DRAFT Environmental Impact Statement
The Hills at Southampton
Mixed-Use Planned Development District (MUPDD)

Town of Southampton, Suffolk County, New York
Volume I of III (Main Text and Figures)

September 2016

NP&W

Draft Environmental Impact Statement

THE HILLS AT SOUTHAMPTON

Mixed-Use Planned Development District (MUPDD)

Hamlet of East Quogue, Town of Southampton
Suffolk County, New York

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SUMMARY

SUMMARY

The SEQR Handbook[1] indicates that a Draft EIS summary may be a narrative statement or a substantial outline, should contain a brief description of the overall proposed action, and list the following:

i. significant beneficial and adverse impacts;
ii. mitigation measures proposed;
iii. alternatives considered;
iv. issues of controversy (if any); and
iv. matters to be decided, including a listing of each permit or approval required from every involved agency

This summary provides the required summary content as follows:

Brief Description of the Proposed Project

The Hills at Southampton is a master-planned and -managed seasonal resort community. The proposed project is located in East Quogue, Town of Southampton, Suffolk County, New York and is comprised of four distinct parcels in three properties. For ease of reference, the terms "project site", "subject property" and/or "subject site" are used in the singular to refer collectively to these four separate parcels. The site is generally north and east of Lewis Road in the vicinity of Spinney Road, and extends north to and beyond Sunrise Highway (New York State [NYS] Route 27; see **Figures 1-1a and 1-1b.**

The project's largest land component, known as The Hills Property, consists of 340.91 acres south of and 86.92 acres north of Sunrise Highway, for a total of 427.83 acres. The Applicant is in contract with the owner of a contiguous property to the west known as the Kracke Property which consists of 61.26 acres, as well as the owner of an assemblage of parcels to the east known as the Parlato Property which consists of 92.57 acres (plus proposed road abandonments of 9.34 acres for a total of 101.91 acres). Thus, the total size of the project site is 591.00 acres (see **Table S-1**).

Table S-1
IDENTIFICATION OF COMPONENT PROPERTIES
Proposed Project

Hills Property	Hills North Parcel	86.92 acres	427.83 acres
	Hills South Parcel	340.91 acres	
Kracke Property	---	61.26 acres	61.26 acres
Parlato Property	---	101.91 acres	101.91 acres
Totals	**---**	**591.00 acres**	**591.00 acres**

[1] 3rd Edition – 2010, Division of Environmental Permits New York State Department of Environmental Conservation.

The proposed project seeks first of all the establishment of an MUPDD on the project site, followed by the development of the proposed residential community noted above. A **Master Plan** for the proposed project has been prepared to identify the proposed uses, location of uses and general design for the development of the subject property. As shown in the **Master Plan** *(in a pouch in Volume III)*, the proposed project involves development of 118 well-appointed seasonal residences (of which 10 are "club condos" located within the clubhouse and 13 are referred to as "club cottages," which are clustered around the clubhouse), with a private 18-hole golf course and clubhouse to be used as an on-site recreational amenity for the residents. All development yields would be integrated into a unified plan where all proposed improvements would be clustered within a part of the two contiguous sites (i.e., the Hills South Parcel and the Kracke Property), leaving the two non-contiguous sites (i.e., the Hills North Parcel and the Parlato Property) as permanent natural open space, and supplemented with additional significant amounts of retained open space within the two contiguous parcels as well. The development has been located to the extent practicable on those portions of the Hills South Parcel/Kracke Property that were previously cleared and/or impacted, to minimize the need to clear undisturbed areas for development. The two non-contiguous sites noted above will be offered to the Town for dedication as public open space; the open space to be preserved within the contiguous properties will remain privately-owned by the project, but will be permanently preserved and protected by covenant.

Of the total of 591 acres, 167± acres or 28±% of the land will be developed, preserving 424± acres of undisturbed natural areas, or 72±% of the land. In addition to this substantial preservation/protection in East Quogue, The Hills is designed to be consistent with the Town Central Pine Barrens Overlay District and the Central Pine Barrens (CPB) Comprehensive Land Use Plan (CLUP), as well as the Town's East Quogue Land Use Plan (LUP) and Generic Environmental Impact Statement (GEIS). The Hills golf course is designed to protect native species, wildlife and area waters, through the use of lined greens, sophisticated irrigation systems and water recycling techniques, use of organic materials, professional management and native and protective plantings. The Hills will utilize rain gardens to treat stormwater throughout the site and will ensure water quality protection through design elements consistent with current and innovative technologies.

The Applicant gained control of the Hills Property in 2013, at which time it was determined to pursue an MUPDD. The decision to pursue an MUPDD came after a number of prior applications and acquisition efforts, as well as a moratorium, preparation of a land use plan, and upzoning of the property. A brief chronology of this history, as well as a relevant acquisition of land in close proximity to the Subject Site is provided in **Section 1.4.2** of this Draft EIS.

The Hills will also be a supportive and valuable community member, contributing a substantial increase in tax revenues distributed to each taxing jurisdiction. Upon the completed sale of all housing units, full build-out of the golf course and a stabilized year of operations, the proposed project is estimated to contribute over $4.5 million[2] in annual tax revenue, which includes $3.4

[2] It is important to note that there will be an incremental tax increase that would be realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise,

million to the school district, with no expected burden on the school due to the demographics of The Hills customer base. This levy accounts for the limitations on the school district, per the tax levy 2% cap, which limits the amount of taxes that the school district can request from year to year (the lesser of 2% or the rate of inflation). In addition, The Hills will contribute almost $700,000 in equipment and upgrades to the East Quogue Union Free School District (UFSD), in addition to providing other school district and public benefits. The Hills will be a local employer both during and after the construction phase contributing significant construction and operation jobs for the local workforce and providing related economic benefits. The Hills will also provide significant and substantial benefits to the East Quogue community, including but not limited to community beautification, donation of land to the East Quogue Fire Department (EQFD), provision of public parking in the hamlet center, and habitat restoration on lands to be dedicated to the Town.

The watershed within which The Hills is located is currently impacted by past and current land use practices including farming and high-density residential use, in the hamlet of East Quogue. The residential density at The Hills is based on 1 unit/5 acres, and is therefore classified as low-density; in addition, the seasonal-type use population will not occupy the site on a year-round basis, but be limited to 60 days annually (16.4% of the year). Fertilizer dependent vegetation is limited to less than 15% of the site for the golf as well as residential components, ensuring that fertilizer-nitrogen is not contributed to groundwater or surface water.

The Hills at Southampton project will provide substantial on-site and off-site environmental benefits including water quality improvement projects that will directly benefit water quality in Shinnecock Bay.

A proposed golf course will feature lined greens and state-of-the-art management practices to ensure that groundwater is protected, and experience with other golf courses in sensitive areas of the Town has demonstrated that such practices are effective and that golf courses are environmentally sound. The project will be designed with stormwater and irrigation management systems that contain and recycle stormwater and existing contaminated groundwater for irrigation, and the project will provide strategic stormwater bio-retention areas for effective pollutant removal and recharge where appropriate such that net nitrogen recharge on the site will be negative. More specifically, the project will remove elevated nitrogen in groundwater from the aquifer that would otherwise migrate to Shinnecock Bay, and use it for irrigation to ensure vegetative uptake and reduce the quantity of fertilizer that would be used on the golf course. The on-site stormwater design provides the highest level of stormwater containment, re-use treatment and recharge for water quality protection.

The proposed project provides a substantial community benefit package including school benefits, water quality benefits and general benefits. A condensed list of benefits is provided below:

Community Benefits: East Quogue UFSD

1. No enrollment impact for East Quogue UFSD, ensured through restrictive covenant

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upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project.

2. Increased school district taxes generated by the project site with no impact on the school district from an enrollment or related financial perspective. The homes and the golf course operation will pay Southampton Town taxes.
3. Use of the site for East Quogue UFSD educational programs. All of these programs will be devised, managed, and implemented by the East Quogue UFSD.
4. Allow Westhampton Beach High School golf teams to practice at the golf course two days per week, during the playing season.
5. Annual East Quogue UFSD charity golf outing at The Hills golf course. The fundraising component of the outing to be managed by the East Quogue UFSD School Board or their designate. Annual outing to be held in the spring or fall of each given year on a mutually agreed upon date. There will be no costs to the East Quogue UFSD for the use of the golf course and clubhouse outside of any catering or other costs they elect to incur relating to the outing.
6. Fund two college scholarships for graduates of East Quogue UFSD, awarded for 10 years
7. Contribute $500,000 to the East Quogue Elementary School Capital Improvement Fund, and make improvements to its playground, in the form of new playground equipment, land grading and grassing or other needs the school has to get the playground up to current safety standards. The East Quogue UFSD school board will make playground equipment selections and other decisions relating to this effort. The total investment in the playground is not to exceed $200,000.

Community Benefits: Water Resources-Related

1. Annual charity outing in support of water quality communal fund The fundraising component of the outing to be managed by the Southampton Town board or their designate. Annual outing to be held in the Spring or Fall of each given year on a mutually agreed upon date. There will be no costs to the Southampton Town Board for the use of the golf course and clubhouse outside of any catering or other costs they elect to incur relating to the outing.
2. Discovery Foundation fund-raiser for Shinnecock Bay Restoration (after 5 years) to be managed by Discovery Foundation. Goal will be to raise at least $250,000 for Shinnecock Bay Restoration efforts, which are managed by the Stony Brook Marine Sciences Program.
3. Facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for East Quogue residents with a $1 million investment in a water quality fund managed by the Town Board.
4. Restoration of impacted eelgrass in Western Shinnecock Bay through a $50,000 investment in the Shinnecock Bay restoration effort managed by the Stony Brook Marine Sciences Program.
5. Participate in funding restoration of Shinnecock Bay, by seeding filter-feeding bivalves through Cornell Cooperative, Southampton Town and Stony Brook Marine Sciences programs. The investment is $300,000 and will be managed by these programs. Using current pricing, this investment could deploy 3,500,000 bivalves in area bays, which could filter 175,000,000 gallons of water each day.
6. Install clam racks & upwellers
7. Dedicate four acres of land to SCWA for a new wellfield as requested by the SCWA and as recommended in the long range plan for the Hamlet, the East Quogue GEIS.
8. Participate in funding natural resources research and education through an investment of $150,000 through the Stony Brook SHiRP program. All research and educational programs to be developed and managed by the Stony Brook SHiRP program.
9. Participate in funding comprehensive study of nitrogen in Shinnecock Bay
10. Contribute to funding clean-up of storm drains in East Quogue through joint effort with the Town Highway Department.
11. Maintain database quantifying watershed nitrogen reduction due to project

Community Benefits: General

1. Charity outings (three per year, including one for East Quogue Fire Department) The fundraising component of the outing to be managed by the designated charities or organizations or their designate. Annual outing to be held in the spring or fall of each given year on a mutually agreed upon date. There will be no costs to the designated charities or organizations for the use of the golf course and clubhouse except for any catering or other costs they elect to incur relating to the outing. Organizations need to be based in Southampton Town and must work to serve the community. Applications can be made at any time to DLC. Every effort will be made to spread the outings over a variety of local organizations to maximize public access and to support as many local organizations as possible.
2. Fund purchase of land for new East Quogue Fire Department facility as requested by the East Quogue Fire District and as recommended in the Town's long range plan for the hamlet, the East Quogue GEIS.
3. Provide additional parking for downtown East Quogue Main street businesses through an acquisition of parking facilities to be managed by Southampton Town.
4. Restore 33 acres of habitat on the Hills South Parcel and on the Kracke and Parlato Properties using native species to support area wildlife.
5. Creation of new direct, indirect, and induced permanent seasonal operational jobs in the area which will add millions of dollars to the local economy each year.
6. Donation of $100,000 to facilitate East Quogue Renaissance community efforts like park improvements, main street gentrification or other efforts decided and managed by this local organization.
7. Provide signs at three "Welcome to East Quogue" community sites at the behest of the East Quogue Chamber of Commerce as the old signs are in disrepair and do not showcase the vibrancy of the local community.
8. Annual one-day public access to golf course (maximum of 120 players). This "Locals Day", will allow up to 120 golfers to play the 18 hole course. The event will be in the spring or fall each year and will allow Southampton Town residents to play the course for limited fees, like cart fees. All money raised will be donated to a local charity. DLC will poll community members for the recommended recipients each year. Interested players will be able to sign up online using their Southampton Town address or other proof of residency.

The total value of Community Benefits totals $4,898,290 for one-time benefits, and $13,413,374 in annual benefits. A detailed list, containing a breakdown and explanation of the Community Benefits, with available information on how these will be implemented, is provided in **Table S-2.** It assumes that the project would follow the implementation schedule described in **Section 1.7.1**, and commencing at the time the project receives full and final approval from the various Town and County reviewing entities, which is tentatively expected in June of 2017.

It should be noted that a number of entities within and outside of the Town of Southampton will have jurisdiction over the administration of a number of the benefits described below, so that more detail on these benefits cannot be provided by the Applicant at the present stage of the project review process. It is acknowledged that the final determination as to how each Community Benefit will be administered will be at the discretion of the Town Board (in its function as SEQRA lead agency), the details of which will be included in its Findings Statement.

Table S-2
COMMUNITY BENEFITS

Benefit	Description of Community Benefit	Implementation	Estimated Benefit Value	
			One-Time	Annual
		East Quogue UFSD Benefits		
1	No enrollment impact for EQ UFSD, ensured through restrictive covenant	This benefit would go into effect immediately; simply put, there would be no increase in district enrollment from the residences on the project site. This would be enforced by the project's covenant.	-	-
2	Increased school district taxes generated by the project site	The increase in school district taxes would, due to the 2% tax cap, result in a reduction of the school district tax rate for district taxpayers	-	$3,431,031
3	Use of the site for EQ UFSD educational programs	The use of the site for school district educational programs would commence at the time the project receives full and final approval from the various Town and County reviewing entities (tentatively expected in June of 2017), acknowledging that such access would be compromised in areas when heavy construction occurs in them. However, this should not affect any activity in preserved areas.	-	$75,000
4	Allow Westhampton Beach High School golf teams to practice at the golf course	The access to the golf course for the Westhampton Beach High School golf teams would commence immediately upon completion and opening of the golf course, anticipating a 24-month construction period for this feature. Tentatively, the golf course is estimated to be completed and opened in June 2019, after a construction start date of June 2017.	-	$26,880
5	Annual EQ UFSD charity outing (based on cost for facility) (1)	The first charity outing for the East Quogue UFSD will take place in the fall of 2019 and will take place every year thereafter.	-	$72,000
6	Fund two college scholarships for graduates of EQ UFSD, awarded for 10 years	The scholarship program will be funded immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. Awarding of scholarships will commence in the following year, for the benefit of the senior class in the school year of 2017-2018.	$200,000	-
7	*Contribution to EQ UFSD Capitol Improvement Fund*	The contribution to the East Quogue UFSD Capitol Improvement Fund will occur immediately on full approval and will be paid in full. DLC will be responsible for the construction the playground, which would occur in the summer of 2017.	*$500,000*	-
	Improvements to EQ Elementary School Playground		*$200,000*	-
	Total EQ Elementary School improvements:		$700,000	-
Total Dollar Value of EQ UFSD Benefits			**$900,000**	**$3,604,911**
		Water Resources-Related Community Benefits		
1	Annual charity outing for water quality communal fund (based on cost for facility) (1)	The first charity outing for the water quality communal fund will take place in the fall of 2019 and will take place every year thereafter.	-	$72,000
2	Discovery Foundation fund-raiser for Shinnecock Bay Restoration (after 5 years)	The Discovery Foundation fundraiser will take place in the summer of 2024.	$350,000	-
3	Facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for EQ residents (2)	This $1 million contribution will be paid in full by DLC, and will occur immediately upon the receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017, in order to ensure that the money is spent as soon as possible. The name of this fund and the mechanisms for paying it need to be specified by the Town.	$1,000,000	-
4	Restoration of impacted eelgrass	The funds for eelgrass restoration, clam racks and upwellers, and shellfish seeding will be made available by DLC immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds and determine in what proportions this money will be spent. The Applicant suggests that this function be performed by a combination of SUNY/Stony Brook and the Town Trustees.	$350,000 (3)	-
5	Participate in funding restoration of Bay by seeding filter-feeding bivalves			
6	Install clam racks & upwellers			
7	Dedicate 4 acres of land to SCWA for a new wellfield	The Applicant will dedicate the four acres of land to the SCWA immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$220,000	-
8	Participate in funding natural resources research and education	DLC will provide funds for natural resources research and education will be made available on full and final approval of the project. The Town will specify the entity that will administer these funds and determine in what proportions this money will be spent. The Applicant suggests that this function be performed by a combination of SUNY/Stony Brook and the Shinnecock Bay Restoration Project.	$150,000	-
9	Participate in funding comprehensive study of nitrogen in Shinnecock Bay	DLC will provide funds for the comprehensive nitrogen study of Shinnecock Bay at the time the project receives full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds. The Applicant suggests that this function be performed by SUNY/Stony Brook.	$50,000	-
10	Contribute to funding clean-up of storm drains in East Quogue	DLC will provide funds for the clean-up of storm drains in East Quogue immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017, and will continue annually thereafter. The Town will specify the entity that will administer these funds.	-	$25,000
11	Maintain database quantifying watershed nitrogen reduction due to project	DLC will fund the creation of a watershed database immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds. The maintenance costs of the database will commence at that time, and DLC will continue to fund maintenance costs on an annual basis.	$50,000	$5,000

