



# 2

## INVENTORY & ANALYSIS

### Data Collection & Methodology

Data found within this report was compiled from many different sources, including Woolwich Township, Borough of Swedesboro, Gloucester County, New Jersey Department of Environmental Protection, previous planning studies, and field reconnaissance data developed by the consultant.

Geographic Information System (GIS) base map information was used to prepare field maps and planning documents consisting of the base aerial photography, municipal boundaries, roadways, parcels, contour lines, and other identifying land use features.

The consultants performed initial field reconnaissance with Township representatives and committee members on 5/16/14 and 6/16/14 to inventory, analyze and document existing conditions. Field data was recorded by the consultant onto the field maps, and photographs were taken of existing site conditions for use in evaluating trails and site plan alternatives. Follow-up field verification



was conducted to verify the feasibility of the proposed trail alignments and concept plans.

The project was guided by Open Space and Recreation Plan committee. The committee provided valuable insight and direction to the consultant for development of the plan. A series of committee meetings and public meetings were held throughout the planning process. These meetings provided additional information and community feedback that contributed to the development of the Woolwich Township / Borough of Swedesboro Open Space and Recreation Plan.

Additionally, several meetings were held with local developers of the Weatherby Development and Auburn Road Village to discuss coordination of their future developments with this plan.

A 22 question online citizen survey was opened to the public from June to September. The survey received over 400 respondents and the results are discussed later in this section.

This Park and Recreation Plan will provide Woolwich Township and the Borough of Swedesboro with guidance

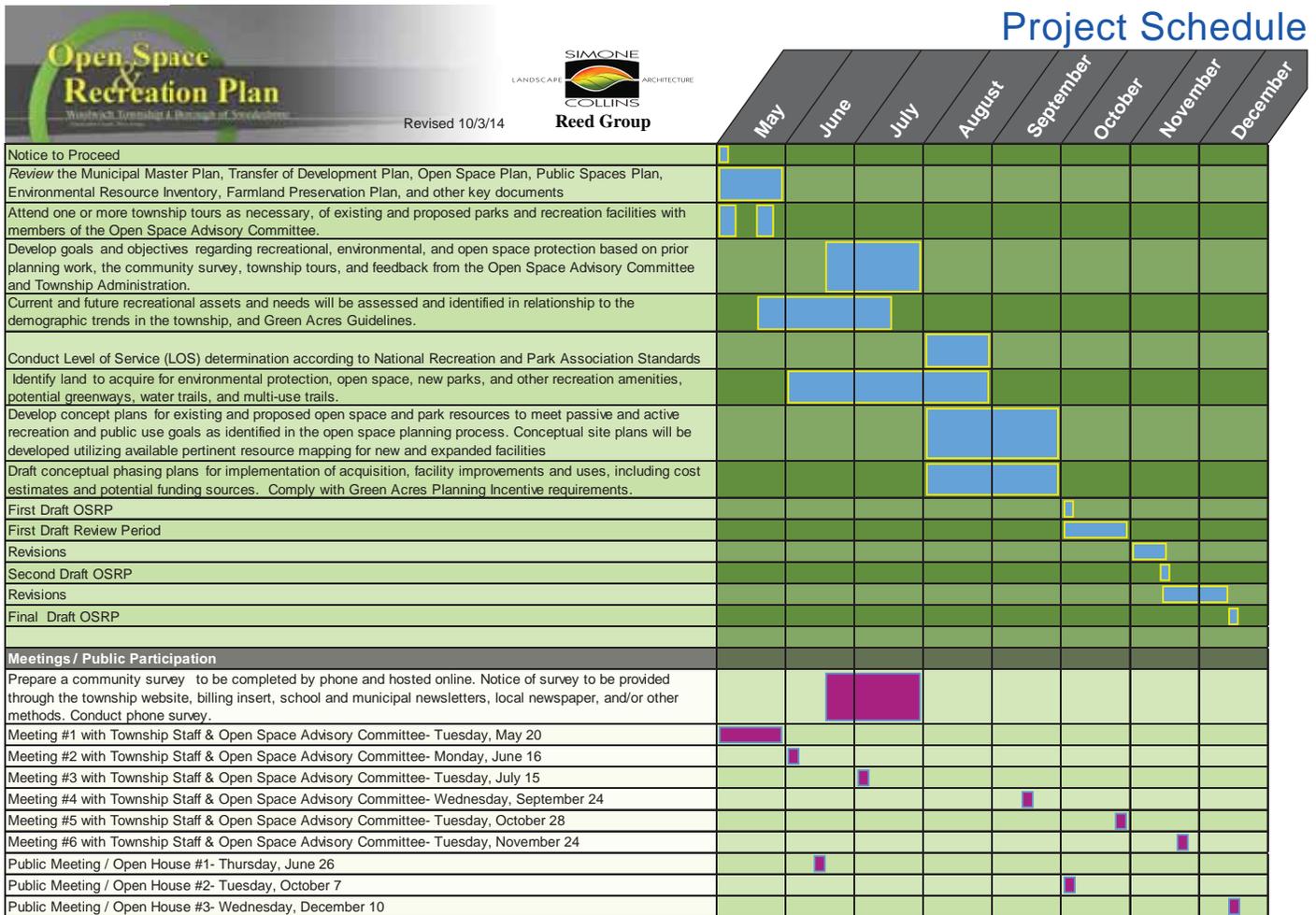
for future open space acquisition, trail development and park development. It should be noted that a boundary and topographic survey of existing conditions must be prepared for any specific park or trail sections prior to commencing design development and construction documentation.

# Public Participation Summary

Public participation is a vital part of the planning process. Public meetings were held to involve the community by soliciting input about existing conditions and desired improvements; keep the community aware of the project status; and to address any comments, questions, or concerns about the project. To the right is a list of the

## Meeting Schedule

May 20, 2013	Committee Meeting #1
June 16	Committee Meeting #2
June 26	Public Meeting #1
July 15	Committee Meeting #3
Sept. 24	Committee Meeting #4
Oct. 7	Public Meeting #2
Oct. 28	Committee Meeting #5
Nov. 24	Committee Meeting #6
Dec. 10	Public Meeting #3



meetings held by the consultants during the development of the Park and Recreation Plan.

Attendance lists and meeting minutes can be found in the appendix of this report.

## Public Meetings

Three public meetings were held during the course of the project. Summaries of these meetings are as follows:

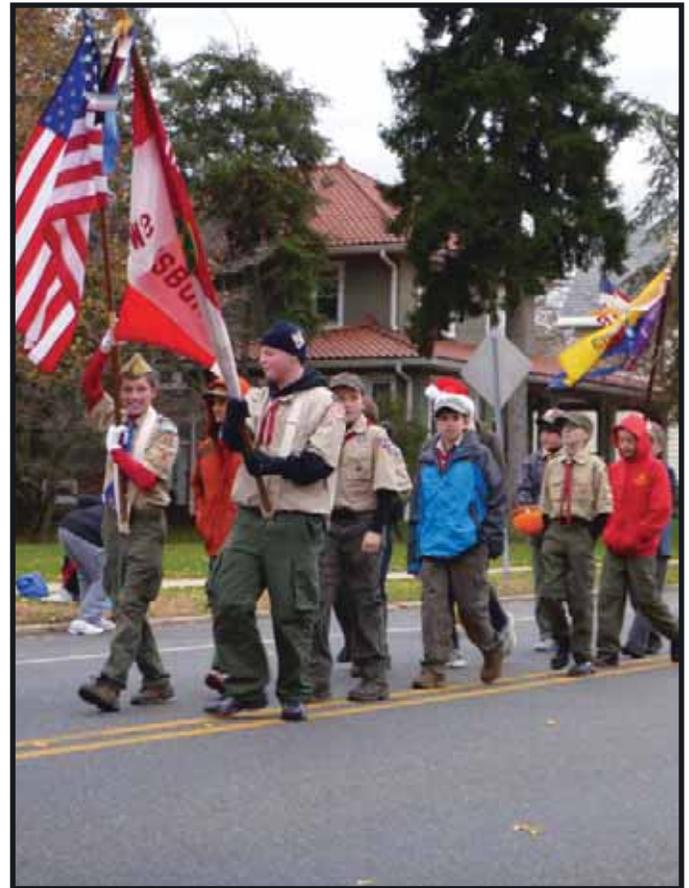
### *June 26, 2014—Public Meeting #1*

Matthew Blake, Director of Community Development for Woolwich Township, began the meeting by introducing the planning consultants and providing a general overview of the project. The planning consultants introduced the project committee, discussed the meeting schedule, project scope, and project purpose. The consultants then went through a series of Township and Borough inventory mapping that described existing features in the area. The consultants then discussed the telephone survey that would be conducted as well as an online survey that is available. The meeting was then opened up for comments and questions from the meeting attendees. The response from attendees was informative and generally supportive of the project. All attendees were invited to take an online citizen survey accessible on the Woolwich Township web site.

The meeting was publicized on the Township web site and through flyers passed out at community events. Please see the meeting minutes in the appendix of the report for a summary of the responses solicited from public meeting attendees.

### *October 7, 2014 – Public Meeting #2*

The second public meeting was attended held on October



7th, 2014. The consultants presented the draft plan that included recommendations for trail alignments, additional facilities, and park layouts.

### *December 10, 2014 – Public Meeting #3*

At the third public meeting, the consultants presented the Final Plan that included inventory and analysis, proposed park concepts and trail alignments, open space recommendations, a recommended implementation process, potential partners, and funding sources.

Meeting minutes and attendance lists for all three of the public meetings can be found in the appendix of this report.

# Online Survey

The 22 question online citizen survey was open to the public from June 25, 2014 to December 1, 2014 as another means of obtaining comments and input from the community about the park and open space use within the Township and Borough. The survey received over 400 responses. All responses were confidential and respondents were not identified by name. All the survey responses were compiled together and analyzed as a group.

