

EXECUTIVE SUMMARY



Reaffirming its commitment to stay at the forefront of environmental awareness and contributing to its goal of sustainability, the Township of West Orange has prepared this second update to its 2002 *Open Space and Recreation Plan*. Following up on its 2005 *Update*, the Township continues to protect and improve its natural, historical, and recreational resources and amenities for its residents. Within its 12 square miles, former large agricultural lands continue to contribute a sense of openness, as golf courses and country clubs. The ridgelines of the First and Second Watchung Mountains offer magnificent, unobstructed views of the Manhattan skyline. The large County parks designed by the Olmsted Brothers at the end of the nineteenth century thrive, preserving natural beauty and a sense of the “wildness” of the outdoors within easy reach of residents.

The Township, through its Open Space Trust Fund, recognizes the need to preserve and protect openness within its borders, the need to allow greenery to flourish among even the oldest, most heavily populated sections and neighborhoods. West Orange works to find a balance between the development of older estates into new residential communities with the desire to keep the Township’s historic character from being redefined and overgrown. To that end, the Township first adopted its *Open Space and Recreation Plan* in 2002 to help direct local preservation efforts among the many potential projects to meet the needs of residents for the positive outdoors experiences that they have come to rely upon in West Orange.

Today, following a period in which the older estates and farms and even the newer corporate campuses have given way to residential developments, West Orange continues to seek ways through which it can guard its heritage of rolling bottom lands between the supporting shoulders of the Watchungs. Running along and linking both is the County-wide Lenape Trail system. The last segment of the Trail is being blazed in no small part due to the Township’s acquisitions and assistance. West Orange is fostering a sense of cooperation and community that relies on the kinds of ties that its corner-to-corner segment of the Lenape Trail can demonstrate.

Together with the Board of Education, the Township is meeting the demands of recreation of a population near its record high. Issues remain to be resolved over how to keep the combined facilities operating despite the wear and tear of nearly continuous and overlapping sports seasons. Even as remaining open space becomes scarce, opportunities for developing new venues such as a skating park in Degnan Park or recreating lost outdoors recreation such as swimming or boating at Crystal Lake stand out as options that benefit from public discussion. Further afield, negotiations with the County and the City of Orange, together with ecological restoration of the Township’s feeder streams, including the West Branch of the Rahway River,

may lead to new possibilities for the conversion of the now-defunct Orange Reservoir to provide new interactions of people and nature on a large scale.

The Township's Open Space, Recreation, and Environmental Committee seeks to expand upon their preservation successes and provide new direction to the open space program. This update provides the residents of West Orange with documentation of the program to date and it provides a clear action plan to move forward into the future. To ensure the Township's goals and objectives for the preservation of open space were up-to-date, the Open Space Committee reviewed their *2002 Open Space and Recreation Plan (OSRP)* and *2005 Open Space and Recreation Plan Update*.

As part of the *2010 Update*, the Township hosted public meetings in January and May of 2010 as part of the Township Planning Board's regular meeting schedule to listen to Township residents and members of the Township's various boards to help determine the priorities for municipal open space acquisition and recreation development. Based upon the Township's *1989 Master Plan*, its *1997 and 2004 Master Plan Reexamination Reports*, public input, and the recommendations of the Township's Open Space Committee, the goals and objectives of the *2002 OSRP* and *2005 OSRP Update* were re-affirmed and given greater depth.

The West Orange *2010 Open Space and Recreation Plan Update* proposes the implementation of a comprehensive open space program that addresses the natural, recreational, and historic land preservation needs expressed by Township residents. It identifies priority lands where preservation activities are to be focused. These were identified utilizing a computerized GIS maps that incorporates data regarding ecologically sensitive lands, (including New Jersey Department of Environmental Protection, NJDEP, identified forest and forested wetlands). A timeline with one, three, and five-year goals is offered that will guide the Township's preservation efforts. The Plan also lists potential preservation partners and funding mechanisms that will assist the Township realize its open space goals.

GOALS OF THE OPEN SPACE PROGRAM



“... accumulating evidence indicates that open space conservation is not an expense but an investment that produces important economic benefits.”

-Will Rogers, President, The Trust for Public Land

Preservation of open space must be planned just as any municipal infrastructure. The development of an Open Space and Recreation Plan, and the Township governing body's commitment to implement the Plan, are essential in maintaining a community's character, and to preserve and improve the quality of life for its residents.

The *Goals Section* of the *Open Space and Recreation Plan Update* acts as a guide for West Orange to preserve open space and create recreation areas for residents. The goals focus on preserving undeveloped and environmentally sensitive land, protecting water resources, and creating recreational opportunities for both natural resource-based and facility-based recreation.

As part of the *2010 Update*, the Open Space Committee hosted two public meetings in order to better understand open space and recreational needs of Township residents. Members of the Recreation Department, Planning Board, and Historic Preservation Committee worked with the Open Space Committee to further determine the priorities for municipal open space acquisition. Based upon West Orange's *Master Plan* (1989) and *Master Plan Reexamination Report* (2004), public input, and the recommendations of the Township's Open Space Committee, the goals and objectives outlined in the *2005 Open Space and Recreation Plan Update* have been updated and expanded as follows:

- Preserve open spaces to maintain and enhance community character, quality of life, natural and cultural resources
- Expand opportunities for parkland to become community gathering places
- Develop “pocket parks” on underutilized land in the Township
- Establish greenways connecting parkland in the Township
- Identify and protect at-risk natural resources, such as stream corridors, core forests, wetlands, steep slopes, and water features from disturbance and future development;
- Identify and work to preserve and create habitat for threatened and endangered species throughout the Township
- Develop a stream corridor program to bring attention to and respect for rivers and streams in the Township
- Preserve viewsheds within the Township, especially along the ridgelines of the Second Watchung Mountains
- Preserve historically significant sites and areas within the Township

HISTORY OF THE OPEN SPACE PROGRAM



“Although West Orange’s natural features have been altered by development, it retains areas of steep slope, stream corridors, flood hazard areas, freshwater wetlands, and surface waters that should be conserved...”

-West Orange Master Plan (1989, page 80)

In November 2001, 71% of the Township’s voters approved a referendum creating the municipal Open Space and Recreation Trust Fund. The referendum provided for a dedication of local property tax not to exceed \$0.01 per \$100 of assessed value, for which monies could be used for the acquisition, development, and maintenance of lands intended for conservation and recreation purposes.

Following the passage of the Trust Fund referendum in April 2002, the Township Council adopted Ordinance No. 1816-02, that established a reserve in the general Capital Fund designated as the “Open Space and Recreation Trust Fund”. This ordinance also created a 12-member Open Space and Recreation Committee consisting of the Mayor (or his/her designee), one member of the Township Council, the Municipal Engineer (or designee), the Director of Planning and Development (or designee), the Recreation Director (or designee), and seven citizens of the Township, two to be appointed by the Mayor and one each by the five members of the Township Council (*see list of Members in the Acknowledgements*). The Township representative is appointed for one year, and the other members serve for two years. The duties of the Committee are to prepare a report recommending which parcels of land should be acquired by the Township and to submit a prioritized list of properties to the Township’s governing body for review. Should no properties be acquired over a period of five consecutive years, the Mayor is charged with reviewing the Committee’s activities and reporting on them to the Township Council, along with recommendations for the reserve (if any) in the Trust Fund. The Committee is also responsible for preparing the Township’s *Open Space and Recreation Plan* in accordance with the guidelines established by the New Jersey Department of Environmental Protection (NJDEP) Green Acres Program.

Funds collected by the municipality are to be used for the preservation of open space and recreation land in West Orange. Funds may be used to acquire, develop, and maintain vacant land as well as land which have improvements upon it, as long as the principle purpose of the land that is acquired meets the preservation and/or protection criteria. Routine maintenance of land, even for those properties acquired through the Trust Fund, is specifically prohibited. The Fund is supported through a municipal tax levy, not to exceed one cent per \$100 of assessed valuation. The Fund is also permitted to accept donations and bequests.

From the Fund’s inception in 2002 through October 2009, it has collected \$1,724,506 and has made distributions of \$450,481, bringing its balance to \$1,274,025. For the 2009 tax year, the

Fund collected \$155,306 from the tax levy (which is included in the above balance).

Shortly after implementing their Open Space Trust Fund in 2002, the West Orange Open Space Committee hired The Land Conservancy of New Jersey (TLC-NJ) (formerly Morris Land Conservancy) to develop a comprehensive *Open Space and Recreation Plan*. Completed in 2002, this Plan qualified the Township for enrollment in the New Jersey Department of Environmental Protection (NJDEP) Green Acres Planning Incentive (PI) program. The Committee retained The Land Conservancy to perform an Update to its *Open Space and Recreation Plan* in 2005, as it progressed through many of the Action Items identified in the original 2002 document.

West Orange Township has received the following Green Acres funding awards, totaling \$3,450,000, as 50% matching grants:

2003	\$600,000
2004	\$600,000
2005	\$600,000
2006	\$450,000
2008	\$450,000
2009	\$750,000

At this time, the Township has a balance of \$1,906,183.24 with New Jersey Green Acres.

Open Space Preservation in West Orange Township

Since the inception of the West Orange open space program in 2002, 20.5 acres of land have been purchased and preserved using funds from the Township Open Space Trust Fund.

The first fee-simple acquisition by the Township through the Trust Fund was undertaken in 2004, adding 4.6 acres to the area preserved next to Crystal Lake, a site that includes the Oskar Schindler Performing Arts Center, a noted venue for jazz concerts. The second acquisition commenced in 2007 and resulted in the preservation of 4.7 acres located on the eastern slope of the First Watchung Mountains.

The Township has also worked closely with Essex County to increase the size of the County's holdings for conservation and natural resource-based recreation within the Township. In 2009 the Township was part of a partnership team to permanently protect 11.2 acres added to South Mountain Reservation, adjoining Mayapple Hill. The Land Conservancy of New Jersey and South Mountain Reservation provided funding through the New Jersey Green Acres program, West Orange contributed funds through the municipal Open Space Trust Fund, and Essex County contributed funds through the County Open Space Trust Fund. A connection to the County's Lenape Trail will be constructed on this property which is located adjacent to the Bel Air development in the Township.

Project Name	Size (acres)	Year Preserved	Block and Lot	Funding Source	Final Owner
Crystal Lake Addition	4.6	2006	Block 111 Lot 1	West Orange Open Space Trust Fund , County of Essex Open Space Trust Fund, NJDEP Green Acres	West Orange Township
Mt. Pleasant Avenue Preserve	4.7	2007	Block 85.02 Lot 9.01	West Orange Open Space Trust Fund , County of Essex Open Space Trust Fund, NJDEP Green Acres	West Orange Township
Mayapple Hill Extension 2	11.2	2009	Block 170.03 Lot 1.01-1.08	West Orange Open Space Trust Fund , County of Essex Open Space Trust Fund, New Jersey Green Acres through the South Mountain Conservancy and Land Conservancy of New Jersey	County of Essex

In 2005, the Township transferred a 52-acre parcel to the Essex County Department of Parks, Recreation, and Cultural Affairs to become part of its South Mountain Reservation, a 2,100-acre conservation area. The new parcel is known as the Mayapple Hill Extension.

Project Name	Size (acres)	Year Preserved	Block and Lot	Funding Source	Final Owner
Mayapple Hill Extension	51.67	2005	Block 169 Lot 1	County of Essex Open Space Trust Fund, NJDEP Green Acres	County of Essex (from the State of New Jersey)

Also in 2005, discussions with the neighboring City of Orange Township resulted in a 55-acre portion of the 100-acre Orange Reservoir watershed area being placed on the City of Orange ROSI. Since then, the remaining 45 acres have also been preserved through listing on their ROSI.

Project Name	Size (acres)	Year Preserved	Block and Lot	Preservation Method	Final Owner
Orange Reservoir South and North	55.15, 44.76	2005 and post-2005	Block 162 Lot 2, Block 163 Lot 1	Placement on the City of Orange's Recreation and Open Space Inventory.	City of Orange Township

In 2003, the Township updated its Recreation and Open Space Inventory (ROSI), which serves as the official designation of recreation and conservation land and is filed with the New Jersey Department of Environmental Protection's Green Acres Program. Parcels forming riparian corridors along the Wigwam Brook, the Peckman River, and the West Branch Rahway River

were listed, together with undeveloped lots within developing neighborhoods that may serve as the foundations for new “pocket” parks.

Project Name	Size (acres)	Year Preserved	Block and Lot	Preservation Method	Final Owner
ROSI Update	17.2	2003	Various	Placement on Township's Recreation and Open Space Inventory.	West Orange Township

In 2004, the Township acquired conservation easements on properties approved for new development. To date, over 71 acres have been preserved in this manner, including 37 acres near the Liberty Middle School, 6 acres at Ridgeway Avenue, and 25 acres of the West Essex Highlands development (once the remaining 100 acres are developed), which consist of environmentally sensitive land featuring steep slopes, wetlands, and the headwaters of the Canoe Brook.

PLANNING CONSISTENCY



One intent of this Update is to ensure that the open space and recreation goals and objectives of the Township remain consistent with the overall vision for the Township in the *West Orange Master Plan*, as well as being consistent with other expressions of planning goals for West Orange found within relevant County and State documents, including the *Essex County Park, Recreation, and Open Space Master Plan* and the *State of New Jersey Development and Redevelopment Plan*. In turn, this Update will, as an element of the *West Orange Master Plan*, contribute to the *Master Plan* update now in progress.

West Orange Master Plan (1989)

The *West Orange Master Plan*, recognizing and wishing to preserve the stability of the Township's neighborhoods and districts, establishes principles for balancing the residential, commercial, and open space needs to maintain the suburban character of the Township. Development and land uses are to be compatible with existing uses, kept within the existing scale of use of the surrounding community, and protective of natural and environmental resources. The *Master Plan* includes specific goals and objectives related to environmental, economic, and quality of life attributes of the community, which provide the working foundation for the *Open Space and Recreation Plan (OSRP) 2010 Update*:

Environmental:

- Provide adequate light, air, and open space
- Prevent degradation of the environment through improper use of land

Quality of Life:

- Establish appropriate population densities and concentrations that will contribute to the well being of persons, neighborhoods, and preservation of the environment
- Promote a desirable visual environment
- Promote the conservation of historic sites and scenic areas as well as open space and natural resources

Economic:

- Provide sufficient space in appropriate locations for residential, recreational, commercial, industrial, and open space uses in a manner which will provide balanced growth and development

Within the *Master Plan's Recreation and Conservation Element*, it is noted that the Township's areas dedicated for recreational uses fall short of the guidelines set up by the State of New Jersey's *Outdoor Recreation Plan* (1984; currently in its eighth edition as the *2008-2012 Statewide Comprehensive Outdoor Plan*). It also recommended stronger regulation of sensitive environmental features, particularly on land with steep slopes (greater than 10 percent gradient)

and along stream corridors. The *Land Use Element* incorporates these suggestions by recommending establishment of environmental performance standards to restrict disturbances of remaining sensitive features including steep slopes, mature woodlands, and stream corridors, and encouraging clustering of residential development, with large set-asides for open space that it requires be interconnected, not scattered, and incorporate natural assets such as parks, attractive woodlands, and stream corridors.