Total Dollar Value of Water Resources-Related Community Benefits			**$2,170,000**	**$102,000**
		General Community Benefits		
1	Charity outings (3/year, including one for EQFD; based on cost for facility) (1)	The first charity outing for the EQFD and the two outings for the Town will take place in the fall of 2019 and will take place every year thereafter.	-	$216,000
2	Fund purchase of land for new EQFD facility	DLC will fund the acquisition of land for the EQFD immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$412,500	-
3	Provide additional parking for downtown East Quogue	DLC will fund the acquisition and construction of the municipal parking lot in the East Quogue hamlet center immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$650,000	-
4	Restore habitat on the Hills South Parcel and the Kracke and Parlato Properties	DLC will fund the habitat restoration, which is anticipated to take place over a two year period, commencing immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$663,400	-
5	Creation of new permanent seasonal operational jobs in the area, per Town Code Section 330-245I.(2)(f) :	DLC anticipates that the jobs created by the project will be filled over the four-year period 2017-2021.	-	-
	Direct jobs (101.8 FTE)		-	*$6,615,409*
	Indirect jobs (18.7 FTE)		-	*$1,005,603*
	Induced jobs (34.1 FTE)		-	*$1,860,451*
	Total income of new permanent seasonal operational jobs		-	$9,481,463
6	Donation to facilitate East Quogue Renaissance	DLC will provide funds for the East Quogue Renaissance immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$100,000	-
7	East Quogue signage (3 signs)	DLC would fund and install the noted signage.	$2,390	-
8	Annual event; one-day public access to golf course; maximum of 120 players (1)	The first public golf event/charity outing will take place when the course has been completed, which is anticipated in the fall of 2019, and will take place every year thereafter. All proceeds will be donated to a local charity, to be determined by the host entity.	-	$9,000
Total Dollar Value of General Community Benefits			**$1,828,290**	**$9,706,463**
TOTAL DOLLAR VALUE OF ALL COMMUNITY BENEFITS			**$4,898,290**	**$13,413,374**

(1) Total of 6 charity events annually; no other large special events proposed.
(2) To be prioritized based on maximum nitrogen reduction and availability of receptive residences and commercial/institutional establishments. And, will install septic systems using the best available technology on the project site.
(3) Does not include the value of the ecological services to be provided by the eelgrass, bivalves and clams.

East Quogue UFSD Benefits

1. Benefit to be realized in the form of an adverse impact (an enrollment increase) that will not occur. This impact elimination means that there will be no increased school district expenditures necessary as a result of the project.
2. School taxes.
3. Based on direct value to EQ UFSD; includes transportation ($25,000) and program value ($50,000).
4. Based on 16 players twice weekly over 28 week season, greens fee of $30/player /round (fee for Suffolk County Parks Dept. courses).
5. Based on 72 participants, at $1,000 each.
6. Donation of funds.
7. Donation of funds.

Water Resources-Related Community Benefits

1. Based on 72 participants, at $1,000 each.
2. Donation of funds.
3. Assuming $60/gallon, 41,814 gpd; to be applied so as to benefit water quality of western Shinnecock Bay.

4-6. Donation of funds; to be applied under oversight of Town Trustees.

7. Based on estimate of current value of raw land of $55,000/acre.

8-10. Donation of funds.

11. To be made available to the public, possibly on project website, in GIS format.

General Community Benefits

1. Based on 72 participants, at $1,000 each.
2. Value of donated land based on estimate of current value of raw land.
3. Donation of funds; see **Figure 1-6** for location and configuration of this parking lot.
4. Based on estimate of cost of restoration of $20,000/acre, for 33.17 acres of impacted land
5. Based on review of specific jobs and salaries of similar facilities, per applicant. Additional $182,120,000 in 1,578.6 FTE Direct, Indirect & Induced construction jobs (temporary duration).

6-7. Donation of funds.

8. Based on estimated $75 difference between greens fees for project site and typical greens fee at comparable area course; golf cart fee not included. All proceeds to be donated to a local charity.

Most significant is that, if the site were developed based on its existing zoning, 118 large homes with potential year-round occupancy would be constructed. Such a residential use would not provide the host of community and environmental benefits as the proposed project, would not generate the same level of tax revenue or jobs as the proposed project, and would create a greater burden on community service providers than the proposed project. These differences are due to the project's development as a Mixed-Use Planned Development District (MUPDD), which requires Community Benefits; the nature of the proposed project (which requires employees and generates a substantial level of property taxes, and the seasonal occupancy of the units themselves. The Hills at Southampton reduces nitrogen contribution, improves stormwater management, ensures that limits of clearing are maintained, reduces fertilizer application and overall is a much more environmentally sound project that is consistent with the recommendations of the East Quogue LUP to achieve the benefits which an MUPDD can provide. This is in addition to the off-site environmental benefits that the project will provide to improve bay water quality.

The Hills at Southampton will result in highest level of environmental protection for on-site development with specific reduction in potential impact on water quality as compared to what would occur under existing zoning. Therefore, this type of land use addresses Town land use plans and environmental protection goals, as well as the standards and guidelines of the CPB CLUP. The project will be subject to a full analysis under the State Environmental Quality Review Act, ensuring that full disclosure of facts and conclusions is aired through a public and agency review process. This document provides the necessary information for the Town Board and involved agencies to reach informed decisions.

Significant Beneficial and Adverse Impacts

Geological Resources

Soils - Geological resources include soils and topography. There are 12 soil types on the site that have varying constraints. The site **Master Plan** has been designed to take slope constraints into consideration. Roads have been placed in low slope areas and homesites are planned in areas with construction areas of flatter surfaces. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes and create a challenging environment for golf play. Planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project.

Short-term soil impacts will be mitigated through erosion control measures which detailed under a site specific erosion control plan which will be discussed in greater detail below. Limitations related to seasonal high water are limited to only the Su soils and only comprise approximately 0.4% of the subject property. This portion of the property is proposed to be occupied by a green and fairway as well as a golf hazard and natural area. Impacts related to high water table are expected to be extremely limited and are primarily related to flooding which will be mitigated through proper grading and drainage design as well as mitigative features of the golf course consisting of lined golf greens which will collect irrigation water for reuse.

Overall, the project design and mitigation inherent in the project will minimize potential impacts to soils such that they are not anticipated to be significant. This Draft EIS provides a complete and detailed analysis of soils.

Topography - Planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes and create a challenging environment for golf play. Overall, it is anticipated that 166.86 acres (28.23%) of the subject property will be subject to grading operations.

The areas of the site proposed to accommodate development will require grading to provide appropriate surface areas to accommodate development. However, a majority of the proposed development areas are comprised of relatively flat topography which does not require extensive overall grading, therefore, no significant adverse impacts are expected.

An additional safeguard is achieved through the NYSDEC State Pollutant Discharge Elimination System (SPDES) review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002). Under this program, a Notice of Intent must be filed with the NYSDEC 60-days prior to commencement of construction, and a site specific Stormwater Pollution Prevention Plan (SWPPP) must be maintained on site. In addition, a copy of the final Notice of Intent (NOI), SWPPP and erosion & sedimentation control plan will be submitted to the Town of Southampton Engineering Division simultaneously with the NYSDEC submission.

Given the design of the project which avoids steep slope areas, the balanced cut and fill, erosion control measures, and the review and approval process, no significant adverse long-term impacts are expected with respect to topography. Short term impacts may occur; however, these are also minimized through project design and government oversight. Short term impacts may include dust, noise, truck activity on roads and disturbance in the area. Truck access will be only from the proposed site access, and all equipment, materials and trucks will be stored and staged within the site. Short term construction impacts are not expected to be significant given the erosion control measures, presence of a water truck to wet dry soils, short-term duration of the proposed project, activities to occur during normal daytime hours, lack of sensitive receptors or immediate neighbors, perimeter buffering from existing homes in the area, and the review, approval, construction management and development oversight that will occur with respect to this project.

Overall, the project design and mitigation inherent in the project will minimize potential impacts to soils such that they are not anticipated to be significant. This Draft EIS provides a complete and detailed analysis of topography.

<u>Water Resources</u>

Hydrogeology - No change in water elevation or direction of groundwater flow is anticipated following development of the proposed project due to the following factors: vertical and hydraulic conductivity of underlying soils; distance between the water table, ground surface and leaching structures proposed for the project; the dispersed nature of recharge components;

limited establishment of new impervious surface relative to the size of the site; and; no individual large point source discharges. These factors indicate that site hydrology will not substantially change as a result of the proposed project.

Groundwater - The proposed project will consist of seasonal housing as well as a golf course along with associated amenities. The residential component of the project is not expected to result in the use, generation or disposal of toxic substances which may be discharged to the subsurface. The only discharges to groundwater generated by individual homes will be the disposal of sanitary effluent through the use of individual septic systems for the 108 detached single-family units, and a single septic system to serve the clubhouse and the remaining 10 club condos. The proposed project density allows the use conventional sanitary systems; however, the applicant is committed to use of advanced wastewater systems when such systems are approved by SCDHS for use at the site. The low density, low occupancy and commitment to advanced treatment will ensure that no groundwater impacts will occur.

The Hills at Southampton golf course will utilize management practice controls to severely restrict the use of agricultural chemicals associated with turf maintenance. The golf course will be state-of-the-art, and will employ the most advanced controls available. Such controls will consist of a liner system installed beneath areas under the more actively managed areas of the course as well as rain gardens and turf management practices which will provide the stringent golf course management standards that the Town of Southampton is familiar with from Golf at the Bridge and Sebonack Golf Club.

Any use of pesticides will be severely restricted in terms of continuous monitoring to identify pest control needs early, followed by spot/minimal application of controls, and the use chemicals from a highly restricted list of approved substances that will be reviewed and approved by the Town and updated annually in coordination with the golf course operator, the Town and the Town's expert consultant. The ITHMP should be consulted for detailed information regarding the state-of-the-art management practices that will be implemented in connection with The Hills golf course.

A groundwater monitoring plan will be implemented to assess the effectiveness of the ITHMP and modify application rates of fertilizers and turf management compounds should if necessary.

All stormwater will be retained on-site per Town engineering requirements. Based on information presented in stormwater management studies, the drainage measures proposed are an appropriate means of handling stormwater and as a result, such recharge is not anticipated to contain significant concentrations of pollutants. Therefore, the proposed project is in conformance with the applicable stormwater recommendations and requirements and no significant adverse stormwater impacts are expected.

Nitrogen Budget - The concentration of nitrates (as nitrogen) in this recharge is anticipated to be slightly increased by the proposed project, due primarily to golf course maintenance activities. Specifically, it is anticipated that the overall nitrogen concentration will be 0.66 mg/l in on-site recharge. However, the proposed integration of mitigative features in golf course design such as lined greens and rain gardens are expected to reduce post development nitrogen concentrations in

on-site recharge to 0.59 mg/l representing an 11.11% decrease over non-mitigated conditions. Both of these concentrations are significantly less than the 10 mg/l nitrogen standard drinking water, the 2-3 mg/l concentration recommended in the report "Land Use and Groundwater Quality in the Pine Barrens of Southampton", and the CPB CLUP Guideline (5.3.3.1.3) of 2.5 mg/l.[3] It is noted that advanced waste treatment would reduce the concentration of nitrogen in recharge to 0.41 mg/l, which is further reduced to 0.34 mg/l in consideration of mitigation in the form of green liners and rain gardens.

The concentration of nitrogen in recharge outlined above is based on the mass-balance analysis of nitrogen and recharge and does not account for additional nitrogen removal as a result of well pumping and re-use of intercepted groundwater with elevated nitrogen due to upgradient farming activities. This is determined in pounds of loading of nitrogen which is an important factor in determining water quality impacts, mitigation and for tracking improvements to water quality within the Weesuck Creek watershed that contributes to western Shinnecock Bay. The site currently has 872.53 pounds (lbs) of nitrogen loading per year of which 315.85 lbs/year are due to farming (anthropogenic[4]) and the balance is precipitation nitrogen which is an existing condition related to atmospheric deposition. The proposed project is expected to result in a nitrogen load of 2,626.14 lbs/year (consisting of 2,265.00 lbs from anthropogenic sources, specifically, 1,596.57 lbs from wastewater, 13.33 lbs from pet waste, 655.10 lbs from fertilizer; and, 361.14 from precipitation). This is further decreased to -446.36 lbs/year by mitigation including reductions of 2,503.78 lbs/year for reuse of irrigation water; 199.72 lbs/year for lined greens; and, 7.86 lbs/year for rain gardens. Advanced waste treatment would further decrease the nitrogen load from wastewater to 606.70 lbs/year with a resultant load of 1,636.27 lbs/year which is reduced through mitigation to -1,436.23 lbs/year. For comparison, the use of the site under existing zoning has a nitrogen load of 4,344.95 lbs/year (consisting of 4,041.53 lbs from anthropogenic sources, specifically, 2,695.94 lbs from wastewater, 13.33 lbs from pet waste, 1,332.25 lbs from fertilizer, and 303.42 lbs from precipitation).

This analysis indicates that the proposed project will have a substantial beneficial impact with respect to nitrogen in water quality, particularly when compared with use under existing zoning. The project will intercept groundwater which has elevated nitrogen concentrations due to current and historic upgradient farming activity. This water will be used for irrigation of the golf course which will uptake nutrients and reduce leaching to groundwater as a function of proper turf management which is accounted for in the SONIR model. The groundwater with elevated nitrogen concentrations that is used for irrigation of the golf course would otherwise have migrated toward Weesuck Creek and western Shinnecock Bay and would be discharged as subsurface outflow to these water bodies. Based on groundwater velocities and SCDHS groundwater contributing area maps (time of travel) it is estimated that if farming in the Lewis Road area of East Quogue ceased, it would take at least 30 years for nitrogen in groundwater to migrate and discharge to the bay. It is unlikely that farming will cease, and certainly there is no indication of such in the near future, consequently, the proposed project will provide a long term

[3] 5.3.3.1.3 Nitrate-nitrogen goal; A more protective goal of two and one half (2.5) ppm may be achieved for new projects through an average residential density of one (1) unit per two (2) acres (or its commercial or industrial equivalent), through clustering, or through other mechanisms to protect surface water quality for projects in the vicinity of ponds and wetlands.

[4] Anthropogenic nitrogen load includes: sanitary waste, pet waste and fertilization caused by the Proposed Project.

improvement through nitrogen removal. In summary, the proposed project will not have an adverse impact with respect to nitrogen in recharge and nitrogen load, will comply with all applicable guidelines nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise have entered the bay.

A supplemental nitrogen budget analysis by a separate consulting team member (P.W. Grosser Consulting, Inc.) with expertise in nitrogen budget modeling supports the findings of the NP&V analysis, specifically, that both existing conditions and use under existing zoning result in a greater nitrogen load and concentration in recharge than the proposed project, and that the nitrogen load associated with the proposed project is negative due to removal of elevated concentrations of nitrogen in groundwater for use as irrigation and as a fertilizer supplement. Further the supplemental analyses support the finding that the predicted concentration of nitrogen in recharge is less than 0.5 mg/l and well below the CPB CLUP guideline of 2.5 mg/l. In summary, the proposed project will not have an adverse impact with respect to nitrogen in recharge and nitrogen load, will comply with all applicable guidelines nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise have entered the bay.

Water Supply - Public water supply will only be necessary for residential potable use. Irrigation water will be provided by on-site wells designated specifically for this purpose. Since the proposed project will result in the construction of 118 residential units with clubhouse amenities which will be utilized on a seasonal basis it is expected that the SCWA will have sufficient water supply capacity to accommodate development. In addition, as part of the development four acres of the subject property is proposed to be dedicated to the SCWA for a new wellfield.

With regard to the proposed projects impact on water supply, review of well field contributing area maps finds that the project will not adversely impact an existing well field. This is due to the long residence times which would allow for the filtration of nitrogen or other compounds introduced to groundwater from the proposed project no impacts to water supply resources are expected.

SCWA was contacted and indicates that some improvements to the distribution system will be needed to provide water supply, and this would be reviewed and installed as part of the development project.