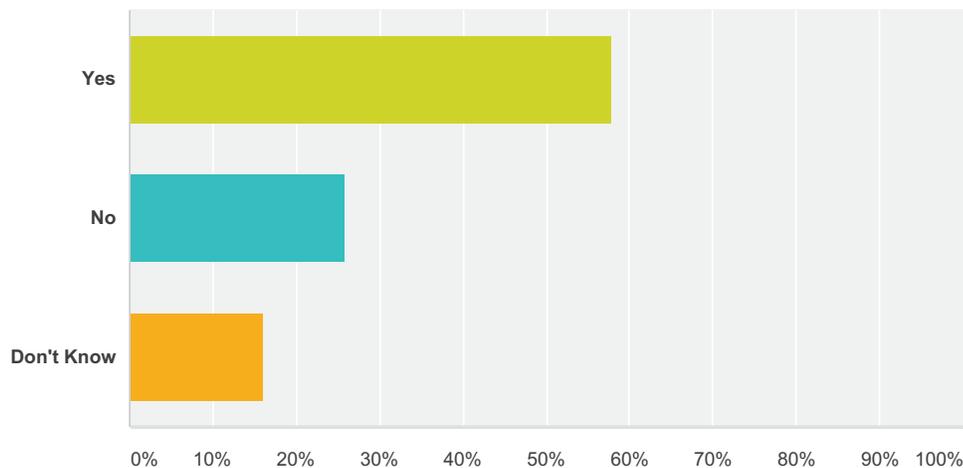
One key finding from the online survey results is that, of the respondents, 53% felt that Woolwich and Swedesboro need more active recreation fields indicating that there is a perception that more fields are needed to serve the population. When asked which types of fields are needed, the most common responses include soccer, baseball, softball, field hockey, lacrosse, basketball, football and tennis.

Respondents were also asked about recreational activities in the Township and Borough and how well

## Woolwich Township/Borough of Swedesboro Open Space & Recreation Plan

### Q17 Do you think that Woolwich Township and the Borough of Swedesboro need more sports fields (soccer, baseball, football, etc.)?

Answered: 297 Skipped: 116



Answer Choices	Responses
Yes	57.91% 172
No	25.93% 77
Don't Know	16.16% 48
<b>Total</b>	<b>297</b>

they are provided for. Activities that rated very poorly include swimming (32%), camping (27%), and mountain biking (27%). Facilities that were rated somewhat poorly include fitness trails (25%), basketball (21%), and road cycling (21%). These responses provide an idea as other recreational facilities that may be needed in the Township and Borough.

When asked where the respondents went for recreational purposes in the past year, the overwhelming majority had visited Locke Avenue/High Hill Park (93%) at least once. Other popular destinations include Charles Harker School (47%), Lake Narraticon Park (46%), Kingsway Regional School (45%), Charles Stratton School (45%), Township Line Park in Logan Township (38%), and Riverwinds Community Center in West Deptford Township (37%). Please refer to the complete and detailed survey results found in the appendix of this report.





## Telephone Survey

A telephone survey of 200 randomly chosen households (land lines only) in both Woolwich Township and the Borough of Swedesboro was conducted by Reed Group between June 24 and June 29, 2014.. Qualified respondents included any household adult 18 years or older. Data was gathered using a CATI (computer assisted telephone interviewing) system in which the interviewer directly inputs responses into a computer. The survey asked questions about park use, facilities, and recreation activities similar to that of the online survey. The telephone survey was intended to be a complement to the online survey by providing a purely random and statistically valid survey. The online survey tends to be more self-selecting in that typically only those interested in parks and recreation respond.

One key finding from the telephone survey is that a large majority (80%) of the respondents have visited Locke Avenue/High Hill Park over the last year. The only other parks that more than 5% of the respondents have been to in the past year are Lake Narraticon Park (16%) and Township Line Park in Logan Township (7%). This result helps to confirm that the existing parks are heavily used because the options for recreation in the Township/Borough are limited. The result also help to confirm that most Township and Borough residents prefer to use parks within a close proximity to their home.

40% of the survey respondents indicated that Locke Avenue/High Hill Park had inadequate rest room facilities and 83% of the respondents indicated that Lake Narraticon

Park had inadequate rest room facilities. This result demonstrates that additional rest rooms or rest room improvements should be considered for these parks.

Regarding outdoor activities, the survey respondents generally felt that activities that were not adequately provided for in the community include archery (5%), motor boating (6%), camping (9%), hunting, (15%), adult sports leagues (15%), and swimming (16%). This result helps to inform this plan of additional activities and facilities that could be added to broaden the spectrum of recreational options in the community.

Activities that respondents felt are very well provided for in the community include youth sports leagues (81%), walking and jogging (78%), festivals and special events (73%), and tot lots/playgrounds (71%). It should be noted that while the telephone survey respondents generally felt these activities are provided for in the community, anticipated population growth of the Township and discussions with community sports organizations and municipal representatives have indicated that additional facilities and improvements are needed in order to adequately service of the community with these activities.

# Summary of Existing Planning Documents

## *Analytical Data Report - Regional, County, and Municipal Population Forecasts, 2010-2040*

Completed in 2013 by the Delaware Valley Regional Planning Commission (DVRPC), this report forecasts populations for municipalities within the Philadelphia metropolitan area consisting of 5 Pennsylvania counties which are Bucks, Chester, Delaware, Montgomery, and Philadelphia, and four New Jersey counties including Burlington, Camden, Gloucester, and Mercer County.

Of the counties studied, Woolwich Township is listed as having the second greatest forecasted absolute change (+12,898) in population from 2010 to 2040 and the greatest forecasted percent change (+127%) in population from 2010 to 2040. The anticipated population for Woolwich Township in 2040 is 23,098. The Borough of Swedesboro is anticipated to grow from 2,584 residents in 2010 to 2,971 residents in 2040. This represents an increase of 387 residents or 15.0%.

County / Municipality	2010 Census	2015 Forecast	2020 Forecast	2025 Forecast	2030 Forecast	2035 Forecast	2040 Forecast	Absolute Change 2010-2040	Percent Change 2010-2040
Glassboro Borough	18,579	18,877	19,725	21,721	23,716	24,564	24,862	6,283	33.8%
Greenwich Township	4,899	4,920	4,981	5,123	5,266	5,326	5,348	449	9.2%
Harrison Township	12,417	12,796	13,873	16,408	18,942	20,020	20,398	7,981	64.3%
Logan Township	6,042	6,102	6,272	6,671	7,071	7,241	7,300	1,258	20.8%
Mantua Township	15,217	15,546	16,481	18,682	20,882	21,818	22,146	6,929	45.5%
Monroe Township	36,129	36,794	38,688	43,143	47,598	49,492	50,157	14,028	38.8%
National Park Borough	3,036	3,050	3,088	3,179	3,270	3,309	3,323	287	9.5%
Newfield Borough	1,553	1,560	1,579	1,625	1,670	1,690	1,696	143	9.2%
Paulsboro Borough	6,097	6,113	6,158	6,264	6,370	6,415	6,431	334	5.5%
Pitman Borough	9,011	9,060	9,199	9,526	9,853	9,992	10,041	1,030	11.4%
South Harrison Township	3,162	3,229	3,418	3,864	4,310	4,499	4,566	1,404	44.4%
Swedesboro Borough	2,584	2,602	2,655	2,778	2,901	2,953	2,971	387	15.0%
Washington Township	48,559	48,924	49,963	52,406	54,850	55,889	56,254	7,695	15.8%
Wenonah Borough	2,278	2,294	2,340	2,449	2,558	2,604	2,620	342	15.0%
West Deptford Township	21,677	21,954	22,744	24,601	26,459	27,248	27,526	5,849	27.0%
Westville Borough	4,288	4,317	4,399	4,591	4,784	4,866	4,894	606	14.1%
Woodbury City	10,174	10,195	10,253	10,390	10,528	10,586	10,607	433	4.3%
Woodbury Heights Borough	3,055	3,066	3,097	3,170	3,244	3,275	3,286	231	7.6%
Woolwich Township	10,200	10,812	12,553	16,649	20,745	22,486	23,098	12,898	126.5%

Source: Delaware Valley Regional Planning Commission, March 2013

**Table 2: Municipalities with the Greatest Forecasted Absolute Change in Population, 2010-2040**

Rank	Municipality/County	Absolute Change	Rank	Municipality/County	Absolute Change
1	Monroe Township/Gloucester	14,028	11	Upper Uwchlan Township/Chester	5,905
2	Woolwich Township/Gloucester	12,898	12	Tredyffrin Township/Chester	5,875
3	Warrington Township/Bucks	8,207	13	West Deptford Township/Gloucester	5,849
4	Harrison Township/Gloucester	7,981	14	Bensalem Township/Bucks	5,692
5	Middletown Township/Bucks	7,955	15	Franklin Township/Gloucester	5,639
6	Washington Township/Gloucester	7,695	16	Upper Providence Township/Montgomery	5,548
7	Mantua Township/Gloucester	6,929	17	Deptford Township/Gloucester	5,527
8	Warminster Township/Bucks	6,694	18	Horsham Township/Montgomery	5,464
9	Glassboro Borough/Gloucester	6,283	19	Limerick Township/Montgomery	5,442
10	Bristol Township/Bucks	6,028	20	Buckingham Township/Bucks	5,373

*Source: Delaware Valley Regional Planning Commission, March 2013. Does not include the City of Philadelphia, which is both a county and a municipality.*

**Table 3: Municipalities with the Greatest Forecasted Percent Change in Population, 2010-2040**

Rank	Municipality/County	Percent Change	Rank	Municipality/County	Percent Change
1	Woolwich Township/Gloucester	127%	11	Charlestown Township/Chester	49%
2	Elk Township/Gloucester	72%	12	New Hanover Township/Montgomery	49%
3	Elverson Borough/Chester	72%	13	New London Township/Chester	48%
4	West Brandywine Township/Chester	70%	14	Lower Oxford Township/Chester	47%
5	Modena Borough/Chester	66%	15	Upper Hanover Township/Montgomery	47%
6	Harrison Township/Gloucester	64%	16	Mantua Township/Gloucester	46%
7	Upper Uwchlan Township/Chester	53%	17	West Rockhill Township/Bucks	46%
8	East Vincent Township/Chester	51%	18	East Brandywine Township/Chester	45%
9	Penn Township/Chester	50%	19	Atglen Borough/Chester	45%
10	London Grove Township/Chester	50%	20	Wallace Township/Chester	45%

*Source: Delaware Valley Regional Planning Commission, March 2013. Does not include the City of Philadelphia, which is both a county and a municipality.*

### *Open Space and Recreation Plan for the Woolwich Township, NJ, May 2004*

The 2004 Open Space and Recreation Plan, completed by the Delaware Valley Regional Planning Commission (DVRPC), serves as the basis for this update of 2014. The DVRPC plan inventories existing features and open space resources and discusses the open space program, its goals, objectives, and needs. The plan provides recommendations and an action plan for 1, 3, and 5 year periods. Several important recommendations from the plan include:

- Identify sites within the Township for additional park and recreation facilities.
- Establish connecting greenway corridors along Township waterways through acquisition or easements.
- Identify sites along Raccoon Creek and Oldmans Creek for canoe, kayak, and boat access.
- Explore eco-tourism opportunities, facilities, and activities.

