 % or greater)


Prepared: December 29, 1998
Revised: July 28, 1999





EXHIBIT 9 LAND BASED HABITATS

Terrestrial Vegetation Habitats	Deciduous Woodlands	Successional Fields	
<ul style="list-style-type: none"> • Orchards • Agricultural Lands • Mixed Oak, Mature, Deciduous Forest • Early Successional Forest – Sweetgum/Maple/Black Cherry/Sassafras • Early Successional Old Field 	<p style="text-align: center;">Oak dominated forest (mixed oak)</p> <ul style="list-style-type: none"> • White Oak • Red Oak • Scarlet Oak • Black Oak • Chestnut Oak 	<u>Herbs</u>	<u>Woody Invaders</u>
		<ul style="list-style-type: none"> • Horseweed • Ragweed • Chickweed • Foxtail Grass • Goldenrods • Broom Sedge Grass 	<ul style="list-style-type: none"> • Blackberry • Dwarf Sumac • Poison Ivy • Sweetgum • Red Maple • Black Cherry • Sassafras

Source: Manalapan Township Environmental Commission

EXHIBIT 10

Semi-Aquatic and Aquatic Habitats

- Ponds, Lakes, Reservoirs
- Streams, Tributaries and Ditches
- Palustrine Forested Broad-leaved Deciduous Wetlands
- Palustrine Emergent Wetlands
- Palustrine Scrub-Shrub Wetlands

Source: Manalapan Township Environmental Commission

The type of vegetation community is directly related to the soil substrate and morphology, elevation, seasonal high water table, geologic patterns and climatic factors. Exhibit 11 shows the location of forest cover in Manalapan and threatened and endangered species habitat.

Wildlife Diversity

Different vegetation communities are utilized by various species of wildlife. Certain critical factors of habitat are necessary in order for a particular species to exist and thrive. The presence of a water



source, cover, and adequate food supply are all vital components of preferred habitat for wildlife species. The importance of each is dependent upon the species use of a particular habitat. Many species are year-round inhabitants for all stages of its life (breeding, resting, foraging, nesting); other species may be transients or require a particular habitat just for breeding. These latter wildlife species may be dependent on larger or regionally diversified habitats to meet its specific needs. Therefore, the diversity of wildlife is a function of the variety of plant communities.

All vegetation communities go through ecological succession. These natural communities have patterns associated with time and space within major regional plant communities. The types of animals found in each community are typically dependent on the types of plants present. The number of different species in an area is termed species *richness*. Species diversity within a particular habitat or plant community is a combination of richness and abundance (number of individuals of various species). The stability of any species and its habitat is based on maintaining a constant population without a decline of the species.

Wildlife diversity in Manalapan Township is based on the various types of habitats.

Unique or important wildlife habitats are areas typically associated with the floodplains and freshwater wetlands of the various streams which transect the Township. Of particular importance in Manalapan are the *boxed* areas shown on Exhibit 11. These boxed areas are either shaded or hatched and were reproduced from the New Jersey Natural Heritage Database Index Maps. These areas indicate regional locations of known occurrences where rare, endangered and threatened species and natural communities exist. The areas are generalized and do not pinpoint any species at a precise location. An interpretation of the overlay map indicates that the shaded portions are documented locations, known precisely, and the hatched areas are also documented locations but known within 1.5 miles. An interpretation of the overlay map indicates that the central and southern portions of Manalapan Township are comprised of these



Bog Turtle (Clemmys muhlenbergi)



**EXHIBIT 12
THREATENED AND ENDANGERED SPECIES – MANALAPAN TOWNSHIP**

Vertebrates	State Status	Vascular Plants	State Status
Grasshopper Sparrow	T	Hairy Woodrush	E
Wood Turtle	T	Swamp Pink	E
Bog Turtle	E		
Savannah Sparrow	T		

E = Endangered

T = Threatened

Source: Manalapan Township Environmental Commission

documented species locations. One small area west of Englishtown Borough, near the border to Monroe Township, is designated as an area having documented locations of a species within 1.5 miles of its hatched boundaries. The other areas are concentrated at the central and southern portions of the Township. “Important” habitat can be associated with the floodplains and wetlands associated with the Gander and Stillhouse Brooks and also the Manalapan Brook Stem. The areas of documented species habitat extend as far south as Lambs Lane. The other boundaries encompass, from the south to north, portions of Wemrock Brook, Weamaconk Brook and McGellairds Brook to just above Craig Road. These areas are considered important wildlife habitats because they have qualities and conditions which can support certain species of wildlife that are considered rare

vertebrates by the New Jersey Department of Environmental Protection and Energy.

There are verified sitings with positive identification of all species listed in Exhibit 12. In 1990, a positive identification of a Wood Turtle was made within the Wemrock Brook Watershed. Additionally, an adult bog turtle was found dead along a roadway adjacent to Weamaconk Brook, approximately 10 years ago. The two sparrow species have been identified by local expert birders and members of the New Jersey Audubon Society. These above records indicate that Manalapan has wildlife habitat which has been or currently is, being used by Endangered and Threatened Wildlife species. Another verified siting includes a Cooper’s Hawk (Fall, 1993) seen in the northern end of Monmouth Battlefield State Park by members of the New Jersey



Audubon Society. This species is also suspected to be breeding at this location. Northern Harriers are also noted to be year-round residents in the Park.

Red tailed hawks and great horned owls are verified as resident breeding species in Manalapan Township. The Eastern blue bird has also had a productive year (1993) with a recorded nine (9) pairs of breeding blue birds in the vicinity of Battlefield State Park alone. There also is a very healthy and productive deer herd occupying the park vicinity.

Species diversity is reliant upon the availability of sufficient habitat to support a species and to allow it to sustain through its life cycle. Wildlife ecology and management are important techniques which must be implemented by a municipality and expand to a regional basis. Firm management prescriptions must be recognized in order to perpetuate wildlife populations and habitats.

Farmland

A significant area of Manalapan Township continues to be actively farmed. Field crops, orchards, nurseries, and horse farms are found throughout the Township, although most farm acreage is located in the southern part of the community. After adjusting for approved developments, an estimated 2000 acres, or about 10% of the Township, continues to be farmed.

The Federal Soil Conservation Service formulated a system for rating soils based on their ability to support various field crops. The system is known as the Land Capability System. In the system, soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management.

Capability Class, the highest level and broadest group in the Land Capability Classification System, is indicated by Roman numerals I-VIII. The higher the

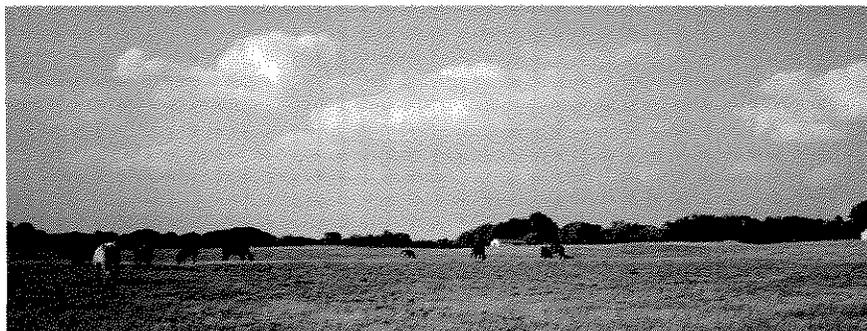


EXHIBIT 13 LAND CAPABILITY AND AGRICULTURAL LAND

Manalapan Township
Monmouth County, New Jersey



- Land Capability
- Land Capability I
 - Land Capability II
- Agricultural Land
- Crops and Pastureland
 - Orchards, Vineyards, Nurseries
 - Confined Feeding Operations
 - Other Agriculture

Source: NJDEP Geographic Information Systems, GIS 4 CD ROM, 1997. Data compiled by the Township of Manalapan, New Jersey.