Surface Water - Bay water quality is a function of the geohydrography of western Shinnecock Bay and existing pollutant load sources in the watershed. The existing watershed is subject to agricultural activities and pockets of higher density housing that both result in elevated concentrations of nitrogen in groundwater. Groundwater enters surface water via subsurface outflow in tributaries and directly to surface waters of western Shinnecock Bay, thus causing elevated nitrogen concentrations in the bay. Western Shinnecock Bay is distant from ocean water inlets for tidal exchange, and as a result, pollutants have a longer residence time which supports conditions that promote algal blooms, depleted oxygen and other water quality issues.

Historic development patterns, including residences on smaller lots particularly in low-lying areas and near the bay, have elevated nitrogen concentrations in groundwater that discharges to

the bay. The watershed also includes large areas of historically farmed land that continues. This results in fertilizer application and has elevated the concentration of nitrogen in areas of farming activity. As groundwater with elevated nitrogen migrates and discharges to the bay through subsurface outflow, water quality issues are experienced in the bay. In addition, due to historic development patterns stormwater in low-lying areas is not retained, recharged, treated, or otherwise properly controlled as compared with today's stormwater management practices. Consequently, the bay receives direct stormwater discharges that carry nitrogen, chemicals, oils and greases, metals pathogens and suspended solids into the waterway, further exacerbating water quality degradation.

The proposed project is distant from the bay, does not involve high density development (in fact, is considered to be low density development), and does not involve agricultural activity or stormwater runoff to surface waters. Conversely, the project will establish healthy turf that will efficiently uptake nutrients on limited areas of the site, will reduce sanitary nitrogen load through limited site occupancy and advanced waste treatment, and will control all stormwater on-site. The project will install a golf course irrigation well that will remove 2,504 pounds of nitrogen from the aquifer each year, which will be used for golf course irrigation and a fertilizer supplement, thus reducing the application of other products and ensuring maximum uptake of nutrients.

Overall, the project design and mitigation inherent in the project will minimize potential impacts to surface water such that no surface water impacts are expected. This Draft EIS provides a complete and detailed analysis of surface water.

Stormwater and Drainage - The developed area will be served by a comprehensive stormwater drainage system comprised of roadside catch basins, subsurface leaching pools, drainage reserve areas (DRAs) and two artificial ponds to gather, store and recharge all runoff generated on the site within the site.

Ponds will be managed in a manner that will add to the ecological qualities of the site. Ponds will be of sufficient depth to support overwintering of fish populations and will be "stocked" with appropriate species to promote mosquito larvae control and improve the ecological diversity and natural system qualities of the ponds. Overall, the ponds will be designed and maintained for multiple functions of aesthetic quality, utilitarian function and habitat diversity. All required approvals will be obtained at the time of site plan review subsequent to the change of zone.

The drainage system has been evaluated through preparation of a Preliminary SWPPP analysis, and it has been determined that the post-development conditions will contribute less off-site runoff than the pre-development conditions.

Groundwater Protection Plans - This Draft EIS evaluates the following groundwater protection plans:

- Town Aquifer Protection Overlay District
- Town Central Pine Barrens Overlay District
- The Long Island Comprehensive Waste Treatment Management Plan (208 Study)

- Suffolk County Comprehensive Water Resource Management Plan, 2015

Each plain contains recommendations with respect to water quality, land use and management practices. The analysis contained in **Section 2.2.2** finds that the proposed project is consistent with the goals and recommendations of these groundwater protection plans. It is noted that further analysis of water resource plans as related to land use is contained in **Section 3.2.2**.

Ecology

The majority of the existing natural vegetation of the Hills, the Parlato and the Kracke Properties is characterized as pitch pine-oak forest. Pitch pine is the dominant canopy species, with white and scarlet oak occurring in lesser densities. The understory is comprised primarily of huckleberry, with other species common to the pine barrens (e.g., bayberry and sweet fern) occurring on the edges of the habitat. Similar forest exists on public and private lands surrounding the site, particularly to the north and east. To the west of the site is a sand and gravel mine, and farm and residential uses occur toward the southwest and south.

Disturbed areas of the three parcels are comprised of a variety of habitats, including agriculture, successional southern hardwood forest, brushy cleared land, successional shrubland and successional old field. Agricultural uses include both field crops and nursery stock. Invasive species dominate the areas of brushy cleared land on the Kracke Property. The remaining habitats on-site are in various stages of succession, and are primarily comprised of species common to pine barrens successional habitats. The overall site is subject to significant disturbance from ATV use, paintball activities, fire pits, dumping and general unauthorized use. These conditions are difficult to control and tend to decrease the ecological value due to direct impact to vegetation and soil and activity levels that decrease the habitat value for forest interior and secretive species.

Vegetation - A total of 142.10 acres of the overall property (24.04%) will be cleared in addition to the existing cleared areas which total 44.06 acres. Conversely, 424.14 acres of the overall property (71.77% of the site) will remain undisturbed. The overall area to remain as open space is comprised of the following habitats:

Pitch Pine-Oak Forest	411.82 acres
Successional Southern Hardwood Forest	1.08 acres
Successional Shrubland	3.41 acres
Successional Old Field	6.43 acres
Red Maple-Blackgum Swamp	1.40
TOTAL	**424.14 acres**

Habitat changes for the entire project area are represented in **Table S-3** below.

In addition, 24.77 acres of currently disturbed area is proposed to be revegetated to natural conditions, further enhancing the open space area.

Although the majority of the habitats identified on site are considered high quality, much of the development area has been situated within existing disturbed areas an in proximity to existing disturbed areas where habitat values of lesser than that of the surrounding forest. In total, 411.82

acres of the Pitch-Pine Oak forest will be preserved, and is situated to preserve the less disturbed, higher quality areas of the community type.

Table S-3
EXISTING VS. PROPOSED HABITATS

Habitat Type	Existing Coverage		Proposed Coverage		Change
	Acres	% of Site	Acres	% of Site	
Pitch Pine-Oak	527.46	89.25	411.81	69.68	-115.65
Successional Southern Hardwood	1.08	0.18	1.08	0.18	0
Successional Shrubland	6.22	1.05	3.41	0.58	-2.81
Successional Old Field	10.78	1.82	6.43	1.09	-4.35
Crops	18.42	3.12	0	0	-18.42
Brushy Cleared Land	3.66	0.62	0	0	-3.66
Unvegetated	21.98	3.72	3.45	0.58	-18.53
Red Maple Blackgum Swamp	1.40	0.24	1.40	0.24	0
Buildings/Impervious	0	0	24.57	4.16	24.57
Landscaped (Fertilized)	0	0	10.53	1.78	10.53
Landscaped (Unfertilized)	0	0	22.18	3.75	22.18
Golf Course	0	0	78.00	13.20	78.00
Revegetation	0	0	23.62	4.00	23.62
Pond	0	0	4.52	0.76	4.52
TOTALS	**591.00**	**100.00**	**591.00**	**100.00**	**0**

The proposed open space area to remain is contiguous with other existing open space habitats. The proposed open space will connect to the County parks to the north via the Hills North parcel and a portion of the Parlato site, and to the east of the Hills South parcel to Town and County owned land. Preservation of the Parlato property will also connect to small areas of existing County owned land, further proving connected open space. In general, the layout of the proposed open space will provide connections to existing open space areas and therefore will provide contiguous areas of open space. Additionally, the preservation of the parcels will ensure that future open space remains unfragmented as these parcels will not be developable. It is noted that the site design looks to provide corridors for connectivity through the development area to further reduce fragmentation of the open space to be preserved.

All wetlands will be retained with no buffer encroachment or impacts, and the site design provides substantial natural contiguous areas of remaining vegetation. The project will eliminate the unauthorized use of The Hills South parcel that results in impacts to vegetation and wildlife, and will dedicate the Parlato Property and The Hills North site. Significant upland areas will be restored and the project will result in the cessation of unauthorized use of the site.

Wildlife - The proposed project limits clearing of existing natural vegetation to the maximum extent practicable and situates development within existing cleared areas wherever possible. Some clearing is needed in order to provide the proposed development program; however, clearing will conform to applicable clearing limitations under the Town of Southampton Central Pine Barrens Overlay District and the CPB CLUP, and large blocks of contiguous open space

will remain. Proposed development and revegetation areas provide an opportunity for enhancement of site suitability for certain wildlife species.

While some displacement of wildlife due to the proposed development is unavoidable, several mitigation measures are proposed which will serve both to minimize impacts and mitigate the limited loss of habitat associated with the proposed project. Features inherent in the design of the project include limiting clearing for roadways to the minimum necessary to establish the roadway bed, and retaining trees and canopy adjacent to the roadway. This will serve to provide only a minor break in the habitat type and will continue to provide canopy habitat for wildlife. A variety of mitigation measures will be utilized for both avian species and bats. Grassland creation in disturbed areas on the Parlato and Kracke parcel will provide essential habitat for a variety of avian species, and revegetation of other disturbed areas will reduce edge habitat and create contiguous woodland for interior species. Nest boxes for cavity nesting species will be installed in a variety of locations throughout the development.

The majority of the site contains pitch pine, which is suitable habitat for the Southern Pine Beetle (*Dendroctonus frontalis*). The beetles burrow through the tree and interrupt the life and growth of the tree. The beetles also spread a fungus to the tree which blocks water flow through the tree. As a result, rapid tree death occurs once the pine beetle attacks a tree. While prevention of this species on site is impossible due to the large quantity of pitch pine on the subject site, proactive management is proposed in order to minimize damage from the species. The property owner will work with the NYSDEC to conduct annual forest surveys to determine the presence/absence of the species. If the species is found on site, the property owner will work with the NYSDEC to rapidly control infestations to prevent greater habitat loss from the spread of this species. If necessary, appropriate revegetation measures will be coordinated with NYSDEC staff.

Overall, retention of habitat on the site will allow the existing wildlife to continue to populate the site and area and no significant adverse impacts are expected to wildlife. This Draft EIS provides a complete and detailed analysis of ecology.

Rare, Threatened and Endangered Species - The New York Natural Heritage Program was contacted to determine whether any records of rare, threatened or endangered species or communities are known to exist on or in the vicinity of the subject site. Correspondence from the NHP indicated the presence of one special concern moth (Coastal Barrens Buckmoth, *Hemileuca maia ssp. 5*), one threatened dragonfly/damselfly (Scarlet bluets, *Enallagma pictum*), three rare dragonflies/damselflies (New England bluets, *Enallagma laterale*; Mantled basekettail, *Epitheca semiaquea*; Golden-winged skimmer, *Libellula auripennis*), two uncommon communities (Pine Barrens Shrub Swamp, Highbush Blueberry Bog-thicket), two rare communities (Coastal Plain Pond Shore, Pitch Pine Oak-Heath Woodland), one endangered plant (Collin's sedge, *Carex collinsii*) and one threatened plant (Atlantic white cedar, *Chamaecyparis thyoides*) in the vicinity of the subject site. Two historical records of threatened plants (Rough hedge-nettle, *Stachys hyssopifolia*; Great Plains flatsedge, *Cperus lupulinus ssp. luplinus*) were also noted within the vicinity of the site. The majority of the records listed by the NHP require wetland areas with open water, which are not present on the subject sites. Of the species identified, the moth, one rare community and one historical plant are upland species. Additionally, it is noted that the northern long eared bat was recently federally listed as a

threatened species. An evaluation of the habitat suitability of each species was conducted, and either the species were found to not be present or expected on the site, or no impact is expected to occur as a result of the proposed project.

Transportation Resources

A Traffic Impact Study (TIS) was prepared for the project. The study addressed: Existing Local Roadway and Intersection Operating Characteristics, Roadway Conditions, Accident History, Existing Conditions, Trip Generation and Level of Service. The following intersections were analyzed as part of the study and in conformance with the Final Scope:

- Quogue Riverhead Road and Lewis Road
- Old Country Road and Lewis Road
- Old Country Road/Box Tree Road and Lewis Road
- Site Driveway and Lewis Road

Based on the results of the trip generation analysis, it is anticipated that the proposed project (both the residential and the golf course components) will generate a total of 63 vehicle trips during the weekday AM peak hour, 103 trips during the weekday PM peak hour, and 125 trips during the Saturday midday peak hour (see **Table S-4**).

Table S-4
TRIP GENERATION
Proposed Project (1, 2)

Time Period	Distribution	118 Recreation Homes*	18-Hole Golf Course	Totals
Weekday AM Peak Hour	Enter	13	36	49
	Exit	6	8	14
	Total	19	44	63
Weekday PM Peak Hour	Enter	13	36	49
	Exit	18	36	54
	Total	31	72	103
Saturday Peak Hour	Enter	20	41	61
	Exit	22	42	64
	Total	42	83	125

(1) Assuming ITE Land Use Code 260.
(2) Other project elements such as Clubhouse not assumed to generate peak hour trips.

Based on its other, similar projects, the Applicant anticipates that all employees at the golf course and clubhouse facilities would arrive at the site prior to 7 AM and depart at 3 PM (first shift), and arrive at 3 PM and depart at 10 PM (second shift). These two travel periods are outside of the peak roadway traffic hours for the area analyzed by the TIS, and so would not contribute to traffic in the area. Therefore, these employee trips have not been included in the trip generation analysis.

Tables S-5a and S-5b illustrate the summer and fall LOS summaries for the study intersections with the proposed project, respectively.

Table S-5a
LOS SUMMARY, Summer
Proposed Project, Unsignalized Intersections*

Location	Condition		Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	No Build	SB-L	A	8.4	A	9.0	A	9.0
		WB-L	D	30.2	D	27.8	D	28.7
		WB-R	B	10.6	C	15.8	B	12.3
	Build	SB-L	A	8.5	A	9.1	A	9.2
		WB-L	D	28.1	D	31.5	D	33.5
		WB-R	B	10.7	C	17.4	B	13.0
Spinney Road at Lewis Rd	No Build	EB-L	A	7.8	A	8.0	A	7.9
		SB-LR	B	11.2	B	12.8	B	13.0
	Build	EB-L	A	8.2	A	8.1	A	8.0
		SB-LR	B	11.4	B	13.1	B	13.4
Old Country Rd at Lewis Rd	No Build	WB-LT	A	8.0	A	8.1	A	8.1
		NB-LR	B	11.0	B	11.3	B	11.3
	Build	WB-LT	A	8.1	A	8.2	A	8.3
		NB-LR	B	11.5	B	12.1	B	12.3
Old Country Rd/Box Tree Rd at Lewis Rd	No Build	EB-LTR	A	7.8	A	7.9	A	7.9
		WB-LTR	A	7.4	A	7.5	A	7.6
		NB-LTR	C	21.4	D	32.8	D	29.2
		SB-LTR	B	10.6	B	13.6	B	12.3
	Build	EB-LTR	A	7.9	A	7.9	A	7.9
		WB-LTR	A	7.4	A	7.5	A	7.6
		NB-LTR	C	22.5	E	36.6	D	32.1
		SB-LTR	B	10.7	B	13.7	B	12.5
Site Driveway and Lewis Rd	Build	EB-LT	A	7.9	A	8.1	A	8.1
		SB-LR	B	10.9	B	12.4	B	12.5

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Table S-5b
LOS SUMMARY, Fall
Proposed Project, Unsignalized Intersections*

Location	Condition		Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	No Build	SB-L	A	8.2	A	8.6	A	8.4
		WB-L	C	24.7	C	23.2	C	19.8
		WB-R	B	10.8	B	13.2	B	11.7
	Build	SB-L	A	8.4	A	8.7	A	8.6
		WB-L	D	28.4	D	26.3	C	22.6
		WB-R	B	10.9	B	14.1	B	12.3
Spinney Road at Lewis Rd	No Build	EB-L	A	7.8	A	7.8	A	7.9
		SB-LR	B	11.9	B	11.7	B	13.2
	Build	EB-L	A	7.9	A	7.9	A	8.0
		SB-LR	B	12.1	B	12.0	B	13.7
Old Country Rd at Lewis Rd	No Build	WB-LT	A	8.0	A	8.2	A	8.0
		NB-LR	B	11.3	B	11.9	B	11.8
	Build	WB-LT	A	8.1	A	8.3	A	8.1
		NB-LR	B	11.8	B	12.7	B	12.6
Old Country Rd/Box Tree Rd at Lewis Rd	No Build	EB-LTR	A	7.8	A	7.8	A	8.2
		WB-LTR	A	7.4	A	7.4	A	7.5
		NB-LTR	C	22.4	D	29.5	D	31.3
		SB-LTR	B	11.1	B	11.1	B	12.7
	Build	EB-LTR	A	7.8	A	7.9	A	8.2
		WB-LTR	A	7.4	AS	7.4	A	7.5
		NB-LTR	C	23.5	D	33.0	E	35.5
		SB-LTR	B	11.1	B	11.2	B	12.9
Site Driveway and Lewis Rd	Build	EB-LT	A	8.0	A	7.9	A	8.1
		SB-LR	B	10.9	B	11.7	B	12.7

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Quogue Riverhead Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Quogue Riverhead Road and Lewis Road will continue to operate at No Build levels of service for all peak periods except for the westbound left-turn movement. The left-turn movement of the stop-controlled westbound approach of Lewis Road will experience a change in LOS during the AM and PM peak hour during the Fall analysis period, from LOS C to LOS D. There will be an increase in delay of 3.7 seconds and 3.1 seconds during the AM and PM peak hours, respectively. This is a minor increase in delay for a turning movement that has minimal traffic volume (maximum of 20 vehicles during the AM peak hour). Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Spinney Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Spinney Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Old Country Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Old Country Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. . Vehicle queues and safety at the at-grade railroad crossing at this intersection was reviewed. From the review of the capacity analyses results, during the worst peak period the 95% queue length on both Lewis Road approaches are less than one vehicle and the available storage exceed one vehicle length on both approaches. The accident data did not indicate any accidents related to the railroad crossing occurred on Lewis Road. It should also be noted that less than 8 trains cross Lewis Road at this at-grade crossing daily. Hence no queueing and safety issues are expected at this location. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Old Country Road/Box Tree Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Old Country Road/Box Tree Road and Lewis Road will continue to operate at No Build levels of service for all peak periods, except for the northbound approach. The stop-controlled northbound approach of Box Tree Road will experience a change in LOS during the Summer PM peak hour and during the Fall Saturday peak hour, from LOS D to E. There will be an increase in delay of 3.8 seconds and 4.2 seconds during the PM and Saturday peak hours, respectively. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Site Driveway and Lewis Road - After the completion of the project, the southbound Site Driveway approach is anticipated to operate at LOS B during all peak periods. The eastbound Site Driveway approach is anticipated to operate at LOS A during all peak periods.