West Orange Township Master Plan Reexamination Report (2004)

The reexamination report was prepared in order to satisfy the six-year review requirement of the Municipal Land Use Law (MLUL) of the State of New Jersey. The report serves as a review of the objectives, principles, and assumptions that are laid out in the *Master Plan*, along with an update on progress the municipality has made towards the Plan's goals, as well as providing recommendations for the Township to address in the future.

West Orange completed an earlier reexamination of its *Master Plan* in 1997, which found that the Township was close to being built-out as a result of development approvals during the 1990s (“[T]here is very little vacant land left that does not have an approval for development” – 1997 *Master Plan Re-Examination Report*, p. 32), even as a steep slope ordinance (1990) and tree removal regulations (1994) had been put into place. Single-family housing was introduced into the Plan's objectives as a mechanism for preserving the suburban character of the Township.

The continuing pressure for development and the resulting tension between preserving neighborhood character (via single-family housing) and preserving open space led the Planning Board in the *2004 Report* to revise one of the principles upon which the *Master Plan* is based to explicitly consider cluster housing development, where appropriate, with open space set-asides. Appropriate parcels would be large (20 acres or more) and set-asides would range from 30-40% of the site being dedicated as permanent common (for use by resident owners and/or the general public) open space. Further, the Plan objectives are revised with an emphasis on redevelopment, particularly of commercial and industrial sites, putting rehabilitation and revitalization of older properties ahead of development of existing open space. In 2002, the R-3 (single-family residential) zone was amended to permit cluster housing as a conditional use. The Bel Air townhouse development on Mt. Pleasant Avenue is given as an example of cluster housing with an open space set-aside.

The *2004 Report* also notes the creation and adoption (in 2003) of the Township's first *Open Space and Recreation Plan* as the new Recreation and Conservation Element, with a goal of incorporating the OSRP's recommendations into the overall land use policies of the Township.

For open space, the *2004 Report* makes several recommendations for progress on the preservation of the remaining undeveloped parcels in the Township:

- Expand cluster zoning as a conditional use to the R-4 and R-5 (single-family residential) zones
- Revise the Township's natural features ordinance to provide maximal protection to steep slopes

- Explore the use of a “Transfer of Development Rights” (TDR) program to shift development from areas desirable for preservation (“sending areas”) to locations suitable for development or redevelopment (“receiving areas”)
- Create a new zone (‘G’) for golf course properties along with an ordinance governing land use limitations for the new zone
- Continue joint work by the Historic Preservation and Open Space Committees on the Trolley Line Trail greenway on the Township’s eastern side
- Add a pedestrian access (sidewalks, pathways) requirement for all new or expanded developments and subdivisions

The *2004 Report* also makes specific zoning change recommendations, which include designation of three parcels in the Green Acres (‘GA’) overlay district (created in 1999 as an expansion of the previous Conservation overlay district). All of the recommended parcels (Boland Drive/Oskar Schindler Performing Arts Center, Block 107 Lots 1.02, 1.05, 1.06; DeChurch Road, Block 172.22 Lot 6; Woodland Avenue, Block 152.07 Lots 4,5) were subsequently added to the Township ROSI.

Essex County Park, Recreation, and Open Space Master Plan (2003)

In 1998, Essex County residents approved a referendum to establish a dedicated fund for the improvement of County parks and the preservation of open space. The County Open Space Advisory Committee prepared a *Master Plan*, which was adopted by the County in April of 2003, to focus the use of the Trust Fund. The Plan identified twelve planning goals for the County to meet to support its overall objectives of improving and maintaining existing County parks, protecting natural and cultural resources, and supporting local and community based open space and recreation efforts. Four of these goals pertain directly to the objectives of the Township’s OSRP:

- Goal 4 – Protect the significant natural resources of Essex County
- Goal 5 – Support local and community based efforts that preserve open space and expand the recreational opportunities available to County residents
- Goal 8 – Capitalize on the unique features of the County park system and provide new recreational programs and facilities to meet the needs of all County residents
- Goal 11 – Expand the County park system, giving particular attention to including sites or lands contiguous to existing County parks or to acquiring new sites of substantial size that can be developed or redeveloped for active recreation facilities and special outdoor events

In the policy statement of Goal 4, the *Master Plan* mentions the Watchung Ridges and stream corridors as natural resources needing protection. Goal 5 discusses the establishment of a County program to fund municipal open space and recreation efforts that relieve dependence on County facilities. Goal 8 includes Turtle Back Zoo at South Mountain Reservation and the “Olmstead legacy” of the County parks as some of the unique features. Goal 11 has a demonstrated history of success with the Township having brought 63 acres into the County park system with the two Mayapple Hill Extensions to South Mountain Reservation.

The action plan for achieving these goals includes specific recommendations for individual parks (South Mountain and Eagle Rock receiving \$9.5 million and \$3.3 million in rehabilitation and

upgrades, respectively, and the Francis A. Byrne Golf Course slated for \$742,000 in improvements). Additional projects for the County include adding dog parks to the County system and multi-use trails for pedestrians, cyclists, skiers, and equestrians. Open space acquisition projects include:

- Watchung Ridge Greenways (along both First and Second Watchung Ridges),
- Second River Greenway (which incorporates Wigwam Brook, tributary to Second River),
- Rahway River Greenway (both West Branch and East Branch are included, though East Branch is truncated to begin in South Orange),
- Canoe Brook Watershed (though including only Livingston and Millburn)
- Peckman River Greenway

The Master Plan also includes an analysis of the County's open space and recreation needs for the County as a whole and for each municipality. According to the Plan, West Orange has a deficit of 314.66 acres (as of 2002), which is unrelieved by any County parks or facilities. (The County reservations, South Mountain and Eagle Rock, provide only passive, not active, recreation, and golf courses are excluded from the general acreage calculation since they are narrowly focused.)

New Jersey State Development and Redevelopment Plan (2001)

The State Planning Commission adopted the *State Development and Redevelopment Plan* (SDRP) on March 1, 2001. The State Plan serves as a guide for public and private sector investment in New Jersey, looking toward the year 2020. The vision that it presents is Livable Communities and Natural Landscapes. The primary objectives of the State Plan are the redevelopment, maintenance, and revitalization of existing communities and the development of new communities in compact forms with a mix of uses. Thus, the overall goal of the State Plan is to promote development and redevelopment that will consume less land and natural resources, and use the State's infrastructure more efficiently.

The *State Plan* designates five Planning Areas to reflect the distinct geographic and economic units within the state, and it establishes specific policy objectives for each Planning Area suitable to its needs and characteristics. West Orange (outside of the County reservations) is placed within the Metropolitan Planning Area (PA1), which contains communities with mature settlement patterns, older infrastructure, and a small supply of vacant land for new development. In PA1, one of the State Plan's intentions is to protect the character of existing stable communities. The Policy Objectives for PA1 that apply to the West Orange OSRP include:

- 1. Land Use: Promote redevelopment and development in Cores and neighborhoods of Centers and in Nodes that have been identified through cooperative regional planning efforts. Promote diversification of land uses, including housing where appropriate, in single-use developments and enhance their linkage to the rest of the community. Ensure efficient and beneficial utilization of scarce land resources throughout the Planning Area to strengthen its existing diversified and compact nature.
- 5. Natural Resource Conservation: Reclaim environmentally damaged sites and mitigate future negative impacts, particularly to waterfronts, scenic vistas, wildlife habitats, and to Critical Environmental Sites and Historic and Cultural Sites. Use open space to reinforce

neighborhood and community identity, and protect natural linear systems including regional systems that link to other Planning Areas.

- 7. Recreation: Provide maximum active and passive recreational opportunities and facilities at the neighborhood, local, and regional levels by concentrating on the maintenance and rehabilitation of existing parks and open space while expanding and linking the system through redevelopment and reclamation projects.

The *State Plan* calls on PA1 communities to implement its Statewide Policies through a variety of actions, including developing strategic acquisition plans for open space, preparing and maintaining Environmental Resource Inventories (ERIs) and incorporating ERI data into municipal master plans, and mapping and protecting Critical Environmental Sites and Historic and Cultural Sites.

The State Plan is currently undergoing revision and update. As part of the process, West Orange has submitted a preliminary plan consistency assessment that has been included within the Essex County cross-acceptance report to the State that was delivered in December 2004. The Township's assessment refers to the use of cluster housing to preserve open space being consistent with PA1's Land Use policy objective. Crystal Lake is given as an example of mixed residential/open space/recreation uses achieved by cluster zoning. Establishment of the Township's Open Space and Recreation Trust Fund and its Open Space and Recreation Committee and adoption of the OSRP are presented as consistent with the Natural Resource Conservation and Recreation policy objectives. The assessment also petitions for a change in the State Plan's policy map, requesting that areas within 300 feet of the ridgelines of the First and Second Watchung Mountains be placed in the Environmentally Sensitive Planning Area (PA5), which would further the Township's own efforts to more stringently regulate land uses near the ridgelines.

INVENTORY OF OUTDOOR RESOURCES



This section of the *Open Space and Recreation Plan Update* inventories the open space lands in the West Orange Township as depicted on the *Open Space Map* (see *Maps*). The *Open Space Map* was developed with ESRI's ArcGIS 9.3 software. It utilizes tax data from the Borough's tax assessor and the Association of New Jersey County Tax Boards database (2009). The acreages within this section are derived from the parcel data tables in the *Appendix*. The parcel data tables are sourced directly from the tax data noted above. The vacant lands and outdoor recreation sites listed below may have structures or other improvements on them, but could have potential for open space preservation.

Note: Acreage in this section of the Plan reflect the acreage per the ArcGIS analysis, this may vary from what is recorded by the New Jersey County Tax Boards Association.

Public Land

Federal Land

National Park Service - Class 15C

The United States government owns 21 acres in West Orange. The land comprises the Edison National Historic Site, which preserves the famous inventor's work in the Township. The holdings are located at Edison's Main Street laboratories and in Llewellyn Park at his home site, known as Glenmont House.

State of New Jersey

Department of Defense - Class 15C

New Jersey owns the 56-acre West Orange Armory on Pleasant Valley Way. The Armory contains soccer facilities, which are periodically used by the Township. The Armory also contains an historic building that was used by the 102nd Cavalry during the Civil War.

New Jersey Department of Transportation - Class 15C

New Jersey Department of Transportation owns 1.75 acres of land in West Orange. The land is located in seven small holdings that are associated with Interstate 280.

New Jersey Department of Environmental Protection – Class 15C

The State of New Jersey owns 54 acres of open space in West Orange. The Township of West Orange transferred this property to the state, and it is subsequently being transferred to the County of Essex for final ownership as part of South Mountain Reservation. This property is known as the Mayapple Hill Extension.

County of Essex

County of Essex Department of Parks, Recreation and Cultural Affairs - Class 15C

The Essex County Department of Parks manages 985 acres in West Orange, comprising South Mountain Reservation, Eagle Rock Reservation and the Francis Byrne Golf Course. Both South Mountain and Eagle Rock Reservations are wooded, and lie along First Watchung Mountain. They offer hiking, walking, horseback riding and other resource-based recreation opportunities.

South Mountain Reservation, in the southwest part of the Township, contains 455 acres in West Orange. Within the Reservation are Mayapple Hill, Turtle Back Zoo and the Codey Arena, a prominent ice hockey rink. Eagle Rock Reservation, in the northern part of the Township, contains 351 acres in West Orange and is home to the County's September 11, 2001 Memorial. The Francis Byrne Golf Course is located off Pleasant Valley Way, straddling the West Branch Rahway River. The course features 18 holes over 164 acres.

County of Essex - Class 15C

The County of Essex owns 2 acres within Eagle Rock Reservation which comprises Highlawn Pavilion, located at the Eagle Rock Reservation overlook. Essex County leases this land to private concessionaire.

Municipal Lands

Township of West Orange and Board of Education ROSI Properties - Class 15A and 15C

West Orange Township and the Township Board of Education own 115 acres of land that has been permanently preserved via inclusion on the Recreation & Open Space Inventory (ROSI) dated February 25, 2008. An additional 39 acres are recommended to be added to the ROSI with the largest parcel consisting of 37 acres and is located across from the Liberty Middle School. Properties listed on a community's ROSI have the highest level of protection in New Jersey.

The larger holdings include O'Connor Park adjacent to Mt. Pleasant Elementary School, Degnan Park and the Peckman River Corridor off Pleasant Valley Way, Crystal Lake and Amphitheater off Prospect Avenue, Boland Park off Dogwood Drive, and Colgate Field on Franklin Avenue. For the full listing refer to the Recreation and Open Space Inventory in the *Appendix*.

City of Orange ROSI Property - Class 1

The City of Orange lists two properties in West Orange on their own ROSI. Totaling 127 acres this is City of Orange Reservoir located on Cherry Lane within the South Mountain Reservation. The Reservoir was formed by damming the West Branch Rahway River. Orange Reservoir was constructed to provide drinking water to Orange residents, but no longer serves that purpose.

Township of West Orange - Class 15C

West Orange owns 100 acres that are not listed on the ROSI. Many of these lots are smaller and scattered through the municipality. Many are actively used, such as town hall and the library. Some are lots listed on the ROSI which are only partially preserved - the unpreserved portions of those lots are included here. The Township also owns a large number of smaller lots adjacent to the Crestmont Country Club, and adjacent to Township Park, which are undeveloped.

Other Public Property - Class 15C

There is a total of 23 acres of tax exempt property held by organizations such as the U.S. Postal Service, the Eagle Rock Senior Citizens House and the Police Athletic League amongst others

City of Orange Township - Class 1

The City of Orange owns 2 acres of unpreserved land in West Orange. This smaller parcel is located along Winding Way.

Public Schools

Board of Education - Class 15A

The Board of Education owns 109 acres in the Township in addition to the acreage listed on the Township's ROSI. The Board of Education operates ten schools throughout the Township: seven elementary schools, two middle schools and one high school.

Private Land

Vacant Land – land with no structural improvements - Class 1

West Orange contains a total of 316 acres of vacant land, not including the 2 acres owned by The City of Orange listed above. A large amount of vacant land in the Township is located in western West Orange, along its border with Livingston Township and includes the former Kean Estate.