1000 0 1000 2000 3000 Feet



Prepared July 10, 1999
Revised: July 30, 1999



numeral, the greater the limitation on, and narrower choice of use for, soils.

The three highest quality soil classes are:

- Class I soils have few limitations that restrict their use.
- Class II soils have moderate limitations that reduce their choice of plants or that require moderate conservation practices.
- Class III soils have severe limitations that reduce their choice of plants or that require special conservation practices, or both.

Capability Classes III through VIII are further described by Capability Subclasses, which further indicate specific limitations on the soils for specific uses. Classes I and II

have no subclasses because these soils have few limitations. Soil limitations can include risk of erosion, slumping, and poor and rapid drainage. All of these conditions limit soil use for pasture, woodland, wildlife, and/or recreation. Causes of these limitations include steep slopes, poor soil cohesion, clayey subsurface, highly sandy soils, and highly packed soils.

A map showing the location of farmland in the Township in relation to Class I and Class II soils is shown on Exhibit 13.

State and County funds are available for farmland preservation in Manalapan. Six applications totaling 397 acres have been submitted by property owners to the Monmouth County Agricultural Board to preserve farmland in Manalapan. One of the six applications (the Gasko Limited Partnership) has been approved for funding.

EXHIBIT 14	
FARMLAND PRESERVATION APPLICATIONS	
Farm	Area (Acres)
Wikoff Farm (two applications)	243
Cohen Farm	62
Lantier Farm	20
Visceglia Farm	47
Gasko Limited Partnership	25

Source: Monmouth County Planning Board 1999



NEEDS ANALYSIS

The needs analysis for open space in Manalapan has three distinct components. The first component estimates the land area which should be owned and controlled by the Township and dedicated for public use and access for outdoor recreation. The second component is the need for open space to protect the important natural resources of the Township. The third component is the need to conserve farmland. Each of these components is reviewed in this section.

Outdoor Recreation Needs

A substantial area of Manalapan Township has been preserved as public open space in State and County park and recreation areas. In addition, there are significant recreation facilities at public school sites and on private land developed for recreational use. State and County park facilities and school and private recreation areas satisfy some, but not all, of the community need for recreation and open space. The largest preserved parcel in Manalapan Township, Battlefield State Park, contains trails and a visitor center but is primarily a landscape that has been preserved to interpret and commemorate a major historical event. Pine

Brook is a special use area reserved for golf. State and County parkland as well as school and private recreation facilities are not controlled by the Township. School land is not dedicated to permanent open space and recreation use. Schools and private recreation facilities can limit public access and may, over time, be redeveloped for non-recreational uses. Consequently, to ensure that the Township can provide residents with a variety of needed recreation programs and facilities, there should be a core system of lands owned and controlled by the Township and dedicated to local public recreation use.

Population characteristics and growth are important considerations in recreation planning. The Township population has grown steadily since 1960 and is projected to continue to increase through the year 2020. Age and household characteristics influence individual and family recreation activity and the use of public parks. As individuals and households age, the types of recreation that they engage in will change. Most people, over their life span, will use a local public park or participate in a publicly sponsored recreation activity. Use of public park and recreation facilities is significant in all age brackets. Households with three to four members are more likely to use parks than single person households. Households with children age 12 and under are most



likely to use parks frequently. The benefits of public parks have been categorized as personal, social, facility/activity, environmental, and economic. The specific personal benefits include exercise-fitness conditioning, fun and entertainment, learning and education, relaxation, and health. The social benefits consist of getting to know people, group participation, interaction of children and adults, community awareness, and team spirit. The benefits associated with public recreational facilities include instructional classes, the joy of playing, having a place to go, having a place to recreate, exposure to arts, crafts, and watching organized sports. The economic benefit is the affordability of local park and recreation facilities.

To analyze the current and future need for close-to-home park and recreation land controlled by the Township, three methods were used. One method is based upon the allocation of land to different uses within a community. The second method is based upon total community population. The third method is based upon Township experience with the demand for park and recreation facilities and services.

Estimates of Need Based Upon Balanced Land Use Standards

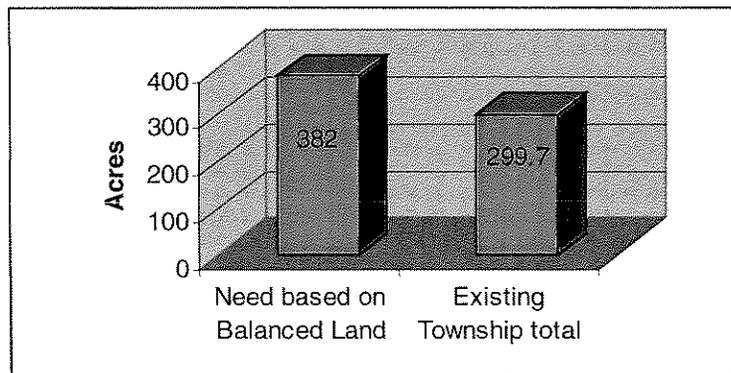
The first estimation method is the balanced land use approach. Balanced land use is the concept utilized by the State of New Jersey to calculate public open space needs. The concept treats land as a finite resource. The product of this method is an estimate of the *minimum* land area in Manalapan which should be dedicated as Township public open space. The approach takes into account that recreation and open space demands are generated by development which will occupy the remaining land area of the Township. The balanced land use standard for Township owned public open space and recreation land is three percent of the developed and developable area of Manalapan. The minimum land area needed as Township open space and recreation should be developable for public access and active recreation facilities such as, but not limited to, athletic fields and court sports. Undevelopable land such as wetlands and land preserved as open space by the County or State governments are subtracted out of the total land area to calculate the municipal need for public recreation and open space land.



EXHIBIT 15	
BALANCED LAND USE CALCULATION	
	ACRES
Total Township Area =	19,777
(-) Township Wetland Area =	5,559
(-) Battlefield Park/PineBrook G.C./Quail Hill =	1,488
Total =	12,730
<hr/>	
3% of Total =	382

Source: NJDEP GIS Disc for Total Area and Wetlands, Township base map for County & State Sites

EXHIBIT 16
MANALAPAN TOWNSHIP
NEED FOR MUNICIPAL PARK AND RECREATION AREAS
(BALANCED LAND USE)



Compiled by: Townplan Associates

Using balanced land use, the estimated land required for local public recreation and open space in Manalapan is 382 acres (see Exhibit 15). Based on the existing 299.7

developable acres of park and recreation land in the Township, 82 additional acres are needed to meet the balanced land use criteria (see Exhibit 16).



