
TOWN OF SMITHTOWN, NEW YORK

LOCAL SOLID WASTE MANAGEMENT PLAN

Volume II



Department of Environment and Waterways

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Prepared By:



L.K. McLEAN ASSOCIATES, P.C.

Consulting Engineers

437 South Country Road, Brookhaven, N.Y. 11719



Table of Contents

Appendices – Volume II

Appendix A: Regional Setting Map

Appendix B: 2010 United States Federal Census Data

Appendix C: Town of Smithtown Community Facilities Study,

Includes lists of Parks and Schools within the Town

Appendix D: Town of Smithtown Recycling Calendar and Public Information

Appendix E: Municipal Services Facility Location Map

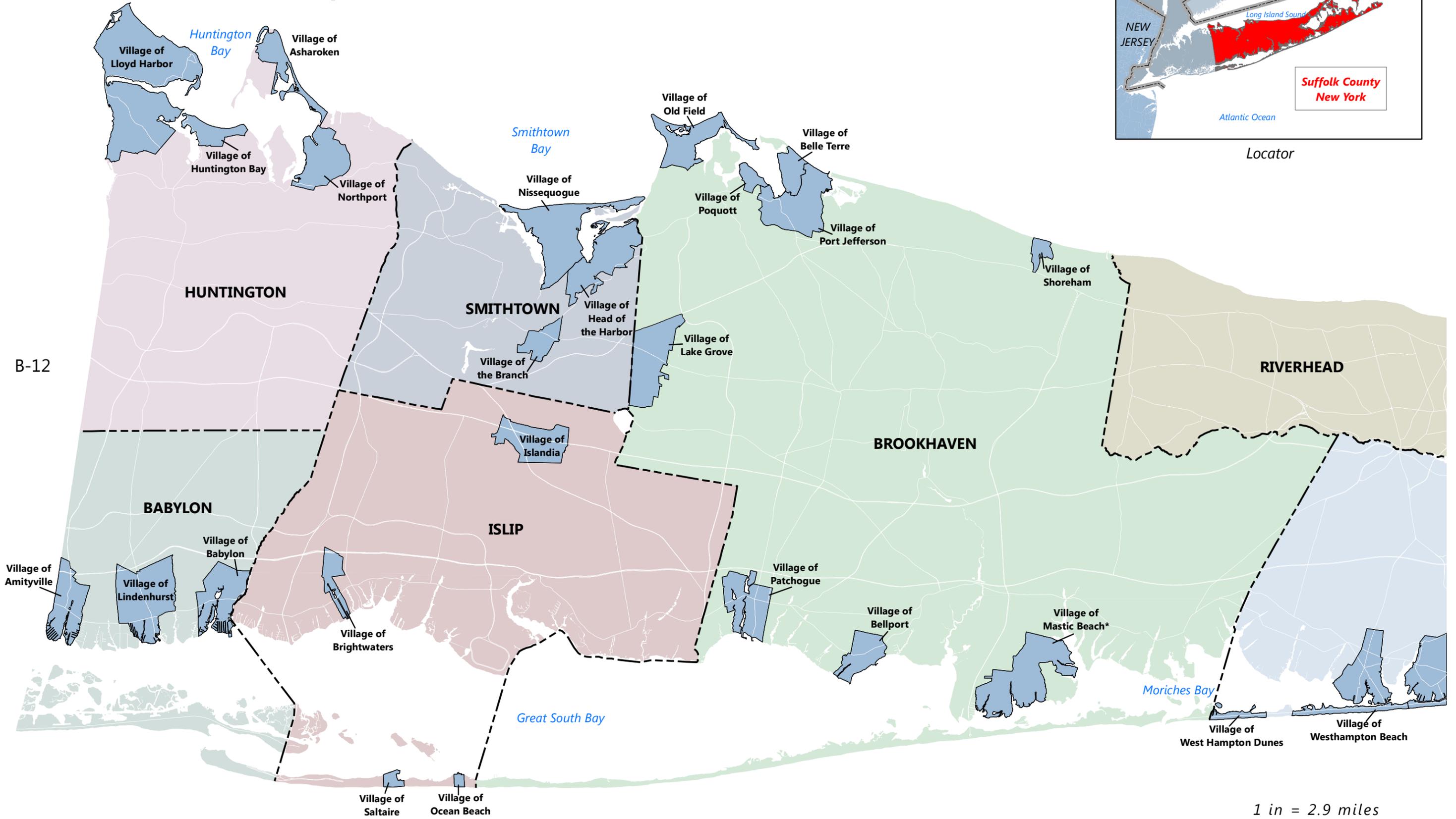
Appendix F: NYSDEC Solid Waste Facility Permit

Appendix G: CNG Program & Case Studies

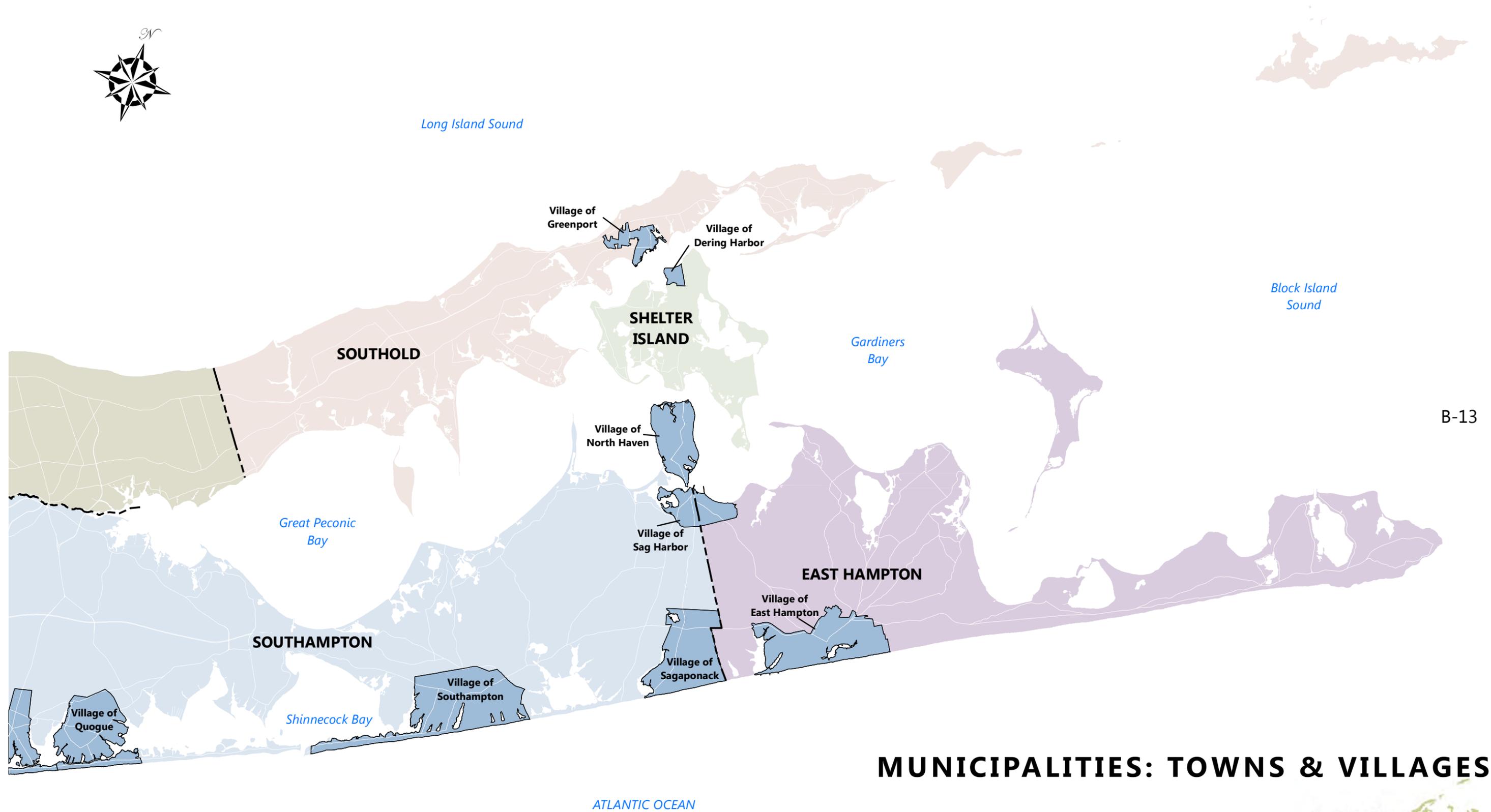
Appendix H: Waste-To-Energy (WTE) Fact Sheets

Appendix A

SUFFOLK COUNTY, NEW YORK

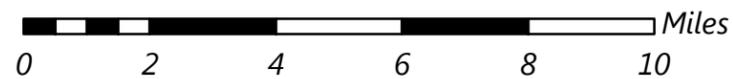


1 in = 2.9 miles



B-13

MUNICIPALITIES: TOWNS & VILLAGES



Appendix B

DP-1

**Profile of General Population and Housing Characteristics: 2010
2010 Demographic Profile Data**

NOTE: For more information on confidentiality protection, nonsampling error, and definitions, see <http://www.census.gov/prod/cen2010/doc/dpsf.pdf>.

 Geography:

	Subject	Number	Percent
1	SEX AND AGE		
186	Total population	117,801	100.0
of	Under 5 years	6,052	5.1
186	5 to 9 years	8,494	7.2
	10 to 14 years	9,786	8.3
	15 to 19 years	8,165	6.9
	20 to 24 years	5,267	4.5
	25 to 29 years	4,315	3.7
	30 to 34 years	4,586	3.9
	35 to 39 years	6,923	5.9
	40 to 44 years	10,192	8.7
	45 to 49 years	11,381	9.7
	50 to 54 years	9,712	8.2
	55 to 59 years	7,418	6.3
	60 to 64 years	6,516	5.5
	65 to 69 years	5,487	4.7
	70 to 74 years	4,421	3.8
	75 to 79 years	3,818	3.2
	80 to 84 years	2,603	2.2
	85 years and over	2,665	2.3
	Median age (years)	42.7	(X)
	16 years and over	91,455	77.6
	18 years and over	87,705	74.5
	21 years and over	84,276	71.5
	62 years and over	22,894	19.4
	65 years and over	18,994	16.1
	Male population	57,340	48.7
	Under 5 years	3,125	2.7
	5 to 9 years	4,338	3.7
	10 to 14 years	4,987	4.2
	15 to 19 years	4,212	3.6
	20 to 24 years	2,797	2.4
	25 to 29 years	2,209	1.9
	30 to 34 years	2,181	1.9
	35 to 39 years	3,230	2.7
	40 to 44 years	4,882	4.1
	45 to 49 years	5,626	4.8
	50 to 54 years	4,898	4.2
	55 to 59 years	3,702	3.1
	60 to 64 years	3,086	2.6
	65 to 69 years	2,524	2.1
	70 to 74 years	1,961	1.7

Subject	Number	Percent
75 to 79 years	1,753	1.5
80 to 84 years	1,061	0.9
85 years and over	768	0.7
Median age (years)	41.8	(X)
16 years and over	43,874	37.2
18 years and over	41,999	35.7
21 years and over	40,127	34.1
62 years and over	9,897	8.4
65 years and over	8,067	6.8
Female population	60,461	51.3
Under 5 years	2,927	2.5
5 to 9 years	4,156	3.5
10 to 14 years	4,799	4.1
15 to 19 years	3,953	3.4
20 to 24 years	2,470	2.1
25 to 29 years	2,106	1.8
30 to 34 years	2,405	2.0
35 to 39 years	3,693	3.1
40 to 44 years	5,310	4.5
45 to 49 years	5,755	4.9
50 to 54 years	4,814	4.1
55 to 59 years	3,716	3.2
60 to 64 years	3,430	2.9
65 to 69 years	2,963	2.5
70 to 74 years	2,460	2.1
75 to 79 years	2,065	1.8
80 to 84 years	1,542	1.3
85 years and over	1,897	1.6
Median age (years)	43.6	(X)
16 years and over	47,581	40.4
18 years and over	45,706	38.8
21 years and over	44,149	37.5
62 years and over	12,997	11.0
65 years and over	10,927	9.3
RACE		
Total population	117,801	100.0
One Race	116,446	98.8
White	109,790	93.2
Black or African American	1,238	1.1
American Indian and Alaska Native	91	0.1
Asian	4,224	3.6
Asian Indian	1,206	1.0
Chinese	1,156	1.0
Filipino	414	0.4
Japanese	68	0.1
Korean	842	0.7
Vietnamese	59	0.1
Other Asian [1]	479	0.4

Subject	Number	Percent
Native Hawaiian	6	0.0
Guamanian or Chamorro	3	0.0
Samoan	0	0.0
Other Pacific Islander [2]	1	0.0
Some Other Race	1,093	0.9
Two or More Races	1,355	1.2
White; American Indian and Alaska Native [3]	151	0.1
White; Asian [3]	534	0.5
White; Black or African American [3]	202	0.2
White; Some Other Race [3]	236	0.2
Race alone or in combination with one or more other races: [4]		
White	111,000	94.2
Black or African American	1,546	1.3
American Indian and Alaska Native	317	0.3
Asian	4,865	4.1
Native Hawaiian and Other Pacific Islander	58	0.0
Some Other Race	1,436	1.2
HISPANIC OR LATINO		
Total population	117,801	100.0
Hispanic or Latino (of any race)	6,272	5.3
Mexican	524	0.4
Puerto Rican	2,200	1.9
Cuban	298	0.3
Other Hispanic or Latino [5]	3,250	2.8
Not Hispanic or Latino	111,529	94.7
HISPANIC OR LATINO AND RACE		
Total population	117,801	100.0
Hispanic or Latino	6,272	5.3
White alone	4,814	4.1
Black or African American alone	116	0.1
American Indian and Alaska Native alone	38	0.0
Asian alone	27	0.0
Native Hawaiian and Other Pacific Islander alone	3	0.0
Some Other Race alone	915	0.8
Two or More Races	359	0.3
Not Hispanic or Latino	111,529	94.7
White alone	104,976	89.1
Black or African American alone	1,122	1.0
American Indian and Alaska Native alone	53	0.0
Asian alone	4,197	3.6
Native Hawaiian and Other Pacific Islander alone	7	0.0
Some Other Race alone	178	0.2
Two or More Races	996	0.8
RELATIONSHIP		
Total population	117,801	100.0
In households	115,640	98.2
Householder	40,055	34.0
Spouse [6]	27,126	23.0
Child	40,196	34.1
Own child under 18 years	28,506	24.2

Subject	Number	Percent
Other relatives	5,104	4.3
Under 18 years	1,317	1.1
65 years and over	1,612	1.4
Nonrelatives	3,159	2.7
Under 18 years	174	0.1
65 years and over	276	0.2
Unmarried partner	1,359	1.2
In group quarters	2,161	1.8
Institutionalized population	1,623	1.4
Male	458	0.4
Female	1,165	1.0
Noninstitutionalized population	538	0.5
Male	341	0.3
Female	197	0.2
HOUSEHOLDS BY TYPE		
Total households	40,055	100.0
Family households (families) [7]	31,533	78.7
With own children under 18 years	14,958	37.3
Husband-wife family	27,126	67.7
With own children under 18 years	13,182	32.9
Male householder, no wife present	1,206	3.0
With own children under 18 years	430	1.1
Female householder, no husband present	3,201	8.0
With own children under 18 years	1,346	3.4
Nonfamily households [7]	8,522	21.3
Householder living alone	7,222	18.0
Male	2,741	6.8
65 years and over	930	2.3
Female	4,481	11.2
65 years and over	2,886	7.2
Households with individuals under 18 years	15,797	39.4
Households with individuals 65 years and over	12,490	31.2
Average household size	2.89	(X)
Average family size [7]	3.30	(X)
HOUSING OCCUPANCY		
Total housing units	41,381	100.0
Occupied housing units	40,055	96.8
Vacant housing units	1,326	3.2
For rent	277	0.7
Rented, not occupied	31	0.1
For sale only	270	0.7
Sold, not occupied	82	0.2
For seasonal, recreational, or occasional use	235	0.6
All other vacants	431	1.0
Homeowner vacancy rate (percent) [8]	0.8	(X)
Rental vacancy rate (percent) [9]	5.2	(X)

Subject	Number	Percent
Occupied housing units	40,055	100.0
Owner-occupied housing units	34,991	87.4
Population in owner-occupied housing units	105,269	(X)
Average household size of owner-occupied units	3.01	(X)
Renter-occupied housing units	5,064	12.6
Population in renter-occupied housing units	10,371	(X)
Average household size of renter-occupied units	2.05	(X)

X Not applicable.

[1] Other Asian alone, or two or more Asian categories.

[2] Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

[3] One of the four most commonly reported multiple-race combinations nationwide in Census 2000.

[4] In combination with one or more of the other races listed. The six numbers may add to more than the total population, and the six percentages may add to more than 100 percent because individuals may report more than one race.

[5] This category is composed of people whose origins are from the Dominican Republic, Spain, and Spanish-speaking Central or South American countries. It also includes general origin responses such as "Latino" or "Hispanic."

[6] "Spouse" represents spouse of the householder. It does not reflect all spouses in a household. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

[7] "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couple households are included in the family households category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

[8] The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant "for sale." It is computed by dividing the total number of vacant units "for sale only" by the sum of owner-occupied units, vacant units that are "for sale only," and vacant units that have been sold but not yet occupied; and then multiplying by 100.

[9] The rental vacancy rate is the proportion of the rental inventory that is vacant "for rent." It is computed by dividing the total number of vacant units "for rent" by the sum of the renter-occupied units, vacant units that are "for rent," and vacant units that have been rented but not yet occupied; and then multiplying by 100.

Source: U.S. Census Bureau, 2010 Census.

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Smithtown town, Suffolk County, New York

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Census 2010 Total Population ▼

117,801

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2010 Census Population of Smithtown, NY



Reports for Smithtown, New York

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Smithtown, New York - Overview	2010 Census
	Counts Percentages
Total Population	
Total Population	26,470 100.00%
Population by Race	
American Indian and Alaska native alone	18 0.07%
Asian alone	763 2.88%
Black or African American alone	291 1.10%
Native Hawaiian and Other Pacific native alone	2 0.01%
Some other race alone	234 0.88%
Two or more races	292 1.10%
White alone	24,870 93.96%
Population by Hispanic or Latino Origin (of any race)	
Persons Not of Hispanic or Latino Origin	25,109 94.86%
Persons of Hispanic or Latino Origin	1,361 5.14%
Population by Gender	
Female	13,612 51.42%
Male	12,858 48.58%
Population by Age	
Persons 0 to 4 years	1,314 4.96%
Persons 5 to 17 years	5,646 21.33%
Persons 18 to 64 years	15,161 57.28%

Persons 65 years and over 4,349 16.43%

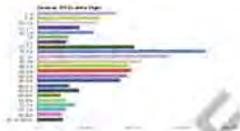
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Appendix C

Town of Smithtown

COMPREHENSIVE PLAN UPDATE



VOLUME IV
DRAFT
COMMUNITY FACILITIES
STUDY



Town of Smithtown
Comprehensive Plan
Update

VOLUME IV
DRAFT
COMMUNITY FACILITIES STUDY

Prepared by:
Planning and Community Development
April 2008

Town of Smithtown
Comprehensive Plan
Update

VOLUME IV
DRAFT
COMMUNITY FACILITIES STUDY

TABLE OF CONTENTS

I)	INTRODUCTION	4
II)	PARKS	5
	<i>Neighborhood Playgrounds</i>	10
	<i>Community Parks</i>	12
	<i>Village Greens, Vest-pocket Parks, and Monument Parks</i>	13
	<i>Waterfront Parks</i>	14
	<i>Natural Parks</i>	16
	<i>Special Purpose Parks</i>	18
III)	EDUCATION	26
	<i>K-12 Schools</i>	26
	<i>Higher Education</i>	27
	<i>Preschool</i>	27
	<i>Developmental Schools</i>	28
IV)	PUBLIC SAFETY	30
	<i>Fire Protection</i>	30
	<i>Emergency Medical Services</i>	32
	<i>Police</i>	33
V)	HEALTH	36
	<i>Hospitals</i>	36
	<i>Nursing Homes and Related Facilities</i>	37
	<i>Specialized Healthcare</i>	37
	<i>Mental Health</i>	37
VI)	CULTURAL, SOCIAL, AND RELIGIOUS FACILITIES	39
	<i>Cultural Facilities</i>	40
	<i>Social Facilities</i>	44
	<i>Religious Institutions and Cemeteries</i>	45
VII)	TOWN AND OTHER GOVERNMENT FACILITIES	47
	<i>Government Offices</i>	47
	<i>Public Works Facilities</i>	48
	<i>Post Offices</i>	50



VIII) UTILITIES AND OTHER INFRASTRUCTURE	52
<i>Power</i>	52
<i>Communications</i>	55
<i>Water</i>	57
<i>Sewage Treatment</i>	59
<i>Drainage</i>	61
<i>Solid Waste Management Facilities</i>	65
IX) SOURCES	69
X) APPENDICES	72





I INTRODUCTION

- **In order for a community to function well, it must have the proper type, amount, and distribution of community facilities.**
- **The needs for community facilities continue to change constantly over time.**
- **The challenge of planning for community facilities is to determine how to meet current and future needs in a fiscally sustainable manner.**

Community facilities are land, buildings, and equipment used for the benefit of the population. They include parks, schools, public safety activities, post offices, utilities, and so forth. Different governments and institutions operate these facilities. The proper quantity, location, and type of community facilities are major elements that determine the quality of life in a location. A comprehensive review, such as that provided in this report, provides a basis for which opportunities can be anticipated, conflicts avoided, and our needs met.

During the Town's primary growth years from 1955 to 1975, many community facilities were built to support a rapidly growing population that also had a high demand for services. Since 1975, demand has continued to be high, but the number, location, and types of community facilities have changed to accommodate changes in the community's make-up. New facilities were constructed while others were closed; some were expanded while others were consolidated. Change is a constant feature of community facilities.

In order to provide an array of community facilities that will meet the needs of the current and future residents of the Town, we need to:

- assess the current inventory of community facilities
- assess the demand for such facilities and profile the population that is served by each
- assess the adequacy of existing and future facilities

Based on those assessments we can then describe and quantify what our needs are. The purpose of the Comprehensive Plan Update is to determine how to meet those needs in a manner that is fiscally practical, because other aspects of community life also require needed resources.





II PARKS

- **Although the Town is nearly fully developed, there are needs and opportunities for additional parks in the Town.**
- **The Town has acquired more than 75% of the park acreage needed to satisfy the community's recreational needs; however, many of the parks are located in places that are difficult to access.**
- **The Town's recreation needs warrant the construction of new and expansion of existing community parks.**

A Introduction

Since modern communities were first designed in the 1600s, parks have been an essential component of the plan for any community. The parkland within a community serves a variety of functions, including providing space for active and passive recreation, buffers between incompatible uses, greenbelts, environmental sanctuaries, and scenic vistas. The amount, type and distribution of these facilities have a significant impact on the quality of life within a community.

Because the community's needs change over time, the park system has to be reassessed periodically in order to determine if it is serving the current needs of the community. Parks designed more than 25 years ago may lack many of the features wanted by today's residents. For example, young people participate in more types of active recreation while adults are currently concerned with fitness activities. Since municipal resources are limited, it is important to identify and provide those features that the community desires.

B Inventory

The Plan Update assesses and makes recommendations principally on Town-owned park facilities. To conduct the analysis, the Town first completed an inventory of the park system. The inventory looked at three aspects of the park system: amount, type, and distribution of facilities. While our emphasis is on Town facilities, we include a brief assessment of New York State and Suffolk County park facilities to show how these facilities improve the Town's ability to meet its residents' needs. As a separate category, we assess public and private school recreational facilities, but these tend to have restricted access and thus have limited value. We exclude private or commercial active recreational facilities, because these types of facilities may not be open to the public, are not permanent, and tend to emerge or disappear irregularly.



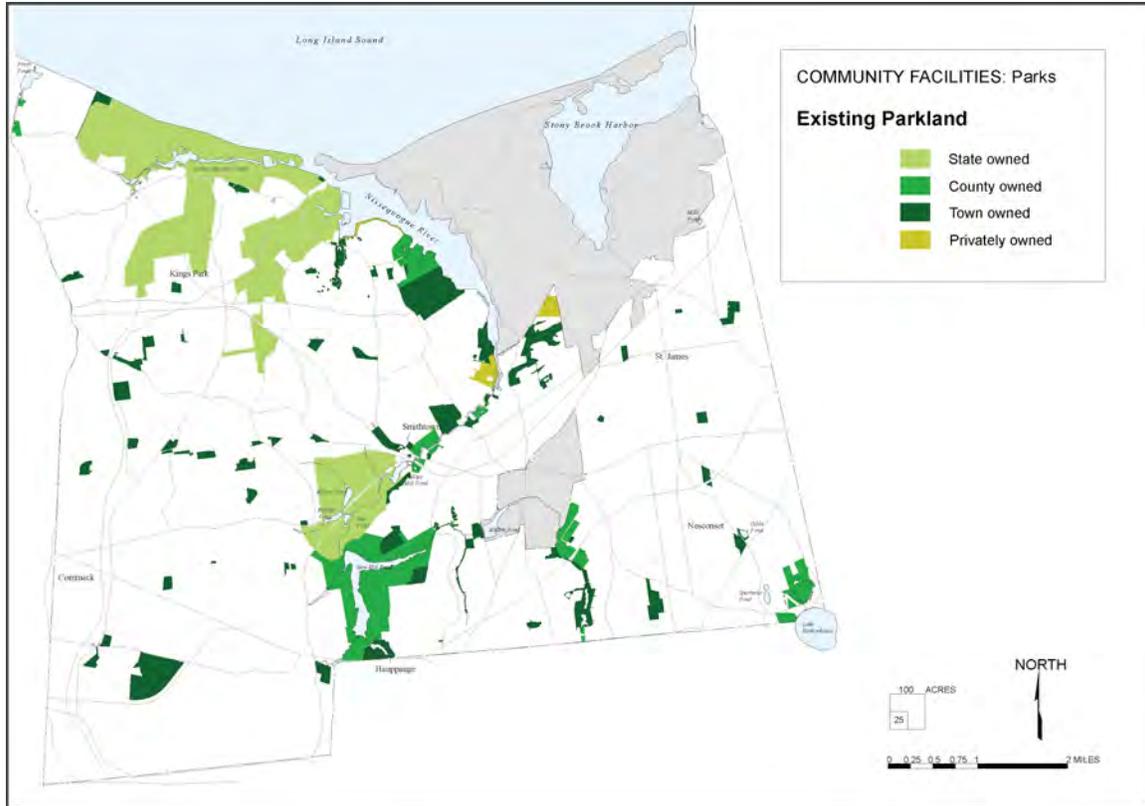


Figure 1. Existing Parkland

Amount of Parkland

There are several criteria used in measuring the amount of parkland, each of which highlights a different characteristic of this resource. The criteria include the total acreage of parkland, the amount of parkland as a percentage of land within a community, and the amount of parkland per capita. The total acreage of parkland indicates the size of this resource, the percent of land describes the proportion of land set aside for this purpose, and the per capita method shows the amount of parkland in comparison to the population.

In the Town of Smithtown, there are 88 State, County, Town and other types of parks that total approximately 4,600 acres, or 15.9% of the unincorporated area (i.e. excluding the three villages). The Town also owns four parks, totaling 129 acres, in the incorporated villages. All 91 parks, along with their location and functions are listed in Appendix A.

We compared the percentage of publicly and privately owned parkland and open space to overall land use in the five western Towns using data presented by the Suffolk County Planning Department in its 2007 Land Use Study. Based on this information, the Town appears to have the second lowest proportion of parkland and open space as a percentage of total land use. In part this is due to presence of large Federal parks (e.g., Fire Island National Sea Shore) and the creation of large protected areas (e.g., the Core Preservation Area of the Central Pine Barrens) in other towns. When we compare Town-owned parkland only, Smithtown has the second highest proportion of parkland (See Figure 2).



In terms of comparing Town-owned parkland to the municipality’s population, Smithtown is above average, having roughly 440 sq. ft. of parkland per resident.

While the amount of parkland appears to be significant, its usefulness actually depends on whether we have the proper types of facilities and if they are located where they are most needed.

In the 1957 Master Plan of the Town, the discussion of parkland was concentrated on active types of facilities. Excluded from that analysis was much of the land that we now consider as part of the park system, such as village greens, nature preserves, and so forth.

Although it limited its analysis to active park facilities, the Town’s 1957 Master Plan (using standards from the National Recreational Association) noted that the primary issue related to the adequacy of the park system was not the amount of parkland; rather the types of facilities provided and the distribution of these facilities to serve the residents appeared to be the most significant factors. After examining current facilities, it appears that we have the same issue in 2007.

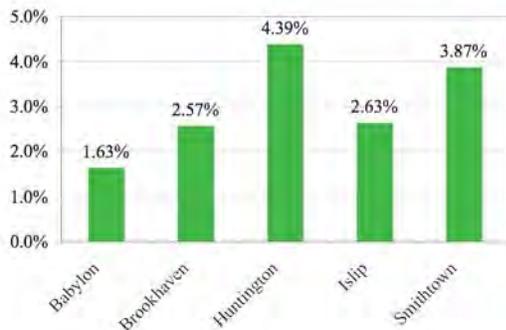


Figure 2. Percent of land used as Town-owned parkland

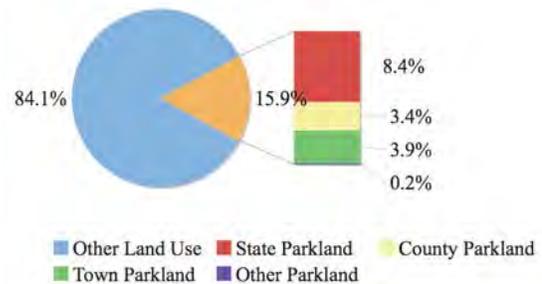


Figure 3. Land Use in Smithtown

Town	Number of Parks	Acres of Town-owned parkland	Town Acreage	Town Population	Sq. Ft. of parkland per capita
Babylon	46	498.95	30,586	189,736	115
Brookhaven	304	4,072.00	158,733	412,708	430
Huntington	135	2,243.20	51,136	181,887	537
Islip	151	1,710.99	65,056	316,126	236
Smithtown	71	1,126.90	29,105	110,830	443

Table 1. Comparison of Town-owned parkland

Type of Parkland and Distribution

Parks serve a variety of purposes, having both active and passive functions. We classified the parks according to their purpose as shown in Table 2. The park types, purposes, service area, location, and quantity are based on recommended standards in various reports including, one by the National Recreation and Park Association. The Planning Department estimated the required size of each park type based on the amount of land required to provide the typical amenities for the park, adequate parking, and a sufficient buffer to the surrounding properties.

While there are specific characteristics to describe each park type, many of the parks within the Town serve multiple functions, and may not fit neatly within the definition of any one park type. In addition, because of changing recreational demands, or the location of the park, or simply the availability of the land, many parks were originally acquired for one purpose and over time have expanded to fulfill different roles. As a result, while the park system within a community should include specific types of parks, many of the Town's parks function in several capacities (see Appendix A). However, we find it important to discuss each of the park types separately in order to evaluate the needs and assess a future strategy.



	Parkland Type	Purpose	Service Area	Size	Typical Amenities
	Neighborhood Playground	Provides areas for daily recreational activities such as playground activities, field games, court games, and picnicking.	½ mile radius (Should be centrally located within each neighborhood).	1-5 acres 1 acre per 500 population	<ul style="list-style-type: none"> • Play equipment • 1 or 2 athletic fields or courts • Benches and picnic tables
	Community Park	Serves as a location for diverse recreational activities, ranging from organized sports to walking and picnicking.	2 mile radius	> 10 acres 1 acre per 2000 population	<ul style="list-style-type: none"> • Athletic fields • Play equipment • Restrooms
	Village Green, Vest-Pocket Park, and Monument Park	Serves as a central location for community events and creates a focal point for the community (hamlet).	2 mile radius	1 to 3 acres	<ul style="list-style-type: none"> • Grass lawn edged by trees • Benches and walkways • Little fencing
	Waterfront Park	Provides a protected area for swimming and wading. Serves as an open area to view shoreline wildlife. Protects the shoreline environment.	Town-wide	20 acres	<ul style="list-style-type: none"> • Sandy beach • Refreshment stand • Restrooms • Ample parking and bike racks
	Special Purpose Park	Designed to accommodate specialized recreational activities (i.e. golf, boating, dog walking, etc.)	N/A	Variable	<ul style="list-style-type: none"> • Variable
	Natural Park	Protects natural resources. Provides locations for environmental education and passive recreation.	Town-wide	Sufficient to protect resource	<ul style="list-style-type: none"> • Natural resources • Interpretive signs • Trails for passive recreational uses

Table 2. Park Classifications



Neighborhood Playgrounds

The purpose of a neighborhood playground is to serve the daily recreational needs of a neighborhood. Although the Town has 88 identified neighborhoods, only 66 are of sufficient size to warrant such a facility. As of 2007, the Town has 19 playgrounds in 17 neighborhoods as shown in Figure 5 (see Appendix B). In addition, Lake Ronkonkoma County Park has a neighborhood playground.



Photograph of Landing Avenue Park

The original Master Plan relied on school playgrounds to meet half of the need for playgrounds. In 1975, when the school-aged population reached its peak, 36 neighborhoods had either a school or Town-owned playground, and 11 neighborhoods had two or more playgrounds. However, the redevelopment of surplus school grounds in the 1980s reduced the number of neighborhoods with playgrounds from 36 to 31. For various reasons public access to the remaining school playgrounds has been reduced in the past 20 years. These two factors suggest that the overall demand for neighborhood playgrounds is not being met, and that a larger share of the responsibility will be shifted to the Town.

The potential to provide the optimum number of playgrounds is limited. The Town owns only five undeveloped playgrounds, excluding those that could be better used as natural parks. Further, only about six neighborhoods that do not have existing or undeveloped playgrounds have enough vacant land to acquire for neighborhood playgrounds (see Figure 16). Thus, only 42 of the 66 neighborhoods large enough to warrant a playground actually have the adequate land to build or maintain a playground. Additional playgrounds can potentially be built in many of the remaining neighborhoods, but this would entail purchasing portions of oversized developed lots.

Increasing the number of neighborhood playgrounds without increasing taxes would require innovative solutions such as redesigning existing playgrounds to reduce maintenance costs, creating public-private partnerships, and negotiating changes in priorities.



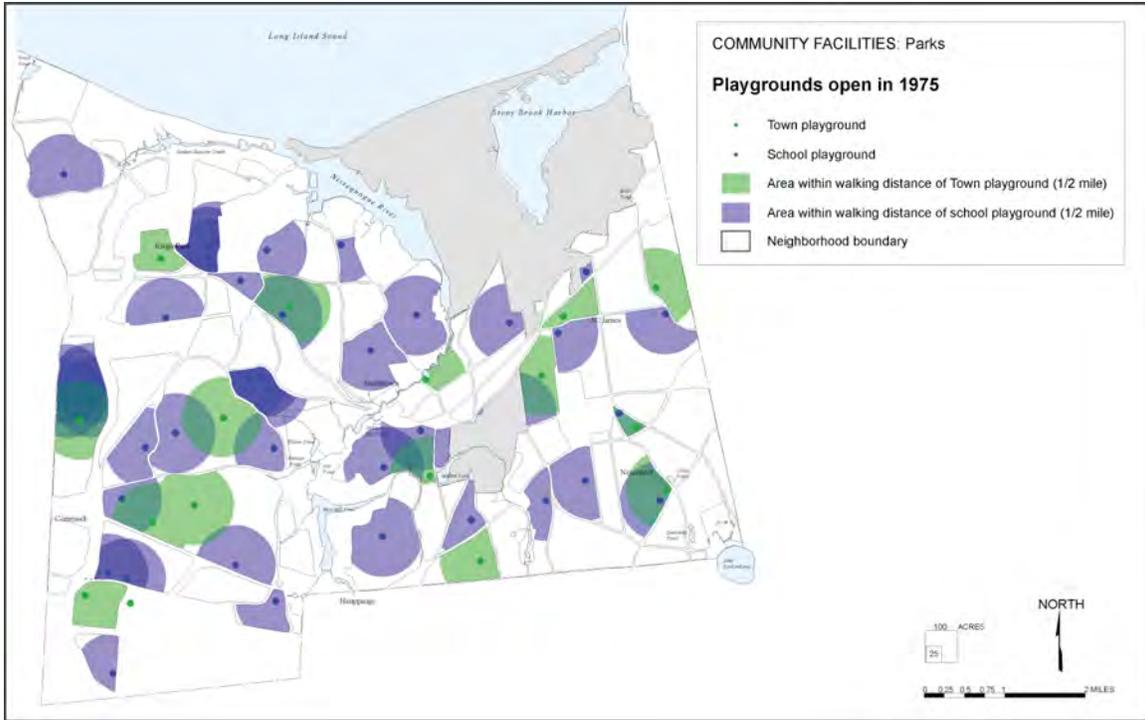


Figure 4. Town and School Playgrounds open in 1975

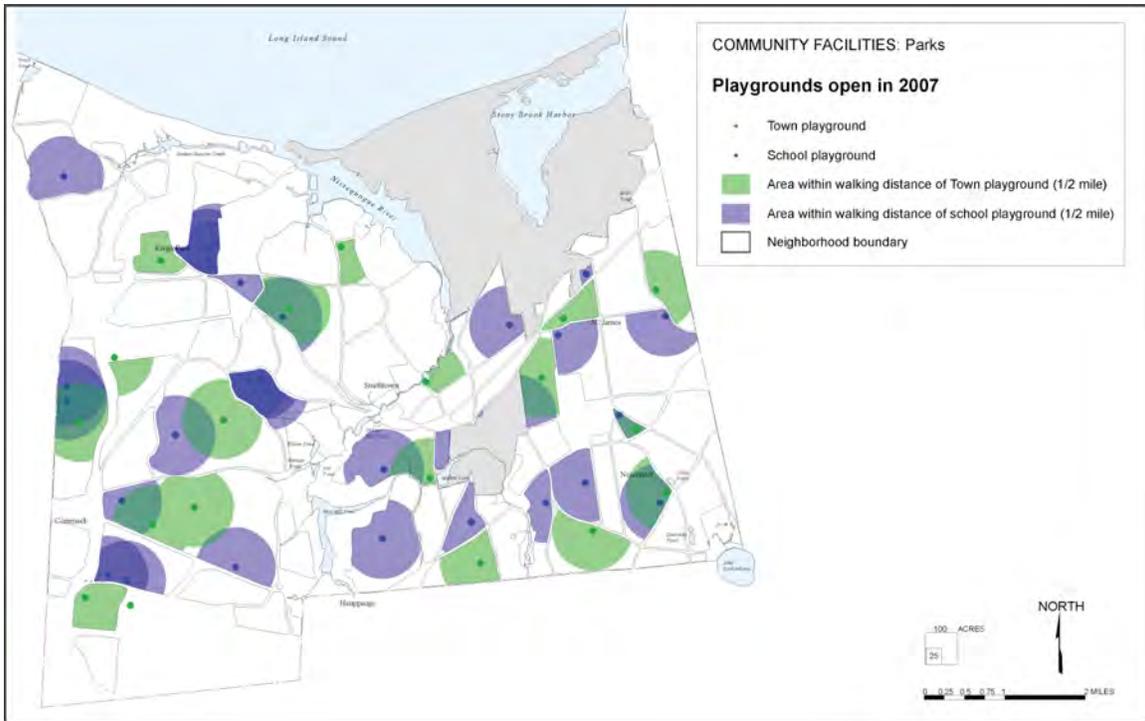


Figure 5. Town and School playgrounds open in 2007



Community Parks

Community parks are for intensive recreation needs that draw users from beyond the adjacent neighborhood. These parks are significantly larger than neighborhood playgrounds and tend to serve large numbers of residents. The concept of community parks emerged several decades after suburban growth began and was not even mentioned in the 1957 Master Plan. With the increase in participation in organized athletics (e.g., little league, etc.) and the need for larger venues for other outdoor activities (e.g., concerts, etc.), it became apparent that the neighborhood playground was too small to handle such activities.

Currently, the Town has three community parks: Hoyt Farm, Flynn Memorial, and the Armory Park. Using modern standards, the Town should have six community parks (i.e., one per hamlet). The lack of community parks has caused the Town to use nine neighborhood playgrounds for community park purposes. The intensive use of neighborhood playgrounds has resulted in some traffic, noise, and glare impacts on adjacent residences. Additionally, the lack of spare fields means the existing fields do not get much “down time” to rejuvenate.

Acquiring three more community parks may not be feasible due to fiscal constraints and the lack of vacant land in appropriate locations. Therefore, the Town may need to expand the area of a few of the neighborhood playgrounds so that they are more suitable for community parks, and then create smaller neighborhood playgrounds. Impacts at neighborhood playgrounds would also likely be reduced if the Town spread the community park activities over a greater number of playgrounds.

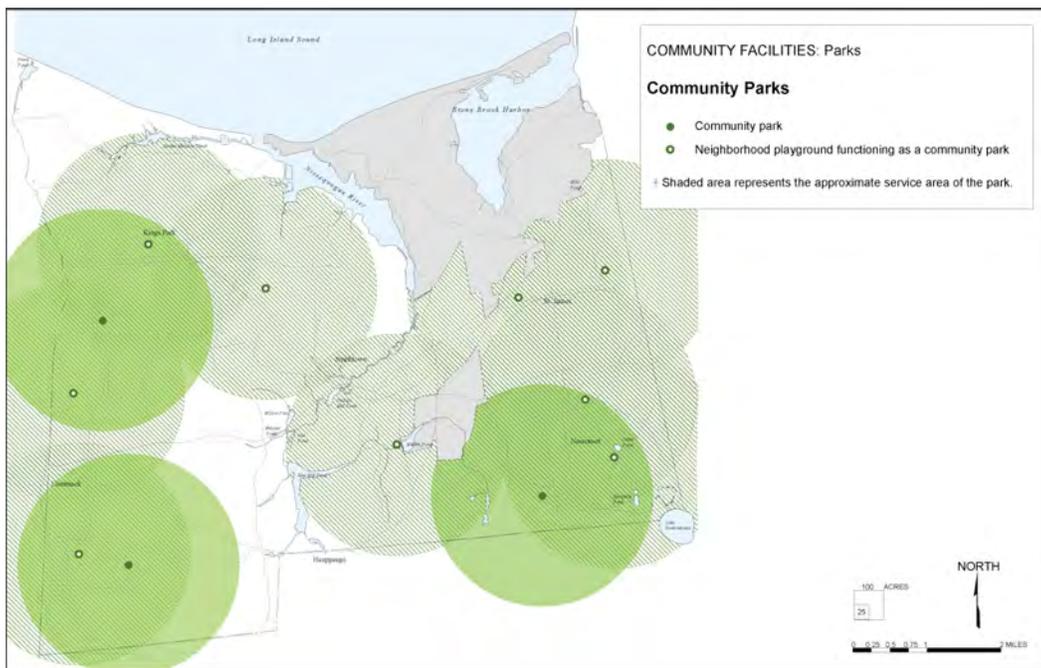


Figure 6. Community Parks



Village Greens, Vest-pocket Parks, and Monument Parks

These types of parks are usually located in the center of villages and downtowns, in the more densely developed areas. Village greens have been included in most towns and villages since the 1600s. Vest-pocket parks, however, are a recent concept and were first created in urban areas. Monument Parks, such as “The Bull”, are areas set aside for statues and other types of displays.



Photograph of the Nesconset Village Green

The Village Green serves as a focal point of a community, and is used for civic events. Its design generally includes a large lawn area enclosed by trees. Village greens are usually centrally located and often adjoin community buildings such as schools, libraries, and fire stations. Essentially they serve as an aesthetic and symbolic hub of the community, providing a place for fairs, parades, and similar community events. They may include signature features such as statues, monuments, gazebos, and similar structures.

A vest-pocket park, on the other hand, is to provide an amenity within a heavily developed downtown area. Ideally, this type of facility should be close to the center of the downtown in a location that is easily accessible to the public. Its purpose is to provide an attractive outdoor environment for workers and visitors in a downtown to relax, eat lunch, etc. While there are no standards regarding the optimal number of vest-pocket parks that a community should have, it seems reasonable that each downtown should have at least one.

Monument parks are small civic spaces that are usually located within a right-of-way and have a statue or monument. They are generally located on major streets. Monument parks are intended to beautify a community or commemorate an historic event or person.

There are one village green, five vest-pocket parks, and six monument parks in the Town. The main branch of the Smithtown Library is located on the original village green, located in what is now the Village of the Branch. In 2005, the Town constructed a village green in Nesconset and there appears to be some potential to build village greens in Kings Park and St. James. In Hauppauge, there appears to be more potential in the Islip portion because the Smithtown portion is nearly fully developed. At present, Commack is mostly developed, but it is conceivable that at some point during the next twenty years space will become available to construct a village green.

The Town has vest-pocket parks in two downtown districts: three parks in Smithtown and two parks in St. James.



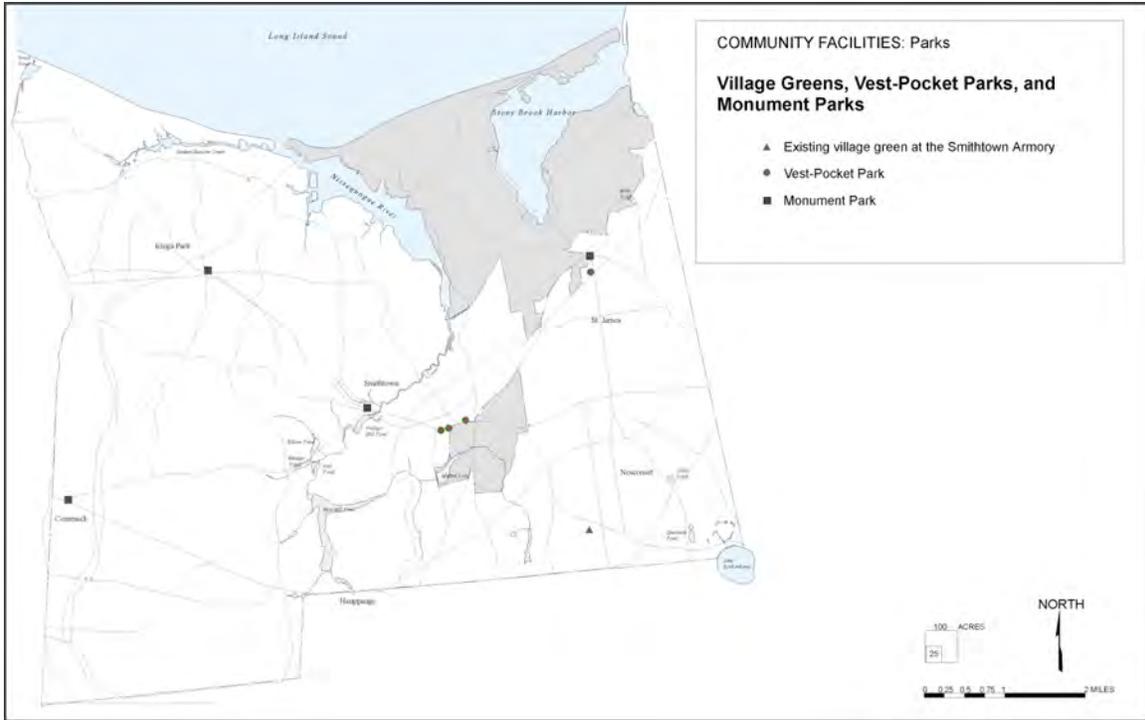


Figure 7. Village greens, vest-pocket parks, and monument parks

These types of parks are important when we are attempting to enhance a community’s “sense of place”, i.e. accentuating key elements that contribute to the unique features of the locality. Without these types of parks, communities tend to become more homogenous, having little character that separates them from other areas. However, they require upkeep; because they are small and dispersed, long-term maintenance is a consideration. At the same time, the location and small size of these facilities permit partnerships between the Town and civic organizations.