Llewellyn Park – Class 1

As part of the charter of Llewellyn Park, common areas within the Park, such as the Ramble, were deed restricted, never to be developed. These lands are being assessed for tax purposes as vacant land, but they are protected from development. There are a total of 44 acres of private open space within Llewellyn Park subject to the deed restriction and is not included in the above figure of total vacant land.

Private Educational Facilities - Class 15B and 15F

Within West Orange there are four private schools totaling 66 acres: Seton Hall Preparatory, Solomon Schechter, St. Joseph's Church School and Our Lady of Lourdes. Seton Hall owns the most property of the three, owning 49 acres. Solomon Schechter owns 12 acres, Our Lady of Lourdes owns 4 acres, and St. Joseph's owns less than one acre. There are an additional 20 acres of tax exempt class 15F properties throughout West Orange.

Church and Charitable Properties - Class 15D

In West Orange there are 73 acres of property owned by churches and charities. With more than twenty different religious houses of worship throughout West Orange this makes for an extremely diverse and flourishing community.

Cemeteries & Graveyards - Class 15E

There are 36 acres in the Township which are cemeteries. The Rosedale Cemetery is 33 acres and the Pleasantdale Cemetery consists of 3 acres.

Country Club Property - Class 1 & 4A

West Orange contains 830 acres of land used by private country clubs and golf courses. This is a total of over 10% of all land within the Township. The individual golf clubs are detailed below.

- ***Crestmont Country Club*** sits on 246 acres atop Second Watchung Mountain. The club features 18 holes, a swimming pool, tennis courts and two ponds.
- ***Essex Fells Country Club*** is located north of Interstate 280, adjacent to Crestmont Country Club. Seventy two acres and 11 holes are located in West Orange, with the remaining 7 holes in Essex Fells. The Club features tennis and paddle tennis courts and a stretch of Canoe Brook, which flows southwest to the Passaic River.
- ***Montclair Golf Club*** is located on Prospect Avenue. Montclair Golf Club contains 197 acres. The Club features 26 holes in West Orange, a swimming pool, and a stretch of the Peckman River.
- ***Essex County Country Club*** is located on the western slope of First Watchung Mountain, from Prospect Avenue westward. It contains 176 acres and features 18 holes of golf, four ponds, two streams, tennis courts, and a swimming pool.
- ***Rock Spring Club*** is located on 139 acres atop First Watchung Mountain in the southern section of the Township. The Club's grounds are located near the terminus of the old cable car that climbed the mountain from Orange Valley. The Club's centerpiece is Cable Lake, around which are located 18 holes, tennis courts and a swimming pool.

Multi-Unit Residential Developments – Class 2

There are several multi-unit residential developments totaling 519 acres in West Orange. These developments comprise over 1,500 residential condominium units.

Residential greater than 0.5 acres – Class 2

West Orange has 677 acres of residential properties greater than 0.5 acres. These parcels are privately owned and have an existing structure on them. The purpose behind identifying these properties is so that the township can begin to identify underutilized properties that maybe be adjacent to an already preserved parcel which may represent an opportunity to expand park land through subdivision and preservation.

Commercial and Industrial Properties greater than 0.5 acres – 4A & 4B

West Orange has a total of 444 acres used for commercial purposes and 21 acres of industrial. Some of the largest of these parcels are the Pleasantdale Chateau (33 acres), West Orange Plaza (33 acres), Kessler Institute (32 acres), Principal Life Insurance Company (29 acres), and PSEG has a 24 acre site located on Mt. Pleasant Avenue.

Apartment Properties greater than 0.5 acres – Class 4C

There are 112 acres of land that is occupied residential apartment developments. These properties were identified separate to the residential parcels greater than 0.5 acres in order that the properties are not confused with land that could be further subdivided.

Preserved land in West Orange Township

West Orange Township consists of a total of 7,776 acres. Of this total, **1,346** acres (17% of the Township's land area) are permanently preserved as open space. The Township's protected lands are described below:

United States National Park Service	21 acres
The State of New Jersey (Mayapple Hill)	54 acres
County of Essex Parkland	985 acres
West Orange Township property listed on the ROSI	115 acres
City of Orange property listed on ROSI	127 acres
Llewellyn Park deed restricted property	44 acres

TOTAL PRESERVED LAND	1,346 acres
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West Orange Open Space Inventory

The Open Space Inventory is the list of lands in the municipality that West Orange should look toward when planning for open space preservation. This list is comprehensive and includes property that is not traditionally thought of as "open space." In order to increase the amount of preserved land within the municipality, the *Open Space and Recreation Plan* recommends that West Orange utilize a diverse inventory of lands to begin to prioritize properties for acquisition. This inventory includes:

Vacant Land	316 acres
West Orange Township properties not included on the ROSI*	100 acres
West Orange Township property to be added to ROSI	39 acres
City of Orange property not listed on ROSI	2 acres
Private Country Clubs and Golf Courses*	830 acres
State of New Jersey - West Orange Armory*	56 acres
Private Schools*	66 acres
Residential property greater than 0.5 acres*	677 acres

TOTAL INVENTORY	2,086 acres
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Of the 7,776 acres in West Orange, **2,086** acres are included on the inventory of available open space. Thus **27%** of Township land is potentially available for open space preservation.

**Note:* These parcels may have structures on them

OPEN SPACE AND RECREATION NEEDS



West Orange contains a variety of public open spaces and recreational areas. This section of the *Open Space and Recreation Plan Update* identifies the open space needs in West Orange and the challenges that the Township faces in meeting them. These needs were largely derived from the preservation priorities outlined in the goals section of this Plan. They reflect the community's natural, historic, and recreational resources, as well as the anticipated future demand for these amenities. These needs will help direct the Township's open space program and future municipal expenditures on preservation projects.

Active Recreation Programs

The recreation program in West Orange is intended to offer a wide variety of recreational opportunities for all residents. It is administered by the Department of Recreation, in close cooperation with the Board of Education and private organizations such as the Mountaintop League and the West Orange Basketball Club. The Recreation Department also oversees the development of facilities and parks, with input from the Township Council and the Open Space Committee as well as the Board of Education.

Facilities and Programs

Currently, West Orange Township maintains thirteen parks, including two owned by the Board of Education but operated by the Township. These parks range from full athletic complexes complete with field houses and lights to local neighborhood playgrounds. They combine basic outdoor recreational pursuits with artistic performances, arts and crafts, community gardens, and hands-on ecological science exhibits. Several feature walking trails and one, O'Connor Park, is connected into the county-wide Lenape Trail system, which in turn links to the Patriots' Path trail of nearby Morris County, offering considerable hiking opportunities for park users. Three of the larger parks (Colgate, Degnan, and O'Connor) have lighted fields, which extends their recreation into the twilight and nighttime hours. In addition to leasing two fields to the Township, the Board of Education also provides recreational facilities at eleven school sites around town, further expanding recreational options for residents. County facilities in the Township offer golf at a public course and natural areas along the hiking and bridle trails of two reservations.

The following chart lists the current recreational facilities in the Township.

Type of Recreation Facility	Location
Soccer	West Orange High School(*) (2)
Football	West Orange High School(*)
Multi-purpose (soccer/football/lacrosse)	Byrne Park, Jenkins Park, Lafayette Park, Minish Park, O'Connor Park (3), Stagg Field(†) (2), Hazel Avenue Elementary(*), Mt. Pleasant Elementary(*), Redwood Elementary(*) (2), Roosevelt Middle(*), St. Cloud Elementary(*), Washington Elementary(*)
Baseball/softball	
Youth	Boland Park (<i>tee ball</i>), Degnan Park, Lafayette Park, Minish Park (<i>tee ball</i>), O'Connor Park (2), Lichtenstein Field(*) (<i>tee ball</i>), Edison Middle School(*), Gregory Elementary School(*) (<i>tee ball</i>), Hazel Avenue Elementary School(*) (<i>tee ball</i>), Mt. Pleasant Elementary School(*), Pleasantdale Elementary School(*) (2), Redwood Elementary School(*) (2), West Orange High School(*)
Regulation Size	Colgate Park (+ batting cage), O'Connor Park, Stagg Field(†), Edison Middle School(*), Roosevelt Middle School(*) (2 + batting cage)
Tennis Courts	Colgate Park, Degnan Park (5), O'Connor Park (4), Rolling Green Hills (2), Stagg Field(†) (4)
Basketball	
Hoops Only	O'Connor Park (2), Colgate Park
Full Courts	Boland Park, Degnan Park, Stagg Field(†)
Street (roller) Hockey	O'Connor Park
Kiddie Parks (playgrounds)	Boland Park, Byrne Park, Club Boulevard(†), Colgate Park, Degnan Park, Jenkins Park, Lafayette Park, Minish Park, O'Connor Park, Stagg Field(†), Lichtenstein Field(*), Gregory Elementary School(*), Hazel Avenue Elementary School(*), Mt. Pleasant Elementary School(*), Pleasantdale Elementary School(*), Redwood Elementary School(*) (2), St. Cloud Elementary School(*), Washington Elementary School(*)
Walking/Hiking Trails	Crystal Lake, O'Connor Park, Gregory Elementary School(*), South Mountain Reservation(*), Eagle Rock Reservation(*)
Swimming	Ginny Duenkel Pool (Colgate Park), Hazel Avenue Elementary School(*) (<i>mini-water park</i>)
Horseback Riding	South Mountain Reservation(*), Eagle Rock Reservation(*)
Golf	Francis A. Byrne Golf Course(*)
Fishing	Crystal Lake, Degnan Park, Minish Park, Stagg Field, South Mountain Reservation(*)
Handball	O'Connor Park (4)
Hardcourt soccer (Futsal)	Colgate Park (<i>Temporarily closed for renovations</i>)
Horseshoes/Bocce	Colgate Park (2 horseshoe pits, 1 bocce court)
Gardening	Degnan Park, Minish Park
Project Adventure (ropes) course	West Orange High School(*)

(*) – Site owned and operated by Board of Education or Essex County; (†) – Site leased from Board of Education and operated by Township of West Orange

Soccer Programs (1,400 participants)

Soccer remains the single most popular outdoor recreation for the Township, with in-house programs, instructional and competitive, for all elementary (K-8) students at every school in the fall and Traveling All-Stars teams (boys and girls) for students in grades 1 to 11 organized and playing fall and spring.

Baseball & Softball (1,000 and 800 participants, respectively)

With leagues ranging from tee ball to senior slow-pitch, the combined sports of baseball and softball attract the most participation of West Orange residents to outdoor recreation. Organized competitive leagues include Little League (boys, ages 8-12) and the Tri-Town Pony (Babe Ruth) League (boys, ages 13-15) in the spring, a spring softball league (girls, ages 6 -13), Traveling All-Stars teams (boys, ages 9-19, spring through fall; girls, ages 11-13, summer), and slow-pitch softball for men (ages 18+) and women (18+) in the spring and early summer. Less competitively, the Township organizes a Tuesday Night Baseball league for grades 1-3, held on the Edison Middle School fields in the summer. Summer instructional camps are also offered for boys (1 week, full-day, grades 4-8) and girls (July, half-day, grades 4-8), along with winter softball tune-up clinics for girls (grades 6-8).

Basketball (900 participants)

Taking advantage of its indoor and outdoor facilities, the Township organizes competitive winter Traveling All-Star teams (boys and girls, grades 5-8) and summer basketball leagues (boys and girls, grades 4-12), along with instructional Pee-Wee (K-3) and elementary (4-5) programs that run both winter and summer. A popular First Week instructional camp is conducted by the High School basketball coach for all elementary and middle school students during the first week of summer break. A teen recreational evening program, the Washington Open Gym, offers pick-up games on weekday evenings in cooperation with the basketball program at Bloomfield College.

Swimming (400 participants)

With the Ginny Duenkel Pool (3 swimming areas, including diving tank, water slide, and baby pool), the Township has a busy summer swim season. Lessons are offered for children from age 5 and up, and a very successful swim team, the West Orange Wave, for boys and girls ages 8 to 17, competes in the North Jersey Swim League. The lack of large (25-meter) indoor pools, however, limits the program to summer months and forces the High School team to rent pool space outside of town.

Football (300 participants)

In addition to the High School program, the Township offers two fall programs, an instructional flag football program for boys and girls, grades 2 to 5, and a limited-contact program for boys, ages 9 to 14.

Tennis (200 participants)

A series of tennis classes are offered in the summer at the Degnan Park tennis courts, starting from toddler (age 4) through seniors (50+), including individual (private or semi-private) and group instruction.

Other Youth Sports

Lacrosse (50 participants) features both an in-house league (grades 2-6) and Traveling All-Star teams (grades 5-8), who host games at Stag Field. A summer street (roller) hockey program (boys/girls, ages 7-12) attracts 60 participants to the rink at O'Connor Field, while a winter ice hockey Traveling All-Stars team (boys, ages 6-8) with 20 members practice and play at the Clary Anderson Arena in Montclair. Summer park programs (camp) for elementary and middle school students run full-day sessions for five and a half weeks at five different sites in town. Following the conclusion of summer camp, a week-long arts and crafts program, the August Workshop, is held at the Katz Civic Center in Degnan Park. During school months, a pre-school program (3 five-week sessions, fall, winter, spring) meets weekly at the Stag Fieldhouse. A recent instructional program in youth golf is held at the Essex County Golf Practice Facility and the Fernwood Country Club in Roseland, and it may include inter-municipal league play if interest proves strong.

While most recreation is warm-weather oriented, winter sports activities include sledding at Colgate Park and ski trips sponsored by the Recreation Department's Teen Program. A winter wrestling team (boys, grades 2-8) meets from November to February and competes in a local, multi-town league.

The Township also recognizes the recreational needs of differently abled children through its Footsteps for the Exceptional Child program, introduced in 2006 and featuring year-long, weekly activity sessions with professional instructors and volunteer mentors. Shadow counselors are also available for the Township's summer camp program. The UNICO Garden for the Exceptional Child at the Katz Civic Center (Degnan Park) also provides outdoor opportunities for special needs children to interact with the environment.

Adult Recreation

In addition to softball, the Township has a women's All-Star volleyball team (18+), which meets at Redwood Elementary School and competes fall and spring in the Women's Suburban League. Other adult programs include the West Orange Chess Club (meeting weekly at the Katz Civic Center in Degnan Park), country-western line dancing instruction, and an extensive selection of senior activities that features active (water aerobics, ballroom dancing, tennis, golf tournaments) and leisure (bridge, bingo, arts/crafts, picnics) pursuits. The community garden at Minish Park is also available for adults who wish to plant and grow their own flowers and vegetables and may not have the opportunity to do so at home. A similar community garden at Byrne Park, administered by a local neighborhood organization, has fallen dormant.