The TIS concluded as follows:

> Based on our Traffic Impact Study as detailed in the body of the [TIS] report, the construction of the proposed mixed-use development will not create a significant adverse traffic impact on the adjacent street network.

In addition, the transportation resources section of the Draft EIS includes an assessment of: Sight Distance at Proposed Site Vehicle Access, Parking, Local Pedestrian Resources, Public Transportation and operations at Gabreski Airport. The Draft EIS did not identify any significant adverse impacts with respect to these assessments.

<u>Land Use, Zoning and Plans</u>

Land Use - The land use pattern in the vicinity is characterized by mixed uses. Specifically, residential uses are located immediately to the west and farther to the south and east and farmland is located to the west. Vacant land abuts the site to the north and east. SCWA property, public parkland/open space, an industrial use and a cemetery abuts the western property boundary. A parcel defined as agricultural use by the Southampton General Land Use Map is located immediately south of the subject property. Residential use in the area of the subject property is defined by single-family development.

The proposed project was designed to complement the area's rural character. The project includes a mix of resort residential dwellings a golf course and a clubhouse and is designed to complement the architectural character of the area and maximize retention and regard for natural resources. The project does not propose any more residences than could be built on those

properties under their existing CR-200 zoning and the dwellings will be occupied on a seasonal basis and not year-round. In this way (among others), the project would conform to the type of land use that would be built under its existing zoning, at a yield that would have been built under the existing zoning. Additionally, it is expected that the homes proposed are substantially smaller than those that could be built if the subject site were developed at its existing CR-200 zoning. The proposed project does include a golf course, which is not permitted in the CR-200 zone, but is allowed in the MUPDD (see Town Zoning Code Section 330-246.B.3.e); this has prompted the Applicant to seek the MUPDD zoning district. The golf course and residential use of the Mixed-Use PDD will fit within the allowable clearing restrictions of the CPB CLUP and Overlay District, as well as the 15% limit on fertilizer dependent vegetation. The effect of the proposed project is to develop the overall density on the interior of the Hills South Parcel/Kracke Property and retain substantial surrounding open space such that large areas of natural vegetated lands would be retained to align with interior and off-site open space and also present a natural setting from outside observation. Additionally, the project's land use type conforms to those of its surroundings. Specifically, the project is low-density residential, which is a complementary type of land use compatible with the mix of vacant/wooded, open space and agricultural uses that characterize the immediate area.

Zoning - Prior to 2008, the area between Sunrise Highway and the LIRR tracks (including the subject site) was generally zoned for low-density residential uses, including Country Residence (CR) 200, CR 120 and CR 80. This zoning was in effect at the time of adoption of the Central Pine Barrens Comprehensive Land Use Plan in 1995. The subject property and area now zoned CR 200. Surrounding areas are zoned CR 200, CR 120, CR 80, Residential (R) 20, R 40, TDR (Transfer of Development Rights) and Open Space.

The proposed project will change the zoning classification of the site from CR 200 to PDD, to allow a mixed use development that is consistent with the East Quogue Land Use Plan and GEIS. The land uses to be established on the site are compatible with those in the vicinity; low-density residential exists throughout the area, and the golf course amenity is complementary to the low-intensity, open space uses that are also present. These two uses also conform to uses recommended for the site in the East Quogue LUP and GEIS.

This Draft EIS assesses the projects conformance with the zoning requirements contained in Chapter 330 of the Town Code, specifically:

- Town Aquifer Protection Overlay District
  Town Zoning Code Article XIII, Sections 330-66 and 330-67
- Town Central Pine Barrens Overlay District
  Chapter 330 Zoning; Article XXIV; Sections 330-215 to 221
- MUPDD Zoning Requirements
  Section 330-240 E

The proposed project has been found to conform to the intent of these zoning code requirements.

Land Use Plans - This Draft EIS evaluates the following land use plans:

- Southampton Tomorrow, Comprehensive Plan Update (1999)

- Western Town GEIS (1993)
- East Quogue GEIS
- Special Groundwater Protection Area (SGPA) Plan
- NYS Coastal Zone
- Central Pine Barrens Comprehensive Land Use Plan

Each plan contains recommendations with respect to land use practices. The analysis contained in **Section 3.2.2** finds that the proposed project is consistent with the standards, goals and recommendations of these land use plans.

Community Facilities and Services

Tax and Fiscal Conditions - The proposed project will significantly increase taxes generated by the site, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. Upon the completed sale of all housing units, full build-out of the golf course and a stabilized year of operations, the proposed project is estimated to contribute over $4.5 million[5] in annual tax revenue. This represents a net increase of over $4.2 million per year when compared to existing site conditions. Of this, over $3.4 million, or 76.0% of the total taxes projected to be generated by the site, would be distributed to the East Quogue UFSD[6], and over $131,000, or 2.9% of the taxes, would be allocated to the Library District (see **Appendix F, Attachments B and C**). This levy accounts for the limitations on the school district, per the tax levy 2% cap, which limits the amount of taxes that the school district can request from year to year (the lesser of 2% or the rate of inflation).

Public Schools - It is projected that a maximum potential of 130 school-aged children will reside seasonally at the proposed project. However, it is important to note that the residential component of the proposed project involves second homes used primarily for vacations and "getaways" by owners. Thus, the proposed project will not contribute children to the school district or require the same service demand as fully occupied primary residences.

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[5] It is important to note that there will be an incremental tax increase that would be realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise, upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project.

[6] In order to depict a realistic impact to the school district, the Town Tax Receiver was consulted. While the tax projection illustrates how the proposed project will impact the local taxing jurisdictions, it is important to examine how such increased revenues will impact taxpayers in the school district. According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor (as seen in **Appendix F, Attachments B and C**), and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. If The Hills at Southampton was on the tax roll, the tax rate would drop to $9.2135 per $1,000 valuation. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and would therefore lessen the burden on other taxpayers in the school district. According to the Town Tax Receiver, such a change in the school tax rate would translate into a savings of approximately $919 for the average homeowner residing within the district. A savings would also occur on the library and fire tax rates. Correspondence pertaining to the derivation of these figures from the Southampton Town Tax Receiver can be found in **Appendix F, Attachment C**.

As the proposed project will not generate any additional enrollment for the East Quogue UFSD, but will substantially increase the amount of property tax allocations to the district, the proposed project would represent a significant fiscal benefit to the East Quogue UFSD.

Police Protection - The proposed project will be serviced by the Town of Southampton Police Department. It is expected that the project will result in some additional call activity due to the increased development and human presence on the property. However, this increased potential for need of Department services would be at least partially offset by the anticipated increase of approximately $202,311 in annual tax revenues as compared to the existing allocation. In addition, the project will curtail existing unauthorized vandalism on the property, this decreasing police coverage needs for this impact. The Town Police Department was contacted and did not express any concerns with respect to providing police protection to the site.

Fire Protection -The project will be provided with fire and ambulance services by the East Quogue Fire Department. It is expected that the project will result in an increased potential for need of the emergency services of the East Quogue Fire Department. However, this increased potential for need of emergency fire and ambulance services would be at least partially offset by the anticipated increases of approximately $256,546 in annual tax revenues as compared to the existing allocation. In addition, the project will curtail existing unauthorized vandalism on the property, this decreasing fire coverage needs for this impact. The proposed project includes a commitment by the applicant to donate land to the EQFD, to be used by the Department to construct a new fire station. As a result, the EQFD would be better positioned to respond to future fire protective needs of the community, and at a lower cost than if the EQFD were forced to purchase such a site on its own. Letters were sent to fire and ambulance service providers; neither response letter indicated any concerns associated with the project.

Water Supply - The project will utilize public water for domestic (i.e., cooking, drinking, washing & sanitary) purposes, to be supplied by the SCWA from the Spinney Road Wellfield via extensions of its existing distribution network. Based on the SCWA response letter, distribution system improvements will be needed to serve the project and these will be determined and installed during the project development phase.

The project also includes the donation of about 4 acres of land in the northern portion of the development area to the SCWA, for its use in establishing a new wellfield.

Irrigation will be provided using on-site irrigation wells which will be subject to NYSDEC well permits, therefore, there is no impact to public water supply and hydraulic considerations will be addressed to ensure that there is no impact on groundwater storage or water table elevations.

Wastewater Treatment - There are no public sanitary sewer facilities within feasible distance to which to the project could connect, so there will be no impact to such public utility resources.

Based on the SCDHS sanitary wastewater design rates for the golf course and 118 units, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6 based on wastewater flow, or the combined design flow based on wastewater based on the fertilized golf portions of the site under Memorandum #17. Therefore, the Applicant may utilize

individual septic systems in compliance with SCSC Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos. However, as discussed below, it is the Applicant's intention to use septic systems as an interim solution for wastewater treatment, until such time that the Applicant can and will install enhanced wastewater treatment for the project.

It is noted that the MUPDD application document that was submitted to the Town Planning Board in January 2015 stated that the proposed project would provide an enhanced treatment system for its sanitary wastewater, as one of the public benefits of the project, to demonstrate the applicant's commitment to provide enhanced wastewater treatment for the project. The Applicant reiterates this commitment; however, the SCDHS (which has jurisdiction over the type of sanitary system that could be allowed) has not completed its review of such enhanced systems. The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method (and close the septic systems noted above) if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow.

Ultimately, the choice of sanitary system will be made in consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected and improved.

Solid Waste Handling and Disposal - Solid waste will be removed by a certified carter operating under a contract with the owner of the project and disposed of at an approved facility. No impact to waste handling is expected.

Energy - In their response letters, PSE&G and National Grid have confirmed that the project site can and will be served with electrical and natural gas services, respectively. Connections will be made to each utility through the creation of an internal distribution network. It is anticipated that both of these energy supply companies maintain adequate resources to supply the proposed project without impact to its ability to serve its other customers in the area.

Parks and Recreation - The proposed project will not physically encroach into, preclude the conversion of privately-held land into public parkland, or otherwise adversely impact any of the existing park or recreational facilities in the vicinity. In fact, the proposed project will increase public parkland in the vicinity, by dedicating 188.83 acre of the Hills North Parcel (86.92 acres) and the Parlato Property (101.91 acres) to the Town for public use and enjoyment as public open space.

The residents of the proposed project would not be expected to adversely impact the use of any of the existing parks or recreation areas in the area given the low level of usage and occupancy of the site, the amenities provided by the site, and the abundance of recreational opportunities in the area.

Community Character

Aesthetics - The project is intended to develop 118 clustered seasonal residences of different types and sizes, an 18-hole golf course, clubhouse, and other related structures. The project will be clustered on 166.86 acres on the central and southern portions of the Hills South Parcel and the Kracke Property.

The proposed Hills at Southampton PDD has been designed specifically to balance the capabilities of the Applicant with the goals of the Town and community for the site, as well as with the pattern of land uses in the vicinity, in order to provide high-quality development on a site where the probability of economic and aesthetic success is high.

In response to expressed community desires to minimize the potential for impact on the area's rural character, substantial naturally-vegetated buffers will be retained along the perimeter of the project site to screen the developed portion of the Hills South Parcel/Kracke Property from outside observation, including those areas where the project site borders residential properties along the eastern side of Spinney Road. There will be an approximately 100-foot deep buffer between those residential properties and clearing for the golf course in this area. In this way, the existing character of the community would be preserved. Shallower buffers will exist along the eastern and western portions of the developed property, but these areas will abut undeveloped wooded land, so that no visual impacts to the public in these areas would be expected. Finally, all of the Parlato Property and all of the Hills North Parcel will be dedicated undisturbed to the Town, so that no changes in the aesthetic characters of these sites will occur. Based on visual analysis, the project is not expected to be visible from either Shinnecock Bay or Dune Road, Westhampton Beach.

Lighting - This Draft EIS includes a description of the anticipated characteristics of the project's lighting system, as well as a discussion of the project's compliance to the Town Exterior Lighting Code Sections 330-345 and 330-346 standards and requirements including dark sky requirements. By conforming to these requirements and design standards, the Town's goals in regard to lighting and its potential impacts on the community's character will be achieved, and the potential for adverse impacts will be minimized. Lighting will only be used to the extent needed for security and safety, all illumination will remain well within the boundaries of the property, and all lighting will comply with dark sky requirements. As a result, no significant adverse impact is expected with regard to lighting.

Noise - Based upon the sound level measurements collected, the ambient noise environment is characteristic of the surrounding land uses, including a transportation corridor and commercial uses nearby. The closest receptors include residential properties along Lewis Road and Spinney Road. It is expected that noise from vehicles on the both Lewis Road and Spinney Road will continue to be the dominant source of noise at these locations.

The construction phase of the project will include site grading and clearing, excavation and building activities that will result in elevated noise levels. Noise levels will vary based on the construction phase, but typically heavy equipment utilized during the site preparation phase results in the highest levels of noise associated with development. The major excavation activities will not occur in close proximity to existing residential areas. Construction noise is

inevitable in the short term and may be audible to surrounding residents; however, this impact is unavoidable and will be mitigated by limiting construction during hours proscribed by the Town of Southampton Code. In conformance with Town Code, construction activities will occur between 7 AM and 7 PM for a limited time period.

The only significant source of noise which may be audible to nearby residents is related to the long term use of the property under the proposed development will result from traffic ingress and egress from the development. This traffic will proceed at low speeds and will not cause a perceptible increase above ambient noise, particularly due to the vehicle traffic consisting of mainly smaller passenger cars.

Based on the analysis contained in this Draft EIS, no significant adverse noise-related impacts are expected.

Cultural Resources

A Cultural Resources Assessment (Phase IA/IB) was prepared for the project site. The Phase IA found the following:

> Based on soil type, topography, distance to water, an Indian foot trail, and prehistoric sites, the property has an above average potential for the recovery of prehistoric archaeological sites.
>
> Based upon similar environmental characteristics, and proximity to Indian trails and/or wigwams and historic MDSs the property is seen as having a moderate potential for the recovery historic archaeological sites.

As a result, a Phase IB was prepared to determine if cultural resource are present on the site. The Phase IB concluded the following:

> During the Phase IB archaeological field survey 2,456 STs were excavated. No historic features or historic artifacts were encountered. No prehistoric features or prehistoric artifacts were encountered. Therefore, no further archaeological work is recommended.

As a result, the proposed project will not cause an adverse impact to cultural resources.

Mitigation Measures

Geological Resources

Impact Avoidance and Compliance with Standards

- Erosion and sedimentation may occur, particularly during the construction phase of the project. The potential impacts with respect to erosion potential can be overcome by using proper grading techniques and implementing erosion control measures, installing proper drainage facilities and using suitably-adapted drought-tolerant indigenous vegetative species for landscaping as well as site stabilization and restoration.
- The significant acreages of new landscaping may erode and/or not grow-in properly and evenly, leading to areas of dead plantings and bare soil, which would tend to lead to erosion and sedimentation. Initiation of an ITHMP for the golf course will ensure not only the health and vitality

of fairways and greens but also limit impacts from nutrient replenishment applications to groundwater and the environment.