Waterfront Parks

This type of park includes beaches and waterfront preserves. They provide access to water areas for both active and passive recreation. The major water bodies in the Town are Long Island Sound, Stony Brook Harbor, the Nissequogue River, Lake Ronkonkoma, and New Mill Pond. Beaches are the most common form of waterfront parks. Other types of waterfront parks provide scenic views, boardwalks, or launching facilities for small watercraft such as canoes and kayaks.



Photograph taken at the Bluff

Within the Town, public access to the shoreline of the Long Island Sound is very good. Of the 3.3 miles of shoreline in the unincorporated area of the Town, 2.7 miles or 75% are publicly owned and accessible. Sunken Meadow State Park has 2.4 miles of frontage. The two Town-owned waterfront parks, the Bluff and Callahan's Beach, have 0.3 miles of frontage on the Sound. The Town also has three beaches (Short Beach, Long Beach, and Schubert Beach), comprising 1.5 miles of frontage in the Village of Nissequogue.

Long Beach and Schubert Beach front on both Long Island Sound and Stony Brook Harbor. They each have beaches on the Sound and boat access to the Harbor. The Town has a third waterfront park on Stony Brook Harbor, Cordwood Beach. The beach was closed to swimming in the 1980s due to poor water quality, but the park is still used for passive recreation and as a nature preserve.

Concerning the tidal portion of the Nissequogue River, 64% (five miles) of the riverbank is in public ownership. However, most of this portion of the river is not very accessible to the public. Much of the parkland consists of tidal marshes located behind residences and has few trails to public streets. The Smithtown Landing Country Club is a 160-acre park with $\frac{1}{2}$ mile of river frontage; however, about half of its frontage is not accessible. Moreover, the greenbelt is not continuous. There are five gaps in parkland along the west side of the river. This has resulted in parts of the Long Island Greenbelt Trail being located on streets about $\frac{1}{2}$ mile from the river. At this time, it is feasible to eliminate most of the gaps and increase access.

In any plan for waterfront parks, maintaining and enhancing public use is the key strategy. However, many of these parks are in fragile locations, requiring an effort to protect wetlands and other significant fish and wildlife habitat while permitting the residents to enjoy the parks. Various natural and manmade processes, such as erosion and flooding, also impact waterfront parks. For example, two of the Town's beaches, Callahan's Beach and the Kings Park Bluff, have unstable shorelines and require more attention than other parks. At Lake Ronkonkoma, the County Park experiences flooding when the lake water rises. All of the beaches are susceptible pollution and high bacterial counts, which can restrict the use of these facilities.



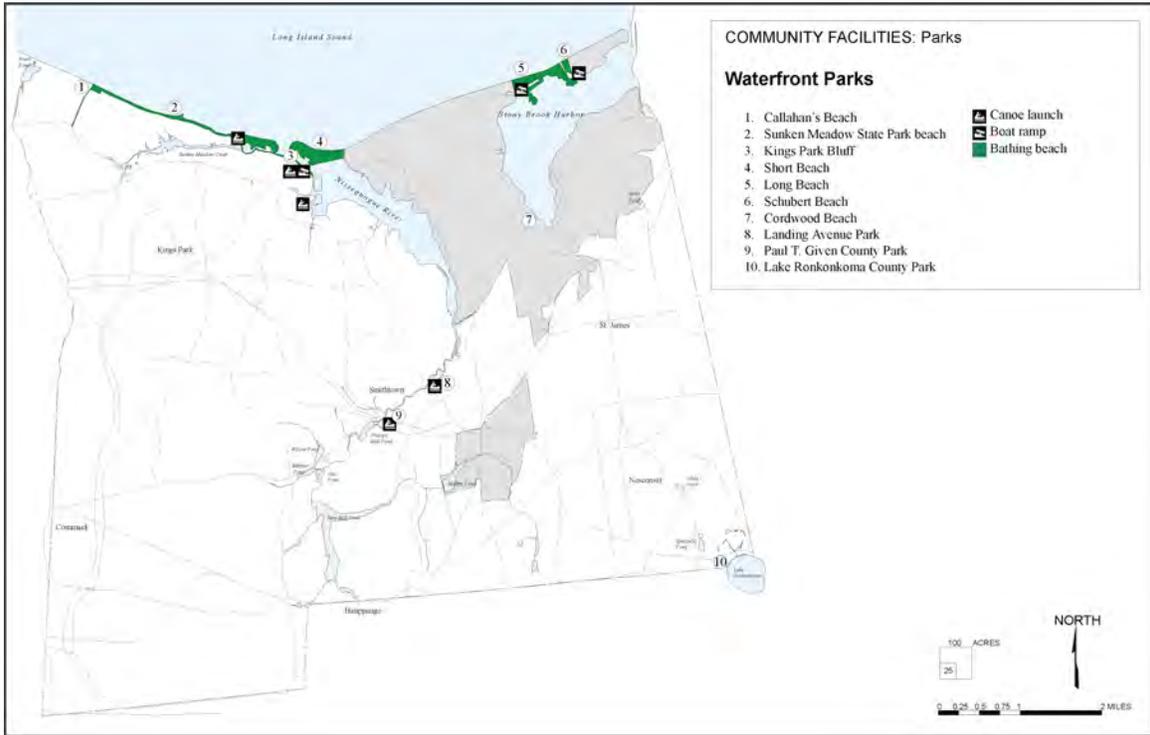


Figure 8. Waterfront Parks

Natural Parks

Natural Parks are lands that have been set aside for the purposes of environmental protection, passive recreation, and providing open space. These types of facilities include any land that is principally left in its natural state and is intended for limited or passive recreation. This would include lands classified as nature preserves, open space, greenbelts, buffers, and any other similar public lands. Natural parks may include a stand-alone parcel (e.g., Sweetbriar Park) or may be part of an actively used park (e.g., Hoyt Farm). They may include environmentally sensitive lands, land to protect ecosystems, scenic views, open space, or forested lands. Overall, the State, County, Town, and preservation organizations have 68 natural parks, totaling 3,649 acres, with the Town share being 754 acres (see Appendix C).

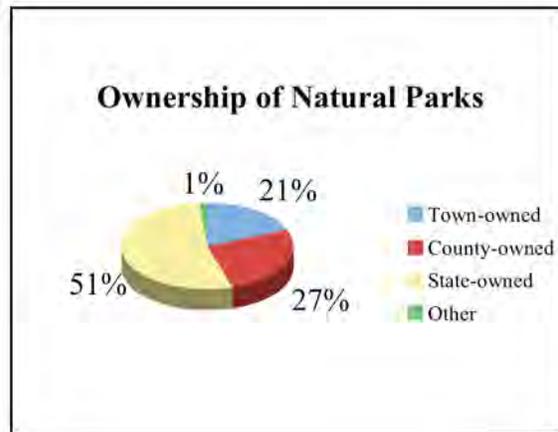


Figure 9. Ownership of Natural Parks



Environmentally sensitive lands, such as wetlands, steep slopes, high ground water areas, and flood prone lands should be preserved in their natural state. Ideally they should be publicly owned to protect these resources and to allow passive recreation. However, 2,123 of the 4,509 acres of environmentally sensitive land are already developed. Much of the 277 acres of undeveloped environmentally sensitive land that is privately owned is vulnerable to loss and should be protected.

Environmentally Sensitive Land	Acres	Percent of Town
Wetland	1,203	4.13%
High Groundwater	536	1.84%
Steep Slopes	2,706	9.30%
A or V Flood Zones	64	0.22%
<i>Total</i>	<i>4,509</i>	<i>15.49%</i>

Table 3. Breakdown of Environmentally Sensitive Land

There are several parcels whose primary purpose is to provide open space, either as a buffer (such as from intense commercial development) or as a scenic element (such as a greenbelt), but not to protect environmentally sensitive lands. The use of these lands by the resident is limited. They were created so that the community neighborhoods would benefit by being insulated from undesirable uses or by establishing some aesthetic character of the community.

Besides the Town parks, there are 17 State and County owned natural parks within the Town. Having parks such as Sunken Meadow State Park, Caleb Smith State Park, Nissequogue River State Park, and Blydenburgh County Park in the Town greatly improves the Town's ability to fulfill the passive recreational needs of its residents.

Natural parks should be where significant natural resources are located. Most of these resources are along the shore and the Nissequogue River and its tributaries. This results in some parts of the Town having almost no natural parks. It may be desirable to have additional natural parks in those sections of the Town.

While these types of parks are highly desirable, they often become problems for the community and municipality. The parks tend to attract illegal dumping and off-road vehicle riders due to the low level of surveillance on these preserved lands. As a result of these practices, Town officials have become leery about creating large conservation easements, which is a principal reason why the Town has limited the use of "cluster development" (i.e., the practice of developing subdivisions with large areas of open space). However, the Town realizes the importance of preserving environmentally sensitive lands and, therefore, its long term strategy is to continue acquiring natural areas and creating conservation easements, but also to implement means of dissuading people from illegally using the land.



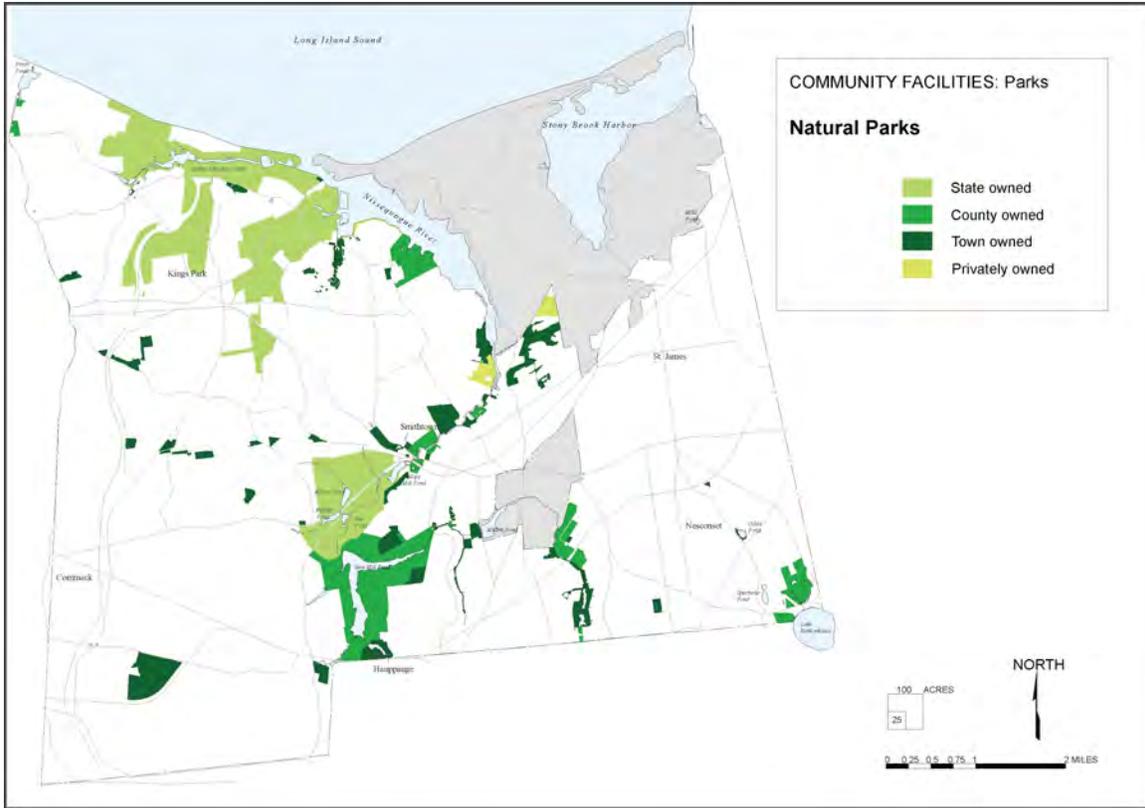


Figure 10. Natural Parks

Special Purpose Parks

Municipalities create special purpose parks for activities that require a selected location, unique equipment or dedicated infrastructure. They may be managed differently from other park facilities. This category includes parks that do not neatly fit into the previously described categories. It includes golf courses, swimming pools, recreation centers, equestrian centers, skateboard parks, arboretums, dog parks, etc. The Town has four types of special purpose park facilities, related to boating, golf, trails, and pools.



Photograph of Nissequogue River State Park Marina

Boating

Due to the lack of sheltered waters, the north shore of Long Island is not as conducive to boating as is the south shore. This natural restriction puts more pressure on the sheltered areas of Smithtown’s waterfront that are attractive for boating. The Town operates one

marina, two mooring areas, three boat ramps, and one canoe launch site. In addition to the Town facilities, the State and County operate a public marina and boat ramp at Nissequogue River State Park, a canoe launch site at Sunken Meadow State Park, and a canoe launch site at Paul T. Given County Park. As of 2007, there are a total of 340 marina slips and 180 moorings open to the public. There is a private yacht club adjacent to the Long Beach marina, and an additional 10-20 boats moored in Stony Brook Harbor and off Riviera Drive in San Remo. These public facilities accommodate about 90% of the boats registered in Smithtown.

Facility	Capacity
Stony Brook Harbor	
Town of Smithtown marina at Long Beach	180 slips
Town of Smithtown mooring area at Long Beach	105 moorings
Smithtown Bay Yacht Club	66 slips
Nissequogue River	
Town of Smithtown mooring area at the Kings Park Bluff	75 moorings
Nissequogue River State Park	150 slips

Throughout the last fifty to sixty years, there have been numerous proposals to expand boating facilities in the Town. The most obvious places to expand boating facilities are near Long Beach and the mouth of the Nissequogue River; however, both the Harbor and the River are state designated Significant Fish and Wildlife Habitat. An expansion that would impact these resources would not be permitted.

Table 4. Boating Facilities

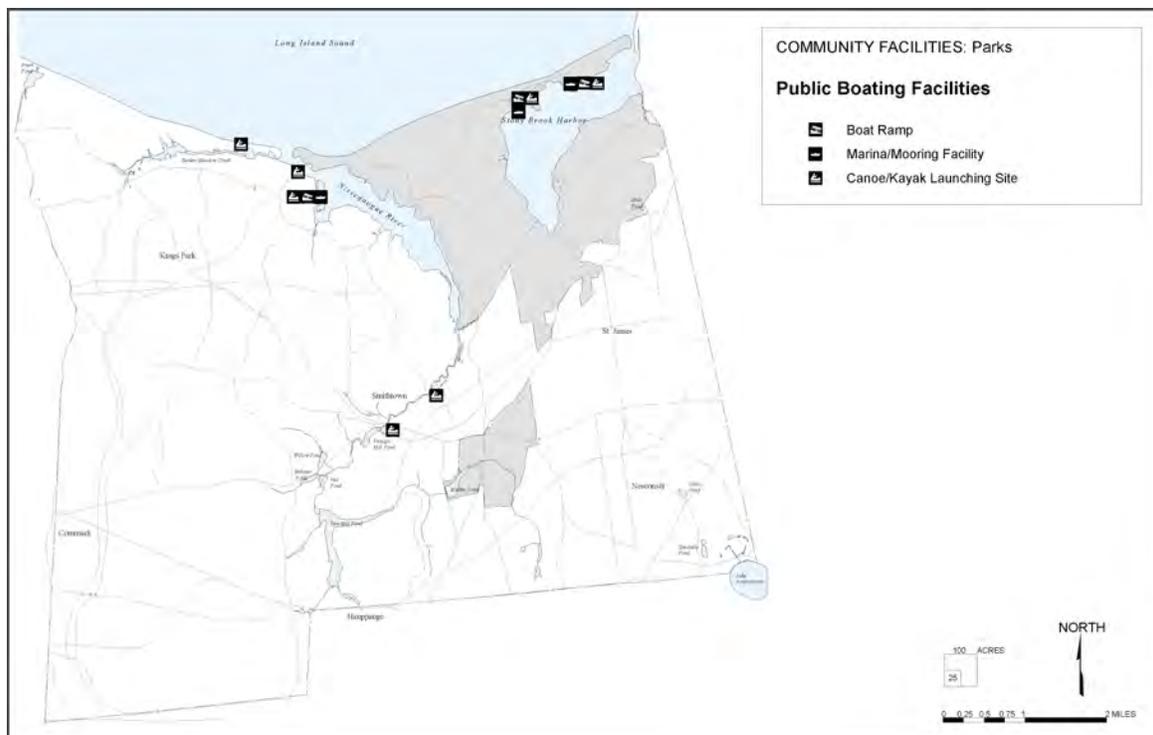


Figure 12. Public Boating Facilities

Golf courses

The Town currently has three 18-hole and one 9-hole golf course. One of the 18-hole golf courses is privately owned; the other three courses are public courses. The public courses include the Town-owned Smithtown Landing Country Club, and the 18-hole and 9-hole courses at Sunken Meadow State Park. The private course is located in Hauppauge. There are also five courses within a mile of the Town's boundary.

The National Golf Foundation estimates that there is a demand for about one hole per 1,250 residents. Based on this estimate, it appears that one or two more courses can be supported. Whether new ones are constructed depends on a variety of financial, physical, and environmental considerations. Because of their large size (about 150 acres), new golf facilities are difficult to locate in a developed community where land cost is high. Further still, there are now environmental concerns with the way these facilities are operated in that the use of fertilizer and pesticides might adversely impact the quality of the water supply.

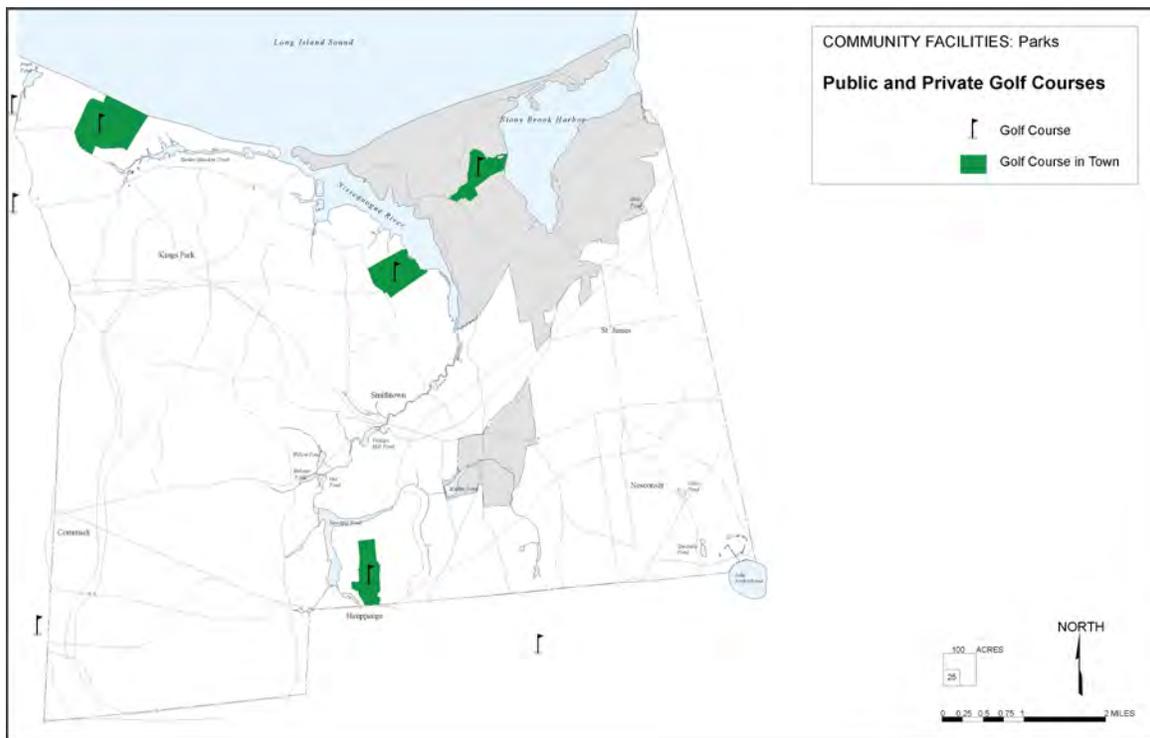


Figure 13. Public and Private Golf Courses



Swimming pools

There are three Town pools at the Smithtown Landing Country Club: a kiddie pool, lap pool, and wading pool. The pools are open-air and used only during the summer months.

According to planning standards, communities should have approximately one pool per 20,000 residents. Therefore, Smithtown should have about six pools (one per hamlet). The Town's four beaches should be at least partially used in meeting the standard. However, none of the Town's beaches or pools is used year round. Further, there are no school, college, or community organization pools in the Town to meet this demand.

Recreation Centers

While there are no national standards regarding the recommended location and number of recreation centers in a community, other communities that are similar to Smithtown, such as the Town of Amherst, New York, have determined that the demand for recreation centers is about one per 20,000 residents. The Town of Smithtown has only one recreation center, and it is used exclusively by senior citizens. In addition, there are no private recreation centers in the Town that could offset the demand for public centers. All four of the surrounding towns have at least two and as many as eight Town-owned recreation centers. This implies that there is an unmet demand for recreation centers in Smithtown.

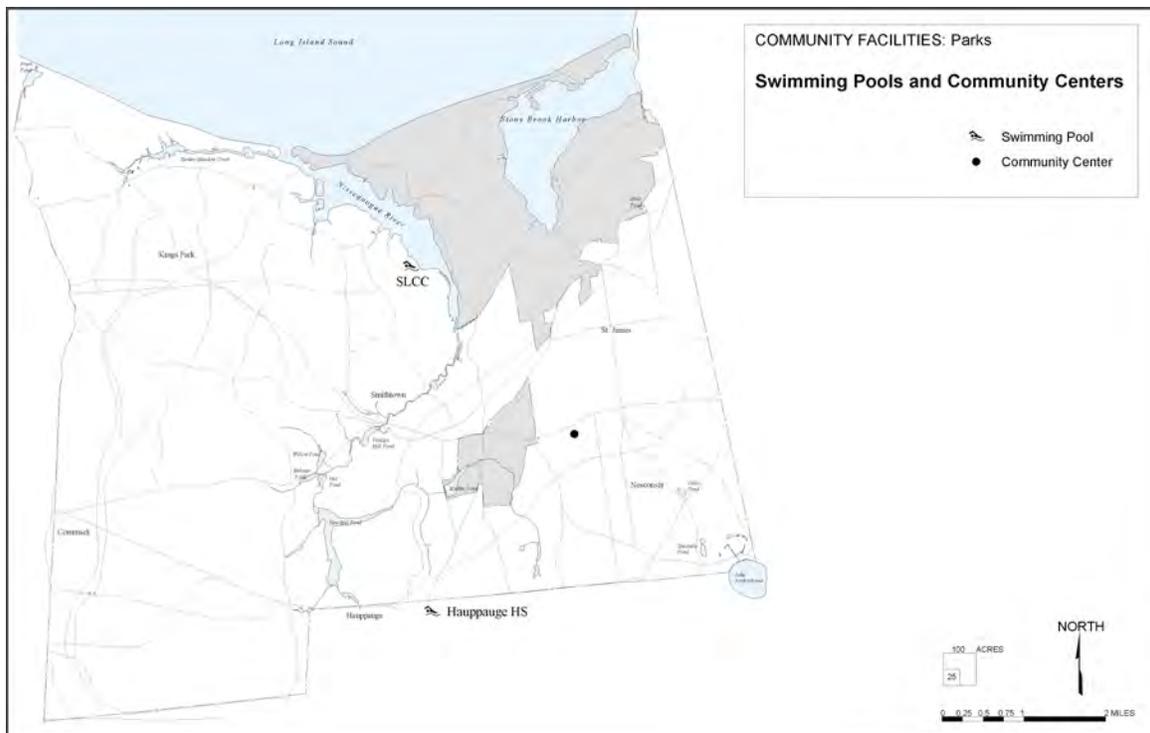


Figure 14. Swimming Pools and Community Centers



Trails

Trails are important for passive recreational activities to give people the opportunity to run, walk, hike, and bike through park areas of the community. Currently, there are six trail and path facilities within the Town, including the Greenbelt Trail, three facilities at Sunken Meadow State Park, the Hike and Bike Trail at Kings Park and the Armory Park in Nesconset. While these types of facilities have always been a part of a recreation system, the desire for these facilities is expected to increase in the next decade as health awareness continues to grow. The Statewide Comprehensive Outdoor Recreation Plan found that walking is the most popular kind of outdoor recreation.



Photograph of Kings Park Hike and Bike Trail

The 32-mile Long Island Greenbelt Trail is considered Long Island's most significant linear park. It runs from the south shore to the north shore through five state parks, two county parks, Sweetbriar Nature Center, and the Smithtown Landing Country Club. The 15-mile portion of the trail that is in the Town runs along the Nissequogue River to the Long Island Sound. It is heavily used, but it has three miles of gaps where hikers must use streets. The Town should try to shorten or eliminate these gaps wherever possible. Also, some sections are severely worn. This indicates the high use of the trail and possibly a need for more trails.

At Sunken Meadow State Park, there are three paths that total nearly seven miles in length. The most popular is the $\frac{3}{4}$ -mile boardwalk along the beach that is used year-round. The park also has $3\frac{1}{2}$ miles of cross-country running trails, which are considered among the best in the eastern United States. The park has 17 miles of other trails and routes for biking, cross-country skiing, etc.

In 2003, the Town built a $1\frac{1}{2}$ -mile paved trail along the old railroad spur in the Kings Park Psychiatric Center property. In 2006, the Town built a $\frac{1}{2}$ -mile paved trail at Armory Park in Nesconset. The Kings Park trail has two major deficiencies in that it is short and does not loop. The trail could be extended another mile to the Nissequogue River or could be extended to 2.5 miles if it looped back.

Although the Town is mostly developed, it is possible to significantly expand its network of trails (see Figure 15).



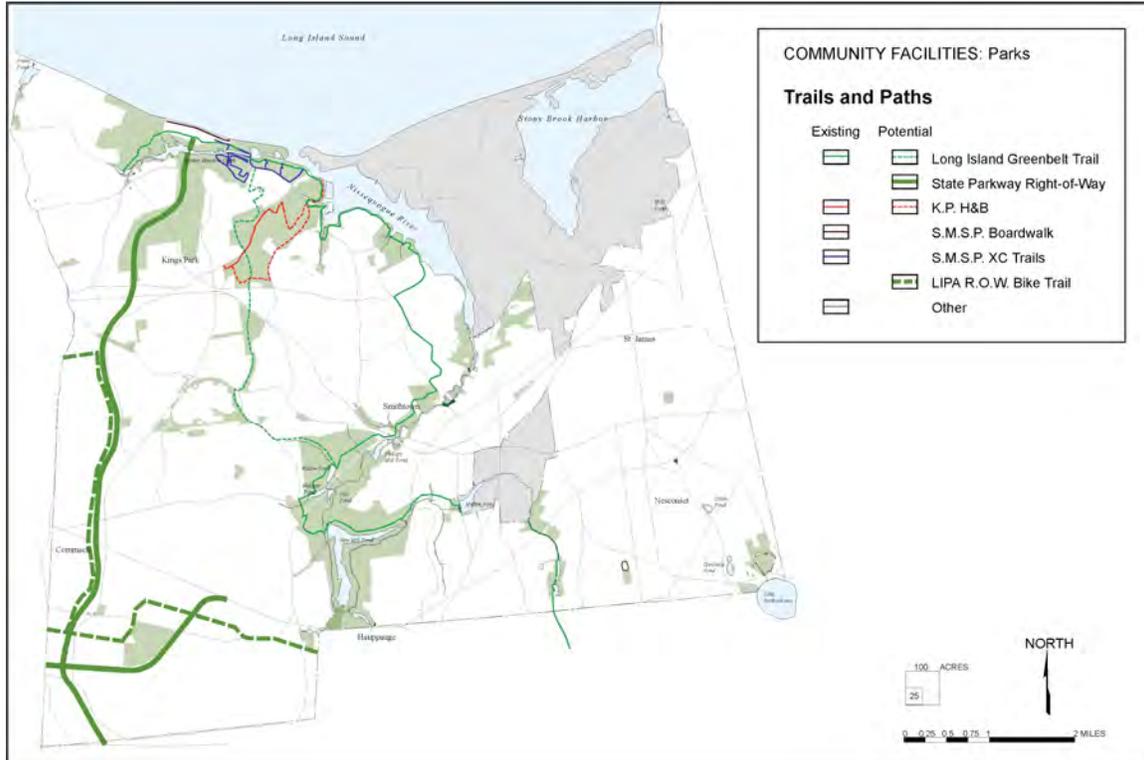


Figure 15. Trails

C Conclusions

Overall, Smithtown compares favorably with similar towns. Almost 16% (4,600 acres) of the unincorporated portion of the Town is dedicated as parkland. The State owns approximately half of the parkland, and the County and Town each own about a quarter of the parkland. Much of the parkland is fragmented, and there may be a number of locations in the Town where it would be beneficial to join State or County land with Town parkland.

Most of the critical environmental areas are protected as parkland, even though more than half of them are in State and County parks. The Town has impeccably maintained parks and beaches that have served the needs of residents for several generations. Nevertheless, changes in demographics, values, a greater understanding of the need for environmental quality, etc. since the park system was originally planned will continue to create new demands. To plan for the future, our analysis suggests that the Town (and State and County) will need to take some actions so that the recreation and open space needs of future residents are met.



Neighborhood Playgrounds: A number of factors have resulted in only 31 of 66 neighborhoods having playgrounds, including Town and school facilities. This means that most residents are not within walking distance to playgrounds. In turn, many of the existing playgrounds are so intensively used that they negatively impact adjacent residents and experience much wear and tear. More playgrounds would help meet the demand, and take some of the pressure off existing playgrounds. Due to the lack of vacant land, the maximum number of additional neighborhood playgrounds is 11, including five existing undeveloped playgrounds (see Figure 16).

Community Parks: This type of park had not evolved when the original plan was completed. It is a useful concept for taking away intensive uses from neighborhood playgrounds, which should not attract use from beyond the neighborhood. Ideally, the Town should have six community parks, but it has only three. About nine neighborhood playgrounds are helping meet the need, but this is causing some adverse local impacts. The potential for more community parks is limited by the lack of vacant land, but the addition of more neighborhood playgrounds and possibly converting some neighborhood playgrounds into community parks would help distribute the pressure. At the time of writing the Comprehensive Plan Update, the future of the Kings Park Psychiatric Center property is uncertain; however, it provides enough land and infrastructure to be considered as a potential location for a community park and should be pursued.

Village Greens, Vest-pocket Parks, and Monument Parks: Village greens and monument parks have long been considered important aspects of a community. On the other hand, vest-pocket parks had not been “invented” until the 1970s. Only two of the six communities have village greens, but it would appear beneficial to try to get a village green in each of the communities. The five vest-pocket parks seem sufficient for the foreseeable future. Existing monument parks such as the Bull should be enhanced, and a limited number of additional monument parks could be developed if desired.

Waterfront Parks: About 70% of the Town’s waterfront is public parkland, including beaches, boating facilities, and natural parks. Yet, much of the waterfront parkland is not accessible to the public.

Natural Parks: Most of the critical environmentally sensitive areas in the Town are protected as natural parks; however, there are some areas that are vulnerable to loss by development. About 75% of all of the parkland in the Town is kept in its natural state. Natural parks are not evenly distributed across the Town because the most significant natural resources are concentrated around the Nissequogue River system and Long Island Sound. While providing for natural parks in environmentally sensitive areas is appropriate, it is also important to establish natural parks in other parts of Town in order to provide passive recreation close to more residents, even if the facilities are small.

Special Purpose Parks: The Town has some parks (e.g., a golf course, swimming pools, boat ramps, etc.) to meet specific recreation needs. The demand for these kinds of niche recreation facilities may fluctuate over time as recreation needs change, but if the Town has sufficient parkland, then changes can be accommodated. Market surveys indicate



that with an aging population the demand for hiking will grow faster than recreation in general. Already, there are many miles of trails in the Town, albeit most are in State and County parks. At this time, there is vacant land in strategic locations, and trails can be added and connected to make a townwide network. Additionally, there are some kinds of recreation needs, both current and future, that likely will not be met unless proactive action is taken.

Smithtown's Park System: The survey and analysis reveals that recreation needs of the Town and State are increasing and will continue to increase even though the era of rapid population growth is over. This will increase demands on the Town at a time when property tax revenues will be growing more slowly. Yet, having an excellent park system is essential for a high quality of life, which adds value to real property and thus to the tax base. Therefore, it is advisable that the recommendations and implementation section of this Plan articulates an approach that is fiscally sustainable and that discusses the feasibility of strategies such as community partnerships, leasing, and developing a few large community parks rather than many small playgrounds.

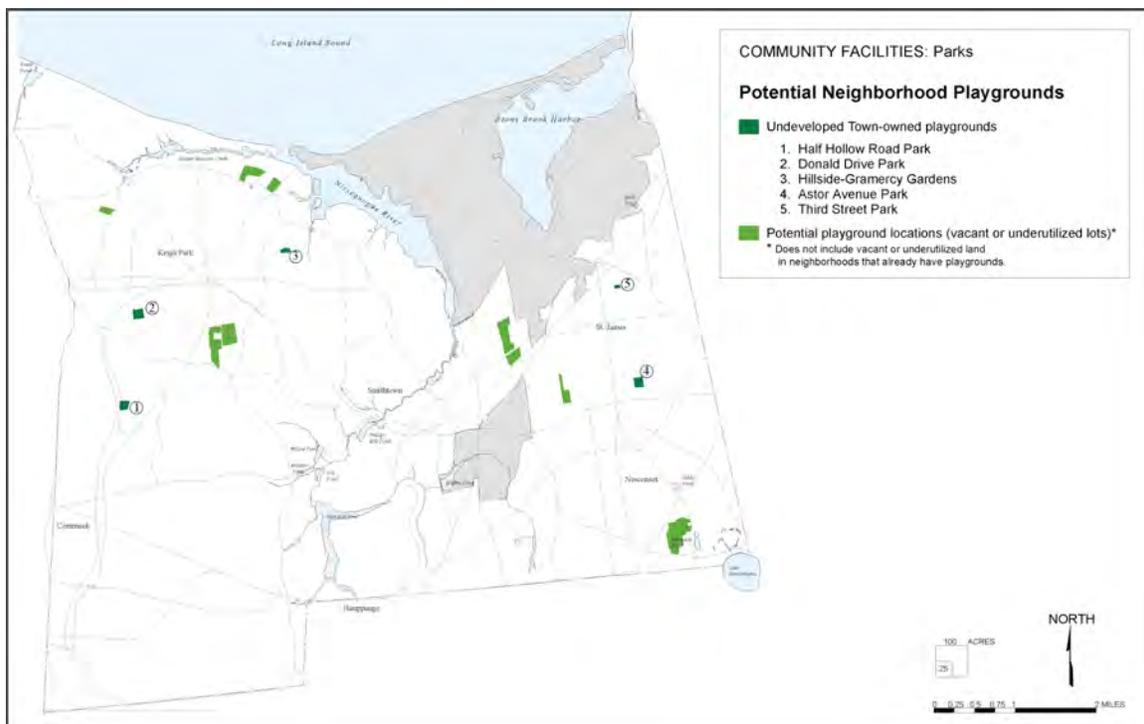


Figure 16. Potential Neighborhood Playgrounds





III EDUCATION

- **The number of schools has been reduced by one third since 1975.**
- **While school population has declined over the last 40 years, fluctuations will occur in this group.**
- **The method by which schools locations are determined does not reflect the traditional neighborhood model and requires more busing and driving for the students.**

A Introduction

The education system is composed of a wide variety of schools. Community planning normally concentrates on K-12 public schools. However, preschools, colleges, and other specialty schools are also part of the education system. While the Town does not control the educational system, it is an important element of the Comprehensive Plan. Schools are important components of the neighborhood, and are often major factors in where people choose to live. Additionally, the public education system accounts for the highest single expenditure of local funds.

B Inventory

K-12 Schools

The Town of Smithtown is served by six public school districts: Smithtown, Kings Park, Commack, Hauppauge, Sachem, and Three Village. The Smithtown and Kings Park districts are located completely within the Town's boundaries, and together cover 65% of the Town's total lot area. The other four school districts are located partially within the Town of Smithtown. Approximately half of the Commack and Hauppauge Districts, and a small portion of the Sachem and Three Village districts are located within the Town. The public school system provides educational services to about 87% of the school-aged population and the remaining 13% of the school-aged population attends private schools or participates in home-schooling.

Between 1950 and 1973, the number of public schools in Town grew from 6 to 37. Between 1976 and 1993, the number had decreased to 25. By 2005, one school had reopened, raising the number of public schools to 26. The number of private schools also changed during this time period. In 1975 there were six private schools. Between 1976 and 1993, two of the schools had closed, and by 2005, two additional schools had opened (see Figure 17).



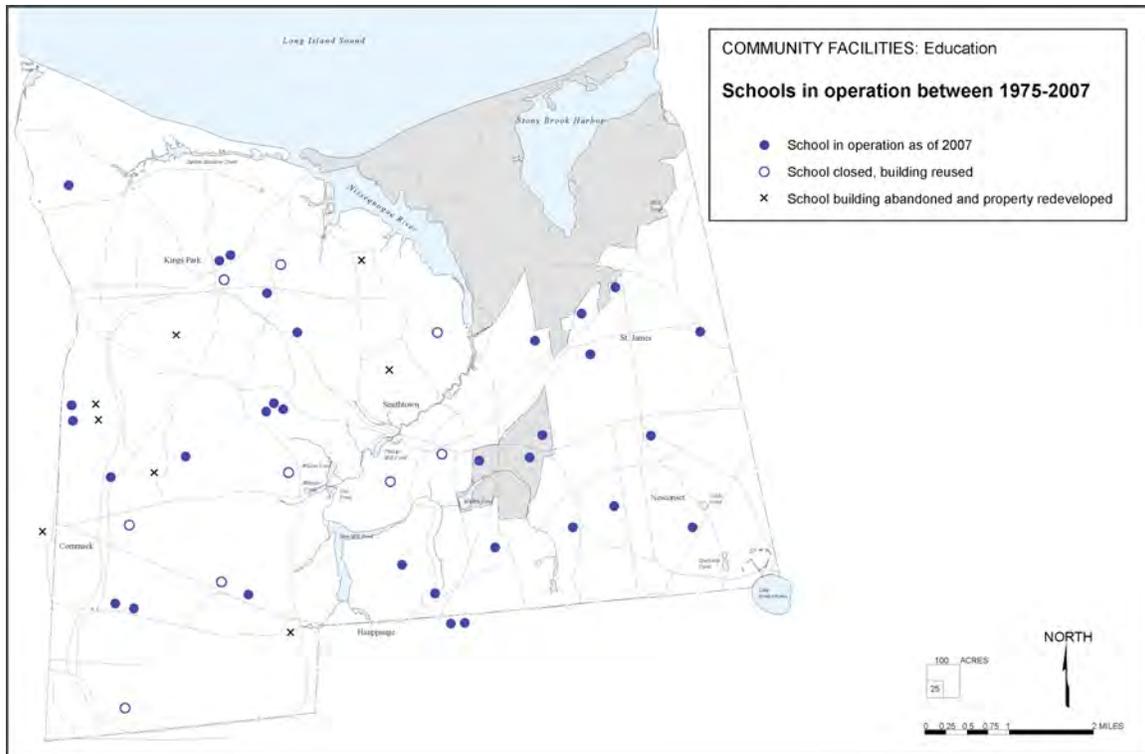


Figure 17. Schools closed between 1975-2007

As noted in Volume II, Population, the total number of school-age children peaked in the early 1970s and is now at half to two-thirds of that peak level.

Since the 1970s, the Town has grown at less than 1% per decade. Although the Town growth has slowed, it has also changed from the predominant construction of single family homes to the construction of other types of housing (e.g., condominium, retirement housing, nursing and other institutional housing, etc.), which appear to have less impact on the school system.

Higher Education

As part of the New York metropolitan area, the Town is well served by nearby colleges. Stony Brook University is adjacent to the eastern boundary of the Town, the Brentwood Campus of Suffolk Community College is immediately south of the Town, and the Sachem Campus is to the east. In addition, there are at least seventeen other college campuses or satellites schools in Nassau and Suffolk Counties.

Preschool

These types of schools that usually serve children under the age of five have emerged over the last fifty years as a result of cultural changes. While the preschool may function as a form of day care for young children, its more specific purpose is to better prepare the children for further education. As of 2007, there are eight pre-school/daycare centers in Smithtown, six of which have opened in the last 10 years.



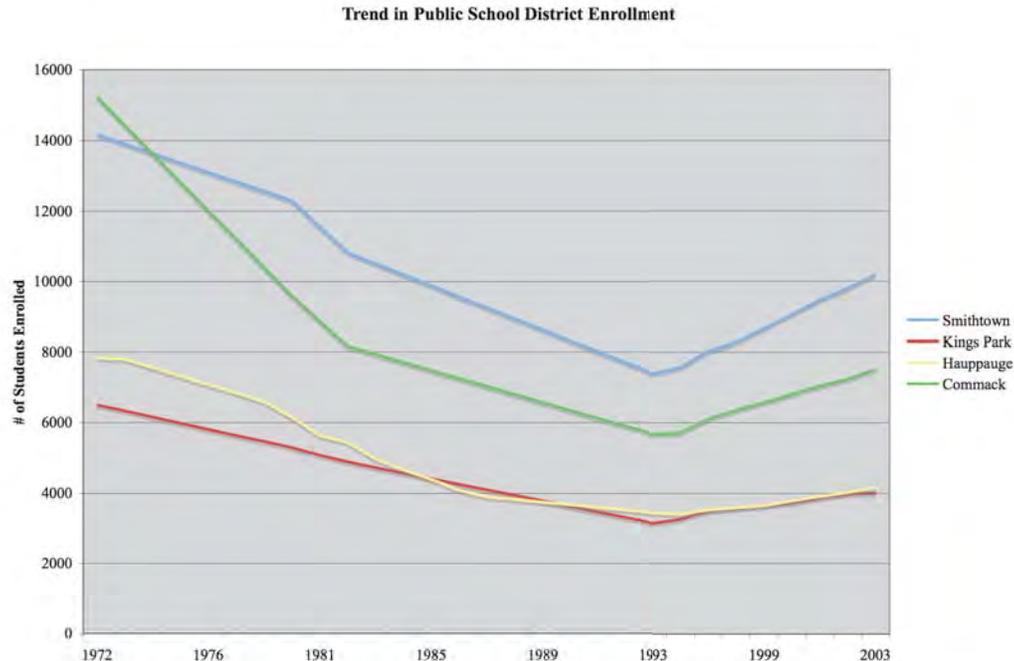


Figure 18. Trend in Public School District Enrollment

Sources: Annual Regional Nassau-Suffolk Public School Demographic Study, Western Suffolk BOCES Office of School Planning & Research
Hauppauge School District Enrollment Analysis, 1988

Developmental Schools

There are five developmental schools in Smithtown that serve those students with specialized needs. These facilities include two developmental preschools (exclusive of the preschools noted above), the Cleary School for the Deaf (in Nesconset), and two schools run by the Developmental Disabilities Institute.

C Conclusions

As noted at the beginning, this Update is principally concerned with the public K-12 schools because they have the most impact on the community. The original Comprehensive Plan was based on the “neighborhood unit” concept, wherein the Town was planned around neighborhoods, each with its own elementary school and playground. Optimally, each neighborhood would have an elementary school within walking distance, and intermediate schools and high schools within short driving distance (i.e., 1-2 miles). Locating the schools in this way would reduce the need to bus students over long distances. However, in most communities on Long Island, the location and number of schools no longer follow this pattern. Elementary schools are no longer within walking distances of many of the residences and the other schools are not within a short driving distance.



As a result of the current location of schools, driving or busing to schools is a major feature of the community. In the absence of a public transportation system, many of these trips have to be accomplished by a school bus or by passenger car. The municipality has to be aware of this effect on its road system and make accommodations (e.g., standardized bus stops) wherever practical.

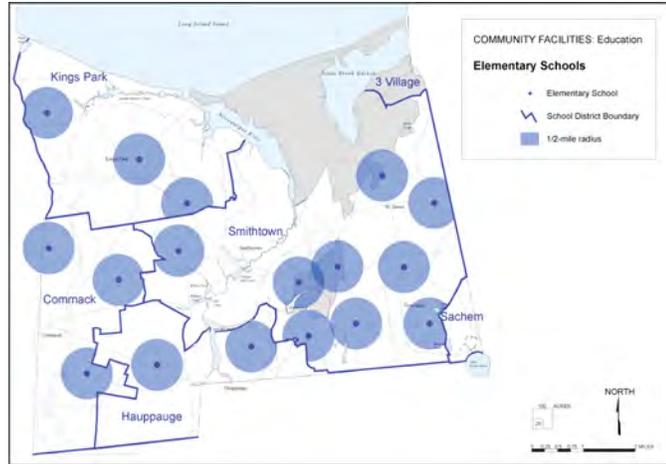


Figure 19. Elementary Schools

The school districts have indicated that they do not foresee the need for any expansion in the near future. However, after the closure of 12 schools within the Town, it appears as though the recent increase within the school population has had significant impacts upon the school. Any potential school closings should be carefully evaluated with regard to the impact such action could have on providing for the future school age population.

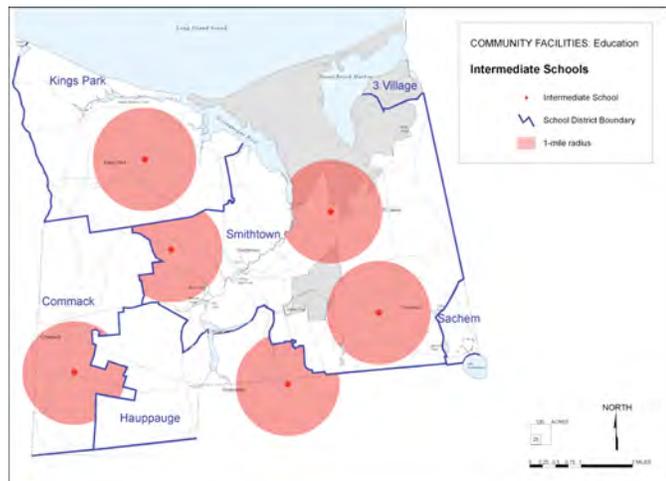


Figure 20. Intermediate Schools

While the number of residences in the Town can increase by only 2% based on the existing zoning and lack of sewers, the population may increase more if the sewers are extended into downtown Smithtown and Kings Park, allowing for more apartments.