Private Recreation

West Orange contains 820 acres of private recreation, including five country clubs, which accounts for almost 11% of the area of the town. Individual recreational facilities include:

- Crestmont Country Club – This private club sits on 241 acres atop the Second Watchung ridgeline and features an 18-hole golf course, swimming pool, tennis courts, and two ponds.
- Essex County Country Club – Located on the First Watchung ridgeline along Prospect Avenue, it contains 176 acres and offers an 18-hole golf course, swimming pool, tennis courts, four ponds, and two streams.

- Essex Fells Country Club – Located north of Route 280 and adjacent to the Crestmont Country Club, the Essex Fells Country Club overlays the border of West Orange and Essex Fells (11 holes of its 18-hole course and 69 acres lie in West Orange). The club offers both lawn and paddle tennis courts. A stretch of the Canoe Brook runs through the grounds.
- Montclair Golf Club – Located on Prospect Avenue, the Montclair Golf Club stretches north into Verona. It has 26 holes in West Orange and contains 189 acres inside the Township. It features a swimming pool, and a stretch of the Peckman River crosses the property before emptying into Verona Lake.
- Rock Spring Club – Atop the First Watchung ridgeline in the southern section of the Township, the Rock Spring Club is situated around Cable Lake, former terminus of the historic cable car and trolley lines that ran up from the Valley district. The Club features an 18-hole golf course, tennis courts, and a swimming pool.

In addition to the country clubs, the Township also has both private tennis, equestrian, and soccer facilities. The West Orange Tennis Club, 4 acres on Pleasant Valley Way, contains both indoor (11) and outdoor (17) tennis courts. The Essex Equestrian Center (formerly Montclair Riding Academy) occupies 3 acres on Woodlawn Avenue west of Eagle Rock Reservation, in which it offers guided trail rides; riding clinics and horse shows are also presented at the Center as well. The Soccer Palace at the West Orange Armory hosts indoor soccer games in its 50,000-square foot facility, including youth and adult league play (7-on-7), one-day tournaments, and winter instructional camps.

Recreation Program Adapts to Changing Needs

West Orange provides a full slate of recreational opportunities for residents of all ages. While existing facilities are adequate to the task, there is a constancy of demand on the fields and facilities that drives the maintenance and adds complexity to the scheduling of programs and events. Thanks to recent close cooperation between the Recreation Department and the Board of Education, cancellations have been reduced and field quality has been raised even as playing times remain constant. Upgrades to facilities that are heavily used, particularly the addition of artificial surfaces and lights at the High School sports complex and improvements to its spectator amenities, have directly contributed to the overall improvement in recreation. The addition of further improvements, such as the lighting of smaller facilities to provide longer hours of practice and play, however, will require greater planning and may require community acquiescence to meet potential objections of disturbance caused by noise and traffic at inappropriate times and subsequent loss of residential quality of life.

Challenges to Active Recreation in West Orange

As a long-settled community, West Orange is faced with the challenge of meeting its recreation needs with an ever-decreasing supply of open space and a population that is at or near its historic peak (44,943 in the 2000 census, estimated at 42,617 in 2008 by the Census Bureau). The Township has made the most of its considerable park and recreation facility system, in close cooperation with the Board of Education. Future recreation will depend on that coordination becoming closer, particularly as personnel cutbacks require the Township to rely on part-time staff. Expanding recreational opportunities may be accommodated by the upgrade of facilities, such as adding lights for extended play on the fields at O'Connor Park or Stag Field or adding

parking at Minish Park and Jenkins Park to make them more accessible. Existing ball fields with high demand may require rehabilitation including regrading and switching to artificial surface (Colgate Park) or may only need to be re-oriented to improve playing experience (Stagg Field). New sports such as skateboarding will need to be included within the recreational program as plans for a skate park at Degnan Park proceed.

Even with the right of first use, Board of Education athletic programs will be under pressure as their fields are used to maximum capacity by public recreation. Fields receiving the heaviest use at present include (roughly in order): the High School complex (in particular, adding a golf practice facility, re-turfing the soccer field, and lighting the football stadium), Liberty Middle School, Roosevelt Middle School, Redwood Elementary, Pleasantdale Elementary, Edison Middle School, and Hazel Avenue Elementary. The addition of lights and the use of artificial turf on the most heavily used sites could provide enough surplus capacity to accommodate the Township's recreation over the next decade. The provision of participant and spectator amenities such as exterior restrooms and concession stands would also increase the usability of common fields. Field locations in residential areas would need careful consideration and neighborhood support of upgrades to proceed without objection to disturbances caused by the extended hours of operation and the changes to the local environment (such as light pollution in the evenings from field lights, for example).

In spite of the mature level of development, some recreational sites can be characterized as under-utilized. Crystal Lake, a recent addition to the park system, offers a number of potential water-based recreational opportunities (boating, swimming, ice skating). But the lack of proper storage and support furnishings, including a boat house, swimming beach or platform, or even a completed walking path around the lake and adequate parking nearby, limit the Township's ability to take advantage of the relatively rare circumstance of an open access lake with high-quality water in the densely populated landscape of Essex County.

Further, West Orange has a number of buildings that support its recreation programs, but it lacks an actual recreation center that is dedicated to hosting athletic events, fitness programs, physical education seminars, and age-based (pre-school, teen, senior citizen) recreation. In particular, an indoor, 25-meter swimming pool, suitable for school-age competitive events, would remove the current summer-only limit on the Township swim teams and remove the need for the High School team to travel out-of-town to practice and for meets.

Natural Resource Protection

Wildlife Habitat & Unique Natural Communities

While long settled by humans, the landscape of West Orange still contains patches and parcels that support natural communities of resident and migratory animal populations as well as stands of native vegetation, particularly in and near the large County reservations. The steep slopes of the First and Second Watchung Mountain ridgelines, being less suited for human habitation or occupation, have retained some of the characteristics of the undisturbed natural ecology that existed prior to agricultural and industrial land uses dominated. Across the Township, large areas of deciduous forest (red and white oaks, sugar maple, flowering dogwood, sassafras, and black cherry trees) stretch, connecting residential tracts to the undeveloped Reservations, in

which stands of conifers (Norway spruce, white pine, hemlock, and Eastern red cedar trees) offer wintering shelter to owls such as the State-listed long-eared owl.

According to the New Jersey Department of Environmental Protection's Landscape Project, the forest cover in West Orange is valuable for providing habitat for the Great Blue heron, a species which is considered to be of Special Concern due to the vulnerability of its nesting sites. Although the nearest identified heron rookeries are in West Essex Park (including Hatfield Swamp) in Roseland, their presence is recorded throughout West Orange, and the large, unbroken forested lands on the western side of the Township (listed as "core forest" lands in the Landscape Project) offer possible breeding grounds for this long-legged forager that seeks out trees overhanging streams, ponds, and wetlands for its nests. The Landscape Project also identifies small patches in the south and southwest, generally in South Mountain Reservation along the West Branch of the Rahway River as well as adjacent to Boland Park, as suitable habitat for the State-threatened wood turtle, a highly terrestrial reptile that forages in wetlands and prefers drier uplands for its nests. Although the wood turtle has not been seen in South Mountain Reservation since 1979, its status as an indicator species makes protection of its habitat a priority.

As part of its concern for its forest cover, West Orange has a dedicated Shade Tree division within its Public Works Department and maintains a forester on staff. A tree protection ordinance recognizes the importance of trees to the overall health and quality of life within the Township, providing strict review of any application to remove trees and requiring replacement in cases in which removals are deemed necessary or acceptable. The Township's attention to its forest resources has won it recognition as a Tree City USA from the national Arbor Day Foundation for the past 13 years.

Challenges to Preserving Wildlife Habitat & Unique Natural Communities

Outside of the Reservations, much of the Township's core forest areas are unprotected and available for development, if not already approved and developed including the former Kean Estate (now Bel Air) and the West Essex Highlands parcels, or in process, such as the athletic fields for Seton Hall Preparatory School. Development will cause the unbroken canopies to fragment (break into smaller, more isolated patches), a process that changes the essential nature of the habitat by removing "old growth" trees and introducing more "edges", opening up the interior to intrusion by invasive species. Migratory songbirds are especially vulnerable to nest-site thefts by larger, edge-dwelling cowbirds, for example. Even as the Reservations are protected from fragmentation, loss of habitat may occur in the areas in between, which serve as "corridors" for wildlife to migrate and mix, allowing populations to migrate and mingle and avoiding overstressing any one patch. Development of the Township's remaining natural areas can displace the resident species and prevent the migratory ones from returning. The "wild areas" need buffering from the developed lands surrounding them and their inhabitants need paths that link wild areas together. Without careful planning and land management, human activities will reduce the Township's variety of wildlife. Preserving the habitats that sustain a rich natural heritage for West Orange is a priority for its open space program.

Water Resource Protection

The early European settlers of West Orange were attracted by its abundant water resources, both from streams that supported agriculture and springs that attracted tourists seeking a soothing soak in the mineral waters. The City of Orange, following the lead of other early urban centers such as New York, Newark, and Jersey City, established a reservoir to supply its residents and businesses with sufficient clean water to ensure their health and prosperity. Today, West Orange does provide groundwater to neighboring communities for drinking, although its surface waters have suffered in quality due to the amount of human disturbances surrounding them.

West Orange is located within three different watershed areas. Following the ridgelines of the Watchungs, water flows north and south along the Township's central valley, then east and west, meeting with the upper stretch and the lower stretch of the Passaic River and with the Rahway River. The West Branch of the Rahway River begins in Crystal Lake and runs south to feed the Orange Reservoir before continuing through South Mountain Reservation. The Peckman River begins in a residential neighborhood, runs north through the Montclair County Club, and feeds the Verona Park Lake before continuing on to meet the Passaic River in Woodland Park. The Canoe Brook begins on the West Essex Highlands property, flows west and south through Livingston before feeding the Canoe Brook Reservoir in Millburn, part of the East Orange Water Reserve area. Due to impaired quality, none of these waterways is usable for drinking water, however. The West Branch of the Rahway is the best monitored of the three, and its waters are unusable due to high levels of phosphorus, sulfate, and dissolved solids (salts). A biological survey of the West Branch in 2008 listed the river as moderately impaired as freshwater habitat due to organic pollutants and a noticeable lack of organisms typically found in clean waters.

For groundwater, West Orange has two public community wells, one operated by the City of Orange Township and one by the Essex Fells Water Department. In addition, three private wells are in use, two by the Montclair Country Club and one by the Rock Spring Water Company. The Township's own water supply is provided by the New Jersey American Water Company from wellfields in Millburn and freshwater withdrawals from the upper Passaic River.

Challenges to Water Resource Protection

Land use is the single largest influence on water quality, as the discontinuance of Orange Reservoir for water supply indicates. The high water quality of Crystal Lake, on the other hand, is attributable to its more isolated circumstances. Non-point source pollution (contaminants carried by run-off water) typically results from the use of fertilizers, pesticides, and herbicides on residential lawns, golf courses, and corporate campuses. The use of fertilizers and pesticides which degrade water quality can be improved by following more environmental management practices such as those developed for large properties under the Audubon Cooperative Sanctuary Program or the Stony Brook-Millstone Watershed Association's River-Friendly Certification Program, either of which includes a specialized program for golf courses. Along with natural salts, the use of road salts in winter weather adds a burden that overwhelms the capacity of streams and ponds to cycle. Encroaching development degrades aquatic ecosystems and raises the requirement to buffer streams and lakes with undeveloped and naturally vegetated strips and corridors along their runs and shores. Water quality protection is thus a principle of the Township's open space program. The potential for recreation at Orange Reservoir, for example, would be greatly improved by restoring the water from the West Branch of the Rahway River

that feeds the reservoir, allowing or improving direct interactions such as swimming and indirect ones, including sport fishing and boating.

Groundwater sources, too, benefit from careful siting of possible contaminants at distances far enough to permit both human intervention and natural attenuation to protect the wellheads. While the Township does not depend on local wells itself, two of its neighboring communities do, as well as two of its commercial operations. Consideration should be put toward protecting wells through open space acquisition of recharge areas as well as enactment of a wellhead protection ordinance to improve zoning of sources of pollution at sufficient distance from the wells.

A Suburban Landscape

Historic Hillsides and Scenic Vistas

West Orange is defined by its hillsides, the First and Second Watchung Mountains, which shape its landscape, provided its early settlers with the raw materials for building homes and industries, and sheltered and watered the farms of its central Pleasant Valley corridor. The heights of West Orange offer striking views eastward to the human-engineered heights of Manhattan island, views that served the Continental Army well during the Revolutionary War and continues to attract settlers today.

West Orange developed as a series of communities, each nestling in a different fold of the Watchungs, and it maintains much of the character of a collection of different settlements, each with its own history and challenges to meet its future needs. East of the First Mountain, communities work hard to transform their industrial pasts into current sites and amenities. The Valley district, overlapping the border with Orange, for example, seeks to redevelop its former hat factories into new homes for the arts. Unfortunately, the separation of the Township's districts can lead to isolation and lack of recognition of its attractions, with even long-time residents unaware of the presence of small but vital patches of nature, quietly running streams, or nests and dens of wildlife tucked away only a block or two from the busy traffic on the major streets.

The challenge for its Open Space Committee is to find a way in which community can be preserved and extended throughout the Township without removing the special characteristics that define its varied sections. What is required is for the Township to have a list of the Township's important points, whether natural, historical, or cultural, along with an inventory of the connecting paths that link them to the neighborhoods and commercial centers. Preserving the remaining patches and tying them together is the overall goal of the *Open Space and Recreation Plan*.

Existing Trails and Connectors

The classic connector of open space is the trail. Designed around pedestrian, bicycle, or equestrian users, trails offer low-impact access to recreation and conservation areas, as well as being recreation and community gathering sites themselves. West Orange is served by long stretches of the Lenape Trail, a system of trails covering over 40 miles throughout Essex County and which forms the eastern section of the Liberty-Water Gap Trail, a network of trails designed

to traverse New Jersey from Liberty State Park in Jersey City to the Delaware Water Gap on the Pennsylvania border. Maintained by the County, the Lenape Trail is intended to connect the major County parks and conservation areas, as well as link up with local parks and historical sites within the County. In West Orange, the Lenape Trail enters from Verona into Eagle Rock Reservation, continues to Crystal Lake, runs west to reach Degnan Park before continuing under Route 280 to O'Connor Park (via a side trail) or straight west to Becker Park in Livingston and the County Environmental Center in Roseland. Beyond Roseland, the Lenape Trail connects to the Patriots' Path system of Morris County. An isolated segment of the Lenape Trail runs south through the Mayapple Hill section of South Mountain Reservation as well as into the main body of the Reservation, ending up in the Locust Grove picnic area at the south end in Millburn.