This Open Space & Recreation Plan update achieves several of these action items that have not yet been completed.

### *Environmental Resource Inventory for the Woolwich Township, NJ, April 2004*

Completed in 2004 by the Delaware Valley Regional Planning Commission, this plan identifies and describes the environmental resources within the Woolwich Township and serves as a basis for methods for the preservation

and utilization of those resources. The report identifies natural resources, biological resources, built infrastructure, and environmental issues.

Several biological resources described in the report that are important to this study include Landscape Project Priority Habitats developed by the NJDEP Division of Fish and Wildlife. The Landscape Project documents the value of various types of habitats within New Jersey and ranks the habitats according to importance. The most important habitats are those that have documented occurrences of species on the state or federal Threatened and Endangered Species lists.

Most of Woolwich Township and the Borough of Swedesboro critical habitats are located along streams and water bodies. These critical habitats include emergent wetlands, forested wetlands, and upland forested areas. A large critical grasslands habitat also exists to the west and north of Swedesboro.

Alluvial soils, poorly drained soils, and steep slopes can be limiting in development of new trails and recreation facilities. According to the report steep slopes are primarily located along waterways with the steepest areas being along Lake Narraticon, Narraticon Run, Battertown Branch, Basgalore Creek, Raccoon Creek, Indian Branch, and Porches Run.

Alluvial Land (Ad) makes up 5% of the soils in the Township. Freehold soils make up the largest percent of soils in the Township and is relatively well drained. Much of the Township property along High Hill Road consists of a combination of wetlands, alluvial soils and freehold soils.

## *Woolwich Township Stewardship Assessment Report, October 2013*

Completed in October 2013 by Natural Lands Trust, this report provides a stewardship assessment for nine Township properties that comprise 398 acres of land located on High Hill Road. The plan analyzes the existing conditions of the properties, identifies current stewardship issues, identifies potential opportunities, and provides recommendations for improvement of the sites in question. The properties evaluated include Block 5, Lots 3, 4, 5, 6.02, 6.07, 7, 10, 11, and 11.01.

Several major recommendations of the Stewardship Assessment Report that relate to this plan include:

- adding trails through woodland and meadow areas, preferably loop or lasso shaped trails and spurs to reach areas of interest or lookout points;
- establishing canoe/kayak launch areas;
- controlling non-native plant species within existing woodland;
- control of runoff from roadways and athletic fields,
- converting mowed turf stormwater management basins to wet meadow habitats, and;
- converting non-essential or unused agricultural land to meadow habitat.

The Open Space and Recreation Plan presents concept diagrams that achieve several of these goals. A Township wide trail network concept plan is proposed in chapter 3 of this report. As part of this Township wide network a system of trails along High Hill Road is proposed to connect



Swedesboro and Woolwich residents to Locke Avenue/ High Hill Park and the adjacent open space owned by the Township on lots High Hill Road. 7 boat launch areas have been proposed throughout the Township. These will be launch sites to the water trails proposed on Raccoon Creek and Oldmans Creek.

As part of the engineering and construction phases of the trail and park improvements proposed herein, the Township should consider other recommendations from the Stewardship Assessment Report such as incorporating wet meadow or constructed wetland stormwater management facilities, appropriately controlling runoff from new roadways and athletic facilities before it enters adjacent waterways, and using a wide selection of native plant species.

### *Woolwich Township Transfer of Development Rights Plan*

This plan, completed in February 2007 by Melvin Kernan Development Strategies, discusses the transfer of development rights (TDR) plan developed through a grant awarded by the State of New Jersey. Section 4 describes the plan's goals as listed below:

- To preserve and enhance the quality of life in Woolwich Township in the face of rapid development
- To promote orderly growth within the Township
- To provide a safe and attractive residential environment
- Provide conveniently located and well designed retail and commercial opportunities to serve the residents of Woolwich and the surrounding area.

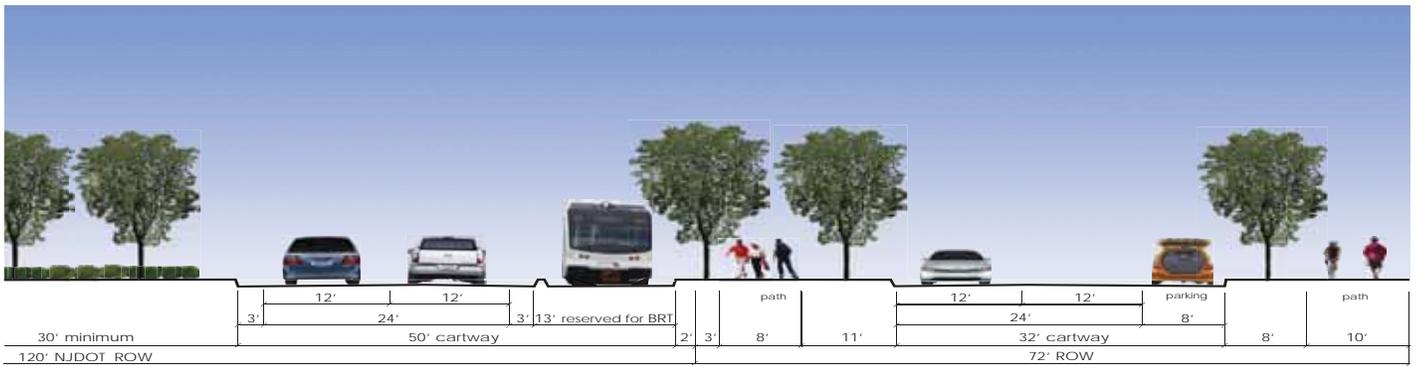
Section 6 of the TDR plan describes the TDR sending area parcels to which development credits are assigned, with expectation that they will be transferred to the receiving area. The Township's sending area includes 15 tax parcels, totaling 4,011 acres with approximately 3,000 acres (73.9%) being agricultural land. All sending area properties are located in residential districts.

Section 7 of the TDR plan describes the Route 322 TDR receiving area located within the proposed Woolwich Township regional center. The receiving area is approximately 744 acres with Route 322 as the central corridor. The receiving area is designed to accommodate a mixed use development including residential, commercial, institutional, and public uses in a walkable, compact environment.

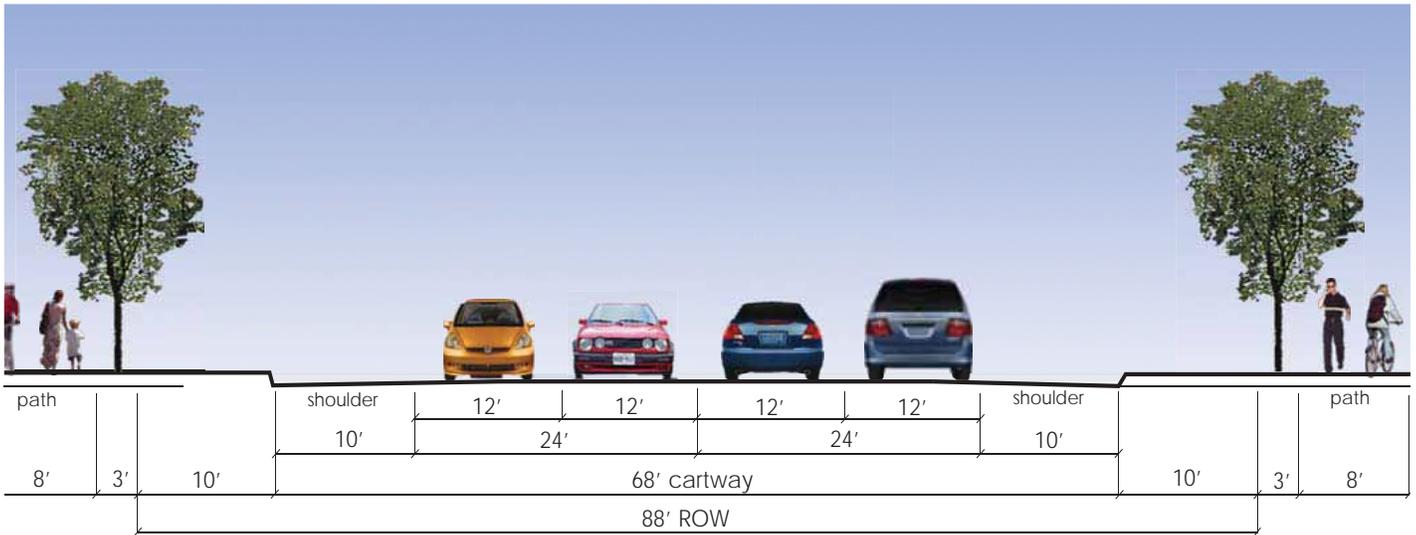
The Open Space and Recreation Plan will be informed by where and how future development is planned to take place with the Township. The TDR receiving zones will represent important destinations within the community and will be primary locations for future development. Park, trail, and open space connections to these receiving areas are crucial to the success of the Open Space and Recreation Plan.