Estimates Of Need Based Upon Core System Standards

The second estimation of need method is the core system standard. This method was developed by the National Park and Recreation Association (NPRA). The core system standard is used to estimate need based on existing and projected

population. The NRPA standards, published in the NRPA *Recreation, Park, and Open Space Standards and Guidelines*, provide guidance for developing a core system of public parks for local close-to-home recreation uses. The standards suggest public park and recreation areas be provided to local residents at the ratio of 10.5 acres of parkland per 1,000 people. Based on the

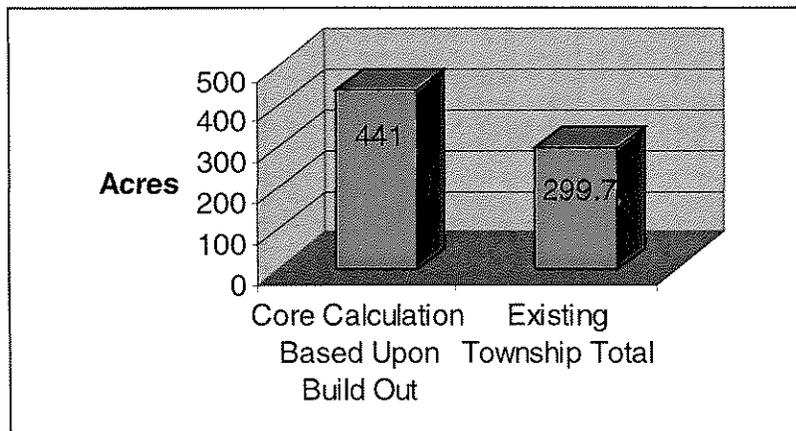
**EXHIBIT 17
CORE CALCULATION**

Standard = 10.5 acres per 1,000 people

	Population	Calculated Acres
1990	26,716	281
1997 est.	31,348	329
2005 est.	37,000	389
2020 est.	42,000	441

Population estimate source: Manalapan Township 1999 Master Plan Reexamination Report

**EXHIBIT 18
MANALAPAN TOWNSHIP
NEED FOR MUNICIPAL PARK AND RECREATION AREAS
(CORE CALCULATION)**





existing 299.7 acres of upland park and recreation land in the Township and the 1997 population estimate, the method indicates an immediate need for 30.3 acres of additional recreation and open space. This need is expected to increase given the growing Township population to 89.3 acres by 2005 and to 141.3 acres by 2020. Since the Township is projected to be built out by 2020, the core system approach suggests that the Township park system needs an additional 140 acres to support the future population.

Estimates Of Need Based Upon Local Experience

The third estimate of the need for local park and recreation land is based upon the review of the Township Board of Recreation Commissioners and the Township Department of Parks and Recreation. The Commissioners and the Department reviewed the estimates of land need based upon balanced land use and core system standards. They also reviewed the five year recreation plan developed by the Department of Parks and Recreation in 1997. The Department and Recreation Commission emphasized that the Township

needed to upgrade the maintenance of existing recreation facilities due to their heavy use. In addition, new facilities were needed to meet the demand for recreation. The Department and the Commissioners recommended that the Township acquire an additional 200 acres for local park and recreation use. This recommendation is based on the following:

- The emphasis of future recreational improvements should be on promoting parks that have substantial acreage to support diversified recreation activities. The inventory of existing Township park and recreation lands includes many small parcels with limited development potential. From the standpoint of development and maintenance, smaller parks and playgrounds are not cost effective. The minimum desirable size for a Township park and recreation site is twenty (20) developable acres of land.
- Based upon the projected population growth, particularly in the southern half of the Township, and the



- growing participation in and demand for Township recreation services, additional recreation facilities will be needed. There will be a need to expand recreation improvements to provide additional all purpose fields, baseball/softball fields, tot lots, passive facilities, nature center, ampitheater, outdoor recreation for boating and camping, and multi-use paths.

- Habitats of threatened and endangered species and wildlife corridors
- Mature woodlands
- Major aquifer outcrop areas (Englishtown formation, Mount Laurel and Wenonah formations)
- Steep slopes



RESOURCE PROTECTION NEEDS

In addition to public recreation, the Township needs open space to preserve environmentally critical lands and natural resources. Such open space provides habitat needed for biodiversity, helps maintain water quality and air quality, and provides flood control. Resource protection areas in Manalapan include the following:

- Freshwater wetlands and transition areas
- Floodways and flood hazard areas
- Stream corridors
- Watersheds of public water supply (Manalapan Brook and Matchaponix Brook)
- Category One watersheds (Weamaconk Creek and McGellairds Brook)

Resource protection areas are suitable as passive open space and provide opportunities for resource based recreation such as trails, fishing, camping, nature study, and scenic enjoyment. There is no set formula for calculating the land area which should be preserved in public ownership for resource protection. The objective is to preserve sufficient land to protect the resource. Extensive resource protection areas have been secured by the Township as conservation easements along streams and in wetlands. Government regulation in combination with some public land acquisition are the primary tools for protecting the environmentally important



features of the Township. Resource protection in Manalapan Township will continue to take several forms:

- Township Regulation - Design standards enacted by the Township protect stream corridors, woodlands, floodplains, and steep slopes. The Township typically requires, as part of any development approval of lands where a floodplain or stream are located, that floodplains and stream corridors be protected by public conservation easement.
- State Regulation - Wetlands and wetland transition areas in Manalapan are protected by State law. The Township typically requires, as part of any development approval of lands where wetlands are located, that wetlands and wetland transition areas be delineated and that any required disturbance permits be obtained from the State.
- Township Acquisition - Where public access and improvements are desired, the Township may acquire resource protection areas by purchase of easements or fee simple

title, or acceptance of dedication of land.

FARMLAND PRESERVATION

Farming contributes to the economic base of the Township and is essential to maintaining the open rural landscape that characterizes much of the community. Manalapan has zoned its farm areas for low densities and has limited the sewer service area in an effort to discourage urban sprawl and the conversion of farms to suburban uses. It has also encouraged farming by permitting farms and farm markets in most areas of the Township. The number of farms and the amount of farmland in Manalapan has, however, continued to decline.

As part of the State open space preservation effort, there will be an increase in State funding to preserve farmland. The Township is within the Monmouth County Agricultural Development Area. Consequently, Township farms are eligible for farmland preservation funds from the County Agriculture Development Board and from the State. This program ensures the preservation of farms through public purchase of the development rights. The farm remains in private hands and farm



operations continue. However, the land can no longer be developed for non-farm uses.

A farmer or farmland owner voluntarily enters into an agreement with the County and the State to sell the development rights to the public. On average, the County pays for 35% of the cost and the State pays 65%.

Farms compete for limited program funding. To improve the ranking and chance of success for farms in Manalapan, the Township has committed to funding 10% to 11% of the County's share of the cost.

Currently, there are six farmland preservation applications totaling 392 acres in Manalapan. The Township goal should be to permanently preserve at least 1,000 acres of farmland throughout the Township.

STATEMENT OF PRINCIPLES, GOALS, OBJECTIVES, AND POLICIES FOR OPEN SPACE PRESERVATION

The Township, as set forth in this plan element, establishes the following goals, objectives, and policies for open space preservation in Manalapan.