Challenges to Trail Systems

As with many suburban New Jersey communities, West Orange is saddled with a history of development which was driven by automobile traffic and convenience, often resulting in a dearth of sidewalks and safe pedestrian access to community gathering places. Crossings of major streets can delay or endanger trail users. In addition, the busy landscape of suburban New Jersey can camouflage the existence of a trail by being too visually overloaded for trail blazes or signs to stand out. The Lenape Trail runs along Eagle Rock Avenue between Crystal Lake and Degnan Park, then under Route 280 and across Pleasant Valley Way to reach O'Connor Park and points west. These sections of the Trail are poorly marked and feature sections that expose hikers to heavy automobile traffic in areas that were primarily marked out for vehicular traffic, not pedestrian. Leaving O'Connor Park, a short segment of the Trail runs to its terminus at Mt. Pleasant Avenue, another busy thoroughfare. The South Mountain Conservancy, a volunteer organization which helps manage and maintain South Mountain Reservation, has plans to extend the Lenape Trail further north into the new Mayapple Hill Extension sites that were added to the Reservation through the partnering of West Orange, Essex County, and the Land Conservancy. Linking their proposed trail additions to the O'Connor Park segment would require traversing the Township's open space set-aside from the Bel Air development, as well as creating a safe crossing of Mt. Pleasant Avenue. The benefit would be much greater access to the Reservation from the surrounding residential communities.

Challenges to Preserving the Suburban Quality of the Township

One of the principles of the Township *Master Plan* is the encouragement of cluster housing where appropriate, in order to resolve the tension between single-family development and the preservation of open space. Maintaining the suburban quality of the Township is thus achieved by providing zoning that is compatible with surrounding residential neighborhoods while at the same time arranging for open space set-asides in return for cluster densities. The challenge to open space preservation, however, becomes insuring that the set-asides are truly public open space and can be used by residents other than the inhabitants of the cluster development. The set-asides need to have accessible points of entry, which accessibility must be both physically implemented and supported with necessary amenities (e.g., signs, parking areas, furnishings such as benches or tables), as well as legally implemented with conservation easements and right-of-way and maintenance access agreements. Lacking these visible indicators, open space set-asides may easily devolve into restricted "pocket parks" that benefit only the owners and tenants of the new housing, while allowing developers to reap the reward of open space preservation without achieving any measurable additions to the Township's open space inventory.

Competing Interests Vie for Remaining Land

As a mature community, West Orange has a long history of settlement and land use that is likely to remain stable for the foreseeable future. A consequence of its long history is the relative lack of undeveloped land and the need to look toward redevelopment of existing or dormant sites for new open space and recreation opportunities. As noted above, zoning regulations are being created to foster the creation or reclamation of open space as part of new developments. Redevelopment efforts may also include strong open space design elements, but this approach, while favored, is not required. When included, the preservation of open space can lead to the creation of community gathering places that will help to foster a Township-wide sense of connection, adding to the already strong sense of place that individual neighborhoods and districts tend to bring into being. The redevelopment plan for the Main Street central business district, for example, includes an explicit plan for a 28,000-square foot plaza intended to provide a sense of parkland and to support community events, placed right at the heart of the redeveloped commercial center. Against that example, the redevelopment plan for the 10-acre Organon site on Mt. Pleasant Avenue only discusses open space as part of the requirements of its potential uses (either commercial or residential) and does not present a conscious intent to demonstrate how to incorporate open space within a new commercial/light-industrial campus or high-density housing development. The opportunity to recapture and redirect the site's unimproved acreage may be lost if the future redevelopment elects to follow the bare requirements of open space area ratios without actively designing it for public use and enjoyment.

Even long-settled communities can face sudden changes in land use. One potential alteration might come from the redevelopment of the private golf courses that occupy over 800 acres within the Township. As golf participation declines, losing 3.5% of its playing time compared to 2008, and country club memberships appear as luxury items to be foregone in bad economic times, the possibility of private clubs seriously exploring the sale of land will rise. This change is also an opportunity for the Township to acquire open space in relatively undisturbed condition, particularly in cases where the private owner may wish to divest that part of the open space that is not included actively in the golf courses.

Funding Challenges to Preservation

Municipalities are rightfully concerned with the financial impediments to land conservation. Land values, despite the recent decline, are rebounding and preservation funding can be a scarce resource. To date, West Orange has been highly successful in acquiring funds. This success is a direct result of having a dedicated open space fund for the municipality, a land base with exceptional natural resource attributes, and a local population committed to working toward open space preservation.

When allocating scarce dollars for conservation projects, various techniques can be employed to minimize the expenditure to the Township. Where appropriate, West Orange can consider alternative approaches to direct acquisition, such as conservation easements, overlay zoning and other municipal legislative tools. Essex County has invested heavily in facilities and conservation areas within the Township and is committed to continuing to do so, both directly and as part of its local municipal matching grant program. Additionally, the State, via its Green

Acres Program, has access to funding sources for land acquisition not available to the Township, following the recent bond referendum that replenishes the Garden State Preservation Trust Fund with \$400 million over the next two years. Matching Township open space priorities with the State's priorities can leverage resources. Learning the priorities of organizations and neighboring municipalities in regional land conservation activities attracts financial resources to accomplish the Township's land preservation goals. Discussing joint projects with local land trusts will bring funding to the Township. The Land Conservancy of New Jersey and the South Mountain Conservancy have defined project areas in the region, and sharing goals and objectives will maximize dollars and combine experiences and skills. While financing of open space projects can be challenging, West Orange is ideally situated to take advantage of federal, state, county funding as well as receiving funds from nonprofit organizations. Additionally, by working together with neighboring communities on regional projects like the Valley Arts District, which lies in both Orange and West Orange, the Township's open space projects will be even more competitive for funding.

PRESERVATION PRIORITIES AND RECOMMENDATIONS



A system of open space considers the needs of the Township together with its resources to weave a comprehensive plan that identifies areas called out by their distinctive attributes and capacities for meeting West Orange Township’s specific open space goals. The areas of focus are referred to as “greenways” (or, in the one case that is water-focused, a “blueway”). Greenways are *“corridors of protected public and private land established along rivers, stream valleys, ridges, abandoned railroad corridors, utility rights-of-way, canals, scenic roads, or other linear features. They link recreational, cultural, and natural features, provide pathways for people and wildlife, protect forests, wetlands, and grasslands, and improve the quality of life for everyone.”* (American Greenways Program) Greenways favor public spaces that welcome and engage the community in general, especially those who like to explore and experience things on foot. Their purpose is to *“expand the opportunities for urban recreation, to provide alternative ways to move through the city, and to enhance the experience of nature and city life.”* (Vancouver Greenways Program) Along with the identified greenways, the many historic sites and districts of the Township also have the potential to serve as the bases for community involvement, and preservation of the Township’s history as living parts of the community will also contribute to maintaining its character and quality of life.

The greenways identified within West Orange are:

- Lenape Greenway
- Pleasant Valley Blueway
- Second Mountain Greenway
- Valley Arts & History Greenway (including the Trolley Line Trail)
- Forest Patches
- Pocket Parks
- Historic Sites and Districts

The four named greenways and the forest patches all incorporate large parts of the Township and are illustrated on the Greenways Map, while the small pocket parks are omitted due to reasons of scale. The historic sites and districts, being more rooted in place and specific in nature, have been mapped separately, to highlight the unique features and areas within the Township that have been designated for their outstanding historical significance.

Lenape Greenway

Crossing the Township, the County’s Lenape Trail runs along and across both the First and Second Watchung ridgelines, as well within the Pleasant Valley. Through its main and side

routes, it connects both of the County reservations, South Mountain and Eagle Rock, together with several of the Township's most popular parks and gathering sites, such as the September 11 Memorial in Eagle Rock, Crystal Lake with the Oskar Schindler Performing Arts Center, Degnan Park and the Katz Civic Center, the High School sports complex, O'Connor Park, and the Mayapple Hill portion of South Mountain. It unites both the most undeveloped patches within the reservations with some of the older residential and commercial neighborhoods, making walkable links between natural areas and shopping centers including West Orange Plaza, as well as hidden areas along the Route 280 right-of-way that provide unexpected vistas of the Township below and the First Mountain across the valley.

While the Lenape Trail side route to South Mountain Reservation is still in the process of being blazed, the groundwork is nearly complete with the Township and the County holding title and easements to all the land along which this final segment will traverse. When it is finished, there will be a continuous stretch of trail from the north side of the Township to the south side, taking in the two largest recreation areas that anchor the Township's open space.

The vision for this greenway is to:

- Work with the South Mountain Conservancy to complete the blazing of the side route that links O'Connor Park to South Mountain Reservation, including the crossing of Mt. Pleasant Avenue, which may require traffic calming
- Add signage and blazes to the portions of the Lenape Trail that follow Township streets to make the Trail more visible in the more populated parts of the Township
- Hold a "Corner to Corner" hike along the Trail from Eagle Rock Reservation to South Mountain to promote the Trail and to demonstrate the connections it makes among its many community gathering points on-route
- Establish more access points to the Trail throughout the greenway, to allow ready entry onto the Trail in areas where it is surrounded by residential properties

Pleasant Valley Blueway

Between the shoulders of the Watchungs, the Township's Pleasant Valley lies. Home to the farms of early settlers drawn by its good soils and abundant water resources, this central region still reflects its agricultural heritage through its close relations to the Township's major rivers, the Peckman and the West Branch of the Rahway, which in turn feed the two largest local lakes, Verona Park Lake and Orange Reservoir, along with Lake Vincent in Degnan Park. The Township's community gardens, located in Minish Park and Degnan Park, sit along the banks of the West Branch Rahway, much as the Township's farms once did.

Living as "backyard" streams, however, has put stress on the Peckman and the West Branch of the Rahway River, making them vulnerable to a constant influx of excess fertilizer, pesticides, and litter that come as a side effect of suburban living. As a result, Orange Reservoir is no longer a water supply for its town, and the amount and diversity of wildlife in the Township has decreased due to human disturbance. With the paving of streets, segments of the rivers and their feeder tributaries have disappeared from sight, making their courses interrupted and hiding these natural resources out of sight and sound of even their immediate neighborhoods. Helping to restore more natural processes in operation along their lengths would improve the Township's

overall environmental status as well as bring additional natural beauty and touches of wildlife to even the most populous suburban neighborhoods.

The vision for this blueway is to:

- Increase awareness of the location and existence of the rivers and streams through signage and riparian parks along their courses.
- Develop a stream corridor program as recommended by the Rahway River Association for protecting waterways from runoff pollution and improving water quality and habitat
- Establish a homeowner education program to enlist the residential neighbors into the stream corridor program
- Discuss with the large commercial owners, such as the golf courses, how to protect and promote stream water quality and habitat, such as through enrollment in the Audubon Society's Cooperative Sanctuary Program or the Stony Brook-Millstone Watershed Association's River-Friendly Certification Program
- Work with Essex County on converting and upgrading Orange Reservoir for public recreation, given it is no longer manageable for water supply purpose

Second Mountain Greenway

With its commanding views of the New York City skyline and the Newark plains, the First Watchung ridgeline has been recognized for its scenic and natural resource value. As a consequence, Second Watchung (or Second Mountain), to the west, has received less attention for preservation, despite offering its own unique views of the Pleasant Valley and having, until recently, much undisturbed woodland and steep slope terrain. With the inclusion of new developments such as Bel Air and Vizcaya, formerly open stretches of Second Mountain are now filling in with residential developments anxious to take advantage of its upland forests and impressive vistas of the Township's central valley.

The Mayapple Hill section of South Mountain Reservation and O'Connor Park represent the only significant preserved areas on Second Mountain. With the Mayapple Hill extension acquisitions, and the proposed work on the Lenape Trail side route connection, these two patches of open space, south of Interstate 280, are getting some long overdue attention. North of I-280, however, stretches of undeveloped ridgeline lay unprotected, despite the Township having several groups of vacant parcels and some of the landowners looking to sell part or to establish set-asides in consideration for future development. With views on First Mountain oriented away from the Township, complementing them with views of the Township from Second Mountain would provide residents with a new and otherwise unobtainable view of their hometown.

The vision for this greenway is to:

- Begin negotiating with owners of large parcels to see if sites commanding scenic viewpoints can be connected to Township properties and opened for public access
- Investigate Township properties along Second Mountain for their open space and recreation suitability and designate such parcels, where appropriate, on the Township Recreation and Open Space Inventory (ROSI)
- Conduct a biological assay of habitat potential along Second Mountain, establishing areas that represent suitable habitat for threatened and endangered species, as well

as finding areas for promoting nature observations such as birdwatching, butterfly walks, or wildflower meadows.

- Discuss with the large commercial owners, such as the golf courses and developers, how to protect and promote stream water quality and habitat, such as through enrollment in the Audubon Society's Cooperative Sanctuary Program or the Stony Brook-Millstone Watershed Association's River-Friendly Certification Program

Valley Arts & History Greenway

One of the long-established sections of the Township is its southeast corner, tucked in between the East Branch of the Rahway River and the First Mountain. Known as the Valley, it has been the site of some of the major industrial operations that sprang up before the Civil War in the Township and the neighboring city of Orange, notably its many hat factories, including the original Stetson family works. Stretching north, the Valley forms part of the Township's central business district as well as still containing much of its light industrial manufactories and several of its historic structures and sites. Two former rail lines served the Valley, one a trolley line for commerce and the other a cable railway for recreation, taking tourists upslope to visit Cable Lake, and the Township retains title to portions of their right-of-ways.

Recently, an arts district has been established through the work of a neighborhood association working with both the Township and with the City of Orange. Bringing in art studios, performance spaces, and mixed-use art retail and artist residences, the Valley Arts District has begun to revitalize this older, working-class section with a vibrancy born of an infusion of creative talents. Orange has contributed a community garden and has a proposal in hand to designate a stretch of its side of the Valley as the Jefferson Street Art Walk. Further south, the East Branch of the Rahway River is receiving bank restoration as part of a greenway effort including a bikeway and pedestrian walkway undertaken by the village of South Orange. Based on the former rail right-of-ways, the Township can contribute to these efforts to bring in open space and non-vehicular access to an area that has, for historical reasons, lacked much in the way of opportunity to see and appreciate green spaces.