### *Transfer of Development Rights Circulation Plan*

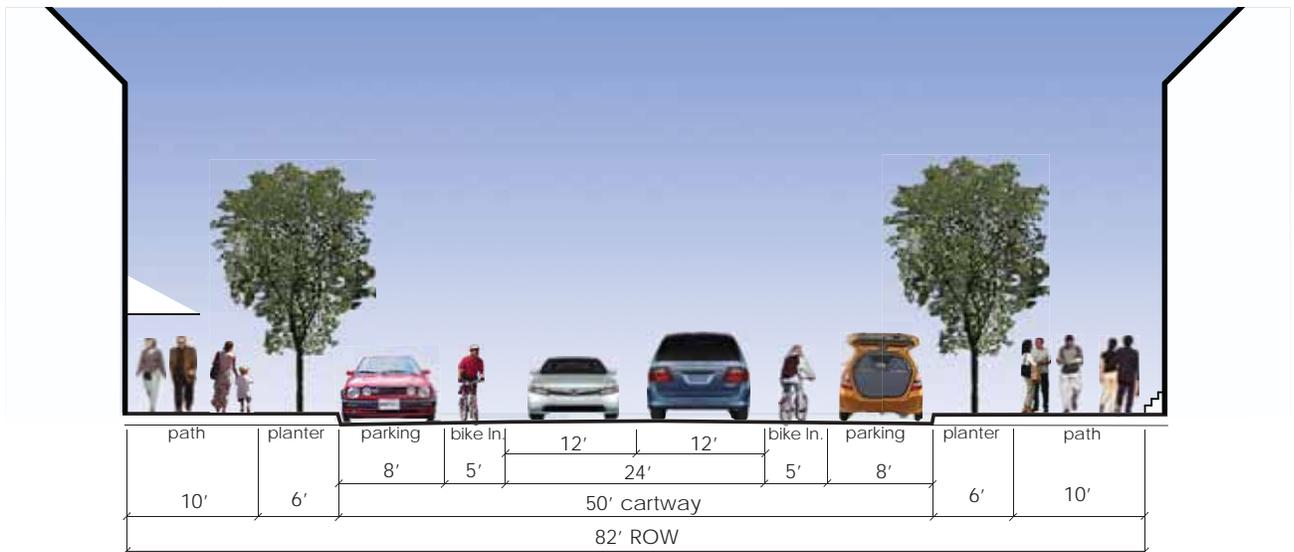
This plan, completed by Melvin Kernan Development Strategies discusses the proposed transportation system to be associated with the TDR plan. The plan features a



*Route 322 Boulevard 'A'*



*Kings Highway*



*Commercial Main Street*

Source: 2007 TDR Circulation Plan, Melvin Kernan



multi-modal circulation system for both the 322 Regional Center and Auburn Road Village. The plan proposes to integrate pedestrian and bicycle accommodations with vehicular transportation routes.

The main commercial corridor within the 322 Regional Center is designated as Swedesboro Paulsboro Road between Kings Highway and Route 322. Most of the proposed residential areas are located within a half mile of the Swedesboro Paulsboro Road and Route 322 intersection to promote walking and biking to the commercial district. Route 322 is designated as the primary east-west boulevard through the regional center while Kings Highway and Locke Avenue are the primary north-south corridors. Kings Highway provides an important connection from northern Swedesboro to Kingsway Regional Schools and farther north to East Greenwich Township. Locke Avenue provides a linkage from southern Swedesboro and Locke Avenue/High Hill Park to the proposed Regional Center.

Typical cross sections of the proposed hierarchical street system are provided. These cross sections provide for pedestrian circulation in the form of multiuse trails and pedestrian paths of varying widths. Bicycle lanes are proposed along the commercial main street (Swedesboro Paulsboro Road). 10' wide shoulders are proposed on Kings Highway.

Main gateways to and from the Regional Center are proposed at the intersection of Route 322 with Locke Avenue and Oak Grove Road to the west and at the intersection of Route 322 and the NJ Turnpike ramps to the east. The one access point proposed to Auburn Road Village is off of Auburn Road. Interior circulation recommendations for this development is detailed in the General Development Plan for Auburn Road Village.

These proposed circulation prototypes serve as a basis for the trail network plan proposed in chapter 3 of this report. The Open Space and Recreation plan connects to and extends the pedestrian and bicycle network of the 322 Regional Center and Auburn Road Village where feasible to make this area accessible to Swedesboro and Woolwich residents.

### *General Development Plan for Auburn Road Village*

This report completed in September 2010 by Alberto & Associates details the General Development Plan for the Auburn Road Village TDR receiving area. The plan proposes a main boulevard off of Auburn Road with a mixed use development that includes a commercial district, single family detached residential, townhouses, and twin homes. A central park and several neighborhood green areas have also been proposed throughout the development. Wetlands exist on the northern and western portions of the property.

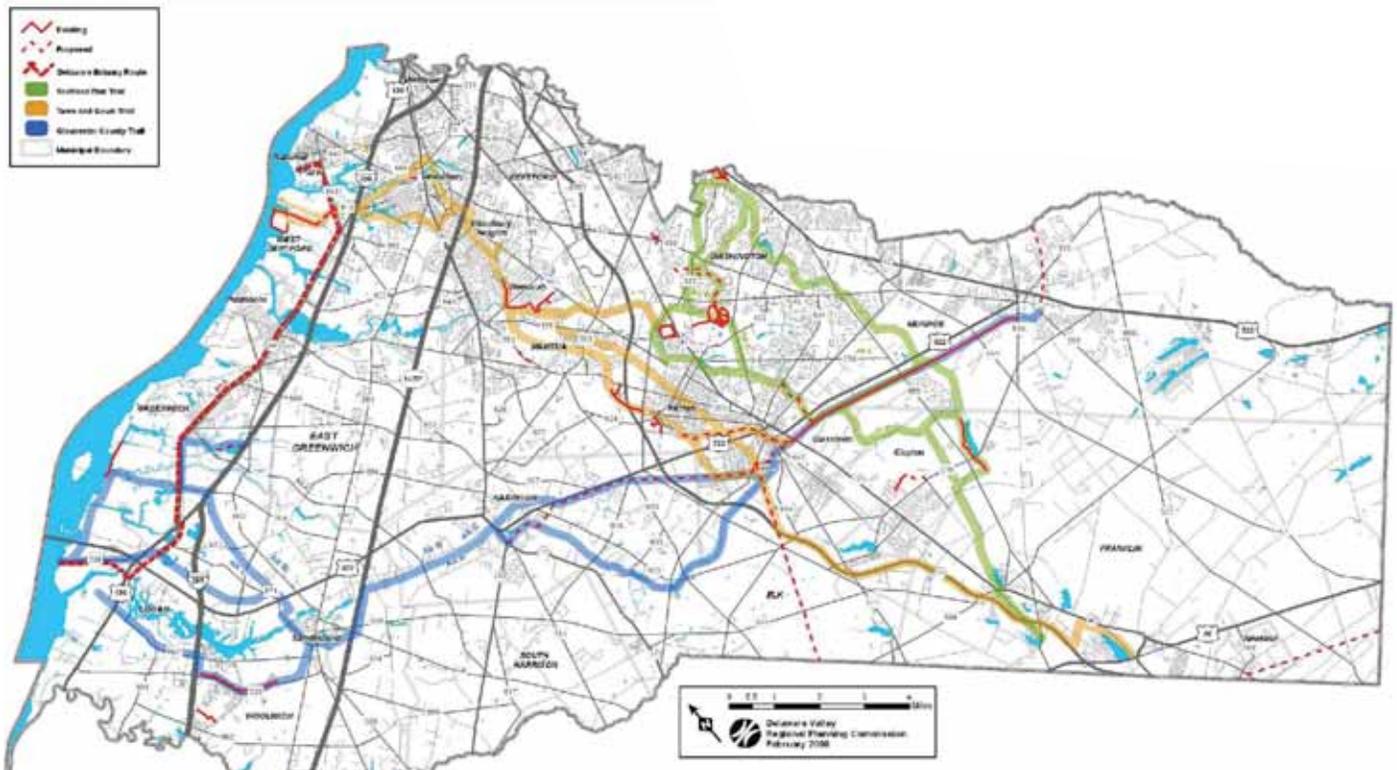
The circulation network for the development proposes

minimum 5' wide sidewalks on both sides of streets throughout the community. Bicycle circulation will be accommodated through share the road designations on village roadways. Multiuse trails will be incorporated along village open space areas.

The proposed trail plan in Chapter 3 of this report shows an off road connection to Auburn Road Village on the western side of the property along Indian Branch. It is recommended that this trail be implemented into the final site plans for Auburn Road Village so this proposed trail continues safely through the development with a connections to the central green space, commercial area, and Auburn Road.

### *Gloucester County Multi-Use Trails Network Study*

This study, completed in 2008 by the Delaware Valley Regional Planning Commission (DVRPC) examines opportunities for the creation of a county-wide network of routes for non-motorized travel serving important destinations including open spaces, recreational areas,



employment centers, schools, transportation facilities and existing trails. The Multi-Use Trails Network proposes several trail alignment alternatives through Swedesboro and Woolwich. These planned routes were analyzed and mapped in order to maximize regional connectivity of the trails proposed in the Open Space and Recreation Plan which proposes connections to these planned trails at several locations within the Township and Borough.

### *Gloucester County Official Bicycle Lanes & Multipurpose Trail Map*

This map provided by Gloucester County displays existing and proposed county wide bicycle and multiuse trails. The only trail proposed within Woolwich Township or the Borough of Swedesboro is the Kings Highway Bike Route. This route is proposed along Kings Highway from the Swedesboro boundary traveling northeast through Woolwich Township until it enters East Greenwich Township. The proposed route continues through East Greenwich Township into West Deptford where it terminates at another proposed trail on Route 660/Jessup Road. This route has been incorporated into the proposed trail plan in Chapter 3 of this report.

## Hydrology

### Raccoon Creek

Raccoon Creek is a tidal creek that flows east to west through Woolwich Township. The creek also borders Swedesboro to the north. The creek is tidal to a point approximately 3/4 of mile east of the New Jersey Turnpike and tidal wetlands are found throughout the main channel.

Woolwich Township currently owns seven parcels just west of Swedesboro. Three of these parcels border Raccoon Creek. These parcels present an opportunity to provide public access to the creek for canoeing and kayaking, while also creating an interconnected park system with Locke Avenue/High Hill Park. These three parcels are currently separated from Locke Avenue/High Hill Park by an NJDEP owned parcel, however acquisition of this parcel by the township is likely via a land swap. An unowned parcel directly north of Locke Avenue/High Hill Park is also being pursued by the township for acquisition and would provide convenient access to Raccoon Creek in close proximity to the existing park.