Statement Of Principle

Open space preservation is essential to maintaining a healthy environment, controlling urban sprawl, and ensuring a high quality of life for Township residents. A Township network of permanently preserved open spaces is needed to provide recreation, to maintain biodiversity, to control flooding, to preserve farmland, and to protect the significant scenic, cultural, and natural features of the community.

Goal Statement

The goal of Manalapan Township is to acquire additional land as community park space and develop it for local recreation activities to meet the existing and future needs of its residents. Furthermore, the Township, in conjunction with the County and the State, should support and encourage participation by local farmers and landowners in the farmland preservation program. Finally, the Township, through reasonable land use regulation, control of public infrastructure, and selective acquisitions when needed, should conserve the critical environmental, cultural, and scenic resources of the Township.



Specific objectives to achieve this goal are provided below.

OPEN SPACE, RECREATION, AND CONSERVATION OBJECTIVES AND POLICIES

Acquire an additional 200 acres of land for public access, development, enjoyment and dedication as community park and recreation areas.

Based on population trends, the need to ensure balanced land use, and the recommendations of the Township Board of Recreation Commissioners, Manalapan should acquire additional acreage to expand the Township park system. This will ensure that, at full development, the Township will have a core system of parkland, owned and controlled by the municipality, that can support a variety of recreation facilities and programs needed by residents.

Permanently preserve at least 1,000 acres of farmland throughout the Township.

Farms contribute to the economic base of Manalapan. Active farm operations in the Township include horse farms, nurseries, orchards, and field crops. Farms in the

Township are eligible for State and County farmland preservation funds. Currently, applications are pending to preserve almost 400 acres of farmland in Manalapan. The Township should work to encourage additional participation and secure funding to preserve at least 1,000 acres in farmland.

Preserve natural areas throughout Manalapan that are vital habitats of threatened or endangered species or that are outstanding examples of the forest resources within the Township.

The Township retains a variety of natural vegetative communities and habitat areas for threatened and endangered species. The vegetative communities that characterize the Township include deciduous wetland and upland forest containing mature woodlands with specimen stands of hardwood trees. While the wetland areas of the Township are protected by State regulation, the upland forest areas are particularly vulnerable to development. These forest resources enhance the community aesthetically as well as environmentally. The Township Shade Tree Committee has identified sites that are noteworthy stands of upland forest as well as lowland (wetland) forest. The areas



identified include approximately 78 acres of upland deciduous forest and 256 acres of deciduous wetland forest. These locations should be preserved as conservation park and resource areas.

Develop community parks that contain at least twenty acres of developable land.

The Township owns a number of small park and recreation areas in addition to the major facility at the Township Recreation Center. Park and recreation acquisition efforts should focus on providing larger community parks either by acquiring new sites or expanding existing sites. Larger parks are more economical to maintain and operate. They can be designed and improved to meet the demands for various types of recreation activities that appeal to different age groups and recreation preferences. The Board of Recreation Commissioners foresees a need to expand Township Recreation facilities with additional all purpose fields, baseball/softball fields, tot lots, passive facilities, nature center, amphitheater, boating and camping, garden areas, playgrounds, and multi-use paths.

Locate park and recreation areas in proximity to residential areas and provide safe and convenient access for residents.

Park and recreation areas should be within or within a reasonable travel distance of residential development. Parks within easy and safe walking or bicycling distance of residential areas are especially desirable since school age children are frequent users of parks. Multi-use trails or bike lanes that link residential areas and parks should be planned as part of the overall park design.

Provide and maintain park and recreation facilities throughout the Township with particular attention to developing a community park and recreation area to serve the southern portion of Manalapan.

The Manalapan Recreation Center is centrally located to serve the Township. It will remain the community's focal point for major recreation programs and facilities. However, Manalapan is a geographically large area and providing convenient access to public recreation facilities from residential areas is an important planning consideration. Most of the existing Township park sites are in the northern portion of Manalapan. Population in the southern portion of the Township has increased. Consequently, there is a need for a community park and recreation facility to serve the southern Township.



Cooperate with State and County agencies to preserve a system of greenways that links public parks and conserves the natural environment, rural landscape, and rich heritage of the Township.

The State plans to preserve a broad greenway corridor of farms and open spaces across central New Jersey to link the Revolutionary War sites at Washington Crossing State Park, Princeton Battlefield, and Monmouth Battlefield State Park in Manalapan. The County has planned a system of greenways along major utility lines and stream corridors that cross Manalapan. The Township, through fee simple acquisition or conservation easements, has succeeded in conserving segments of environmentally sensitive stream corridors in the Township. By coordinating their efforts, the Township, the State, and the County can create an open space network in the Township that provides opportunities for active and passive recreation, flood control, and historic trails. It can also conserve environmentally sensitive habitat needed for water quality, air quality, and biodiversity.

Cooperate with the regional school boards to promote the joint use of public recreational facilities.

The public schools in Manalapan provide a substantial portion of the inventory of indoor and outdoor recreational facilities available within the community. A cooperative relationship between the Township and the school districts to promote the joint use of recreational facilities both increases the available recreation opportunities within the community and makes the most economical use of public resources.

Develop a system of multi-use trails that interconnect residential areas, community facilities and park and recreation sites.

Walking, day hiking, and bicycling have undergone a long term trend of increasing popularity. As recreation activities, they appeal to both genders, can be enjoyed by families and individuals, and experience participation by age cohorts from pre-teen to groups in their 40s, 50s, and 60s. State and Federal programs have been established to support the development of pedestrian and bicycle facilities at the local level as part of an effort to provide transportation alternatives to the automobile. Pedestrian and bicycle use are non-polluting transportation modes that do not exacerbate traffic congestion. The Township has initiated development of a loop trail that will connect the Recreation Center, Township Administration Building, Battlefield State



Park, Manalapan High School, and residential areas. The trail network should be expanded to interconnect the loop to other activity areas. Multi-use trails in the rural areas of the Township can be developed to accommodate equestrian use.

Recognize Battlefield State Park as a key community resource by providing direct trail connections to the Park from abutting residential areas and by regulating development to buffer the Park and maintain scenic views.

Battlefield State Park is the largest dedicated public open space in the Township and is one of Manalapan's most important landscape and cultural features. The Park is scenic, has an extensive trail system, and is a National Register Historic Site. An annual event celebrated in the Park is Manalapan Day. As development occurs adjacent to the Park, direct trail connections should be provided to permit pedestrian access for resident enjoyment of the Park. The Township, in its development approvals of the Parkview Adult Community and the Battleground Country Club, has required trail connections and open space buffers adjacent to the Park.

Apply open space and recreation design requirements and standards to planned development to require close-to-home open space and recreation facilities.

Private recreation facilities are an important component of the recreation inventory of the Township. Recreation facilities, including golf courses, have been required as recreation improvements on the planned developments at Knob Hill and Battleground Country Club. The planned development provisions of the Municipal Land Use Law can be applied to preserve open space and require that developers provide a recreation component to meet the needs of the development's residents. While a developer cannot be compelled to dedicate land to the Township for public park and recreation use, the Township may accept a voluntary dedication. The Township should continue to require that planned development and multi-family developments provide recreation opportunities and facilities for residents.

Conserve areas and features of the Township that have environmental, cultural, historic, or scenic value.



