

TOWNSHIP OF RARITAN
Hunterdon County, New Jersey

RECREATION & OPEN SPACE PLAN



September 25, 2019



J Caldwell
& Associates, LLC
Community Planning Consultants

RECREATION & OPEN SPACE ELEMENT

TOWNSHIP OF RARITAN, HUNTERDON COUNTY, NEW JERSEY

ACKNOWLEDGEMENTS:

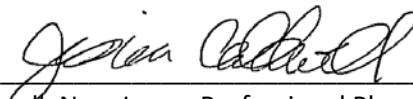
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Cover Photo: The Trails at Morales Park, Raritan Township Parks & Recreation Dept.

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1. Introduction

Executive Summary

This Open Space Plan outlines Raritan Township's past, current, and future open space and farmland preservation efforts. Be it for recreation, passive or active, agricultural use, or for ecosystem services, quality open space can bring many diverse benefits to a community.

The Township's Open Space Advisory Committee, tasked with the creation of this Plan, uses the following five (5) goals to guide preservation efforts:

1. Limit residential growth;
2. Protect environmental resources and vistas;
3. Provide linkages to existing open space; and
4. Provide area for future active and passive recreation
5. Protect Historic Resources.

The Township has a long and dedicated history of preserving open space for its residents to enjoy. However, continued effort is necessary to meet its open space goals.

The Plan describes natural features, such as geologic formations, the Township's position in the watersheds of two major rivers, vegetation communities and wildlife habitat, past and current conservation efforts in the Township's regulations, historic resources and districts both designated and proposed, and the land uses in the Township as they relate to open space preservation. Each aspect of this review includes a section of recommendations for improving the Township's protection of these natural and cultural resources.

The Plan examines the goals and objectives of the Open Space Advisory Committee, and provides methods by which these goals could be accomplished. The Plan also summarizes its public participation process which took place in 2017.

One of the primary tasks of this Plan is to inventory existing open space and recreation sites in the Township. This includes municipally-owned land, both active recreation and passive open space, and properties under the stewardship of State, County, and non-profit entities. Private open space and recreation amenities in residential developments and commercial recreation also factor into the Township's offerings. Nearby open space in neighboring Townships may also be satisfying some of the demand and are included in the inventory as well.

A needs analysis assesses demand for active recreation sites using three methodologies: calculations based on National Recreation and Parks Association (NRPA) standards, a survey, and site inspections and interviews at local parks. The analysis also reviews opportunities for greater connectivity and linkages between open space parcels, and areas in the Township that lack open space and recreation.

Lastly, this Plan provides a list of priority parcels for preservation, an Action Plan to implement the Township's preservation goals, and information on possible funding from State, federal, non-profit, and local sources to realize a healthy, well-loved open space system in Raritan Township.

Overview

Development often takes center stage in the planning efforts of a municipality. However, the preservation of farmland, environmentally sensitive areas, and open space for active and passive recreational use can bring great benefits to municipalities and their regions. Quality open space for recreational purposes promotes outdoor activity, which adds to the health and wellbeing of community members of all ages. Preserving farmland maintains historic rural character and provides locally-sourced food. Preservation also protects wildlife and ecosystems. These resources help strengthen connections between residents and the environment and promotes community engagement with nature. Open space improves the quality of life in a community, which is beneficial for both home values and the prosperity of current and future businesses.

Demographic and Development Data

Raritan Township is a rural community of approximately 38.6 square miles located in Hunterdon County. According to the 2016 American Community Survey, the estimate for the total population is 22,026 people. Population has increased 40 percent from the 1990 population of 15,712 to the 2016 population of 22,026. Population reflected a slight decrease from the 2010 Census (22,196) to 2016, which mirrors a larger trend of population loss in Hunterdon County as a whole in the period covering 2008-2016. However, several large residential developments have been constructed or are under construction since 2016, which will likely result in population increases. For over 15 years, the Township has made strong efforts to preserve open space and farmland. These efforts directly affect the development patterns and population growth within the Township by preserving important open space and farmland areas and directing growth to already developed areas.

POPULATION	1990	2000	2008	2010	2014	2016
Raritan Township	15,712	19,809	23,397	22,185	22,106	22,026
Hunterdon County	107,852	121,989	129,031	128,349	126,746	125,708
New Jersey	7,747,750	8,414,350	8,658,668	8,721,577	8,874,374	8,915,456

Sources: US Census, American Community Survey 5-Year Estimates

The Township's focus on preserving open space has led to a significant decrease in the amount of developable land, although preservation of open space remains needed for areas identified by the Township to be vulnerable to development. In portions of the Township, minimum lot sizes have been increased to 6 acres to limit the density of development in order to protect water resources, leading to more low density and single-family development instead of medium to high density development. The majority of the Township's housing units were constructed between 1980 and 1989 (an estimated 3,001 units). Around 1,202 units were built between 2000 and 2009, and only 76 were constructed between 2010 and 2013. The American Community Survey has not reported any new units built in 2014 or later. However, several large residential developments have been completed or are nearing completion since 2014.

YEAR STRUCTURE BUILT	# OF UNITS	% OF TOTAL HOUSING UNITS
2014 or later	0	0.0
2010-2013	76	0.9
2000-2009	1,202	14.5
1990-1999	1,558	18.7
1980-1989	3,001	36.1
1970-1979	649	7.8
1960-1969	741	8.9
1950-1959	614	7.4
1940-1949	164	2.0
1939 or earlier	305	3.7

Source: 2012-2016 American Community Survey 5-Year Estimate

According to the New Jersey Department of Community Affairs' permits by square footage data, permitted new office space peaked in 2005 (125,637 square feet). It has since fluctuated with a significant decrease from 45,652 square feet in 2014 to 1,041 square feet in 2015 and no approved square footage in 2017. As for retail space, the peak of permit approved square footage occurred in 2008 (204,678 square feet). In the last few years, it has fluctuated significantly from 52,131 square feet in 2013 to zero in 2016. Except for a spike in 2016, housing development has generally followed a downward trend from 2000 to 2014. However, the recently constructed Mountain View at Hunterdon, Hunterdon Creekside and the Willows at Flemington Junction are large scale residential developments that reflect the renewed pressure for development of open space in Raritan Township.

APPROVED PERMITS FOR NEW CONSTRUCTION, ADDITIONS, AND ALTERATIONS			
YEAR	OFFICE SPACE (SQ FT)	RETAIL SPACE (SQ FT)	# OF HOUSING UNITS
2000	85,375	73,156	193
2001	125,416	136,663	217
2002	46,404	1,334	208
2003	124,455	20,015	247
2004	92,661	39,001	189
2005	125,637	9,119	85
2006	84,800	0	50
2007	115,102	198,311	18
2008	119,669	204,678	21
2009	37,697	0	25
2010	17,293	0	27
2011	54,806	12,000	33
2012	16,980	14,838	12
2013	41,180	52,131	30
2014	45,652	2,359	41
2015	1,041	597	41
2016	4,313	0	128
2017	0	4,725	46

Source: New Jersey Department of Community Affairs

Goals and Objectives

The primary objective of the Open Space Advisory Committee is to identify and assist in the acquisition of properties in the Township to be preserved as open space. To satisfy this mandate the Open Space Advisory Committee has developed this Open Space Plan for Raritan Township. According to the Open Space Plan in the Township Master Plan Conservation Element, properties are acquired and preserved in order to:

1. Limit residential growth;
2. Protect environmental resources and vistas;
3. Provide linkages to existing open space; and
4. Provide area for future active and passive recreation.
5. Protect Historic Resources.

The Master Plan also includes a Farmland Preservation Element, with the goal to preserve as much farmland as possible in the short-term. Open space preservation and farmland preservation are interconnected, and as such farmland preservation is a focus throughout this Plan. Productive farmland may be appropriate for protection through easement acquisition as part of the farmland preservation program.