The township also owns a small parcel on the creek just north of Swedesboro. This parcel could also provide an opportunity for water access however it is isolated from any roadway. Access from Kings Highway is needed through acquisition or easements on the adjacent parcel in order to adequately utilize this property for water access.

### Oldmans Creek

Oldmans Creek is a tidal creek that lies along the south western border of Woolwich Township. The creek separates Woolwich from Oldmans Township and Pilesgrove Township to the south west and is affected by tidal flows from the Delaware River.

The creek has been identified as a prime destination for boating, canoeing, kayaking, and other water recreation activities. The township owns two parcels bordering Oldmans Creek though these are both open spaces





associated with residential developments and access is limited. It is possible that the western most parcel owned by the township could obtain access through acquisition or easements. The township should consider this possibility to gain access to the creek for boaters. Several other large parcels that border the creek exist on the western side of the township. The township should consider these parcels for potential acquisition in order to protect open space and provide public access to the creek.

## Indian Branch

Indian Branch is a stream in the western portion of the township that flows to Oldmans Creek. Much of the land adjacent to the western portion of the stream near Oldmans Creek is inundated by 100-year flooding and is considerably wet. Several large privately owned wooded parcels in this area provide important wildlife habitats and one parcel is known to contain an active bald eagle nest. These parcels are also located along Township Line Road and are directly across from Beckett Park in Logan Township. Because of their prominent location and important natural features, these parcels should be considered for future active recreation and open space protection. Acquisition of these parcels could also allow for an off road connection from Auburn Village and the Weatherby development to Township Line Road and Beckett Park.

## Preserved Farm Lands

In the recent years, Woolwich Township has established one of the most successful farmland preservation programs in New Jersey. State and County funding programs have enabled Woolwich to preserve over 1,400

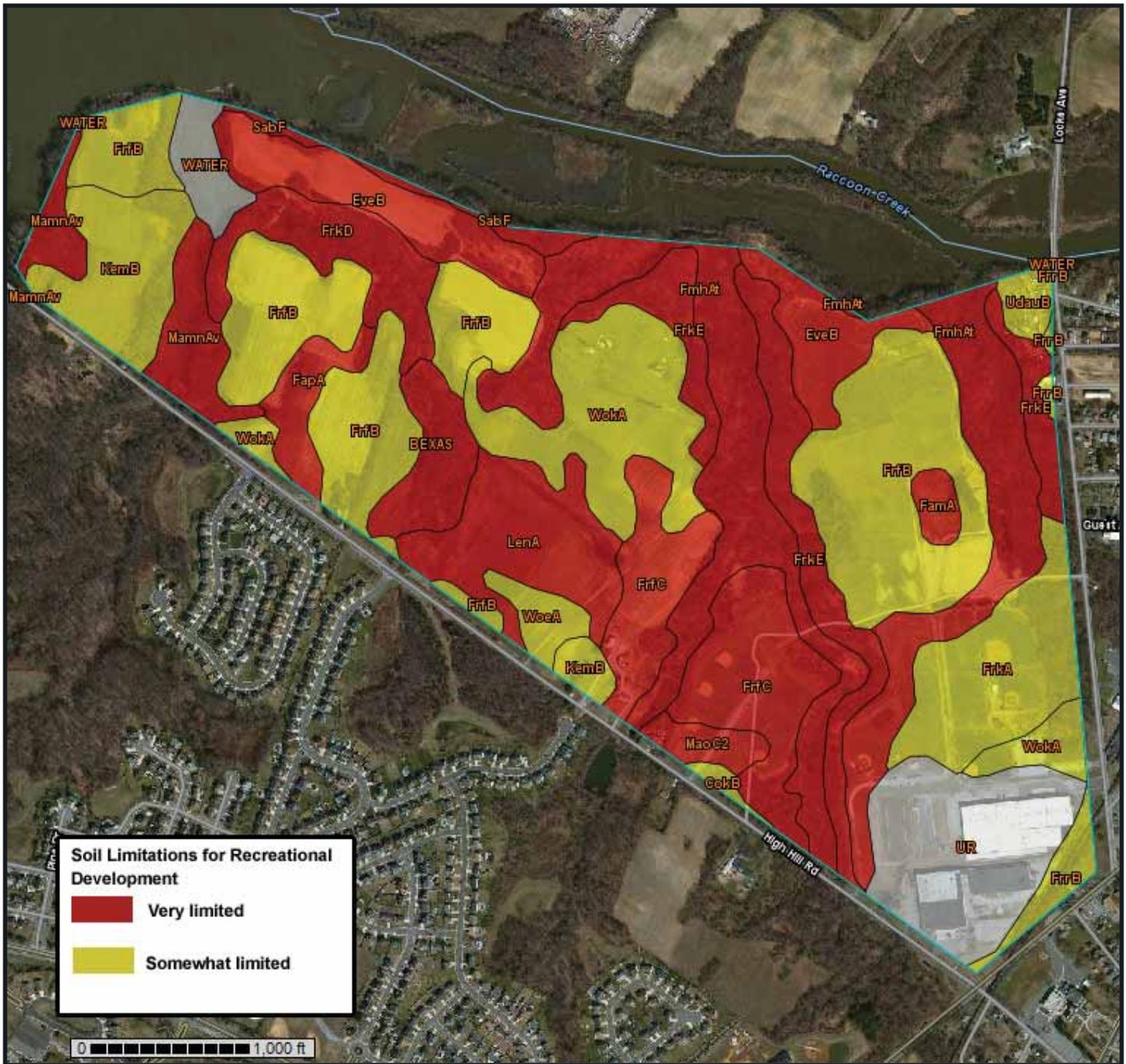
acres of farmland to date, with nearly 1,200 of those acres preserved since 2008. A large majority of the preserved farmlands in Woolwich lie to the eastern side of the New Jersey Turnpike.

These permanently preserved farms present various opportunities for agritourism within the township. One opportunity is to develop trails along perimeters of preserved farmland with the establishment easements or agreements. These trails could provide important viewing access to farmland that can help promote the agricultural heritage of the area.

## Soils

According to the Woolwich Township Environmental Resource Inventory, 70% of Woolwich Township's soils are classified as Prime Farmlands. These are lands that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. 19% of Woolwich's soils are classified as Farmlands of Statewide Importance. These are soils that can sustain high yields of crops when correctly managed with favorable conditions. 50% of Woolwich's soils are a variation of the Freehold series which are mostly gently sloping and well drained.

The USDA Natural Resources Conservation Service (NRCS) classifies soils into four hydrologic soil groups (A, B, C, or D) based on rate of water infiltration when the soil is not covered by vegetation. Group A soils generally have high infiltration rates and are considered very well drained. Group B soils have a moderate infiltration rate and are considered moderately well drained. Group C





soils have a slow infiltration rate and consists of soils that have a layer that impedes the downward movement of water. Group D soils are extremely poorly drained and typically consist of clays or soils that have a high water table.

The area along High Hill Road that includes the existing Locke Avenue/High Hill Park and several adjacent parcels has been identified by the township as a possible location for future park development. According to NRCS, 49.5% of the soils in this area are categorized as being well drained (either A or B class soils) while 55.5% are classified as being poorly drained (C or D class soils).

In order for soils to adequately support recreational areas (areas intensively for games, such as baseball and football, and similar activities), soils should be nearly level, free of stones, and can have the ability to withstand intensive foot traffic. The NRCS indicates that 53.0% of the soil in this area are very limiting, 39.0% are somewhat limiting, and 8.0% are not rated. These categories are based on limitations such as shallow depth to water table, steep slopes, sand content, organic matter content, and potential for flooding and ponding.

## Park and Open Space Inventory Mapping

The Park and Open Space Inventory Map, located at the end of this chapter also displays municipal owned lands, state owned lands, permanently preserved farm land, schools, proposed TDR receiving areas, water bodies, and other parcels of interest to the township and borough.

Parcels identified as “other parcels of interest” are areas that the township and borough have identified as having particular characteristics that could be beneficial to the community including but, not limited to prominent location, important natural features or wildlife habitats, access to water bodies, or land currently for sale.

Each parcel is identified by a number on the inventory map. These numbers correspond to the descriptions after this page.



## 1. Locke Avenue/High Hill Park (Block 5, Lots 7 & 10)

Locke Avenue/High Hill Park is one of three parks within the township/borough and is the only active recreation park. Swedesboro Lake Park (Lake Narraticon) and the Swedesboro Outdoor Ice Rink at the Auction Park are the other existing parks in Swedesboro or Woolwich.

Locke Avenue/High Hill Park is located to the west of Swedesboro Borough and is comprised of two separate parcels equaling approximately 79 acres. Facilities here include parking, active recreation fields/courts, and playgrounds. Two adjacent parcels to the north totaling 71.5 acres are currently undeveloped. The developed portion of the park contains two (2) softball fields, three (3) coach pitch/tee ball fields, two little league fields, one (1) multi base path field, and one (1) 60/90 field. The park also contains five (5) soccer fields, three (3) youth soccer fields/practice fields, two (2) basketball courts,

two (2) playgrounds, and one (1) pavilion. Due to current demand, the Locke Avenue/High Hill Park fields are also shared with other sports such as field hockey, lacrosse, and football. These fields are bisected by a small stream that flows northwest to Raccoon Creek. An existing bridge provides a pedestrian connection between the two groups of fields.

The park has three main vehicular access points to gravel parking areas. Two access points are off of High Hill Road and one is off of Locke Avenue. The park currently has approximately 528 parking spaces. Also refer to Site Analysis Map 2 at the end of this chapter.

## 2. Former PMC Site (Block 5, Lot 11.01)

The former PMC site is approximately 9.5 acres. The parcel is owned by Woolwich Township and has access off of Locke Avenue. The parcel is adjacent to the existing



Locke Ave/High Hill Park and could provide for future park expansion. The Township has had previous conversations about utilizing the parcel for a swim club. The site has some wetlands which could limit the developable area. Also refer to Site Analysis Map 2 at the end of this chapter.