- Landscaping practices common to sandy soil areas will be employed and implemented at the time of construction, following the site plan review and approval process which will include landscape plan preparation. This will ensure that potential impacts with respect to a sandy surface layer are adequately addressed and as a result, no long-term soil impacts are expected.
- Short-term soil impacts will be mitigated through erosion control measures which are detailed under a site-specific erosion control plan (see **Erosion Control Plans** *in pouches in Volume III*).
- Grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Fill will be required in some areas of the property and it is expected that the material required can be obtained from on-site sources and redistributed as necessary.
- Profiles of the internal road system will be prepared to conform with Town road grade design specifications to provide a safe road system; this will control overall site grading. In general, the site will continue to exhibit its regional topographic profile decreasing in elevation from north to south.
- All created soil slopes outside of the golf course area will be 1:3 or less and will be stabilized using ground cover material.
- The course will be designed to incorporate the site's existing rolling topography as much as practicable, thereby minimizing the acreage of land clearing and volume of soil affected by grading.
- Slopes within the golf course will be stabilized using appropriate turf species or other engineering means where necessary.
- Preliminary grading plans have been prepared to ensure that the site can be developed as proposed and grading can be minimized to ensure retention of 28.23% of the existing natural vegetation will remain. The grading plan is used for preliminary drainage design and the preliminary SWPPP. A detailed grading and drainage plan will be prepared for the site plan application, and will provide details of overall site grading and will require Town Division of Planning review and Planning Board approval prior to initiation of grading activities.
- An additional safeguard is achieved through the NYSDEC SPDES review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002).

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to geological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Water Resources

Impact Avoidance and Compliance with Standards

- Based on sanitary wastewater design rates for the golf course and residences, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6. Therefore, the Applicant may and will utilize individual septic systems in compliance with SCSC Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos.
- The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method if, in the future, such a treatment system

would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow. Ultimately the choice of sanitary system will be made in consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected.

- The golf course will utilize management practices and controls to severely restrict the use of chemicals associated with turf maintenance. The golf course will be a state-of-the-art facility, and will employ the most advanced controls available. Such controls will consist of a liner system installed beneath areas under the more actively managed areas of the course as well as rain gardens and turf management practices which will provide the stringent golf course management standards that the Town of Southampton is familiar with from Golf at the Bridge and Sebonack Golf Club.
- Any use of pesticides will be severely restricted as a result of continuous monitoring to identify pest control needs early, followed by spot/minimal application of controls, and the use chemicals from a highly-restricted list of approved substances that will be reviewed and approved by the Town and updated annually in coordination with the golf course operator, the Town and the Town's expert consultant. The ITHMP should be consulted for detailed information regarding the state-of-the-art management practices that will be implemented in connection with golf course.
- The GMP will assess the effectiveness of the ITHMP, and will guide any modifications to application rates of fertilizers and turf management compounds should this be necessary. The results of any data generated from the program will be reported to the Town, assessed by the Town and golf course management and used to provide early detection of environmental concerns so that modified management practices can be instituted.
- Stormwater runoff from development areas will be retained and recharged on-site. Retention areas, as presently proposed, will consist of DRAs, leaching pools, and ponds, with stormwater conveyed to these retention areas. The golf course DRAs are designed as shallow vegetated depressions that are normally dry and blend into the fairway areas or non-vegetated hazard areas, of the course, both as playable features. DRAs will have leaching pools with elevated inlets such that the areas around the leaching pool will be established as rain gardens. These rain gardens will be used to provide biological uptake of pollutants during the first flush precipitation event. Two lined golf course-related ponds near the center of the developed area will be a central feature of the project and will also serve as an irrigation pond, using captured stormwater runoff that will then be blended and/or pumped through the golf course irrigation system. In addition to golf play and drainage functions, the two ponds will provide an aesthetic and functional role for visual interest in proximity to the clubhouse and the residential units. The ponds will maintain a minimum depth of five feet and will be aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC input will be sought and incorporated into pond management as appropriate.
- Based on information presented in the NURP Study, the drainage measures proposed are an appropriate means of handling stormwater and as a result, such recharge is not anticipated to contain significant concentrations of pollutants. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system and no significant adverse impacts are expected.
- The project will not have an adverse impact on nitrogen in recharge and nitrogen load, will comply with all applicable guidelines on nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise enter Shinnecock Bay.
- Public water supply will only be necessary for residential potable use; irrigation water will be provided by on-site wells designated specifically for this purpose. An isolated portion within the area of the large pond will be used to blend water from source wells including the well that intercepts high

nitrogen containing water that will be placed at the south end of the site. It is expected that a total of 51.46 MGY will be used for all landscape irrigation, as 45.24 MGY for the golf course and 6.22 MGY gpd for non-golf purposes. It is expected that these volumes will not adversely affect the ability of the SCWA to serve the site and area, and would not significantly tax the groundwater storage system. Any such well installations will be subject to NYSDEC well permits.

- As part of the project, four acres of the subject property are proposed to be dedicated to the SCWA for a new wellfield.
- A letter prepared by the Deputy Chief Executive officer for Operations of the SCWA states: *"…the SCWA does not anticipate any water quality impacts due to the proposed project."*
- Two lots in the western portion of the site fall within the five year capture zone of the Spinney Road well field, and a small portion of the golf course falls within the 50 year capture zone of the Malloy Drive well field. Due to the greater than 5 year (and as much as 50 year) residence times, which would allow for the filtration of nitrogen or other compounds introduced to groundwater from the proposed project, the low density and seasonal use within these contributing zones and conformance to all applicable water supply protection requirements, no impacts to water supply resources are expected.
- There is no direct surface connection from the subject property to Weesuck Creek. The subject property and Weesuck Creek are separated by the LIRR and Old Country Road and no culvert system is present that would direct stormwater runoff from the subject property to the headwaters of Weesuck Creek. The nearest wetlands associated with Weesuck Creek are located approximately 1,500 feet southeast of the Hills South Parcel.
- The project conforms to the recommendations of the 208 Study, which would have projects that exceed 1 unit per acre provide for wastewater treatment. The project is far below this density. The project will conform to SCSC Article 6, 7 and Article 12 requirements, as well as implementation of an ITHMP and GMP, which will minimize potential adverse impacts to groundwater quality.
- A detailed analysis indicates that the project conforms to the groundwater, drinking water supply, and wastewater management goals of the SCCWRMP update.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to water resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Ecological Resources

Impact Avoidance and Compliance with Standards

- Native plant species that provide food and shelter to wildlife will be utilized in the landscaped areas.
- The loss of 122.80 acres of Pitch Pine-Oak forest, Successional Shrubland and Successional Old Field habitat on the property will be partially mitigated by the preservation of approximately 424.14 acres of the existing natural habitats as demonstrated by the **Master Plan**.
- 24.77 acres of existing cleared and unvegetated area will be revegetated to native forest or native grassland.
- Clearing activities will not occur between June 1 and July 31 in order to avoid potential impacts to the northern long eared bat during the maternity season.
- Disturbance will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing and to provide continuous canopy habitat where feasible.
- Nest boxes for cavity nesting birds and bat boxes for roosting and hibernating nesting bats will be installed throughout the property to continue to provide habitat for these species.

- No known invasive plant species will be utilized, including those species specifically those species listed in Suffolk County Local Law 27-2009 and 6 NYCRR Part 575.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to ecological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Transportation Resources

Impact Avoidance and Compliance with Standards

- The results of the traffic analyses for the operational phase indicates no significant traffic impacts associated with the proposed project. Nevertheless, ttraffic flow and temporary/short-term construction impacts can be further improved during the construction phase by incorporating traffic control and construction management measures which the applicant will examine and implement in cooperation with the Town as necessary during the construction phase. Such measures will include: providing adequate signage to direct workers and deliveries to a dedicated construction access location; use of flaggers to direct construction related vehicles to the site during periods of higher volume of arrivals and/or truck deliveries; encouraging and facilitating contractors and trades to conduct construction worker car-pooling; pursuing an internal haul road or other means of reducing soil hauling truck trips on Lewis Road; and fully conforming with Chapter 235 of the Town Code which regulates noise generation.
- At the completion of construction, any and all damage to local roads and/or roadway improvements that may have been caused by construction activities related to the project will be repaired or replaced by the Applicant, at the Applicant's expense, as directed by the Town Highway Department. Work for such repairs will be bonded at an appropriate level, to be determined by the Town as part of the site plan application review.
- After the completion of the project, the stop-controlled intersection of Quogue Riverhead Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Spinney Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. From the review of the capacity analyses results, during the worst peak period the 95% queue length on both Lewis Road approaches are less than one vehicle and the available storage exceed one vehicle length on both approaches. The accident data did not indicate any accidents related to the railroad crossing occurred on Lewis Road. It should also be noted that less than 8 trains cross Lewis Road at this at-grade crossing daily. Hence no queueing and safety issues are expected at this location. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road/Box Tree Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the southbound Site Driveway approach is anticipated to operate at LOS B during all peak periods. The eastbound Site Driveway approach is anticipated to operate at LOS A during all peak periods.
- As the project will exceed the minimum sight distance required at the site vehicle access, no adverse impact in this regard is expected, and no mitigation is necessary or proposed.

- Based on the specific uses proposed and the nature of those uses, the Hills at Southampton PDD is appropriately designed based on a parking standard unique to itself. The numbers of parking spaces proposed will be adequate to serve the parking needs of the proposed project. Thus, no impacts with regard to parking are expected, so that no mitigation is necessary or proposed.
- Since the proposed project is not expected to generate significant increases in the numbers of potential bus or LIRR passengers, no significant impacts on either form of public transportation will occur. As such, no mitigation is necessary or proposed.
- The proposed project is not anticipated to cause a significant increase in seasonal air traffic and/or associated impacts in consideration of all the mitigating programs that are in place. Further, on a local level, such impacts would be constrained by FOK's 11:00 PM to 7:00 AM voluntary curfew.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to transportation resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Land Use, Zoning and Plans

Impact Avoidance and Compliance with Standards

- In response to community concerns, the Applicant designed the project to minimize its potential to adversely impact the area's rural character. Specifically, the project is a seasonal-occupancy resort community of a low-density residential character, which is a complementary type of land use compatible with the mix of vacant/wooded, open space and agricultural uses that characterize the immediate area. In addition, retention of natural buffers will minimize the potential for adverse impacts on the of land uses in the vicinity.
- The proposed project will change the zoning classification of the site from CR 200 to a Mixed-Use PDD of the type that is envisioned in the East Quogue Land Use Plan. The proposed land uses are commensurate with those in the vicinity; low-density residential exists throughout the area, and the golf course amenity is complementary to the low-intensity, open space uses that are also present.
- With respect to the project's conformance to the Town's zoning standards for the MUPDD district, analysis provides substantial justification to conclude that the proposed project represents a suitable land use in the context of the surrounding community while providing substantial Community Benefits, and thereby fulfill the Town Board's goal in its use of the PDD concept.
- Analyses of the project's conformance to the Town Aquifer Protection Overlay District and the Town Central Pine Barrens Overlay District indicate that the project conforms to the applicable zoning standards. As such, no adverse impacts are expected, so that no mitigation is necessary or proposed.
- The proposed project will generate substantial fiscal (i.e., tax) and economic benefits to the East Quogue community It is expected that these increases in public and private revenues would the result in enhanced quality of life for the East Quogue community.
- Analyses of the land use plans pertinent to the site (the Town Comprehensive Plan Update, the Town's East Quogue GEIS), the CPB CLUP, and the SGPA Plan, indicate that the project generally conforms to the applicable recommendations.
- The entire Parlato Property will be dedicated to the Town as a public open space, after completion of a revegetation program of its existing 15.98 acres of agricultural use. Thus, that portion of the Parlato Property within the Henry's Hollow CRA, (as designated by the CPB CLUP and not by the Town), will not be impacted. Such preservation would comply with this aspect of the CPB CLUP.
- The site is not expected to present a danger or risk to on or off-site residents as a result of a catastrophic event due to current code conforming construction, year-round site management, low year round occupancy with very low to non-existent winter occupancy, underground utility

installation, central office and monitoring of local events and regional governmental response to catastrophic situations.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to land use, zoning or land use plans, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Community Facilities and Services

Impact Avoidance and Compliance with Standards

- It is expected that the proposed project will increase the need for and usage of those community facilities and services pertinent to seasonal residential use, and, hence the costs that such services will expend. However, the expected substantial increase in taxes generated by the project will help to offset at least portions of the increased needs for and costs of community services.
- For the East Quogue UFSD, no increase in enrollment is expected, as the nature of the project does not generate potential for such an impact. That is, any school-age children that may reside in the seasonal homes on the site will do so on a temporary basis, and so will not attend the local public school system. This will be enforced by a binding covenant filed with the county.
- The project will not require the East Quogue UFSD to increase its expenditures for educational purposes, as the project will not increase its enrollment.
- The East Quogue UFSD will benefit from approximately $3.4 million in tax revenue, as compared to the existing amount of school taxes generated by the component parcels. This levy accounts for the limitations on the school district, per the tax levy 2% cap, which limits the amount of taxes that the school district can request from year to year (the lesser of 2% or the rate of inflation). These increased revenues will assist in easing the increased burden of rising school district costs on other taxpayers throughout the district.
- According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor (as seen in **Appendix F, Attachments B and C**), and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. If The Hills at Southampton was on the tax roll, the tax rate would drop to $9.2135 per $1,000 valuation. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and would therefore lessen the burden on other taxpayers in the school district. According to the Town Tax Receiver, such a change in the school tax rate would translate into a savings of about $919 for the average homeowner in the district. A savings would also occur on the library and fire tax rates.
- Pertinent input from the EQFD will be solicited throughout the site plan application process to ensure that the site layout and the buildings in particular are designed to provide adequate provisions for emergency vehicle access and adequate hydrant and standpipe locations.
- While the proposed project will increase the potential need for emergency services of the EQFD, it will donate land to the EQFD, to be used by the Department to construct a new fire station. This would enable the EQFD to respond to future fire protective needs of the community, and at a lower cost than if the EQFD were forced to purchase such a site on its own.
- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The proposed project will increase the potential need for emergency security services of the Town Police Department. However, to mitigate this potential increase in calls, the site and proposed

buildings and parking structures will be equipped with security lighting, security cameras and emergency call notification boxes.

- The project will increase the consumption of water on-site. In compensation for this increase in demand, water-conserving plumbing fixtures and mechanical systems will be utilized in construction, which will further minimize the volume of water required from the public water supply.
- The proposed project will increase the amount of both residential and golf course-related solid wastes generated on the site, as well as on the workload at the local solid waste handling facilities. The residential component is not expected to be a large amount of wastes, nor would it contain toxic or hazardous substances, so that residential wastes are not expected to significantly impact these facilities. It is expected that golf course landscape maintenance practices would generate some potentially toxic and/or hazardous wastes (in the form of emptied chemical containers). However, these wastes would be stored, removed and disposed under separate procedures professionally developed for this type of process.
- While the project will increase the consumption of energy resources, it is anticipated that sustainable energy-conserving measures, including energy-saving wall insulations, triple-glazed windows and energy efficient mechanical systems will be utilized, thereby mitigating the anticipated increase in energy consumption.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to community facilities and services, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Community Character

Impact Avoidance and Compliance with Standards

- Deep buffers of retained natural vegetation will be retained along all boundaries of the Hills South Parcel/Kracke Property, to assure that the developed area will not be readily visible to outside observers. The buffer will be approximately 100 feet deep between the rear yards of the homes on the east side of Spinney Road and the golf course area. Shallower buffers will exist along other portions of the developed area, but these areas will abut undeveloped wooded land, so that no visual impacts to the public in these areas would be expected.
- Landscape species will be planted throughout the developed portions of the Hills South Parcel/Kracke Property, to provide vegetative accents to the development's architectural theme.
- The entireties of the Hills North Parcel and the Parlato Property will be left undisturbed, so that no change in the appearances of these parcels, or of their current aesthetic characters, will occur.
- In consideration of the site layout and building design features pertinent to the character of the properties and community (i.e., the land use of the properties and in the vicinity, the prevailing land use pattern, and the visual appearances of the properties and properties in the area), mitigation is primarily related to the design of the project and future, more detailed landscape and architectural design and review.
- Conformance to the requirements of the Town's Exterior Lighting ordinance would ensure that the potential for adverse impacts will be minimized. Lighting will only be used to the extent needed for security and safety, all illumination will remain well within the boundaries of the property, and all lighting will comply with dark sky requirements.
- Conformance to Chapter 235 of the Town of Southampton Code (Noise) which restricts sound levels generated in a residential district which exceeds 50 dBA from 7 PM to 7 AM, and 65 dBA from 7 AM to 7 PM. In order to conform to Chapter 235, the applicant will commit to the use of the quietest available maintenance equipment for those portions of the golf course that are closest to the residential properties on Spinney Road. This includes quiet options for maintenance of the greens, fairways and rough associated with holes #8 and #9. For these greens, an electric powered mower

(the Toro Greensmaster® eFlex 2100) will be utilized and for the fairways, a hybrid engine mower (the Toro Reelmaster® 5010-H) will be utilized and both will conform to Town Code Chapter 235 in early morning hours. The rough areas within 400 feet of the nearest property lines will require periodic mowing using a diesel or gas powered mower (Groundsmaster® 5910) which will exceed the 50 dBA sound level permitted between 7 PM and 7 AM, but will achieve the sound level of less than 65 dBA for the daytime hours between 7 AM and 7 PM. Therefore, these portions of the golf course will only be maintained during daytime hours to conform to Town Code.