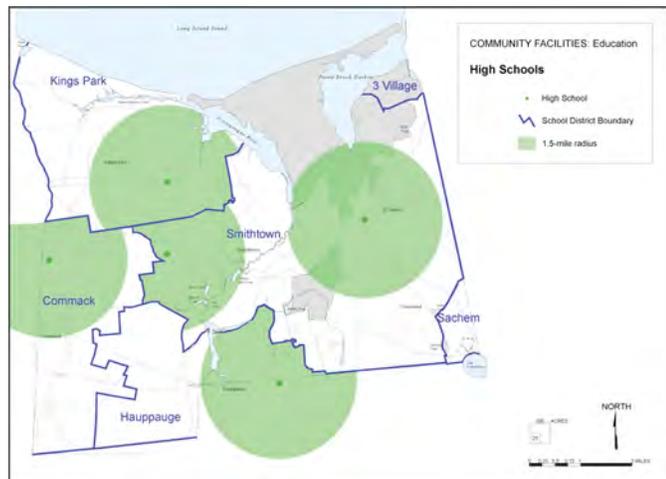


Figure 21. High Schools

As noted in the previous section on parkland, the schools serve as part of the recreational system for the residents. Restricting or limiting the use of these facilities, particularly during non-school hours, has a negative impact on the surrounding community. However, the school districts also have concerns for safety and liability that should be



addressed if these facilities remain open.

Although there are other opportunities to improve education within the Town, such as attempting to use excess space at the Kings Park Psychiatric Center for satellite or professional schools, such activity is more related to economic redevelopment and land use issues and will be discussed in later volumes.



IV PUBLIC SAFETY

- **Approximately 90% of the Town is within two miles of a responding fire station.**
- **Approximately 65% of the Town is within two miles of a responding emergency medical service**
- **Traffic congestion and site design are important factors affecting public safety operations.**

A Introduction

Public Safety activities include fire protection, emergency medical services, and police service. The Town does not control many of these functions; however, land use and other decisions by the Town have an effect on their operations. At the same time, their operations have an effect on land use and other decisions.

B Inventory

Fire Protection

The entire Town is served by seven fire departments, including one maintained by the Village of Nissequogue, which serves the Villages of Nissequogue and Head-of-the-Harbor, and six that cover the unincorporated part of the Town and the Village of the Branch. The six districts include four stations and seven substations in the Town. The Commack and Hauppauge Districts straddle the Town boundaries; their main stations are approximately $\frac{1}{4}$ mile outside of the Town's boundary.



Fire District	Area (sq. mi)	Population	EMS	# of Stations
Smithtown	15.4	33,572	Yes	3
Commack*	12.8	37,993	No	4
Kings Park	11.4	22,630	Yes	1
Hauppauge*	9.2	15,530	First Response	3
St. James	6.2	11,022	Yes	2
Nesconset	5.9	18,124	Yes	2
Nissequogue	5.8	1,543	Yes	1

* District includes area outside of the Town of Smithtown

Source: Newsday Special Report, 2006

Table 5. Local Fire Districts

Most of the stations in Smithtown were built prior to 1960, and all of the substations were built between 1960 and 1970. Most of these facilities were enlarged between 1988 and 2000 to accommodate larger and more vehicles. As of 2007, most of the sites have little room for growth, but the trend toward larger and more vehicles has continued.

As can be seen from the map in Figure 21, these stations are fairly well distributed throughout the Town. The only large areas more than 1½ - 2 miles from a fire station include parts of the Hauppauge Industrial Park and Ft. Salonga. The Hauppauge Industrial Park is significant because of the land use and density. Ft. Salonga is a low-density area and response times are quicker than would appear because Ft. Salonga Road is less congested than most main streets in the Town.

As of 2007, the St. James, Hauppauge, and Smithtown fire departments plan to expand or relocate their existing substations. Smithtown plans to relocate its Plymouth Boulevard substation to the opposite corner. The only additional fire substation is one proposed on the former Kings Park Psychiatric Center campus.

The Town owns a firematic training center in Nesconset for the use of all fire departments in the Town.

Although there are gaps, most of the Town is well served by fire hydrants. The most significant exception is a 7,600-foot section of Jericho Turnpike near Old Willets Path (see Figure 36). Also, while the former Kings Park Psychiatric Center has hydrants, the system appears to be minimally maintained.



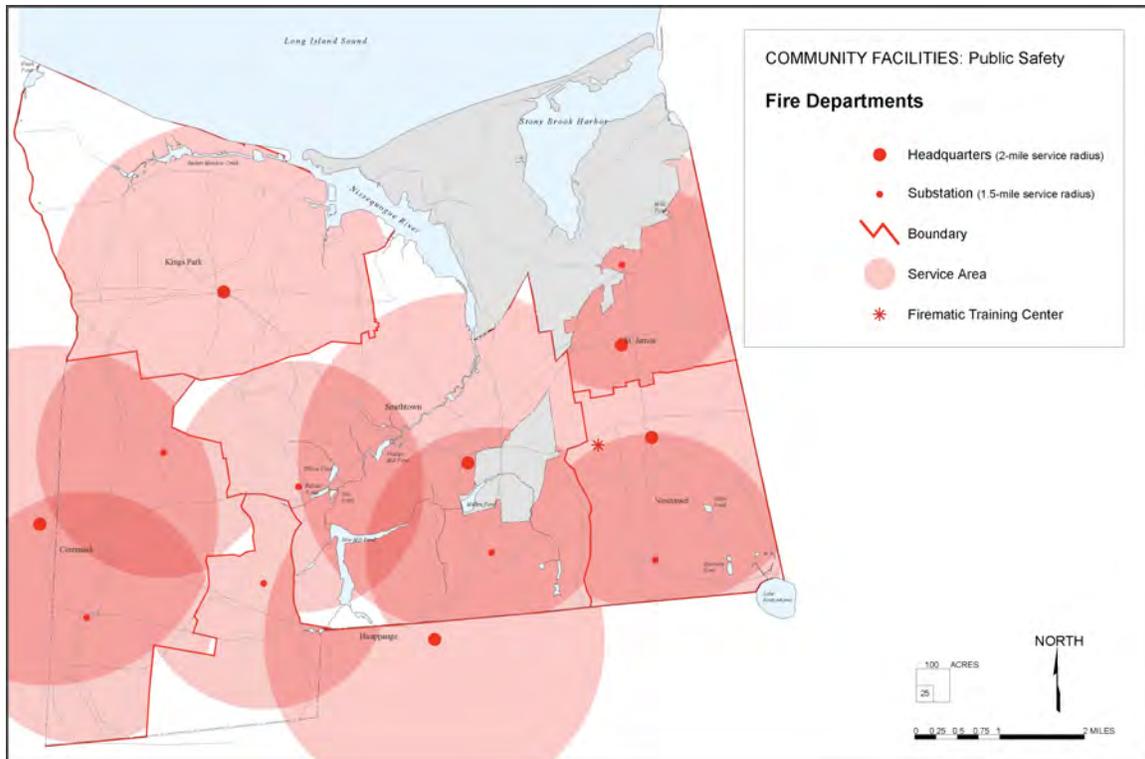


Figure 22. Fire Departments

Emergency Medical Services

All areas of the Town are served by Emergency Medical Services (EMS), which provide ambulance and immediate medical care services. Four of the fire departments provide their own EMS: Smithtown, Kings Park, St. James, and Nesconset. Separate volunteer ambulance companies serve the other two districts: Central Islip-Hauppauge Volunteer Ambulance and Commack Volunteer Ambulance Corps. Special taxing districts fund these two ambulance companies.

Figure 23 shows the locations of the EMS stations that serve the Town, the district boundaries, and the portions of the Town within two-mile service radii (i.e., a typical service area). Not all of the fire stations in the Town have an ambulance on site, and the stations that have ambulances change from time to time. Approximately 75% of the Town is within two miles of an ambulance station.



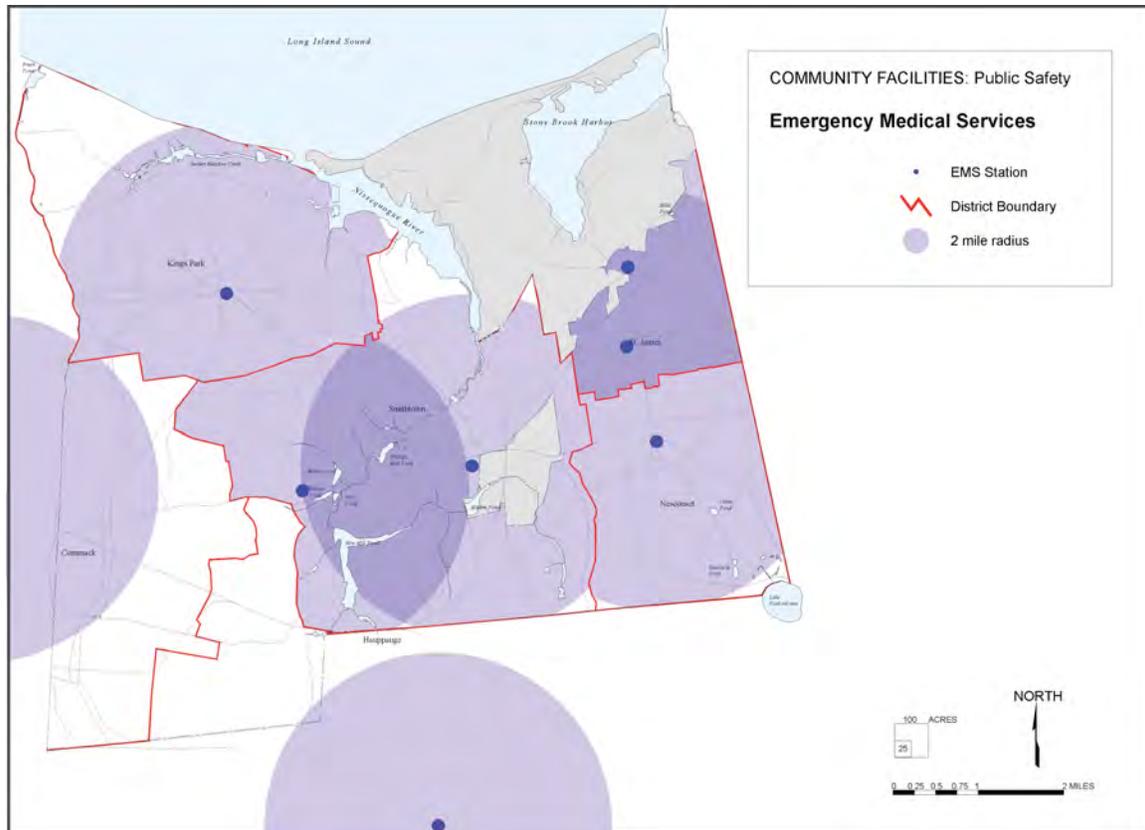


Figure 23. Emergency Medical Service Stations

The ambulances transport patients to nearby hospitals, such as St. Catherine of Sienna Hospital, Stony Brook University Hospital and so forth. However, like the fire districts, EMS response times are affected by traffic congestion.

Since the 1970s EMS calls have outpaced fire calls so that by 2007, EMS calls account for two-thirds of the non-criminal emergency response calls. A large proportion of EMS calls concern motor vehicle accidents, nursing homes, and residential developments for the elderly.

Police

Law enforcement is the oldest and usually considered the most fundamental public safety activity. There are at least seven different law enforcement entities throughout the Town:

- Suffolk County Police Department
- Smithtown Department of Public Safety
- New York State Police
- New York State Department of Environmental Conservation
- New York State Office of Parks, Recreation, and Historic Preservation
- Metropolitan Transportation Authority Police
- Suffolk County Sheriff



The Suffolk County Police Department is the principal authority responsible for policing the five western towns in the County. The Department is split into seven precincts. The Town of Smithtown and Village of the Branch comprise most of the Fourth Precinct. The Villages of Nissequogue and Head of the Harbor maintain their own separate police departments, and are not served by the Suffolk County Police Department. The Fourth Precinct serves as the dispatch center for all three departments.

The Fourth Precinct station is located on the northeast corner of Old Willets Path and the Smithtown By-Pass, in the Suffolk County Complex. As of 2007, the County has plans to construct a new 30,000 sq. ft. building for the Fourth Precinct.

The police headquarters is located about 20 minutes east of Smithtown in Yaphank. As of 2007, the police department is considering relocating some of its civilian offices to a 25,000 sq. ft. building in Nissequogue River State Park.

The Town's Department of Public Safety is located in a Town Hall annex on Maple Avenue. The Marine Division has a small base at the Long Beach marina.

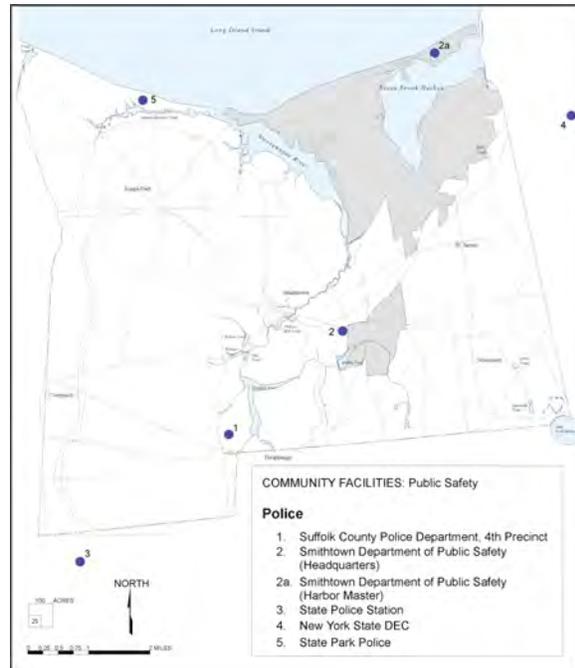


Figure 24. Police

C Conclusions

Fire Protection: One of the primary concerns in evaluating fire districts from a land use perspective is community coverage. While determining the radii from stations is a standard technique, it is more accurate to measure the service area by mapping response time in minutes or actual travel time. A location may be far from the station, for example, but travel time may be quick because there is less congestion. This is a specialized type of study and was not undertaken as part of the Update. However, we can note that there are some concerns about the present system.

First, some of the stations are close to their district boundaries, rather than being centrally located. Given the infrastructure investment, it is not practical to consider moving these stations. However, if more efficient coverage is needed to those areas that are furthest from the stations, it may be necessary to construct more substations or adjust district boundaries.

Second, traffic congestion has increased since the completion of the original 1957 Plan, which impacts some fire facilities. The Smithtown and Kings Park stations are



particularly affected. Again, relocation would not be practical, but the impact of traffic on these stations should be considered in nearby land use and transportation proposals.

Third and finally, while we should be concerned with insuring that these facilities operate efficiently, we should also be aware that we may have to assist these facilities more directly if the municipality or other governmental agencies intend to promote competing public objectives.

Emergency Medical Services: As with fire districts, a municipality is concerned with coverage. Likewise, it is also more accurate to measure the service area by mapping response time in minutes. Regardless of whether the additional study of response time is done, there are some issues that should be addressed.

First, based on the map and the concept that we should try to have service areas within two miles, it appears likely that one or two additional substations should be located in the western part of the Town. This would include parts of Kings Park, Commack, and Hauppauge.

Second, if we do recognize that additional substations are needed, the Town may wish to assist in the expansion. Since the Town is mostly developed, finding suitable properties for such substations may be difficult.

Police: Most law enforcement issues are the subjects of other studies. However, land use decisions, such as site design, may have an impact on the potential for the site to become used for a crime or on the police department's ability to enforce the law at that location. The Town should consider potential impacts on security in designing municipal properties, and in reviewing proposed developments.





V HEALTH

- **The Town is well served by healthcare facilities.**
- **Nursing homes in Smithtown have greater than 96% occupancy rates.**
- **As a result of the large amount of wastewater generated from medical facilities, wastewater restrictions have become a major factor in locating such facilities.**

A Introduction

The health care system is continually evolving. Today, it provides care in a variety of ways, ranging from the traditional hospitals, institutions, nursing and convalescent facilities to outpatient services, group homes, and specialized developmental facilities. For the Comprehensive Plan Update, we have grouped this field into four subcategories: hospitals, nursing and convalescent facilities, developmental assistance and mental health.

B Inventory

Hospitals

The number of hospitals in Smithtown and in Suffolk County has changed since the Comprehensive Plan was completed in 1957. The first hospital in the Town, Smithtown General Hospital, later known as Community Hospital of Western Suffolk, opened in 1958 and was closed in 1990. St. John's Episcopal Hospital, now known as St. Catherine of Siena, opened in 1966, and is the only hospital operating within the boundaries of the Town. There are also several hospitals in the surrounding municipalities.

St. Catherine of Siena Hospital is located on St. Johnland Road (NYS Route 25), on a 38-acre site that also includes a nursing home and a medical office building. On an adjacent site, the hospital operates a 300-unit senior apartment community (Siena Village). The hospital acquired a 20-acre site to the north and some expansion or change in the current facilities should be expected.

There are four general hospitals within eight miles of Smithtown. Stony Brook University Hospital is approximately 1.5 miles east of Town and Huntington Hospital is approximately eight miles west of the Town. Southside Hospital in Bayshore, and Good Samaritan Hospital in West Islip are both between six and eight miles of Smithtown.



As noted in the introduction, the health care system is constantly changing. Other types of facilities, such as clinics, outpatient service, and so forth, have now assumed many of the services previously performed by hospitals.

Nursing Homes and Related Facilities

As of 2007, the Town has seven nursing homes with a total of 1,822 beds (see Figure 25 and Appendix E). These types of facilities normally serve the elderly and that portion of the population that may require long-term care.

While the demand for nursing home facilities appears to be high, this health care area has evolved into a more sophisticated system including adult homes, assisted living facilities, therapy centers, senior “day care”, and continuing care retirement communities (CCRC). The changes in the types of facilities appear to be directed toward reducing the “institution” type of care by allowing more residential opportunities for seniors and those needing long-term care.

While there are no CCRC facilities within the Town, it is anticipated that within the next decade, the Town will probably approve one or two such communities because of the aging population.

Specialized Healthcare

As of 2007 the Town has only one specialized health clinic: Memorial Sloan-Kettering Cancer Center in Commack. It is situated near the Long Island Expressway so as to provide good access from all of Long Island.

Other specialized care needs, such as radiology, physical therapy, and MRI are satisfied by smaller facilities or are located at the nearby hospitals.

It is important to try to insure that there is suitable land in the Town to attract specialized medical facilities to Smithtown. However, because of the limited sewer systems, it is difficult to place medical offices and facilities in many commercial areas of the Town.

Mental Health

Prior to the 1990s, mental health care in NYS had been provided primarily in about 30 large campuses around the state, including one in Smithtown and four others on Long Island. In the 1970s, the State started to change mental health care from campus-based to community-based care. The new model uses outpatient services and community residences rather than large dormitories. Only the most severe cases would require residence in an institution. In 1996, the Kings Park Psychiatric Center was closed with only two buildings still in operation: the 133-bed Residential Care Center for Adults (RCCA) and the 24-bed State Operated Community Residence (SOCR).

There are at least four outpatient mental health centers operating in the Town: the Pederson-Krag Center and Family Service League in Hauppauge, and two Opti Care



Mental Health Centers in Smithtown. These centers provide mental health counseling, outpatient behavioral health and chemical dependency programs.

Prior to the 1960s, the State treated children and adults with developmental disabilities in the same state hospitals that were dedicated to the treatment of the mentally ill. Current care practice concentrates on placing as many developmentally disabled people as possible in community residences and providing specialized education facilities to further assist this group. As of 2007, there are at least five educational facilities in the Town for the developmentally disabled

Currently, there are 42 community residences for either the developmentally disabled or mentally ill operating in the Town. Whereas the residences are intended to, among other things, reduce any stigma of having developmental disabilities or mental illness, they are not mapped here or considered community facilities in the conventional sense. The number of residences is expected to grow over the next decade to accommodate an aging population.

C Conclusions

Even though the Town is not directly involved with the health care industry, there are issues that relate to land use planning and the Comprehensive Plan Update, particularly for medical facilities and elder care.

There has been an expansion in alternate forms of health care, such as the growth in outpatient care. New medical offices and facilities are difficult to construct outside of sewer areas. As a result, local residents may have to travel to other communities to receive such care. Extending sewers into business districts may encourage medical offices to locate in these areas.

In terms of elderly care, five of the seven nursing homes have an occupancy rate of greater than 96%, which is approximately 2% higher than the state average. This seemingly indicates a need to maintain these types of facilities or alternatives such as assisted living facilities or continuing care retirement communities.



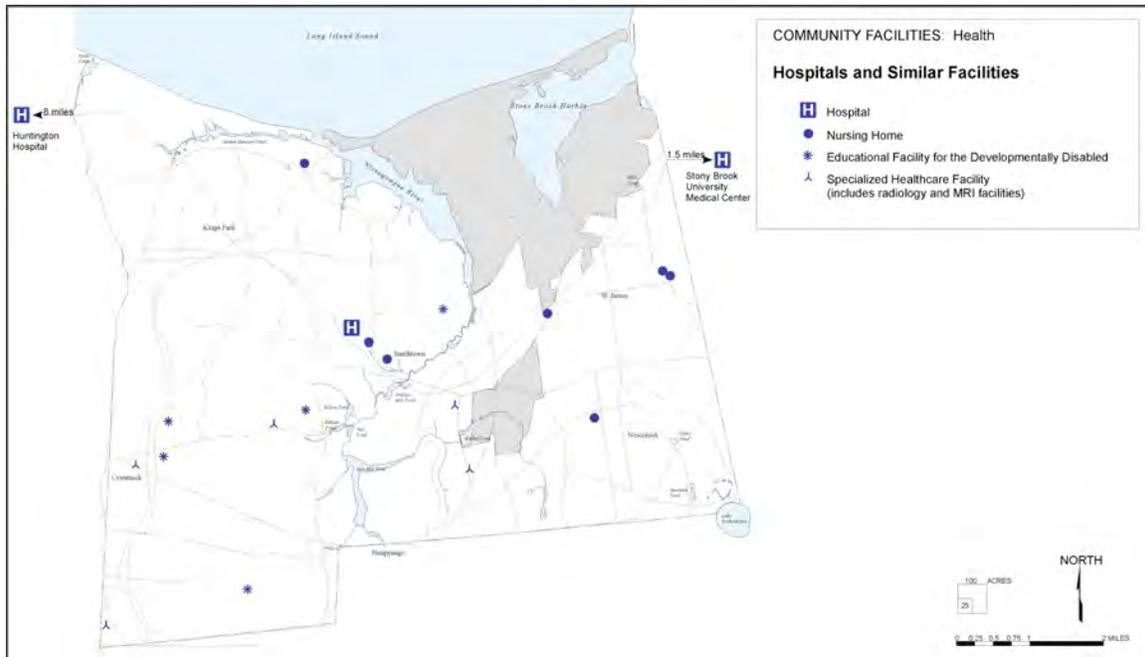


Figure 25. Hospitals and Similar Facilities



VI CULTURAL, SOCIAL, AND RELIGIOUS FACILITIES

- **Libraries should be easily accessible and located in every hamlet.**
- **There is need and opportunity for creating new museums, art centers, and nature centers within the Town.**
- **As land becomes more expensive, it is difficult to create new social and religious facilities, thus current facilities tend to get over used.**

A Introduction

Humans are generally social animals. We interact with others and seek to identify as a part of one or more groups. Individuals form organizations based on commonality in such areas as faith, politics, ethnicity, and leisure pursuits. This bonding creates a community, which in turn improves the quality of life. However, the organizations could not thrive without the proper facilities to hold general meetings, special events, etc.



B Inventory

Cultural Facilities

Cultural facilities include institutions that are used to develop an acquaintance with the arts and sciences. For the purposes of the Comprehensive Plan Update, the discussion of cultural facilities will be limited to libraries, museums, nature centers, and visual and performing arts centers.

Libraries

The emergence of computers and the internet has resulted in an abundance of accessible information. However, it has not supplanted the need for libraries, institutions whose main purpose is to support the instructional, information, and entertainment needs of a community. The Town does not directly control libraries, but their presence and location are important for the community. While the Town includes two library districts, the Smithtown district covers 98% of the Town and the Sachem district covers the remaining 2%.

As children and senior citizens are the largest users of the library system, it is important to locate the libraries in places where these two groups will have good access. Ideally every community (hamlet) should have a library. Each library should be centrally located and be easily accessible by walking, transit, etc.

The existing situation in the Town is close to the ideal. As of 2007, five of the six communities have libraries. Only St. James does not have its own library, but the Smithtown library is near the east edge of Smithtown, close to St. James. Further, Stony Brook University has nine libraries; they are only 1.5 miles from the Town. The main library at Stony Brook University is larger than any of the libraries in the Town and is also a depository for federal publications.

The Smithtown library district has four locations totaling about 52,000 square feet. In 2008 a referendum was passed to increase the floor area to about 74,000 square feet. This expansion involves additions to its three buildings and relocating the Nesconset Branch from rented space in a shopping center to the former armory. The expansion of the existing buildings is complicated by the lack of excess site area; however, the sites are ideally located.



District		Floor Area (sq. ft.)		Lot Area (acres)	Notes
		Existing	Proposed		
Smithtown	Smithtown	21,836	30,000	4	Main Branch
	KP	9,963	13,000	2	
	Commack	10,613	13,000	1	
	Nesconset	9,381	25,000	2	Parking lot to be shared with Armory Park
Commack	Only site	10,000		1	In Huntington
Hauppauge	Only site	10,000		2	In Islip

Table 6. Library Facilities by District

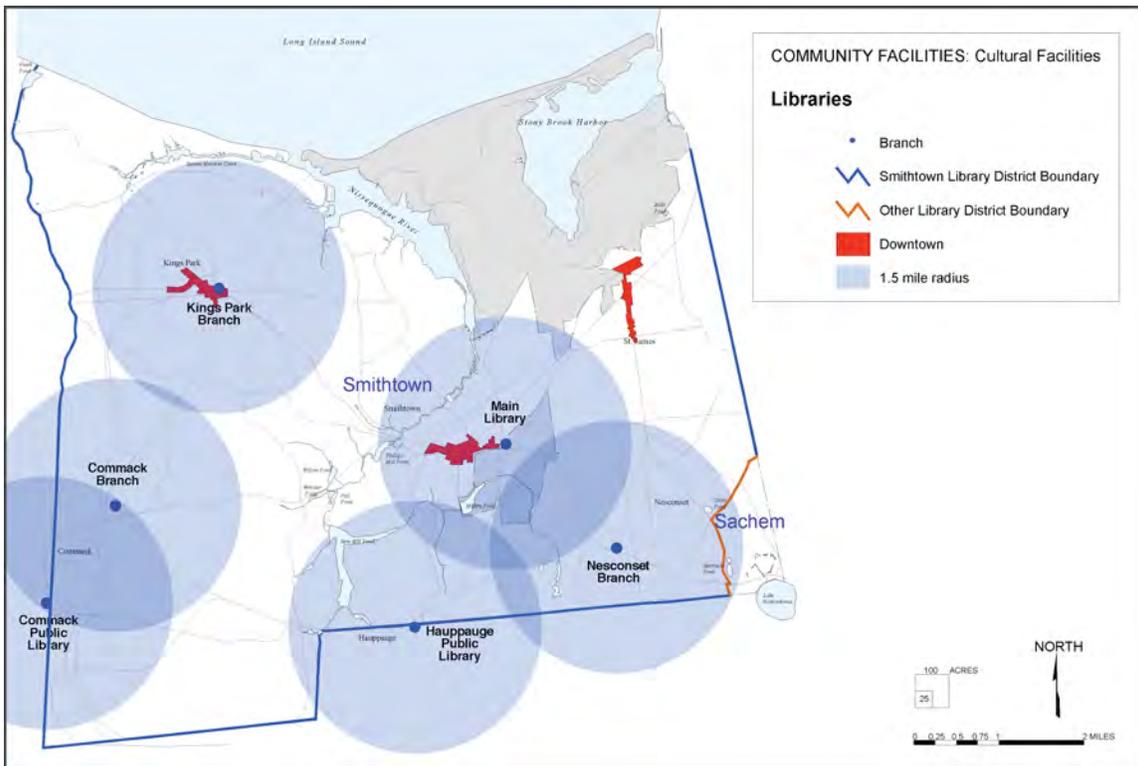


Figure 26. Libraries



Museums and Nature Centers

There are eight museums and six nature centers within Smithtown. All of the museums are history museums. As of 2007, there are no art, natural history or technology museums in the Town.

The Long Island Museum, one of the largest museums in Suffolk County, is situated ½ mile east of the Town on North Country Road. The museum displays American art, artifacts, and carriages dating from the 1700s to the present.



Photograph of the Caleb Smith House

There are six nature centers in the Town, most of which are near the Nissequogue River. This is a large share of the nature centers in the region, and many groups come from surrounding areas for nature programs. There appears to be sufficient demand to expand some of the existing centers, but some cannot readily be expanded. For example, the Sweetbriar Nature Center property was donated to the Town with a deed restriction to prevent intensive use. It appears possible to expand or create new nature centers in Nissequogue River State Park and near the headwaters of the River.

	Facility	Operator	Location
Museums	Hoyt Farm Park	Town of Smithtown	Hoyt Farm, Commack
	Obadiah Smith House	Smithtown Historical Society	St. Johnland Road, Kings Park
	Caleb Smith House	Smithtown Historical Society	North Country Road, Village of the Branch
	Epinetus Smith Tavern	Smithtown Historical Society	North Country Road, Village of the Branch
	Judge Lawrence J. Smith House		
	Franklin O. Arthur Farm		
	Brush Barn		
Kings Park Heritage Museum	Kings Park School District	RJO Intermediate School, Kings Park	
Nature Centers	Hoyt Farm	Town of Smithtown	Hoyt Farm, Commack
	Sweetbriar Nature Center	The Environmental Centers of Setauket-Smithtown	Eckernkamp Drive, Smithtown
	Caleb Smith State Park Nature Center	NYS Office of Parks, Recreation and Historic Preservation	Caleb Smith State Park, Jericho Turnpike, Smithtown
	Nissequogue River State Park Nature Center	NYS Office of Parks, Recreation and Historic Preservation	Nissequogue River State Park, St. Johnland Road, Kings Park
	BOCES/SCOPE Outdoor Learning Laboratory	BOCES	Caleb Smith State Park, Meadow Road, Smithtown
	BOCES/SCOPE Outdoor Learning Laboratory	BOCES	Sunken Meadow State Park, Kings Park

Table 7. Museums and Nature Centers



Performing and Visual Arts Centers

Facilities for the arts are also important to the quality of life of a community. Arts centers include art education, exhibition, and the performing arts. Historically, Smithtown's art centers have been modest in size, largely because the Town is so close to the enormous resource of theaters, museums, and galleries in New York City and the surrounding region. Even so, these are important resources for the local community.

The Mills Pond House is the only visual arts facility in the Town. Other ones close by are the Long Island Museum in Stony Brook, the art gallery at the Staller Center for the Arts at Stony Brook University, and the Heckscher Museum in Huntington. The small number of these facilities in the area indicates a potential for more in the future.

Aside from conventional movie theaters, the Town had no facilities dedicated to the performing arts until the Smithtown Center for the Performing Arts was established in a historic movie theater in 2002. Additionally, Hoyt Farm Park is used in the summer for concerts.

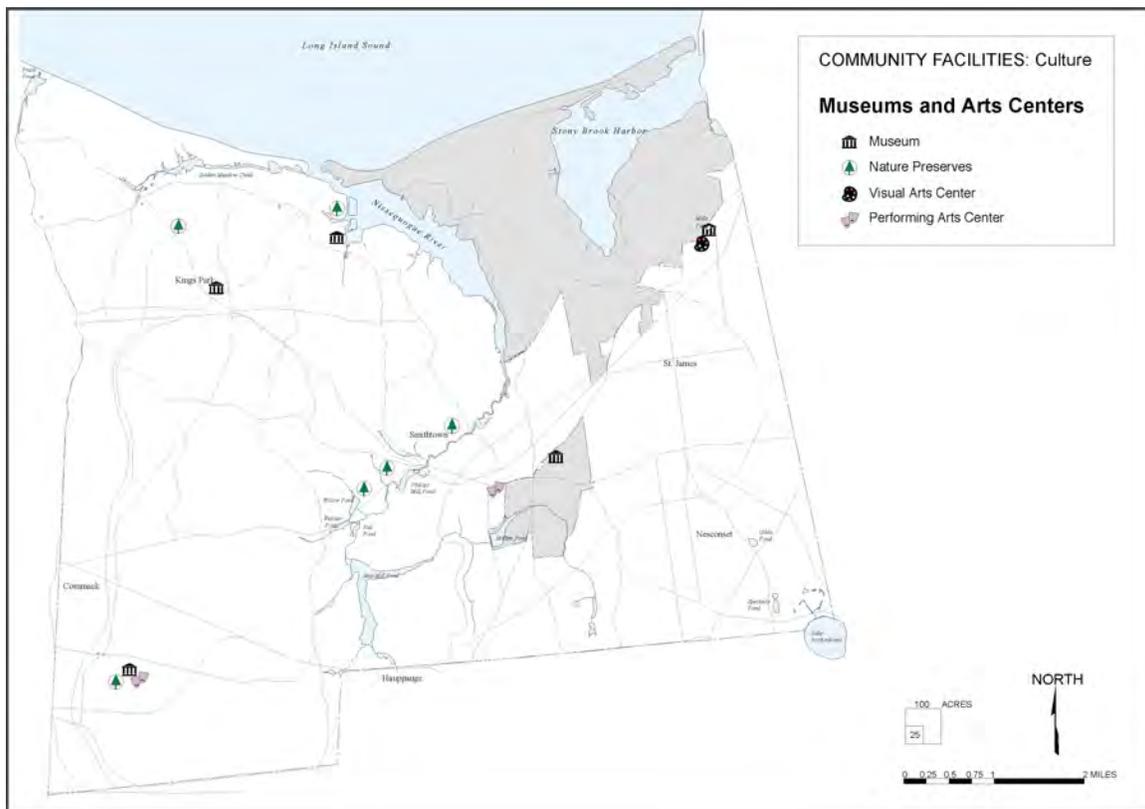


Figure 27. Museums, Nature Centers, and Arts Centers



Social Facilities

A neighborhood or community is defined by social relationships more than it is by streets and buildings. Places for groups to hold meetings are important to the life of a community. While the government and schools provide for some of these meeting places, non-profit organizations including service, fraternal, and civic groups create many facilities.

Figure 28 depicts the locations of meeting halls as of 2007. The Town has 52 secular meeting halls. More than 40 restaurants and religious buildings in the Town are used by community organizations as well, however, these are not shown on the map.

Over the next 20 years, many privately owned meeting places will likely be lost due to economic pressure to redevelop the properties for more profitable uses. With higher land costs in the future, it will be difficult for organizations to acquire land for meeting places. Thus, the remaining meeting halls, especially the public ones, will be used more. If the Town wishes to preserve these amenities, it will be necessary to develop policies that insure that there are suitable locations for community organizations to meet.

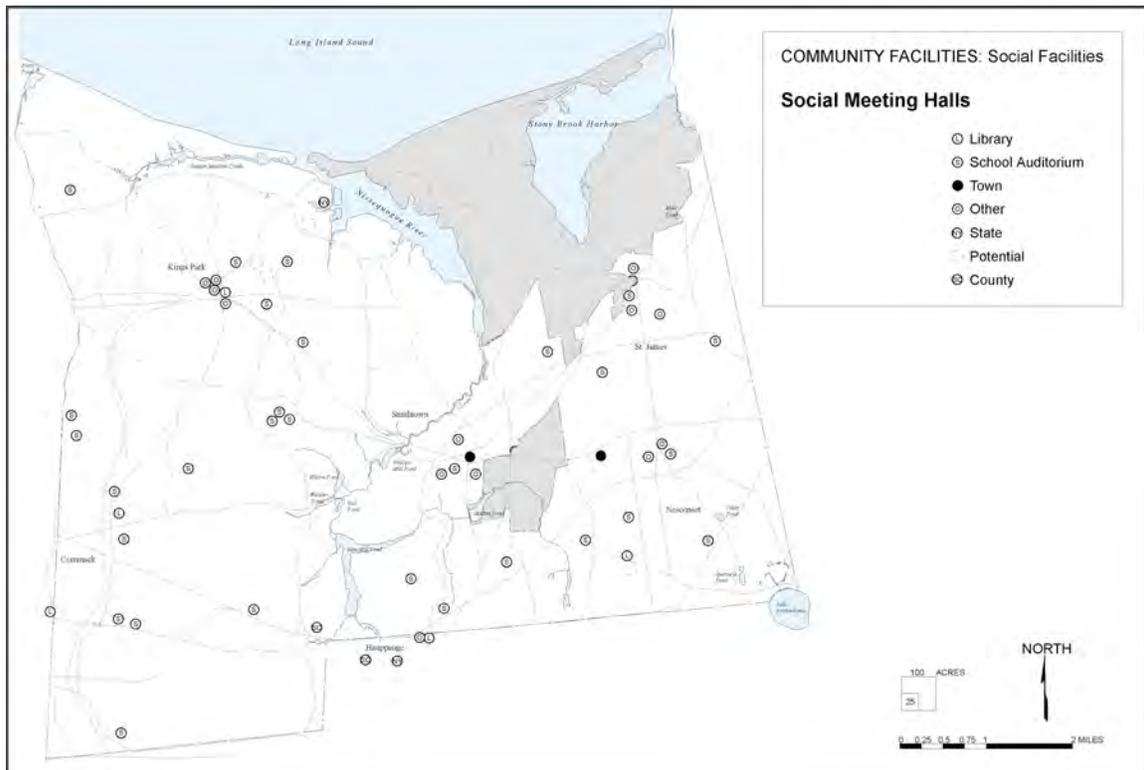


Figure 28. Meeting Halls



Religious Institutions and Cemeteries

As of 2007, there are approximately 40 houses of worship in the Town, about one facility per 1,000 families. These houses of worship are fairly dispersed throughout the Town. More than ten Christian denominations and three Jewish denominations are represented in these places of worship.

In the 1990s, many places of worship in the Town were expanded. The expansions increased impacts on adjacent residential properties. Separately, some places of worship have been selling off some of their property, leaving smaller sites on which to operate. In the future, some congregations may be pressured to sell their entire sites to more profitable uses. Lastly, some of the congregations operate in historic buildings. There is likely to be increasing pressure to modify these buildings to better suit these congregations' needs. Based on recent court decisions on the Religious Land Use and Institutionalized Persons Act of 2000 (RLUIPA), the right to religious observation takes precedence over historic preservation. Therefore, the Town should recognize the possibility of losing historic structures.

The Town has eight small cemeteries, totaling approximately 39 acres, which are maintained by various organizations. Larger cemeteries across the Island, such as Calverton National Cemetery, Long Island National Cemetery, and the numerous cemeteries on Pinelawn Road in Babylon, serve the needs of Town residents. The Town also has at least two dozen tiny abandoned cemeteries that are now maintained by the Town. It appears that cemeteries within Town boundaries have reached their maximum capacity. Given the level of development in the Town, it would be difficult to construct any new ones.

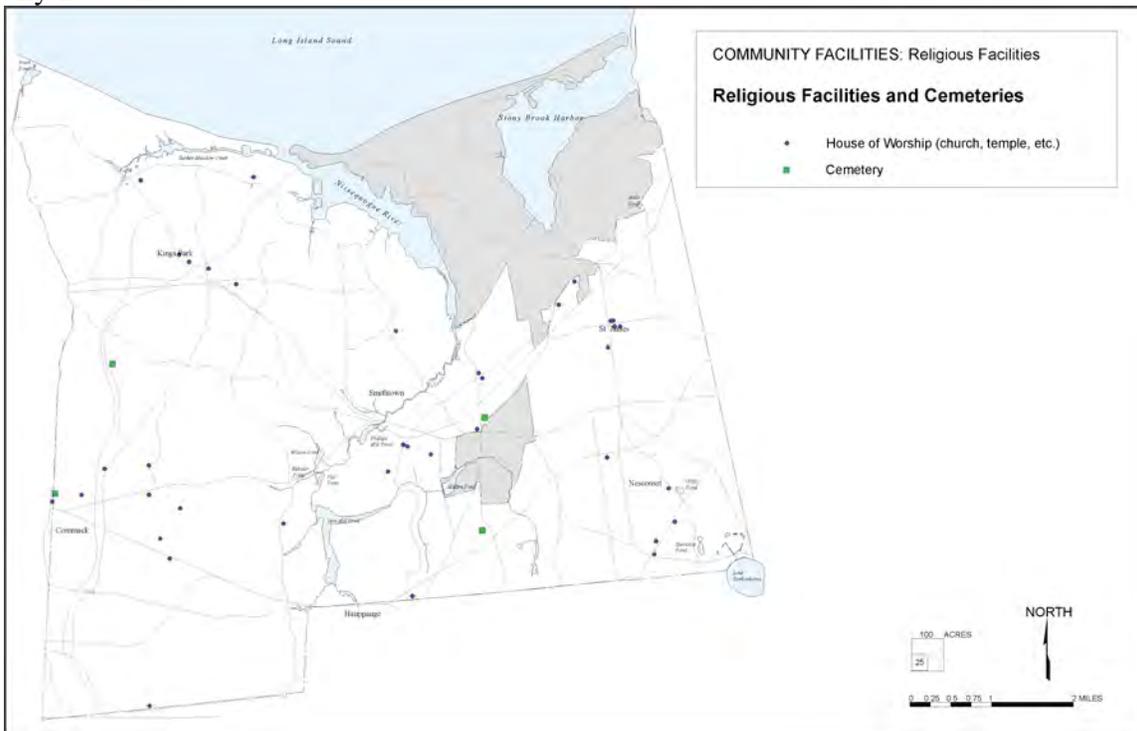


Figure 29. Religious Facilities and Cemeteries

C Conclusions

While the Town has a very limited role in creating or operating cultural, social, and religious facilities, its zoning and other land use practices do have an impact. As noted earlier, the purpose of the Comprehensive Plan Update is to ensure that these facilities can be created when needed and can continue to operate. Each area, however, has its own challenges.

Cultural: The four libraries within the Town are ideally located. Two are located within the Smithtown and Kings Park downtown business districts, and the other two are easily accessible to the people in the community. St. James is the only community in the Town without such a facility. The development of the internet was expected to have a significant effect on libraries; however, as of 2007, the number of patrons using the libraries has continued to increase. To date, the most notable change associated with the internet is that the libraries have morphed from buildings containing mostly written materials to buildings that also contain a large percentage of other media and computers for public use.

There seems to be potential for additional museums in the Town for history, technology, sports, etc., as well as other opportunities for the arts. While we have several nature centers within the Town, most have a limited ability to expand. Buildings in Nissequogue River State Park (e.g. York Hall), abandoned historic structures, or other closed institutions offer opportunities for future museums and similar cultural facilities. For future nature centers, we should consider utilizing Nissequogue River State Park, which has environmental resources and space for programs, buildings, and parking.

There are only three arts centers in Smithtown; however, this small indicates that there may be potential for new centers in the near future.

Social: Due to increasing land costs, it will likely become increasingly difficult for organizations to acquire and maintain land for meeting places. Thus, the remaining meeting halls, especially the public ones, will be used more. If the Town wishes to preserve these amenities, it will be necessary to develop policies that insure that there are suitable locations for community organizations to meet.

Religious Institutions and Cemeteries: As land becomes more expensive, some religious facilities will likely be shut down and redeveloped. Existing facilities tend to get over-utilized and cause conflicts with the adjacent residences. The recommendations and implementation portion of this plan should discuss possible changes in land use practices that would alleviate the pressure on the existing facilities and insure that social and religious institutions have as many options to build as would any other typical use.





VII TOWN AND OTHER GOVERNMENT FACILITIES

- **Many levels of government provide services to Town residents.**
- **Government offices should be strategically located to provide efficient service to all residents within their jurisdictions.**
- **Governmental actions should be coordinated so as to have a neutral to positive impact on the local community.**

A Introduction

New York is typical of northeastern states in that it has many levels of government to provide services: the state, counties, towns, cities and villages, public authorities, and special districts. To best plan for the Town's future, it is important to understand the location of and need for existing and future government facilities.

B Inventory

Government Offices

The Town government is composed of about 23 departments, 4 boards, and 2 districts. Most of the administrative offices are located in Town Hall and six annexes. These seven buildings are located near the center of Town in the Smithtown business district.

The offices for the Highway, Traffic, Sanitation, and Parks Departments as well as the water districts are located apart from the majority of the Town's offices, at various sites throughout the Town. The Recreation Department office is located at the Smithtown Landing Country Club, and Senior Citizen Department offices are at the Senior Citizen Center in Nesconset.

The State office building for the Long Island region is located in Hauppauge immediately south of the town boundary. One of Suffolk's three County centers is in Hauppauge straddling the Town boundary, with an office complex on the north side of the Smithtown By-Pass, and a 12-story office building on the south side. The complex in Hauppauge consists of many office buildings, plus a yard for the police department. The State and County lease numerous smaller offices around the County for operations that do not fit into the main offices.



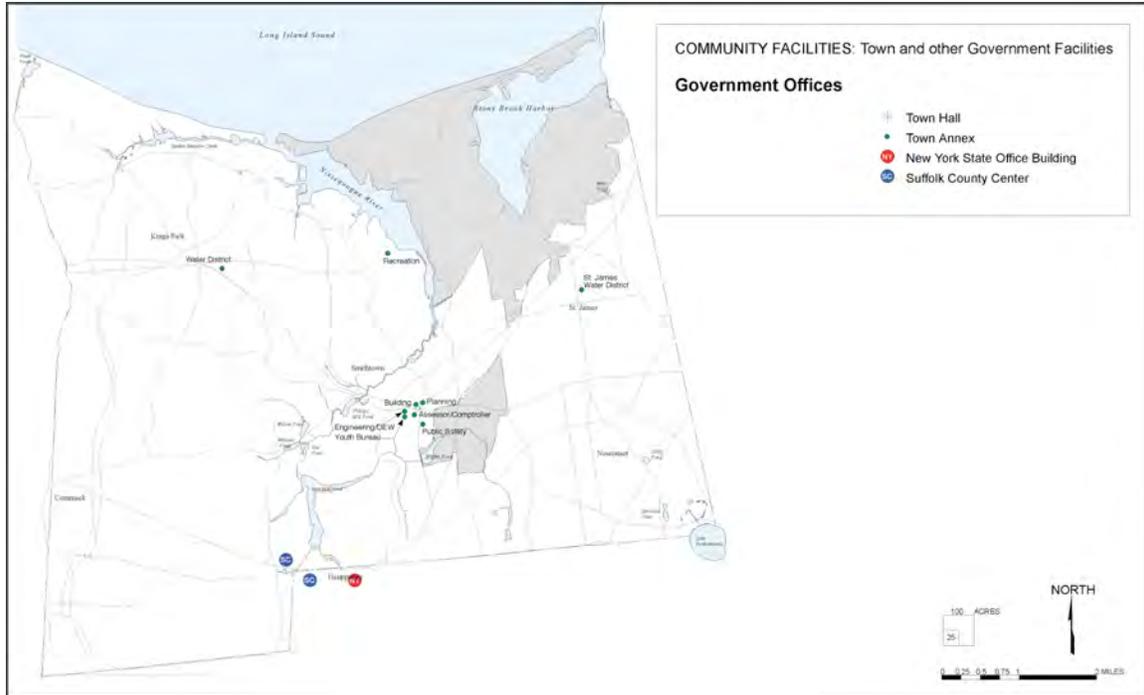


Figure 30. Government Offices

Aside from post offices, there are no existing or proposed federal facilities in the Town. The nearest are the courthouse in Central Islip and the IRS facility in Holbrook.