### 3. Locke Avenue/High Hill Park - undeveloped (Block 5, Lot 11)

The undeveloped parcel of Locke Avenue/High Hill Park provides a good opportunity for future park expansion as the grades are gently sloping (0.5-3.5%). Existing wetlands, and steeper slopes around the existing stream through the site and also in the northeastern section of the park around a second small stream somewhat limit the developable area. The undeveloped parcel has one vehicular access point from Locke Avenue. An existing pathway from Locke Avenue exists to the northeastern portion of the site and crosses the existing stream. This path provides a good opportunity for a pedestrian connection to any future park development. Also refer to Site Analysis Map 2 at the end of this chapter.

### 4. Privately Owned Parcel (Block 5, Lot 11.02)

This privately owned site is of interest to the township because of its access to Raccoon Creek and close proximity to Locke Ave/High Hill Park.

### 5. Former Japanese Internment Camp Site (Block 5, Lot 16)

The former Japanese Internment Camp site is a privately owned parcel located on Locke Avenue adjacent to Oldmans Creek and the undeveloped area of Locke Avenue/High Hill Park. The site contains remnants of the former internment camp and is in a prominent location within the township as it serves as a “gateway” to Swedesboro, the center of Woolwich, and Locke Avenue/High Hill Park. The site also provides access and elevated views to Raccoon Creek.





## 6. Swedesboro Auction Park (Block 4, Lot 1)

The Swedesboro Auction Park is primarily used as an ice rink during winter months. The Auction Park is located at the intersection of Locke Avenue and Fow Avenue and still contains several old buildings and structures previously used at the site. The parcel is approximately 2.3 acres in size. The rink is created and maintained by the Borough when temperatures permit. The rink provides a temporary

facility for ice skating and ice hockey. The park also has bleachers and portable toilets on site.

The Swedesboro Auction Park is located approximately 300 feet from the existing path that runs from Locke Avenue to the undeveloped portion of Locke Avenue/High Hill Park. With proper pedestrian and bicycle links between the two parks there is a great opportunity to utilize the Auction Park as a gateway between Swedesboro Borough and Locke Avenue/High Hill Park in Woolwich. Also refer to Site Analysis Map 6 at the end of this chapter.



## 7. NJDEP Wildlife Management Area (Block 5, Lot 6.07)

This parcel is located just to the west of Locke Avenue/ High Hill Park. The parcel is approximately 64 acres and contains an existing pond that, if cleaned, could be a destination for swimming or fishing. The site has existing access off of High Hill Road and is bordered to the north by two residential properties. Much of the site contains gently sloping topography. The parcel is currently undeveloped and in agriculture use. Discussions with the project committee indicated that the township has had previous conversations with the State about swapping this parcel for another township owned parcel. It is recommended that the township continue to pursue this land swap which would allow for a contiguous park system and trail network along High Hill Road. Please also refer to Site Analysis Map 2 at the end of this chapter.



## 8. Lapalomanto Family Park (Block 5, Lots 4,5,& 6.02)

The existing Lapalomanto Family Park consists of three parcels totaling approximately 143 acres. The parcels are preserved by the township as open space through the New Jersey Green Acres Trust program. The land is primarily used for farming. The existing farm road on site takes access from High Hill Road and a pond on site provides irrigation to the ongoing farming activities. The land is mostly gently sloping, however, extensive wetlands on site and steep slopes adjacent to Raccoon Creek limit the available area for active recreation field development. Please refer to Site Analysis Map 1 at the end of this chapter.

## 9. Palladino Field (Block 5, Lot 3)

This township owned parcel contains active farming and is directly west of Lapalomanto Family Park. The site has access to Raccoon Creek and High Hill Road.



## 10. Weatherby Development Open Space Parcels

The Weatherby residential development, located off of Center Square Road and High Hill Road contains several registered open space parcels dedicated to the township. These parcels are mostly wooded and also contain several stormwater management basins and a sanitary sewer pump station. There are 9 maintenance access points from the residential development to the open space parcels. These access points provide an opportunity for future trail connections to the open space which could be used for trail recreation and connections to Locke Avenue/High Hill Park. The topography is quite steep in several areas and should be taken into consideration for any future trail development. Several of the parcels also contain wetlands which limit the area available for trail development. Also refer to Site Analysis Maps 3 and 4 at the end of this chapter.



## 11. Privately Owned Parcel (Block 2, Lot 23)

This privately owned parcel is located directly across Township Line Road from Beckett Park in Logan Township. The parcel is in the TDR sending area and contains a large, flat clearing that could be a prime location for additional active recreation fields. Indian Branch runs along the southern border of the property. Portions of the parcel near Indian Branch contain wetlands due which could limit the area available for field development. The parcel also contains woodlands that is one of the largest contiguous area of woodlands in the township and an important habitat for birds. The parcel is adjacent to the Westbrook residential development.

## 12. Privately Owned Parcel (Block 2, Lot 18)

This privately owned parcel is located directly across Township Line Road from Beckett Park in Logan Township. The parcel contains a large, flat clearing that could be a prime location for additional active recreation fields.

This parcel contains significant wetlands which limit the area available for field development. The parcel also contains forest that is one of the largest contiguous area of woodlands in the township and an important habitat for birds. This parcel is in the TDR sending area and lies adjacent to several small parcels owned by Woolwich Township.

### 13. Privately Owned Parcel (Block 2, Lot 17)

This privately owned parcel lies at the intersection of Township Line Road and Oldmans Creek Road. The property is in the TDR sending area and has existing woodlands that contain an active bald eagle nest and is important bird habitat. This area should remain passive and could serve as a bird watching location.

### 14. Privately Owned Parcel (Block 2, Lot 16)

This privately owned parcel is currently farmed. The parcel is in the TDR sending area and lies directly adjacent to Lot 17 which contains an active bald eagle nest. This parcel could serve as a bird watching location, meadow area, and nature center. The parcel is also adjacent to three small township owned parcels and Indian Branch.

### 15. Maccarone Farm - privately owned (Block 1, Lot 3)

This privately owned farm is of interest to the Township due to its access to Oldmans Creek. The township has been in discussions about purchasing the parcel and swapping it to NJDEP for Block 5, Lot 6.07. This parcel would likely continue to be used as farmland as well as a public boat launch location. The parcel is also in the TDR sending area.



### 16. Township Owned Parcel (Block 1, Lot 14.07)

This township owned parcel contains a stormwater basin and has an existing maintenance access to the adjacent housing development. The site also has access to Oldmans Creek.

### 17. Beckett Golf Club (Block 31, Lots 3.01,4, 4.01 & Block 40, Lots 12 & 14)

Beckett Golf Club is a privately owned, 27 hole golf course with a driving range and club house. The course is bisected by Kings Highway with 11 holes on the western side and 16 holes on the eastern side. The course contains two ponds and is fully irrigated. Also refer to Site Analysis Map 7 at the end of this chapter.

## 18. Porches Mill Pond - privately owned (Block 36, Lot 5)

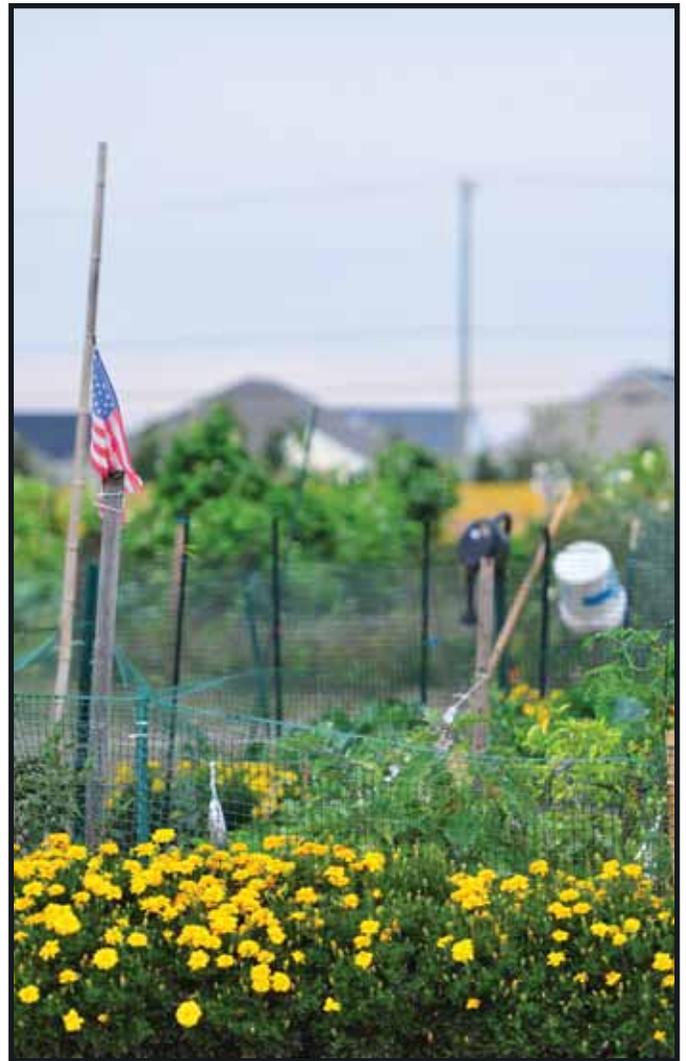
Porches Mill Pond is a privately owned pond in the southern corner of the township. The pond is approximately 30 acres in size and provides very scenic views from Oliphants Mill Road. The property is in the TDR sending area and is entirely surrounded by residential properties and is in close proximity to Oldmans Creek.

## 19. Township Owned Parcel (Block 35, Lot 4)

This Township owned parcel lies adjacent to Oldmans Creek is almost completely wetlands. The parcel does not have roadway access and is surrounded by existing residential properties.

## 20. Woolwich Township Municipal Complex (Block 28.01, Lot 1)

The Woolwich Township Municipal Complex is home to various township administration offices and the Woolwich Township Police department. The complex is located on a



24 acre parcel on Center Square Road. The complex also includes a growing community garden and a large photo-voltaic solar field. The remaining land is undeveloped. The existing farm land located on the adjacent parcel to the north along Auburn Road is expected to be developed as a commercial use.