- Outdoor events at the clubhouse are to be monitored for conformance with Town Code to generally limit sources of noise to a maximum of 85 dBA at a distance of 20 feet in order to conform to Town Code limit at the nearest residential property line.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to aesthetics, lighting or noise, mitigation sufficient measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Cultural Resources

- As no adverse impacts are anticipated with respect to cultural resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

Construction-Related Impacts

Impact Avoidance and Compliance with Standards

- At the completion of construction, any and all damage to local roads and/or roadway improvements that may have been caused by construction activities related to the project will be repaired or replaced by the Applicant, at the Applicant's expense, as directed by the Town Highway Department. Work for such repairs will be bonded at an appropriate level, to be determined by the Town as part of the site plan application review.
- Construction-related impacts such as dust raised by truck movements and odors from truck and/or equipment exhausts may occur; however, such impacts are limited geographically **(**only the central portions of the Hills South Parcel/Kracke Property will be developed, and thereby distant from potential off-site receptors), and would be temporary in duration.
- Short term impacts may include dust, noise, truck activity on roads and disturbance in the area. Truck access will be only from the new site access on Lewis Road, and all equipment, materials and trucks will be stored and staged within the site.
- A water truck will be provided during construction to wet dry soils when necessary.
- Groundwater impacts which may occur during construction activities could potentially result from building materials and equipment stored on-site. Building materials stored on-site are anticipated to be inert and therefore are not expected to have an adverse impact on the site. Equipment stored on-site which will be utilized during clearing and construction activities will be properly maintained and reputable contractors will be used for all site work.
- Potential noise impacts associated with construction activities will be mitigated by ensuring that these activities comply with the Town of Southampton noise code Chapter 235, which specifies maximum permissible sound pressure levels. It is expected that construction will occur 5 days a week between 7 AM and 7 PM, though work on Saturdays may be necessary.
- Noise-dampening practices will be used during construction to minimize impact on surrounding areas including keeping all mechanical construction equipment maintained and in good working order.
- To avoid impacts to the residences along Spinney Road, a single construction entrance is expected, to be placed at the Lewis Road site entrance.

- The applicant is currently negotiating an innovative method by which the excess soil will be removed, but without impact to Lewis Road, by trucking the soil to the adjacent East Coast Sand Mine via an internal haul road.
- The construction process will conform to the SWPPP to be prepared for the project and reviewed and approved by the Town of Southampton.
- The erosion control measures to be implemented conform to applicable Town requirements and are expected to include, but not be limited to, use of groundcovers, drainage diversions, soil traps, water sprays and minimization of the time span that bare soil is exposed to erosive elements.
- Areas designated for construction worker parking, truck loading/unloading, and material storage/staging will be located within the project site in the vicinity of the proposed golf course maintenance area, and will thereby mitigate potential impacts to the Lewis Road corridor.

Additional Mitigation Measures That Could Be Provided

- It is acknowledged that adverse impacts will occur during the construction phase. However, it is expected that the significant and substantial mitigation measures inherent to the project and noted above will mitigate these impacts to the greatest degree practicable, so that no additional mitigation measures are necessary or proposed.

Issues of Controversy

As with any large project, there is public interest with respect to development and changes that may occur as a result of the proposed project. The applicant has conducted numerous public meetings to provide information and facts about the project. The proposed project has both supporters and non-supporters. Issues of controversy primarily include: water quality concerns, impact on the school district, development in the compatible growth area of the Central Pine Barrens and potential golf course related impacts. All potential impacts including issues of controversy are addressed in this Draft EIS, which was prepared to conform to the Final Scope.

Alternatives Considered

SEQRA requires the consideration of alternatives to a proposed project. For the subject application, the following alternatives were specified in the Final Scope:

- **Alternative 1: No Action** - assumes that the zoning of the sites remains the same; no municipal acquisition and no site development occur.
- **Alternative 2: Development per Current Zoning & Regulatory Controls** - assumes residential development of the project properties under their existing zonings and in conformance with the Town Pine Barrens Overlay District, the CPB CLUP, Groundwater Management Zone III, the Town APOD, and Town Open Space requirements. This alternative is divided into two subsections, based on two differing layouts of the component properties:
  - ***Alternative 2a*** assumes that each of the component properties is developed on an individual basis, independent of the other two. Conceptual plans for the Hills South Parcel, Kracke Property, and the Parlato Property are provided.
  - ***Alternative 2b*** assumes that the Hills South Parcel and Kracke Property are developed as a single unit; a conceptual plan for the Hills South Parcel/Kracke Property is included; the conceptual

plan for the Parlato Property in Alternative 2a would also apply to the Parlato Property in Alternative 2b.

- **Alternative 3: Development per the East Quogue LUP** - assumes development of the properties based on additional options and concepts contained in the referenced plan. A conceptual plan for the Hills South Parcel/Kracke Property is included; for the Parlato Property, the conceptual plan prepared for the Parlato Property for Alternatives 2a & 2b would apply.
- **Alternative 4: Reduced Density** - assumes development similar to that of the proposed project, but at a residential yield reduced to 94 units, by removal of the Parlato Property from the project. A conceptual plan for the Hills South Parcel/Kracke Property is included; as the Parlato Property would not be developed in this alternative, no conceptual plan for this site was prepared.
- **Alternative 5: Alternative Site Designs** - this scenario evaluates alternative site layouts undertaken to reduce potential impacts such as clearing and graded acreage, soil excavation, retain open space, and preserve the area's aesthetics that may have been considered for the subject site during the design phase of the proposed project. This alternative discusses the project designer's efforts in this regard, so that the proposed project represents a balance between protection of these resources and provision of the proposed project. Therefore, a conceptual plan was not prepared for this alternative.
- **Alternative 6: Alternative Technologies** - this scenario considers use of the following technologies in the proposed project: 1) use of natural organic turf management techniques for both the golf course and the residential landscape areas; 2) use of alternative wastewater treatment technologies; and 3) use of domestic wastewater for landscape irrigation. This alternative would not alter the site design of the proposed project, and therefore, no conceptual plan was prepared.
- **Alternative 7: Lesser Impact Alternative** - this scenario considers the following measures that would reduce potential impacts of the proposed project in three cases: 1) prohibiting septic systems, turf or clearing in the "area of influence" of public or private wells (see conceptual plan); 2) omitting the golf course; or 3) locating the houses away from the habitat of endangered, threatened or species of special concern. Conceptual plans were not prepared for the latter two cases because omitting the golf course is the same as Alternatives 2a and 2b, and other alternative components considered in Alternative 7 are not design-related.

The following summarizes the analysis for each of the seven alternative scenarios reviewed:

- **Alternative 1: No Action** - as there would be no development in this scenario, there would be no changes on the project site, and no impacts would occur. However, there would also be no improvement in conditions on the site, no Community Benefits would be provided, and groundwater and surface water conditions in the area would not be improved.
- **Alternative 2: Development per Current Zoning & Regulatory Controls**
  - ***Alternative 2a*** - implementing this scenario would allow for private on-site recreational amenities for the each of the three sites' residents, but would not provide any public recreational amenities. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the potential donation of land for a new SCWA wellfield, an increase in tax revenues, a number of new jobs, and revegetation of previously-impacted land. The totality of some impacts in this scenario would be similar to those of the proposed project, though they would be distributed over a larger geographic area than the proposed project (impacts on the Hills South Parcel and Kracke Property would be somewhat reduced in this scenario as compared to the impacts on these parcels in the proposed project), as the Parlato Property would be developed. However, other impacts of Alternative 2a on the community would be greater than those of the proposed project, and include: more impervious coverage, less retained natural vegetation, more excavated soil, greater water use, higher nitrogen concentration in recharge, more nitrogen loading to groundwater, increased use of Spinney Road, less taxes generated, less school taxes generated, an increase in school enrollment, more school expenditures necessitated, a net negative

impact on school district expenditures, greater usage of community services, fewer permanent jobs, and more overall floor space.

- ***Alternative 2b*** **-** implementing this scenario would allow for private on-site recreational amenities for the site's residents, but would not provide any public recreational amenities. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the potential donation of land for a new SCWA wellfield, an increase in tax revenues, a number of new jobs, and revegetation of previously-impacted land. The impacts anticipated from this scenario would be similar to or more severe than those of the proposed project on the Hills South Parcel/Kracke Property and include: more impervious coverage, less retained natural vegetation, more excavated soil, greater water use, higher nitrogen concentration in recharge, more nitrogen loading to groundwater, less taxes generated, less school taxes generated, an increase in school enrollment, more school expenditures necessitated, a net negative impact on school district expenditures, fewer permanent jobs, and more overall floor space. Additionally, the development described in this scenario would extend over a larger geographic area (e.g., onto the Parlato Property) than that of the proposed project.

- **Alternative 3: Development per the East Quogue LUP -** implementing this scenario would provide development that would be available to the public. Some of the impacts anticipated from this scenario would be similar to or more severe than those of the proposed project on the Hills South Parcel/Kracke Property and include: similar impervious coverage, more excavated soil, greater water use, greater recharge volume, more permanent jobs generated, higher nitrogen concentration in recharge, more nitrogen loading to groundwater, an increase in school enrollment, and more school expenditures necessitated. Conversely, some impacts of Alternative 3 would be less than those of the proposed project: less taxes generated, less school taxes generated, and less overall floor space. These impacts would extend over a larger geographic area (e.g., onto the Parlato Property) than those of the proposed project. The increase in severity is associated with the public nature of the East Quogue LUP-recommended uses, whereas the proposed project would be available only to the owners of the site's homes. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the donation of land for a new SCWA wellfield, restoration of habitat on the Hills South, Kracke and Parlato sites, and a number of new jobs.
- **Alternative 4: Reduced Density** - implementing this scenario would provide development that includes a recreational amenity not available to the public, and with most impacts anticipated to be similar to or less than those of the proposed project, primarily as a result of the removal of the yield of the Parlato Property, and its retention in an undisturbed and undeveloped condition. However, if the impacts associated with future development or renewed farming on the Parlato Property are considered with those of reduced-density development on the Hills South Parcel/Kracke Property, then the total impacts are greater than those of the proposed project. . This scenario would realize a number of the Community Benefits that would have been provided by the proposed project.
- **Alternative 5: Alternative Site Designs -** no alternative or "progress version" layouts of the proposed project were prepared during the planning process that were seriously considered, given the applicant's directive that the proposed project minimize natural vegetation clearing (and, consequently, the acreage of graded area), retain open space, minimize impact to natural steep slopes (and, consequently, minimize the volume of excavated soil), and maximize consideration of the neighborhood's aesthetics. Meeting these requirements led to the **Master Plan**; the only site design seriously considered by the applicant.
- **Alternative 6: Alternative Technologies -** analysis indicates that implementing any of the recommended alternative technologies into the proposed project would not be feasible.
- **Alternative 7: Lesser Impact Alternative -** analysis indicates that the impact-reducing concepts underlying this scenario are moot with respect to the proposed project.

Table S-6 summarizes each alternative and compares the characteristics of each against those of the proposed project. **Table S-7** provides additional qualitative information to compare potential impacts of the alternatives. In consideration of this comparison, it may be concluded that there is no compelling reason to prefer any of the alternatives to the proposed project. In fact, it is the proposed project that offers the greatest level of protection to the environment and the greatest set of benefits to the community.

In addition, the alternatives will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen laden groundwater that would otherwise migrate to the western Shinnecock Bay as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. The alternatives will not provide the off-site water quality benefits that would accrue as a result of the proposed project including sanitary system upgrades and bay restoration improvements. Further, these alternatives will not provide the extensive public and community benefits that are associated with the proposed project including East Quogue beautification, downtown parking assistance and funding of important community programs. Finally, the alternatives will not provide the same level of tax revenue or job creation, and would generate more school aged children that would reside in the development and require educational services from the East Quogue UFSD.

It is also noted that these alternatives are not in keeping with the goals and objectives of the project sponsor, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, reduces school aged children, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site what will reduce environmental impacts and create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. The alternatives do not achieve the goals of the project sponsor, and as a result, the development parameters for these alternatives vary, commensurate with the change in program as it deviates from the applicants' goals and objectives.

Permits and Approvals Required

The Applicant prepared and submitted the PDD Pre-Application to the Town Board on June 7, 2013, and the Town Board held public hearings on that application on August 27, 2013 and October 8, 2013. The Town planning staff prepared a Pre-Application Summary Report and the Town Board adopted it on December 6, 2013. The Town Board then determined (on January 14, 2014) to authorize the applicant to prepare a PDD Application, which was submitted in January 2015.

Table S-6
QUANTITATIVE COMPARISON OF SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Proposed Project and Alternatives 1-4 [1, 2]

Parameter	Proposed Project [2]	Alt. 1/No Action	Alt. 2a/PRD	Alt. 2b/PRD	Alt. 3/East Quogue LUP	Alt. 4/Reduced Density
Use	MUPDD	Vacant	Residential	Residential	Residential & Commercial	MUPDD
Yield	118 units & private golf/clubhouse	none	118 lots, private clubhouse & amenities		108 lots, clubhouses, golf & banquet/restaurant/spa	94 units & private golf/clubhouse
Occupancy	100% seasonal	none	100% year-round			
Coverages (acres):	---	---	---		---	---
Impervious	23.24	0	46.68	37.20	23.30	22.27
Unvegetated	3.45	21.98	1.18	1.18	2.30	3.45
Brushy/Cleared	0	3.66	0	0	0	0
Landscaped & Rain Gardens	101.15	0	81.66	95.86	100.93	99.90
Fertilized	*88.53*	*0*	*80.26*	*88.65*	*88.53*	*88.53*
Unfertilized	*12.62*	*0*	*0*	*7.21*	*12.40*	*11.37*
Agriculture	0	18.42	0	0	0	0
Wetlands	1.40	1.40	1.40	1.40	1.40	1.40
Water (ponds & pools)	5.85	0	28.45	21.97	5.85	5.67
Natural Vegetation	422.74	545.54	398.46	400.22	424.05	425.14
Revegetated	33.17	0	33.17	33.17	33.17	33.17
Clearing (acres):	---	---	---		---	---
Natural Vegetation	122.80	0	147.08	145.32	121.49	120.40
Total Cleared	166.86	0	166.84	166.96	165.55	164.46
Water Resources:	---	---	---		---	---
Domestic Water Use (gpd) [3]	41,814 (20,964)	0	35,400	35,400	38,814	34,614
Nitrogen Conc. (mg/l)	0.59/0.34 [2]	0.24	1.04	1.07	0.99	0.92
Nitrogen Load (lbs/year)	-446.36/-1,436.23 [3]	873.70	4,217.67	4,344.95	3,965.64	3,653.97
Recharge (MGY)	474.27	432.44	487.03	485.26	481.97	476.08
Taxes/Public Services:	---	---	---		---	---
Total Tax Revenue ($/yr)	4,513,946 [4]	272,986 [5]	3,351,000 [5]	3,351,000 [5]	3,277,249 [5]	4,553,749 [5]
School Tax Revenue ($/yr)	3,431,031	218,580	2,683,143	2,683,143	2,624,092	3,646,183
Potential Schoolchildren	0 [6]	0	130	130	137	0 [4]
School Expenditure ($/yr)	0	0	2,189,480	2,189,480	2,935,540	0
School Surplus/Deficit ($/yr)	+3,431,031	+218,580	-136,337	-136,337	-311,449	+3,646,183
Economics:	---	---	---		---	---
Construction Jobs (FTE)	310.0	0	654.0	654.0	550.0	251.0
Permanent Jobs (FTE)	101.8	0	53.55	53.55	164.8	101.8

Traffic (vehicle trips):	—	—	—		—	—
Weekday AM Peak Hour	63	0	92	92	196	76
Weekday PM Peak Hour	103	0	122	122	846	99
Saturday Peak Hour	125	0	114	114	1,170	92
Miscellaneous:	—	—	—		—	—
Building Floor Area (SF)	591,560	0	1,925,760	1,925,760	528,635	488,621
FAR	0.023	0	0.075	0.075	0.021	0.019
Residents	444	0	444	444	430	359

(1) Conceptual plans not prepared for Alternatives 5, 6 or 7, as these scenarios would not be feasible for the Applicant.
(2) Quantities derived from **Tables 1-8b and 1-8c**.
(3) Assumes advanced wastewater system.
(4) Includes effect of 2% Tax Cap, which reduces what otherwise would have been $5,433,567/year.
(5) Does NOT include effect of 2% Tax Cap; which is expected to substantially reduce Total Tax Revenue.
(6) School-age children in an MUPDD (130 for proposed project, 106 for Alt. 4) will not attend EQ UFSD, per restrictive covenant.