In addition to acquiring land to develop as public park and recreation areas, additional open space should be conserved to protect natural resources such as water supplies, plant and wildlife habitats, scenic landscapes, and culturally important features such as historic sites. Historic sites have been identified in the Master Plan historic preservation element. Important environmental features of Manalapan have been mapped by the State and by the Township Environmental Commission. The important environmental features which should be conserved include freshwater wetlands and transition areas, flood hazard areas, stream corridors, watersheds of public water supply (Manalapan Brook and Matchaponix Brook), category one watersheds (Weamaconk Creek and McGellairds Brook), habitats of threatened and endangered species, woodlands, major aquifer outcrop areas (Englishtown formation, Mount Laurel and Wenonah formations), and steep slopes.

Regulate and manage Township watershed areas to improve and maintain water quality.

Non-point source pollution into streams and surface waters from development accounts

for over half the State's water pollution problems. Minimizing impervious areas, reducing development disturbance, and providing stream corridor protection will improve and maintain water quality in the Township.

Provide a stable source of Township funding for local open space and recreation and supplement those funds with other revenue sources.

The Township should seek voter approval of a Township Open Space Trust Fund. The fund will provide a stable revenue source for the acquisition and development of open space for recreation and conservation in the Township. Open space trust funds have been successfully used in many other New Jersey communities. The fund can be used to leverage other State and County funding to achieve Township open space, recreation, and conservation objectives. If the Township establishes a Trust Fund by referendum, it will qualify for State Grants of 50% of the cost of acquisition of land for recreation and conservation purposes. Upon a demonstration of special need or exceptional circumstances, the State grant may be increased to 75% of the acquisition cost.



Control the location and expansion of Township infrastructure to conserve the rural areas of the Township.

Public infrastructure, particularly sewer service, induces growth and development. The Township Master Plan is to maintain the rural character that exists over an extended area of Manalapan. Much of the open space and farmland that remains in the Township is located in those rural areas. Infrastructure expansions should be managed and controlled so that growth and development in the rural areas is limited. The present sewer service area of the Township is sufficient to accommodate future growth and there is no need to expand the sewer service area to support increased development in the rural areas of Manalapan.

Support and encourage participation in State and County farmland preservation programs.

The State and Monmouth County purchase development rights to preserve farms where farmers and landowners wish to maintain farming operations rather than sell off the land for development. The program allows the farmer or landowner to recoup the development value of the property. The public holds an easement to the property

which ensures it will never be developed for nonagricultural uses. The land remains in private ownership, continues to pay taxes, and contributes to the economic base of the community. Farms compete for available funding. The Township, by providing financial support and taking other actions to support farming in the community, can improve the likelihood that Township farms will receive program funding.

PROPOSED OPEN SPACE SYSTEM

The Township has identified its open space and recreation resources and evaluated the lands that have the potential for meeting public needs. Based upon its evaluation, the Township has identified sites for future acquisition and development to expand the Township park and recreation system. It has also identified a greenway network to interconnect open spaces. Active farming areas, historic sites, and important environmental features in the Township have also been identified. The Township has mapped the open space system planned for Manalapan (see Exhibit 21). The open space system is described in this section.

Additional Township Park and Recreation Sites



To achieve recreation objectives, the Township has identified sites for acquisition and development as additional Township park and recreation areas. The sites have been identified using the following criteria.

- Size and development capability. The sites are adjacent to existing parks or are new sites that have approximately 20 acres that can be developed for active recreation use and contain areas appropriate for passive recreation, walking paths and trails, and visual enjoyment.
- Location. The sites are distributed throughout the Township and include new locations to serve the southern half of Manalapan. The sites are located to conveniently serve the Township population and to be accessible from County roads or municipal collector or subcollector streets. The locations can be linked to a Township wide greenway system.
- Use restrictions. There are no apparent restrictions that would unduly constrain acquisition, development, or operation of the site as a public park and recreation area. However, prior to acquisition of any specific site, a Phase I environmental investigation and a

wetlands investigation should be undertaken to ensure that are no major impediments to park and recreation use.

The individual sites are identified in Exhibit 19 and Exhibit 20 and described in more detail below.

Lafayette Mills Road Extension (P1)

Along the north south side of Lafayette Mills Road and west of Robertsville Road is a proposed 23.0 acre extension of the existing Township open space on Robertsville Road and Colonial Court (Site A) and the Lafayette Mills Road conservation area (Site KK). Acquisition will create a continuous open space network from Colonial Court to the greenway along Milford Brook. The extension area has potential for developing active recreation facilities such as court sports and athletic fields.

Taylor's Mills Road (P2)

South of Taylor's Mills Road and Milford Brook and north of the Tepehemus Brook approximately 2000 feet east from where the two brooks meet is a 63.4 acre site that includes 25.7 acres of upland with development potential active recreation



**EXHIBIT 19
MANALAPAN TOWNSHIP
POTENTIAL PARK AND RECREATION SITES**

Site Number/ Letter	Block	Lot	Acres	Percent Site Environmental Restriction (approx.)	Site Upland Acres (approx.)
P1	7	7	13.5		
P1	9	1	<u>9.5</u>		
Subtotal:			23.0	56 %	10.0
P2	19	24	39.1		
P2	19	26	16.3		
P2	19	28	1.0		
P2	19	28	<u>7.0</u>		
Subtotal:			63.4	60%	25.7
P3	27	1	10.7		
P3	27	2	2.3		
P3	27	3	25.1		
P3	27	10	31.2		
P3	27	11	7.0		
P3	27	41	<u>0.9</u>		
Subtotal:			77.2	30%	54.0
P4	64	13	9.00		
P4	64	13	1.0		
P4	64	14	1.0		
P4	64	14	14.00		
P4	64	17	21.6		
P4	64	11	<u>30.0</u>		
Subtotal:			76.6	37.3%	48.0
P5	66	8 (pt)	* 50.0		
P5	66	25 (pt)	*		
Subtotal:			50.0	5%	47.5
P6	82	13	1.0		
P6	82	13	<u>26.4</u>		
Subtotal:			27.4	5%	26.0
P7	84	16.01	9.0		
P7	84	16.02	1.0		
P7	84	16.02	<u>60.6</u>		
Subtotal:			70.6	40%	42.4
Total:			388.2		253.6

* Portions of Lots 8 and 25 in Block 66 combine for a total of 50 acres

** Environmental Restrictions based on wetlands, floodplains, and steep slopes 10 percent or greater

Sources: Experian Tax Data, NJDEP Environmental Data CD-ROM

Compiled by: Townplan Associates 7/6/99



EXHIBIT 19A
POTENTIAL CONSERVATION
PARK AND RESOURCE AREAS

CR-1	Woodland Road, to Lambs Lane, Smithburg Road	
	Block 76.03 Lot 9	6.55 acres
	Block 76.03 Lot 11.01	15.62 acres
	Block 76 Lot 13A	12.50 acres
CR-2	Oakland Mills Road	
	Block 83 Lots 6, 7, 8, 9 (Total)	20.00 acres
	Block 83.04 Lot 11	3.20 acres
CR-3	Oakland Mills Road	
	Block 82 Lot 6	20.00 acres
CR-4	Millhurst Road and McCaffery Road	
	Block 67 Lot 16	70.56 acres
	Block 67 Lot 22	56.47 acres
CR-5	McCaffery Road and Route 527	
	Block 70 Lots 27, 28, 29, 30 (Total)	120.40 acres
CR-6	Union Hill Road	
	Block 3.02 Lots 37.02, 37.03, 32, 39.02, 31 (Total)	71.60 acres
CR-7	Route 9	
	Block 10 Lots 22, 23, 24 (Total)	18.18 acres
CR-8	McBride Road	
	Block 47 Lots 24, 46.01 (Total)	194.80 acres
	TOTAL ACRES	618.88 acres