Public Works Facilities

The Town, State, and County are responsible for constructing, maintaining, and repairing public infrastructure in the Town. In order to perform these duties, the agencies need storage yards and garages that are accessible to most of the Town. The potential locations for such facilities, however, are limited by environmental and land use constraints. The yards and garages should be located on a site that:

- Does not contribute to surface or drinking water pollution
- Is relatively level
- Will not negatively impact residential neighborhoods

The Town has six garage/yard facilities. The Highway Department has its main yard in Nesconset on the Smithtown By-Pass, and a satellite yard in Kings Park. It also has a yard for materials on Montclair Avenue in St. James. The Traffic Department is based at the main Highway Department yard. Although the main yard is not centrally located, its access to the By-Pass makes it reasonably accessible to the whole Town.

The Parks Department and water districts have yards on Main Street (NYS Rte 25A) in Kings Park and the Sanitation Department has a garage at the Municipal Services Facility in Kings Park. At this time, all of the Town's departments have a demand to expand their maintenance facilities.



The State has two Department of Transportation satellite yards in the Town. They are located adjacent to the towns of Huntington and Brookhaven on Commack Road and Middle Country Road, respectively.

Suffolk County has a Department of Public Works satellite yard in the southwest corner of the Town. The yard is strategically located for maintaining all County highways in western Suffolk County, but is located in a special groundwater protection area.

Department		Location	Acreage	Type
Town	Highway & Traffic	Smithtown By-Pass, Nesconset	12.8	Main yard and garages
	Highway	Old Northport Road, Kings Park	4.4	Satellite yard
	Highway	Montclair Ave., St. James	16	Transfer station
	Parks	Rte. 25A, Kings Park	15	Garage and yard
	Sanitation	Old Northport Rd., Kings Park	8	Maintenance yard
	Smithtown/St. James Water District	Rte. 25A, Kings Park	4	Maintenance yard
County	Public Works	Crooked Hill/Commack Road	8	Satellite yard
State	Transportation	Middle Country Rd., St. James	8.3	Maintenance yard
	Transportation	Sunken Meadow State Parkway, Commack	5.5	Maintenance yard

Table 8. Public Works Yards

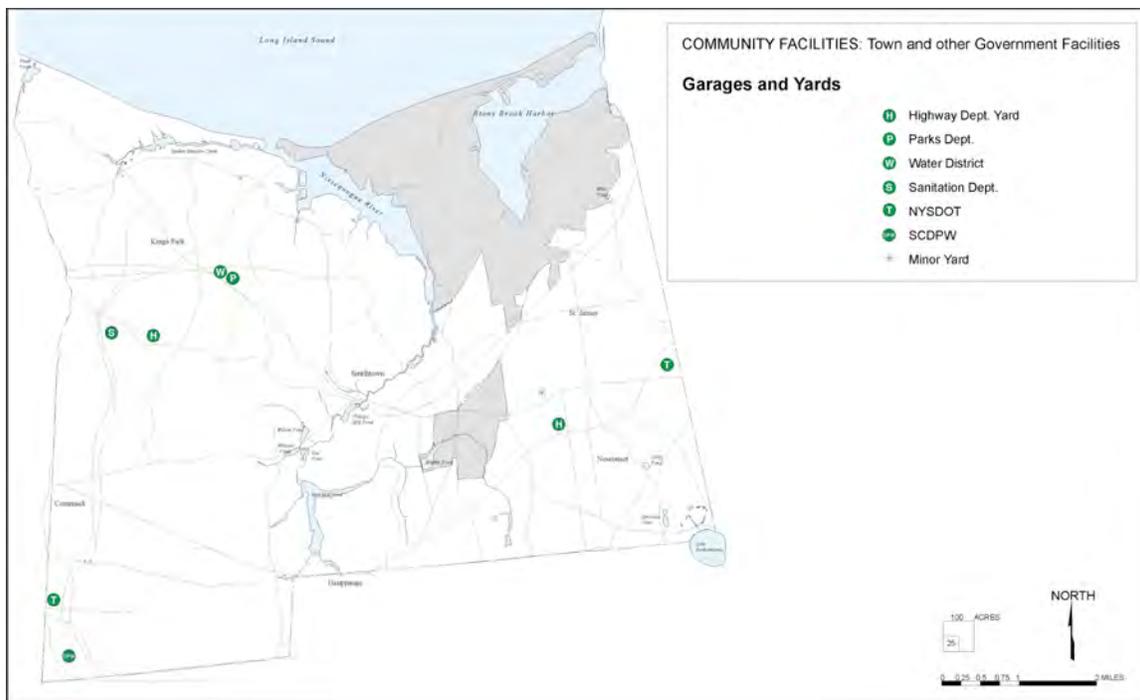


Figure 31. Garages and Yards

Post Offices

The primary Federal facilities within the Town are the U. S. Post Offices, which are located in all six hamlets in the Town and in the Hauppauge Industrial Park. As can be seen from Figure 32, the post offices are fairly well distributed throughout the Town.

In the 1970s and 1980s, the United States Postal Service (USPS) relocated many of its post offices outside of downtown areas in order to expand the building size and to provide more parking for its delivery vehicles. While this expansion may have been warranted, the old locations tended to be within walking distance of many of the patrons while the new locations are more oriented for automobile access. This contributes to traffic congestion and tends to isolate those individuals who are dependent upon public transportation.

As of 2007, the St. James post office is the only post office in the process of expanding. However, it is likely that some others may be too small to accommodate future growth. Over time, relocating the post offices back to the community centers would be beneficial. In order to accomplish this, the sites would have to be designed in such a way that would allow the postal service to store its trucks and equipment on site. Municipal parking lots could provide or could be upgraded to provide parking for post office patrons.

In addition to the USPS, there are a number of private courier services. These private services tend to locate their drop-off facilities in shopping center storefronts, and do not require stand-alone buildings. Each has major distribution facilities in the County, but none are located in the Town.

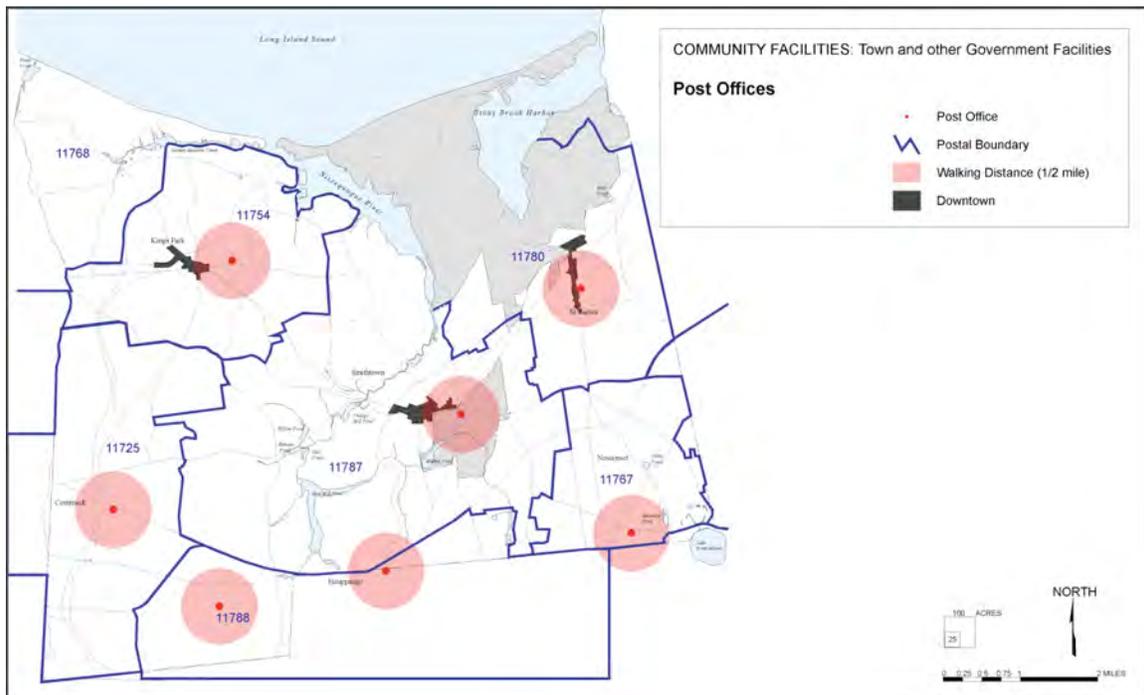


Figure 32. Post Offices



C Conclusions

The needs of the Town's, County's, and State's populations are constantly changing, and government must respond to these needs. Some aspects of the government will grow, while others will be reduced or moved to a different level of government. Although these changes are made for the overall benefit of a population, the indirect impacts on the surrounding community are sometimes overlooked. It is the Town's responsibility to insure that the welfare and safety of its residents are protected.

Government Offices: Government offices should be located where they are convenient for the public, close to mass transit, energy efficient, and meet the needs that they are assigned to. For Town government, this should take the form of consolidating all government offices in central locations, such as downtowns, so that they are in close proximity to each other. It is unlikely that the County and State will change their locations, but as the demand for new office space increases, these units of government should explore locating in the downtown areas, so as to lessen commuter traffic trips and to promote the economic vitality of the downtowns.

Public Works Facilities: It is likely that there will be an expansion in parks, highway, and related public works facilities. While expansion or creation of new facilities will be based upon demand and fiscal constraints, these changes should have a neutral to positive impact on the surrounding community. In expanding existing or in siting new facilities, the Town should consider a number of environmental constraints.

- Potential to contribute to surface water pollution
- Potential to contribute to drinking water pollution
- Slope of the land
- Compatibility with surrounding land uses
- Proximity to major Town streets

Postal Offices: Although the Town does not control the postal service, post offices are significant community facilities. In addition to their obvious function, post offices attract traffic, are places where residents see each other, and can be focal points of communities. Ideally each community should have its own post office, and it should be located in the heart of the downtown. As these facilities expand and improve, we should strive to keep them in central locations, within walking distances of many of their patrons, and they should be constructed with sufficient site parking and amenities.





VIII UTILITIES AND OTHER INFRASTRUCTURE

- **The demand for power is increasing faster than the increase in population.**
- **Communications systems and the requirements for these systems are rapidly evolving.**
- **In order to promote sound growth while protecting the water supplies, expansion of alternative wastewater treatment methods such as sewer systems must be considered.**

A Introduction

Communities need reliable on infrastructure for basic services including power generation and distribution, telecommunication, water distribution, wastewater management, solid waste management, and stormwater management. Transportation is another important part of municipal infrastructure, but this will be discussed in a separate volume (refer to Volume VI for an inventory and analysis of the Town's transportation network).

Although communities need these systems, each utility has both positive and negative features. The challenge in the Comprehensive Plan is to insure that the community's needs are met by this infrastructure in a manner that does not produce significant negative impacts on the residents.

B Inventory

Power

Electric

The Long Island Power Authority (LIPA) supplies virtually all of the electric power on Long Island. LIPA is a state agency that buys energy from producers. At present, LIPA buys 80% of its electricity from National Grid, which owns 27 power plants on Long Island. The remaining 20% is imported via cables from Connecticut and New Jersey, or purchased from solid waste incinerators.

As of 2008, none of the power plants is located in the Town of Smithtown; however, it is likely that some locations in the Town will be considered for future plants if energy usage continues to grow. The LIPA corridor near the Sunken Meadow Parkway is one of the only places on Long Island where major electric transmission lines are adjacent to a

regional gas line. Inasmuch as most of this corridor is densely populated, any power plant would need to be sensitively located and designed to avoid impacting residents.

All the power plants in the region use oil or natural gas for fuel. A small amount of energy is obtained from incinerators. The use of nuclear, geothermal, or hydroelectric power on Long Island for large-scale energy production is unlikely, however, the use of solar energy, such as on closed landfills, seems to have potential. The use of wind power seems unlikely because of the shortage of large parcels of cleared open space. However, if the price of fossil fuels rises enough, wind power may be reconsidered. As with traditional power plants, these facilities would need to be sited in a manner compatible with the surrounding land uses.

Most of the electric power in the Town is transmitted via overhead wires; however, underground wires are used in developments approved after 1965. Overhead wires are cheaper to install, but are susceptible to wind and ice damage. Further, vegetation needs to be pruned frequently to minimize the risk of storm damage to the wires. Underground wires are more expensive, but are more aesthetically pleasing and less susceptible to storm damage than overhead wires.

Most of the power lines are in highway rights-of-way, though, some are in easements along rear property lines. The power lines on highways have become an aesthetic problem in some locations, particularly in the downtowns and where regional lines share the same streets as local lines. This problem will likely worsen as the need for more power increases.

Most of the major power lines are in rights-of-way owned by LIPA. There are only three LIPA rights-of-way in Smithtown: a major one leading from the Northport power station south along the Sunken Meadow Parkway to a substation in Commack and two smaller ones branching from the substation to the Hauppauge Industrial Park and to the State and County office buildings. Some major lines are on highway rights-of-way including Old Northport Road and Lake Avenue. Due to the level of development in the Town, the potential for new rights-of-way is



Figure 33. Electric



virtually nonexistent. Therefore, the use of more highway rights-of-way or larger lines on existing highways may occur. Also, use of the LIRR right-of-way is likely. Early planning will be necessary to avoid aesthetic and property value impacts.

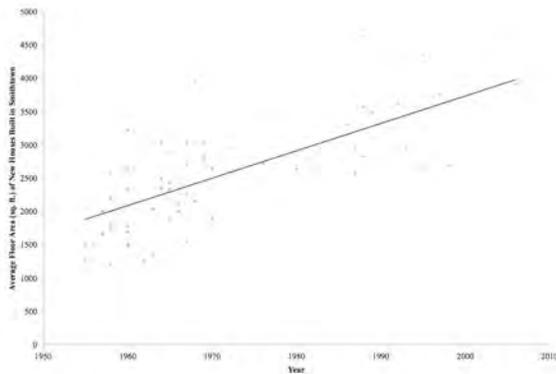


Figure 34. Average Floor Area of New Houses Built in Smithtown between 1955-2006

In the graph above, the points represent the average size of dwellings built in a particular year. The line represents the approximate increase in house size between 1955-2006

There are six substations in the Town. According to LIPA, no new substations are proposed within the Town during the next five years unless Nissequogue River State Park gets developed. However, the Town should expect a future need for additional or larger substations based on the current trend of energy growth per capita. See Appendix G for a list of projects that LIPA intends to complete within the Town by 2012.

In its 2006 report, LIPA noted that while electricity usage per household rose almost 300% over the last 50 years, between 1998 and 2005 usage increased 28%. LIPA attributes much of the increase to the need to support larger dwellings (LIPA, 2006).

In Smithtown the average size of a home built in 1955 was approximately 1,400 sq. ft., whereas the average size of a house built in 2006 was approximately 3,900 sq. ft. While the economy continues to support such development and consumerism, it is reasonable to expect the growth in energy usage to continue. As a Town, we must be able to support the corresponding growth in infrastructure or institute mechanisms by which to reduce the Town's electricity demand.

LIPA projects an Island-wide deficiency of 700-800 megawatts by the year 2013. This implies that there will be a need in the near future to build additional power plants, expand existing plants, or purchase more energy from other sources unless energy consumption can be reduced.

Gas

The majority of the streets in the Town have gas lines, most of which are owned and operated by KeySpan. While there are no major gas production or storage facilities in the Town, a major gas transmission line, the Iroquois Pipeline, follows the Sunken Meadow Parkway and terminates at the Pilgrim Substation in Commack. As of 2007, LIPA and the Iroquois Gas Transmission System have a pending proposal to extend the pipeline from the Pilgrim Substation to a new electric generating facility in the Town of Brookhaven. Multiple routes for this extension have been discussed, all of which include some degree of construction in Smithtown. As of July 2006, the preferred route would follow New Highway and the LIPA right-of-way to the Smithtown-Islip boundary. In addition to the



Iroquois pipeline extension, KeySpan also has plans to extend its pipeline from the Pilgrim substation along Harned Road and Vanderbilt Motor Parkway to a proposed station in Brentwood.

Communications

Since the 1957 Comprehensive Plan, the field of communications, including both broadcast and wired systems, has significantly changed. Whereas municipalities were once concerned with just telephone, radio, and television communication systems, Towns now also review cable, satellite, cellular, and fiber optic systems. Some of the traditional wired systems like cable and phone systems have since expanded to provide telephone, television, and internet service. Likewise, wireless systems are no longer limited to just broadcast systems but have expanded to include cellular communication, data transmission and wireless internet connections (e.g. “Wi-Fi”). Because each of these systems operates differently, each may have different impacts on the community.

Wired Systems

As of 2007, there are three types of wired communications systems in the Town: wire telephone lines, cable, and fiber optic systems. All of these systems provide communication, data transfers, and various forms of internet connections, while the latter two systems also provide television. Two companies have control over these three systems. Verizon Communications operates all of the telephone landlines in Smithtown (and Long Island) and now provides fiber optic service (FiOS). Cablevision is the sole cable provider on Long Island and has now replaced much of its infrastructure with fiber optic cable.

Though both companies operate sub-stations within the Town, their wired networks, including buried and overhead wires, comprise the largest portion of their infrastructure. Like the overhead electrical lines, the overhead lines of these systems are susceptible to damage by severe storms and have negative aesthetic impacts in several communities.

Although wired communication systems continue to expand, their growth is not as quick as the growth in wireless communication systems.

Wireless Systems

The primary wireless systems include cellular, satellite, and “Wi-Fi” systems, which provide telephone, entertainment, internet, and data transmission services. These systems, which were nonexistent in 1957, have grown substantially over the last 15 years. While the community desires these systems, conflicts appear with the installation of their infrastructure.

Cellular communications, for example, requires multiple antennas to service a community. As of 2006, there were 38 personal wireless facilities on 17 sites in the Town. These sites belong to five different carriers. Some of these antennas are located



on existing tall structures, e.g., water towers; others are located on cell towers. While the Town has detailed regulations regarding the placement of these facilities, residents have expressed concerns over the aesthetic and health impacts of these facilities. At the same time, residents have also expressed concern over the lack of service in some areas. As the demand for this service increases, more antennas will be necessary. Regulating and insuring this service will be an ongoing issue over the next decade.

Satellite systems, especially in residential areas, have seen a reduction in public opposition as the size of these antennas has been reduced. Initially, satellite antennas were 10-12 feet in diameter. While some of these antennas are still present, most satellite antennas within the Town are less than 24” in size. The primary exceptions are located in the Hauppauge Industrial Park where there are several sites with large antennas.

“Wi-Fi” allows wireless communication through a local area network. This type of communication system was announced less than a decade ago, and its use is growing. Suffolk County has announced its Wireless Broadband Initiative, a program whose goal is to insure that all County residents will have access to broadband wireless services. The County plans to install infrastructure on many of its buildings, towers, poles, etc. to accomplish this.

Broadcast Systems

Although there are numerous broadcast systems in the region, there are no commercial or major governmental radio towers in the Town. However, there are many minor radio communication systems in the Town for fire, police, town government, and business activity.

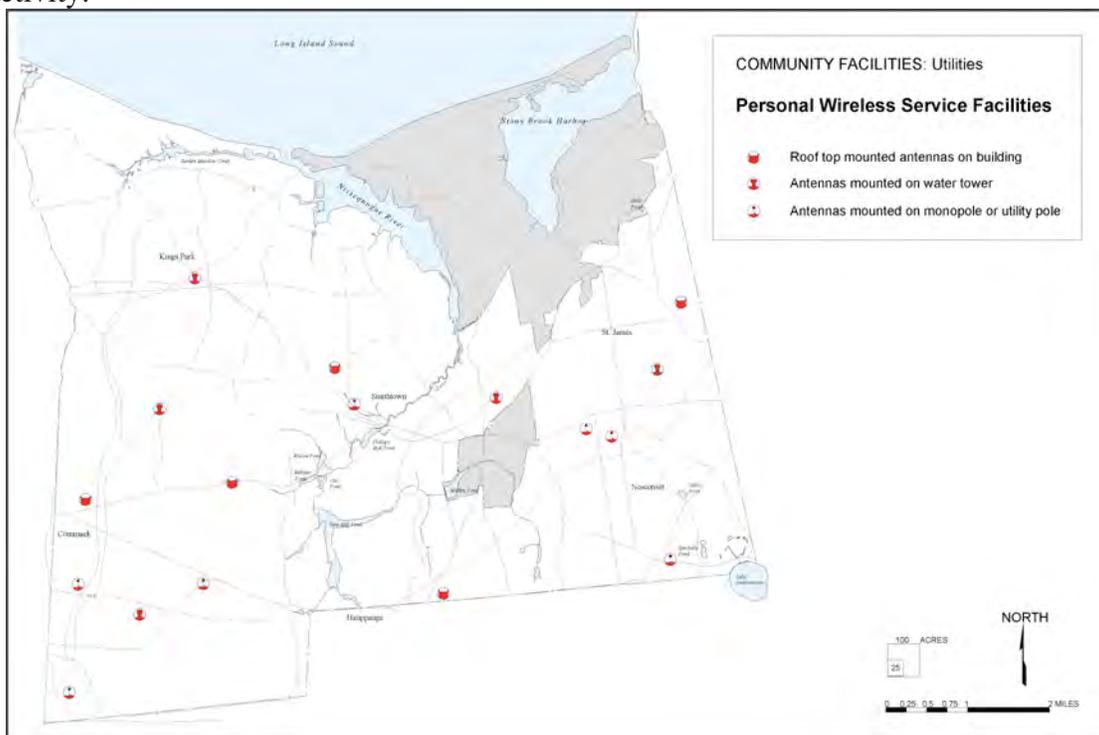


Figure 35. Personal Wireless Service Facilities



Water

The Suffolk County Water Authority (SCWA), the St. James Water District, and the Smithtown Water District are the three agencies that provide water in Smithtown. The SCWA operates all of the wells and well fields in the Town. The Smithtown Water District and St. James Water District are municipal water districts in the Town and obtain their water from the Suffolk County Water Authority.

The SCWA distributes water to approximately 75% of the businesses and residences in the Town. The Smithtown Water District covers roughly all of the area in Kings Park and Smithtown between Lawrence Road/Plymouth Boulevard and the Nissequogue River, and serves about 5,750 houses and businesses. The St. James Water District covers all of St. James with the exception of properties within 2,000 feet of Middle Country Road. Based on the SCWA's distribution maps, there are nine developed areas in the Town not currently served by any of these three districts (see Figure 29):

1. Sunken Meadow State Park
2. Nissequogue River State Park*
3. State-owned land of the former Kings Park Psychiatric Center*
4. Old Dock Road and Upper Dock Road
5. Old Northport Road between Indian Head Road and Lawrence Road
6. Lawrence Road in Kings Park
7. Eastern portion of Oakside Drive
8. Jericho Turnpike between Ledgewood Drive and Old Willets Path
9. Marchant Drive, Arthur Drive, and Montclair Avenue in St. James

* Site has an extensive system, consisting of miles of pipe, seven wells, four storage tanks, and fire hydrants, and has the potential for development in the future.

The SCWA's distribution system in Smithtown consists of 6-inch to 12-inch mains, 46 wells on 22 well fields, 22 pump stations, 4 storage tanks, and over 3,000 fire hydrants. Three wells on Astor Avenue have been abandoned in the past ten years and SCWA plans to replace one of these wells. As of 2007, there are no other plans to construct new well fields.

As discussed in the Natural and Cultural Resources section, the Suffolk County Water Authority pumps water from three aquifers: the Lloyd, the Magothy, and the Upper Glacial. In Smithtown, 40 of the 46 wells draw from the Magothy aquifer. Six of the wells draw from the Upper Glacial aquifer. As is the case for much of Long Island, the Upper Glacial aquifer has largely become too polluted to provide drinking water.

Different from most other places around the country, which obtain their drinking water from an exogenous source, Suffolk County sits atop its only drinking water source, which will likely remain the sole source of drinking water into the foreseeable future. As such, it is imperative to protect the groundwater resource from land-based pollutants.



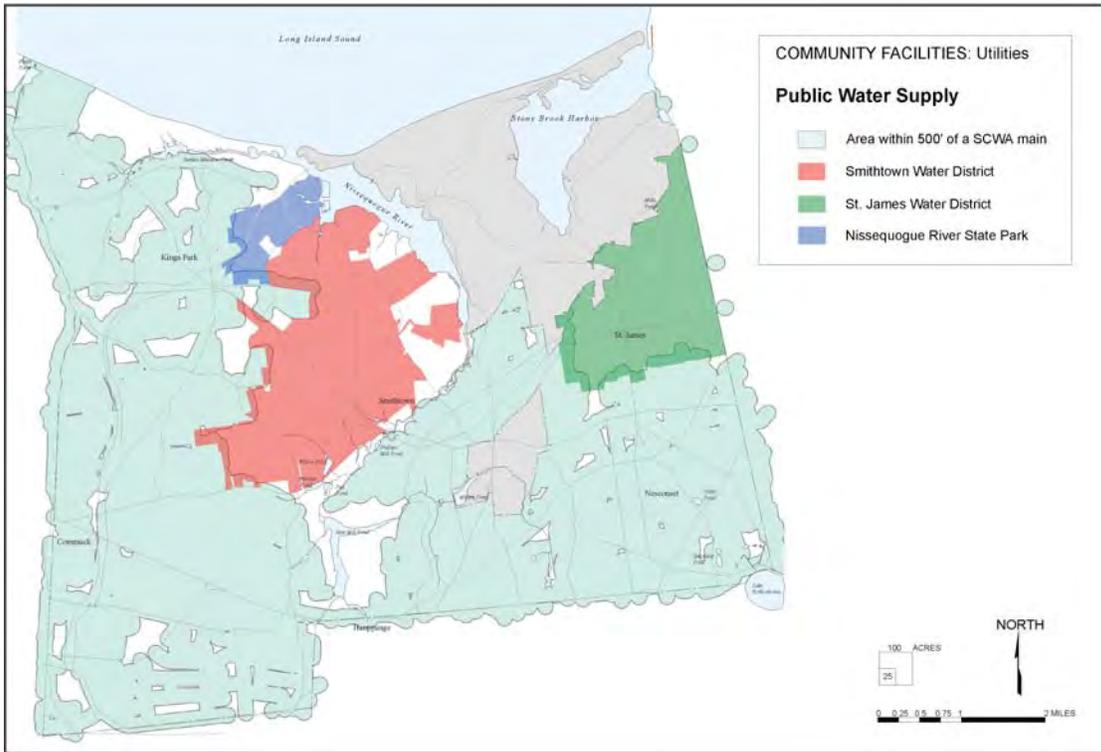


Figure 36. Public Water Supply

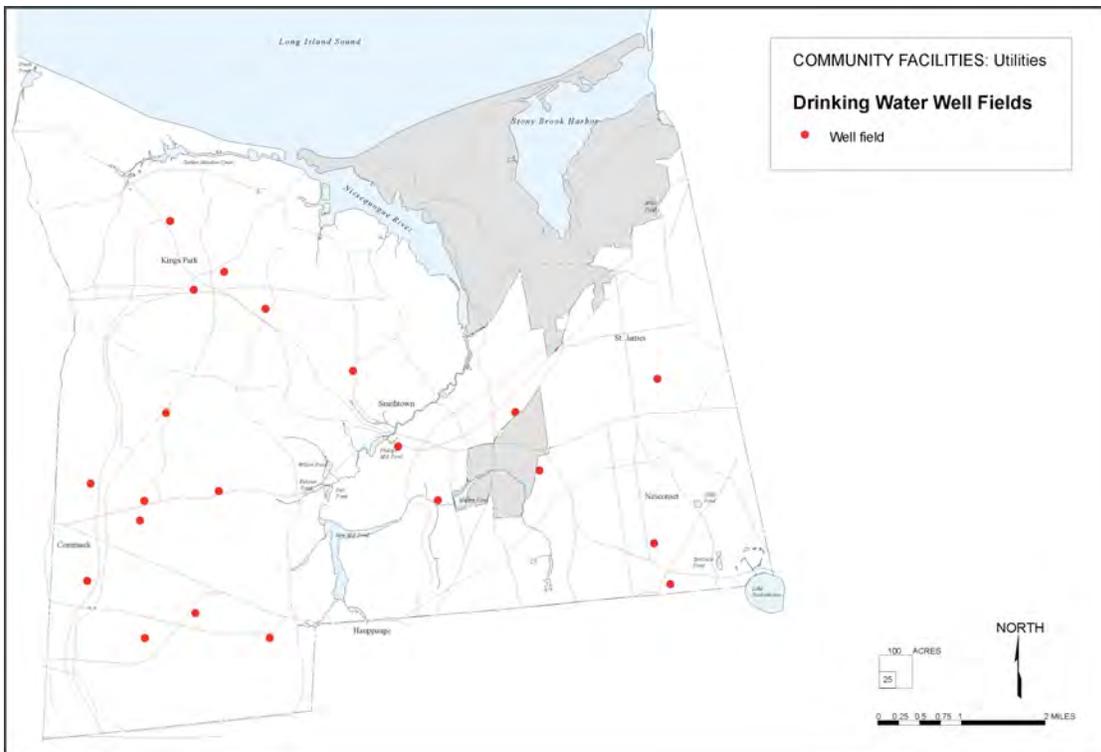


Figure 37. Drinking Water Well Fields



Sewage Treatment

Historically, sewers were used where the population density was too high for on-site septic systems to work. In most of the US, this density was about 2 families per acre depending on soil conditions. On Long Island where soils are generally sandy, the county health departments permitted septic systems at much higher densities, and only a few small treatment plants for villages like Port Jefferson and campuses such as state hospitals were built.

In the 1960s Suffolk County realized that this practice would result in pollution of the groundwater, and planned to build regional sewer systems. In the 1970s the County completed a comprehensive water pollution control plan (the “208 Study”) that concluded that sewers should be constructed in areas where density exceeds more than two homes per acre. In the early 1980s the Suffolk County Sanitary Code was amended to prevent high-density development unless it was connected to a sewage plant. Only the Southwest Sewer District, serving much of the towns of Islip and Babylon, was completed.

The lack of sewers in the Town limits the development potential for many areas and uses resulting in a competitive disadvantage with those communities that have sewers. Certain land uses such as restaurants, delis, apartments, and medical office buildings require large land areas if not connected to sewers. Downtowns, for example, do not have large land areas, and the lack of sewers has resulted in disinvestment and lower property values in the downtowns. It has also hindered the Town from diversifying the types and densities of housing, as well as providing housing that most residents could afford.

Only 5% (2,175 acres) of the acreage of the Town or 9% (3,707 residential units) of the Town’s total residential units is connected to sanitary sewers. The first sewer system in the Town was for the Kings Park Psychiatric Center. The plant was transferred to the County in the 1970s. Since then, seven multi-family developments plus a hospital, two nursing homes, a medical office building, and a small number of single-family dwellings have been connected to the plant. Tables 7 and 8 provide a list of all of the developments connected to sewage treatment facilities, and the total flow pumped through the facilities on a daily basis.

Suffolk County owns and operates four sewage treatment plants in Smithtown, serving approximately 2,278 residential units plus St. Catherine of Siena Hospital, the Suffolk County Center, Hauppauge Industrial Park, and two nursing homes. The Hauppauge Industrial District (Sewer District #18) currently serves about 40% of the Industrial Park; however, the County is in the final stages of expanding the district to accommodate the entire Park. The Kings Park plant (Sewer District #6), constructed in 1935, is the oldest of the four plants. It is the only plant that discharges effluent to Long Island Sound, and the only plant that does not remove nitrogen. The other three inland plants discharge sewage effluent to groundwater and have tertiary treatment systems that remove nitrogen.



In addition to the municipal sewage treatment plants, there are five private sewage treatment plants within the Town, and three located just outside the Town's boundaries that treat wastewater from developments in the Town. Combined, the privately owned plants treat approximately half the amount of sewage that the municipal plants treat.

Municipal Sewage Treatment Districts			
Suffolk County Sewer Districts	Developments	# Units Connected	Total Flow (gpd)
#6 Kings Park	Harbor Trees subdivision*	279	531,875
	St. Johnland Nursing Home	250	
	Martin Luther Terrace Apartments	115	
	The Hills at Kings Park Condominium	137	
	Kings Park Manor Condominium	269	
	Indian Trace Townhouses	45	
	Lakebridge Apartments	200	
	St. Catherine of Siena Hospital	867	
	Twisting Hills Condominium	26	
	Willow Ridge Condominium	62	
	Lutheran Center for the Aging	353	
Single-family dwellings	21		
#18 Hauppauge Industrial Park	Hauppauge Industrial Park	150 lots	450,000
#22 Hauppauge Municipal	Suffolk County Center North Complex	385,709 sq. ft.	195,715
	H. Lee Dennison Building	238,548 sq. ft.	
	State Office Building	285,000 sq. ft.	
	Tara II (Smithtown Tara)	201	
	Indian Head Forest	525	
	Lakes at Honey Hollow	88	
	Stonebridge	105	
Chuck E. Cheese	9,500 sq. ft.		
# 28 Fairfield at St. James	Fairfield at St. James	674	70,000
		Total	1,247,590

Table 9. Municipal Sewage Treatment Districts

*Harbor Trees development is the only development in the Kings Park Sewer District. The other developments are contractees.

Sources: Suffolk County Department of Public Works, Division of Sanitation
Number of units and estimated flow from the Harbor Trees subdivision was obtained from Smithtown Planning Department subdivision files.

Privately owned Sewage Treatment Plants			
Sewage Treatment Facility	Developments	# Units Connected	Total Flow (gpd)
Fairfield Village Garden Apartments*	Fairfield Village Garden Apartments	245	73,500
Hidden Ponds	Hidden Ponds at Smithtown	301	90,300
	Willow Wood/Tara II	55	16,500
Galleria	Windcrest at Galleria Townhouses	200	60,000
	Avalon at Galleria Garden Apartments	262	78,600
	Town Commons at Galleria	29	8,700
	CVS	12,500 sq. ft.	375
Country Pointe	KinderKare	16,500 sq. ft.	1,175
	Tiffany Park	88	26,400
Smith Haven Mall**	Park Meadow (Country Pointe)	194	58,200
	Smith Haven Mall	1,435,905 sq. ft.	89,600
Nesconset Nursing Center	Nesconset Nursing Center	240 beds	36,000
St. James Healthcare Center	St. James Plaza Nursing Facility	250 beds	37,500
	St. James Healthcare Center	230 beds	34,500
Nob Hill***	The Woods (Rosevale Townhouses)	55	16,500
		Total	627,850

Table 10. Privately owned Sewage Treatment Plants

* Located in Huntington
** Located in Brookhaven
*** Located in Islip

Sources: Smithtown Planning Department subdivision and site plan files



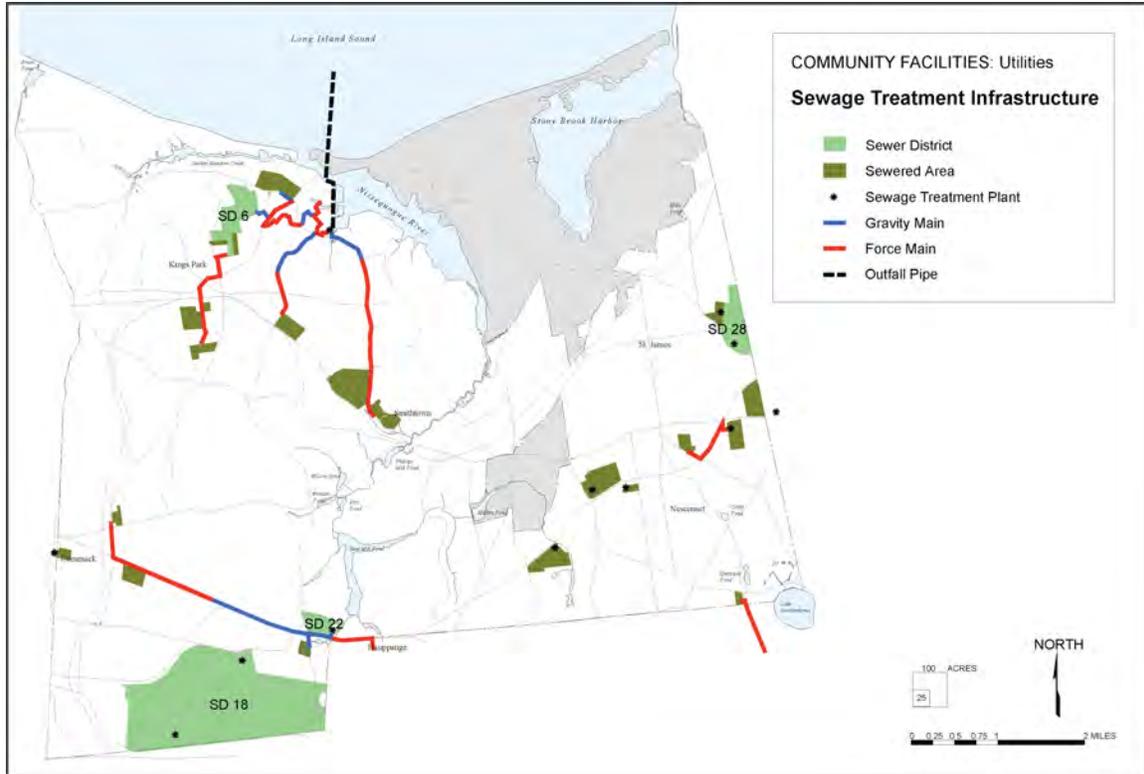


Figure 38. Sewage Treatment Infrastructure

Drainage

The community's drainage systems impact development, the environment, and municipal expenditures. The ability to use land is often guided by how the drainage system is designed. The elements of a drainage system include infrastructure, such as recharge basins, and regulations, such as the State Pollution Discharge Elimination System (SPDES). The challenge in designing these systems is to implement effective practices that promote development and protect the environment, in a cost effective manner.

Drainage structures are typically needed only in developed areas to protect dwellings, commercial buildings, infrastructure, etc. from stormwater flooding. In undeveloped areas of Long Island, most of the stormwater soaks into the ground; only about 10% of precipitation becomes runoff that flows to surface water. Development increases the amount of impermeable surface area, which increases the amount of runoff.

The amount of drainage infrastructure in the Town is extensive. Excluding highways, man-made drainage systems are the largest single expenditure for infrastructure within the community. About 80% of the drainage system is Town-owned and consists of about 300 recharge basins, hundreds of miles of pipe, and thousands of catch basins, leaching pools, and manholes. The State and County own about an additional 20%.



The type of drainage systems used on Long Island are more expensive to construct and maintain than systems used in many suburban areas elsewhere. Municipalities in this area use a large amount of underground infrastructure (catch basins, pipes, etc.) instead of open swales and ditches. Each approach has its advantages and disadvantages. Open systems help filter pollutants, however, they require wider rights-of-way. Closed systems increase peak flows during flooding, but are better for the appearance of typical neighborhoods and commercial areas.

Drainage systems on Long Island are designed to allow the runoff to soak into the ground and replenish the groundwater, instead of flowing into surface water. These types of systems help maintain groundwater quantity; however, certain systems like catch basins and leaching pools increase the likelihood of groundwater contamination because the stormwater is not filtered before it reaches the groundwater. Recharge basins, unlike simple catch basins, help purify the water through containment, evaporation and plant filtration. They also provide pockets of open space and excellent habitats for wildlife. As a result of rising land prices, developers and landowners have opted to install leaching pools rather than recharge basins in order to get more profitable use of the land.

The main drainage difficulties in the Town include groundwater pollution from leaching pools, flooding in high groundwater areas, and surface water pollution from direct discharge. The areas affected by these problems include:

- Northeast branch of the Nissequogue River, Nichols Road, and Lake Ronkonkoma - High groundwater in the area inhibits drainage from the recharge basins. These basins reach capacity quicker than those in other areas of the Town. When the recharge basins reach capacity, the runoff creates flooding around the low points in the watershed.
- San Remo - Stormwater discharges directly to the Nissequogue River, contributing to surface water pollution. Much runoff is concentrated toward Harrison's Pond, resulting in erosion of tributaries and filling in of the pond.
- Kings Park Psychiatric Center - Stormwater discharges directly to the Nissequogue River, contributing to surface water pollution.
- Meadow Road - The volume of the stormwater in the street is high, and there is much sediment as there are virtually no catch basins in the entire watershed. Stormwater flows directly into a tributary of the Nissequogue River, contributing to surface water pollution.
- Hallock Acres and Birchcroft Colony - Stormwater flows directly into the northeast branch of the Nissequogue River, contributing to surface water pollution.



In the Town, the design of drainage systems differs depending on the type of development it is to serve.

- Residential subdivisions – Typically, these systems consist of storm drains, underground pipes, and recharge basins. The subdivisions are designed so that the stormwater flows from the individual properties down the street to storm drains, which are connected to a network of underground pipes that flows into a recharge basin.

The recharge basins are engineered to accept 8 inches of water over a 24-hour period, unless they are connected to another recharge basin, in which case, they are designed for a 5-inch storm.

- Old Town Highways – Prior to the 1950s, development in the Town took place without drainage infrastructure. The Town Highway Department has since retrofitted many of these streets with drainage systems.
- Commercial developments – All commercial developments are designed to maintain drainage on-site, so theoretically, no stormwater runs off the property into the street or neighboring properties. The on-site drainage systems, including drywells and leaching pools, are designed to accommodate a 3-inch rain.
- State Highways – The drainage along the state highway system is designed and maintained by the New York State Department of Transportation.
- County Highways – The drainage along the county highway system is designed and maintained by the Suffolk County Department of Public Works.



Photographs of drainage systems in the Town

Left: Headwall and outfall in Harrison's Pond, San Remo

Center: Storm drains in a typical residential subdivision

Right: Detention Pond at Lake Ronkonkoma County Park



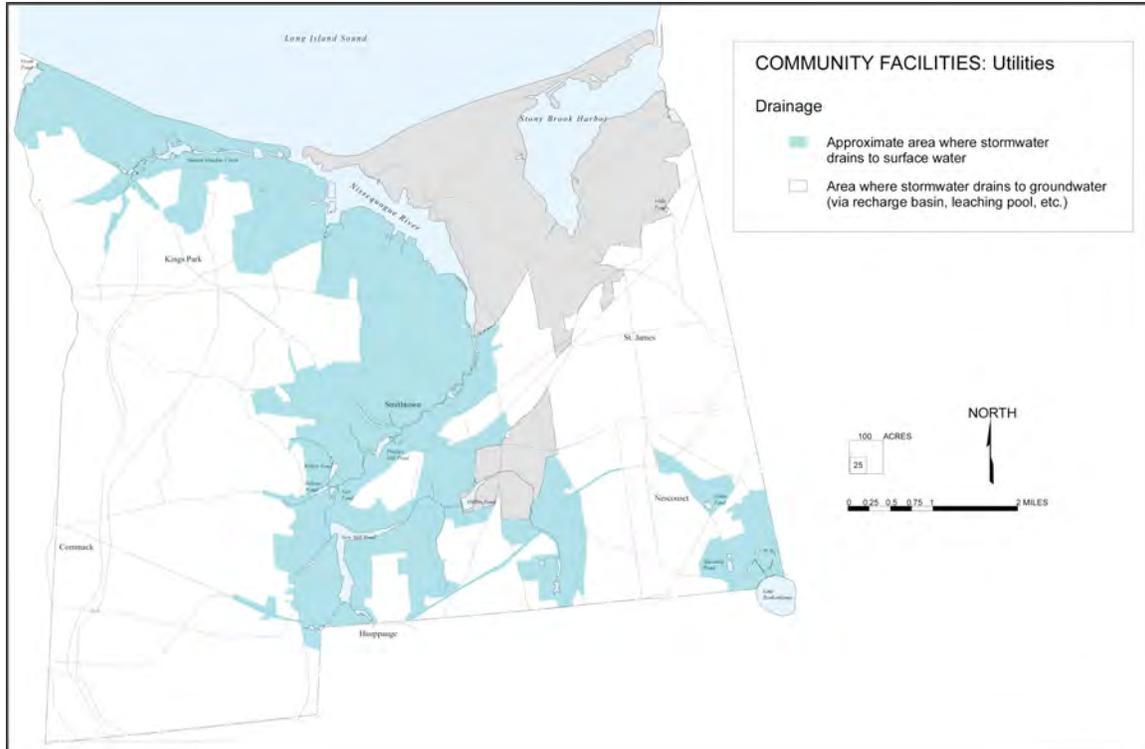


Figure 39. Drainage

Overall, the Town's drainage system has been successful in preventing flooding from stormwater runoff; however, there are a number of emerging issues that may reduce the system's effectiveness in the future. First, the cost of maintaining the drainage systems will increase as they age. This problem is compounded by the fact that due to complex topography, the Town has hundreds of small drainage systems rather than a single or few large systems. Almost all of these systems were created between the 1950s and 1980s. As of 2008 it is becoming apparent that some structures are at the end of their useful lives. Second, it appears that the intensity of storms has been increasing over the past 20 years, but most of the drainage structures have already been constructed. Third, the drainage systems were designed to handle stormwater based on certain amounts of impermeable surface area, but recently, residential and commercial property owners have been adding additions, wider driveways and other paving, thereby increasing stormwater runoff. Further, many highways have been widened without additional drainage facilities. If these trends continue, flooding problems will likely occur.



Solid Waste Management Facilities

In New York, municipalities have generally assumed responsibility for handling solid waste. Most municipalities separate solid waste into the following subsets: municipal solid waste (i.e. household waste), recyclable material, yard waste, construction and demolition debris, and non-hazardous industrial waste. Disposal of hazardous waste is not a responsibility of the Town.

When the first Master Plan was prepared in 1957, the Town operated two landfills: one in Nesconset and one in Kings Park. In the 1960s, the Town opened two additional landfills: one in St. James and a second one in Kings Park, and constructed the Resource Recovery Facility in Kings Park. The landfills in Nesconset and St. James were closed in the late 1970s. In 1981, the State legislature passed the *Long Island Landfill Law*, which prohibited landfills in deep recharge areas. In 1989, the Town entered into an agreement with the Town of Huntington to construct a waste-to-energy plant. Following the completion of the plant, the Town closed its two landfills in 1991.

Over the years the total amount of solid waste generated within the Town has increased. In 1977, the Town generated approximately 300 tons of solid waste per day. In 2006, the Town generated approximately 444 tons of solid waste per day, a 48% increase from 1977. The EPA has reported that the increase in solid waste nationwide over the last 40 years can largely be attributed to an increase in the amount of paper products discarded (EPA, 2006).