History of Open Space and Farmland Preservation

Open Space

The Township's formal open space program has been in existence since 1996, and the Township Committee created the Open Space Advisory Committee (OSAC) in 1997. In --- Raritan Township voters approved a referendum to establish an open space tax of 2 cents per hundred dollars of assessed value. In conjunction with the creation of the OSAC, the Township Committee passed an ordinance to create a 2-cent open space/farmland tax in 1996. The tax is 2 cents per \$100 of assessed property values. This was in place until 2008 when the tax was reduced by the Township Committee to 1.5 cents. The reason given at that time was because there had been a reassessment of property values resulting in an increase in open space tax revenue at a time when the Open Space Committee was not as active as it has been in recent years. The 1.5 cents tax rate was maintained for several years. Reassessment shortly after the 2008 recession resulted in significantly reduced open space income. In spite of the need for open space funding, in December 2016, the Township Committee approved an ordinance that diminished the rate from 1.5 cents in 2017 to 1 cent in 2018, .8 cents in 2019, and .5 cents in 2020 and 2021. This has resulted in a negative cash flow for the fund. Due to past borrowing for several open space parcel acquisitions the amount of funds generated from the tax is now lower than the annual debt payments. As a result, there are currently only limited Township Open Space Tax funds available for preservation. There is therefore a need to raise the open space tax and find additional funding sources.

Raritan Township is approved to receive funds through NJDEP Green Acres funding which provides 50 percent matching funds to purchase parcels for open space preservation. There are other matching funding programs available for open space and farmland acquisition as described below. Having sufficient Township Open Space funding to leverage/match these funds from other grant programs is therefore critical to a successful open space program.

The Township has worked with State, County, and non-profit agencies to preserve approximately 2,300 acres of open space and 1,400 acres of farmland.

Farmland

Raritan Township adopted the State's "Right to Farm" ordinance in 1994, to protect and encourage various farming activities, and mitigate any conflict between neighbors and farming operations. To further encourage farming, the Township made the following steps: it passed an ordinance to lessen the cost of building and permit fees for farm buildings, amended a zoning ordinance to declare that farm buildings are a permitted use, and adopted a Master Plan resolution to preserve farmland in a specific area of the

Township.

In 1995, Raritan Township created an ad hoc committee to focus on ways to preserve farmland. In 1999, the Township passed an ordinance to create the Agricultural Advisory Committee to pursue funding via Farmland Planning and Incentive Grants. This funding allowed the Township to preserve all farms in Agricultural Development Area (ADA) #2, all remaining farms in ADA #1, and five large farms in ADA #3. The Township continues to actively pursue the assessment of farmland properties and other efforts to preserve properties on an annual basis. More detailed information can be found in the Township's Farmland Preservation Plan.

2. Review of Existing Community Characteristics

Natural Resources

As the 2008 Master Plan states, physical characteristics can affect development patterns in the Township. One major natural feature is the South Branch of the Raritan River, which forms much of the Township's easternmost border. A number of smaller streams and rivers, marshes, wetlands, forests, and steep slopes comingle with the Township's various land uses. The Township's Natural Resource Inventory report provides a more in-depth description of natural resources.

The following are the open space goals concerning natural features:

- Preserve open space to aid in the protection of water resources;
- Preserve open space to limit growth to existing infrastructure capacities;
- Preserve open space to protect existing aquifer recharge and wellhead protection areas; and
- Preserve open space to protect environmental and cultural resources.

Environmental resources include wetlands, steep slopes, floodplains, forest areas, wildlife habitat, habitat for endangered and threatened species and greenways.

Cultural resources, discussed in the Township Master Plan include historic buildings, historic districts, archaeological resources and cemeteries.

Topography

Raritan Township ranges from 100-700 feet above sea level. The topography is at its lowest along the South Branch River and at its highest along Cherryville Road at the Raritan Township - Franklin Township Boundary. Elevations between 160-200 feet above sea level can be found east of County Road 523 and Route 31. Elevations mostly between 500-600 feet and up to 700 feet can be found west of County Road 523 and Route 31. Because of this increase in elevation, grade changes occur on Route 12, Thatcher's Hill Road, Sand Hill Road and Oak Grove Road.

Floodplains

As affirmed in the 2008 Master Plan, new construction within the floodplain and floodway is prohibited by ordinance. This ordinance also meets State requirements to enable residents to qualify for flood insurance. The State controls activities within regulated waters, the flood hazard area and riparian zones (stream buffers) under the NJ Flood

Hazard Area Control Act. NJDEP flood hazard permits are required within these areas, and there are fines for violation of state law. The parts of the Township that are in floodplain areas are indicated on a map in the Master Plan. There are additional unmapped regulated flood hazard areas associated with the streams in the Township.

Geology

The Geologic Map in the 2008 Master Plan shows formations within Raritan Township. Some formations are more porous and have more spaces between grains than others. These factors affect the permeability of ground water through a particular type of formation.

A more in-depth report produced in 1998 concerning the geologic formations in the western and northwestern portions of the Township, "Environmental and Hydrogeologic Assessment for Future Residential Development," is incorporated in the Master Plan as Appendix A. The 2008 Master Plan states the following findings from the report:

A. The **Lokatong formation** is one of the poorest sources of ground water in New Jersey. The Lokatong has no permeability or porosity and virtually all ground water must be transmitted through fractures and joints which are usually widely spaced and relatively tight.

B. **Brunswick shale** normally is a red argillaceous shale with local beds of fine-grained red sandstone, siltstone, and black, grey, or greenish shale. Ground water flows through the Brunswick shale both in nearly vertical features and joints, and also along nearby horizontal fractures along bedding planes. Wells tapping the Brunswick Shale typically have high initial yields which tend to decline as the fractures around the well are de-watered. Therefore, the ultimate yields of wells in Brunswick Shale are usually considerably lower than initial yields. In general, the Brunswick Shale is a reliable source of water for most domestic and industrial uses.

C. **Diabase** is a black to dark gray dense igneous rock. The rock is a poor aquifer.

D. The **Stockton formation** is predominately a light-colored sandstone or a red to brown fine-grained sandstone. The Stockton formation is the best of the consolidated aquifers in Hunterdon County.

Aquifers

It is estimated that 4,000 housing units exist in Raritan Township which utilize a well on as the sole source of water. These housing units are occupied by an estimated 12,000 people. Generally, each person will use 100 gallons of water per day, and approximately 1.2 million gallons per day from the ground water supply in total.

A review of the zoning map of the Township finds that the R-1 Zoning District which requires a minimum lot size of 6 acres roughly corresponds to the Township's Lockatong formation. The R-1A zone and the R-3 zone which require lot sizes of 1.8 acres and 1.15 acres respectively, are generally co-located with the Brunswick shale and Stockton formation within the Township.

Conservation

The Municipal Land Use Law (MLUL) requires, "where appropriate," a conservation plan element in the Master Plan that addresses preservation, conservation, and utilization of natural resources such as open space, wetlands, and watersheds. Existing conservation regulations applicable to the Township and recommendations from the 2008 Master Plan are provided below.

Watershed Protection

The Township contains a major river, streams, tributaries, state open waters, wetlands, and ponds. According to the NJDEP, it lies within both the Central Delaware and North and South Branch Raritan watersheds, two major rivers in New Jersey and the northeast. Each part of the water system provides environmental, recreational, and habitat benefits to the Township. To buffer development from waterways, the Township has adopted a 100 ft. stream buffer standard along with a 75 ft. soil disturbance standard. In addition, Raritan Township has implemented a 25 ft. State open water buffer to further protect minor waterways that do not meet the definition of a stream. Lastly, the Township recognizes and supports the State's efforts to buffer C-1 waterways, which include Plum Brook and Wickecheoke Creek. Enforcement of these regulations is the responsibility of the Planning and Zoning Board and the zoning officer. Conservation easements are required for all stream buffer areas.

Floodplain

Recognizing the importance of the flood plain not only for flood hazard prevention but also environmental issues, the Township has enacted an ordinance that restricts new development within the 100-year flood plain.

Wetlands

The Township contains large areas of wetlands. For planning purposes, the State of New Jersey Department of Environmental Protection has prepared wetland maps, as required by the Freshwater Wetlands Protection Act, using aerial photos. Delineations on specific properties must supplement this general information with onsite investigation. The Township requires that every subdivision and site plan application submit a wetlands

report and obtain a Letter of Interpretation from the NJDEP in accordance with the Freshwater Wetlands Protection Act in order to identify the location of wetlands and wetland transition areas (buffers) on a parcel. Any wetlands and associated buffers located on lands to be subdivided are required to be identified, preserved, and placed into conservation easements held by the Township.

Partnerships between the New Jersey Conservation Foundation, Hunterdon County, and the Township have achieved fee simple purchase of two properties in the Croton Swamp/Wickecheoke Creek area.

Forests

Existing woodland areas provide environmental, recreational, and aesthetic benefits to the Township. However, farming has already removed extensive woodlands from many areas of the Township. Development threatens the remaining valuable forest areas. The Township has a tree protection ordinance that provides some limited protection for trees when a development application is proposed.