The complex is in a central location within the township and could accommodate additional uses such as a community garden expansion, dog park, active recreation fields, or a small outdoor classroom or amphitheater. As part of the agreement for development of the parcel, five acres of the parcel is required to remain as open space use. Also refer to Site Analysis Map 5 at the end of this chapter.

## 21. Former Nike Missile Silo Site (Block 14, Lot 5.01)

Woolwich Township owns a parcel of approximately 20 acres off of Swedesboro Paulsboro Road in the northern corner of the township. This site was once used by the U.S. Army as a Nike missile launching site. The site was abandoned by the military in 1970 and the land was eventually purchased by Woolwich Township in 2007. The purchase by the township restricts the land for passive recreational use only. The site still contains many remnants and artifacts of military activity including three missile silos, multiple buildings and other military structures.

While currently dilapidated and overgrown, the site has great potential to be rehabilitated as a unique combination of recreational use and historical interpretation of the facility during the Cold War era. It is recommended that the township take steps towards cleaning the site also begin the process of formally planning future uses and rehabilitation.



## 22. Privately Owned Parcel (Block 1, Lot 1)

This privately owned parcel is of interest to the Township due to its access to Oldmans Creek, Oldmans Creek Road, and Township Line Road. The parcel lies in the far western corner of the township and is also in the TDR sending area.

## 23. Privately Owned Parcel (Block 25, Lot 1)

This privately owned parcel lies at the end of Moravian Church Road. The parcel is of interest to the township due to its access to Oldmans Creek.

## 24. Lake Narraticon / Swedesboro Lake Park (Block 41.01, Lot 1 & Block 45, Lot 6)

Lake Narraticon and Swedesboro Lake Park are comprised of two parcels totalling approximately 46 acres. The park is accessed off of Park Avenue at the intersection with East Avenue in Swedesboro. The park has a gravel parking area with one asphalt ADA parking space. The park includes a playground, pavilion, picnic area, a canoe/kayak launch dock, a fishing dock, and a hiking trail that extends east towards the New Jersey Turnpike. The park also has portable toilets on site. The lake is stocked annually with fish and provides the only public fishing and water recreation sites in the township and borough. Swimming is not currently available at the Lake.

The north and southwestern sides of the lake are directly bordered by residential properties while most of the southeastern side of the lake is wooded and publically

owned. The far eastern side of the lake is bordered by New Jersey Turnpike Authority property. The lake is fed by Narraticon Run to the east and drains into Raccoon Creek via Church Run, however due to the dam at Franklin Street, there is no direct connection for boaters to the lake from Raccoon Creek.

## 25. Township Owned Parcel (Block 8, Lot 14)

This privately owned parcel lies at the western end of Moravian Church Road. The parcel is of interest to the Township due to its location along Oldmans Creek.

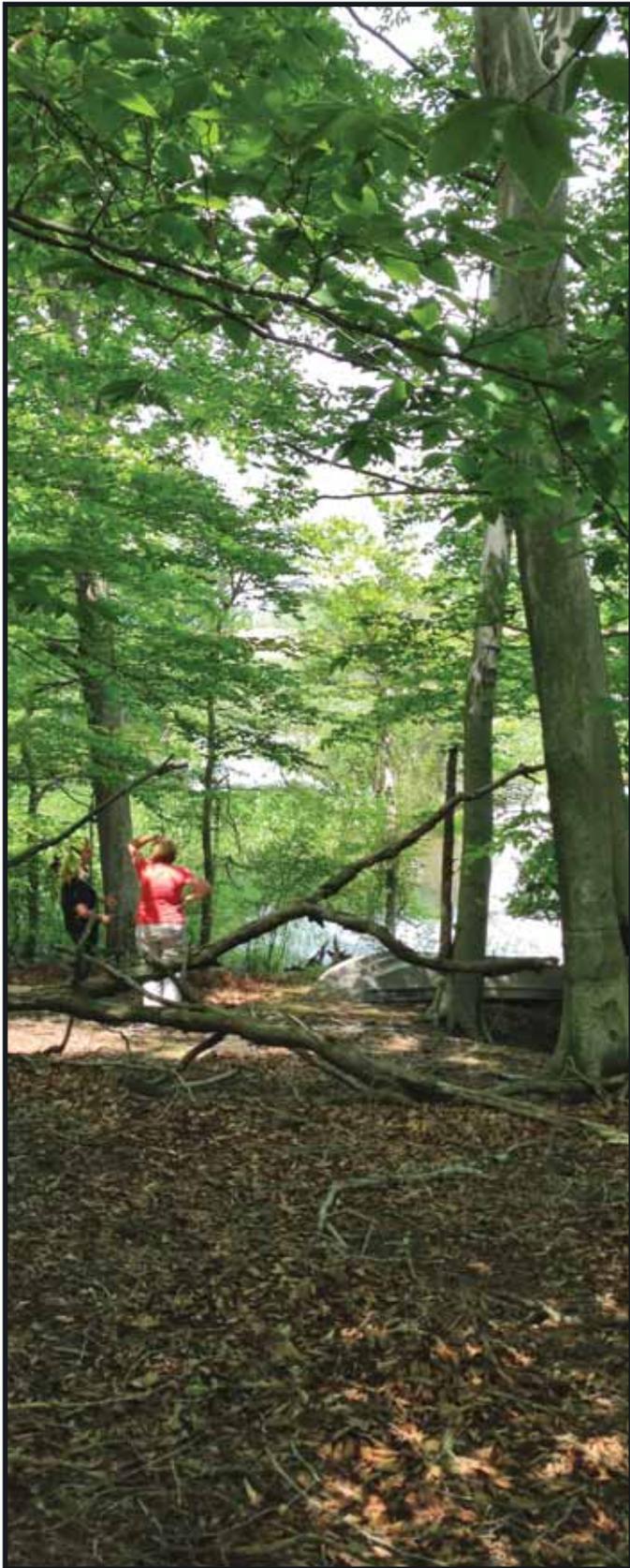
## 26. 5 Glen Echo Avenue, Swedesboro

5 Glen Echo Avenue located in Swedesboro is a property that is currently for sale. This parcel is in a prominent location to the downtown area of Swedesboro and has direct access to Raccoon Creek with a small concrete boat ramp.

## 27. NJDEP Grand Sprute Run NHP (Block 6, Lots 4.01 & 4.02)

These parcels are owned by the State of New Jersey and are preserved open space parcels adjacent to Grand Sprute Run. The area is considered a Natural Heritage Priority Site which are lands that contain critically important habitats for rare species and natural communities within the state. The site is bordered by Raccoon Creek to the south and Route 322 to the north.





## 28. Privately Owned Parcel (Block 5, Lot 6.05)

This privately owned residence is of interest to the township because of its access to Raccoon Creek and location near the NJDEP wildlife management site, Locke Ave/High Hill Park, and Lapalomento Family Park.

## 29. State Owned Open Space (Block 54, Lot 14)

This land is owned by the State of New Jersey and is permanently preserved open space. The land is primarily wooded and contains significant wetlands. The property lies adjacent to Raccoon Creek, the New Jersey Turnpike, and multiple residential properties.

## 30. Privately Owned Parcels - Tomlin Station NHP (Block 21, Lot 5 & Block 22, Lot 3)

These two parcels are privately owned and are in the TDR sending area. The parcels both lie adjacent to the existing freight rail line and have access to Warrington Mill Pond. The parcels are located in the Tomlin Station Natural Heritage Priority site.

## 31. Privately Owned Parcels (Block 7, Lots 2 &3)

This privately owned parcel lies on the northern side of Raccoon Creek in close proximity to the Locke Avenue bridge. The property contains significant wetlands, has access to Raccoon Creek and could serve as a “gateway” parcel to Swedesboro and Locke Ave/High Hill Park from Route 322.

### 32. Privately Owned Parcel (Block 5, Lot 7.03)

This privately owned parcel is approximately 7 acres and lies directly adjacent to Locke Ave/High Hill Park. The parcel is of interest to the township due to its location adjacent to the existing park and access to High Hill Road.

### 33. Privately Owned Parcel (Block 3, Lot 6)

This privately owned parcel lies directly across High Hill Road from Locke Ave/High Hill Park and is adjacent to existing open space lands associated with the Weatherby development. The property could serve as an area for park expansion or trail connectors from the Weatherby development.

### 34. Privately Owned Parcel (Block 3.16, Lot 2.01)

This privately owned parcel lies adjacent to existing open space associated with the Weatherby development. The parcel has access off of High Hill Road and is directly across from the Palladino Field site. The parcel could accommodate connector trails to link the Weatherby development to High Hill Road and Palladino Field.

### 35. Privately Owned Parcel (Block 3.07, Lot 14.01)

This privately owned parcel lies adjacent to two open space parcels associated with the Weatherby Development. The parcel has access to Township Line Road and contains an existing township maintained stormwater management basin.

### 36. Privately Owned Parcels (Block 40, Lots 9, 10, & 11)

These privately owned parcels lie directly adjacent to Beckett Golf Club. The parcels are of interest to the township because they lie in the TDR sending area and could potentially be utilized with any future redevelopment of Beckett Golf Club.

### 37. Township Owned Parcels (Block 2.01, Lot 30 & Block 2.11, Lot 86)

These township owned parcels are open space associated with the adjacent Westbrook residential development. The parcels contain a stormwater management basin, some wetlands, and are adjacent to Indian Branch.

### 38. Township Owned Parcels (Block 2, Lot 20, 21, & 22)

These three parcels are township owned and lie adjacent to Indian Branch. The properties contain some wetlands and do not have road access.

All of the sites mentioned above can also be located on the Park and Open Space Inventory Map found at the end of this chapter.

# Parks and Open Space Analysis Mapping

After analysis of the township inventory mapping and discussions with the project committee, several sites were chosen to be more closely analyzed for potential recreational uses. These sites were chosen based upon several factors including size, location, ownership, existing on site uses, adjacent uses, existing natural features on site, and their general capability to accommodate various recreational uses desired by the township and borough. All site analysis maps are located at the end of this chapter.