The vision for this greenway is to:

- Research the old rail right-of-ways to establish the basis for a Trolley Line Trail that will run through the Valley and connect it with bikeways and pedestrian walkways north to the Central Business District and west to South Mountain Reservation
- Develop a list of the historic and artistic attractions within the Valley and seek to promote them through their accessibility via the Trolley Line Trail
- Work with Orange and South Orange to develop a comprehensive management plan for the East Branch of the Rahway River to help overcome a history of neglect of this waterway
- Investigate the neighborhood dynamics of the Club Boulevard playground, a frequently cited "pocket park" success, to see what factors are most responsible for its popularity
- Compare these factors and their availability at other small properties within the Valley to see if other successful pocket parks can be established

Forest Patches

With its agricultural history of settlement in separate farms along its central valley, West Orange still possesses significant tree cover in the spaces between farms and along the ridgelines that were unsuitable for tilling. This legacy is well represented within the preserved County reservations as well as the residential neighborhoods and even alongside the large commercial shopping plazas. Even with a tree protection ordinance in place, many concerned residents look to achieve more protection of the existing treescape. Controversy over development that could result in the loss of old-growth forested areas continues to arise at Planning and Zoning Board meetings, as residents seek to defend this arboreal legacy and see it continue safely into the future of the Township.

The patches of core forest identified on the Greenways map are derived from the base forest and forested wetlands that are delineated by the NJDEP's Landscape Project, a program of the Division of Fish and Wildlife that is designed to map critical areas of species habitat as an aid in community land-use planning. The Landscape Project designates critical core forest from its size (contiguous woodlands at least 25 acres) and then ranks it based on recorded observations of priority species (which may be non-threatened but recognized for dangerous loss of habitat). Forest wetlands are designated no matter what their size, due to the productivity of wetlands and the already high level of loss of wetlands throughout the State. The Township's forestland is roughly split into typically given the base rank 1 (Suitable Habitat) or raised to rank 2 (Priority Concern) in places where the Great Blue Heron, a State Priority species, has been spotted. While much of the Township's forested patches are protected by being within County or Township parks, or within land that is legally constrained from development as in Llwelllyn Park, there are substantial woodlands that remain outside of the protection of recognition as parkland, such as being included on the Township's Recreation and Open Space Inventory (ROSI). Four of these patches are singled out as having both substantial remaining tree cover (including some significant old-growth stands) as well as large areas of open space, both privately owned and Township-owned. Preserving these thickly forested areas will require action by the Township and cooperation from the private owners to put into place the kinds of legal protections that thwart the sacrifice of these ecologically important parcels for more development.

The vision of this greenway is to:

- Review Township-owned parcels and seek listing on the Township ROSI to secure future protection for these parcels. Investigate the creation of parkland from these patches with the intent of creating habitat and increasing neighborhood appreciation for wildlife and the benefits of encouraging biodiversity through enrollment in the National Wildlife Federation's Backyard Habitat program
- Review privately owned parcels and work with landowners to offer conservation easements on the forested sections of their property. Invite landowners to enroll in Audubon International's Cooperative Sanctuary or Stony Brook-Millstone Watershed Association's River-Friendly Certification program to create environmental management plans for their patches that will reduce maintenance costs while improving conservation of natural resources throughout their property

Pocket Parks

The preservation of open space, while frequently thought of in terms of large, undeveloped tracts of land, can and should be resized in settings where such larger parcels are unlikely to be found, such as older communities that have filled in their spaces to urban densities or even newer neighborhoods that were designed before the utility of common spaces was widely recognized. West Orange features both types of development. On the eastern side of the Township, the close fit of residence and business within the Valley section, all along the central business district, or in the heavily populated neighborhoods of Watchung Heights prohibits the establishment of larger recreational sites. Bigger parks and playgrounds could not be accommodated without much costly acquisition and demolition. In the central valley, the residential development pushes up close to the remaining natural sites, placing houses atop the banks of the Peckman and the West Branch of the Rahway River, leaving little room to spare for green spaces.

Within both sections, the Township owns various small lots itself, some already listed on the ROSI and hence considered as parkland by the State, and there are as well private parcels that may no longer be suitable for development. Bringing back some smaller green spaces in which residents can find patches of natural beauty, common areas in which a sense of community can be fostered, would, via a series of small acquisitions, win benefits to the surrounding development far in excess of the scale of the pocket parks themselves. Particularly for renters and for homeowners whose lots barely extend past the footprint of their homes, the existence of a nearby pocket park can provide a sense of ownership-in-common that helps to anchor them more securely to the greater Township community, to which they may otherwise feel unattached. Regular comments at open space meetings about the popularity and attractiveness of the small Club Boulevard playground, next to Roosevelt Middle School in a fairly conventional suburban part of the Township, point to the value of such less grand green sites and the appreciation that they generate from neighbors and visitors.

The vision for this greenway is to:

- Examine the current Township and vacant private parcels within the older eastern and closely built-up central neighborhoods to identify potential sites for pocket parks
- Investigate the neighborhood dynamics of the Club Boulevard playground, a frequently cited “pocket park” success, to see what factors are most responsible for its popularity (*as for the Valley Greenway, above*)
- Compare these factors and their availability at the identified small properties to see if other successful pocket parks can be established (*as for the Valley Greenway, above*)
- Recruit local residents interested in volunteering for and sponsoring activities at existing and potential pocket parks to increase the community awareness that the small parks aim to augment

Historic Sites and Districts

As befits one of the earliest places of European settlement in New Jersey, West Orange has a long, storied history that is reflected in its landscape and the structures built upon it. Particularly notable are the Township’s Industrial Revolution sites, where some of the key technologies that shaped America through the 20th Century were first developed, tested, and built. The Edison

National Historic Site includes Thomas Edison’s laboratory and manufactory on Main Street, as well as the estate, Glenmont, that he built within Llewellyn Park, nearby. Other sites of historic interest within the Township include St. Mark’s Episcopal Church (recognized on the National Register of Historic Places), the Washington Avenue Fire House (now serving as a community policing sub-station), the Pleasantdale Farm and the Shrump House and Barn (providing glimpses into the Township’s agricultural origins), the Armory (serving as a cavalry training post for the Union Army in the Civil War), and houses with significant architectural designs found in the Valley section.

In addition, Llewellyn Park itself is recognized as an historic district on the National Register, being New Jersey’s (and possibly America’s) first gated community. The neighborhoods around South Mountain Reservation, including sections within Millburn Township and South Orange Village, are also populated with a considerable number of historic structures, and the State Historic Preservation Office has issued an opinion on its eligibility for inclusion on the State Register of Historic Places.

ID*	Common Name	Source**	Block/Lot
1	Edison National Historic Site	NRHP	115/30.01
2	Glenmont House	NRHP	91/1; 101.01/6.02, 19, 22
3	Edison Storage Battery Building	NRHP	66/1
4	Washington Street Firehouse	SHPO Opinion	116.01/99
5	Llewellyn Park Historic District	NRHP	
6	Llewellyn Park Gate House	Zoning Map	89/68
7	Pleasantdale Chateau	SHPO COE	177.12/60
8	St. Mark’s Episcopal Church	NRHP	60/2
9	South Mountain Reservation Historic District	SHPO Opinion	
10	West Orange Armory	SHPO Opinion	171/1, 3, 4
11	21 South Valley Road	Master Plan Re-exam	39/61.01
12	29 South Valley Road	Master Plan Re-exam	39/56
13	Shrump House and Barn	Master Plan Re-exam	177.08/20

**ID – Identification number on the Greenway Map*

***Source – Source for inclusion on the Greenway Map:*

NRHP: National Register of Historic Places

SHPO Opinion: State Historic Preservation Office Opinion provided

Zoning Map: Identified historic per the Township Zoning Map

Master Plan Re-Exam: Identified historic per the Master Plan Re-Examination Report

Community Focal Points

Identified on the Greenway Map are a series of community focal (gathering) sites that were identified by the Open Space Committee and stakeholder organizations as important to the local community. These are as follows:

Community Focal Points		
ID*	Name	Block/Lot
1A	Municipal Plaza	67/1
1B	Farmer's Market	68/1
1C	West Orange Library	68/32
2	Jenkins Park	16/5.02
3	Club Blvd Playground	52.01/16
4	Turtle Back Zoo/Codey Arena	163/13
5	Stagg Field	168/25
6	Jewish Community Center	165/15
7	O'Connor Park	172/29.02
8	Minish Park	155.11/44
9	Katz Civic Center	154.19/6
10	Theater Under the Stars	176.05/14
11	September 11, 2001 Memorial	150/1
12	OSPAC	107/1.02
13	Colgate Park	125.02/106
14	Byrne Park	118/20.01
15	Edison Storage Battery Building	66/1
16	Lafayette Park	61/27

**ID - Identification number on Greenway Map*

ACTION PROGRAM



West Orange has benefited from comprehensive, long-range open space planning. This *Open Space Plan Update* offers an updated set of strategies and a timetable to implement the goals and recommendations within this Plan. This *Action Program* facilitates not only the Township's preservation programs but serves as a vehicle for continued dialogue about recreation and land preservation needs.

The *Action Program* suggests specific actions that the Township should take in order to implement the *Open Space and Recreation Plan Update*. These action steps were created in accordance with the *Goals and Objectives* outlined in this *Update* and in conjunction with a thorough review of the municipality's 2005 *OSRP Update Action Program*. The activities listed for the first year after the completion of the *Plan Update* are the most urgent and will further the Township's open space program immediately. The "three year" recommendations are focused on longer term objectives that will serve to accomplish the Township's open space needs. The "five year" projects will be achieved as the program continues to mature and as these opportunities arise.

The *Open Space and Recreation Plan Update* is not a static document and the *Action Program* should be updated every year, and progress reported to the governing body.

Within One Year

- Inventory, map, and assess all Township conservation easements, set-asides, and right-of-way agreements for accessibility and trail potential. Share results of evaluation with Planning and Zoning Boards to illustrate effects of set-asides. Where suitable, publicize access and seek volunteers to establish trail markings and maintenance.
- Update the Township Recreation and Open Space Inventory (ROSI) and submit to NJDEP's Green Acres Program
- Work with South Mountain Conservancy to complete remaining Lenape Trail segments through Mayapple Hill and Bel Air. Coordinate addition of pedestrian crossing of Mt. Pleasant Avenue (Route 10) with Township police and State Department of Transportation.
- Develop design for Crystal Lake facilities (path, boathouse, swimming beach) and programs. Negotiate for access and parking with neighboring commercial landowners.

- Establish a Recreation Center committee to create preliminary scope and site specifications for new indoor recreation and community center.
- Research historical rail right-of-ways and stations in Valley section to form basis for Trolley Line Trail. Coordinate selection of design elements (signs, graphics, materials) with Historic Preservation Commission. Apply for funding to implement the trail from sources such as the NJDEP Recreational Trails Program and the NJDOT Transportation Enhancement Act program.
- Investigate South Orange Rahway River Greenway restoration project for continuations into the Valley sections of West Orange and Orange.
- Identify successful pocket parks such as Club Boulevard and conduct public survey to discover major factors contributing to their popularity.

Within Three Years

- Organize “Corner to Corner” hike from Eagle Rock Reservation to South Mountain Reservation along Lenape Trail. Highlight Township attractions (Crystal Lake, Katz Civic Center, Lake Vincent, Degnan Park, high school sports complex, Second Mountain viewscapes, O’Connor Park, Bel Air set-aside, Mayapple Hill extensions) along the route of the hike.
- Enact a community-based stewardship program to protect the health and viability of the preserved lands. Partner with local civic organizations to hold “clean up days” and park management activities.
- Work with Recreation Department on site selection for new Recreation Center and explore acquisition and/or leasing options for the property.
- Create guidelines for pocket park acquisition and development based on park popularity survey. Publicize new guidelines and solicit public support for sites and facilities desired.
- Begin inventory of natural resources and species within the Township, seeking to identify critical areas and locations of highest value and greatest development threat.
- Develop a strategy for better management practices on the Township’s golf courses. Meet with owners and manager of the local golf courses to develop a stewardship plan to protect the water quality and wildlife habitat of lands within and surrounding the golf courses. Discuss the benefits and requirements of enrolling in the Audubon Cooperative Sanctuary Program or Stony Brook-Millstone Watershed Association River-Friendly Certification Program for golf courses.
- Create a walking tour of the natural, cultural, and historic sites of interest within the Township. Key the tour with a guide that can be directly accessed by cell phone or via download to portable audio devices.

Within Five Years

- Complete acquisition or leasing of site selected for new Recreation Center.
- Establish acquisition and development program for pocket parks based on public reactions to pocket park guidelines.
- Work with Rahway River Association to create stream corridor protection program for residential and commercial landowners along the West Branch of the Rahway. Develop outreach campaign to educate landowners about benefits of corridor protection and recommendations of West Branch corridor program.

Ongoing

- Identify priority parcels within the Township's greenways or priority areas and negotiate for acquisition or easement. Preserve at least one new parcel every year.
- Apply for open space acquisition and development funding from the Essex County Open Space Trust Fund whenever applications for such funding are being accepted by the County
- Apply annually for open space funding from the NJDEP Green Acres Program
- Partner with the Township's Sustainable NJ Committee for ongoing projects of joint interest to further "green" the Township
- Work with Riverkeeper organizations such as the Rahway River Association to develop riparian restoration and enhancement projects for the Township's rivers and streams

PRESERVATION PARTNERS, TOOLS AND FUNDING



Preserving open space and recreational lands results from engaging a network of residents, landowners, park managers, surrounding towns, and local non-profit groups. Included in the *Partners* chapter is a list of public agencies, regional land trust organizations, and local citizen groups that can serve as partners for the implementation and stewardship of future preservation projects. The *Tools* and *Funding Sources* sections of this chapter provide information about how to advance the land preservation process and leverage municipal expenditures on open space and historic preservation.

PRESERVATION PARTNERS

Federal Agencies

National Park Service

Rivers, Trails and Conservation Assistance Program

Rivers & Trails works in urban, rural, and suburban communities with the goal of helping communities achieve on-the-ground conservation successes for their projects. The focus is on helping communities help themselves by providing expertise and experience from around the nation. From urban promenades to trails along abandoned railroad rights-of-way to wildlife corridors, their assistance in greenway efforts is wide ranging. Similarly, assistance in river conservation spans downtown riverfronts to regional water trails to stream restoration. The Groundworks USA program works with communities to reclaim vacant lots, abandoned parks and brownfields sites.

RTCA, National Park Service

200 Chestnut Street, Third Floor, Philadelphia, PA 19106

Phone: (215) 597-6477, Dave Lange, Program Manager

<http://www.nps.gov/ncrc/programs/rtca>

U.S. Environmental Protection Agency, Brownfields Cleanup and Redevelopment

EPA's Brownfields Program is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields. Grants finance revitalization efforts by funding environmental assessment, cleanup, and job training. Essex County recently received a grant from the EPA for brownfields remediation.