Soils

The limitations for disposal of on-site sewage effluent are classified based on soil types as severe, moderate, and slight. The soil properties considered are flood hazard, depth to seasonal high-water table, slope, depth to bedrock, rockiness, stoniness, and permeability. Many areas of the Township have been identified as a "severe" classification. Some of the moderate classifications appear to include wetlands. While an area classified as "severe" may be developable, such classification would require a relatively low density.

Further studies of soils in the Township have been conducted as part of the nitrate dilution models. As noted in the Land Use Element of the Master Plan, nitrate dilution models for the AR-2 zone and the R-1A zone indicated that the lot sizes exceed the soils capacity. The Township increased the zones' minimum lot sizes to 2 acres and approximately 2.3 acres, respectively. Studies of the Lockatong formation recommended the increase in lot size in the R-1 zone from 2.5 to 6 acres, which was implemented in 1998.

Steep Slopes

Excessive disturbance of steep slopes can worsen stormwater runoff, cause sedimentation in nearby streams, and potentially de-stabilize the slope to the point of collapse. The Open Space Committee has flagged the following three properties for preservation due to steep slopes:

BLOCK	LOT	OWNER	LOCATION	ACRES	ZONING	FEATURES
44	8	Holzli	Old Croton Rd	52.2	R-1	Park linkages, forest, steep slopes (260-380 ft)
15	30	Elizabethtown Water	Thatchers Hill Rd	17.6	R-1	Forest, steep slopes (240-340 ft)
15	31	Elizabethtown Water	Thatchers Hill Rd	19.3	R-3	Forest, trails, steep slopes (220-290 ft)

Water Quality

The New Jersey Bureau of Water Monitoring has established a monitoring station on the Neshanic River (AR-2 and R-1A Zones). Although the monitoring station is labeled as East Amwell Township, the actual location is in Raritan Township. Station AN0333 shows that the biological condition of the river is moderately impaired.

The Bureau of Freshwater and Biological Monitoring further monitors the area. An Index of Biotic Integrity measures the health of a stream based on multiple attributes of the resident fish assemblage. The 2001 Fish Index of Biotic Integrity Data Summary chart notes that site FIBI023 located on the Neshanic River in the Study area is merely "fair". Further development in the area would only worsen the existing marginal conditions.

Finally, the streams in the area exhibit pollution levels exceeding the total maximum daily load (TMDL) of fecal coliform bacteria. A TMDL is the amount of a pollutant that can be accepted by a body of water without harming water quality or interfering with the ability to use a water body for one or more of its designated uses.

Recommendations

The Township has been acquiring a greater number of conservation easements in recent years. These easements exclude all structures and limit vegetation clearing. At this time, the Township does not have a database of existing conservation easements. Without a comprehensive plan to identify and catalog the location of each conservation easement within the Township, it will become increasingly difficult to effectively enforce the restrictions. The Township should endeavor to incorporate an inventory of easements into a GIS platform and perform random inspections of conservation easements throughout the year.

The Planning Board should consider the future preservation of conservation easements when processing subdivision applications. The amendment to the ordinance requiring larger net lot requirements and the inclusion of wetlands transition areas in net lot and lot circle requirements should improve the protection of these environmentally sensitive areas. In addition, conservation easements need to be permanently marked in the field to clearly identify their limits.

In an effort to minimize the further degradation of rivers, the Township should consider a reduction in the permitted percentage of impervious surface coverage. Impervious surfaces can be reduced through a reduction in lot size and mandatory lot clustering, limiting further run-off. This would provide for dedicated open space/farmland areas while at the same time reducing the number of roads needed to service any development. Additionally, the open space areas can be used to provide for further non-structural stormwater management in accordance with the NJDEP's stormwater management regulations.

Watershed Protection

The following are recommendations to promote watershed protection within Raritan Township:

- Install signage as the public enters the watersheds indicating that the watersheds are a water supply area
- Acquire conservation easements from property owners and require implementation of forest management plans that have a primary objective of clean and abundant water
- Require the development and implementation of a soil and water conservation plan for resource management systems for all farmland assessed property in the watershed
- Install permanent buffer strips on cropland with a distance of 100 feet or less between the cropland and stream corridors using such programs as the Conservation Reserve Enhancement Program (CREP)
- Install measures to reduce the volume and velocity of surface water runoff to stream corridors from roadways
- Minimize the footprint and disturbed area of construction in rural residential land, and preserve all other topography and vegetation of the site
- Minimize driveway length and promote unpaved driveway treatment

- Practice regular septic system maintenance with pumping done at a minimum of once every three years
- Install raised beds on elevation contours and provide rain gardens to slow runoff
- Strengthen existing steep slope ordinances and require conservation easements on steep slopes
- Implement a 15-foot buffer for ordinary value wetlands, and create monitoring and inspection protocols for existing conservation easements
- Conduct mapping and inventory of wooded areas, prepare a woodland protection ordinance, and require the development and implementation of a forest management plan for farmland assessment that includes practices for water quality and quantity as well as species richness and diversity of tree age and size class in addition to forest stand improvement
- Promote reforestation to aid in the protection of riparian corridors and continue to obtain conservation and drainage easements along streams and other waterways, which should cover the 100-year flood plain, wetland and wetland transition areas, state open waters, and other significant natural and environmental features

The Open Space Advisory Committee should review individual parcels for future acquisitions in the Croton Swamp/Wickecheoke Creek area.

Forests

- Prioritize preservation of forest areas with a priority on preserving mature forests
- Prioritize reforestation as formerly farmed properties are developed
- Continue review of woodland protection ordinances and adopt a more protective version of an ordinance for the Township

Steep Slopes

- Review the Township's steep slope ordinance
- Reduce the amount of impervious surface permitted in steep slope areas
- Require conservation easements on steep slope parcels

Historic Resources

Historic Sites Survey

Raritan Township, with the help of Dennis Bertland Associates and local residents, conducted a Historical Site Survey in 1985. Of the 163 sites evaluated for the National Register, 29 were considered eligible. Fifteen (15) of these sites are in the Flemington Junction area.

Local Historians Committee

In 1999, the Township established a seven-member Local Historians Committee to provide for the preservation of the Township's heritage. The powers, duties, and responsibilities of the Committee include:

- To compile and update the inventory of historic structures
- To implement historical educational programs
- To recommend and assist in projects of commemoration

Landmark Preservation Goals

The 2008 Master Plan states the following goals for landmark preservation:

- Preserve significant historic sites
- Provide for reasonable use and redevelopment opportunities of historic sites
- Identify new and previously unrecognized historic sites and districts
- Update historical resources survey

Historic Districts and Sites

Raritan Township contains two designated and two proposed historic districts. Additionally, the Case-Dvoor Farmstead and Carman Cemetery are two sites of historic and cultural importance to the Township.

South Branch Historic District

The South Branch Historic District is the site of some of the oldest intact homesteads in Raritan Township, dating back to the 1700s. The district, listed on the National Register of Historic Places, is shared with Readington Township. The Township Open Space Committee has identified three (3) parcels for preservation that are part of the Stothoff farmland in this district.

BLOCK	LOT	OWNER	LOCATION	ACRES	ZONING
27	29	Stothoff	River Rd	5.2	I-2
28	29	Stothoff	River Rd	13.7	R-2
28	43	Tuccamirgan LLC	River Rd	1.5	R-2

Reaville Historic District

This district is essentially a continuation of the Historic Preservation District in East Amwell Township. It has been listed on the Nation Register of Historic Places since 2002. There are a small number of historic structures in the portion located in Raritan Township which share the historic character shared with East Amwell. In 2007, the Township placed a sign to identify the area.

Klinesville Historic District (Proposed)

The proposed district includes the small area around the intersection of Thatchers Hill Road and Klinesville/Sand Hill Roads, and the contiguous fields of Ewing Farm. The Master Plan describes the structures in the area as "distinctive" and "enveloping", so as to create a sense of place. Ewing Farm's fields are part of Miller Kline's tract, from whom the district takes its name. These fields were a vantage point where many gathered to witness the attacks of September 11, 2001. The area is listed as a "Site of Historic Interest" in the 1979 Hunterdon County Master Plan.