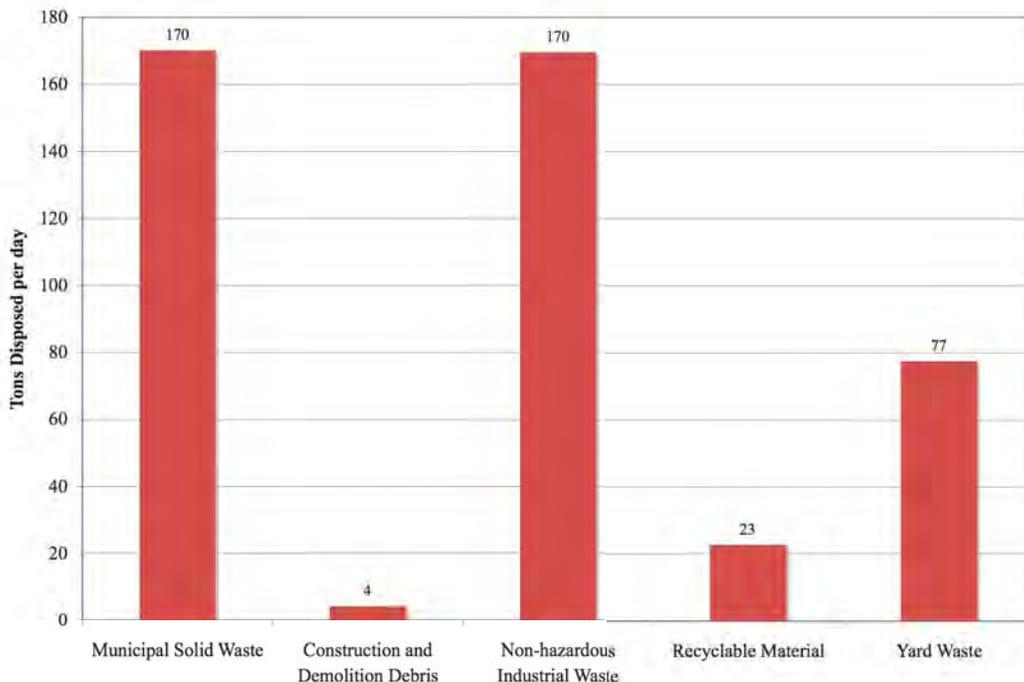


Figure 40. Solid Waste Generated in Smithtown in 2006

Source: Town of Smithtown, 2006. NYSDEC Division of Solid & Hazardous Materials Annual Report Planning Unit Recycling Report.

The Town relies on at least eight facilities to recycle or dispose of solid waste; only one of these facilities is in the Town.

The Town's contract with the Town of Brookhaven and Town of Babylon for disposal of incinerator ash terminates in 2009. At that time Smithtown will either have to negotiate a new contract or dispose of the ash at some other location. Ideally, the Town would dispose of the ash within its boundaries; however, limitations on where a landfill can be located include factors such as that

- the landfill cannot be located in a deep recharge area or high groundwater area and that
- the site should be large enough to function into the foreseeable future and to minimize impacts to adjacent property owners.

While these restrictions greatly reduce the amount of land that is suitable for a landfill, there are at least three potential sites in the Town that can comply with both requirements.

Smithtown's agreement with the Town of Huntington terminates in 2012. If the Town does not renew its contract, it will have to find an alternative method to dispose of its municipal solid waste and non-hazardous industrial waste.

Facility	Location	Materials		
		Recycled	Transferred	Disposed of
Municipal Services Facility	Kings Park, NY	Y	C&D, L	-
Waste-to-Energy Plant	East Northport, NY			MSW, CSW, NHIW
Islip Landfill	Hauppauge, NY (Town of Islip)			C&D
Brookhaven Landfill	Yaphank, NY			A
Babylon Landfill	West Babylon, NY			A
Recycling Facilities	Medford, NY	M		
	Williamsville, NY	P, Pl, M		
Composting Facilities	Bethlehem, PA	L		

Table 11. Solid Waste Management Facilities

Key

A Incinerator ash
 C&D Construction & demolition debris
 CSW Commercial solid waste
 L Bagged leaves
 M Metals

MSW Municipal (household) solid waste
 NHIW Non-hazardous industrial waste
 P Paper
 Pl Plastics
 Y Yard waste



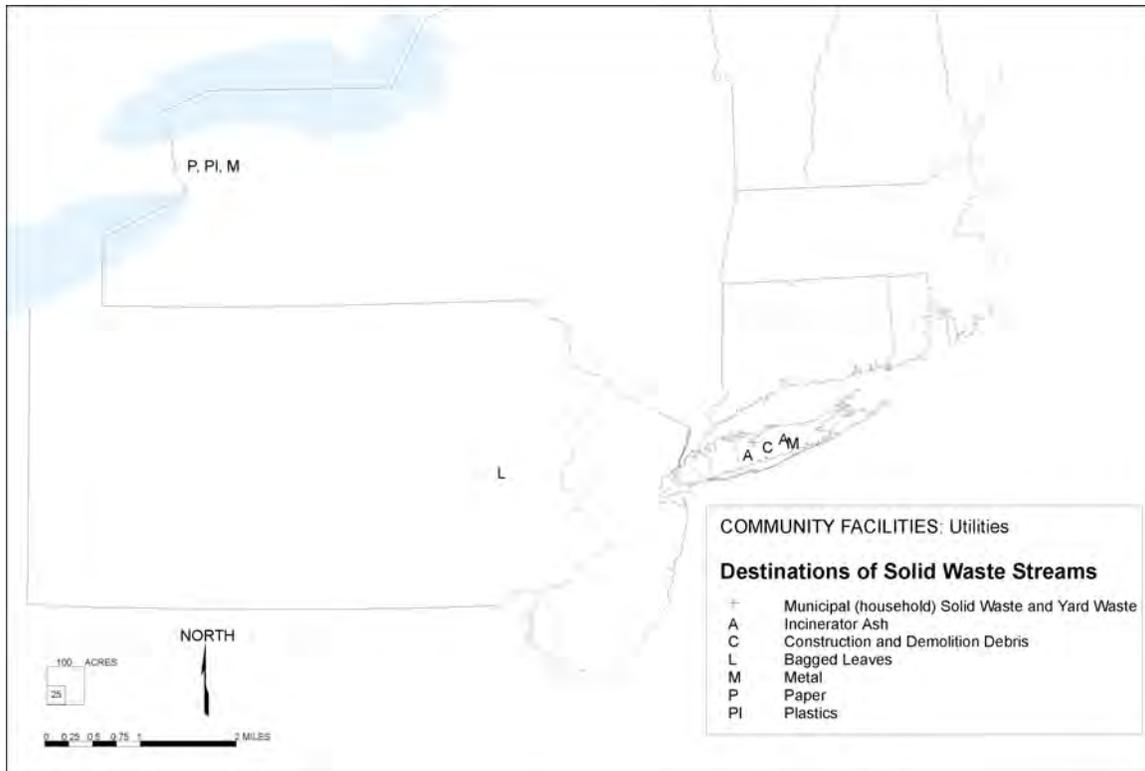


Figure 41. Destination of Solid Waste Streams

C Conclusions

Power: While it is likely that power usage will increase because of population growth, the Town should begin to develop strategies that will reduce the use per capita. Alternative power sources should be explored, such as solar and wind power. Green building codes should be considered. At the same time, the Town should consider placing more of the system underground to protect communities during severe storms and to improve aesthetics.

Communication: The future of communication technology is difficult to project. Communication technology is evolving at a rapid pace and along with that, so are the requirements. Ten years ago, analogue wired communication was the most commonly used technology; today it is digital and largely wireless. There are also other types of wireless communication that use only satellite systems. In order to keep land use strategies current, it is recommended that these systems be reviewed much more frequently than the timeframe for a Comprehensive Plan.

Water: For the last 30 years the strategy for the region has been to protect the water supply. We should now seek an additional strategy in attempting to restore parts of these systems back to their original conditions. Improved wastewater treatment systems and better storm water management systems would begin to achieve these goals.



Drainage: Drainage systems will probably require more maintenance in the future as the infrastructure ages. Problem areas, such as in high groundwater areas, require a more sophisticated strategy of controlling both land use and drainage infrastructure.

Sewage: As noted previously, if we want future redevelopment that protects and improves groundwater quality, the Town needs to consider expanding the existing sewer system. While the operation and expansion of the sewer districts is typically a County function, the land use implications are local. Therefore the Town should take a direct role in supporting this issue.

Solid Waste: While the current system is functional, there are changes that will need to be considered in the future, including both the need for facilities and managing solid waste strategies. The Town could reduce its waste management costs by developing a strategy to *reduce* waste. In 2006, 6% of the waste stream was recycled, 93% was incinerated and recovered as energy, and 1% was landfilled. Developing strategies that are appropriate for the Town will require innovation and the use of education, regulatory policy, and monetary incentive.



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X APPENDICES

- A Parkland
- B Neighborhood Playgrounds
- C Natural Parks
- D Schools
- E Nursing Homes
- F Government Facilities
- G Proposed LIPA Projects



APPENDIX A
PARKLAND

Park Name	Location	Hamlet	Acres	Township	Neighborhood Eligibility	Undeveloped Park U	Community Park CP	Village Green VG	Waterfront Park W	Natural Park NP	Special Purpose Park SP
Parkland	Cedar Ridge Avenue	Hempstead	4.7	County						NP	
Parkland	Rt. 340/High Road	Kings Park	88	County						NP	
Fresh Pond Greenbelt	Imberstone Road	Kings Park	2.4	County						NP	
Lake Ronkonkoma County Park	Southtown Boatyard	Nassau	119	County	NE					NP	
Blydenburgh County Park	Southtown By-Pass	Southtown	625	County						NP	
Nassauque River greenbelt	Hullneck Avenue	Southtown	22.8	County						NP	
Nassauque River greenbelt	Main Street	Southtown	34.5	County						NP	
Nassauque River greenbelt	French Food Road	Southtown	10	County						NP	
Paul T. Given County Park	W. Main Street	Southtown	10	County					W	NP	
Brookside Drive greenbelt	Brookside Drive	Southtown	6.5	County						NP	
Arthur Katz County Park	Landing Road	Southtown	106.2	County						NP	
Preserved Land	Bungle Bridge Road	St. James	28.7	Nature Conservancy						NP	
Nassauque River greenbelt	Overlook Court	Southtown	16.4	Personnel Land Trust, Inc.						NP	
Nassauque River greenbelt	Revere Drive	Kings Park	6.8	San Ramo Civic Association					W	NP	
Staten Meadow State Park	St. Johnland Road	Kings Park	1,268	State						NP	
Nassauque River State Park	St. Johnland Road	Kings Park	327	State						NP	SP
NY SDEC Greenbelt	Lawrence Road	Kings Park	67	State						NP	
Parkland	Main Street	Kings Park	8	State						NP	
Cuba Smith State Park	Jacobus Terrace	Southtown	543	State						NP	
Nassauque River greenbelt	Sunrise Drive	Southtown	1.2	State						NP	
Hop Farm	New Highway	Commack	153	County	NE					NP	
Plym Memorial Park	Old Commack Road	Commack	14	County	NE		CP			NP	
Westend Village Park South	Michael Boulevard	Commack	108	County	NE					NP	
Parr Winkle Park	Harvest Lane	Commack	14.7	County	NE					NP	
Vahnson Park	Maris Crescent	Commack	10.5	County	NE					NP	
Parkland	Indian Head Road	Commack	0.9	County	NE					NP	
William Hollow Park	Yadley Wood Road	Commack	0.4	County	NE					NP	
Half Hollow Road Park	Old Commack Road	Commack	8.1	County		U				NP	
Harriet Sewall	Haned Road	Commack	2.7	County						NP	SP
Westend Village Park North	Michael Boulevard	Commack	4.1	County						NP	
Hunts Pond Preserve	Bow Drive	Hempstead	68.6	County						NP	
Parkland	Palmer Lane	Hempstead	8.9	County						NP	
Pipe Cove Woods Park	Carney Drive	Hempstead	6	County	NE					NP	
Callahan's Beach	Woodstocken Highway	Kings Park	20.9	County				W		NP	
Harrison Road Park	St. Johnland Road	Kings Park	16.3	County		U				NP	
Donald Drive Park	Donald Drive	Kings Park	12.8	County						NP	
Winnemacote Circle greenbelt	Old Northwood Road	Kings Park	10.0	County						NP	
Cy Donnelly Park	Hagg Moss	Kings Park	10.4	County	NE					NP	
Rochelle Heights Park	Hagg Moss	Kings Park	10.1	County						NP	
Harrison Road greenbelt	Atkins Drive	Kings Park	7.7	County						NP	
Memorial Park	Ave. K & Cedar St.	Kings Park	7.4	County	NE					NP	
Harbor Trees Park	CAR Hill Lane	Kings Park	7.3	County						NP	
St. Anthony's Park	Landing Avenue	Kings Park	4.5	County						NP	
Hillside-Community Gardens	Boswell Drive	Kings Park	4.3	County		U				NP	
Nassauque River greenbelt	St. Johnland Road	Kings Park	4	County	NE					NP	
St. Anthony's Park	St. Johnland Road	Kings Park	4	County						NP	
Kings Park Blvd	Old Dock Road	Kings Park	4	County						NP	SP
Martin Luther Development greenbelt	4th Avenue	Kings Park	3.1	County						NP	



APPENDIX A
PARKLAND

Park Name	Location	Manager	Acres	Ownership	VE	U	CP	VG	W	MP	SP
St. James Park	444 Northport Road	St. James Park	3	Town						MP	
Parkland	NY's Old Northport Road & Sunken Meadow Parkway	Kings Park	2.8	Town						MP	
Parkland	Sunken Meadow Rd.&25A	Kings Park	1.6	Town						MP	
Parkland	Sunken Meadow Road	Kings Park	1.41	Town						MP	
Acorn Park	Sunken Meadow	Wasson	.46	Town			CP	VG		MP	
Joseph A. Hubert Park	Griles Road Road	Wasson	11.7	Town	NE					MP	
Brown's Road Park	Brown's Road	Wasson	9.8	Town	NE					MP	
Long Beach	Long Beach Road	Missouga	70	Town					W		SP
Short Beach	Henry Lane	Missouga	21	Town					W		
Schenck Park and Marina	Long Beach Road	Missouga	5	Town					W		SP
Carwood Beach	Lindwood Mill	Missouga	0.1	Town					W		
Southton Taphing/County Club	Landing Avenue	Southton	1.99	Town							SP
Southton Nature Center	Edenlump Drive	Southton	52.0	Town							
Ball Stadium Memorial Park	Southton By-Pass	Southton	38.3	Town						MP	
Missouga Overlook	Reynolds Terrace	Southton	37.7	Town						MP	
Forestwood Park	Tygart Drive	Southton	33.4	Town						MP	
St. Jethard	St. Jethard Road	Southton	23.7	Town						MP	
Wild Park	Aberdeen Road	Southton	20.7	Town						MP	
Beard Service Park	Old Wildlife Path	Southton	1.9	Town						MP	
Missouga Park	Missouga Road	Southton	13.6	Town	NE					MP	
Missouga River greenbelt	Mill Dam Road	Southton	13.6	Town						MP	
Barby Park	Walden Lane	Southton	11.6	Town	NE					MP	
Parkland	Cliffside Dr.	Southton	9.3	Town						MP	
Parkland	Devon Lane	Southton	7	Town						MP	
Landing Avenue Park	Landing Avenue	Southton	0.1	Town	NE				W	MP	
Parkland	Merry Lane	Southton	4	Town						MP	
Brookside Drive greenbelt	Brookside Drive	Southton	3.9	Town						MP	
Central Road park	Central Road	Southton	5.3	Town						MP	
Parkland	Meridian Road	Southton	3.3	Town						MP	
Missouga River greenbelt	Main Street	Southton	5.1	Town						MP	
Charter Lane Park	Charter Lane	Southton	3.8	Town						MP	
Missouga River greenbelt	Trinity Pond Road	Southton	3.7	Town						MP	
Parkland	Pyramidal/Handland	Southton	3.5	Town						MP	
Parkland	Eric Stahl Court	Southton	3.1	Town						MP	
Brookside Drive Park	Brookside Drive	Southton	2.2	Town						MP	
Barby/Trippe/Arnshehl	Wright Hill/High Path	Southton	2	Town						MP	
Parkland	Lancel Drive	Southton	1.2	Town	NE					MP	
Richard Smith Memorial Park	The Butte	Southton	1	Town						MP	
Cricket Park	W. Main Street	Southton	0.2	Town						MP	
Robinson Estates Park	Old Mill Road	St. James	30.4	Town						MP	
High Woods Park	High Woods Road	St. James	23.8	Town						MP	
Strong Woods Park	Missouga River Road	St. James	21.9	Town						MP	
Victoria Memorial Park/Olsen Park	Myrtles Road	St. James	20.6	Town	NE					MP	
Astor Avenue Park	Astor Avenue	St. James	9	Town		U					
Gaynor Park	Woodlawn Avenue	St. James	7	Town	NE						
East Hills Park	East Hills Road	St. James	2.5	Town	NE						
St. James Park	Park Street	St. James	2	Town		U					
Total	4,743	Total	20	5	3	1	8	6	14	5	
Average Size	40.9	Town owned	19	5	3	1	6	14	5		



APPENDIX B NEIGHBORHOOD PLAYGROUNDS

Park Name	Location	Hamlet	Acreage used as Neighborhood Playground	Total Acreage	Ownership
Whitman Hollow Park	Valley Wood Road	Commack	9.4	9.4	Town
Valmont Park	Marie Crescent	Commack	10.5	10.5	Town
Burr Winkle Park	Harvest Lane	Commack	10.7	10.7	Town
Flynn Memorial Park*	Old Commack Road	Commack	14	14	Town
Hoyt Farm*	New Highway	Commack	8	133	Town
Pine Cone Woods Park	Garvey Drive	Hauppauge	6	6	Town
St. Anthony's Park	St. Johnland Road	Kings Park	4.5	4.5	Town
Memorial Park	Ave. K & Cedar St.	Kings Park	7.4	7.4	Town
Cy Donnelly Park	Haig Place	Kings Park	10.4	10.4	Town
Brown's Road Park	Brown's Road	Nesconset	8.3	8.3	Town
Joseph Andreoli Park	Gibbs Pond Road	Nesconset	17.7	17.7	Town
Armory Park*	Smithtown Boulevard	Nesconset	9	40	Town
Lake Ronkonkoma County Park	Smithtown Boulevard	Nesconset	16	119	County
East Hills Park	East Hills Road	St. James	2.5	2.5	Town
Gaynor Park	Woodlawn Avenue	St. James	7	7	Town
Veterans Memorial Park/Olsen Park	Moriches Road	St. James	20.6	20.6	Town
Parkland	Laurel Drive	Smithtown	1.2	1.2	Town
Landing Avenue Park	Landing Avenue	Smithtown	0.8	3.3	Town
Brady Park	Wildwood Lane	Smithtown	11.9	11.9	Town
Morewood Park	Morewood Road	Smithtown	13.6	13.6	Town
Half Hollow Road Park	Old Commack Road	Commack	0	8	Town
Donald Drive Park	Donald Drive	Kings Park	0	12.6	Town
Hillside-Gramercy Gardens	Boxwood Drive	Kings Park	0	4.3	Town
Astor Avenue Park	Astor Avenue	St. James	0	9	Town
Third Street Park	Third Street	St. James	0	2	Town

*Community Parks that function as Neighborhood Playgrounds.



APPENDIX C
NATURAL PARKS

Part Name	Location	Maped	Park	Total Acreage	Ownership	Comments
Parkland	Canal Ridge Avenue	Hampshire	4.7	4.7	County	
Parkland	Pl. Solongue Road	Kings Park	8.8	8.8	County	
Fresh Pond Greenbelt	Thimbertown Road	Kings Park	2.4	2.4	County	Solonga Rathertown provides great opportunities to inform the public about the local environment and fiscal activity.
Lower Kankakee County Park	Southdown Boulevard	Messurel	11.0	11.0	County	The tract visited of the Town's County parks. The park offers equestrian trails, and opportunities for camping, row boating, hiking and picnicking.
Byfieldburgh Campy Park	Smithtown By Pass	Smithtown	4.25	4.25	County	
Nassauque River greenbelt	Haddock Avenue	Smithtown	72.9	72.9	County	
Nassauque River greenbelt	Main Street	Smithtown	24.5	24.5	County	
Nassauque River greenbelt	Thatch Ford Road	Smithtown	1.0	1.0	County	
Paul T. Owen County Park	W. Main Street	Smithtown	1.0	1.0	County	The park is used most often for small picnics. It also has a canoe launch site giving access to the middle portion of the Nassauque River.
Brookside Drive greenbelt	Brookside Drive	Smithtown	6.5	6.5	County	
Arthur King County Park	Landing Road	Smithtown/Kings Park	106.2	106.2	County	
Preserved Land	George Hunt Road	Smithtown	20.7	20.7	Nature Conservancy	
Nassauque River greenbelt	Cartelook Court	Smithtown	16.4	16.4	Peconic Land Trust	
Smolen Meadow State Park	St. Leonard Road	Kings Park	40.0	1,248	State	Land was acquired by the County to protect the wetlands of the Nassauque River. Many species.
Nassauque River State Park	St. Leonard Road	Kings Park	33.0	527	State	Former Kings Park Psychiatric Center. It offers a variety of recreational opportunities including boating, fishing, fishing, and birding. State Parks has designated an ecologically diverse section of the park as a bird sanctuary.
NYSDEC Greenbelt	Larrows Road	Kings Park	67	67	State	
Parkland	Man Street	Kings Park	8	8	State	
Chula Smith State Park	Lithico Tunnel	Smithtown	34.0	34.0	State	
Nassauque River greenbelt	Samuel Drive	Smithtown	1.2	1.2	State	
Hoyt Farm	Maple Hillmore	Conenock	133	133	Town	
Western Village Park South	Michael Redford	Conenock	108	168	Town	
Parkland	Indian Head Road	Conenock	9.8	9.0	Town	
Western Village Park North	Michael Redford	Conenock	4.1	4.1	Town	
Hunt's Pond Preserve	Bea Drive	Hampshire	68.5	68.6	Town	
Bill Richards Memorial Park	Smithtown By Pass	Hampshire	38.3	38.3	Town	Originally acquired for use as a neighborhood playground.
Brad Seaver Park	Old Water Park	Hampshire	1.9	1.0	Town	Originally acquired for use as a neighborhood playground.
Parkland	Traverser Lane	Hampshire	8.2	8.2	Town	
Harrison Ford Park	St. Leonard Road	Kings Park	16.3	16.3	Town	Originally acquired for use as a neighborhood playground.
Winneconne Circle greenbelt	Old Korthport Road	Kings Park	10.9	10.9	Town	
Rockelle Heights Park	Heights Road	Kings Park	10.1	10.1	Town	
Harrison Ford greenbelt	Albion Drive	Kings Park	7.7	7.7	Town	
Harker Trees Park	Old Hill Lane	Kings Park	7.3	7.3	Town	
St. Anthony's Park	Landing Avenue	Kings Park	4.3	4.3	Town	
Nassauque River greenbelt	St. Leonard Road	Kings Park	4	4	Town	
William's Heath	W/o Sankin Meadow	Kings Park	3.0	20.9	Town	
Martin Luther Dearym non greenbelt	Hill Avenue	Kings Park	3.1	3.1	Town	
Sly Oaks	Old Korthport Road	Kings Park	3	3	Town	
Parkland	Play	Kings Park	2.8	2.8	Town	
Parkland	Smolen Meadow Rd 625A	Kings Park	1.4	1.4	Town	
Parkland	Smolen Meadow Road	Kings Park	1.34	1.34	Town	



APPENDIX C NATURAL PARKS

Park Name	Location	Hamlet	Size	Total Acreage	Ownership	Comments
Amory Park	Southover Boulevard	Neesenet	28	10	Town	
Brown's Road Park	Brown's Road	Neesenet	1.3	9.8	Town	
Swedman's Future Center	Edenlough Drive	Smithtown	52.5	52.6	Town	
Edgewater Shelter Park	Old Mill Road	Smithtown	30.9	30.9	Town	
Nesquehony Overlook	Riverlaw Terrace	Smithtown	27.7	27.7	Town	
Edgewater Park	Capital Drive	Smithtown	23.5	23.5	Town	
High Woods Park	High Woods Road	Smithtown	23.8	23.8	Town	
Sam Property	St. Juddland Road	Smithtown	22.7	22.7	Town	
Strong Woods Park	Nesquehony River Road	Smithtown	21.9	21.9	Town	
Wadi Park	American Road	Smithtown	20.7	20.7	Town	Originally acquired for use as a neighborhood playground.
Nesquehony River marsh	Will Dem Road	Smithtown	13.7	13.7	Town	
Morewood Park	Viewwood Road	Smithtown	13.5	13.6	Town	
Charter Lane Park	Dawn Lane	Smithtown	9.9	9.9	Town	Originally acquired for use as a neighborhood playground.
Parkland	Grantch Dr	Smithtown	9.8	9.8	Town	
Parkland	Devin Lane	Smithtown	7	7	Town	
Parkland	Valley Lane	Smithtown	6	6	Town	Originally acquired for use as a neighborhood playground.
Brooksie Drive marsh	Brooksie Drive	Smithtown	5.8	5.9	Town	
Landing Avenue Park	Landing Avenue	Smithtown	5.4	6.4	Town	
Central Road Park	Central Road	Smithtown	5.3	5.3	Town	
Parkland	Vanhook Road	Smithtown	5.3	5.3	Town	
Nesquehony River marsh	Van Hook	Smithtown	4.3	4.3	Town	
Nesquehony River marsh	Trench Road Road	Smithtown	3.7	3.7	Town	
Parkland	Plymouth Boulevard	Smithtown	3.5	3.5	Town	
Parkland	Edy North Court	Smithtown	3.1	3.1	Town	
Brooksie Drive Park	Brooksie Drive	Smithtown	2.2	2.2	Town	
Barbara Temple Greenbelt	World Millers Path	Smithtown	2	2	Town	
Richard Smith Memorial Park	Town Hall	Smithtown	1	1	Town	
Crashabout Park	W. Main Street	Smithtown	0.2	0.2	Town	
SUMMARY		Town				
# of Parks	40	11	6	1	68	
Average in Natural Park	757.1	1,000.0	1,319.2	46.1	3,649.4	



**APPENDIX D
SCHOOLS**

Smithtown Central School District		
Elementary	Intermediate	High School
Accompsett Elementary School	Accompsett Middle School	East Campus
Branch Brook Elementary School	Great Hollow Middle School	West Campus
Dogwood Elementary School	Nesapeake Middle School	
Mills Pond Elementary School		
Mt. Pleasant Elementary School		
Nesconset Elementary School		
St. James Elementary School		
Tackan Elementary School		
Tanhtown Elementary School		
Kings Park Central School District		
Elementary	Intermediate	High School
Fort Salonga Elementary School	William T. Rogers Middle School	Kings Park High School
Parkview Elementary School		
R.J.O. Intermediate School		
Commack Union Free School District		
Elementary	Intermediate	High School
Indian Hollow Primary School	Mandawchie/Sawmill Intermediate	Commack High School
North Ridge Primary School		
Wood Park Primary School		
Hauppauge Union Free School District		
Elementary		
Pinus Elementary School		
Forest Brook Elementary School		



APPENDIX D SCHOOLS

PUBLIC SCHOOLS

Name	Location	District	Hamlet	Use
Circle Hill ES	Scholar Lane	Commaek	Commaek	Razed and Redeveloped
JFK Jr HS	Scholar Lane	Commaek	Commaek	Razed and Redeveloped
Commaek North HS	Scholar Lane	Commaek	Commaek	Open
Indian Hollow ES	Kings Park Rd	Commaek	Commaek	Open
Northridge ES	Town Line Road	Commaek	Commaek	Open
Sawmill IS	New Highway	Commaek	Commaek	Open
Wood Park ES	New Highway	Commaek	Commaek	Open
Head of River ES	Plymouth Blvd	Commaek	Commaek	Special Purpose School
Saghtokos ES	Pinewood Dr.	Commaek	Commaek	Special Purpose School
Smith Lane ES	Smith Lane	Commaek	Commaek	Special Purpose School
Winnocomac ES	Kings Park Rd.	Commaek	Commaek	Special Purpose School
Honey Hollow ES	Old Willets Path	Hauppauge	Hauppauge	Razed and Redeveloped
Foresbrook ES	Lilac La.	Hauppauge	Hauppauge	Open
The Pines ES	Holly Dr.	Hauppauge	Hauppauge	Open
Indian Head ES	5th Ave.	Kings Park	Kings Park	Razed and Redeveloped
RJO ES	Church St.	Kings Park	Kings Park	Open
Ft. Salonga ES	Sunken Mdw Rd.	Kings Park	Kings Park	Open
KPJ High School	NYS25A	Kings Park	Kings Park	Open
Parkview ES	Roundtree Rd.	Kings Park	Kings Park	Open
WT Bogans Jr HS	Old Dock Rd.	Kings Park	Kings Park	Open
San Remo ES	Lawrence Rd.	Kings Park	Kings Park	Special Purpose School
NY Av Adm Bldg	New York Av	Smithtown	Smithtown	Adm.
Mills Pond ES	Moriches Rd	Smithtown	St. James	Open
SJ ES	Lake Ave	Smithtown	St. James	Open
St. East HS	Woodlawn Av	Smithtown	St. James	Open
Accompset ES	Plymouth Blvd	Smithtown	Smithtown	Open
Accompset IS	Plymouth Blvd	Smithtown	Smithtown	Open
Dogwood ES	Dogwood Dr	Smithtown	Smithtown	Open
Nesconset IS	Edgewood Av	Smithtown	Smithtown	Open
San West HS	Plymouth Blvd	Smithtown	Smithtown	Open
Landing ES		Smithtown		Razed and Redeveloped
Branch Brock ES	Ridgely Rd	Smithtown	Hauppauge	Open
Mt Pleasant ES	Plaisted Ave	Smithtown	Hauppauge	Open
Nesconset ES	Gibbs Pond Rd	Smithtown	Nesconset	Open
Tackan ES	Midwood Ave	Smithtown	Nesconset	Open
Smithtown ES	Lawrence Av	Smithtown	Smithtown	Open
Great Hollow IS	Southern Blvd	Smithtown	Nesconset	Open
	Schools closed between 1975-1993			
	Schools closed between 1975-1993 and reopened			

PRIVATE SCHOOLS

Name	Location	Hamlet	Use
St. Anthony's	St. Johnland Rd	Kings Park	Razed and Redeveloped
St. Joseph's	Church St.	Kings Park	Closed
Christ the King	Indian Head Road	Commaek	Open
St. Phillips and James	North Country Rd.	St. James	Open
St. Patricks	E. Main St.	Smithtown	Open
Hebrew Academy	Veterans Memorial Highway	Commaek	Open
Smithtown Christian School	Higbie Dr.	Smithtown	Open
Ivy League	Brookside Dr.	Smithtown	Open
	Schools closed between 1975-1993		



APPENDIX E
NURSING HOMES

Nursing Home	# of Beds
Avalon Gardens Rehabilitation and Health Care Center	353
Nesconset Nursing Center	240
Smithtown Center for Rehabilitation & Nursing Care	162
St. Catherine of Siena Nursing Home	240
St. James Plaza Nursing Facility	250
St. Johnland Nursing Center	250
St. James Healthcare Center	230
Total	1,725



APPENDIX F GOVERNMENT FACILITIES

	Building Name	Location	Offices
Town	Town Hall	Main St., Smithtown	Supervisor Town Council Town Attorney Tax Receiver Board Room
	Planning Annex	Redwood Ln., Smithtown	Planning & Community Development
	Building Annex	Redwood Ln., Smithtown	Building
	Engineering Annex	Main St., Smithtown	Engineering Environment and Waterways Youth Bureau Horizons Counseling and Education
	New York Ave. Annex	New York Ave., Smithtown	School Age Child Care
	Tax Assessor Annex	Maple Ave., Smithtown	Tax Assessor Comptroller Purchasing
	Public Safety Annex	Maple Ave., Smithtown	Public Safety Personnel Handicapped Services
	Recreation	Landing Ave., Smithtown	Recreation
	Eugene Cannataro Community Center	Middle Country Rd., Smithtown	Senior Citizens
	Animal Shelter	Middle Country Rd., Smithtown	Animal Shelter
	Highway Annex	Smithtown By-Pass, Smithtown	Highway Traffic
	Parks Annex	Rte. 25A, Kings Park	Parks
	Sanitation Annex	Old Northport Rd., Kings Park	Sanitation
	Smithtown Water District	E. Main St., Kings Park	Smithtown Water District
St. James Water District	Lake Ave., St. James	St. James Water District	
County	North County Complex	Veteran Memorial Hwy., Hauppauge	Legislative Budget Review Campaign Finance Board Consumer Affairs Civil Service Legislature District Attorney Handicapped Services Labor Police (4th Precinct) Public Information
	H. Lee Garrison Building	Veteran Memorial Hwy., Hauppauge	Aging Comptroller Community Development County Attorney County Executive STOP-DWI Economic Development Human Rights Human Services Minority Affairs Planning Treasurer Veteran's Services Women's Services Youth Bureau
	Social Services	Wireless Blvd., Hauppauge	Social Services

	Department	Location	Acreage	Type
Town	Highway	Smithtown By-Pass, Smithtown	12.8	Main yard
		Old Northport Road, Kings Park	20	Satellite yard
		Monclair Ave., St. James	16	Transfer station
	Parks	Rte. 25A, Kings Park	6.5	Garage and yard
	Sanitation	Old Northport Rd., Kings Park	3	Maintenance yard
	Smithtown/St. James Water District	Rte. 25A, Kings Park	4	Maintenance yard
County	Public Works	Crooked Hill/Commack Road	8	Satellite yard
State	Transportation	Middle Country Rd., St. James	8.5	Maintenance yard
		Sunkan Meadow State Parkway	5.5	Maintenance yard



APPENDIX G
PROPOSED LIPA PROJECTS

1. Reinforce the transmission system supplying substations in Smithtown by:
 - a. installing a new transmission circuit along Indian Head Road from the Pilgrim Substation to the Indian Head Substation
 - b. installing a new transmission circuit from the Central Islip Substation to the Smithtown Substation
2. Upgrade the Flowerfield Substation
3. Expand the Pilgrim Substation
4. Reconductor a section of the transmission line between the Indian Head Substation and the Deposit Substation
5. Expand the Indian Head Substation or install a new substation on the Kings Park Psychiatric Center site if the property is redeveloped
6. Install new transmission exit circuits from Kings Park to the Pilgrim Substation if a new power plant is installed at the Kings Park Psychiatric Center

Source: Correspondence between LIPA and Town of Smithtown, 2007



Appendix D

TOWN OF SMITHTOWN



January 2019
A Note from Your Town Board

Attached is the Town of Smithtown Refuse & Recycling Calendar for 2019. This calendar provides information about when waste and recyclables should be put out for collection. **Please note that there are major changes to our recycling program this year.** International markets are requiring that materials collected for recycling be cleaner than ever, and that they be more finely separated by type than in the past. These standards require that we **return to “dual stream” recycling.** Paper products will need to be kept separate and put out for collection every other week, alternating with the collection of cans and bottles. **Of particular importance is that no glass of any type ever be placed in your curbside recycling containers.** Broken glass is difficult to separate from other recyclables. Recyclers are rejecting entire loads of mixed recyclables when there is even just a small percentage of glass present. Glass containers can be dropped off for recycling at locations throughout Town. Further information is in the attached calendar and on the Town website www.smithtownny.gov. These changes will ensure that the material put out for recycling will actually be useable in the manufacture of new products.

The calendar also provides information on **how to obtain Free High Quality Mulch** and how to properly dispose of such things as old paint, computers, TV's, furniture, appliances and expired prescription drugs. **Of particular note are our no-charge household hazardous waste collection events on April 13st and October 19th.** Improperly stored or disposed of household chemicals threaten our environment and the health of our families and friends. Thousands of people have found past events an easy way to safely clean out unwanted chemicals from their garages and basements. Please make every effort to participate.

Please look over the new calendar. We believe you will find it both informative and helpful. If you have any questions or suggestions, please let us know.

Thank you.

Edward R. Wehrheim, Town Supervisor

Thomas J. McCarthy
Councilman

Lynne C. Nowick
Councilwoman

Lisa M. Inzerillo
Councilwoman

Thomas W. Lohmann
Councilman

TOWN OF SMITHTOWN

99 West Main Street
Smithtown, NY 11787



Town Supervisor
Edward R. Wehrheim

Town Council
Thomas J. McCarthy
Lynne C. Nowick
Lisa M. Inzerillo
Thomas W. Lohmann

PRESORTED
STANDARD
U.S. POSTAGE PAID
SMITHTOWN, N.Y.
PERMIT NO. 77

*****ECRWSS*****

POSTAL PATRON

KEEP SMITHTOWN CLEAN & GREEN WITH THE RETURN TO

DUAL STREAM

2019 | **TOWN OF SMITHTOWN**
REFUSE & RECYCLING CALENDAR

IMPORTANT RECYCLING PROGRAM CHANGES INSIDE



Use color-coded map on back to determine your garbage
district number, pick-up days, carter and carter's telephone number.

PLEASE SAVE THIS CALENDAR TO REFER TO DURING THE YEAR

GLASS RECYCLING DROP-OFF AREAS

Due to changes in the recycling markets, the Town of Smithtown will return to "Dual Stream" curbside recycling on January 1st, 2019. Please...only recycle the designated recyclables as shown on page 6 and follow the schedule shown on the enclosed calendar when placing recyclables at the curb for collection.

Please visit www.smithtownny.gov or call (631) 269-6600 or (631) 360-7514 for additional information.



Glass will no longer be collected with weekly recyclable collection! Please do not place any glass out with your recyclables. Glass may be dropped off at the following designated glass collection locations:

- **Municipal Services Facility**, 85 Old Northport Road, Kings Park, Tuesday through Saturday, 7:00 am to 11:45 am and 12:45 pm to 3:15 pm.
- **Smithtown Town Hall**, 99 Main Street, Smithtown. Drop-off container open Monday through Friday 7:00am to 5:00pm.
- **Smithtown Highway Dept.** 758 Smithtown Bypass, Nesconset. Drop-off container open Monday through Friday 7:00am to 5:00pm.

**BE THE SOLUTION
TO
STORMWATER POLLUTION!**

When it rains, everything on the ground seeps into our drinking water or washes into street drains that lead to our streams, ponds, the Nissequogue River and Long Island Sound

Use Fertilizer Sparingly, Never Dump Anything Down Storm Drains, Vegetate Bare Spots In Your Lawn, Compost Yard Waste, Direct Downspouts Away From Paved Surfaces,		Always Pick Up After Pets, Inspect And Pump Your Septic Tank Regularly, Utilize A Rain Garden Or Rain Barrel, Use A Car Wash Instead Of Washing It At Home, Have All Car Leaks Fixed.
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TOWN OF SMITHTOWN DEPARTMENT OF ENVIRONMENT AND WATERWAYS
www.smithtownny.gov

HOUSEHOLD HAZARDOUS WASTE

The 2019 Free HHW collection events are scheduled at the Smithtown Municipal Services Facility in Kings Park on **Saturday, April 13th and Saturday, October 19th, 2019** rain or shine during the hours of 7 am to 3 pm. Please visit www.smithtownny.gov or call (631) 269-6600 or (631) 360-7514 for additional information.

MUNICIPAL SERVICES FACILITY

The Town's Municipal Services Facility at 85 Old Northport Road, Kings Park (just east of Old Commack Road) is open Tuesday through Saturday, from 7:00 am to 11:45 am and from 12:45 pm to 3:15 pm, to accept the following materials from Smithtown residents:

Yard Waste	Batteries
Construction & Demolition Debris	Motor Oil
Recyclable Plastics and Glass	Antifreeze
Fluorescent Light Bulbs	Paper & Cardboard
Computers & E-waste	Scrap Metal

Residents may also pick up mulch (up to 10 bags per visit). Please call the Municipal Services Facility at (631) 269-6600 for further information regarding fees and services.

E-WASTE RECYCLING PROGRAM & BATTERY RECYCLING PROGRAM

NEW YORK STATE PROHIBITS THE DISPOSAL OF CONSUMER ELECTRONICS WITH YOUR HOUSEHOLD GARBAGE! The Town of Smithtown's Municipal Services Facility (631-269-6600) accepts e-waste (televisions, radios, computers and accessories, monitors, cell phones, etc.) at no charge to residents; please call for a list. Smithtown residents may also call Smithtown Recycling (631-269-4548) for curbside pickup of TV's, computers and monitors.

The Town of Smithtown's Municipal Services Facility (631-269-6600) also accepts automotive and many household batteries for recycling. Among batteries accepted are: all types of "button" batteries (Mercuric oxide, Silver oxide, and Zinc-air), Lithium batteries, and some rechargeable batteries (Nickel-cadmium and small sealed Lead-acid batteries).

Single-use Alkaline and Carbon-zinc batteries are essentially mercury-free. These batteries can be safely disposed in your household garbage. For more information, please see the New York State DEC's Household Battery Fact Sheet at <http://www.dec.ny.gov/>.

The following stores may also offer free electronics or battery recycling: Best Buy, Home Depot, Lowes, Sears Hardware, Target, Verizon and many more. Please verify with your local store or visit <http://www.dec.ny.gov/> for additional information.

FREE LANDSCAPE MULCH

The Town of Smithtown's Municipal Services Facility (631-269-6600) produces bagged fine-screened mulch which is available free of charge to any interested individuals and landscapers. Mulch may be picked up at the Municipal Services Facility, 85 Old Northport Road, Kings Park, Tuesday through Saturday, 7:00 am to 11:45 am and 12:45 pm to 3:15 pm.

PROPANE TANKS / GAS CYLINDERS

Because of the danger of explosion, spent propane gas tanks should never be disposed of in trash or with recyclables. Spent tanks can be disposed of at some propane gas retailers for a nominal fee. Please call propane retailers regarding availability of this service.

DON'T TRASH FLUORESCENT LIGHT BULBS OR MERCURY THERMOSTATS!

Fluorescent and HID light bulbs, and certain thermostats, contain mercury and should not be disposed of in the trash. Smithtown residents can drop off such items free for recycling at the Municipal Services Facility, 85 Old Northport Road, Kings Park.



Please...do NOT rake or blow leaves into the street!

DISPOSE OF LATEX PAINT PROPERLY

Liquid paint should never be placed curbside with household trash. To solidify paint for collection, follow these steps:

For paint cans with a small amount of liquid residue, remove the lid and allow the paint to air dry in a safe location. For fuller paint cans, mix in sawdust or cat litter to solidify the paint. When dry, double-bag the can in clear plastic and place it curbside for collection. Oil-based paints and stains should only be disposed of at Hazardous Waste Collection Events at the Municipal Services Facility (April 13th and October 19th 2019).



The Smithtown Dept. of Public Safety accepts prescription drugs for safe disposal at 65 Maple Ave. in Smithtown Monday through Friday from 8 am to 5 pm. The Dept. of Public Safety may be reached at (631) 360-7553 for more information. The Suffolk County Police Dept. accepts prescription drugs for disposal 24 hours a day, 7 days a week at the 4th Precinct, 727 Veterans Memorial Hwy. in Hauppauge. Visit www.dontflushyourdrugs.net for more info on the proper disposal of drugs.

SMITHTOWN DUAL STREAM RECYCLING DO'S and DON'TS:

Acceptable Material for Curbside Recycling

PAPER RECYCLING DAY:

PAPERS

- Newspaper
- Copy paper
- Magazines
- Colored inserts
- **NO** waxed paper
- **NO** metallic paper
- **NO** shredded paper
- **NO** soiled paper (i.e. tissues, paper towel, etc.)

CARDBOARD

- Corrugated — Flattened
- Non-Corrugated — Flattened (i.e. cereal boxes, etc.)
- **NO** milk/juice cartons
- **NO** egg cartons
- **NO** soiled cardboard (i.e. greasy pizza boxes, etc.)

COMMINGLED RECYCLING DAY:

PLASTICS #1 & #2

- Emptied/Rinsed
- Water/soda bottles
- Milk jugs
- Detergent bottles
- **NO** motor oil containers
- **NO** Styrofoam
- **NO** plastic bags

METAL CANS

- Emptied/Rinsed
- Tin, aluminum, and bimetallic cans
- Aerosol spray cans (empty & caps removed)
- **NO** cans contaminated with toxic chemicals (paint thinners, etc.)

NO GLASS!



**WHEN IN DOUBT, THROW IT OUT
(IN THE GARBAGE).**

YARD WASTE

The Smithtown Highway Department (**360-7500**) collects leaf bags and brush from residents in the unincorporated areas of the Town. The Highway Department picks up **residential** yard waste only. Please call the Highway Department if you need information regarding their collection schedule or visit the Town's web site at www.smithtownny.gov.

The Town is not permitted to collect or accept grass clippings. Grass clippings may be mulched or left on your lawn where nutrients are released back into the soil and the need for watering is reduced. Grass clippings can also be used for home composting. Please call the Smithtown Department of Environment and Waterways (360-7514) if you would like further information about home composting. Please...Do NOT rake or blow leaves into the street where they can clog storm drains!

CONSTRUCTION & DEMOLITION DEBRIS

Construction and demolition debris includes such materials as siding and roofing shingles, aluminum and vinyl siding, fiberglass insulation, decking, bricks, concrete, stone, railroad ties, treated and untreated lumber, wallboard, paneling, home furnaces, kitchen cabinets, and bathroom fixtures. Such materials cannot be disposed of with your regular trash, and are **NOT collected** by either the Town or your garbage carter. You may bring them to the Town's Municipal Services Facility at 85 Old Northport Road, Kings Park (269-6600) for a small fee or arrange for your contractor to dispose of them.

FURNITURE, APPLIANCES, AND OTHER BULK ITEMS

Furniture, appliances, and other bulk items are NOT collected with your regular trash. To schedule a special pickup of such items, residents in Districts 1 through 10 should call either their garbage carter at the telephone number listed in this calendar (carter directory on back) or Smithtown Recycling (269-4548).

TO DISPOSE OF FURNITURE AND OTHER BULK ITEMS				TO DISPOSE OF LARGE HOUSEHOLD APPLIANCES	
<u>CALL YOUR GARBAGE CARTER</u>				<u>CALL SMITHTOWN RECYCLING 269-4548</u>	
INCLUDES:				INCLUDES:	
lamps	small electrical appliances	mattresses	couches	* televisions	refrigerators
plate glass	doors and windows	box springs	chairs	* computers and monitors	ovens
large mirrors	metal folding beds	cribs	tables	air conditioners	stoves
water heaters	swing sets	sofa beds	hutches	washing machines	microwave ovens
rugs & carpets	fencing	wood patio furniture	dressers	clothes dryers	dishwashers
(cut and rolled in four-foot lengths)	(cut and tied in bundles no larger than 2'x2'x4')	shelves	desks	metal exercise equipment	lawn mowers
		metal bed frames		metal file cabinets	snow blowers

Residents of the Incorporated Villages of Nissequogue and Head-of-the-Harbor (Districts 11 and 12) must call V. Garofalo Carting at 231-0999 to schedule special pickups for ALL of the items listed above.