*U.S. EPA Office of Brownfields Cleanup and Redevelopment, Mail Code 5105T
1200 Pennsylvania Ave., N.W. Washington, DC 20460
Phone: (202) 566-2777, Fax: (202) 566-2757
www.epa.gov/brownfields/index.html*

State Agencies

New Jersey Department of Environmental Protection, Office of Brownfield Reuse

The first major effort undertaken by the Office of Brownfield Reuse is the Brownfield Development Area (BDA) Initiative. This program works in partnership with municipalities and neighborhoods that are impacted by multiple brownfield sites. The Initiative will coordinate planning, resources and remediation in an effort to reuse brownfield properties. The "Brownfields to Greenfields" initiative, started in November 2002, encourages the restoration of brownfield sites into recreational or natural areas.

*NJ Department of Environmental Protection Office of Brownfield Reuse
401 East State Street, Trenton, NJ 08625
Phone: (609) 292-1251
www.nj.gov/dep/srp/brownfields/obr/*

New Jersey Department of Environmental Protection, Green Acres Program

The Green Acres program awards grants to further the goal of keeping a network of open spaces for scenic, historic, and recreational purposes. Green Acres runs the Planning Incentive program, which awards grants to municipalities projects relevant to these objectives. West Orange Township has received funding through the New Jersey Green Acres program.

*501 East State Street
Station Plaza Building 5, Ground Floor Trenton, NJ 08625
Phone: (609) 984-0500
<http://www.nj.gov/dep/greenacres/index.html>*

New Jersey Department of Community Affairs, New Jersey Historic Trust

The New Jersey Historic Trust is a program of the Department of Community Affairs devoted to preservation of New Jersey's heritage and preventing unchecked developmental sprawl. Grants are provided for projects relevant to the preservation of historic sites.

*P.O. Box 457 Trenton, NJ 08625-0212
Phone: (609) 984-0473
www.njht.org*

New Jersey Department of Community Affairs, Main Street New Jersey Program

The Main Street New Jersey Program was established in 1989 to encourage and support the revitalization of downtowns throughout the state. Every two years the New Jersey Department of Community Affairs accepts applications and designates selected communities to join the program. These communities receive valuable technical support and training to assist in restoring their Main Streets as centers of community and economic activity.

*Division of Community Resources
P.O. Box 811, 5th Floor, Trenton, NJ 08625-081*

*Phone: (609) 633-9769, Fax: (609).292-9798
Email: msnj@dca.state.nj.us*

New Jersey Department of Transportation

The New Jersey Department of Transportation has established funding, through the Transportation Equity Act for the 21st Century, to maintain and enhance New Jersey's transportation system and improve the quality of life. The program focuses on projects that will preserve and protect environmental and cultural resources and help to promote alternative modes of transportation. Projects include land acquisition, bikeway and trail construction, historic preservation, and environmental mitigation to address water pollution and scenic or historic highway programs.

*Division of Local Aid and Development
1035 Parkway Avenue, P.O. Box 600, Trenton, NJ 08625
<http://www.state.nj.us/transportation/>*

Sustainable Jersey Certification Program

Sustainable Jersey is a certification and incentive program for municipalities in New Jersey that want to go green, save money, and take steps to sustain their quality of life over the long term. Sustainable Jersey has required and elective "actions" that municipalities can implement to receive the certification. These actions address issues such as global warming, pollution, biodiversity, buying locally, community outreach, green building, and sustainable agriculture. Sustainable Jersey is an initiative of the New Jersey State League of Municipalities' Mayors' Committee for a Green Future, the Municipal Land Use Center at The College of New Jersey, The New Jersey Sustainable State Institute at Rutgers University, the NJ Department of Environmental Protection, the Rutgers Center for Green Building, the New Jersey Board of Public Utilities, and a coalition of NJ non-profits, state agencies, and experts in the field. The Township of West Orange is enrolled in the Sustainable Jersey program.

*Care of: The New Jersey Sustainable State Institute
E.J. Bloustein School of Planning and Public Policy, Rutgers University
33 Livingston Avenue, New Brunswick, NJ 08901
Phone: (732) 932-5475*

County Agencies

Essex County Department of Parks, Recreation and Cultural Affairs

The Department is charged with overseeing the Essex County Park System, which serves the County's population of over 780,000 and includes parkland in all of the County's 22 municipalities. Within this system the Department maintains over 6000 acres of open space, including large undeveloped reservations such as Eagle Rock reservation and heavily used neighborhood parks which have an abundance of recreational facilities and over 140 buildings.

*Director - Daniel J. Salvante
115 Clifton Ave, Newark, NJ 07103
Phone: (973) 268-3500
www.essex-countynj.org/p/index*

Essex County Environmental Center

The Essex County Environmental Center is dedicated to creating awareness, understanding and appreciation of the environment and its relationship to Essex County residents. It also promotes environmental sustainability and encourages individuals and communities to live responsible lifestyles that minimally compromise the earth's resources planning for the future of Essex County.

Tara Casella, Environmental Affairs Coordinator.

Kelly Wenzel, Program Coordinator.

621 B Eagle Rock Ave, Roseland, NJ 07068

Phone: (973) 228-8776

www.essex-countynj.org

Essex County Office of Environmental Affairs

The Essex County Office of Environmental Affairs was officially established in 1998 to assure that all environmental matters in the County receive attention. The Office of Environmental Affairs helps to set environmental policy in the County, provides opportunities for environmental education and implements environmental action programs. Environmental Affairs works closely with the Essex County Environmental Commission organizing and hosting environmental roundtables to foster information exchange.

Tara Casella, Environmental Affairs Coordinator.

621 B Eagle Rock Ave, Roseland, NJ 07068

Phone: (973) 228-8776

tcasella@parks.essexcountynj.org

www.essexcountynj.org

Essex County Open Space Advisory Committee

In 1998, Essex County voters approved a referendum to create a stable funding source for improving County Parks and preserving open space. To guide open space trust expenditures, the County created an Open Space Advisory Committee and assigned it the responsibility of creating a plan that would focus on the use of trust fund dollars.

Director - Daniel J. Salvante

115 Clifton Ave, Newark, NJ 07103

Phone: (973) 268-3500

www.essex-countynj.org/p/index

Non-Profit Organizations

Association of New Jersey Environmental Commissions

A non-profit organization helping NJ environmental commissions, open space committees, local and State agencies, and individuals to preserve natural resources and promote sustainable communities. ANJEC offers information, guidance, and referrals to specialists in preservation and sustainability, along with Smart Growth Planning grants for municipalities and counties with environmental commissions.

PO Box 157, Mendham, NJ 07945

Phone: (973) 539-7547

anjec.org

Boy Scouts of America

The Patriots' Path Council, Boy Scouts of America (Council #358) is a not-for-profit organization that is dedicated to preparing young people to make ethical choices over their lifetime by instilling in them the values of good character, citizenship and personal fitness. Each year it serves over 20,000 youth members and 6,000 leaders in the counties of Morris, Somerset, Sussex, Union and parts of Middlesex, New Jersey. Some 400 local organizations have a Cub Pack, Scout Troop, Venture Crew, Varsity Team or Explorer Post as a part of their service to youth.

*Patriots Path Council 358
222 Columbia Turnpike, Florham Park, NJ 0793
Phone: (973) 765-9322
<http://www.ppbsa.org>*

Downtown West Orange Alliance

The Downtown West Orange Alliance, Inc. is the non-profit organization that manages the town's Special Improvement District (SID). The DWOA was formed in August 1998 through the ordinance that also established the SID. Recognizing the unique contributions made by the residential, historic and commercial properties that collectively form our "downtown," the Township of West Orange created the SID to encourage economic revitalization of the neighborhoods known as Tory Corner, Eagle Rock, St. Mark's and the Valley. The Alliance seeks to marry the Historic past of West Orange with future development of the downtown. This could make them a powerful partner in preserving historic sites.

*Phone: (973) 325-4109
Email: downtown@westorange.org
www.downtownwestorange.org*

Eagle Rock Reservation Conservancy

The Eagle Rock Conservancy was formed in 2004. The goal of the ERRC is to maintain and protect, preserve and restore the Eagle Rock Reservation through fundraising, trail maintenance, and raising awareness of the Reservation.

*Email: errc11@aol.com
www.eaglerockreservation.org*

Garden State Greenways

Garden State Greenways is a collaborative planning tool that helps New Jersey communities coordinate and plan for open space systematically and cooperatively with other municipalities and counties. Some available tools include suggested goals, detailed maps, and planning tools. Garden State Greenways is run by the New Jersey Conservation Foundation.

*Email: info@njconservation.org
www.gardenstategreenways.org*

Greater Newark Conservancy

Greater Newark Conservancy promotes environmental stewardship to improve the quality of life in New Jersey's urban communities. Founded in 1987, the Conservancy has four program areas:

environmental education, community greening and gardening, job training and advocacy for environmental justice.

*Prudential Outdoor Learning Center
32 Prince Street
Newark, NJ 07103
Phone: (973) 642-4646
<http://www.citybloom.org/index.htm>*

Housing and Neighborhood Development Services (HANDS) Inc.

HANDS works with a variety of stakeholders in West Orange as well as the surrounding community to leverage investment decisions, to bolster public sector action, and to generate more private sector investment. The 10-block Valley Arts District that is located in the old industrial core of the Valley neighborhood on the Orange/West Orange border has received a great deal of attention. The Valley Plan was the first proposal to be approved by the State under the Neighborhood Revitalization Tax Credit Act, opening the door for \$10 million in corporate tax credit investment which in turn will bring in another \$150 million in private development.

*H.A.N.D.S. Inc.
15 South Essex Avenue, Orange, NJ 07050
Phone: (973) 678-3110
Email: Patrick@handsinc.org
www.handsinc.org & www.valleyartsdistrict.org*

The Llewellyn Park Preservation Foundation

An independent, non-profit charitable organization established in 2005 and dedicated to preserving the historical integrity of the Gate House and the Ramble within Llewellyn Park, preparing educational material about the history and architecture of the Park, and raising funds for scholarships in landscape design and preservation.

28 Oak Bend, Llewellyn Park, West Orange, NJ 07052

Jersey Off Road Bicycle Association

JORBA is dedicated to serving off road cyclists as a member of equal standing within the trail user community. We're both an educational and charitable entity, organized to encourage volunteerism and responsibility, and advocate and foster off-road bicycling (mountain biking) as a healthy, environmentally sound, and sustainable activity

*JORBA
PO Box 673, Princeton Junction, NJ 08550
www.jorba.org*

Jewish Community Center Metrowest

The Leon and Toby Cooperman JCC, Ross Family Campus is located on Northfield Avenue. This facility offers the community many recreational facilities. There is a full size gym, two indoor heated pools, three outdoor playgrounds, a large indoor play area, and space for the arts.

*Ross Family Campus
760 Northfield Avenue, West Orange
Phone: (973) 530-3400
www.jccmetrowest.org*

Lenape Trail Committee

The Lenape Trail Committee started 20 years ago by the Sierra Club North Jersey Group (now the Essex County chapter of the Sierra Club). Its mission is to manage the trail and organize hiking trips.

Friends of the Lenape Trail

14 Nassau Rd, Upper Montclair, NJ 07043

Email: Hurleydan@aol.com

www.lenapetrail.org

Lenape Trail/Liberty Water Gap Trail

The Lenape Trail runs through Livingston along PSE&G utility right-of-ways and along Township streets into Becker Park. Part of the Liberty-Water Gap Trail, the trail will run from Liberty State Park in Jersey City to The Delaware Water Gap. The Liberty-Water Gap Trail will use the Lenape Trail through Essex County. Al Kent of the Morris County Parks Commission is spearheading the effort to establish the new trail. He is also involved in maintaining the Lenape Trail.

Al Kent

Morris County Park Commission

53 East Hanover Avenue, PO Box 1295, Morristown, NJ 07962-1295

Phone: (973) 326-7600

Mountain Top League

The Mountain Top League which was founded in 1959 and is a volunteer organization which serves the children of West Orange, NJ. MTL provides recreational programs for children of all levels in Baseball, Basketball, In-House Soccer and Traveling Soccer. It remains the largest youth organization in West Orange!

The Mountain Top League

623 Eagle Rock Ave, Suite 155, West Orange, NJ 07052

www.mountaintopleague.com

Master Gardeners Helpline / Center for Environmental Studies

The Gardeners Helpline is a program of the Rutgers University Cooperative Extension Speakers Bureau. It provides educational outreach and horticultural therapy for seniors.

621 Eagle Rock Avenue, Roseland

(973) 228-2210

National Wildlife Federation

The National Wildlife Federation has several programs that encourage individuals, schools, and communities to create and preserve wildlife habitat. There is the Certified Wildlife Habitat program for back yards. This entails creating an environment that has food, water, cover and a place for the young. There is also the Community Wildlife Habitat program which provides habitat for wildlife throughout the community--in individual backyards, on school grounds and in public areas such as parks, community gardens, places of worship and businesses. To help reconnect today's children to the outdoors, the National Wildlife Federation assists schools in

developing outdoor classrooms called Schoolyard Habitats, where educators and students learn how to attract and support local wildlife.

*National Wildlife Federation
11100 Wildlife Center Dr, Reston VA 20190
Phone: (800) 822-9919
<http://www.nwf.org/>*

New Jersey Audubon Society (NJAS)

The New Jersey Audubon Society is a privately supported, non-profit, statewide membership organization. It was founded in 1897 and is one of the oldest independent Audubon societies. NJAS has no connection with the National Audubon Society. It fosters environmental awareness and a conservation ethic among New Jersey's citizens; it protects New Jersey's birds, mammals, other animals, and plants, especially endangered and threatened species; and this society promotes preservation of New Jersey's valuable natural habitats.

*New Jersey Audubon Society Headquarters
9 Hardscrabble Road, Bernardsville, New Jersey 07924
Phone: (908) 204-8998
www.auduboninternational.org*

Preservation New Jersey

Founded in 1978, Preservation New Jersey is the only statewide private membership-supported historic preservation organization in the State. Its mission is to sustain and enhance the vitality of New Jersey's communities by promoting and preserving their diverse historic resources.

*Preservation New Jersey
30 S. Warren St., Trenton, NJ 08608
Phone: (609) 392-6409, Fax: (609) 392-6418
Email: info@preservationnj.org
www.preservationnj.org*

South Mountain Conservancy

The South Mountain Conservancy is a volunteer, non-profit 501 (c) (3) organization dedicated to preserve, protect, and enhance the South Mountain Reservation through education and public service. Founded in March 2000, it works in concert with the Essex County Department of Parks, Recreation, and Cultural Affairs.

*Email: info@somocon.org
<http://www.somocon.org/>*

The Land Conservancy of New Jersey

Formed in 1981, The Land Conservancy of New Jersey (formerly the Morris Land Conservancy) is a non-profit, membership organization working in land conservation throughout New Jersey. The Land Conservancy assisted West Orange Township with the development of each of its Open Space and Recreation Plans and led the partnership effort to preserve the 11.2 acre Mayapple Hill Extension II project in the Township.