Old Clinton Road Historic Byway (Proposed)

Old Clinton Road is a scenic, canopied country road that experiences heavy traffic on weekdays. The roadway has roots in the Township's early agricultural history, which is preserved through the remaining structures. The winding road connected local farms to mills on the river in the Township and to Clinton, Readington, and Franklin Townships as well. The historic scenery both beautifies the area and preserves historic character, which benefits residents, visitors, and the overall vitality of the Township. Because the "historic byway" extends into other municipalities, preservation of Old Clinton Road could be of interest beyond Raritan Township.

Case-Dvoor Farmstead

The Dvoor Farm is listed on the National Register of Historic Places. The Georgian style farmhouse was built in the late 1700s by the Case Family. More than 100 years later Jakob Dvoor bought and settled on the farm with his family after immigrating from Lithuania. The Dvoors supplied cows to dairy farms across the country. The farmhouse is one of the oldest stone houses in the county. There are two architecturally noteworthy structures on the farm: a mid-19th-century bank barn and an early 20th-century milking barn. A total of nine structures dot the 40-acre farm. In 1999, The Hunterdon Land Trust bought the property and moved their headquarters to the farmhouse, where they host activities to encourage public involvement, including a popular farmers' market on site.

Carman Cemetery

This cemetery was specifically recommended by the Township's Environmental Commission due to its historic significance to the Township and Hunterdon County's commitment to preservation. Also known as the Valley School Graveyard, the cemetery holds graves of local families from the late 18th and early 19th centuries. It is located on Block 45.03, Lot 34, at the intersection of Sergeantsville Road and S Autumn Leaf Blvd. However, the cemetery itself only occupies 0.03 of the lot's 47.6 total acres.

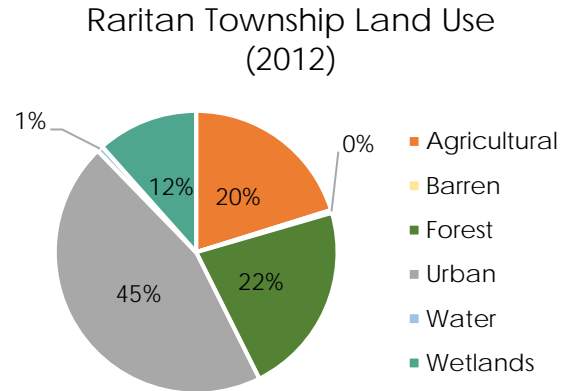
Recommendations

The Township should continue to support the educational and cultural programming efforts of the Local Historians Committee. Historical education and heritage tourism help residents contextualize and prioritize the Township's historic resources and enhance its historic preservation efforts.

At the present time, the Township should not consider the expansion of the Historic Preservation Committee to a full Commission as permitted under the Municipal Land Use Law (MLUL). Although the MLUL gives specific powers to a Historic Preservation Commission, it also places legal and administrative requirements on the Commission that the Township should strongly consider prior to its creation.

Existing Land Use

Despite the Township’s many and varied open space preservation efforts, it has been losing forest, wetlands, and agricultural lands over the past 15 years according to the New Jersey Department of Environmental Protection’s land use datasets. In 2012, 45% of lands in Raritan Township were developed for residential, commercial, industrial, transportation, etc. uses, compared with 43% in 2007 and just 36% in 2002. Of that 45% of urban land, nearly 6% was classified as “Athletic Fields (Schools),” “Cemetery,” or “Recreational Land.”



LAND USE PERCENTAGE (2002-2012)						
YEAR	AGRICULTURAL	BARREN	FOREST	URBAN	WATER	WETLANDS
2002	24.0	1.9	24.9	36.0	0.6	12.6
2007	21.0	0.8	22.3	43.6	0.7	11.6
2012	20.2	0.3	22.1	45.1	0.7	11.6

Approximately 4,375 acres of farmland and nearly 900 acres of natural areas have been lost to development between 1986 and 2012.

Master Plan Goals and Objectives

Several goals and objectives of the 2008 Master Plan relate to preserved open space, recreational, and agricultural land use.

Land Use

- “Limit growth to existing sewer plant capacity.”
- “Reduce potential for new single-family residential development.”
- “Permit additional commercial recreation development.”
- “Recognize the historical growth and land uses of areas.”
- “Provide for land uses that complement and promote the Township historical districts.”

By targeting residentially-zoned land outside of the existing sewer service area, open space preservation has the ability to direct and limit residential growth to areas with infrastructural capacity. Farmland preservation helps provide the scenic, cultural, and historical context to Raritan Township’s historic districts, which originated as agricultural communities.

Community Facilities

“Provide for increased integration of land use, transportation, open space, and recreation with existing school infrastructure.”

This Plan provides an inventory of existing open space and recreation, including recreation opportunities at the Township’s schools. The connections between these resources and other transportation and recreation land uses strengthen the Township’s open space system.

Farmland

“Provide protection of existing farmland operations from encroaching development.”

In addition to funds for farmland preservation, many agricultural organizations provide farmland mediation, which helps farmers, neighbors, and developers negotiate a mutually-beneficial agreement for agricultural land use.

Open Space Zoning

Open space, recreation, and preserved farmland in Raritan Township primarily fall within lower density residential zones. The R-1, R-1A, and R3 zones, which take up most of the Township and require 6-acre, 2.3-acre, and 1.15-acre residential lots respectively, also accommodate most of its recreation and open space. The Public and Institutional District hosts several parks, including Mine Brook Park and a few of the Township’s sections of the South Branch Reservation. A notable exception to this pattern is the Three Bridges section of the South Branch Reservation. Block 75.04 Lot 1 is located in the R-3 zone, but the much larger parcel within this section, Block 74 Lot 2, is zoned O-2, or the Business Office District.

Recommendations

In keeping with the other County-owned properties in the South Branch Reservation, the Three Bridges section should be zoned for Public and Institutional use. Furthermore, Block 74, Lot 2 is outside the existing sewer service area, which places it in contention with the purpose and objectives of the Business Office district.

The Township should continue to target residentially-zoned parcels, especially those outside the existing sewer service area, for open space preservation to stem the tide of development in the Township and help protect the natural resources described above.

3. Open Space Goals, Objectives, and Policies

The primary objective of the Raritan Township Open Space Advisory Committee is to identify and assist in the acquisition of properties in the Township to preserve as open space. To satisfy this mandate the Open Space Advisory Committee has developed this Open Space Plan for Raritan Township.

In accordance with the Township Master Plan the following goals are used to develop the Open Space Plan, in order of importance:

1. Limit residential growth;
2. Protect environmental resources and vistas;
3. Provide linkages to existing open space; and
4. Provide area for future active and passive recreation.

1. Limit residential growth – This goal can be accomplished through acquisition of large tracts of residentially zoned land and is most efficiently accomplished through the preservation of farmland. Criteria to assist in ranking these properties include:

- Existing funding partners – Preservation of the property already has County Agricultural Development Board (CADB) or State Agricultural Development Committee (SADC) preliminary approval.
- High density residential zoning – Preservation of the property would effectively limit a larger number of residential units.
- Large farm - Preservation of the property would effectively limit a larger number of residential units, contribute to the continued viability of farming in the Township, and preserve scenic rural vistas.
- Contiguous to existing farms – Preservation of the property would contribute to the continued viability of farming in the Township and preserve scenic rural vistas.

2. Protect environmental resources and vistas – Environmental resources targeted for protection through open space preservation in accordance with the Master Plan Conservation Element include protection of water resources, aquifer recharge, and wellhead protection areas. Environmental resources identified as important for water resources protection include the following and are presented in order of priority for acquisition:

- Stream corridors, including C-1 and C-2 waterways
- Forests
- Habitat for rare, threatened, and endangered plant or animal species
- Wetlands
- Floodplains
- Steep slopes

3. Provide linkages to existing open space – Adjacency to existing open space increases the value to the public and creates opportunities for trail connections. Examples of park linkage opportunities in the Township include:

- Lenape Park – Through a donation of land (Block 63 Lot 33.07) as part of the Hunterdon Estates development, the Township provides a wooded area with an access trail from S Autumn Leaf Boulevard to Lenape Park.
- Uplands/Morales Nature Preserve/Mine Brook Park/Dvoor Farm/Robert Hunter Elementary School – The attached priority acquisition list highly ranks Block 25 Lot 5 for its potential to link with Uplands Reserve, Morales Nature Preserve, and Mine Brook Park, creating one long corridor of forested open space and hiking trails. To the south of this chain, the Dvoor Farm properties sit across Route 12 from a vacant parcel on Block 48 Lot 1. This parcel’s preservation as open space would further link the recreational amenities at Robert Hunter Elementary School and the community garden near the Township municipal building with this long row of parks, passive woodlands, and cultural opportunities.