*** NEW YORK STATE PROHIBITS THE DISPOSAL OF CONSUMER ELECTRONICS WITH YOUR HOUSEHOLD GARBAGE. CALL SMITHTOWN RECYCLING AT 269-4548 FOR THE COLLECTION AND RECYCLING OF TELEVISIONS, COMPUTERS, AND MONITORS. ALL OTHER ELECTRONICS MAY BE DELIVERED TO THE MUNICIPAL SERVICES FACILITY LOCATED AT 85 OLD NORTHPORT ROAD IN KINGS PARK. CALL (631) 269-6600. ADDITIONALLY, MANY ELECTRONICS MANUFACTURERS AND RETAILERS TAKE BACK ELECTRONICS FOR RECYCLING AT NO CHARGE. FOR MORE INFORMATION SEE www.dec.ny.gov/chemical/82084.html.**

TRASH CANS AND RECYCLING CONTAINERS

There is no limit to the number of containers which may be placed curbside for collection. Containers must not exceed 32 gallons in capacity and 50 pounds in weight when loaded. Refuse container lids should not be secured with bungee cords or other devices.

Town of Smithtown 2019 Refuse and Recyclables Collection Schedule

JANUARY							FEBRUARY							MARCH						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
		NO PICKUP	2	3	4	5						1	2						1	2
6	7	8	9	10	11	12	3	4	5	6	7	8	9	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28			24 / 31	25	26	27	28	29	30
APRIL							MAY							JUNE						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	HHW	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	NO PICKUP	28	29	30	31		23 / 30	24	25	26	27	28	29
JULY							AUGUST							SEPTEMBER						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	NO PICKUP	5	6					1	2	3	1	NO PICKUP	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					
OCTOBER							NOVEMBER							DECEMBER						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5						1	2	1	2	3	4	5	6	7
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
13	14	15	16	17	18	HHW	10	11	12	13	14	15	16	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	NO PICKUP	26	27	28
27	28	29	30	31			24	25	26	27	NO PICKUP	29	30	29	30	31				

- Monday & Thursday Refuse Collection**
Place at curbside the night before.
- Tuesday & Friday Refuse Collection**
Place at curbside the night before.
- PAPER Recyclables Collection**
Unsoiled newspaper, cardboard, magazines, copy paper.
- COMMINGLED Recyclables Collection**
Plastics #1 & #2, tin & aluminum cans, milk jugs.
NO GLASS, NO PLASTIC BAGS, NO STYROFOAM!
- HHW **Free Household Hazardous Waste Collection Event**
April 13th and October 19th, 2019. Rain or Shine!
7am - 3pm at MSF, 85 Old Northport Rd., Kings Park.
- NO PICKUP **Collection is Cancelled on These Designated Holidays**
There is No Make-Up Day!

Town of Smithtown

Household Hazardous Waste Event

*** Residency Required ***

April 13 & October 19, 2019

** 7AM to 3PM **

Many common household products have hazardous or even toxic ingredients. If used or disposed of improperly, they can be harmful to your family and the environment.



For Proper Disposal Please Bring To The Event Any Of The Following Unwanted Materials In Their Original Containers:

Adhesives	Lighter Fluid	Paint Remover	Pool Chemicals
Alcohols	Cleaning Solvent	Pesticides	Solvents
Antifreeze	Degreasers	Photo Chemicals	Stain or Varnish
Brake Fluid	Herbicides	Insect Spray	Wood Preservatives

Municipal Services Facility

85 Old Northport Road
Kings Park, NY
(631) 269-6600
www.smithtownny.gov

Replacement recycling containers are available for a nominal fee by calling (631) 269-6600.

Free recycling decals are available at the Municipal Services Facility for use with a container of your choice.

Districts 1,3: Brothers 567-2332	Districts 4, 7: Quick-Way 928-4242
Districts 2, 5, 6, 10, 11, 12: Garofalo 231-0999	Districts 8, 9: Total Collection 269-6915

DO NOT PLACE GLASS OUT WITH YOUR RECYCLABLES!

Glass may be dropped off at no charge at the following designated glass drop off locations only:
Town Hall, Municipal Services Facility and Smithtown Highway Dept. Call (631) 269-6600 for more info.



IMPORTANT RECYCLING PROGRAM CHANGES INSIDE

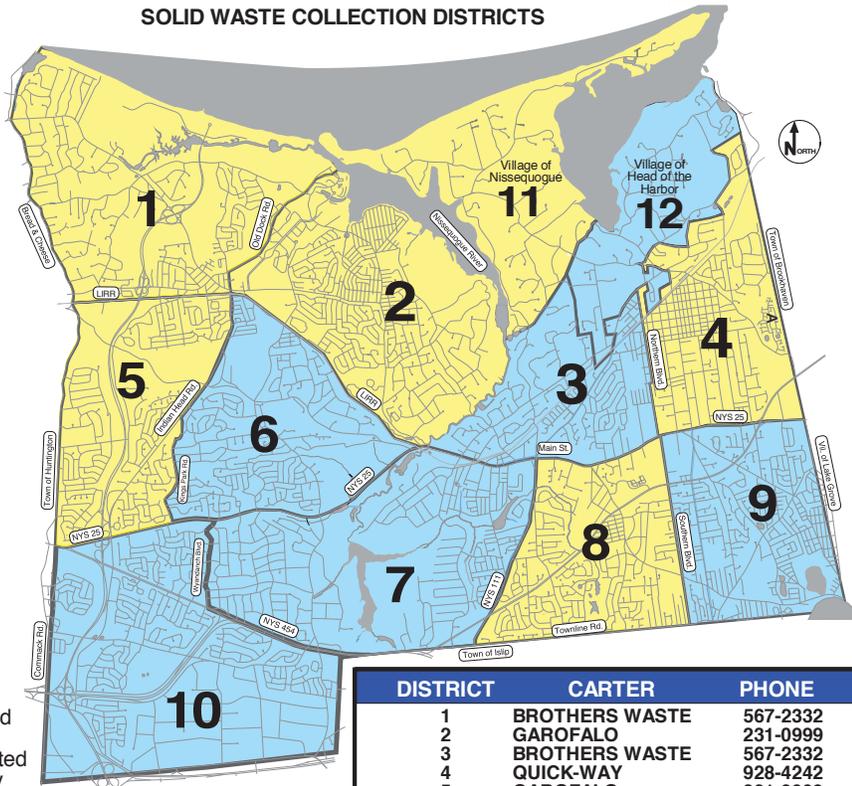
TOWN OF SMITHTOWN

SOLID WASTE COLLECTION DISTRICTS

 Monday & Thursday Garbage Pickup

 Tuesday & Friday Garbage Pickup

SOLID WASTE COLLECTION DISTRICTS



1. A large scale version of this map is available for inspection at the Town of Smithtown Department of Environment and Waterways, 124 West Main Street, Smithtown. Please call 360-7514 for assistance.
2. Residents of Districts 11 & 12 should call V.Garofalo Carting at 231-0999 for collection of furniture, appliances, and other bulk items.
3. Leaf bags and brush are collected by the Highway Department (360-7500) from the unincorporated areas of the Town. The Highway Department picks up residential yard waste only. (NO GRASS)
4. Further information may be found on the Town's web site: www.smithtownny.gov

DISTRICT	CARTER	PHONE
1	BROTHERS WASTE	567-2332
2	GAROFALO	231-0999
3	BROTHERS WASTE	567-2332
4	QUICK-WAY	928-4242
5	GAROFALO	231-0999
6	GAROFALO	231-0999
7	QUICK-WAY	928-4242
8	TOTAL	269-6915
9	TOTAL	269-6915
10	GAROFALO	231-0999
11	GAROFALO	231-0999
12	GAROFALO	231-0999



Town of Smithtown

**FREE PAPER SHREDDING
EVENT**

9 AM - 3 PM

SATURDAY

APRIL 6TH

TOWN HALL

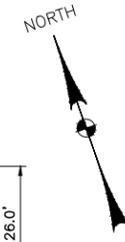
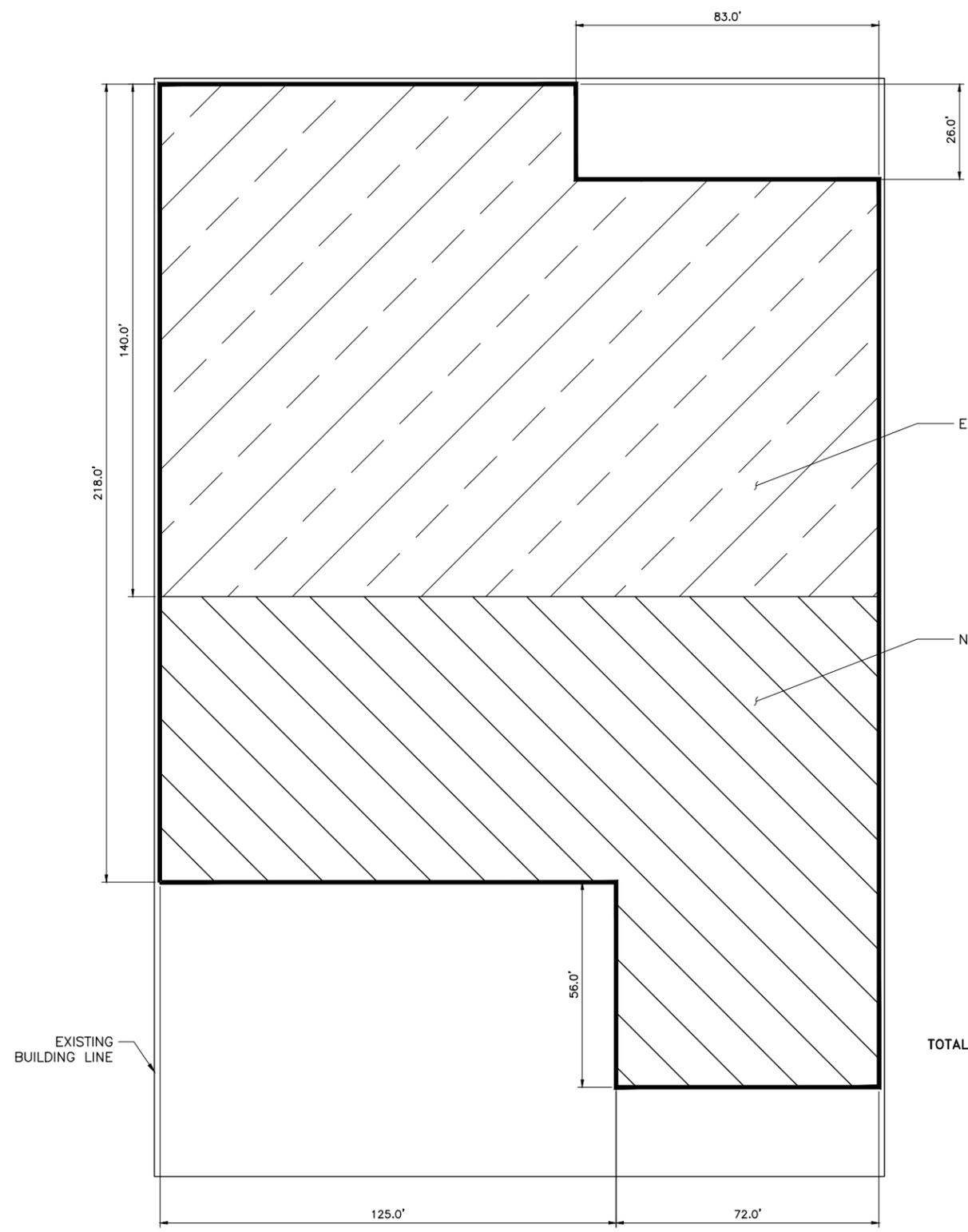
SMITHTOWN TOWN HALL | 99 W. MAIN STREET
PHONE: 631-360-7514 WEBSITE: SMITHTOWNNY.GOV

PAPERS, BOXES, FOLDERS & BAGS - OK

NO LARGE METAL CLIPS PLEASE



Appendix E



EXISTING AREA = 27,580 SQ/FT

NEW/ADDITIONAL AREA = 19,398 SQ/FT

TOTAL TIPPING FLOOR AREA = 46,978 SQ/FT

FLOOR PLAN
SCALE 1"=20'



SITE PLAN
SCALE 1"=300'

Jun 24, 2019 - 12:40pm
P:\19085.000_TOS_Permit_Modification\dwg\permit_renewal_plan.dwg

EXISTING BUILDING LINE

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
85 OLD NORTHPORT RD. KINGS PARK, NY			
SOLID WASTE FACILITY			
PERMIT RENUAL/MODIFICATION PLAN			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NEW YORK 11719			
Designed By:	KQ	Scale:	AS NOTED
Drawn By:	MC	Date:	DEC. 30, 2014
Approved By:	CFD	File No.:	14093.000
			Sheet No. 1

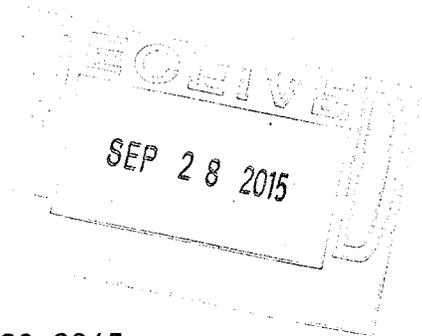


Appendix F

14093

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 1
SUNY @ Stony Brook, 50 Circle Road, Stony Brook, NY 11790
P: (631) 444-0365 | F: (631) 444-0360
www.dec.ny.gov



PERMIT RENEWAL

Town of Smithtown
124 West Main St
PO Box 9090
Smithtown, NY 11787

September 23, 2015

Facility: Smithtown Municipal Services Facility, 85 Old Northport Road, Kings Park, NY
Revised Permit # 1-4734-01810/00002
Former Permit # 1-4734-00201/00003

Dear Permittee:

In conformance with the requirements of the State Uniform Procedures Act (Article 70, ECL) and its implementing regulations (6NYCRR, Part 621) your permit is hereby extended to September 22, 2020.

This letter is a modification to the original permit and must be available at the permitted site whenever authorized work is in progress.

Sincerely,

Eugene R. Zamojcin
Environmental Analyst

cc: James Wade- DMM
Michael P. Engemann- Smithtown Dept. of Env. & Waterways
L.K. McLean Associates, PC



PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
TOWN OF SMITHTOWN

124 WEST MAIN ST
P.O. BOX 9090
SMITHTOWN, NY 11787
(631) 360-7514

Facility:
SMITHTOWN MUNICIPAL SERVICES
FACILITY (SMITHTOWN LANDFILL)
85 OLD NORTHPORT RD
KINGS PARK, NY 11754

Environmental Contact:
LK MCLEAN ASSOCIATES PC
437 S COUNTRY RD
BROOKHAVEN, NY 11719
(631) 286-8668

Facility Location: in SMITHTOWN in SUFFOLK COUNTY

Facility Principal Reference Point: NYTM-E: 645.3 NYTM-N: 4525.9
Latitude: 40°52'16.6" Longitude: 73°16'32.6"

Authorized Activity: Operate yard waste transfer and processing facility receiving no more than 98,000 tons per year, a recyclables handling and recovery facility receiving no more than 20,392 tons per year, and a construction and demolition debris transfer station receiving no more than 12,500 tons per year.

Solid Waste Management Facility No.: 52M41

Permit Number Revision: This permit has been issued with a revised permit number. The previous permit number for activities authorized by this permit was 1-4734-00201/00003.

Permit Authorizations

Solid Waste Management - Under Article 27, Title 7

Permit ID 1-4734-01810/00002

Renewal

Effective Date: 9/23/2015

Expiration Date: 9/22/2020



NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: SUSAN ACKERMAN, Deputy Regional Permit Administrator
Address: NYSDEC Region 1 Headquarters
SUNY @ Stony Brook | 50 Circle Rd
Stony Brook, NY 11790 -3409

Authorized Signature: _____

Date 9/23/2015

Distribution List

LK MCLEAN ASSOCIATES PC
Engelmann
J. Wade

Permit Components

SOLID WASTE MANAGEMENT PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

SOLID WASTE MANAGEMENT PERMIT CONDITIONS

1. Conformance With Plans All activities authorized by this permit must be in strict conformance with the permit application, plans and materials prepared by the permittee or the permittee's consultant on the date(s) specified in Special Condition #2.



- 2. Terms of Operation, Approval for Changes** The facility shall be operated in conformance with:
- Terms and conditions of this permit;
 - Current 6 NYCRR Part 360 Solid Waste Management Facilities regulations, or any revisions hereafter promulgated; and
 - Operations and Maintenance (O&M) Manual, prepared by L.K. McLean Associates, P.C., Consulting Engineers, dated July 2, 2015.

Any revision to the above approved documents identified in item (c) of this condition or to the operations at this site requires prior written approval from the Department. The permittee shall not add a facility component that would otherwise qualify as an exempt or registered facility, unless the permittee first receives a modified permit to incorporate the additional component of the operation.

If any of the above documents conflict with any condition of this permit, the permit condition shall prevail.

3. Settlement Monitoring The Settlement Monitoring Plan, submitted by L.K. McLean Associates, P.C., dated July 31, 2009, approved by the Department on August 31, 2009, shall continue to be implemented by the permittee as long as the Department determines it is necessary. This plan addresses the prepared recycled concrete aggregate pad located on top of the Phase I Landfill - Cells 1-5. The elevation benchmarks shall be surveyed annually. The permittee shall not modify the plan or survey frequency without first receiving Department approval.

4. Authorized Activity The permittee is authorized to operate a solid waste management facility receiving no more than 98,000 tons per year of yard waste; 20,392 tons per year of source separated recyclables, and 12,500 tons per year of construction and demolition (C&D) debris. The permittee may also collect batteries, mercury thermostats, fluorescent light bulbs, e-waste, used oil from do-it-yourself oil changers, and antifreeze from residents, provided these activities are conducted in compliance with applicable laws and regulations.

5. Unacceptable Wastes The permittee is prohibited from accepting the following type(s) of waste: liquid waste, unless specifically identified in this permit; hazardous waste unless specifically identified in this permit or a collected in accordance with a Department approved household hazardous waste (HHW) collection event; medical waste; asbestos waste; industrial waste; and grass clippings.



6. Waste Handling Requirements Specific to Yard Waste Materials The following are requirements for the handling of yard waste materials:

- a. All activities related to yard waste may be conducted outdoors. The transfer operations for yard waste is conducted pursuant to variances from 6 NYCRR Part 60-11.3(a)(2) and (3) of the effective regulations on the date of permit issuance which allows operations to be conducted outdoors, and maintain a recycled concrete aggregate area rather than a paved surface for operations conducted on top of the Phase I Landfill.
- b. Yard waste consisting of primarily tree branches, limbs, and other similar wood materials may be processed for distribution as mulch or woodchips. Piles of unprocessed material shall not exceed 20 feet in height, piles of processed material shall not exceed 15 feet in height, width of piles shall not exceed 30 feet, and exceed 5,000 square feet at the base of the pile. Yard waste related to this operation shall not remain onsite for more than 12 months.
- c. Yard waste consisting of primarily leaves and garden debris shall be transferred within 7 days of receipt, and yard waste received as part of the fall collection shall be removed by February 28 the following year, unless the permittee receives approval for additional time. The permittee shall ensure the oldest yard waste is removed first.
- d. In the event the permittee conducts composting onsite, this amount shall not exceed 3,000 cubic yards per year, and the yard waste related to the operation shall not remain onsite for more than 36 months.

7. Waste Handling Requirements Specific to Recyclables Handling and Recovery The requirements for this component of the operation include the following:

- a. Except for scrap metals and white goods, all recyclables shall be unloaded, processed, and stored inside the building. If sorting or processing of recyclables occur, bales of recyclables and loose cans may be stored outdoors after processing. Scrap metals and white goods may be handled outdoors. Loading of outbound recyclables may be done indoors or outdoors as appropriate.
- b. Outdoor storage of recyclables must be done in a manner that does not affect their marketability.
- c. Recyclables shall not remain onsite for more than 60 calendar days, unless the permittee receives approval in accordance with applicable regulations.
- d. For white goods containing refrigerants, such as air conditioners and refrigerators, the permittee shall ensure refrigerants are properly handled.
- e. E-waste shall be stored inside the building or in an enclosed weatherproof storage container. E-waste shall not remain onsite for more than 180 days from the date of collection.

8. Waste Handling Specific to C&D Debris Transfer The permittee shall conduct operations related to the transfer of C&D debris in accordance with the following:

- a. The permittee shall ensure that C&D debris does not remain onsite for more than 30 days from receipt.



b. Recovered C&D debris that is segregated for potential reuse may remain onsite for up to 12 months. If the recovered C&D debris has no potential for reuse after 12 months, the permittee shall send it for proper disposal.

9. Other Requirements The permittee shall comply with the following for operations conducted at the facility:

a. At the end of each workday, the facility and tipping areas shall be cleaned of any solid waste. All overnight storage of solid waste shall be in its respective storage area.

b. Operations conducted at this facility shall not conflict with post closure monitoring and maintenance of the Phase I Landfill - Cells 1-5 or the Phase II Landfill - Cell 6.

c. The permittee shall ensure that active solid waste management activities do not damage any landfill cap component.

d. The permittee must ensure all roadways and prepared surfaces for active operations on a capped landfill are maintained.

e. All drainage structures shall be properly maintained to ensure adequate drainage.

10. Maximum Quantity Onsite The permittee shall not exceed the following quantities onsite:

a. 35,000 cubic yards of yard waste.

b. 2,300 cubic yards of recyclables inside the processing building.

c. 1,485 cubic yards of recyclables outside consisting of scrap metals, white goods and loose cans, if recyclables are sorted onsite, and e-waste.

d. 1,115 bales of recyclables combined for both inside and outside of the building, if recyclables are sorted and baled onsite.

e. 1,000 cubic yards of C&D debris.

11. Hours of Operation Hours of operation shall not conflict with any local laws or ordinances. The permittee shall limit the hours and days of operations from 6:00 AM to 7:00 PM, Monday through Saturday. No operations of any kind are permitted on Sunday.

12. Signs The permittee shall post signs showing hours of operation, and indicating that hazardous waste, industrial waste, medical waste, liquid waste, and asbestos waste are prohibited from being accepted at the facility. The signs shall be located so that they are visible to any vehicles and/or person approaching the facility.



13. Waste Control An attendant shall be on duty during all hours of operation. The attendant shall inspect all vehicles entering the facility, rejecting any loads containing unauthorized material.

14. Control of Nuisance Conditions Odors, dust, insects, vectors, noise, blowing litter and other potential nuisances shall be adequately controlled at all times. The permittee shall immediately implement any controls required by the Department including cessation of facility operations.

15. Fire Protection and Detection The permittee shall maintain fire protection and detection equipment in accordance with local laws and ordinances.

16. Cessation of Operations The permittee shall verbally notify the Department within 18 hours of any occurrence of any event which causes the facility to cease operation for a period of 48 hours or more. Such an event would include a fire, spill, equipment breakdown, or similar event. A written report shall be submitted to the Department within 7 days of the event.

17. Ultimate Disposal of Waste All solid waste passing through the facility must be ultimately recycled, beneficially used, or disposed of at a facility authorized by the Department if located in New York State, or by the appropriate governmental agency or agencies if in other states, territories, or nations.

18. Unauthorized Waste In the event that any hazardous waste, medical waste, or other regulated waste not allowed under this permit is accepted at the facility, the unauthorized waste shall be contained and properly secured immediately. The permittee shall notify the Department and the Suffolk County Department of Health Services within 24 hours of the event. The waste material shall be removed by a waste transporter authorized under 6 NYCRR Part 364 to transport such waste. A written report shall be submitted to the Department within 7 days of the event.

19. Small Spill Containment The facility shall keep available at the site equipment and materials necessary to contain small quantities of chemicals or spills. These materials shall be stored in well identified accessible storage areas. As a minimum, the following must be available at all times:

- 4 - 55 gallon drums with covers and securing rings
- 400 lbs. absorbent material (e.g. Speedi-Dri)
- 50 lbs. Boric Acid
- 50 lbs. Sodium Bicarbonate
- Assorted brooms, shovels, gloves, masks, and other protective gear



20. Maintenance and Repair of Facility The permittee shall adequately maintain and make repairs to the facility as necessary. This includes any part of the facility, such as doors to buildings; odor and dust controls and equipment; punctures, holes, or other damage to buildings; minimizing the ponding of stormwater; and concrete and/ or asphalt pavement that becomes damaged or worn.

The permittee shall undertake all repairs immediately and have all work completed within one week. Repairs related to dust or odor controls must be completed within 24 hours. If the permittee is unable to complete repairs within the specified time outlined by this condition, the permittee shall provide an acceptable schedule to the Department which shall include a description of the work to be completed and any controls that will be implemented to ensure the facility remains in compliance with this permit, including the cessation of all or part of the facility operations.

In the event that any component of a landfill cap (ie: geomembrane liner, gas vent, leachate cleanouts) is damaged, the permittee shall notify the Department within 24 hours indicating the nature of the damage. Within 30 days, the permittee shall provide the Department with an acceptable plan to make the necessary repairs which shall include the schedule for repairs, description of the damage, and the method used to repair the damage. Within 14 days of completing such repairs, the permittee shall provide certification that the repairs have been completed in accordance to the approved plan.

21. Comprehensive Recycling Analysis The permittee must not accept at the facility solid waste which was generated within a municipality which has either not completed a Comprehensive Recycling Analysis (CRA) or is not included in another municipality's CRA satisfying the requirements of 6NYCRR Part 360-1.9(f) which has been approved by the Department and implemented the recyclables recovery program determined to be feasible by the analysis.

22. Recordkeeping Requirements The permittee shall maintain the following records at the facility for 7 years from the date of creation and be available immediately to the Department upon request:

a. Daily log of solid waste received and transported from the facility which includes:

- i. Type, quantity, and origin of the solid waste received.
- ii. Quantity and destination of all recyclables.
- iii. Quantity and destination of all non-recyclables and residuals transported for disposal.

b. All weight tickets, hauling receipts, disposal receipts, invoices, tracking documents, etc. to support entries made into the daily log.



23. Reporting Requirements The permittee shall submit the following reports related to the operations authorized by this permit:

a. An original copy of the annual report to the Region 1 Office located at the New York State Department of Environmental Conservation, Division of Materials Management, 50 Circle Road, SUNY @ Stony Brook, NY 11790, and a copy to the Central Office at New York State Department of Environmental Conservation, Division of Materials Management, Bureau of Permitting and Planning, 625 Broadway, 9th Floor, Albany, NY 12233-7253. The report must be submitted no later than March 1 following each year of operation on forms prescribed by or acceptable to the Department.

b. Results of a Settlement Monitoring Survey to the Region 1 Division of Materials Management which shall include a comparison table with past surveys within 30 days of completing the survey.

24. Environmental Monitor The permittee shall fund environmental monitoring services for operations related to the permittee in accordance with the following:

a. The permittee shall fund environmental monitoring services to be performed by or on behalf of the Department. These monitoring services will include, but not be limited to, the scope of work in an annual environmental monitoring work plan which is incorporated by reference and enforceable under this permit.

b. The permittee shall provide to the Department on an annual basis the funds necessary to support the activities set forth in the annual environmental monitoring work plan. The sum to be provided will be based on the annual budgeted amount and is subject to annual revision. Subsequent annual payments shall be made for the duration of this permit or until the environmental monitoring services are no longer necessary, whichever comes first.

c. The permittee shall be billed annually, prior to the start of each State Fiscal Year (SFY) (April 1). If this permit is to first become effective subsequent to April 1, the initial bill will be for an amount sufficient to meet the anticipated cost of the environmental monitoring services through the end of the current SFY.

d. The Department may revise the required annual bill on an annual basis to include all of the Department's estimated costs associated with the environmental monitoring services. The annual revision may take into account such factors as inflation, salary increases, changes in the fringe benefits rate, changes in operating hours and procedures, changes in non-personal service costs (including travel, training, sampling and analytical, and equipment costs, etc.), an increase or decrease in the level of environmental monitoring services necessary, and an increase or decrease in the number of environmental monitors. Upon written request by the permittee, the Department shall provide the permittee with a written explanation of the basis for any revisions.

e. Prior to making its annual payment, the permittee will receive, and have an opportunity to review, an annual environmental monitoring work plan that the Department will undertake during the year.



f. Payments are to be made in advance of the period in which they will be expended and shall be made in full within 30 days of receiving a bill from the Department. The bill from the Department to the permittee will provide information regarding to whom payments should be made payable and the address to which payments should be sent.

g. Failure to make the required payments shall be a violation of this permit. The Department reserves all rights to take appropriate action to enforce the above payment provisions.

h. The environmental monitor shall, when present at any of the permittee's facilities, abide by all of the permittee's health and safety and operational requirements and policies, if such requirements and policies exist and provided they are not inconsistent with Department policies and labor management contracts, and further provided, however, that this shall not be construed as limiting the environmental monitor's powers as otherwise provided for by law and shall not result in the environmental monitor being afforded less protection than otherwise provided to the environmental monitor by State and Federal health and safety requirements.

i. The environmental monitor shall receive from the permittee all general and site-specific safety training which is normally given to new facility/site employees for all areas of the facility or site. This training will be a supplement to the health and safety training that the environmental monitor routinely receives from the Department.

j. The permittee shall immediately furnish to the environmental monitor any facility/site health and safety and operational requirements and policies. Within five (5) days of any revision to the facility/site health and safety and operational requirements and policies, the permittee shall furnish to the environmental monitor the health and safety and operational requirements and policies.

k. The environmental monitor shall be permitted to use environmental monitoring and data collection devices (e.g., photo ionization detectors, cameras, video recording devices, computers, cell phones, etc.) deemed necessary by the Department to evaluate and document observed conditions. The permittee may request the data and images collected from areas where confidentiality is a concern be considered confidential information if appropriate. Copies of the data or images collected from areas where confidentiality has been determined to be a concern shall be provided to the permittee.

l. It will remain the responsibility of the permittee to contact the Spill Hotline or any Division within the Department regarding any required notification of any spill, release, exceedances etc. Notification to the environmental monitor will not be considered sufficient to replace any required notifications.



GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. Facility Inspection by The Department The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. Relationship of this Permit to Other Department Orders and Determinations Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. Applications For Permit Renewals, Modifications or Transfers The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC Region 1 Headquarters
SUNY @ Stony Brook|50 Circle Rd
Stony Brook, NY11790 -3409

4. Submission of Renewal Application The permittee must submit a renewal application at least 180 days before permit expiration for the following permit authorizations: Solid Waste Management.

5. Permit Modifications, Suspensions and Revocations by the Department The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;



- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. Permit Transfer Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

Appendix G



Smithtown - Example Best Practice

Smithtown, New York, was the first town outside of California to require its private refuse fleet to be 100% CNG-fueled. The rising cost of contracted refuse services, primarily due to the increased diesel fuel costs, caused the town to evaluate its fleet fueling options. While the economics from more stable CNG prices was the primary driver to use CNG, Smithtown officials welcomed the environmental benefits that would be associated with new CNG trucks replacing the aging diesel refuse fleet. In 2006, the town developed a mechanism for the municipality purchasing process to support CNG use in refuse vehicles through private refuse carriers.

Smithtown first secured a contract with a fuel supplier to agree to put in a station if a CNG refuse service bid was awarded. The town negotiated a fixed price for fuel to eliminate the uncertainty for contractors. After researching CNG extensively, visiting organizations that were already using CNG in refuse applications, and testing its own bi-fuel pickup truck, Smithtown decided to make



Figure 26. Hauppauge fast-fill compressed natural gas station

a full commitment to CNG. The town issued bid specifications requiring 100% CNG power for refuse contracts in 2006 and CNG vehicle service started in January 2007. Prior to the bid specifications being issued, prospective bidders expressed concerns and tried to get Smithtown to remove the CNG mandate. However, after reviewing the specifications that were issued and understanding the advantages the town gained through the fuel agreement they secured, a greater number of responses was received for the CNG mandated bid than for the previous refuse service bids, which did not have a CNG mandate. Refuse fleets in the area quickly realized the benefit that CNG provides through the reduced risk due to fuel price stability, and many started using CNG vehicles even when not mandated to do so.

Today, Smithtown's refuse service is carried out by 22 CNG trucks operated by private haulers and supplemented by two municipality owned CNG vehicles for special pick-ups. The dedicated CNG refuse vehicles operating in the town include the following:

- Autocar Xpeditor : Cummins Westport Inc. (CWI) L Gas Plus engine, FAB Industries roof mounted fuel system
- Crane Carrier LET2: CWI L Gas Plus engine, Dynetek Industries pedestal mounted fuel system

- Kenworth T440: CWI ISL G engine, pedestal mounted fuel system

From 2007–2010, the fleet used a Clean Energy operated public access CNG fueling station at the New York State Office of General Services facility in Hauppauge, New York. In 2010, an additional fueling station in Smithtown was installed at the Smithtown Municipal Services Facility in Kings Park, New York through a bid award to support refuse vehicles in Smithtown and the Town of Huntington. The Town of Huntington wanted to replicate Smithtown's



Figure 25. Smithtown 2010 Kenworth T440 CNG refuse truck with pedestal mount fuel system

CNG mandate but did not have a public fueling option or the appropriate property to put in a station. This unique collaboration between two municipalities created the demand for another CNG station that both could benefit from. This site, which is also owned, operated and maintained by Clean Energy, supported the expansion of CNG in Smithtown's own fleet and the fuel throughput was sufficient to attract bids from three fuel providers. An extended 15-year fuel agreement was used to spread out the cost of the initial investment for the station construction and lower costs for the townships and the private carters contracting with the towns.

Smithtown's Town Supervisor, Patrick R. Vecchio, estimated that over the seven-year life of the town's refuse hauling contract, a CNG fleet would reduce costs, give the residents cleaner air, and eliminate the need for more than 1.5 million gallons of diesel fuel. The fleet reduced the town's dependence on foreign petroleum products by the equivalent of nearly 200,000 gallons of gasoline and diesel fuel in 2010. The Town Supervisor estimates that CNG is providing Smithtown with savings of approximately \$3 per home per year as compared to using diesel fuel. Employees who work on the CNG vehicles have been very pleased with their performance and the mechanics were very glad to have an opportunity to gain knowledge and experience with an alternative fuel. The contractor's drivers are satisfied with the performance, the noise reduction is an added benefit for the operators, and the personnel who ride on the back of the trucks are glad not to be breathing diesel fumes all day.

Since the introduction of the Smithtown CNG refuse fleet, other CNG vehicles have been purchased by the Smithtown Municipality, including the following:

- Freightliner M2 dump/plow trucks, some of the first acquired were powered by a John Deere CNG engine, more recent acquisitions have the CWI ISL G engine
- International dump/plow trucks repowered with an Emissions Solutions Phoenix engine
- Seven Honda Civic GX Sedans
- Schwarze M6000 Street Sweeper

Smithtown's "CNG Champion," Russell Barnett, has supported the use of CNG for refuse services in numerous other municipalities throughout North America. With the adjacent townships of Brookhaven and Huntington awarding CNG refuse service contracts, just under 1 million people in this part of Long Island receive refuse collection exclusively by CNG vehicles. Based on his experience, Russell recommends that municipalities and fleets considering CNG should not extend beyond their core capabilities when implementing a CNG vehicle program. There is a competitive environment in the CNG industry and there are plenty of third-party organizations ready to compete for the opportunity to provide equipment and services.

Contact

Russell K. Barnett, Director of Smithtown Environment & Waterways

631-360-7514

rk Barnett@optonline.net

Making the Switch to NATURAL GAS VEHICLES

- The Smithtown Story -

A Suburban Community

50 Miles from New York City

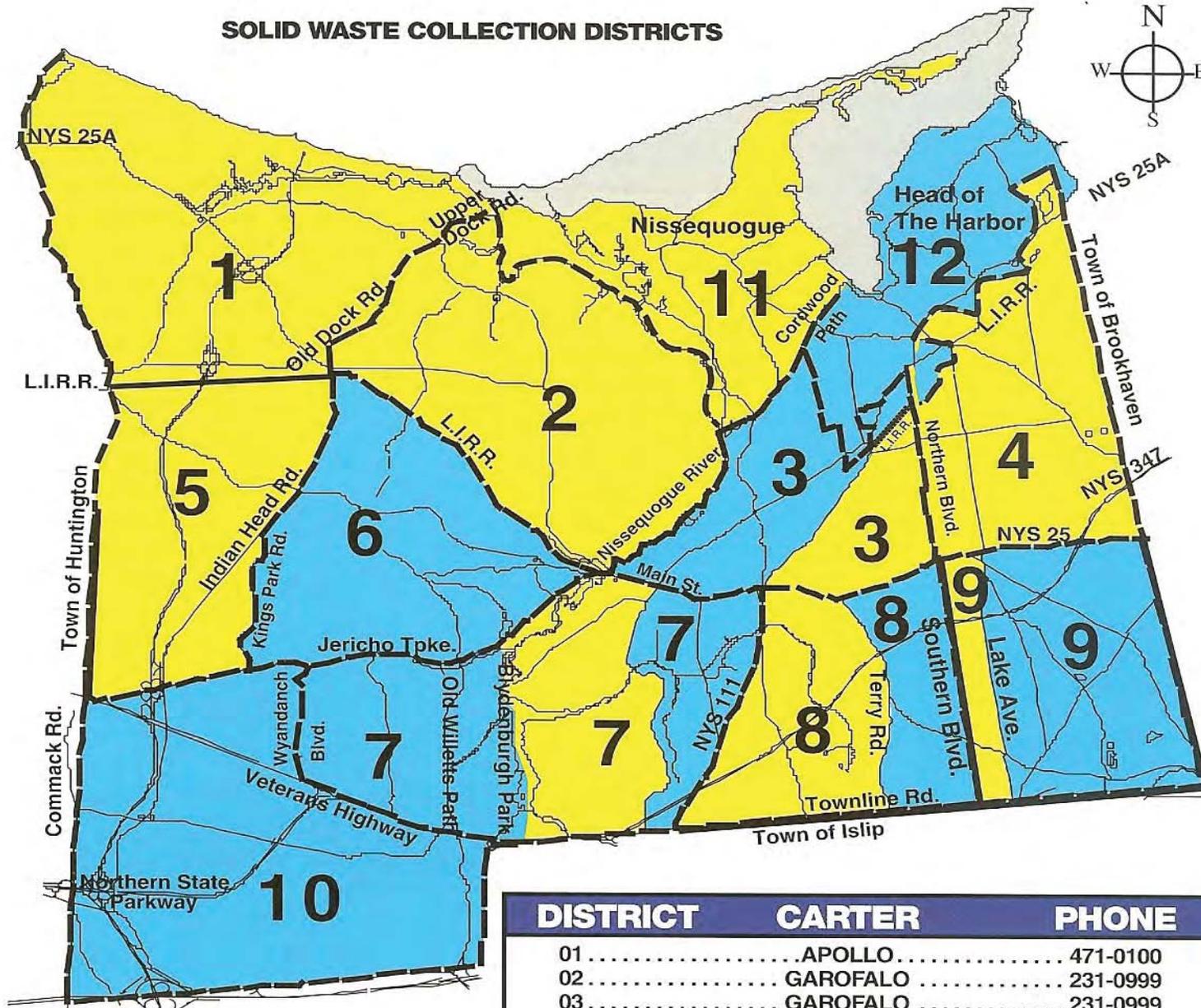
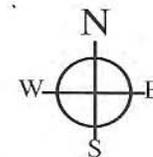
Area: 56 Sq. Miles

Population: 116,000

Households: 36,000

Density: $\frac{1}{4}$ - $\frac{1}{2}$ acre

SOLID WASTE COLLECTION DISTRICTS



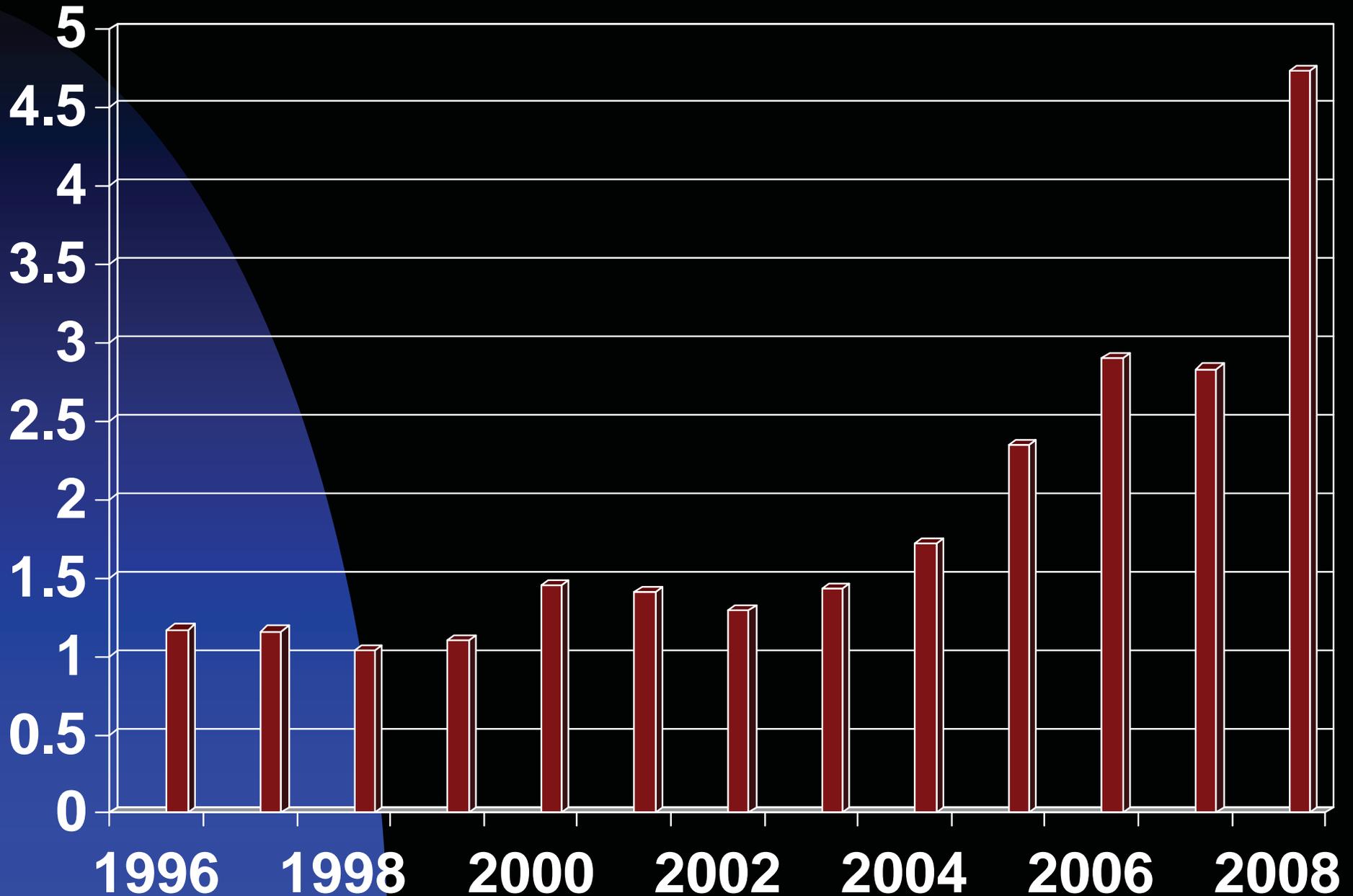
	Monday & Thursday Garbage Pickup
	Tuesday & Friday Garbage Pickup

DISTRICT	CARTER	PHONE
01	APOLLO	471-0100
02	GAROFALO	231-0999
03	GAROFALO	231-0999
04	GAROFALO	231-0999
05	GAROFALO	231-0999
06	GAROFALO	231-0999
07	GAROFALO	231-0999
08	DOHERTY	567-2332
09	APOLLO	471-0100
10	GAROFALO	231-0999
11	TOTAL COLLECTION	269-6915
12	TOTAL COLLECTION	269-6915



2001-2006 Contract Diesel Fleet
Average Age = 15 Years

U.S. AVERAGE DIESEL PRICE PER GALLON



* Prices in US dollars (including taxes) in July of each year per United States Energy Information Administration



Greening Garbage Trucks: Trends in Alternative Fuel Use, 2002 - 2005

By James S. Cannon

INFORM, Inc.
120 Wall Street, 14th Floor
New York, NY 10005-4001
Tel 212 361-2400
Fax 212 361-2412
Site www.informinc.org

Increased Vendor Interest Due To:

- * Reduced Risk Due To Fuel Price Stability
- * An Even Playing Field For All Vendors
Due To The Universal Need For New Equipment
- * Desire Not To Be Left Behind By Changing Technology
- * Free Publicity & Possible New Business



100 % CNG Fueled Autocar Xpeditor
Cummins Westport L Gas Plus Engine
FAB Industries Fuel System - Roof Mounted



100 % CNG Fueled Crane Carrier LET2 with Cummins Westport L Gas Plus Engine
Dynetek Industries Fuel System - Pedestal Mounted

Town of Smithtown CNG Refuse Collection

■ Incremental Fleet Cost	\$7.38 per home per year
■ Fuel Savings based on vendor '07 diesel price	-\$10.72 per home per year
<hr/>	
Total CNG Program Cost	-\$3.34 per home per year

FUEL SAVINGS EXCEED INCREMENTAL COSTS

Clean Energy Public Access CNG Motor Vehicle Fueling Station Hauppauge, New York

(2) 2,000 SCFM (1,000 GGE/Hr Capacity) ANGI International Compressors



Other Smithtown CNG Vehicles

- John Deere CNG Powered Freightliner M2 Dump/Plows
- 7 Honda Civic GX Sedans
- Schwarze M6000 Street Sweeper
- Cummins Westport ISLG Powered Freightliner M2 Dump/Plows
- ESI Phoenix Repowered International Dump/Plows



Natural Gas

- Cleaner
- Cheaper
- More Secure
- Long Term Fixed Pricing
- Proven Technology

Contact Information:

Russell K. Barnett, Director

Town of Smithtown

Department of Environment & Waterways

124 West Main Street

Smithtown, NY 11787

(631) 360-7514

rk Barnett@optonline.net

Appendix H

Dutchess County Resource Recovery Facility

City: Poughkeepsie, NY
County: Dutchess
US Congressional District: 18th
Owner: Dutchess County Resource Recovery Agency (*public*)
Operator: Covanta Hudson Valley Renewable Energy LLC (*private*)

Project Startup: 1987
Operating Status: Operating
Technology: Mass Burn
Design Capacity (TPD): 450
No. of Boilers: 2
Gross Elec. Capacity (MW): 9.8
Full-time Employees: 44
Serves Waste Needs of (people): 293,562
Certifications: VPP STAR

Websites: www.dccra.org
www.covanta.com

Notes: The Dutchess facility can process approximately 160,000 tons of municipal solid waste annually. The facility generates enough electricity to power approximately 10,000 homes per year, which is equivalent to saving about 160,000 barrels of oil per year. The facility recovers and recycles approximately 6,000 tons of ferrous metal per year.