# Recreational Facilities Analysis

Multiple tools were used to analyze current active recreation facility use and demand to make determinations and recommendations for future active recreation facilities. These tools include an facility inventory, a sports groups questionnaire, community benchmarking, level of service calculations, telephone survey results, online survey results, and first hand knowledge and opinions from the project committee and the Woolwich Township Parks Director.

## Recreation Facilities and Programs Inventory

The existing facility inventory chart below identifies existing municipal owned recreation facilities within the township and borough. The chart also identifies facilities located

FACILITY	PARKS			SCHOOLS					GRAND TOTAL	
	LOCKE AVE/HIGH HILL	LAKE NARRATICON PARK	PARKS TOTAL	KINGSWAY REGIONAL	WALTER HILL	CHARLES STRATTON	CHARLES HARKER	MARGARET CLIFFORD		SCHOOLS TOTAL
BASEBALL	7	0	7	2		1	1		4	11
BASKETBALL (OUTDOOR)	2	0	2		2	1	1	0	4	6
BASKETBALL (INDOOR)	0	0	0	1	1	1	1	1	5	5
FOOTBALL	2	0	2	1					1	3
FIELD HOCKEY	0	0	0	2					2	2
MULTIPURPOSE FIELD	1	0	1	1					1	2
PLAYGROUND	1	1	2		1	1	1	1	4	6
SOCCER	4	0	4	4					4	8
TRACK	0	0	0	1					1	1
SOFTBALL	2	0	2	2		1	1		4	6
TENNIS	0	0	0	6					6	6

Name	Sport	Current Participation/ year	Anticipated Participation/ year	Time of year	Facilities used	Future needs
Swedesboro/Woolwich Soccer Assoc	Soccer	3000	4000	Year round (all 4 seasons)	Locke Ave Fields C, D, F, and G full time/A & E 2 days ea	4 soccer only fields & 1 hard court
SJ Warriors	Baseball	300	300+	Spring & Fall (7 days)	Locke Ave - Fields A, B, I, H, O, P, N, O	1 60/90 field & 1 50/70 field
SJ Blue Jays	Baseball	60	96	Spring / Fall	Locke Ave Park	More field space
SJ Bulls	Baseball/Softball	1000	1000	Spring/Summer/Fall	Locke Ave Park - Fields A,H,B, & I (Mon, Sat, Sun)	1 60/90 field & 1 softball field
Kingsway Knights	Baseball/Softball	75	100	Spring/Summer/Fall	Locke Ave Park - Fields A, B, E, H, I, O	1 60/90 field with lights
Swedesboro/Woolwich Little league	Baseball/Softball	750	750	Spring /Fall	Locke Ave Park - Fields A,B,E,H,I,N,O,P, and Q	1 60/90 field & 1-2 smaller fields
Logan Township Adult Softball	Softball (adult coed)	110	190	Spring /Summer (April - Aug)	Locke Ave Park - Field E (Sunday & Wednesday)	Add 2 more days to schedule
Swedesboro Woolwich Basketball	Basketball	450	450+	fall/winter	School gyms	Not answered
Kingsway Youth Football Association	Football	150	150	Fall (Aug - Nov)	Locke Ave - Football practice field	More field space
Kingsway Youth Field Hockey	Field hockey	165	330	7 days/week	Kingsway High school /High Hill on tuesdays	2 additional fields
Kingsway youth lacrosse	Lacrosse*					
Locke Ave/High Hill Park closed Dec to mid March (approx 105 days)						
*No response						

at area schools including Kingsway Regional, Walter Hill School, Charles Stratton School, Charles Harker School, and Margaret Clifford School. Existing facilities examined include baseball fields, softball fields, soccer fields, football fields, field hockey fields, multi purpose fields, running tracks, tennis courts, basketball courts, and playgrounds. The 11 baseball fields in the township is the most of any facility. Soccer is second with 8 fields followed by basketball, tennis, softball and playgrounds each with 6.

The Swedesboro / Woolwich Parks and Recreation Department has a rapidly growing list of community recreational organizations. The chart on the facing page identifies these organizations. As part of the planning process, each of these organizations were contacted and to provide information regarding their organizational participation, facility use, facility need, and organizational structure.

Of the 11 organizations, the largest program is currently the Swedesboro Woolwich Soccer Association which has approximately 3,000 participants per year. Youth baseball and softball is the second most popular sport with 5 organizations totaling approximately 2,200 participants. Swedesboro Woolwich Basketball currently has approximately 450 participants, Kingsway Youth Field Hockey, 190 participants, Kingsway Youth Football, approximately

150 participants, and Logan Township Adult Softball, 110 participants.

Six of these organizations have indicated that participation is expected to increase in the upcoming years with soccer predicting the greatest increase of approximately 1,000 participants. The chart also displays specific facility needs as indicated by each organization.

## Community Benchmarking

Community benchmarking was completed as a means of determining how Woolwich and Swedesboro's recreational facilities compare to what will be needed in 2040. 6 municipalities with populations similar to that of Woolwich and Swedesboro's anticipated 2040 population (26,069) were analyzed. Existing recreational facilities in these six municipalities were inventoried and compared to the existing facilities in Woolwich and Swedesboro to determine the extent of deficit or surplus for each type of facility.

The chart below displays all facilities inventoried. The chart does not include any school facilities in Woolwich and Swedesboro. Compared to the average of the six comparable municipalities, Woolwich and Swedesboro are deficient in all facility types except football (+1), field

	WOOLWICH/SWEDESBORO	COMPARABLE MUNICIPALITIES							DIFFERENCE FROM AVERAGE	DIFFERENCE FROM MAXIMUM	SPORTS GROUP DESIRED FACILITIES	ESTIMATED LOS CALC
		RADNOR, PA	UPPER DUBLIN, PA	UPPER MORELAND, PA	RANDOLPH, NJ	ROXBURY, NJ	SCOTCH PLAINS, NJ	AVERAGE				
POPULATION	26,069 (expected 2040)	30,878	25,569	24,015	25,734	23,324	23,510					
# OF PARKS	2	27	28	19	28	28	28	26.33	-24	-26		
PARK AREA (ACRES)	115.17	346.59	390.6	218.15	935.36	353.1	92.5	389.38	-274.21	-820.19		
<b>FACILITY</b>												
BASEBALL	5	6	23	2	3	8	7	8.17	-3	-18	4	
BASKETBALL	2	6	16	13	4	5	7	8.50	-7	-14		
FIELD HOCKEY	0	0	0	0	0	0	0	0.00	0	0	2	
FOOTBALL	2	1	2	1	2	0	0	1.00	1	0	2-3?*	
LACROSSE	0	0	0	0	1	0	0	0.17	0	-1		
MULTIPURPOSE FIELD	1	9	16	7	5	2	0	6.50	-6	-15	**	
PLAYGROUND	3	9	16	18	4	6	8	10.17	-7	-15		
SKATEPARK	0	1	0	0	1	0	0	0.33	0	-1		
SOCCER	4	3	18	3	7	7	10	8.00	-4	-14	4	
SOFTBALL	4	6	8	6	11	9	6	7.67	-4	-7	4	
ROLLER HOCKEY	0	1	1	1	0	1	1	0.83	-1	-1		
TENNIS	0	5	20	9	6	5	11	9.33	-9	-20		
VOLLEYBALL	0	1	3	5	1	2	0	2.00	-2	-5		

\* Organization did not respond with a specific number of desired fields

\*\* Survey sample indicated high demand for football. Consider multiuse fields for this sport.

hockey (even), lacrosse (even), and skate parks (even) (none). The largest deficiencies compared to the average are tennis (-9), playgrounds (-7), and basketball courts (-7). Soccer is 4 fields deficient, baseball, 3 deficient, and softball, 4 fields deficient.

## Level of Service Calculations

In the past, the National Recreation and Park Association (NRPA) advocated a uniform national standard for park land within a community, for example 10 acres per 1,000 residents. This approach has since been discarded by the NRPA for a less arbitrary standard called “Level of Service” (LOS). The NRPA indicates that the Level of Service is needs driven and facility based focused around supply and demand of particular recreational facilities.

The statistically valid telephone survey described earlier in this chapter was used to determine current demand for park facilities. The results of this survey were utilized in the LOS formula and compared to the current facility supply to produce a standard that responds to the specific recreational needs of Woolwich Township and the Borough of Swedesboro.

The level of service calculation was used for existing baseball, softball, and soccer facilities in Woolwich Township. It was determined that soccer facilities currently serve an approximate population of 5,481 which is about 6 fields deficient. Existing baseball and softball facilities currently serve a population of 5,640 which is about 5 fields deficient.

The level of service should not be used as a sole indicator for future facilities. The LOS should be used in conjunction with the other tools mentioned above as well as the input from the project committee and Woolwich Township parks director to help the township and borough adequately plan their future recreational facilities.

## Recommended Active Recreation Facilities

After analysis of the telephone survey results, online survey results, community benchmarking and LOS calculations, determinations were made as to needed facilities within the township and borough. Current needs were determined as well as anticipated needs 25 years in the future when the population is expected to roughly double in size. Recommended active recreation facilities are summarized in the boxes below. These needs will be dependent on actual population growth, future sports group demand, and future sports group participation.

<b>RECOMMENDED FACILITIES - NOW</b>	
<b>Baseball</b>	<b>1 60/90 Field &amp; 2 Smaller Fields</b>
<b>Field Hockey</b>	<b>2 Fields</b>
<b>Football</b>	<b>2 Fields</b>
<b>Soccer</b>	<b>6 Fields</b>
<b>Softball</b>	<b>2 Fields</b>
<b>Multi-use</b>	<b>3 Fields</b>

<b>RECOMMENDED FACILITIES - BY 2040</b>	
<b>Baseball</b>	<b>1-5 Fields</b>
<b>Field Hockey</b>	<b>1-2 Fields</b>
<b>Football</b>	<b>1-2 ields</b>
<b>Soccer</b>	<b>0-8 Fields</b>
<b>Softball</b>	<b>2-5 Fields</b>
<b>Multi-use</b>	<b>4 or More Fields</b>
<b>Note: Recommendations are in addition to recommended facilities needed now.</b>	