4. Provide area for future active and passive recreation – Active recreation may include trails, picnic areas, playgrounds, and athletic fields. The 2008 Master Plan highlights river access as an active recreation proposal on page 27: “the Township along with the County should continue to pursue acquisitions along the South Branch of the Raritan River with the ultimate goal to provide additional access to the river for recreational purposes.”

5. Protect historic resources – In addition to the goals used by the OSAC to develop the Open Space Plan, the Master Plan also encourages the protection of historic resources, including several historic districts.

Based on these goals the Raritan Township Open Space Advisory Committee has identified properties for proposed acquisition and farmland preservation (see the attached master list of proposed open space properties). The master list applies rankings of proposed open space properties to develop the list of Open Space Plan Priority Properties for Acquisition and Preservation, included in the appendix. This list includes features on the land, lot size and yield, and possible preservation methods and costs. Properties advanced by funding partners with willing sellers should be given high priority as this will increase the probability of harnessing the necessary funding resources to acquire the land.

The Township is in the process of completing its Farmland Preservation Plan. The Plan identifies a list of farms targeted for preservation, which can satisfy some of the open space plan goals described above. These farms are included in the master list of priority lands for preservation.

The Master Plan notes that “the open space program is a fluid program which must adapt to the availability of land. The open space program is largely dependent upon the landowners being willing to sell.” Furthermore, the Master Plan notes that “it is always possible that an un-identified parcel will come up that was not previously discussed. In those cases, the matter will be forwarded to the Open Space Committee for their recommendation.” Noting the uncertainty and changing nature of open space management, this Plan reflects the Master Plan’s fluidity regarding individual parcels of potential open space.

4. Public Participation

Two (2) public meetings were held on September 13, 2017 and October 11, 2017. These meetings were led by Amy Greene, Chair of the Open Space Committee. Members of the public included residents as well as a representative of Raritan Headwaters Association. Participants discussed aspects of the Open Space Plan such as mapping current and proposed open space, and potential funding sources. The meetings' leaders explained the goals of the Open Space Plan and the fluidity of the program, which must adapt to the availability of land. The meetings demonstrated public support of the plan and addressed concerns. Minutes for both meetings and a Letter of Support from the Township Environmental Commission are included in the appendix.

5. Review of Open Space & Recreational Resources

Open Space and Recreational Resources

There are approximately 2,322 acres of permanently preserved parkland/open space owned by the State, Hunterdon County, Raritan Township, and non-profit land trusts. This does not include the 200+ acres occupied by Township's public schools and their recreational facilities. Raritan Township covers approximately 37.6 square miles, 10% of which is parkland/open space. There are also 1,365 acres of privately-owned preserved farmland, another 5.6% of the Township. The Raritan Township Open Space Map (in the appendix), maintained by the Open Space Committee, shows these existing open space resources.

OWNER	ACREAGE	SQUARE MILES	% OF TOWNSHIP
Raritan Township	1,104	1.73	4.60
Hunterdon County	775*	1.21	3.22
State of New Jersey	240	0.38	1.01
Non-profit land trust	187	0.29	0.77
Total	2,306	3.60	9.57
Preserved Farmland			
Preserved Farmland	1,365	2.13	5.66

*Includes the Three Bridges section of the South Branch Reservation, does not include State-owned sections of South Branch Wildlife Management Area

Raritan Township

Municipally-owned land includes active recreation fields, playgrounds, pavilions, and walking paths, conservation lands with maintained walking trails, and conservation lands with primitive trails or no maintained trails. Some of the undeveloped parklands are currently designated as deer management areas.

Active Recreation

Blackwell Park (Block 87 Lot 11): 18.2 acres. Located on Everitts Road and Lavada Lane, this small neighborhood park has a field, pavilion, playground, basketball courts, and a walking trail. A variety of native trees have been planted throughout the park through a grant from NJDEP. The Township owns several other parcels of land near the park on Everitts Road and Lavada Lane.

Clover Hill Park (Block 75 Lot 7.01): 18.2 acres. Not yet operational at the time of the last Master Plan, Clover Hill Park includes a playground, pavilion, and two soccer fields maintained by the Greater Flemington Soccer Club. The lot abuts the former Merck property now owned by Hunterdon County and the NJDEP South Branch Wildlife Management Area, which the County manages as grassland habitat for birds.

FMF Complex (Block 16.01 Lot 38): 9.4 acres. This partially wooded property hosts the Jr. Red Devils Football and Cheer program on two smaller football fields, alongside the Flemington Area Food Pantry.

Lenape Park (Block 63 Lot 1): 82.3 acres. This facility is located on County Road 523/Sergeantsville Road and provides 6 soccer fields, 4 little league fields, 3 softball fields, 2 major league baseball fields, 4 basketball courts, and a children's play area. Along the Second Neshanic River, the southern portion of the park is passive, forested open space.

Mine Brook Park (Block 49 Lot 2.01): 13.4 acres. At the southeastern intersection of Old Croton Road and Capner Street, this park contains a softball field, soccer field, walking/jogging track, picnic pavilion, and children's playground. A section of Walnut Brook flows through the park, popular with visitors in the summer months. A trail from Shields Avenue provides access to the center of the park along the northern border of the Hunterdon Land Trust's Dvoor Farm.

Passive Recreation and Open Space

Bushkill Brook Tributary Preserve (Block 15 Lots 59, 64, 92, and 93): 18.6 acres. This wooded area near Flemington Borough's northern border has extensive wetlands. Access is from Lowry Lane and List Road.

Cherryville Hollow Road Preserve (Block 6.13 Lot 51): 18.7 acres. This predominantly forested land with relatively steep slopes is located between Copper Penny Road and Cherryville Hollow Road, directly across from the Urbach Farm Preserve.

Dvoor Circle properties (Block 52 Lot 1, Block 53.01 Lot 1.58): 7.0 acres. These properties abut the eastern and southern sides of Dvoor Circle. Lot 1 sits between Mine Street and Frenchtown-Flemington Road, bordering Walnut Brook. Lot 1.58 is on the corner of Route 12 and Sergeantsville-Flemington Road.

Erich/Salomon Back Brook Preserve (Block 85 Lot 15.01): 91.6 acres. Wooded and bisected by a tributary of the Back Brook, this lot also contains easements and some wetlands. The property can be accessed from Haas Drive off of County Route 514 (Old York Road). Parking is available at the end of Haas Drive.

Everitts Road Preserve (Block 85 Lots 7 and 7.01): 22.7 acres. South and west of Blackwell Park, the Township owns several parcels of preserved open space and farm fields. A PSE&G right-of-way passes through Block 85 Lot 7.01.

Hardscrabble Hill Road Preserve (Block 44 Lots 5.01 and 6): 66.5 acres. This forested land is located south of Hardscrabble Hill Road between Hinkly Road and Old Croton Road.

Lenape Park linkages (Block 63 Lots 33.07 and 78): 17.3 acres. This forested floodplain and wetlands area was donated to the Township, Lot 33.07 as part of the Hunterdon Estates development. Lot 33.07 provides a linkage between Lenape Park and South Autumn Leaf Boulevard across from Frost Court.

Lone Cedar Park (Block 4 Lot 11): 62.7 acres. The park is predominantly open grasslands with a walking trail and sitting area, though a portion of the property is heavily wooded with a stream corridor. The existing house on the property was subdivided off and sold to a private party. Access is from a parking area on Old Clinton Road or from Packers Island Lane. The park's trail connects to Hunterdon County's South Branch Reservation.

Micek Farm Park (Block 63 Lots 36 and 50.11): 94.2 acres. Formerly a farm, these open fields and mowed trails mingle with forested tributaries of the Second Neshanic River. Access is from Johanna Farms Road just south of the sharp bend in the road and from cul de sacs on Robin Hill Way, Wisteria Court and Buckeye Lane. The Township also acquired an adjacent parcel (Lot 50.11) of wetlands near Wisteria Court.

Morales Nature Preserve (Block 25 Lot 25): 52.4 acres. Located at the corner of Capner Street and Old Croton Road between Mine Brook Park and Uplands Reserve, Walnut Brook and well-maintained trails traverse this forested property.