Huntington Resource Recovery Facility

City: East Northport, NY
County: Suffolk
US Congressional District: 3rd
Owner: Covanta Huntington, Inc. (*private*)
Operator: Covanta Huntington, Inc. (*private*)

Project Startup: 1991
Operating Status: Operating
Technology: Mass Burn
Design Capacity (TPD): 750
No. of Boilers: 3
Gross Elec. Capacity (MW): 24.3
Full-time Employees: 45
Serves Waste Needs of (people): 345,000
Certifications: VPP STAR

Websites: www.covanta.com

Notes: The facility began commercial operation in December 1991, serving the towns of Huntington and Smithtown. The facility is the cornerstone of an integrated solid waste management system.



MacArthur Waste-to-Energy Facility

City: Ronkonkoma, NY
County: Suffolk
US Congressional District: 2nd
Owner: Islip Resource Recovery Agency (*private*)
Operator: Covanta MacArthur Renewable Energy, Inc. (*private*)

Project Startup: 1990
Operating Status: Operating
Technology: Mass Burn
Design Capacity (TPD): 486
No. of Boilers: 2
Gross Elec. Capacity (MW): 12
Full-time Employees: 42
Serves Waste Needs of (people): 301,000
Certifications: VPP STAR; ISO 14001

Websites: www.covanta.com
www.toirra.com

Notes: The MacArthur Waste-to-Energy Facility won the 2007 ASME Large Combustion Facility Award.



Waste-to-Energy Capacity

Waste-to-energy facilities produce clean, renewable energy through the thermal conversion of municipal solid waste. The most common energy products produced at these facilities are steam and electricity. There are 84 total facilities in the United States today, including 80 that are currently operating, and 4 that are currently inactive but may return to active service at a future date. One additional facility is under construction and will be placed in service in 2015. Many others are in various stages of development.

Sixty-four facilities (76.2%) employ mass burn technology which allows MSW to be combusted without pre-processing. Thirteen facilities (15.5%) utilize refuse derived fuel (RDF) which is pre-processed municipal solid waste. Seven facilities (8.3%) utilize modular combustion units which are similar to mass burn, but are typically smaller and pre-fabricated.

The 84 facilities produce a combination of energy products. Sixty-two facilities (73.8%) produce electricity for sale to the grid as the only energy product. Four facilities (4.8%) export steam without any electric generation. Eighteen facilities (21.4%) are cogeneration—or combined heat and power—facilities, which export steam to end users and also have the ability to generate power.

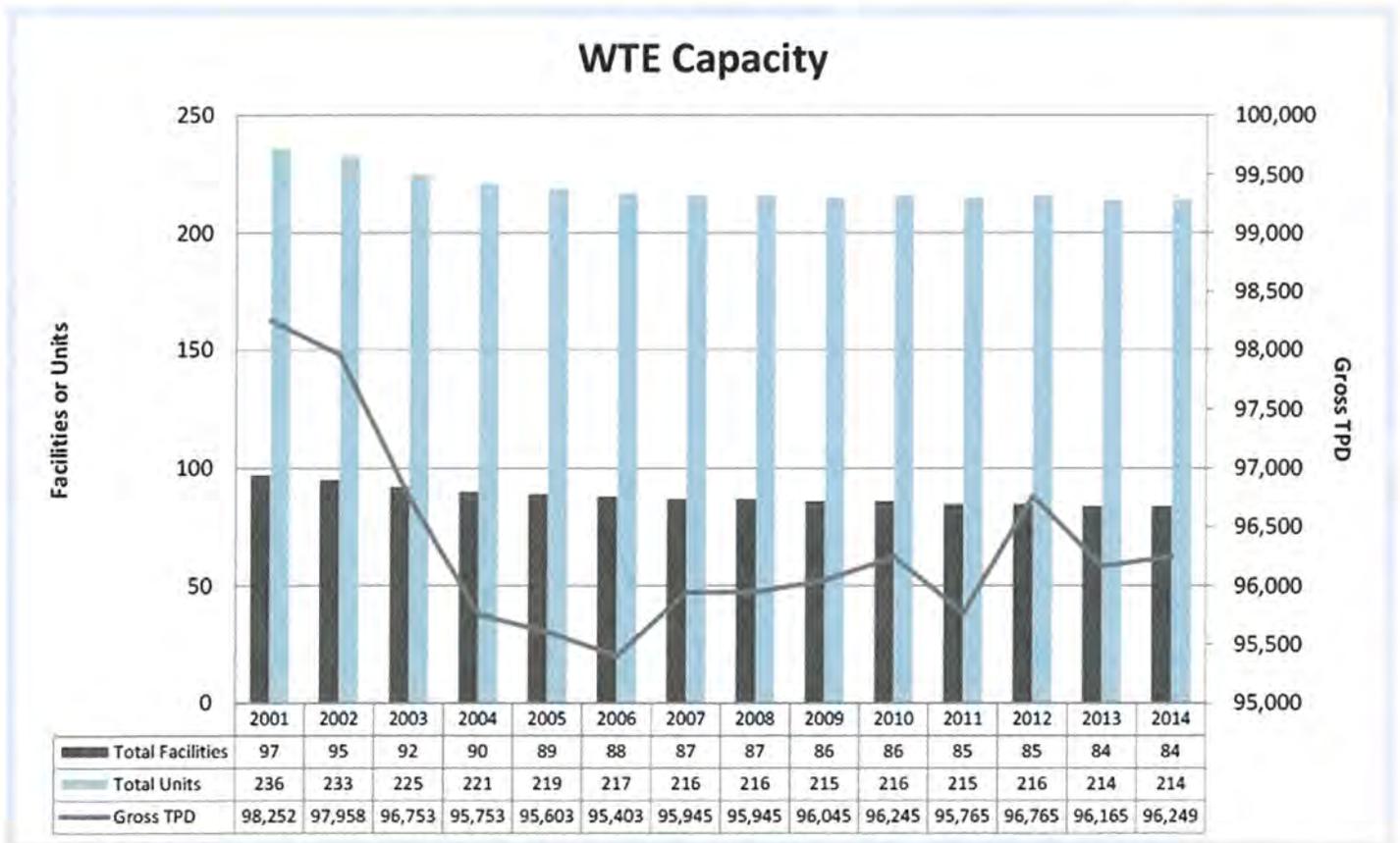
The daily throughput capacity of the nation’s waste-to-energy facilities in 2014 is 96,249 tons of MSW per day. The gross electric generating capacity of these facilities is 2,554 megawatts. When the energy value of the exported steam is factored in and expressed in megawatts, the nation’s 84 facilities have a equivalent generating capacity of 2,769 megawatts.

Status of WTE Facilities in the U.S.	
Operating Facilities	80
Inactive Facilities	4
Total Facilities in the U.S.	84
Facilities Under Construction	1

WTE Facilities in the U.S. (by Technology)	
Mass Burn	64
Refuse Derived Fuel (RDF)	13
Modular	7

WTE Facilities in the U.S. (by Energy)	
Electricity Generation	62
Steam Export	4
Combined Heat & Power	18

WTE Capacity	
Daily Throughput (tpd)	96,249
Gross Electric Capacity (MW)	2,554
Equivalent CHP Capacity (MW)	2,769

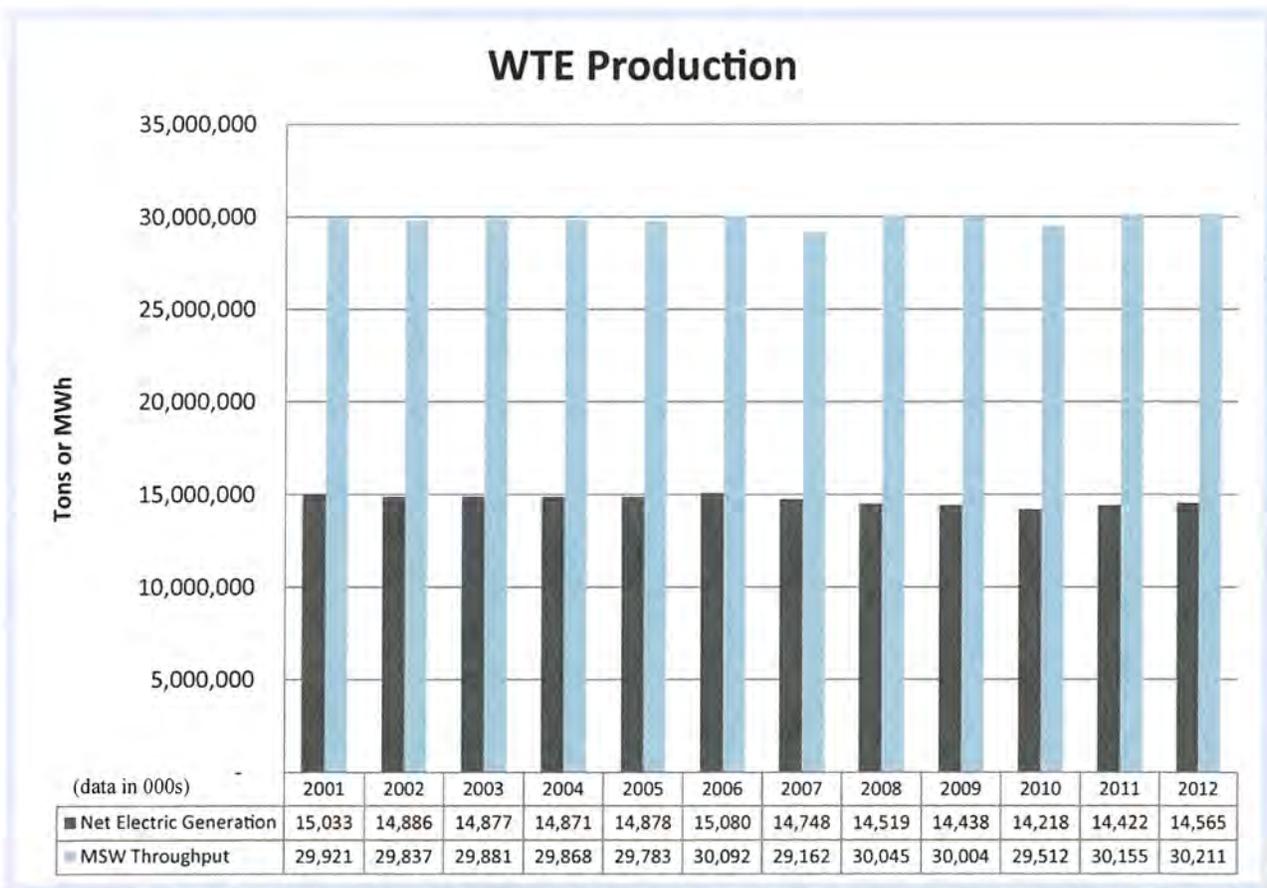


Capacity represents potential and production is that potential realized. Waste-to-energy operators are extremely proud of their ability to process waste and generate energy 24 hours per day, seven days per week, all year long. Their technological and operational expertise allow facilities to achieve high availability so they may provide baseload electricity to the grid and steam to their customers. While the primary purpose of a waste-to-energy facility is to manage municipal solid waste, energy production is a valuable part of the equation in order to maximize energy efficiency, environmental benefits, greenhouse gas mitigation, and economic revenue.

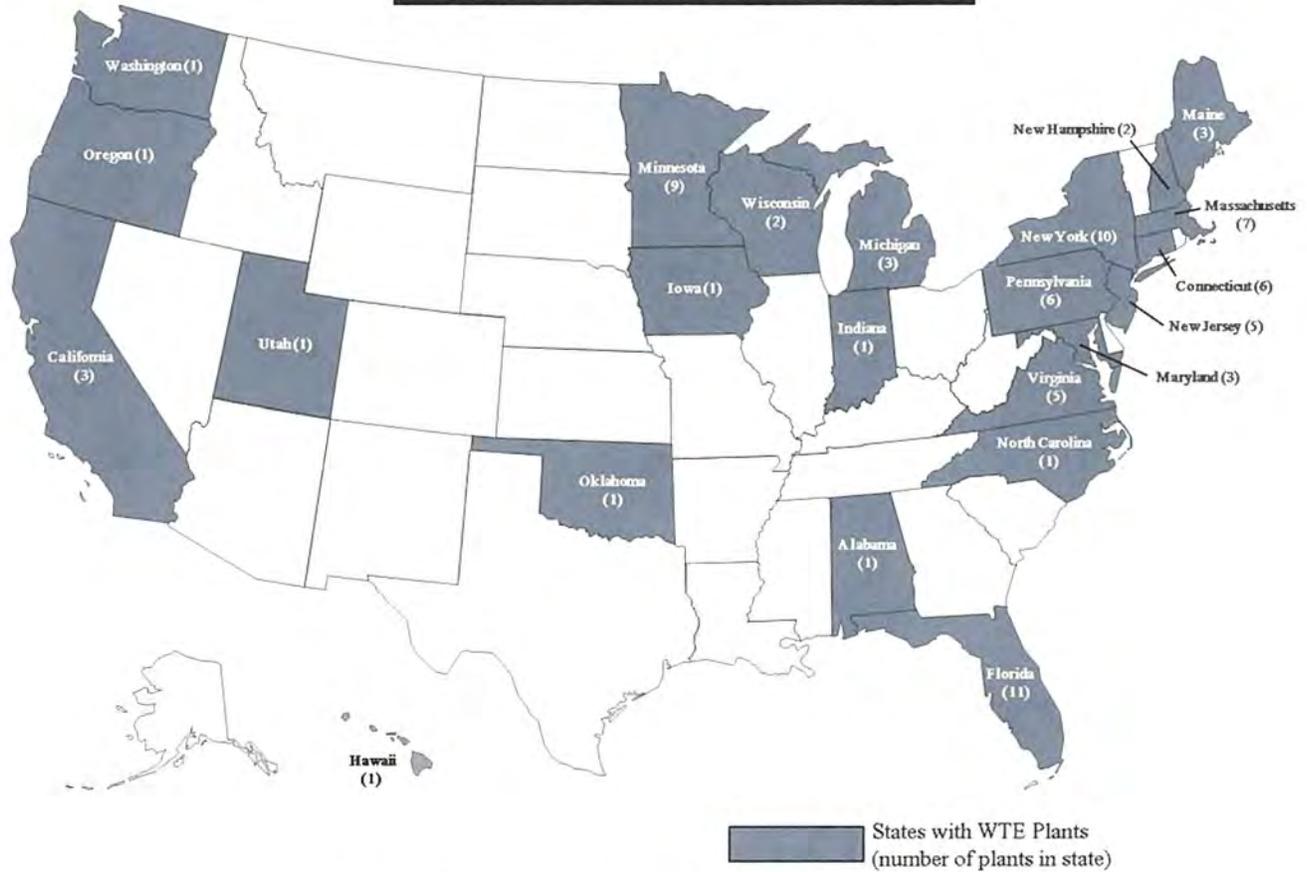
The graph below illustrates that waste-to-energy facilities are extremely stable and reliable. In 2012, the waste-to-energy sector processed more than 30.2 million tons of waste and generated over 14.5 million megawatt hours (or 14.5 billion kilowatt hours) of net electrical generation. This is the amount of electricity sold to the grid and does not include electricity that was used internally to operate the facility. In addition to the amount of net electrical generation, 22 facilities export steam to local users. This energy is used for heating and cooling or for use in industrial processes and displaces the use of fossil fuels to make that energy.

These incredibly reliable facilities have operated in this capacity for decades. This is a testament to maturity and reliability of the technology. While some units eventually close, and some new units have been added, waste-to-energy facilities have a proven track record of operational availability, reliability. Challenging market conditions in the energy and waste markets have served as an impediment to constructing more facilities and recovering energy from more of the 250 million tons of post-recycled waste that is sent to landfills each year.

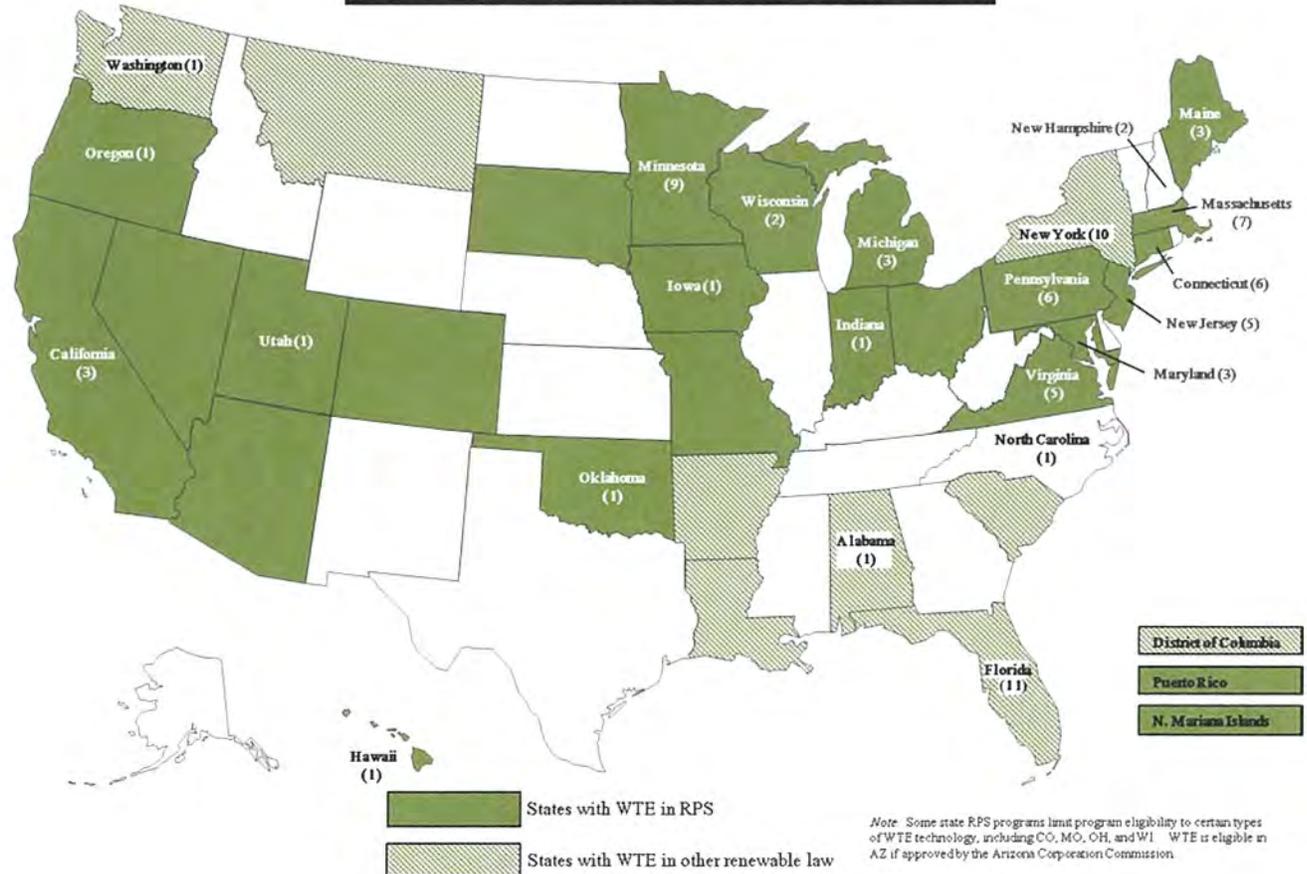
WTE Production	
2012 MSW Throughput (tons)	30,211,120
2012 Net Elec. Generation (MWh)	14,565,467



WTE Plants in the United States



States Defining WTE as Renewable



Waste-to-Energy Reduces Greenhouse Gas Emissions

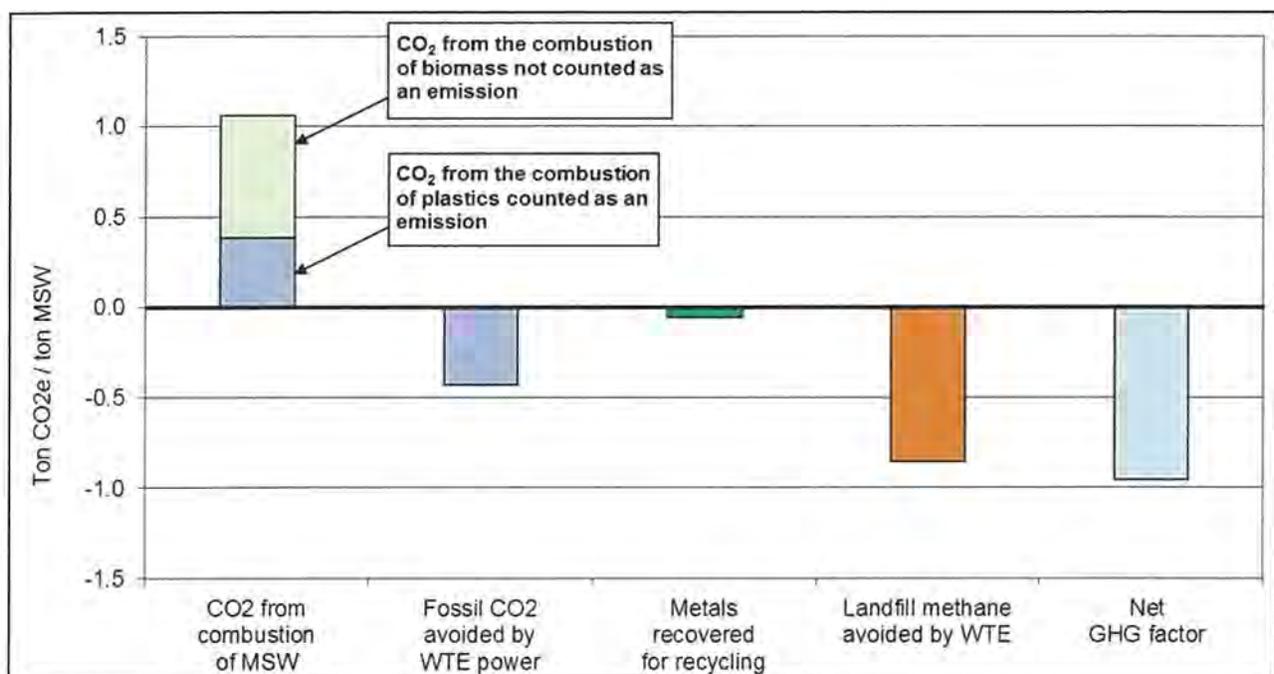
According to U.S. EPA, life cycle emission analysis show that waste-to-energy (WTE) facilities actually reduce the amount of greenhouse gases expressed as CO₂ equivalents (GHGs or CO₂e) in the atmosphere by approximately 1 ton for every ton of municipal solid waste (MSW) combusted. (<http://www.epa.gov/wastes/nonhaz/municipal/wte/airem.htm#7>)

U.S. EPA scientists, in a prominent peer reviewed paper, concluded WTE facilities reduce GHG emissions relative to even those landfills equipped with energy recovery systems. In addition, many other governmental and nongovernmental organizations have formally recognized WTE for its role in reducing world-wide GHG emissions including the:

- Intergovernmental Panel on Climate Change (“IPCC”) called WTE a “key GHG mitigation technology”,
- World Economic Forum (WEF) which identified WTE as one of eight renewable energy sources expected to make a significant contribution to a future low carbon energy system,
- European Union,
- U.S. Conference of Mayors, which adopted a resolution in 2005 endorsing the U.S. Mayors Climate Protection Agreement, which identifies WTE as a clean, alternative energy source which can help reduce GHG emissions. As of January 1, 2014, 1,060 mayors have signed the agreement.
- Clean Development Mechanism of the Kyoto Protocol,
- Voluntary carbon markets, and
- Center for American Progress.

Lifecycle Assessment of WTE GHG Reductions

WTE GHG reductions are quantified using a life cycle assessment (LCA) approach that includes GHG reductions from avoided methane emissions from landfills, WTE electrical generation that offsets or displaces fossil-fuel based electrical generation, and the recovery of metals for recycling. The GHG reductions associated with these three factors more than offset WTE fossil-based CO₂ emissions from combustion of plastics and other fossil fuel based MSW components. Using national averages as inputs, a LCA results in an approximate one ton reduction in GHG emissions for every ton of MSW combusted as was estimated by the U.S. EPA.



Waste-to-Energy is a Renewable Resource

Waste-to-energy (WTE) meets the two basic criteria for establishing what a renewable energy resource is—its fuel source (trash) is *sustainable* and *indigenous*. Waste-to-energy facilities recover valuable energy from trash after efforts to “reduce, reuse, and recycle” have been implemented by households and local governments. Waste-to-energy facilities generate clean renewable energy and deserve the same treatment as any other renewable energy resource.

- **Trash Would Otherwise go to a Landfill.** Waste-to-energy facilities use no fuel sources other than the waste that would otherwise be sent to landfills.
- **State Renewable Statutes Already Include WTE.** 31 states, the District of Columbia, and two territories have defined waste-to-energy as renewable energy in various state statutes and regulations, including renewable portfolio standards.
- **Communities with WTE Have Higher Recycling Rates.** Studies have demonstrated that average recycling rate of communities served by waste-to-energy is higher than the national average.
- **WTE Emissions Comply with EPA’s Most Stringent Standards.** All waste-to-energy facilities comply with EPA’s Maximum Achievable Control Technology (MACT) standards. After analyzing the inventory of waste-to-energy emissions, EPA concluded that waste-to-energy facilities produce electricity “with less environmental impact than almost any other source of electricity.”
- **WTE Has a Long History as Renewable.** Waste-to-energy has been recognized as renewable by the federal government for nearly thirty years under a variety of statutes, regulations, and policies. Many states have recognized it as renewable under state statutes as well. The renewable status has enabled waste-to-energy plants to sell credits in renewable energy trading markets, as well as to the federal government through competitive bidding processes.
- **Renewable Designations Benefit Many Local Governments and Residents.** The sale of renewable energy credits creates revenue for local governments that own waste-to-energy facilities, helping to reduce a community’s cost of processing waste. The U.S. Conference of Mayors has adopted several resolutions supporting waste-to-energy as a renewable resource.

Federal Statutes and Policies Establishing WTE as Renewable (as of 12/31/13)

American Taxpayer Relief Act of 2012
 American Recovery and Reinvestment Act of 2009
 Emergency Economic Stabilization Act of 2008
 Tax Relief and Healthcare Act of 2006
 Energy Policy Act of 2005
 American Jobs Creation Act of 2004
 Biomass Research and Development Act of 2000
 Public Utility Regulatory Policies Act (PURPA) of 1978
 Federal Power Act
 Pacific Northwest Power Planning and Conservation Act
 Internal Revenue Code (Section 45)
 Executive Orders 13123, 13423, and 13514
 Presidential Memorandum on Federal Leadership on Energy Management (12/5/13)
 Federal Energy Regulatory Commission Regulations (18 CFR.Ch. I, 4/96 Edition, Sec. 292.204)

States Defining Waste-to-Energy as Renewable in State Law (as of 12/31/13)

Alabama	Maine	Oklahoma
Arizona	Maryland	Oregon
Arkansas	Massachusetts	Pennsylvania
California	Michigan	Puerto Rico
Colorado	Minnesota	South Carolina
Connecticut	Missouri	South Dakota
Dist. of Columbia	Montana	Utah
Florida	Nevada	Virginia
Hawaii	New Jersey	Washington
Indiana	New York	Wisconsin
Iowa	N. Mariana Islands	
Louisiana	Ohio	

Summary

The WTE sector creates **\$5.6 billion** of gross economic sales output, encompassing nearly **14,000 jobs** and nearly **\$890 million** of total labor compensation.

- 5,350 employees servicing 85 plants in the United States earning \$459 million in wages, salaries and benefits
- 8,557 additional full time equivalent jobs created in the U.S. sector outside the WTE sector, earning an additional \$429 million in wages, salaries and benefits

The WTE sector serves three main functions: 1) managing post-recycled waste; 2) recycling post-consumer metals; and 3) producing energy. The revenues, employment, and labor earnings derived from these activities are the direct economic benefits of waste-to-energy. In addition, these activities generate indirect impacts as well as induced impacts. These impacts were calculated using multipliers from the U.S. Bureau of Economic Analysis RIMS II Handbook.



Total Gross Sales Output

Total gross sales numbers were used to approximate the economic output of the sector. Gross sales of the industry encompass revenues generated from: 1) tip fees—amounts paid to the WTE plant to dispose of refuse; 2) energy sales revenues; 3) recycling sales revenues. Total output (sales revenues) was \$3.2 billion. The total national economic impact of these revenues is \$5.6 billion, including the initial \$3.2 billion produced by the waste-to-energy sector directly. Every dollar of revenue generated by the waste-to-energy industry puts a total of 1.77 dollars into the economy through intermediate purchases of goods and services and payments to employees.

Employment and Wage Earnings

The waste-to-energy industry employs about 5,350 people nationwide. This number includes all workers at 85 specific sites, as well as off-site employees of

the several regional and national firms that own and operate waste-to-energy facilities and local government personnel dedicated to plant oversight and maintenance. The WTE sector also creates an additional 8,600 jobs outside of the sector.

Employees at waste-to-energy plants are technically skilled and are compensated at a relatively high average wage. For the purposes of this study a national average salary of \$85,700 (inclusive of fringe benefits) was used. Employees in the waste-to-energy industry receive about \$460 million in annual salary and benefits. The effect of this direct spending on employee compensation generated another \$429 million of compensation for workers across various associated industries.

Conclusion

The waste-to-energy sector provides significant economic value in the communities in which these facilities operate. In addition to the revenues generated by the sector, waste-to-energy facilities provide stable, long-term, well-paying jobs, while simultaneously pumping dollars into local economies through the purchase of local goods and services and the payment of fees and taxes. In addition to the opportunities to provide baseload renewable electric generation, recover metals for recycling, and reduce greenhouse gas emissions, these facilities significantly contribute to the green economy in the communities in which they operate.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

AUG 10 2007

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Emissions from Large and Small MWC Units at MACT Compliance

FROM: Walt Stevenson *WS*
OAQPS/SPPD/ESG (D243-01)

TO: Large MWC Docket (EPA-HQ-OAR-2005-0117)

This memorandum presents information on the overall emissions reductions achieved by large and small municipal waste combustion (MWC) units following retrofit of Maximum Achievable Control Technology (MACT). This memorandum is a companion to the memorandum titled "Emissions from Large MWC Units at MACT Compliance (note a). Consistent with Clean Air Act (CAA) section 129, large and small MWC units completed MACT retrofits by December 2000 and December 2005, respectively. The performance of the MACT retrofits has been outstanding. Emission reductions achieved for all CAA section 129 pollutants are shown below. Of particular interest are dioxin/furan and mercury emissions. Since 1990 (pre-MACT conditions), dioxin/furan emissions from large and small MWCs have been reduced by more than 99 percent, and mercury emissions have been reduced by more than 96 percent. Dioxin/furan emissions have been reduced to 15 grams per year* and mercury emissions reduced to 2.3 tons/year.

Emissions From Large and Small MWC Units

<i>Pollutant</i>	<i>1990 Emissions (tpy)</i>	<i>2005 Emissions (tpy)</i>	<i>Percent Reduction</i>
CDD/CDF, TEQ basis*	4400	15	99+ %
Mercury	57	2.3	96 %
Cadmium	9.6	0.4	96 %
Lead	170	5.5	97 %
Particulate Matter	18,600	780	96 %
HCl	57,400	3,200	94 %
SO ₂	38,300	4,600	88 %
NO _x	64,900	49,500	24 %

(*) dioxin/furan emissions are in units of grams per year toxic equivalent quantity (TEQ), using 1989 NATO toxicity factors; all other pollutant emissions are in units of tons per year.

The MACT performance data presented above is from the initial MACT compliance tests from all large and small MWC units. The inventory of large MWC units at MACT compliance identifies 167 large MWC units located at 66 MWC plants (note b). The inventory of small MWC units at MACT compliance identifies 60 small MWC units located at 22 MWC plants (note c). The baseline 1990 emissions data are from the large and small MWC emissions trend memo (note d and e). In combination, the above information defines the 1990 and 2005 emissions for large and small MWC units.

notes

(a) see docket A-90-45, item VIII-B-11.

(b) see docket A-90-45, item VIII-B-6

(c) see docket OAR-2004-0312, "National Inventory of Small Municipal Waste Combustor (MWC) Units at MACT Compliance (Year 2005)", dated November 1, 2006.

(d) see docket A-90-45, item VIII-B-7

(e) see docket OAR-2004-0312, "National Emissions Trends for Small Municipal Waste Combustion Units [year 1990 – 2005]", dated June 12, 2002.

By
Sarah Foster
and
Paul Chrostowski,
Ph.D.

CPF Associates, Inc.

A large amount of information about the potential public health and environmental impacts of waste-to-energy (WTE) plants has become available since 2000, when the U.S. National Research Council (NRC) published its seminal report, *Waste Incineration & Public Health*. This information includes four different types of studies that can be used to evaluate WTE plants: risk assessments, epidemiological studies, environmental monitoring studies, and biomonitoring studies. Together, the current database of these studies supports the conclusions of the NRC that modern WTE facilities, designed and operated in accordance with current regulations in North America and the EU, do not adversely impact human health or the environment.

In the U.S., **human health risk assessments** (HHRAs) are highly standardized and widely-accepted procedures for evaluating the probability and nature of health effects associated with existing or proposed emissions. The results of these studies, which address both cancer and non-cancer health effects, are usually compared to benchmark levels developed by regulatory agencies to be protective of public health. Ten HHRAs have been conducted in the past decade for North

American WTE facilities. These studies show that emissions from modern WTE plants can meet health-based benchmarks and that adverse public health impacts are not anticipated from exposure to emissions from these facilities.

Environmental monitoring studies rely on measurements of chemicals potentially associated with WTE in the surrounding natural environment to assess potential impacts. The most recent comprehensive review of environmental monitoring studies was conducted in 2009 as part of the Durham/York WTE project. This review evaluated 50 environmental monitoring studies published from 1991 – 2008 and concluded that modern WTE plants are unlikely to impact the surrounding environment, although some old plants with high emissions and poor air pollution controls may have impacted the environment immediately surrounding the facility. The Durham/York study also concluded that environmental monitoring in the vicinity of a modern WTE plant is not justified based on the negligible potential for environmental impacts and because continuous and periodic emissions monitoring required under current regulations can ensure protection against health and environmental impacts. An extensive environ-





“Modern WTE facilities, designed and operated in accordance with current regulations in North America and the EU, do not adversely impact human health or the environment.”

mental monitoring program conducted for a WTE plant, at the Montgomery County, Maryland facility, confirms these conclusions. This 14-year environmental monitoring program involved collection of samples from a wide variety of environmental media before and many times after the plant began operating in 1995. The data provide no indication that facility operation has measurably impacted the environment.

Epidemiologic studies investigate how health problems are distributed in groups of people and what factors contribute to these health problems. Essentially, these studies try to determine if there is a difference in disease between people potentially exposed to WTE emissions compared to the general population or those not exposed. These studies must in all cases be evaluated cautiously – they can indicate whether there is a statistical association between exposure and disease, but they cannot indicate whether a specific facility is the cause of reported results. Many factors must be considered before one can leap from association to causation. Numerous epidemiologic studies have been conducted for combustion facilities over the past two decades but most of these have examined old facilities, plants accepting mixtures of different types of waste, or mixtures of WTE plants plus other types of sources.

In general, these studies fail to present conclusive evidence of a link between WTE emissions and human illness.

Biomonitoring studies analyze human tissues or excreta for evidence of exposure to chemical substances. These studies can measure internal exposure to compounds, but they do not necessarily indicate whether there may be a health effect. They also reflect total exposure to a person, so do not provide information about the possible sources of exposure. The 2009 study conducted as part of the Durham/York project evaluated 25 biomonitoring studies from 1998 – 2008 and found no correlation between WTE emissions and those measured in biomonitoring studies. A more recent study of a new WTE plant built in 2005 in Spain shows no increase in dioxin-like compounds or heavy metals among people living near the plant.

In summary, available studies show that modern WTE facilities, designed and operated in accordance with North American or EU regulations, do not adversely impact human health or the environment. A weight of evidence approach can be used to evaluate WTE using different types of studies, but the usefulness of each study type can vary depending on the project needs.

By
Rick Brandes
and
*Eileen Brettler
Berenyi, Ph.D*

Critics of the use of waste-to-energy (WTE) as an integral component of municipal solid waste (MSW) management in the U.S., the European Union, and Asia often focus on its impact on recycling rates, its cost, and its effect on other renewable energy sources. The problem with these arguments is that they are predicated on the belief that the municipal solid waste stream can be handled by recycling alone. History shows this is not a practical solution. A waste management strategy that combines all tools available to manage this waste is needed. Proponents take the position that WTE provides an essential service to municipalities that must constantly manage those materials that are not, or cannot, be recycled or recovered. WTE's primary purpose, therefore, is to capture from materials value that would otherwise be lost if buried.

Pitting recycling against energy recovery draws public focus away from the real issue: what to do with the more than 260 million tons of waste this country sends to landfills each and every year.

WTE as Part of Sustainable Materials Management

Integrated materials management following the reduce, reuse, recycle, compost and energy recovery hierarchy is proven to work and is embraced by most developed countries. Energy recovery from waste is a key component to achieve MSW diversion and carbon reduction goals. The hierarchy is gen-

erally meant to convey preferred waste management priorities, with source reduction and direct reuse as the most desired actions by communities, and land disposal without treatment as the least desired. Overall, the hierarchy recognizes the degree of positive environmental and social benefit of the available waste management options and helps communities integrate them in a cohesive strategy that meets the needs of the communities themselves.

MSW is a valuable energy resource

Under any practical definition, energy recovered from MSW is renewable energy and should be legally defined as such by policymakers seeking to establish and maintain renewable energy portfolios. In a fundamental and realistic sense, MSW is constantly available and continuously replenished the very definition of the basic concept of "renewable energy."

Post-consumer, post-recycled municipal waste is, and will be in the foreseeable future, generated in huge volumes. Post-recycled waste will not go away by idealistically visualizing a society where no waste is created. Forty years of intense focus on recycling and source reduction have succeeded in raising recycling rates but those efforts have not eliminated the generation of MSW. With the waste that is left over after efforts to reduce, reuse, and recycling, sustainable and valuable opportunities to manage this material must be found. WTE facilities can create that value by extracting



Waste-to-Energy, an Essential Part of Sustainable Materials Management (con't)

extracting 500 to 700 kilowatt hours of power for each ton of waste they process. By contrast, landfills can only capture about 100 kilowatt hours per ton by burning the methane captured. Additionally, WTE facilities provide continuously available baseload power at the local level, augmenting intermittent renewable energy sources, such as wind and solar.

Recovering energy from MSW has a very desirable carbon emissions impact because the positive carbon balance of WTE is significant. EPA's models for calculating GHG emissions reductions from the various MSW management techniques show that on average one ton of carbon equivalents can be avoided per ton of MSW processed by WTE facilities. The carbon emissions savings accrue from a combination of energy offsets from the displacement of fossil electricity, GHG benefits of metals recovery from waste-to-energy ash, and avoiding methane generation from landfills.

Conclusion

Waste management in the United States is evolving from a focus solely on the disposal of waste inexpensively to a focus on solid waste as a composite of

various materials flowing through a consumer society, each to be managed in such a way as to recover the highest value possible. In this paradigm, waste-to-energy has a central role to play along with recycling. Consistent with the waste management hierarchy, this approach embodies the core principles of sustainable materials management and should be incentivized in renewable and clean energy standards, greenhouse gas programs, and other progressive policies.

***Rick Brandes** is former chief of the Energy Recovery and Waste Disposal Branch, Office of Resource Conservation and Recovery, of the U.S. Environmental Protection Agency. **Eileen Berenyi, Ph.D** is President of Governmental Advisory Associates.*



A Compatibility Study: Recycling and Waste-to-Energy Work in Concert, 2014 Update

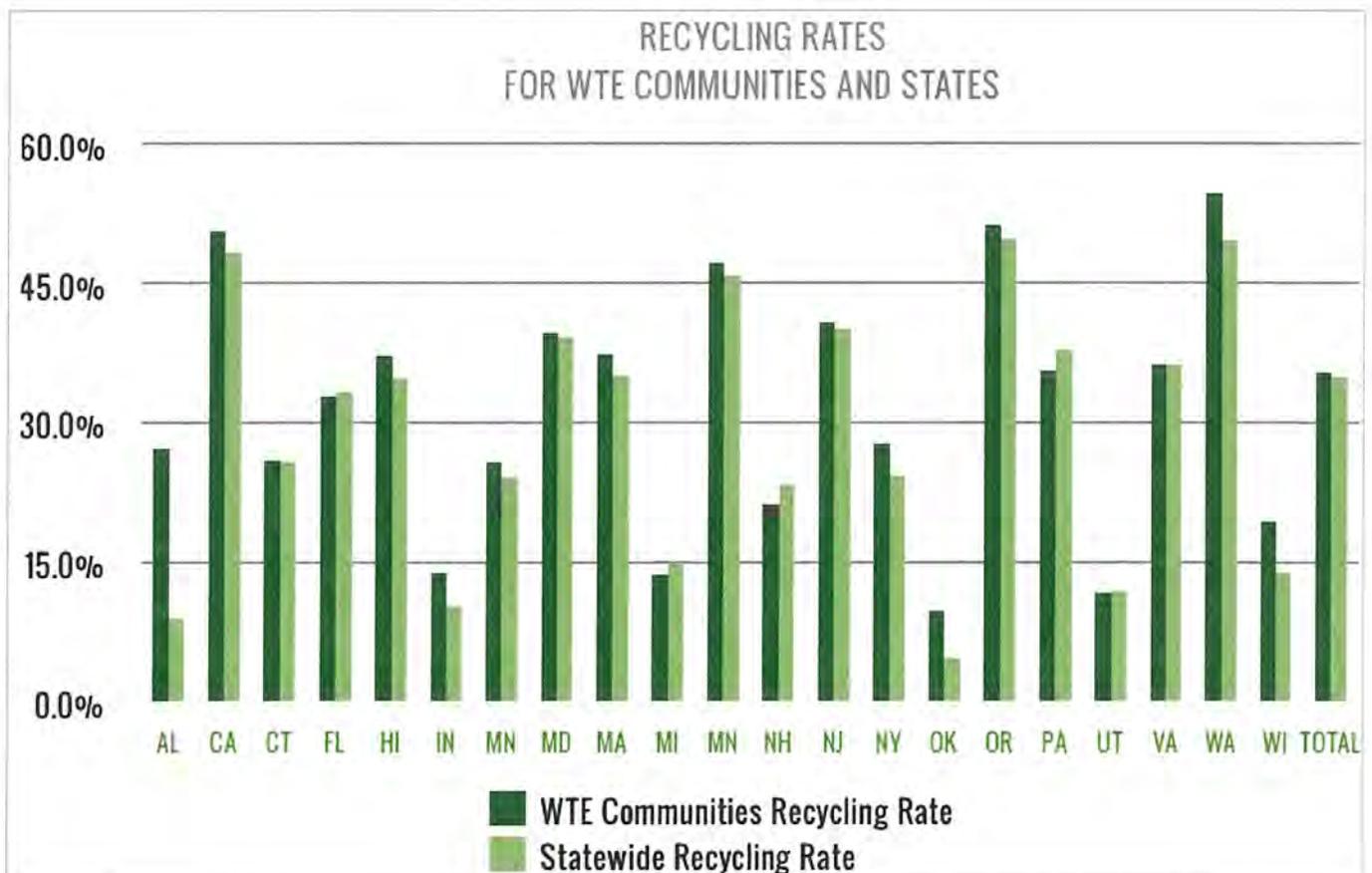
By Eileen Brettler Berenyi, Ph.D

Executive Summary

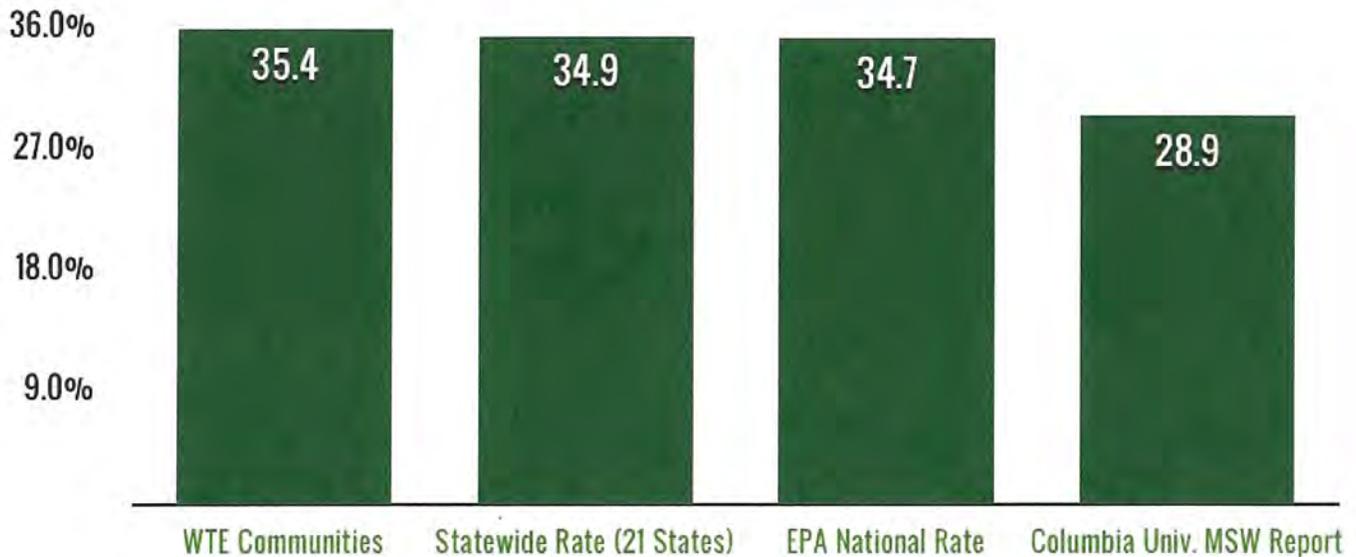
This study updates similar analyses conducted in 2008 and 2009. Their purpose was to answer the question: Does a community's use of a waste-to-energy plant to dispose of its waste impact the level of recycling in that community. The 2008 study answered that question with a resounding no. The means of disposal had no impact on the level of recycling; in fact, many communities which sent their waste to a waste-to-energy plant had higher levels of recycling than averages that prevailed across their state. This current paper, updates the study, using 2012 data as much as possible. In an examination of recycling rates of 700 communities in twenty-one states, which rely on waste-to-energy for their waste disposal, it was again demonstrated that this means of disposal had no impact on recycling. In fact, overall communities using waste-to-energy had a slightly higher level of recycling than that observed across their states and across the nation.

Key Findings:

- The study covers 80 waste-to-energy facilities in 21 states serving about 30% of the population of those states. Recycling data was obtained from 700 local governments, including 601 cities, towns and villages and 98 counties, authorities or districts. In addition, statewide data was obtained for each of the 21 states. The population of these states comprises about 56% of the U.S. population.
- As reported by the U.S. EPA the national recycling rate as of 2011 was 34.7%. The recycling rate for communities, using WTE plants is at 35.4%. Interestingly, the average recycling rate for the 21 states surveyed is 34.9%. Figure ES-1 below shows these rates graphically. Only tenths of a percent separate the three averages, indicating that waste-to-energy as a disposal method has no impact on the level of recycling in a community or a state.