*19 Boonton Avenue, Boonton, NJ 07005
Phone: (973) 541-1010, Fax: (973) 541-1131
<http://www.tlc-nj.org/>*

The Rahway River Association

Encompassing 130 square miles, the Rahway River watershed is one of the oldest urbanized areas of the State of New Jersey stretching from Edison Township in Middlesex County north to the Oranges of Essex County and westward to the Watchung Ridges. The Rahway River Association has been the region's leading voice in championing the cause of preserving open space, improving water quality and protecting natural resources of the Rahway river watershed since 1992.

Rahway River Association

P.O. Box 1101, 337 East Milton Avenue, Rahway, New Jersey 07065

Phone: (732) 340-0882

Email: rahwayriverassociation@verizon.net

<http://www.rahwayriver.org>

Trust for Public Land

A national non-profit land conservation organization that conserves land for parks, community gardens, historic sites, and other natural places, helping to ensure livable communities for generations to come. In 2009, TPL partnered with the City of Newark to open the newest and largest (nine acres) city-owned park, a project designed with the assistance of students from three nearby schools.

20 Community Place, Suite 7, Morristown, NJ 07960

Phone: (973) 292-1100

www.tpl.org

U.S. Golf Association/Audubon International

The Audubon Sanctuary Program is a cooperative effort between the United States Golf Association (USGA) and Audubon International, this program promotes ecologically sound land management and the conservation of natural resources. For a golf course to receive certification it must work towards environmental planning, wildlife and habitat management, outreach and education, chemical use and reduction as well as safety, water conservation, and water quality management.

Audubon International Headquarters

46 Rarick Road, Selkirk, New York 12158

Phone: (518) 767-9051

<http://auduboninternational.org/ge.html>

<http://www.usga.org>

UNICO Nationl

The Orange/West Orange UNICO chapter is the sponsor of a community garden at Degnan Park for different disabled residents

NJ 11 District Governor Frank Greco, Jr.

29 Timber Drive #65, Clifton, NJ 07014-1354

Phone: (973) 684-3803 Bus, (973) 742-8223 Fax (973) 779-7535 Res

Email: fgrecojr@optonline.net

West Orange Chamber of Commerce

Chambers of Commerce are vital, dynamic links for any business looking to succeed and grow in today's competitive environment. From acting as an advocate for business interests, to providing opportunities to network within our community, the West Orange Chamber of Commerce is uniquely positioned to provide every business owner with resources that can't be found anywhere else. Some of their goals include promoting West Orange's residential and commercial assets, make the community a more beautiful place, and encourage property owners to improve their premises.

Phone: (973) 731-0360

Email: mail@westorangechamber.com

<http://www.westorangechamber.com/>

PRESERVATION TOOLS

There are many mechanisms that West Orange Township may use to preserve open space. This sub-section provides a description of a number of these tools. Although it is not meant to be an exhaustive or a complete listing, this supplies information about some of the most commonly used and successful techniques.

Fee Simple Acquisition

Usually, the most expensive way to preserve property is direct acquisition through fee simple purchase. The title to the property changes hands from one owner to another. A disadvantage to this approach is the need to have the full purchase price available at the closing. Government agencies may not be able to raise the funds in time before an owner decides to sell the property to another buyer.

Municipal Preservation Tools

One preservation tool at the disposal of the municipality is tax foreclosure. If a parcel falls under West Orange Township ownership through tax foreclosure, the municipality may want to consider holding the property as part of its lands for recreation and conservation purposes if it falls within an identified preservation or recreation area. Periodic examination of properties with tax liens upon them may also yield opportunities for the Township to purchase the lien and preserve the land for environmental or recreational uses.

The Township may want to develop educational materials that target property owners to describe various financial approaches to preserving land. For example, some owners may want to work out an arrangement where they sell blocks of their land over time to the Township or some other preservation partner. Other landowners may sell their land to the Township at a bargain sale to receive deductions for a charitable contribution on federal income tax. Donations of property may also be considered charitable contributions.

West Orange Township can establish a relationship with a nonprofit land trust, such as The Land Conservancy, to help reach out to inform property owners of preservation options.

Less Direct Acquisition: Easements

Another effective tool for preserving land is an easement. An easement grants an entity the right to use another's property for a specific purpose. There are many kinds of easements designed for many purposes. Easements most appropriate for land conservation in West Orange Township include:

- trail easements: the right to traverse a specific path through a property
- scenic easements: the right to maintain a view and ensure that view is maintained
- conservation easements: purchases the right to a property to preserve the natural landscape of the site
- historic easements: purchases the right to restrict changes to the exterior or interior of a building and its surrounding landscape

The advantages of easements include the lower costs to the buyer to acquire a particular use on a piece of property. Conservation easements generally cost from 70% to 80% of the fair market value of the land. Trail easements may be used appropriately to create corridors along and around water bodies. Another advantage of easements is that the land remains in private ownership. West Orange Township will still collect property taxes from the owner. The amount and type of easement right that is sold will typically lessen the owner's tax liability. Written into the deed, an easement will be associated with a tract of land despite an ownership change. Public access is not necessarily a condition for an easement. Easements can provide a conservation solution for the municipality and the private landowner. They represent a flexible tool that can be written to satisfy public uses as well as private landowners' needs.

Bonding

The municipality can issue bonds to borrow money to pay for acquisitions. The funds from an Open Space Trust can be used for the 5% down payment to issue the bonds as well as the debt service over time. General obligation bonds require voter approval and can impair the tax credit of the municipality. The consistent, dedicated revenue from the Open Space Trust make revenue bonds an attractive alternative, but these bonds typically have a higher interest rate than the general obligation bonds.

Installment Purchases

The municipality may work out an arrangement with a landowner that allows an incremental purchase over time. The property owner receives the purchase price over time as well as interest on the unpaid, negotiated balance. Funds from the Open Space Trust can be committed for this payment. This arrangement may result in tax benefits for the seller, and the Township is not obligated to pay the full price of the land in one payment.

Lease-Back Agreement

If the land is not needed for immediate use, the Township can purchase a piece of property and lease it back to the owner or another entity for use. Owners who want to remain on their property can sell a life estate. Partial reimbursement of the purchase price can be repaid through rental fees, and maintenance costs are reduced. This technique is most useful when the Township identifies an important tract and wants to ensure its availability in the future. The landowner may realize estate tax advantages through these methods.

Donation/Bargain Sale

Donating or selling land to a nonprofit organization or to a municipality may provide tax advantages to the owner. Landowners who own property that has escalated in value may reduce their capital gains liabilities through donating the property or selling it at a bargain sale or less than the appraised value. Estate taxes may also be reduced with proper planning. Conservation easements are effective tools for estate planning. The Township may want to discuss land priorities with a nonprofit land trust. The land trust will contact owners to discuss general tax advantages of donations and bargain sales. This is a cost effective method of obtaining open space.

Long-term Lease

West Orange Township may be able to negotiate a long-term lease with a landowner unwilling to transfer complete ownership. This method may be a useful option for trail easements or athletic fields. The Township will have to weigh the cost advantages of long-term rental payments to outright acquisition costs.

Zoning

Open space benefits may be achieved through the use of municipal tools, such as cluster zoning. This technique allows the same density on a tract of land but reduces individual lot sizes. It can be an attractive incentive to developers since they will spend less on construction and infrastructure costs. The remaining land becomes dedicated to open space at no cost to the municipality. The dedicated open space resulting from cluster zoning should be monitored to ensure the open space values are maintained. If these lands are not under conservation easement restrictions, the Township should consider that action. Any open space dedicated as part of a developer's agreement should be placed under a conservation easement. West Orange Township may also want to require the establishment of an endowment or trust supplied with funds to be used to maintain the easement. Protective zoning is a tool used to limit development in environmentally sensitive areas, such as wellhead protection areas, aquifer recharge zones, wetlands, steep slopes, stream corridors, natural and historic sites.

Eminent Domain

The Township has the right to condemn and acquire privately owned property for a public purpose. This technique should be considered only when negotiation options have been exhausted. The cost of the property is likely to be considerably higher than a negotiated price because of increased legal fees and the uncertain court determination of the land value.

FUNDING SOURCES

West Orange Township's efforts to accomplish its open space goals will require funding support from a variety of sources. Fortunately, there are opportunities at the county, state, and national levels for funding sources and partners. Essex County's Open Space Trust Fund has been dedicated to the preservation of open space and improving County Parks. The State of New Jersey Department of Environmental Protection also offers funding programs such as Green Acres and Brownfields Redevelopment and cleanup opportunities, which accepts funding applications for projects throughout New Jersey. Open space and historic preservation projects, however, are not limited to county and state government funding sources, more exist at the local,

state and national level with non-profit and government organizations. Additional funding sources are found below.

West Orange Township Open Space Trust Fund

The Township of West Orange has established a dedicated source of funding for open space acquisition. This measure was created through a voter-approved referendum in 2002. West Orange Township residents currently pay one cent for every \$100 of equalized assessed property value to a dedicated trust for conservation and recreation purposes as outlined in the municipal referendum.

Essex County Open Space Trust Fund

In 1998, Essex County voters approved a referendum to create a stable funding source for improving County Parks and preserving open space. The referendum provided for the dedication of a one-cent County tax to be used solely for park and open space expenditures. To guide open space trust expenditures, the County created an Open Space Advisory Committee and assigned it the responsibility of creating a plan that would focus the use of trust fund dollars. Applications for park development and acquisition are submitted annually.

New Jersey Green Acres

The Green Acres program provides funding assistance for the acquisition of local park and recreation areas. Through its Planning Incentive Program, Green Acres provides grants that cover up to 50% of the land acquisition costs of a particular tract. The money is granted to municipalities through the Planning Incentive program (for towns with open space plans and open space taxes) and through the Standard Acquisition program (for towns without both a plan and a tax). Both applications can be submitted at any time throughout the year.

In order to receive funds from the Planning Incentive program a municipality needs to complete the following:

- Approved Recreation and Open Space Inventory (ROSI) documenting all municipally held land for recreation and conservation purposes. The ROSI is a contract between the Township and the State of New Jersey itemizing permanently protected municipal parkland in the Township.
- Adoption of the Open Space and Recreation Plan as an element of the Master Plan.

Historic Preservation

Funding is available from the New Jersey Green Acres program for the historic preservation of land. Applicants who match historic preservation and open space goals improve their access to this funding. The New Jersey Historic Trust is a state non-profit historic preservation organization created to provide financial support, protection, and assistance in historic preservation projects. They have five programs that can provide various financial resources for West Orange and its preservation partners to preserve historic resources throughout the Township. These programs include: the Garden State Historic Preservation Trust Fund, a Revolving Loan Fund, the New Jersey Legacies Program, the Historic Preservation Bond Program, an Emergency Grant and Loan Program, and a Preservation Easement Program. Eligible applicants are entities of county or municipal government and non-profit organizations that are certified tax exempt and comply with New Jersey charity registration laws.

Nonprofit Land Conservation Organizations

The Land Conservancy and other nonprofit land conservation organizations are eligible for nonprofit grants from the State Green Acres program. Nonprofit grant contributions to a project are typically no greater \$500,000 and require a dollar for dollar match. The land trust associations are good partners for acquiring lands with sensitive natural resources in West Orange Township. These organizations also have experienced staff knowledgeable about benefits to a landowner interested in preserving property as well as strategies for open space preservation. Nonprofit land trusts can also “sign on” to West Orange Township’s Open Space and Recreation Plan registered with Green Acres. This process makes nonprofits eligible for Green Acres funding to acquire land identified in the Township’s Open Space and Recreation Plan.

Transportation Enhancement Act (TEA-21)

The U.S. Department of Transportation has established that funding for trail development and enhancement is an eligible expenditure from the Federal Transportation Trust. The amount of funding for these purposes is substantial, and funds for land acquisition are available. A special category of funding is dedicated to enhancement of National Recreation Trails. An eligible project must show that the trail is part of the community’s overall transportation system. Funds can be used for facilities such as signage, bike racks, surfacing, as well as acquisition of land through easement or fee simple. TEA-21 funding can jumpstart a community’s bikeway and walking trail system.

Recreational Trails Program

The Department of Environmental Protection’s Division of Parks and Forestry administers the National Recreation Trails Program. This program provides funding for development and maintenance of trails and trail facilities. Trails can be for non-motorized, multi-use, and motorized purposes. Projects are funded on an 80% Federal share, 20% matching share basis. Available funding varies from year to year, but the maximum grant is \$25,000.

Environmental Infrastructure Trust

The New Jersey Environmental Infrastructure Financing Program administered by the New Jersey Department of Environmental Protection provides low cost loans to acquire open space that will preserve water quality. This program is a partnership between the New Jersey Environmental Infrastructure Trust and Green Acres. The mission of the Trust is to assist in achieving a cleaner and healthier environment by providing low-cost financing for projects that enhance and protect ground and surface water resources, and ensure the safety of drinking water supplies.

Livable Communities Grant

The Department of Environmental Protection has a Livable Communities Grant program whereby municipalities and counties can apply for money to be used for maintenance and upgrading (but not purchase) of open space, parks, and playgrounds. These grants are up to \$100,000 for each municipality and/or county.

Brownfields Redevelopment Funding

The New Jersey legislature has implemented several financial and liability incentives to encourage municipal involvement in brownfields redevelopment projects. Grants of up to \$2 million per municipality per year are available through New Jersey's Hazardous Discharge Site Remediation Fund (HDSRF). There are certain restrictions to accessing this funding. First, the municipality must have some control over the property. Second the town must have a redevelopment plan for the property. This funding is available on a rolling basis, and is applied for at a site-specific level. Federal monies are also available for local government brownfields remediation. Assessment Grants and Cleanup Grants are available from the United States Environmental Protection Agency. By utilizing existing infrastructure, brownfields redevelopment can be a financially attractive way to revitalize urban areas, restore local tax bases, lower overall development costs and preserve open spaces.

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Edward J. Coleman, Chief Finance Officer, Township of West Orange.

Robert Csigi, Director of Buildings and Grounds, West Orange Board of Education. November 2009.

Kevin Dillon, Tax Assessor, Township of West Orange. January 2010.

Cathy Elliott-Shaw, Team Leader, NJDEP Green Acres Program, February 2010

William Keogh, Director of Recreation, Township of West Orange. November 2009.

Leonard Lepore, Township Engineer, Township of West Orange. December 2009.

Tina DelloRusso, Township of West Orange Department of Engineering, February 2010.

Dennis Percher, Chair, Board of Trustees, South Mountain Conservancy. December 2009.

Daniel Salvante, Director, Essex County Parks, Recreation & Cultural Affairs. December 2009.

Alicia Skinner, Chair, West Orange Historic Preservation Commission. January 2010.