Neshanic River Preserve (Block 43 Lots 20, 24, and 46, Block 59 Lots 5 and 8.01): 166.1 acres. With driveway access from Harmony School Road, the parcels in Block 43 are located north of Harmony School Road and the parcels in Block 59 are to the south, straddling the Second Neshanic River. The preserve supports primarily forested habitat and evergreen plantations.

Plum Brook Preserve (Block 43 Lots 3 and 4): 72.2 acres. This mature forested property, featuring the picturesque Plum Brook, located south of Plum Brook Road has additional access from the cul de sac at the end of Michele Crossing and the cul-de-sac at the end of Alexander Drive. A primitive trail follows the brook.

Raritan Estates (Block 5 Lot 17.13, Block 5.01 Lot 5.09): 32.4 acres. These Township-owned parcels offer walking trails extending from Old Clinton Road to Cherryville Stanton Road with additional access from DeMott Road. Lot 5.09 is located northeast of William Barnes Road.

Thatchers Hill Preserve (Block 15 Lot 19.16): 12.5 acres. The preserve supports a mature oak forest and old field with scenic views near the top of Thatchers Hill. Access is from cul de sac on Edward Drive via an easement.

Thomason Preserve (Block 63 Lot 41): 24.0 acres. This preserved parcel, bordering forested lands in Lenape Park, supports field and forest habitat. Access is from County Road 523/Sergeantsville Road. It has an existing vacant house and barns.

Urbach Farm Preserve (Block 7 Lot 13): 110.2 acres. This former farm boasts over one hundred acres of fields and forest habitat between Klinesville and Cherryville Hollow Roads. A trail head and parking area is located on County Route 617/Klinesville Road west of Quail Ridge Drive. The property's trails follow the border between the fields and forests. Assiscong Creek is located along the northern property boundary near Cherryville Hollow Road, and there are scenic views along Klinesville Road.

Walnut Brook Preserve (Barton Hollow) (Block 13 Lot 7): 45.1 acres. Along Barton Hollow Road between Oak Grove and Klinesville Roads, tributaries of Walnut Brook bisect this forested habitat.

Walnut Brook Preserve (Oak Grove) (Block 14 Lot 1.32): 2.8 acres. This is a smaller parcel of open space located on the corner of Barton Hollow Road and Oak Grove Road. Walnut Brook forms its western border. Native trees were planted through a NJDEP grant.

Walnut Brook Preserve (Levico) (Block 25 Lot 1): 45.7 acres. Between Thatchers Hill and Barton Hollow Roads, this parcel is predominantly forested habitat. Walnut Brook flows adjacent to Barton Hollow Road and a primitive trail provides access from Thatchers Hill Road. The homes on Turtle Court nearly bisect the preserve.

NAME	ACCESS	ACRES	TRAILS	PICNIC AREA	REC FIELDS	PLAY AREA
Blackwell Park	Everitts Road/Lavada Lane	18.2	✓	✓	✓	✓
Bushkill Brook Tributary Preserve*	List Road/Lowry Lane	18.6				
Cherryville Hollow Rd Preserve*	Cherryville Hollow Road	18.7				
Clover Hill Park	Clover Hill Road	18.2	✓		✓	✓
Dvoor Circle properties	Dvoor Circle	7.0				
Erich/Salamon Back Brook Preserve*	Haas Road	91.6				
Everitts Road Preserve	Everitts Road	22.7				
FMF Complex	Minneakoning Road	9.4			✓	
Hardscrabble Hill Road Preserve	Hardscrabble Hill Road	66.5				
Lenape Park	County Road 523	82.3	✓		✓	✓
Lenape Park linkages	S Autumn Leaf Blvd	17.3	✓			
Lone Cedar Park	Old Clinton Road/Packers Island Lane	62.7	✓			
Micek Farm Park	Johanna Farms Road	94.2	✓			
Mine Brook Park	Croton Road/Capner Street	13.4	✓	✓	✓	✓
Morales Nature Preserve	Capner Street	52.4	✓			
Neshanic River Preserve*	Harmony School Road	166.1				
Plum Brook Preserve*	Plum Brook Road	72.2				
Raritan Estates	William Barnes Road/DeMott Road	32.4	✓			
Thatchers Hill Preserve	Edwards Drive	12.5				
Thomason Preserve*	County Road 523	24.0				
Urbach Farm Preserve*	Klinesville Road	110.2	✓			
Walnut Brook Preserve (Barton)*	Barton Hollow Road	45.1				
Walnut Brook Preserve (Oak Grove)	Oak Grove Road	2.8				
Walnut Brook Preserve (Levico)*	Thatchers Hill Road	45.7				

* Deer Management Area

Public School Recreation Facilities

There are six schools located within the Township. Some school recreational facilities are open for public use after school hours and on weekends.

Barley Sheaf School (80 Barley Sheaf Road) – 2 baseball fields, 1 soccer/football practice field, 2 basketball courts, and a playground

Copper Hill Elementary School (100 Everitts Road) – 3 soccer fields, basketball court, and a playground

Francis A. Desmares School (16 Old Clinton Road) – 2 baseball fields, 3 soccer fields, 2 basketball courts, and a large playground

Hunterdon Central Regional High School (84 Route 31) – tennis courts, football facilities, soccer, lacrosse, baseball, and softball fields. Permission to use these facilities is required.

J.P. Case Middle School (301 Case Boulevard) – 2 baseball and 2 softball fields

Robert Hunter Elementary School (8 Dayton Road) – 2 basketball courts, 2 tennis courts, and a playground.

Nearby Municipalities

While the recommendations of this Plan can only apply to open space and recreational facilities within Raritan Township, the demand for these resources may be partially satisfied by open space and recreation in nearby municipalities. Due to the Township's large size, it might be much more convenient for a resident in the northern end of town to use open space in nearby Clinton Township than to travel to Blackwell Park in the southern end of the Township. To achieve a full assessment of the open space and recreational resources available to Raritan Township residents, this inventory includes open space and recreation facilities within two geographic miles of Raritan Township's borders.

Hunterdon County

Clinton Township

- Bundt Park
- Echo Hill Park
- Hunterdon County Arboretum
- Round Valley Recreation Area
- South Branch Reservation
 - Valinsky section
 - Sunnyside section

Delaware Township

- Abraitys Pine Stand Preserve

East Amwell Township

- Cider Mill Grassland Preserve
- Clawson Memorial Park
- Hunterdon County Fairgrounds
- Laport Reserve
- Omick Woods at Rocktown Preserve
- Sourland Mountain Greenway and Preserve

Flemington Borough

- Civil War Cemetery
- Flemington Borough Park
- Flemington Tennis Club
- Jewish Cemetery
- Memorial Park
- Paradise Golf Driving Range
- Prospect Hill Cemetery
- Tuccamirgan Park

Franklin Township

- South Branch Reservation
 - Pine Hill section
 - Valinsky section

Readington Township

- Bouman-Stickney Farmstead Museum
- Deer Path Park
- Round Mountain Preserve
- South Branch Reservation
 - Rowland's Mills and Packers Island section
 - Stanton Station section
 - Wings section
- Summer Road Park

West Amwell Township

- South County Park

Somerset County

Hillsborough Township

- Otto's Farm Park
- Sourland Mountain Preserve
- South Branch Greenway
 - Woodfern section
- South Branch Wildlife Management Area

Raritan Township and Hunterdon County

South Branch Reservation – Three Bridges section (Block 74 Lot 2, Block 75.04 Lot 1): 89.9 acres. Acquired through a joint purchase with the County, this property contains fields, forests, a short trail near the Raritan River, and a small picnic area. The property has access from Old York Road and Dory Dilts Road.

Hunterdon County Division of Parks and Recreation (HCDP&R)

Clover Hill Park and South Branch Wildlife Management Area (Block 75 Lot 8, Block 75.04 Lot 2, Block 75 Lot 4, Block 75 Lot 7): 352.1 acres in Raritan Township. On the site of the former Merck property, over 500 acres of open space adjacent to the 18-acre Township park of the same name contain trails and passive recreation. The County owns a 112-acre section and the NJ Department of Environmental Protection owns an adjacent 437-acre section in Raritan Township and Hillsborough Township in Somerset County. Hunterdon County manages the entirety of the property, leasing some land for farming and maintaining the rest as a grassland habitat for birds.

Heron Glen County Golf Course (Block 80 Lots 18, 18.01, and 32): 242.4 acres. This public golf course features 18 holes, a driving range, and a restaurant.

Hilltop Reserve (Block 15 Lot 1): 58.5 acres. Formerly Ewing's Farm, the County jointly purchased part of the property to be preserved as open space.