EXHIBIT 20 POTENTIAL PARK AND RECREATION SITES LOCATION MAP



- Recreation & Open Space Inventory
- Potential Park & Recreation Site

Number and letter are keyed to Existing Parks and Open Space list (Exhibit 3) & Potential Park and Recreation Sites (Exhibit 19)



Prepared: July 28, 1999





facilities. The site links two stream corridor greenways (Tepehemus Brook and Milford Brook). A utility easement through the site to Gordons Corner Road can be developed as an extension of the Loop Trail to Battlefield State Park, the High School, and the Recreation Center.

Manalapan Recreation Center Extension (P3)

A 77.2 acre area is proposed south of Freehold Englishtown Road and north of the railroad line which will create a continuous open space corridor from the Municipal Recreation Center to Englishtown. The extension area has 54.0 upland acres for park and recreation development. Acquisition will preserve open space and views looking south from the historic route taken by the Continental Army to Monmouth Battlefield.

Millhurst Road North (P4)

Adjacent to and southwest of the Municipal Recreation Center is a 76.6 acre area, with 63 percent, or 48 acres, of its area unconstrained by wetlands and housing. The tract is east of a proposed public school site and has access to the Loop Trail that connects the Recreation Center and Battlefield State Park.

Millhurst Road South (P5)

Further south on Millhurst Road, between a north and a south branch of the Manalapan Brook, are 50 acres which are part of a large farm and nearly all upland. The site has potential for park and recreation and other community facility development in close proximity to the planned residential communities at Knob Hill, the Villages, and Battleground Country Club.

Thompson Grove Park Extension (P6)

South and adjacent to Thompson Grove Park is the Thompson Grove Park Extension. The area consists of 27.4 acres, five percent of which is restricted by wetlands. The area abuts the Manalapan Brook greenway which extends southward to another proposed Township park and to the County greenway system which leads to the County park at Turkey Swamp.

Smithburg Road (P7)

A 70.6 acre area adjacent to the Manalapan-Millstone municipal boundary, directly north of a branch of Manalapan Brook is proposed as a Township park site. The area is scenic. Approximately 40 percent of its area is constrained by wetlands, leaving 42.4 acres for park and recreation development.



The site is located on the Manalapan Brook greenway.

Proposed Conservation Park and Resource Area

To achieve conservation objectives, the Township has identified sites for preservation as conservation park and resource areas. These sites have been identified through field investigation by the Township Arborist and the Shade Tree Committee. The sites are valuable as deciduous upland and lowland forest characterized by mature stands of native trees and other indigenous vegetation. The purpose of conservation park and resource areas is to preserve the outstanding natural resources and features of the site while providing passive recreation use, such as nature paths that are compatible with the resource conservation objective. The individual sites recommend as resource park and conservation areas are identified on Exhibit 19A and Exhibit 20 and described in more detail below.

Woodward Road to Lambs Lane to Smithburg Road (CR-1)

These three parcels total 35 acres and create a wooded stream corridor of upland and lowland deciduous forest through a residential area. Access from residential neighborhoods is possible from Woodward

Road, Lambs Lane, and Smithburg Road. Stillhouse Brook flows through the corridor. The parcel is unique in its vegetation which includes the endangered Swamp Pink. The varied habitat supports a variety of wildlife.

Oakland Mills Road (CR-2)

This 23.2 tract is one of the last remaining true upland forest stands in this part of Manalapan. It contains very fertile soil which supports large dominate Oaks.

Oakland Mills Road (CR-3)

This long and narrow wooded corridor of 20 acres extends from Oakland Mills Road to the Manalapan Brook. The fertile soil supports large oaks and a variety of other vegetation. Wildlife abounds in this area and includes wild turkey and birds of prey. With its location on Oakland Mills Road, this site can provide access from the residential development in the Oakland Mills Road area to the proposed Manalapan Brook Greenway and Thompson Grove Park.

Millhurst Road and McCaffery Road (CR-4) and McCaffery Road and Route 527 (CR-5)

A 127 acre wooded tract (CR-4) between Millhurst and McCaffery and a 129 acre



wooded tract (CR-5) south of McCaffery Road support a variety of vegetation and a varied wildlife population. Preservation of this area, much of which is wetland, establishes the southern end of a large open space corridor in the geographic center of Manalapan that will join existing and proposed community facilities. From north to south, the public areas linked by this corridor include the proposed park and recreation site on Taylors Mills Road (P2), Manalapan High School, the Township Administration Building and Manalapan Post Office, the Township Recreation Center, the loop trail to Battlefield State Park, the proposed school on Millhurst Road, the Manalapan-Englishtown Middle School, and the stream corridor greenways of the Tepehemus Brook, Milford Brook, McGallairds Brook, Weamaconk Creek, and Manalapan Brook. Conservation in this area could also create a link in the State open space plan to preserve a broad greenway corridor of farms and open spaces across central New Jersey connecting Washington Crossing State Park, Princeton Battlefield, and Monmouth Battlefield.

Farmland

The agricultural areas that remain in Manalapan are located throughout the Township. The greatest concentration of

farmland is in the southern part of Manalapan. The general location of the agricultural areas and the farms which have applied for farmland preservation funds are shown on the system map (Exhibit 21). Township farms include nurseries, orchards, field crops, and horse breeding. In general, these farms are located on soils that are good for agricultural use and classified as Land Capability II. Participation in the State and County farmland preservation program is voluntary and many of the farms are also located in environmentally sensitive areas that include stream corridors and wetlands. Manalapan plans to encourage and support the preservation of farmland throughout the Township and permanently preserve at least a thousand acres in farm use.

Greenways

The open space system in Manalapan will include a greenway network that provides natural habitat linkages, stream corridor protection, and opportunities for development of a trail system. The trail locations will need to be compatible with adjacent land uses, habitat protection, and the desires of land owners and neighborhoods. Some greenways may simply provide stream corridor and habitat protection and have no public access or trail provisions. Other greenways can be



developed with multi-use trails that link to trails outside of Manalapan. The Township has succeeded in preserving a number of greenway segments as conservation easements. Use of greenways for other than resource conservation and habitat protection will require the establishment of monitoring and maintenance procedures and responsibilities. Greenways that contain trails and connect to County facilities may ultimately become the responsibility of the County Park System. Impediments to trail development in Manalapan include the divided state highways (Route 9 and 33) which limit the locations where safe and convenient crossings can be developed. The actual alignment of trails and the development of trails within a greenways is subject to site specific analysis and design.