BENCHMARK COMPARISONS



- All communities using waste-to-energy provide their residents an opportunity to recycle and most have curbside collection of recyclables. In fact, some of these communities are leaders in the adoption of innovative recycling programs, such as single stream collection and food waste collection and composting. The coincident nature of recycling programs and waste-to-energy in each community is evidence that these two waste management strategies easily exist side by side. They often complement each other, in that a waste-to-energy plant is often the largest recycler of post-consumer metal in the state.
- In most cases, recycling rates in waste-to-energy communities closely track the statewide recycling rate in the state where they are located as shown in Figure ES-2. State solid waste policies and programs, not whether a community relies on waste-to-

energy as a disposal option, are a key influence on local recycling behaviors and rates.

- In conjunction with the graph above, Table ES-1 below indicates how individual community recycling rates mirror the overall state rate. In 16 of the 21 states which rely on waste-to-energy facilities, individual communities using these facilities have a slightly higher recycling rate than the overall state average. In total, rates have risen since 2009, with additional communities adopting single stream curbside recycling and more communities moving to curbside organics collection.

The author is the president of Governmental Advisory Associates, Inc. in Westport, CT. The 2014 Update of this report builds upon reports she published on this topic in 2008 and 2009.

WTE Supports High Quality Jobs

The waste-to-energy sector provides significant economic value in the communities in which these facilities operate. In addition to the revenues generated by the sector, waste-to-energy facilities provide stable, long-term, well-paying jobs, while simultaneously pumping dollars into local economies through the purchase of local goods and services and the payment of fees and taxes. In addition to the opportunities to provide base-load renewable electric generation, recover metals for recycling, and reduce greenhouse gas emissions, these facilities significantly contribute to the green economy in the communities in which they operate.

Starting in 1995, the Earth Engineering Center (EEC) of Columbia University has researched various aspects of existing and novel technologies for the recovery of materials and energy from “wastes” and disseminated the results of these studies by means of publications, presentations and the web. The guiding principle of EEC research is that “wastes” are resources and must be managed on the basis of science and best available technology and not on ideology or economics that exclude environmental costs. The general principles of sustainable waste management are illustrated in the EEC Hierarchy of Waste Management (Figure 1). The EEC resources are its **Research Associates** and the **graduate students** who pursue degrees on sustainable waste management.

One of the EEC activities is the periodic Survey of Waste Management in the U.S. The 2013 Survey was just completed and showed (see Table below) that landfilling remains at about 64% (247 million short tons) of the total U.S. MSW. In contrast, several nations, including Austria, Denmark, Germany, Japan, Netherlands, and Singapore have practically eliminated landfilling by a combination of recycling/composting and waste-to-energy (WTE). It is interesting to note that some U.S. states, e.g. Connecticut, are much more advanced with regard to managing their MSW. The main reason that the U.S. lags behind other developed nations is that there is no government policy on integrated waste management.

In recognition of the fact that there was not enough academic research and training on sustainable waste management, in 2003 EEC co-founded, with the Energy Recovery Council of the U.S., the **Waste-to-Energy Research and Technology Council**. WTERT brings together scientists, engineers, and managers concerned with advancing sustainable waste management in the U.S. and worldwide. During the first ten years of its existence, WTERT has sponsored many academic research studies and published over one hundred papers on all means of waste management, including waste reduction, recycling, aerobic and anaerobic composting, waste-to-energy, and landfill gas recovery. By now WTERT has sister organizations in Brazil, Canada, China, France, Germany, Greece, India, Italy, Japan, Mexico, Singapore, South Korea, and the U.K. All these organizations are part of the Global WTERT Council (GWC).

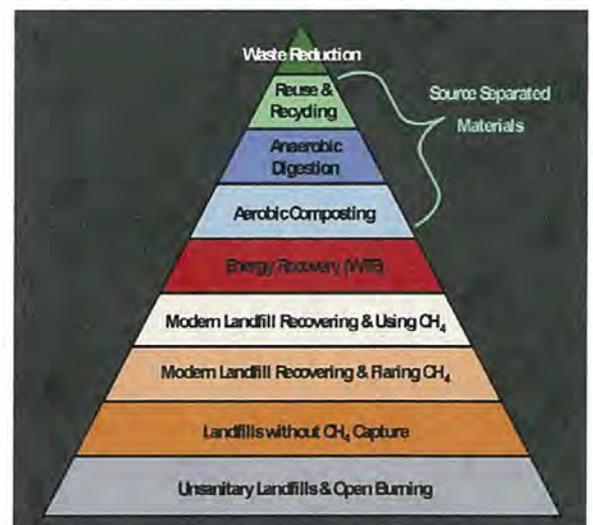
<i>Disposition of U.S. MSW in 2011 (2013 EEC National Survey)</i>			
Percent Recycled	Percent Composted	Percent Combusted	Percent Landfilled
22.6	6.3	7.6	63.5



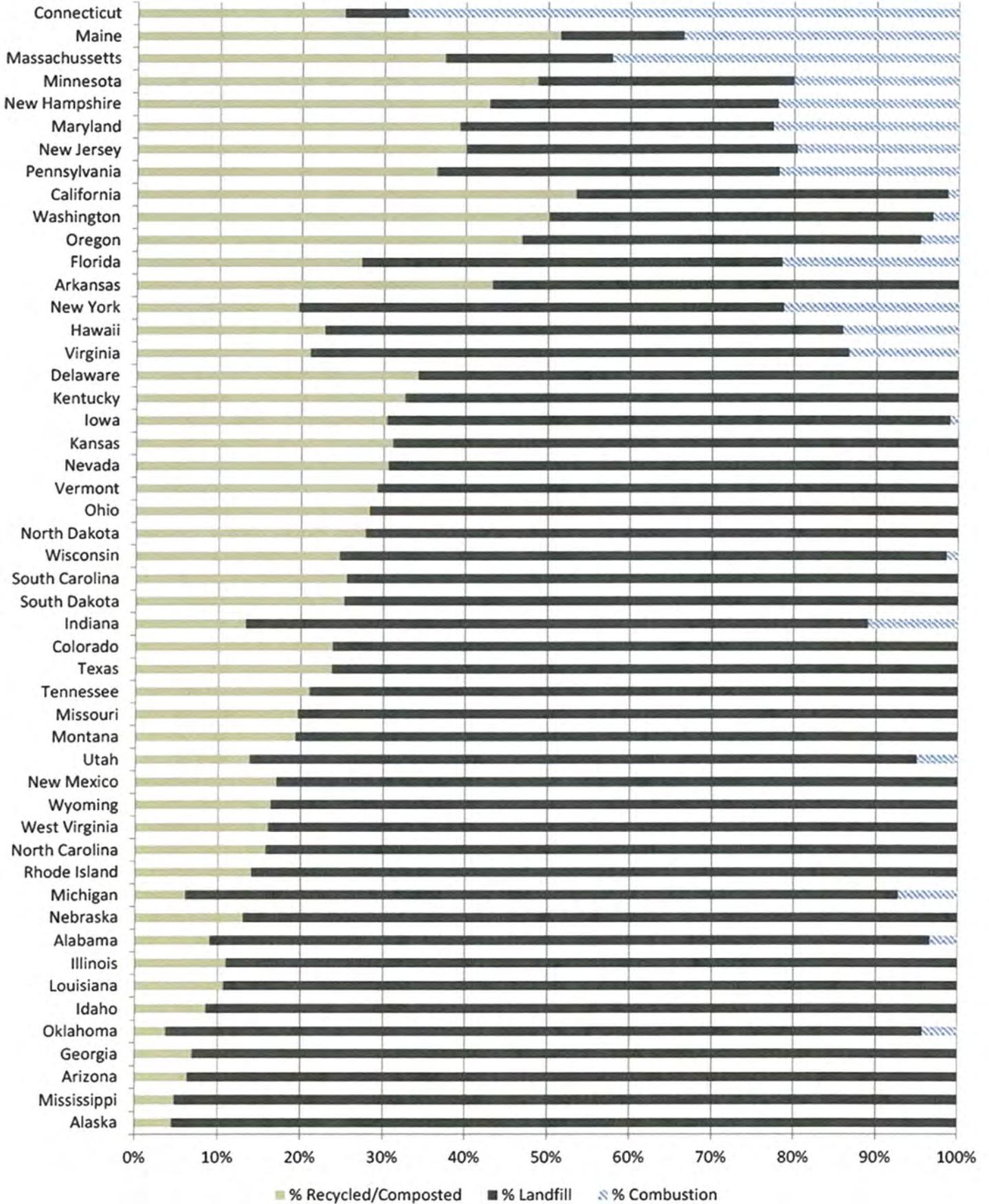
Information to the Public on Sustainable Waste Management

Each year, WTERT-U.S. and its sister organizations receive many requests for information on WTE and waste management practice, in general. The principal means of communication between WTERT and the general public are the various national web pages that, worldwide, continue to be the premier source of up-to-date information on advances in managing “wastes”. Also, in 2012-2013, GWC contributed chapters to three books and half a volume to the Encyclopedia of Sustainability Science and Technology (Springer). In 2013, EEC published the WTE Guidebook for Latin America and the Caribbean, under the sponsorship of the InterAmerican Development Bank.

Figure 1. The EEC hierarchy of waste management

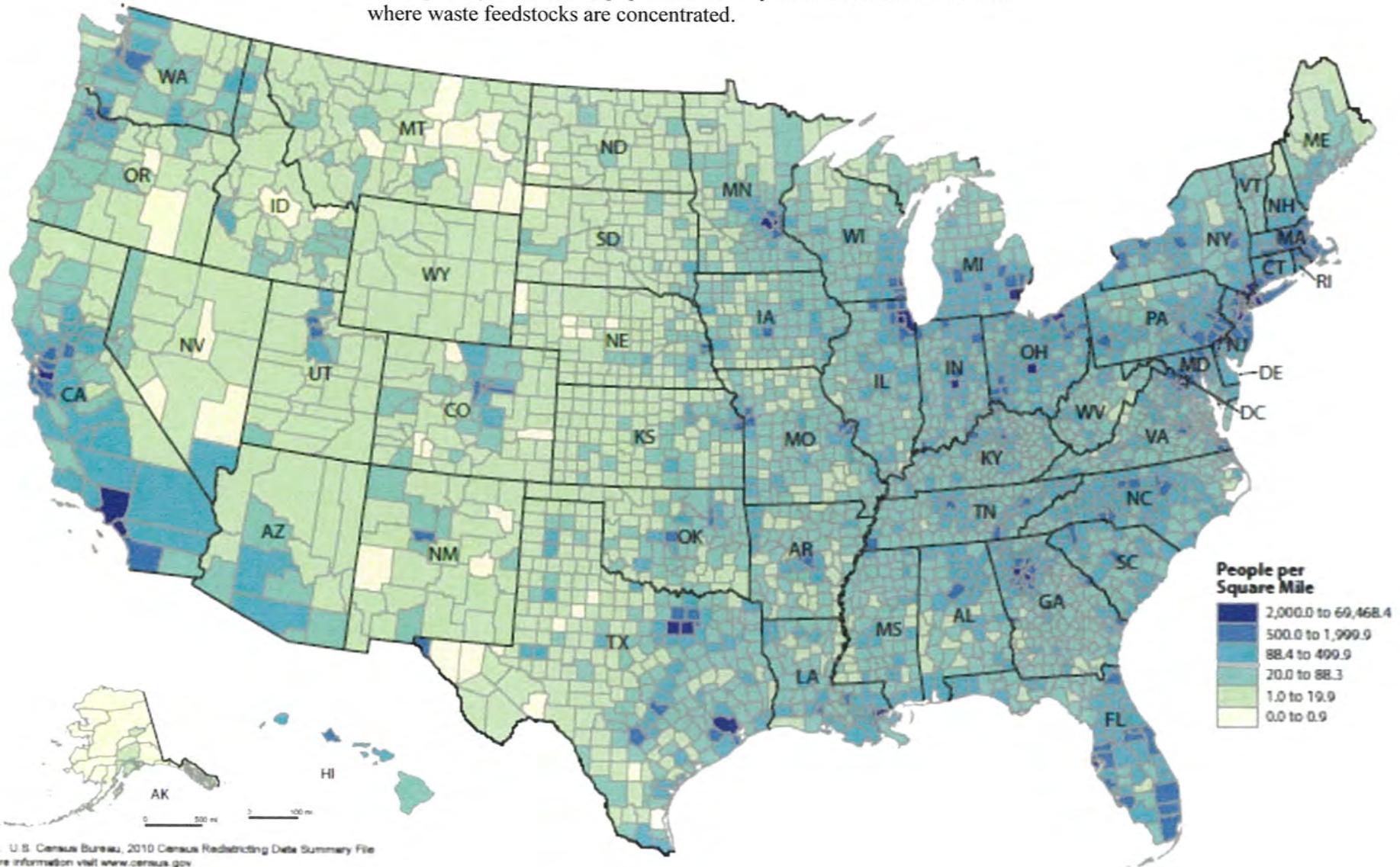


Disposition of MSW in U.S. States (EEC study, 2013)



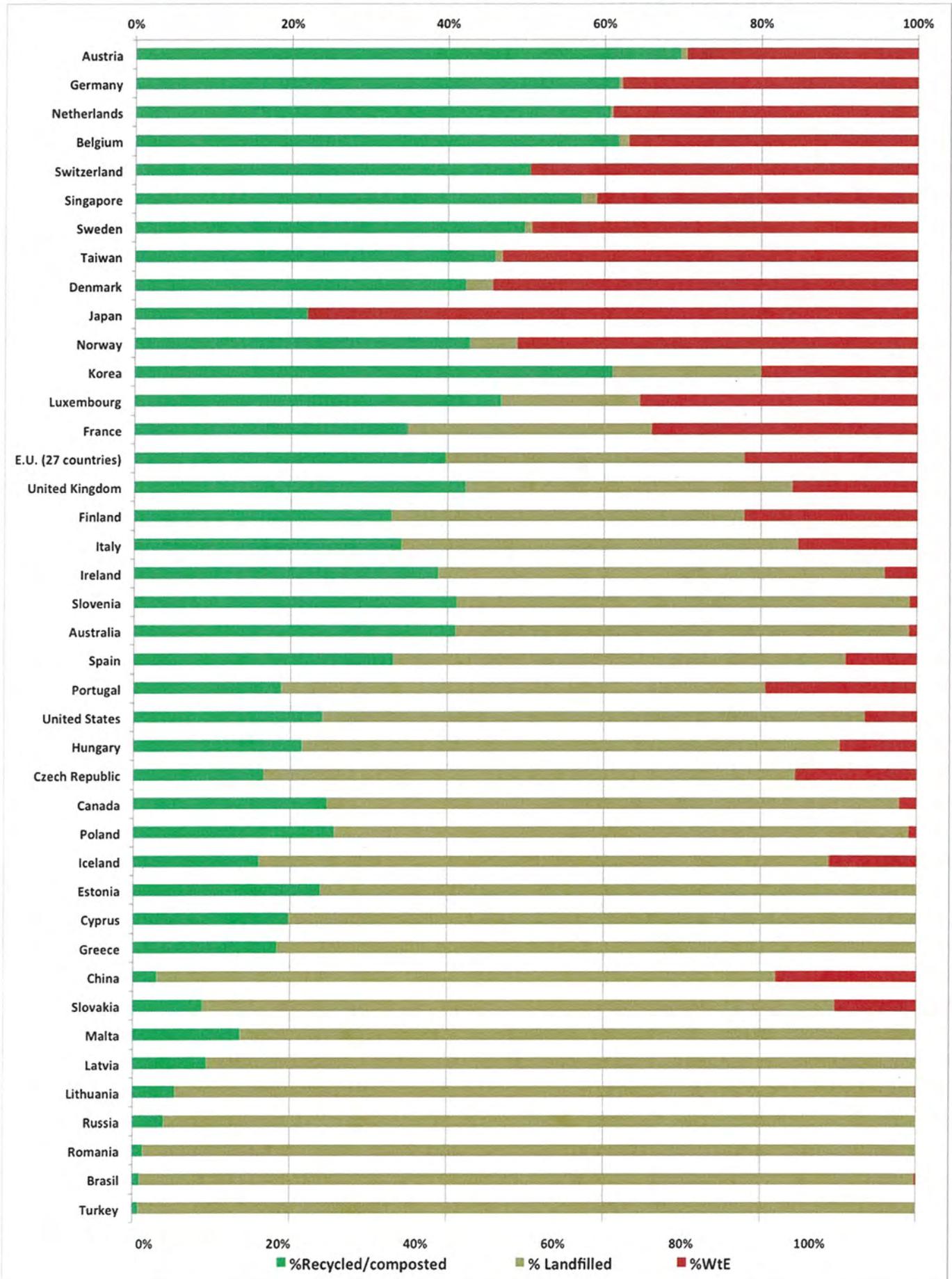
Waste Feedstocks Track Population Density

Waste is everywhere. With almost 250 million tons of waste landfilled each year, opportunities to recover valuable energy and materials from waste abound. The average American generates nearly 7 pounds of waste per day. Therefore, population density is an excellent indicator of where waste feedstocks are concentrated.



Source: U.S. Census Bureau, 2010 Census Redistricting Data Summary File
For more information visit www.census.gov

Disposition of MSW in various countries (EEC study, 2013)



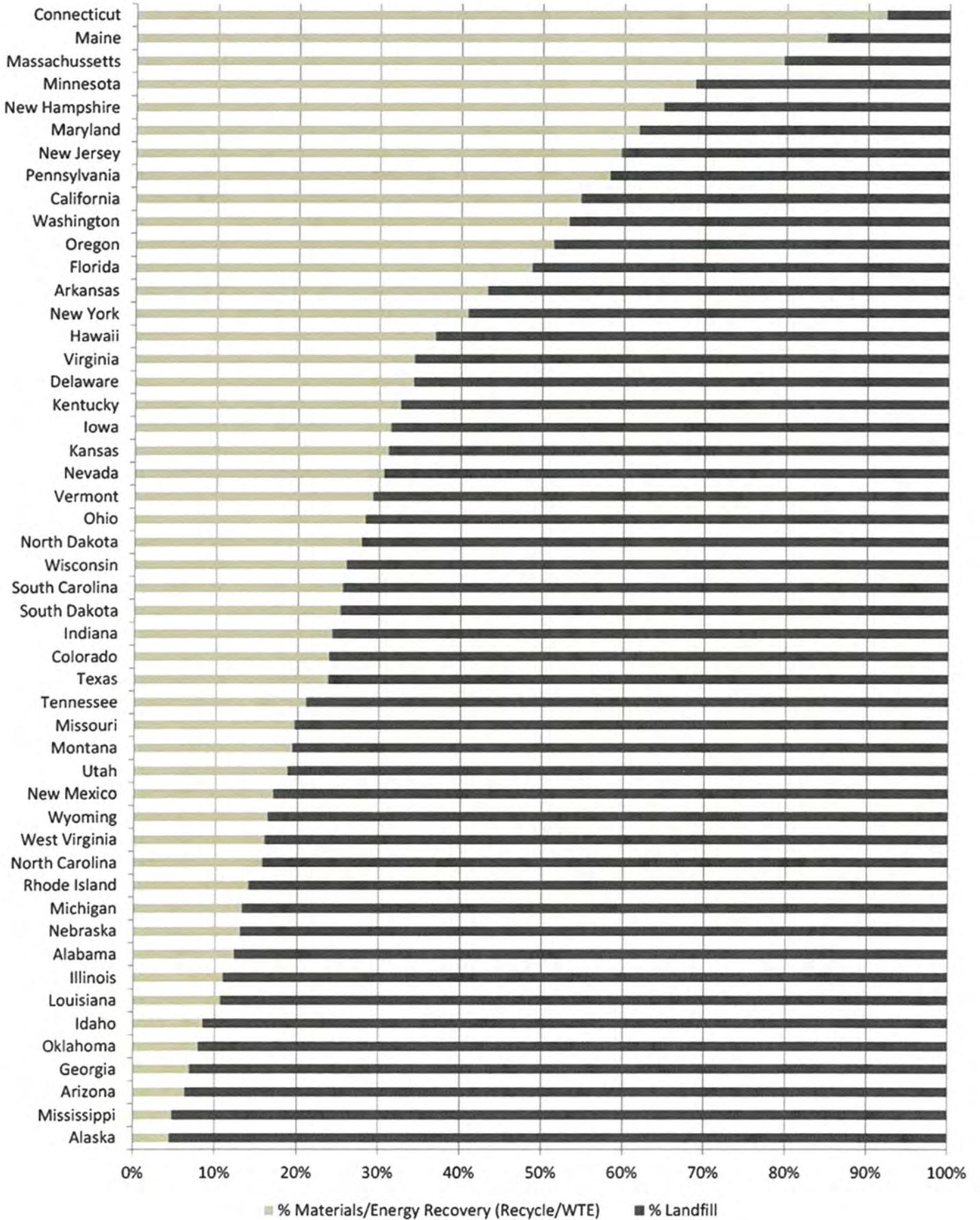
WTE in Corporate Sustainability Efforts

Companies in the United States and around the world have identified zero waste practices as a sound management practice in pursuit of sustainability, environmental achievement, and economic efficiency. Companies that have pledged to eliminate waste from landfills rely on waste-to-energy facilities for waste that cannot be recycled. Homogenous waste streams in industrial settings yield higher recycling rates than can be achieved on the residential curbside, but residual waste remains which must be managed in a waste-to-energy facility. The electricity that can be generated by a waste-to-energy facility is a feedstock in most industrial manufacturing settings, which allows the energy from the residual waste to be fed right back into the industrial process.

“We are proud of our role as stewards of the environment and of our progress in eliminating waste from our operations,” said Terence O’Day, Senior Vice President of Global Operations at The Hershey Company in 2013 as two more facilities achieved zero waste to landfill status. “We achieved zero waste to landfill at these facilities through a rigorous process of eliminating waste, recycling and converting waste to energy. Our employees understand the importance of sustainability across our company and are working together to reach our reduction goals.”

<p style="text-align: center;">General Motors</p> <p>GM is committed to waste reduction throughout its operations. Currently, more than half of GM’s manufacturing facilities are landfill-free, bringing the total count to 85. On average, 97% of the waste generated from everyday manufacturing operations at these plants is recycled or reused, and 3% is converted to energy at waste-to-energy facilities.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">The Hershey Company</p> <p>The Hershey Company has six U.S. plants that no longer dispose routine waste into landfills. To achieve zero waste to landfill status, Hershey’s manufacturing facilities have both reduced their overall waste streams and increased recycling rates to approximately 90 percent. All remaining waste is sent to nearby waste-to-energy plants, which also reduces overall reliance on fossil fuels.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">Proctor & Gamble</p> <p>Procter & Gamble announced in 2013 that 45 of their facilities have achieved zero manufacturing waste to landfill. Through quality assurance, packaging reduction, compaction and recycling efforts, the company now ensures that 99% of all materials entering P&G plants leaves as finished product or is recycled, reused or converted to energy at waste-to-energy facilities.</p> <div style="text-align: center;">  </div>
<p style="text-align: center;">Subaru</p> <p>The Subaru of Indiana Automotive (SIA) manufacturing plant in Lafayette, Indiana, became the first auto manufacturing plant to achieve a zero landfill status. All of the plant’s manufacturing waste goes is recycled and reused or sent to waste-to-energy.</p> <p>SIA recycles 99.3 percent of its of excess steel, plastic, wood, paper, glass and other materials. The remaining 0.7 percent is shipped to the Indianapolis waste-to-energy facility where it is converted to energy for the downtown steam loop.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">Toyota</p> <p>Toyota’s target is to achieve near-zero waste to landfill (measured annually as a 95% or greater reduction in waste to landfill, averaged across our North American plants). Their zero landfill metric is driven by the Toyota Production System, where the elimination of waste in all aspects of business is a main objective. For example, to avoid sending nonhazardous waste to a landfill, waste from our design centers in Michigan is sent to a waste-to-energy facility.</p> <div style="text-align: center;">  </div>	<p style="text-align: center;">Unilever</p> <p>In 2013, Unilever United States and Canada announced that all 26 of its manufacturing and non-manufacturing headquarter facilities are now zero waste to landfill (ZLF). The key driver for this achievement in both North America manufacturing and non-manufacturing headquarter facilities is the elimination of waste. Where reduction of waste is not sufficient, the company’s facilities reuse, recycle, or recover energy from waste to reach zero waste to landfill.</p> <div style="text-align: center;">  </div>

Materials and Energy Recovery (EEC study, 2013)



Workplace Health & Safety — A Waste-to-Energy Priority

The Occupational Safety & Health Administration (OSHA) sets standards for America's workers to ensure employees are safe and their health is protected. Waste-to-energy facilities, like all other workplaces, must meet these tough standards. However, waste-to-energy facilities take tremendous pride in their health and safety programs, which often goes beyond what is required by law. Great importance is placed on developing and implementing successful programs that protect the people working in the plants.

OSHA has recognized the stellar accomplishments of 48 waste-to-energy facilities with the designation of STAR status under the Voluntary Protection Program (VPP). VPP STAR status is the highest honor given to worksites with comprehensive, successful safety and health management systems. STAR sites are committed to effective employee protection beyond the requirements of federal standards and participants develop and implement systems to effectively identify, evaluate, prevent, and control occupational hazards to prevent injuries and illnesses. The keys to health and safety success under VPP are the employee engagement and ongoing involvement in on-site health and safety program development combined with long-term commitment and support from management. VPP-level recipients routinely incur injury and illness rates that are at or below the state average for their specific industry.

Impressively, 48 of the 84 waste-to-energy facilities have earned VPP STAR status. Less than 0.02 percent of all worksites in the United States are enrolled in VPP, yet more than 57 percent of U.S. waste-to-energy facilities have achieved STAR status. This illustrates the commitment of this sector is superior attention to health and safety.

SAFETY: DO IT FOR LIFE

Created under an ERC-OSHA Alliance Agreement, ERC and its members have celebrated "Hauler Safety Day" at their facilities to educate public and private waste haulers, municipal and private owners and operators, and facility employees about best health & safety practices to ensure a safe and healthy workplace. ERC member companies have coordinated the event by developing and utilizing a unified campaign with posters, stickers and "12 Rule" cards to get the message out regarding health and safety on waste-to-energy tipping floors. Our goal is to ensure that everyone who conducts business at or visits a waste-to-energy facility will return home safe and sound at the end of each and every day.



Waste-to-Energy Owners/Operators

Covanta
 445 South Street
 Morristown, NJ 07960
 (862) 345-5000
 www.covanta.com

Wheelabrator Technologies Inc.
 4 Liberty Lane West
 Hampton, NH 03842
 (800) 682-0026
 www.wheelabratortechnologies.com

Green Conversion Systems, LLC
 411 Theodore Fremd Ave.
 Suite 102
 Rye, NY 10580
 (914) 925-1077
 www.gcsusa.com

ERC Municipal Members

Bristol (CT) Resource Recovery Facility Operating Cmte.
 City and County of Honolulu, HI
 City of Alexandria/Arlington County (VA)
 City of Ames (IA) Resource Recovery System
 City of Long Beach, CA
 City of Tampa, FL
 Connecticut Resource Recovery Authority
 County Sanitation Districts of Los Angeles County, CA
 Dade-Miami County, FL
 Delaware Solid Waste Authority
 ecomaine
 Fairfax County, VA
 Hennepin County (MN) Dept. of Environmental Services
 Kent County Department of Public Works
 Lancaster County (PA) Solid Waste Management Authority
 Lee County (FL) Solid Waste Division
 Northeast Maryland Waste Disposal Authority
 Olmsted County (MN)
 Onondaga County (NY) Resource Recovery Agency
 Pinellas County (FL) Utilities
 Pope-Douglas (MN) Solid Waste Management
 Prairie Lakes Municipal Solid Waste Authority (MN)
 Solid Waste Authority of Palm Beach County (FL)
 Southeastern CT Regional Resources Recovery Authority
 Spokane (WA) Regional Solid Waste System
 Town of Wallingford (CT)
 Virgin Islands Waste Management Authority
 Wasatch (UT) Integrated Waste Management District
 York County (PA) Solid Waste Authority

ERC Associate Members

C&I Boiler Repair, Inc.
 Dvirka & Bartilucci Consulting Engineers
 Energy Answers International
 Gershman, Brickner, and Bratton, Inc.
 Great River Energy
 Hawkins Delafield & Wood LLC
 HDR, Inc.
 Helfrich Brothers Boiler Works, Inc.
 Hitachi Zosen Inova USA
 INASHCO North America Inc.
 Jansen Combustion & Boiler Technologies, Inc.
 Martin GmbH
 Minnesota Resource Recovery Association
 Morris, Manning & Martin, LLP
 New England Mechanical Overlay
 PERC Holdings LLC
 Plasma Power LLC
 Plattco Corporation
 Powerhouse Technology, Inc.
 Ramboll
 Renewable Resource Consultants LLC
 Resource Recovery Technologies, LLC
 RRT Design & Construction
 Southern Recycling
 Valmet Inc.
 Zampell Refractories, Inc.

Waste-to-Energy Directory: Key Terms

City: The city in which the facility is physically located.

County: The county in which the facility is physically located.

U.S. Congressional District: The U.S. congressional district in which the facility is physically located in the 113th Congress (2013-2014).

Owner: The current owner of the facility is listed. Whether the owner is a private or public entity is noted parenthetically.

Operator: The current operator of the facility is listed. Whether the operator is a private or public entity is noted parenthetically.

Project Startup: The actual year in which commercial operation began.

Operating Status: Indicates whether the facility is operating, inactive, or under construction in 2014.

Technology: Indicates whether the facility is mass burn, modular, or refuse derived fuel (RDF).

Throughput Capacity (TPD): Expressed in tons per day, the throughput capacity is the aggregate trash capacity for all units located at a facility.

No. of Boilers: The number of boilers (or units) in use at the facility.

Gross Electric Capacity (MW): Expressed in gross megawatts, the nameplate capacity of the turbine generators located at the facility. This figure represents the largest amount of gross electrical output that can be achieved.

Gross Steam Capacity (lbs/hr): The gross amount of steam that can be generated. For combined heat and power facilities, this amount represents the typical amount of steam exported expressed in pounds per hour, in addition to electric generation.

Full-time Employees: The approximate number of full-time employees that work at a facility. This number is an estimate and fluctuates over time.

Serves Waste Needs of (People): Indicates the number of individuals that are served by the facility in the "waste catchment area".

Certifications: Indicates whether the facility has achieved STAR status under the U.S. Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP) or is ISO certified.

State Based Information

WTE Facilities: The number of facilities located in that state.

Total Waste Capacity: The aggregate trash capacity of all facilities located in that state.

Total Electric Capacity: The aggregate gross electric capacity of all facilities located in that state.

Total Steam Capacity: The aggregate gross steam capacity typically exported (expressed in lbs/hr) of all facilities located in that state.

Population in 2010: The population of the state as reported in the 2010 census by the U.S. Census Bureau.

MSW Managed in 2011: The total amount of MSW processed at all facilities in the state in 2011, as reported by the 2013 Columbia University EEC Survey.

% of MSW Managed by WTE in 2011: The percentage of the state's waste processed by WTE in 2011, as reported by the 2013 Columbia University EEC Survey.

WTE as % of Non-Hydro Renewable Elec. Generation in 2012: WTE electricity, expressed as a percentage of all non-hydro renewable electricity, generated in that state in 2012.

Energy Produced by WTE in a State is enough to power (#) homes: The figure is derived by expressing energy capacity (electric and steam) in megawatts and dividing it by EIA's estimate that each household uses 1.24 kilowatts of capacity per hour (10,837 kwh per year).

Recycling Rate of WTE Communities: The aggregate recycling rate of all WTE communities in the state, as reported by Eileen Berenyi's 2014 Recycling compatibility report.

Jobs at WTE Facilities: The aggregate FTE jobs at facilities in the state listed in the directory.

Total Jobs (Direct, Indirect, & Induced) Created by WTE: The total number of direct, indirect, and induced jobs created by WTE in the state, as reported by Eileen Berenyi in the 2013 National WTE Economic report.

Total Economic Output (Direct, Indirect & Induced) by WTE: The total number of direct, indirect and induced economic output created by WTE in the state, as reported by Eileen Berenyi in the 2013 National WTE Economic report.

State Law Defining WTE as Renewable: Citation of a state law defining WTE as renewable. In some states, more than one reference to WTE as renewable may exist, but may not be listed here.



Smithtown - Example Best Practice

Smithtown, New York, was the first town outside of California to require its private refuse fleet to be 100% CNG-fueled. The rising cost of contracted refuse services, primarily due to the increased diesel fuel costs, caused the town to evaluate its fleet fueling options. While the economics from more stable CNG prices was the primary driver to use CNG, Smithtown officials welcomed the environmental benefits that would be associated with new CNG trucks replacing the aging diesel refuse fleet. In 2006, the town developed a mechanism for the municipality purchasing process to support CNG use in refuse vehicles through private refuse carriers.

Smithtown first secured a contract with a fuel supplier to agree to put in a station if a CNG refuse service bid was awarded. The town negotiated a fixed price for fuel to eliminate the uncertainty for contractors. After researching CNG extensively, visiting organizations that were already using CNG in refuse applications, and testing its own bi-fuel pickup truck, Smithtown decided to make



Figure 26. Hauppauge fast-fill compressed natural gas station

a full commitment to CNG. The town issued bid specifications requiring 100% CNG power for refuse contracts in 2006 and CNG vehicle service started in January 2007. Prior to the bid specifications being issued, prospective bidders expressed concerns and tried to get Smithtown to remove the CNG mandate. However, after understanding the advantages the town secured, a greater number of responses was received for refuse service bids, which did not have a CNG mandate benefit that CNG provides through the reduced risk due to CNG vehicles even when not mandated to do so.

Today, Smithtown's refuse fleet is supplemented by private refuse vehicles of

- Autocar Xp... mounted fu...
- Crane Carri...

CNG program

trucks operated by private haulers and special pick-ups. The dedicated CNG

plus engine, FAB Industries roof

Industries pedestal mounted fuel system

- Kenworth T440: CWI ISL G engine, pedestal mounted fuel system

From 2007–2010, the fleet used a Clean Energy operated public access CNG fueling station at the New York State Office of General Services facility in Hauppauge, New York. In 2010, an additional fueling station in Smithtown was installed at the Smithtown Municipal Services Facility in Kings Park, New York through a bid award to support refuse vehicles in Smithtown and the Town of Huntington. The Town of Huntington wanted to replicate Smithtown's



Figure 25. Smithtown 2010 Kenworth T440 CNG refuse truck with pedestal mount fuel system

CNG mandate but did not have a public fueling option or the appropriate property to put in a station. This unique collaboration between two municipalities created the demand for another CNG station that both could benefit from. This site, which is also owned, operated and maintained by Clean Energy, supported the expansion of CNG in Smithtown's own fleet and the fuel throughput was sufficient to attract bids from three fuel providers. An extended 15-year fuel agreement was used to spread out the cost of the initial investment for the station construction and lower costs for the townships and the private carters contracting with the towns.

Smithtown's Town Supervisor, Patrick R. Vecchio, estimated that over the seven-year life of the town's refuse hauling contract, a CNG fleet would reduce costs, give the residents cleaner air, and eliminate the need for more than 1.5 million gallons of diesel fuel. The fleet reduced the town's dependence on foreign petroleum products by the equivalent of nearly 200,000 gallons of gasoline and diesel fuel in 2010. The Town Supervisor estimates that CNG is providing Smithtown with savings of approximately \$3 per home per year as compared to using diesel fuel. Employees who work on the CNG vehicles have been very pleased with their performance and the mechanics were very glad to have an opportunity to gain knowledge and experience with an alternative fuel. The contractor's drivers are satisfied with the performance, the noise reduction is an added benefit for the operators, and the personnel who ride on the back of the trucks are glad not to be breathing diesel fumes all day.

Since the introduction of the Smithtown CNG refuse fleet, other CNG vehicles have been purchased by the Smithtown Municipality, including the following:

- Freightliner M2 dump/plow trucks, some of the first acquired were powered by a John Deere CNG engine, more recent acquisitions have the CWI ISL G engine
- International dump/plow trucks repowered with an Emissions Solutions Phoenix engine
- Seven Honda Civic GX Sedans
- Schwarze M6000 Street Sweeper

Smithtown's "CNG Champion," Russell Barnett, has supported the use of CNG for refuse services in numerous other municipalities throughout North America. With the adjacent townships of Brookhaven and Huntington awarding CNG refuse service contracts, just under 1 million people in this part of Long Island receive refuse collection exclusively by CNG vehicles. Based on his experience, Russell recommends that municipalities and fleets considering CNG should not extend beyond their core capabilities when implementing a CNG vehicle program. There is a competitive environment in the CNG industry and there are plenty of third-party organizations ready to compete for the opportunity to provide equipment and services.

Contact

Russell K. Barnett, Director of Smithtown Environment & Waterways
631-360-7514
rk Barnett@optonline.net

Smithtown

From Wikipedia

Schools

Smithtown Central School District is a school district in Nassau County, New York, consisting of Smithtown and parts of Roseton, Hauppauge, and Westhampton, which are currently unincorporated. The Smithtown Central School District is the home of the Smithtown area's two train stations. Covering an area of 35 square miles (91 km²), SCSD serves approximately 11,000 students in nine elementary schools, three 6-8 middle schools, and two high schools. It is the fourth largest school district on Long Island.

Contents

- 1 Current Schools
 - 1.1 Elementary Schools
 - 1.2 Middle Schools
 - 1.3 Smithtown High Schools
- 2 Former Smithtown schools
 - 2.1 New York Avenue Junior High School
 - 2.2 Smithtown Branch High School
- 3 Notable faculty
- 4 Notable alumni
- 5 References
- 6 External links

District

Smithtown Central School District

Type and location

Type	Public School District
Motto	Education is the difference between civilization and chaos
Established	Early 1900s
Region	Smithtown, NY
Country	US

District information

Superintendent Interim: Judith Elias

Students and staff

District mascot Smithtown Bulls

Colors Red and Blue

Other information

Schedule Quarters

Website www.smithtown.k12.ny.us
(<http://www.smithtown.k12.ny.us>)

Current Schools

Elementary Schools

The Smithtown Central School District currently operates on eight elementary schools. Grades kindergarten to fifth grade served in Smithtown CSD's elementary schools. The regular Smithtown CSD elementary school day lasts 6 hours and 5 minutes. Four or five elementary schools are declared the early elementary schools which run from 9:05 am to 3:10 pm. The other five or four elementary schools are declared the late elementary schools which run from 9:35 am to 3:40 pm. The following year, the

early and late elementary schools switch schedules. Bus service from We Transport Inc. and Towne Bus Inc. transports students from home to school and back within an hour from school starting and ending. There are no buses serving the elementary schools at later hours.

The elementary schools contain a few clubs for elementary students to join, most before school, some after school. Students receive one teacher throughout the entire day (grades kindergarten to four), except for special classes (i.e. Physical Education, General Music, Art, Library Time). A unique identity of the Smithtown CSD is that fifth graders are slowly transitioned into a middle/high school by being given different teachers for different subjects. This program was first started in the Mt. Pleasant Elementary School in the 1990s.

The elementary schools in the Smithtown CSD are as follows:

- Accomsett Elementary School
- Branch Brook Elementary School
- Dogwood Elementary School
- Mills Pond Elementary School
- Mt. Pleasant Elementary School
- Nesconset Elementary School (closed)
- Smithtown Elementary School
- St. James Elementary School
- Tackan Elementary School

Middle Schools

The Smithtown Central School District serves students through three different middle schools. Grades six to eight are served in these middle schools. The regular Smithtown CSD middle school day lasts 6 hours and 41 minutes, from 7:50AM to 2:31PM. Bus service from We Transport Inc. and Towne Bus Inc. transports students from home to school and back within an hour from school starting and ending. Late buses are available for students staying after school for athletic events or other clubs. These buses are condensed from the normal amount and run at 4:10PM and at 5:10PM.

The middle schools contain a number of clubs for middle school students to join, most after school, with some before school. Middle schools in Smithtown contain several academic contests at an interscholastic level. There are athletic teams in Smithtown CSD's middle schools. Teams may be joined automatically or require one to audition in a try out. It is not unusual for a Smithtown sports team to go undefeated in a particular season.

Students follow a bell schedule of a forty one minute period, nine period day. There is a four-minute transition between periods. The school runs on a quarter system, distributing report cards every ten weeks of the 40 week school year. Progress reports are distributed halfway into the ten week quarter. (Progress reports contain comments that do not go to the final grade of the class as opposed to report cards which contain grades, citizenship markings and comments). The last week of the school year (a 41st week) contains seminars and final exams for these students, including New York State High School Regents Examinations for math and science honors students.

Prior to 1992, the middle schools in the Smithtown CSD were as follows:

- Accomsett Middle School
- Great Hollow Middle School
- Nesaquake Middle School

In 1992, redistricting led to the consolidation of the three middle schools into Smithtown Middle School, a facility housed in the former and now present Smithtown High School East, containing all sixth, seventh and eighth graders in the Smithtown CSD. The student population grew again, which caused Smithtown Middle School to be split again between itself and the newly re-opened Great Hollow Middle School which made Smithtown Middle School like the new re-opened Great Hollow Middle School as in it had students in the Nesaquake and Accomsett Middle School sections of the school district in the one middle school, technically making Smithtown Middle School like Great Hollow for the Northern Portion of the Smithtown Central School District since years later those students were later split up when both the highschoools were opened up in the district. The population was split again in remaining students in Smithtown Middle School between itself and Nesaquake Middle School. The next year, the remaining population at Smithtown Middle School was transferred to Accomsett Middle School as the building of Smithtown Middle School returned to its prior use as Smithtown High School East.

Smithtown High Schools

The Smithtown Central School District serves students through the Smithtown High School on two different campuses, the East Campus in St. James and the West Campus in Smithtown. Grades nine to twelve are served in these high schools. The regular Smithtown CSD high school day lasts 6 hours and 35 minutes, from 7:20AM to 1:55PM. Bus service from We Transport Inc. and Towne Bus Inc. transports students from home to school and back within an hour from school starting and ending. Depending upon the budget passed by the citizens, late buses may be available for students staying after school for athletic events or other clubs. These buses are condensed from the normal amount and run at 4:10PM and at 5:10PM.

The high schools contain many clubs for high school students to join, the great majority after school, and a few before school. High schools in Smithtown contain several academic contest interschool clubs, such as Science Olympiad, Political Awareness Club, DECA, and Academic Quiz Bowl. There may be athletic teams in Smithtown CSD's high schools dependent upon the budget. Teams may be walk-on or require a tryout depending on participation.

Students follow a bell schedule of a 40-minute period, nine period day. There is a four-minute transition between periods. The school runs on a quarter system, distributing report cards every ten weeks of the 40 week school year. Progress reports are distributed halfway into the ten week quarter. (Progress reports contain comments that do not go to the final grade of the class as opposed to report cards which contain grades and comments). The last weeks of the school year (a 41st and 42nd week) contains and final exams for these students, including New York State High School Regents Examinations required for graduation.

The high schools in the Smithtown CSD are as follows:

- Eastern Campus (St. James, NY)
- Western Campus (Smithtown, NY)

The nickname for the athletic teams for both high schools is the Smithtown Bulls, a moniker adopted in the 1992 consolidation. Blue is the primary color for the Western Campus with red as the accent. Red is the primary color for the Eastern Campus with blue as the accent. Prior to the consolidation, Smithtown East's teams were known as the Indians and Smithtown West's teams were known as the Knights. Smithtown East's colors were red and white and Smithtown West's colors were blue and gold.



Smithtown High School West

Former Smithtown schools

New York Avenue Junior High School

The building located at 26 New York Avenue was formerly a junior high school, which served students grades seven through nine. It served the middle-western portion of the Smithtown Central School District. Graduating students of the New York Avenue Junior High School would enter Smithtown High School (West). In its time, the New York Avenue Junior High School operated along with three other junior high schools in the district, Great Hollow Junior High School, Accomsett Intermediate High School and Nesaquake Junior High School. Today it serves its function as the district's central office, adult education programs, and board of education meetings. It is also known as the Joseph M. Barton building.

Smithtown Branch High School

Prior to the opening of Smithtown Central High School building in St. James in 1960, Smithtown High School operated out of the New York Avenue school building. At some point, before the opening of the Lawrence Avenue Elementary school, the New York Avenue building served as a K through 12 school.

Notable faculty

Walt Whitman taught in the Smithtown school district in the late 1890s in a one room school house and had 85 students on his roster although at the time attendance wasn't compulsory and the actual attendance was usually much smaller.^[1]

Richard & Samantha Specht are current teachers in the Smithtown School District. Richard teaches science at Great Hollow Middle School while Samantha teaches German at Smithtown High School East and Smithtown High School West. After the death of their 22-month-old son, Richard Edwin-Ehmer Specht "Rees" during the fall of 2012, they founded ReesSpecht Life, promoting Random Acts of Kindness, as well as inspiring others. The foundation has distributed 240,000 "Kindness Cards" worldwide.^[2] Mr. Specht is also the published author of the children's book "A Little Rees Specht Cultivates Kindness". The foundation also raises money for two scholarships for two students, one from each of Smithtown's high schools. ReesSpecht Life, and its impact on the Smithtown Community and beyond, has been featured on Fox and Friends, Good Day NY, WCBS 2, WPIX 11, News 12 Long Island and Verizon 1, Good Morning America, Yahoo News, and multiple press publications worldwide.

^[3]

Notable alumni

- Jay Beckenstein - (American musician) Founding member of the jazz fusion band Spyro Gyra
- Frank Catalanotto - (Major League baseball player) Texas Rangers, Detroit Tigers, Toronto Blue Jays and New York Mets
- John Curtis - (Major League baseball player) (Retired) Boston Red Sox
- John Daly - 2010 Olympian and World cup skeleton athlete
- Jim Mecir - (Major League baseball player) (Retired) Florida Marlins
- Soledad O'Brien- (American television journalist) Currently the host of CNN Special Investigations Unit on CNN
- Jodi Picoult - (American author)
- John Reiner - (American cartoonist) The Lockhorns syndicated comic strip
- Jai Rodriguez - (American television personality) Queer Eye for the Straight Guy
- Jeremy Wall - (American musician) Founding member of the jazz fusion band Spyro Gyra
- Andrew Levy - (American television personality) Ombudsman for Red Eye with Greg Gutfeld
- Rob Pannell- (Professional Lacrosse player) Drafted #1 in the 2012 Lacrosse Draft by New York Lizards out of Cornell University
- Ilana Glazer- American comedian and actress, co-creator of the TV show "Broad City"
- Kenneth DiMaio (Sound and Lighting designer, Broadway's- Flute Players Song, Oprah, Quiet Riot, Russian Ballet)

References

1. Naylor, Natalie. "Whitman at School: Student, Teacher, and Poet" (<http://micklestreet.rutgers.edu/archives/Issue%201718/pages/Scholarship/Naylor.htm>). *Mickle Street Review*. Rutgers University. Retrieved 26 January 2012.
2. <http://www.reesspechtlife.com/about/>
3. <http://www.reesspechtlife.com/about/press/>

External links

- Smithtown Central School District Website (<http://www.smithtown.k12.ny.us/>)
- New York State Education Department (<http://www.emsc.nysed.org/>)

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