South Branch Reservation – This sprawling County reservation covers over 1,000 acres along the floodplain of the Raritan River. Raritan Township contains all or part of three sections.

- Assiscong Marsh (Block 9.01 Lot 2, Block 9.01 Lot 100.01, Block 9.01 Lot 100.02): 42 acres. This area, the largest freshwater marsh in Hunterdon County, does not provide public access but serves as a habitat for migratory and resident wildlife, and offers a prime wildlife viewing spot from River Road.
- Stanton Station (Block 1 Lots 6.01 and 9.01, Block 4 Lots 5.01, 8, and 20): 109.6 acres in Raritan Township. Shared with Readington Township, this section offers hiking trails, connection to nearby parks, and fishing in the Raritan River. A conservation easement on Block 4 Lot 7 connects the trail between the upper and lower areas of the section.
- Rowland's Mills and Packers Island (Block 8.01 Lot 100.01): approx. 20 acres in Raritan Township. Also shared with Readington Township, Raritan Township's portion of this section is a forested island in the Raritan River known as Packers Island near the abandoned former village of Rowland's Mills.

Uplands Reserve (Block 25 Lot 8): 100.7 acres. Located on Barton Hollow Road, this forested area is used for hiking and passive recreation. The hiking trails connect to Morales Nature Preserve.

New Jersey Department of Environmental Protection – Division of Fish and Wildlife

The New Jersey Department of Environmental Protection owns the South Branch Wildlife Management Area (240.5 acres in Raritan Township). Since 2008, however, the HCDP&R manages the entirety of the property, including the County's 112-acre section of Clover Hill Park, adjacent to both the South Branch Wildlife Management Area and the Township's Clover Hill Park.

Private Facilities

Many of the Township's residential areas consist of large planned and cluster development. Open space and recreational facilities were planned as part of developments paid for through residents' homeowner associations. As the 2008 Master Plan states, having this already in place addresses recreation facility needs for some residents. The open space in these areas could be used in the future to develop a system of natural greenways.

Residential developments providing private recreation and open space include:

- Carriage Gate
- Concord Ridge
- Flemington South Estates
- Sun Ridge
- Stonegate
- Twin Pointe
- Townsende
- Woodside Farms

Cluster developments providing passive open space parcels include:

- Countryfield Estates (Block 78.01 Lot 1.16)
- Geary's Ridge (Block 97 Lot 52, Block 98 Lot 25, Block 99 Lots 8, 10, and 14)
- McPherson Farm (Block 60 Lots 29.08 and 29.25)
- Quick River West (Block 80, Lot 14.01)

The estimated population associated with these developments is approximately 7500 people. Open space associated with these sites is approximately 456 acres, with approximately 127 acres used in active recreation areas.

Recreation facilities in private developments consist of the following:

TYPE OF FACILITY	# OF FACILITIES
Swimming Pools	7
Wading Pools	5
Tennis Courts	27
Basketball Courts	7
All Purpose Fields	7
Playground Areas	8
Picnic Areas	4
Vita (Health) Courses	5

Commercial Recreation

Private recreation sites open to the public for a fee include:

- Central Jersey Volleyball Academy – training facility for all ages
- Copper Hill Country Club – golf course and swimming facilities
- Healthquest – large indoor health club, gym, and pool
- Diamond Nation – commercial baseball training facility
- Flemington Ice Arena – indoor ice-skating facility
- Shields Gymnastics – indoor gymnastics training and fitness center

Non-Profit/Institutional

Passive open space and active recreation centers owned and/or operated by non-profit or institutional organizations include:

- Dvoor Farm (Block 49, Lots 2 and 2.02) – The Hunterdon Land Trust Alliance owns this 40-acre farm with wetlands, streams, and historic structures, and runs its operations on the premises.
- Flemington-Raritan Community Pool – This private, non-profit pool in Flemington Borough opens its membership to anyone within a “reasonable distance.”
- Hunterdon County BMX (Block 43 Lot 12) – Located on County property, this is a volunteer-run non-profit bicycle motorcross facility.
- Hunterdon County YMCA – This County facility with a fitness center, pool, and community programs in Readington Township is available for Raritan Township residents.
- Wickecheoke Creek Preserve (Block 12 Lots 1 and 13.01, Block 20 Lots 3 and 22): 147.2 acres in Raritan Township. New Jersey Conservation Foundation owns several large parcels of open space in the Township and nearby municipalities along Wickecheoke Creek, a C-1 waterway.
- Prospect Hill Cemetery (Block 25 Lot 28): 15.6 acres in Raritan Township. Split between Raritan Township and Flemington Borough, this large active/historical cemetery boasts scenic views of the surrounding area.

Summary

The Township provides facilities for organized recreation such as baseball, softball, basketball, and soccer, as well as walking/jogging paths and children's playgrounds. Recreation facilities at elementary schools, and to a lesser extent, local organizations, supplement those provided in municipal open space. Homeowner's associations provide swimming facilities, tennis, basketball, shuffleboard, volleyball, badminton, and similar facilities for residents in their developments. Commercial recreation facilities provide space for certain, more specialized activities and sports. Hunterdon County manages passive recreation sites such as the South Branch Reservation and South Branch Wildlife Management Area, and active recreation at the Heron Glen County Golf Course.

6. Needs Analysis

Recreation Demand

To determine the overall recreational demand for the Township, the Planning Board has reviewed three separate methodologies. Demand is first assessed using National Recreation and Parks Association (NRPA) calculations. Secondly, this Plan reviews and analyzes the results of a recreational survey, and finally the results of site inspections and interviews with maintenance workers and local sports leagues.

NRPA Guidelines

The NRPA recommends that between 6.25 and 10.5 acres of developed municipal open space be provided per 1,000 residents. The New Jersey Statewide Comprehensive Outdoor Recreation Plan recommends 8 acres of municipal recreation land per 1,000 residents. It should be noted that the NRPA is now moving away from area by population standards towards demand-based standards. The standard of 8 acres per 1,000 residents (which is midway between the NRPA range of 6.25 to 10.5 acres per 1,000 residents) results in a current need for recreation space of 176 acres, based on Raritan Township's estimated population of 22,000 people.

The Township provides the following parks:

PARK	ACREAGE
Blackwell Park	18.2
Clover Hill Park	18.2
Lenape Park	82.3
Mine Brook Park	13.4
Total:	132.1

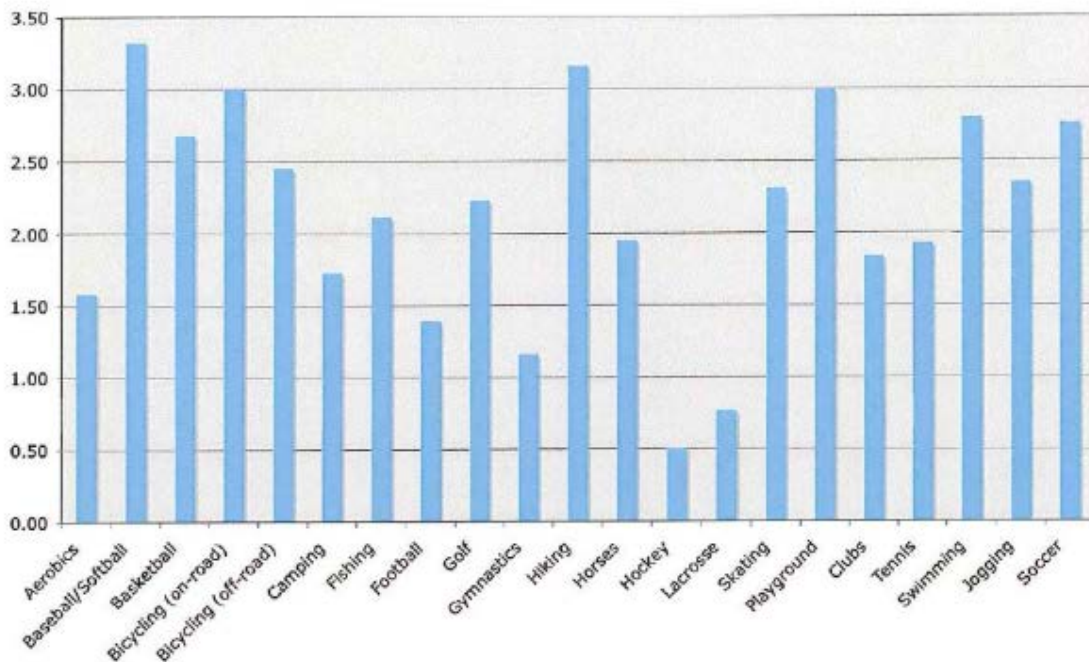
The total acreage does not include private recreation space at the Planned Residential Developments. The private active recreation spaces in these developments total approximately 117 acres. Use of the schools' facilities is limited. As discussed above, active recreation in nearby municipalities may also satisfy some resident demand. While the total acreage of developed municipal open space may fall short of standards, private, schoolyard, and facilities in nearby municipalities may be helping to fill in gaps throughout the Township.