The individual greenways are described below:

Manalapan R.O.W. Greenway

This 8.9 mile existing utility right-of-way has the potential for development as an inter-county trail connecting Jamesburg Park in Middlesex County, the Quail Hill Boy Scout Camp in Manalapan, Knob Hill Golf Course, Charleston Springs County Golf Course in Millstone Township, and Turkey Swamp County Park in Freehold Township,

Monmouth County. The greenway appears in the Monmouth County plan. A spur from the trail in Manalapan would provide a loop and connect the Quail Hill Scout Camp to Monmouth Battleground State Park. To make a continuous trail, a crossing of Route 33 is needed.

Manalapan Brook Greenway

This 7.4 mile greenway runs along Manalapan Brook and links Charleston Springs County Golf Course, the proposed Manalapan park site on Smithburg Road, Thompson Grove Park in Manalapan, and Monroe Park in Middlesex County. A trail in this greenway would provide an inter-county route and is proposed in both the Middlesex County and the Monmouth County plans. To make a continuous trail, a crossing of Route 33 is needed. A Township spur to this greenway located along a tributary to the brook will run to the historic road (General Greene's Advance) that crosses Battleground Country Club and provides a trail connection from the Quail Hill Scout Camp to the trails at Battlefield State Park.

A trail link should also be planned to connect the greenway to the proposed Township park site (P5) on lower Millhurst Road.



McGellairds Brook Greenway

This 7.9 mile greenway along McGellairds Brook is part of the County Plan. It links Monmouth Battlefield State Park, Manalapan High School, Englishtown, and the proposed Matchaponix Brook Greenway in Middlesex County. The greenway forms part of the loop trail in the center of Manalapan . Spurs to this greenway trail link Taylors Mills School, the proposed Township park on Taylors Mills Road, Manalapan High School, and the Recreation Center.

Weamaconk Creek Greenway

The Weamaconk greenway is also shown on the County Plan. It links Battlefield State Park , the Township Recreation Center, the proposed expansion area for the Recreation Center, Englishtown, the Pine Brook Greenway and the greenway system in Middlesex County. A section of the Manalapan loop trail is to be constructed on a segment of the Weamaconk greenway. A greenway link, using the deciduous forests south of Millhurst Road, can be established between the Recreation Center and the Manalapan Brook Greenway by way of a tributary of Manalapan Brook draining the area between Millhurst Road and McCaffery Road.

Milford Brook Greenway

The Milford Brook Greenway follows Milford Brook from the Marlboro Township border and connects to the McGellairds Brook Greenway. East of Route 9, it provides an opportunity to develop recreational trails using the wooded conservation area at Lafayette Mills Road and the proposed Layfayette Mills Road extension area. West of Route 9, there is the potential to establish a greenway spur with a trail using the utility right of way to link to Taylors Mills School, the proposed Township park site on Taylors Mills Road, Manlapan High School, and the Loop Trail to the Recreation Center and Battlefield State Park.

Tepehemus Brook Greenway

The Tepehemus Brook greenway follows Tepehemus Brook from the Freehold Township border to the McGellairds Brook greenway. The Wynkoop Bird sanctuary is located along the greenway. West of Tennent Road there is potential for trail development connecting to the proposed Township park and recreation site on Taylors Mills Road and to the Loop Trail.



Pine Brook Greenway

The Pine Brook greenway extends along the Pine Brook to its confluence with the Matchaponix Brook. It links a proposed farmland preservation site, the Pine Brook School, Township open space at Oxford Road, and the private day camp at the Yellow Duck Nursery School.

Access Trails to Battlefield State Park

The Township proposes to develop local trails that will give Manalapan residents direct access to Battlefield State Park from the northern and western boundaries of the Park. These access trails will connect existing or planned residential areas to the trail system within the Park.

The Loop Trail will be four to five mile trail circuit in the center of Manalapan. It will connect the trail system in the Battlefield State Park, planned residential areas in the Battleground Country Club development, the Township Recreation Center, Manalapan High School, the residential areas north of Church Lane, and Old Tennent Church. At two points, the trail intersects the historic route taken by the Continental Army on its advance to the Battlefield. A spur from the trail using a utility right-of-way will provide

a connection to Taylors Mills School and Gordons Corner Road.

General Greene's Advance is an historic road across the Battleground Country Club. It will provide access from the planned residential development at the Villages west of Millhurst Road and from Battleground Country Club.

A third access is planned through the proposed Parkview development south of Craig Road. This access will cross McGellairds Brook to connect to the Park trails.

ACTION PLAN

The action plan identifies the measures that should be taken to achieve the goals and objectives for the Township open space system. To implement the plan, the Township should establish a land conservation program that is coordinated with State and County programs to finance the preservation of open space and farms and to acquire and develop parkland for public recreation. In addition, the Township should manage, regulate, and direct growth to ensure that development design and location are compatible with and support the open space plan for Manalapan. The



specific implementation actions are described below.

Coordination with State Open Space Programs

- The Township should submit the open space, recreation, conservation plan for approval by the Office of Green Acres in the New Jersey Department of Environmental Protection. The approved plan can then be used to secure grants and funds from the State for open space preservation.
- The Township should establish, by referendum, an Open Space Trust Fund. The Township proposition should ask voters to authorize an annual levy of two cents per hundred dollars of valuation that would be dedicated to the acquisition, development, and maintenance of park and recreation lands, the preservation of farmland, or for the payment of debt service for open space preservation. The levy is estimated to generate \$400,000 annually to the Open Space Trust for implementing the Township open space, recreation and conservation plan.
- A portion of the Trust Fund revenue should be earmarked for farmland

preservation. This would provide the Township commitment and cost share to State and County farmland preservation funds. It can be used to leverage State and County funds to preserve 1,000 acres in farms in Manalapan

- A portion of the Trust Fund should be earmarked for acquisition of additional Township park and recreation land and implementation of the greenway network. The Township funds would be matched by grants from the State to acquire an additional 140 to 200 acres of park and recreation land.
- A portion of the Trust Fund revenue should be earmarked for local park and recreation development. The funds could be used to repay low interest State loans to develop recreation facilities or to leverage other available State and Federal funds for improvements such as greenways, trails, bikeways, lake and pond restoration, and recreation development.
- The Township should actively support State legislation that will enable Manalapan to collect development impact fees for recreation. This will allow Manalapan to fairly assess new development for a portion of the costs



of providing public parks and open space and recreation services.

- The Township should cooperate with the State and the County in planning and preserving the rural landscape and greenway from Washington Crossing State Park to Battlefield State Park in Manalapan.
- The Township, in cooperation with the Monmouth Agriculture Development Board, should market the farmland preservation program to local farmers. Information, assistance, and support should be provided to farmers who are interested in making application for preservation funding.

Management and Regulation of Growth and Development

- The Township should continue to limit development in rural areas and environmentally sensitive areas to low density and low intensity uses.
- To conserve open space, farms, and rural areas, the Township should continue to limit the extension of growth inducing infrastructure, particularly sewers.

- To the extent permitted by law, the Township should continue to require that developers preserve open space and provide recreation facilities within new development. Both the Knob Hill Golf Course and the Battleground Country Club Golf Course have been preserved as golf course communities through Township development regulation. Sections of the stream corridor greenways have been successfully preserved as conservation easements through development regulation. Where appropriate and permitted by law, the Township should accept dedication and improvement of open space for public use pursuant to development review and approval.

- The Planning Board, in the development review process, should give substantial weight to the comments of the Township Environmental Commission and the Shade Tree Committee. Development should be designed to conserve the environmentally important features of a site and the natural resources of the Township. It should also be compatible with the Township plan for open space, recreation, and conservation. The Planning Board should require revisions to development designs or layouts or require that



alternative approaches be used to eliminate or minimize adverse or undesirable impacts on environmentally important site features and the natural resources of the Township.

- The Township should continue to allow residential cluster development where such development, compared to conventional development, would reduce site disturbance, reduce impervious cover, preserve a significant area of upland and lowland open space, preserve important site features and natural resources, and help achieve the objectives of the Township open space, recreation, and conservation plan. Consideration should be given to permitting non-contiguous residential clustering to facilitate the preservation of open space in accordance with the Township plan. The density of any cluster development should not exceed the density that could be achieved by a conventional development on the same tract or tracts of land.

Additional Actions

- The Township should initiate an acquisition program to implement the open space, recreation, and conservation plan. The Township should negotiate

with property owners for the acquisition of land for additional park and recreation sites or greenway trails. The acquisition program should be reviewed annually by the Planning Board to assess progress in implementing the open space, recreation, and conservation plan and to determine whether the sites identified for acquisition should be modified to reflect changes in the availability of land or new opportunities for meeting the plan objectives.

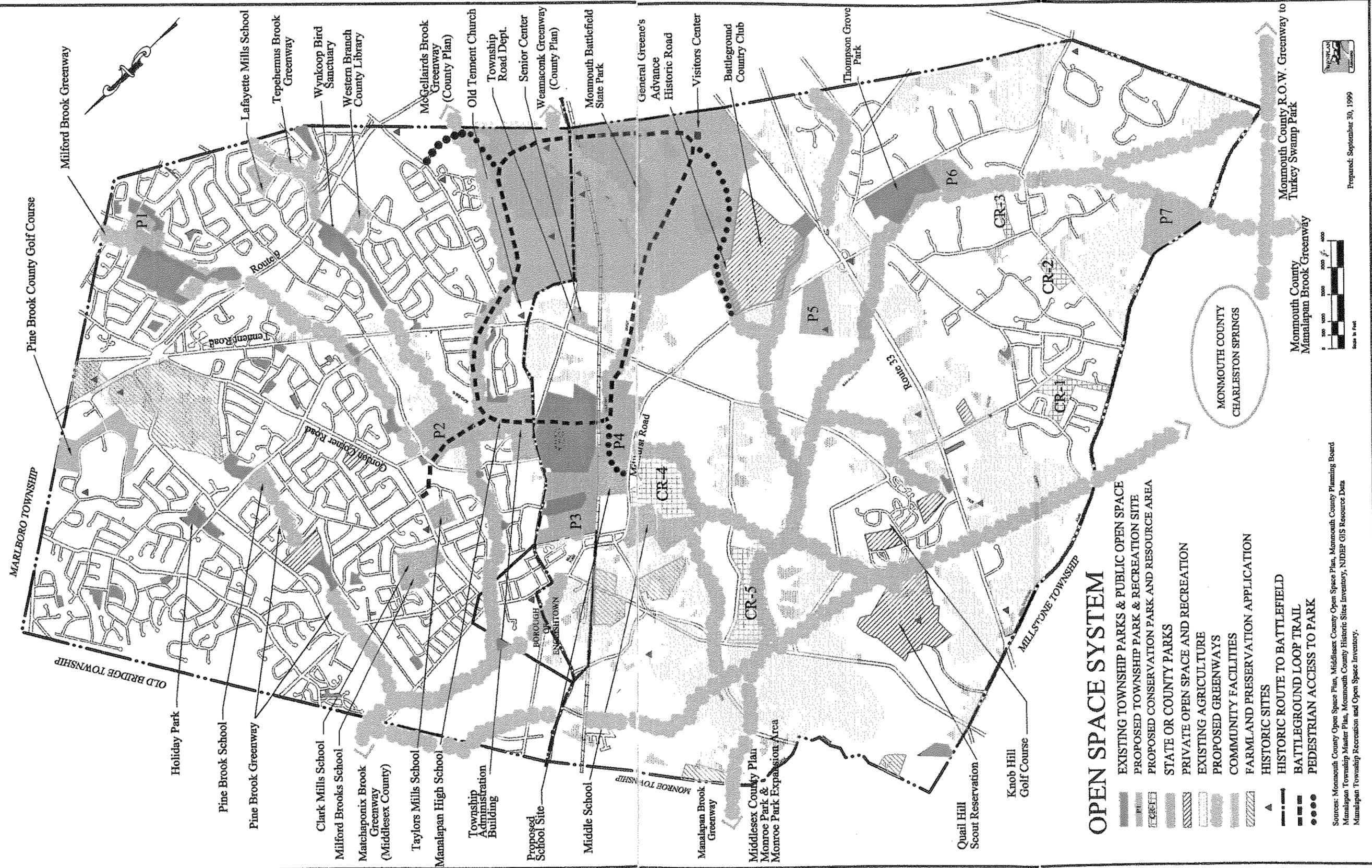
- Upon acquisition of new parkland, a plan to guide its future use and improvement to meet Township recreation needs should be prepared by the Board of Recreation Commissioners.
- Plans should be prepared for Thompson Grove Park and the Lafayette Mills Road conservation area. Both these parks are important natural areas. Thompson Grove Park is an important bird habitat area. Lafayette Mills Road conservation area is notable for the upland and lowland forest that covers the site. Improvements to the parks could include habitat enhancement, nature paths and areas, interpretive signage, wildlife observation areas, and other features appropriate to their



conservation function. Plans for Thompson Grove Park should also consider access and improvement to Thompson Pond. The plans should be developed with the participation of the Environmental Commission, Shade Tree Committee, Recreation Commission, and neighborhood residents.

- The Township should develop a standard conservation easement for public access to those greenways where trail construction is anticipated or required as part of development approval or as a result of Township acquisition. Where greenway trails are to be constructed as part of a development, the desirable development sequence is to develop the trail prior to the development of adjoining residences.
- The Township should enact a right to farm ordinance to support and encourage continued farming operations in Manalapan.

EXHIBIT 21 MANALAPAN TOWNSHIP Monmouth County, New Jersey



OPEN SPACE SYSTEM

- EXISTING TOWNSHIP PARKS & PUBLIC OPEN SPACE
- PROPOSED TOWNSHIP PARK & RECREATION SITE
- PROPOSED CONSERVATION PARK AND RESOURCE AREA
- STATE OR COUNTY PARKS
- PRIVATE OPEN SPACE AND RECREATION
- EXISTING AGRICULTURE
- PROPOSED GREENWAYS
- COMMUNITY FACILITIES
- FARMLAND PRESERVATION APPLICATION
- HISTORIC SITES
- HISTORIC ROUTE TO BATTLEFIELD
- BATTLEGROUND LOOP TRAIL
- PEDESTRIAN ACCESS TO PARK

Sources: Monmouth County Open Space Plan, Middlesex County Open Space Plan, Monmouth County Planning Board
Manalapan Township Master Plan, Monmouth County Historic Sites Inventory, NJDEP GIS Resource Data
Manalapan Township Recreation and Open Space Inventory.



Prepared: September 30, 1999