Recreational Survey

Preparation of the Master Plan included an online survey which received approximately 550 responses, with each response representing a single household. The results were reviewed in total and broken down into subcategories of seniors, households with children, and households with children actively involved in recreation programs.

According to respondents, the four most important uses to expand in the park system are baseball/softball fields, soccer fields, walking and jogging areas, and restroom facilities. The addition of restroom facilities topped the list as the most important addition according to seniors, households with children and households with children in active recreation. Seniors responded that the expansion of walking areas was the second most important element of an ideal park system, while households with children found that soccer field expansion was the second most important wish list item. As seen in the chart below, bicycling, baseball/softball, and playground facilities are also important park system elements for respondents.

Activities in Ideal Park System - All Respondents



Site Inspections and Interviews

Field inspections of Mine Brook Park indicate heavy usage of all non-organized recreational facilities, particularly the playgrounds and walking track areas. The baseball and soccer fields are also popular amenities. Lenape Park's fields are used so frequently that it is impossible to rotate the fields in and out of service. All major organized outdoor sports leagues indicate a need for additional fields. Playground facilities at the elementary schools are very busy during summer months.

Summary

Regardless of methodology, the results show that additional parklands with active recreation sports fields are required. Organized sports field development should be directed towards baseball, softball, and soccer facilities. Similar types of sports fields should be clustered together where possible. As the survey made clear, any park development should include additional amenities beyond sports fields, including hiking, walking, and biking trails, playgrounds, and restroom facilities.

Connectivity

Connections to existing open space increases the open space system's value to the public and creates opportunities for trail connections. The table below shows the Open Space Advisory Committee's priority acquisition parcels for linkages to existing open space. If fee simple purchase of these properties becomes impossible in the future, a conservation easement may achieve some connectivity goals.

BLOCK	LOT	LOCATION	ACRES	ZONE	FEATURES	COST/ACRE*	TOTAL*
20	18	Rake Rd	34.1	R-1	To NJCF's Wickecheoke Creek Preserve	\$10,000	\$341,000
25	5	Barton Hollow Rd	70.1	R-1	Uplands to Walnut Brook Preserve	\$10,000	\$701,200
40	5	Case Blvd	88.6	O-2	To J.P. Case Middle School	\$55,000	\$4,873,000
44	8	Hardscrabble Hill Rd	52.2	R-1	Hardscrabble Hill Road Preserve to Morales Nature Preserve	\$10,000	\$522,000
43	26	Harmony School Rd	84.1	R-1	To Neshanic River Preserve	\$14,000	\$1,177,400
59	2	Harmony School Rd	57.7	R-1	To Neshanic River Preserve	\$12,000	\$692,400
59	7	Route 523	26.7	R-1	Neshanic River Preserve to Lenape Park	\$25,000	\$667,500
59	12.02	Route 523	13.1	R-1	Neshanic River Preserve to Lenape Park	\$25,000	\$327,500
63	34	Johanna Farms Rd	24.3	R-1A	Lenape Park to Micek Farm	\$25,000	\$347,500
63	35	Johanna Farms Rd	24.3	R-1A	Lenape Park to Micek Farm	\$25,000	\$607,500
80	8,9	Kuhl Rd	97.0	AR-2	To Heron Glen Golf Course	\$12,000	\$1,164,000

7. Proposed Open Space Preservation Program

Action Plan

- **Update the Township's Open Space Inventory on an annual basis.** Due to the Township's frequent preservation efforts, its portfolio of preserved open space is constantly changing, and an annual inventory should reflect these changes and provide key statistics for future acquisition decisions.
- **Develop a detailed plan to obtain priority parcels with a general timeline.** This Plan provides a ranked list of priority parcels. However, with the newly diminished open space tax, the Township may need to evaluate the timing of future acquisitions for open space preservation.
- **Create a conservation easement inventory.** The Township should have the ability to track new and existing easements, garner and analyze statistics, and monitor the state of each easement's conservation. With a GIS database of all conservation easements in the Township, this could be easily achieved at little cost to taxpayers.
- **Re-establish the 2-cent open space tax and allocate up to 30% of funds for maintenance, recreation facilities, trail clearing, etc.** Diminishing the revenue of the open space tax will yield minimal short-term savings to taxpayers, but may have lasting environmental, fiscal, and quality of life consequences. A common provision of municipal open space funds allows up to 30% of fund monies to be dedicated towards maintenance, trail clearing and upkeep, and enhancing recreational facilities, important measures to keep these preserved lands clean and accessible to the public.

Funding Sources

Raritan Township Open Space Tax

The Open Space Tax is an integral part of the Township's Open Space Plan and can be a significant source for funding property acquisitions. In November 1996, residents approved a non-binding referendum to establish a fund for open space and farmland preservation through a tax of 2 cents per \$100 of a property's assessed value. For a home assessed at \$350,000, the tax collected is \$70 per year $[(\$350,000/\$100) \times \$0.02]$. Owners of commercial and industrial properties also contribute to the open space tax. The creation of the tax also included a sunset provision, which requires the Township Committee to renew the tax every five years or the tax expires. In 2016, the Township Committee authorized a five-year plan to reduce the tax incrementally down to .5 cents in 2020 and 2021.

Other sources

- US Department of Agriculture – Federal funds are available for farmland preservation through the Farm Bill.
- NJDEP Green Acres - Raritan Township Planning Incentive Grant (PIG) funds. The Open Space Committee recently applied for and received \$550K in additional Green Acres funds. These funds can only be used to match up to 50% of open space/parkland acquisition projects, and cannot be used for parkland development.
- New Jersey State Agricultural Development Committee – Funding for farmland preservation is available through the Garden State Preservation Trust.
- New Jersey Water Supply Authority – Recently the NJWSA has made funds available for payment of 50% of “soft costs” such as appraisals, surveys, and preliminary assessments on lands that are important for water supply protection, including lands within the Plum Brook and the Wickecheoke Creek (C-1 waterways) watersheds, and particularly forested lands that drain to the Delaware and Raritan Canal, an important drinking water source. In the past, NJWSA has also provided funding for land acquisition using New Jersey Environmental Infrastructure Trust funds.
- Hunterdon County – The County provides open space funding programs including the Municipal Grant Program, Non-profit Grant Program, and Cooperative Open Space Acquisition Assistance Program. The Non-profit and Cooperative Open Space Acquisition Assistance Programs are competitive programs and the funds may only be used for open space/parkland acquisition. The County Municipal Grant Program is currently funded by 10% of the taxes that Township residents pay into the Hunterdon County Open Space Trust Fund, and these monies may be used for both open space/parkland acquisition and farmland preservation. The County’s Farmland Preservation Program can contribute another 20% of the cost.
- Private Land Trusts - New Jersey Conservation Foundation (NJCF), Hunterdon Land Trust Alliance (HLTA), D&R Greenway Land Trust, Raritan Headwaters Association (RHA), and New Jersey Audubon Society are non-profit organizations who have partnered with Raritan Township to preserve parkland and open space, utilizing Hunterdon County non-profit grant program funds and/or their own Green Acres funds.

- Landowner donations - Landowners may donate land outright or sell land for less than its appraised value in an easement.

The Open Space Advisory Committee tracks funds available from the Township Open Space Tax Fund, County Municipal Open Space Municipal Grant Program, the Green Acres Planning Incentive Grant, and State and County Farmland Preservation funds to assess the Township's capacity to support property acquisitions as lands become available.

8. Appendix

Reference Information

Letter of Support: Environmental Commission
Open Space Committee Minutes
Open Space Priority Acquisition
Recreation and Open Space Inventory (ROSI)

List of Maps

Existing Open Space, Farmland, and Parks
Proposed Open Space Areas
Natural Resources
NJDEP Land Use/Land Cover
NJDEP Landscape Project
2017 Zoning Map