Table S-7
QUALITATIVE COMPARISON OF POTENTIAL IMPACTS OF ALTERNATIVES

Anticipated Impact of the Proposed Project on:	**Would this Scenario Cause Greater,** Similar **or** ***Lesser*** **Impact than Proposed Project?**							
	Alt. 1*	**Alt. 2a**	**Alt. 2b**	**Alt. 3**	**Alt. 4****	**Alt. 5**	**Alt. 6**	**Alt. 7**
Geological Resources (see Section 2.1.2)								
Soils	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Topography		**Greater**	**Greater**	**Greater**	Similar			
Water Resources (see Section 2.2.2)								
Hydrogeology	(no impacts)	**Greater**	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar
Groundwater Quality		**Greater**	**Greater**	**Greater**	**Greater**			
Water Supply		**Greater**	**Greater**	**Greater**	***Lesser***			
Surface Water		Similar	Similar	Similar	Similar			
Stormwater and Drainage		**Greater**	**Greater**	**Greater**	Similar			
Groundwater Protection Plans		**Greater**	**Greater**	Similar	Similar			
Water Balance and Nitrogen		**Greater**	**Greater**	**Greater**	**Greater**			
Ecological Resources (see Section 2.3.2)								
Vegetation	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Wildlife		**Greater**	**Greater**	**Greater**	Similar			
Rare Species & Unique Habitats			none	none	none			
Land Use, Zoning & Plans (see Section 3.1.2)								
Land Use	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Zoning		***Lesser***	***Lesser***	Similar	Similar			
Plans		***Lesser***	***Lesser***	**Greater**	Similar			
Community Character (see Section 3.2.2)								
Aesthetics	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Lighting		**Greater**	**Greater**	**Greater**	Similar			
Noise		**Greater**	**Greater**	**Greater**	Similar			
Community Facilities and Services (see Section 3.3.2)								
Taxes & Fiscal Conditions	(no impacts)	**Greater**	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar
Public Schools		**Greater**	**Greater**	**Greater**	Similar			
Police Protection		**Greater**	**Greater**	**Greater**	Similar			
Fire Protection		**Greater**	**Greater**	**Greater**	Similar			
Water Supply		**Greater**	**Greater**	**Greater**	***Lesser***			
Wastewater Treatment		**Greater**	**Greater**	**Greater**	Similar			
Solid Waste Handling & Disposal		**Greater**	**Greater**	**Greater**	Similar			
Energy		**Greater**	**Greater**	**Greater**	***Lesser***			
Parks & Recreation		**Greater**	**Greater**	**Greater**	Similar			

Transportation Resources (see Section 3.4.2)								
Trip Generation	(no impacts)	**Greater**	**Greater**	**Greater**	***Lesser***	Similar	Similar	Similar
Road & Intersection Operations		**Greater**	**Greater**	**Greater**	***Lesser***			
Sight Distance at Access Point		Similar	Similar	Similar	Similar			
Parking		Similar	Similar	Similar	Similar			
Local Pedestrian Resources		**Greater**	**Greater**	**Greater**	Similar			
Public Transportation		**Greater**	**Greater**	**Greater**	Similar			
Gabreski Airport		***Lesser***	***Lesser***	***Lesser***	Similar			
Cultural Resources (see Section 3.5.2)								
Cultural Resources	(no impacts)	Similar	Similar	Similar	Similar	Similar	Similar	Similar
Construction (see Sections 1.6 & 4.1)								
Construction	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar

* Alternative 1: No Action represents the baseline of conditions against which each of the other development scenarios is compared, to determine impacts.

** Not assuming development/renewed agricultural use of Parlato Property; new/renewed use of Parlato Property would increase total impacts to levels Similar to or Greater than those of the proposed project.

Prior to the issuance of any permits or approvals, the applicant and Lead Agency must fulfill the requirements of SEQRA. This document is part of the official record under the SEQRA process outlined in Title 6 of the New York Code of Rules and Regulations (6 NYCRR) Part 617, with statutory authority and enabling legislation under Article 8 of the NYS ECL. The Southampton Town Board is the Lead Agency for the MUPDD Application, as the application that triggered the SEQRA process is under the jurisdiction of that Board. The Town Board determined that the proposed project is a Type I Action pursuant to SEQRA, and the regulating provisions of 6 NYCRR Part 617. As lead agency under SEQRA, the Town Board adopted a Positive Declaration on the proposed project on March 24, 2015. The Town Board also conducted formal scoping in conformance with 6 NYCRR Part 617.8, providing forums for oral and written comments on the Draft Scope of the content for the draft EIS, which was issued as the Final Scope on July 14, 2015. This Draft EIS describes the proposed project, catalogues site and area resources, discusses potential environmental impacts of the project, presents measures to mitigate adverse impacts, and examines alternatives to the project.

This Draft EIS provides the Southampton Town Board (as lead agency under SEQRA) and all involved agencies with information necessary to render informed decisions on the MUPDD application. Once accepted by the lead agency as complete, this document will be subject to public and agency review, a public hearing, and a subsequent period wherein written public and/or agency comments accepted. This period is followed by preparation of a Final EIS that addresses the substantive verbal or written comments provided. Upon acceptance of the Final EIS, the Town Board will be responsible for the adoption of a Statement of Findings on the MUPDD Application and the information contained in the EIS. Each involved agency will prepare its own Findings Statement independently of the lead agency, pursuant to SEQRA, prior to rendering its own decision on the PDD Application. If the PDD Application is approved, the applicant will then proceed to a detailed Site Plan application for the Town Planning Board to review, in consideration of the description and impact analyses contained in the EIS. **Table S-8** below lists the permits and approvals that will be required.

Table S-8
PERMITS & APPROVALS REQUIRED
Proposed Project

Issuing Agency	Required Permit or Approval
Town Board	MUPDD Application Approval
	SEQRA Review (as Lead Agency)
Town Planning Board	Site Plan Approval
	Subdivision Approval
Town Building Department	Building Permit
Town Highway Department	Road Access Permit (via approved Kijowski Family Farm subdivision)
	Emergency Access Curb Cut (Spinney Road)
SCDHS	SCSC Article 4 (Water Supply) Permit
	SCSC Article 6 (Wastewater Treatment) Permit
	SCSC Article 12 (Toxic and Hazardous Materials Storage and Handling Controls) Permit (for maintenance facility)
SCWA	Water Supply Connection Approval
NYSDEC	Mining Permit (for Irrigation and Drainage Ponds)
	Pond Stocking Approval
	Long Island Well Permit(s)
	SWPPP Approval
	SPDES Permit
CPBJPPC	CPB CLUP Conformance Review and Approval

SECTION 1.0

DESCRIPTION OF THE PROPOSED PROJECT

1.0 DESCRIPTION OF THE PROPOSED PROJECT

1.1 Introduction

This document is a Draft Environmental Impact Statement (Draft EIS) for the proposed Mixed-Use Planned Development District (MUPDD) referred to as "The Hills at Southampton," a 118-unit seasonal resort residential community with amenities including a golf course, clubhouse and related facilities (the "proposed project"). The proposed project is located in East Quogue, Town of Southampton, Suffolk County, New York, and is comprised of four distinct parcels in three properties totaling 591.00 acres. For ease of reference, the terms "project site," "subject property" and/or "subject site" are used in the singular to refer collectively to these four separate parcels. The site is generally north and east of Lewis Road in the vicinity of Spinney Road, and extends north to and beyond Sunrise Highway (New York State [NYS] Route 27; see **Figure 1-1a and Figure 1-1b. Table 1-1** identifies the component lands that comprise the subject property.

Table 1-1
IDENTIFICATION OF COMPONENT PROPERTIES
Proposed Project

Hills Property	Hills North Parcel	86.92 acres	427.83 acres
	Hills South Parcel	340.91 acres	
Kracke Property	---	61.26 acres	61.26 acres
Parlato Property	---	101.91 acres	101.91 acres
Totals	**---**	**591.00 acres**	**591.00 acres**

The site is presently residentially zoned within the CR-200 zoning district, which is 5-acre zoning, the lowest-density residential zone in the Town; **Surveys** of each parcel are provided with this Draft EIS (*all plans can be found in pouches at the back of Volume III*). Each **Survey** contains a list of the tax lots that comprise each, with any outparcels so noted; the owners of all tax lots are also provided. Finally, **Appendix A-1** contains comprehensive lists of all of the project's tax lots, the outparcel tax lots, and the owners of all of the tax lots.

The proposed project seeks first of all the establishment of an MUPDD on the project site, followed by the development of the proposed residential community noted above. A **Master Plan** for the proposed project has been prepared to identify the proposed uses, location of uses and general design for the development of the subject property. As shown in the **Master Plan**, the proposed project involves development of 118 well-appointed seasonal residences (of which 10 are "club condos" located within the clubhouse, and 13 are referred to as "club cottages," which are clustered around the clubhouse), with a private 18-hole golf course and clubhouse to be used as an on-site recreational amenity for the residents. All development yields would be integrated into a unified plan where all proposed improvements would be clustered within a part of the two contiguous sites (i.e., the Hills South Parcel and the Kracke Property), leaving the two non-contiguous sites (i.e., the Hills North Parcel and the Parlato Property) as permanent natural open space, and supplemented with additional significant amounts of retained open space within

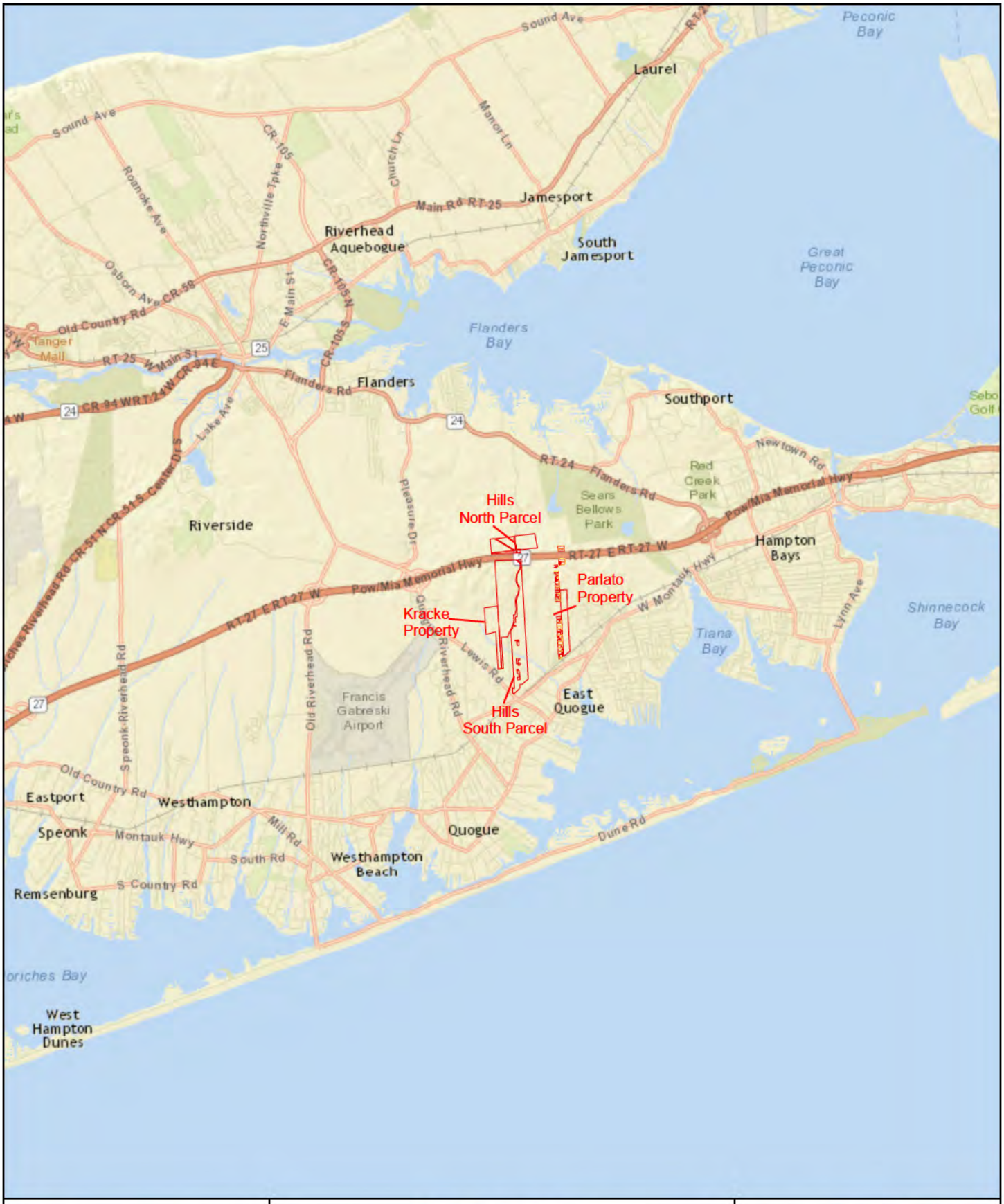

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FIGURE 1-1a
REGIONAL LOCATION MAP

Source: ESRI Webmapping Service

Scale: 1 inch = 10,000 feet

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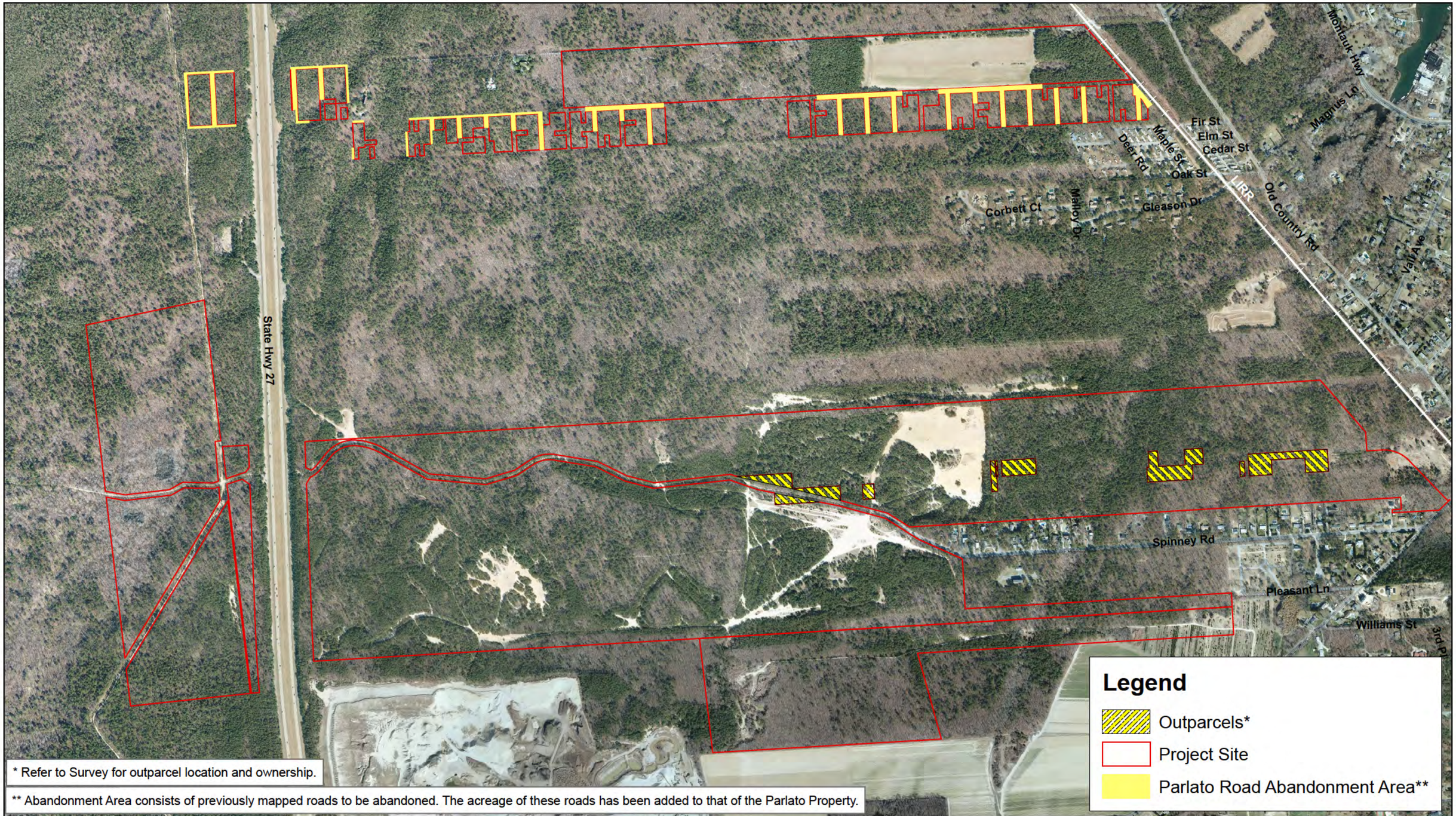
The Hills at Southampton

Draft EIS



* Refer to Survey for outparcel location and ownership.

** Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 1-1b
LOCAL LOCATION MAP

Source: NYSGIS Orthoimagery Program, 2004
Scale: 1 inch = 800 feet

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The Hills at Southampton

Draft EIS

the two contiguous parcels as well. **Figure 1-2** depicts the relative amount of cleared/developed land proposed by the project. The development has been located to the extent practicable on those portions of the Hills South Parcel/Kracke Property that were previously cleared and/or impacted, to minimize the need to clear undisturbed areas for development. The two non-contiguous sites noted above will be offered to the Town for dedication as public open space; the open space to be preserved within the contiguous properties will remain privately-owned by the project, but will be permanently preserved and protected by covenant. Naturally-vegetated open space preserved on the subject site totals 424± acres or 72±% of the overall site. The Hills South Parcel/Kracke Property will be subdivided into 98 lots; one lot for each of the 95 detached homes, one lot for the clubhouse and 13 club cottages, one lot for the golf course and Maintenance Area, and one lot for the SCWA dedication area.

A change of zone to MUPDD is proposed in order to provide the flexibility in zoning necessary to develop the Proposed Project. The project will include the following significant Community Benefits which, as indicated in the Town Zoning Code Section 330-240D, are required by the Town's PDD law to offset any increased density or intensity of land use that would otherwise not be permitted under the site's existing zoning. While the proposed project does not request an increase in density, the MUPDD is required to build the golf course and to provide the land for the SCWA well field. The community benefits were developed through recommendations from the Town's long range plan for the hamlet of East Quogue, the East Quogue Generic Environmental Impact Statement (GEIS), extensive meetings and discussions with the East Quogue Union Free School District's (UFSD) School Board, the East Quogue Fire District and Fire Department, The East Quogue Chamber of Commerce, Cornell Cooperative, Stony Brook SHiRP and other community organizations and leaders.

Community Benefits: East Quogue UFSD

1. No enrollment impact for East Quogue UFSD, ensured through restrictive covenant
2. Increased school district taxes generated by the project site with no impact on the school district from an enrollment or related financial perspective. The homes and the golf course operation will pay Southampton Town taxes.
3. Use of the site for East Quogue UFSD educational programs. All of these programs will be devised, managed, and implemented by the East Quogue UFSD.
4. Allow Westhampton Beach High School golf teams to practice at the golf course two days per week, during the playing season.
5. Annual East Quogue UFSD charity golf outing at The Hills golf course. The fundraising component of the outing to be managed by the East Quogue UFSD School Board or their designate. Annual outing to be held in the spring or fall of each given year on a mutually agreed upon date. There will be no costs to the East Quogue UFSD for the use of the golf course and clubhouse outside of any catering or other costs they elect to incur relating to the outing.
6. Fund two college scholarships for graduates of East Quogue UFSD, awarded for 10 years
7. Contribute $500,000 to the East Quogue Elementary School Capital Improvement Fund, and make improvements to its playground, in the form of new playground equipment, land grading and grassing or other needs the school has to get the playground up to current safety standards. The East Quogue UFSD school board will make playground equipment selections and other decisions relating to this effort. The total investment in the playground is not to exceed $200,000.

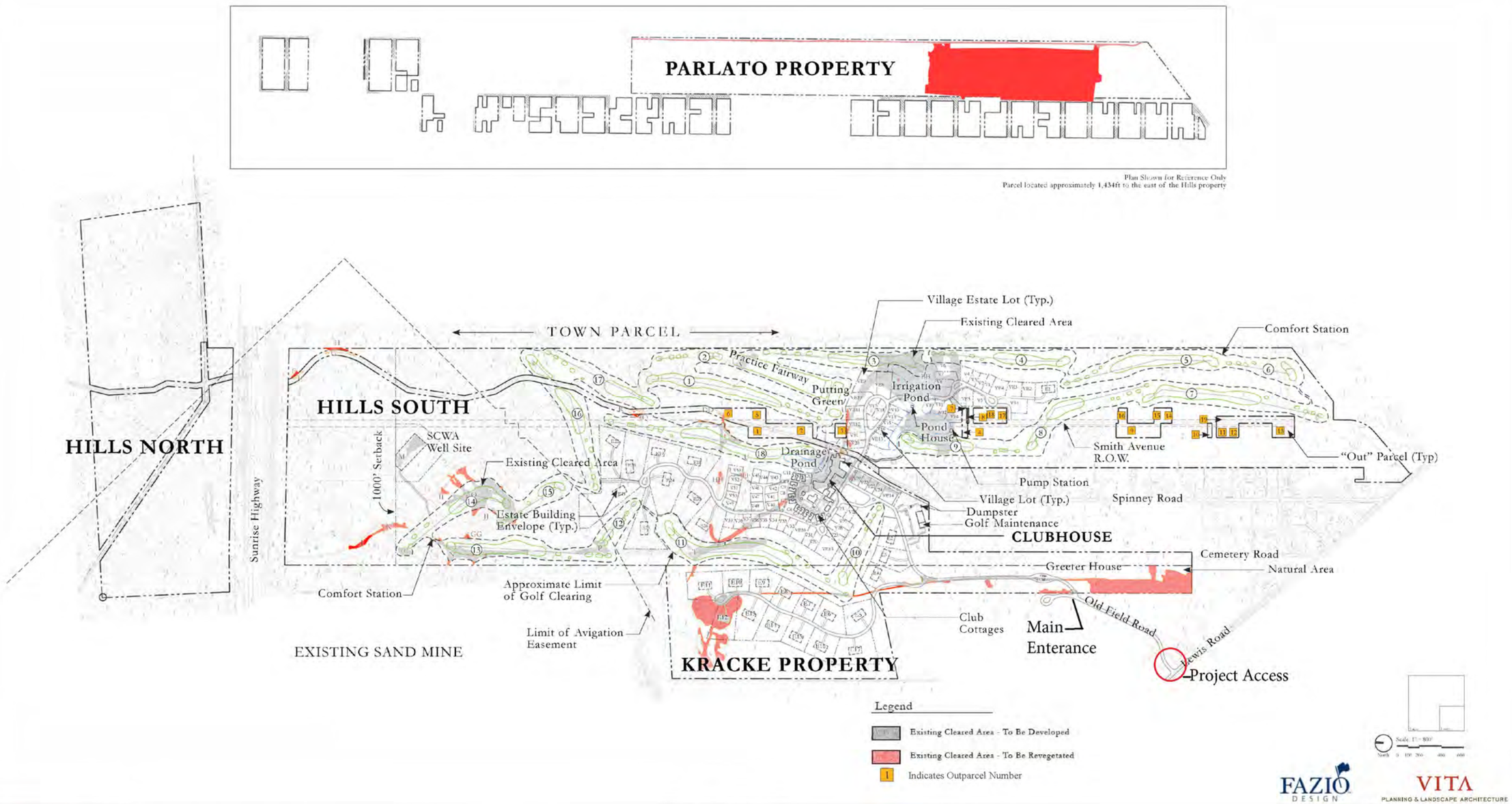

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FIGURE 1-2
MASTER PLAN

Source: Design Plans from Vita Landscape Architects
Scale and North Arrow from Vita figure

The Hills at Southampton

Draft EIS

Community Benefits: Water Resources-Related

1. Annual charity outing in support of water quality communal fund The fundraising component of the outing to be managed by the Southampton Town board or their designate. Annual outing to be held in the Spring or Fall of each given year on a mutually agreed upon date. There will be no costs to the Southampton Town Board for the use of the golf course and clubhouse outside of any catering or other costs they elect to incur relating to the outing.
2. Discovery Foundation fund-raiser for Shinnecock Bay Restoration (after 5 years) to be managed by Discovery Foundation. Goal will be to raise at least $250,000 for Shinnecock Bay Restoration efforts, which are managed by the Stony Brook Marine Sciences Program.
3. Facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for East Quogue residents with a $1 million investment in a water quality fund managed by the Town Board.
4. Restoration of impacted eelgrass in Western Shinnecock Bay through a $50,000 investment in the Shinnecock Bay restoration effort managed by the Stony Brook Marine Sciences Program.
5. Participate in funding restoration of Shinnecock Bay, by seeding filter-feeding bivalves through Cornell Cooperative, Southampton Town and Stony Brook Marine Sciences programs. The investment is $300,000 and will be managed by these programs. Using current pricing, this investment could deploy 3,500,000 bivalves in area bays, which could filter 175,000,000 gallons of water each day.
6. Install clam racks & upwellers
7. Dedicate four acres of land to SCWA for a new wellfield as requested by the SCWA and as recommended in the long range plan for the Hamlet, the East Quogue GEIS.
8. Participate in funding natural resources research and education through an investment of $150,000 through the Stony Brook SHiRP program. All research and educational programs to be developed and managed by the Stony Brook SHiRP program.
9. Participate in funding comprehensive study of nitrogen in Shinnecock Bay
10. Contribute to funding clean-up of storm drains in East Quogue through joint effort with the Town Highway Department.
11. Maintain database quantifying watershed nitrogen reduction due to project

Community Benefits: General

1. Charity outings (three per year, including one for East Quogue Fire Department). The fundraising component of the outing to be managed by the designated charities or organizations or their designate. Annual outing to be held in the spring or fall of each given year on a mutually agreed upon date. There will be no costs to the designated charities or organizations for the use of the golf course and clubhouse except for any catering or other costs they elect to incur relating to the outing. Organizations need to be based in Southampton Town and must work to serve the community. Applications can be made at any time to DLC. Every effort will be made to spread the outings over a variety of local organizations to maximize public access and to support as many local organizations as possible.
2. Fund purchase of land for new East Quogue Fire Department facility as requested by the East Quogue Fire District and as recommended in the Town's long range plan for the hamlet, the East Quogue GEIS.
3. Provide additional parking for downtown East Quogue Main street businesses through an acquisition of parking facilities to be managed by Southampton Town.
4. Restore 33 acres of habitat on the Hills South Parcel and on the Kracke and Parlato Properties using native species to support area wildlife.
5. Creation of new direct, indirect, and induced permanent seasonal operational jobs in the area which will add millions of dollars to the local economy each year.

6. Donation of $100,000 to facilitate East Quogue Renaissance community efforts like park improvements, main street gentrification or other efforts decided and managed by this local organization.
7. Provide signs at three "Welcome to East Quogue" community sites at the behest of the East Quogue Chamber of Commerce as the old signs are in disrepair and do not showcase the vibrancy of the local community.
8. Annual one-day public access to golf course (maximum of 120 players). This "Locals Day", will allow up to 120 golfers to play the 18 hole course. The event will be in the spring or fall each year and will allow Southampton Town residents to play the course for limited fees, like cart fees. All money raised will be donated to a local charity. DLC will poll community members for the recommended recipients each year. Interested players will be able to sign up online using their Southampton Town address or other proof of residency.

It is noteworthy that the project parcels are all.zoned CR-200, which is 5 units per acre, the least dense zoning in Southampton Town, and collectively have a yield of 118 single-family lots; the proposed MUPDD provides 118 clustered seasonal residences of different types and sizes, and a golf course and a clubhouse. The proposed project maintains the same number of residential units and the same amount of grass/turf as the current zoning. The current zoning also allows for a private clubhouse or comparable amenity, similar to that of the proposed project.

This document has been prepared for consideration by the Southampton Town Board for a Change of Zone to MUPDD as provided for in Section 330-246B of the Town Code. The Applicant is Discovery Land Company (DLC) and the PDD Application was prepared by Nelson, Pope, & Voorhis, LLC (NP&V) on behalf of DLC and with support from a team of professionals. The Part 1 Environmental Assessment Form (EAF) that was submitted with the full MUPDD application is contained in **Appendix A-2**. This document was used for initial project information, screening of potential impacts and was circulated by the Town Board of the Town of Southampton for the purpose of assuming lead agency under the State Environmental Quality Review Act (SEQRA). The proposed project was designed to conform to the goals and intent of the Town of Southampton East Quogue LUP and GEIS. Open space preservation, environmentally-sound design, fiscal responsibility and conformance to the Town's planning goals for the subject site as well as to the Town Central Pine Barrens (CPB) Overlay District regulations, are the key elements of site Master Plan. The overall project has been designed to conform to the applicable zoning and land use plan standards, to minimize clearing of the parcel, and to situate development within existing cleared areas to the maximum extent possible. The overall site design minimizes fertilizer-dependent vegetation and incorporates a sustainable design strategy. These planning and design objectives, coupled with significant public benefits, are offered through the proposed MUPDD to be responsive in fulfilling community goals.

DLC is well-versed in developing high-end mixed-use seasonal resort communities on sites that feature a wide range of sensitive environmental resources, demonstrating DLC's expertise in implementing projects in a manner that integrates the projects into the natural environment. DLC's corporate and development philosophy centers on sustainable land use that protects natural site attributes through thoughtful design, limited use and appreciation of natural environmental resources.

After coordinated review, the Town Board assumed lead agency status on the proposed project

on March 24, 2015 (see **Appendix A-3**). On April 14, 2015, by Resolution Number 2015-458, the Southampton Town Board made a determination of significance regarding the proposed project, and issued its Positive Declaration under SEQRA, requiring the preparation of an environmental impact statement. This document identified the need for the highest level of review under SEQRA by requiring the preparation and filing of a Draft EIS. Anticipating issuance of a Positive Declaration, the Applicant filed a Draft Scope for the Draft EIS on January 5, 2015. Although a hearing on the Draft Scope is not required,[1] the Town Board held two (2) public hearings, on April 28, 2015 and May 18, 2015, to ensure that the public had ample opportunity to provide comments on the Draft Scope. Written public and agency comments on the draft Scope were accepted through June 1, 2015. The Town then issued a Final Scope (dated July 1, 2015) on July 1, 2015 as required under SEQRA procedures (see **Appendix A-4**).

This Draft EIS document is prepared to conform to the Final Scope as adopted by the Town Board. The information contained in this Draft EIS and in the Final EIS that will respond to comments on the Draft EIS is intended to provide comprehensive information in the decision-making processes of the Lead and Involved agencies in preparing their findings and issuing decisions on their respective reviews and/or permit applications (see **Section 1.8**).

1.2 Project Overview

The Hills at Southampton is a master-planned and -managed seasonal resort community proposed for the hamlet of East Quogue, Town of Southampton. The properties in The Hills at Southampton total 591 acres - of which 167± acres or 28±% of the overall land assemblage will be developed, preserving the remaining 424± acres as undisturbed natural areas, or 72±% of the land. In addition to this substantial preservation/protection, The Hills at Southampton is designed to be consistent with the Town Central Pine Barrens Overlay District and the Central Pine Barrens (CPB) Comprehensive Land Use Plan (CLUP), as well as the Town's East Quogue Land Use Plan (LUP) and associated Generic Environmental Impact Statement (GEIS). The Hills at Southampton includes a golf course designed to protect native species, wildlife and area water resources, through the use of lined greens, sophisticated irrigation systems and water recycling techniques, use of organic materials, professional management and use of native and protective plantings. The Hills at Southampton will utilize rain gardens to treat stormwater throughout the site and will ensure water quality protection through design elements consistent with current and innovative technologies.

Based on its experience in developing projects like the proposed project, the applicant (DLC) has found that the residences are not occupied year-round by their owners, but are instead used as seasonal homes for temporary occupancy, generally in the summer (to play golf and enjoy local amenities), or during short visits during holiday seasons. In other words, the residences would not be the owners' primary residence. As a result, no enrollment impacts are generated for the local school district, in consideration of a number of factors: any school-aged children in the residences would be there for only a limited length of time; they would be present primarily in

[1] SEQRA Part 617; Section 617.8 only requires that an opportunity be provided for public and inter-agency comment on the Draft Scope.

the summer, when schools are generally closed; and any children present would be prohibited from attended the East Quogue Union Free School District (UFSD), as the residences would not be their owners' primary residence. Nevertheless, DLC proposes to install a further, legal mechanism preventing enrollment by way of voluntary covenants and restrictions that would ensure that no children that reside in The Hills at Southampton community will enroll in the East Quogue UFSD.

The Hills will also be a supportive and valuable community member, contributing a substantial increase in tax revenues distributed to each taxing jurisdiction. Upon the completed sale of all housing units, full build-out of the golf course and a stabilized year of operations, the proposed project is estimated to contribute over $4.5 million[2] in annual tax revenue with no expected burden on the school due to the demographics of The Hills customer base. In addition, The Hills at Southampton will contribute almost $700,000 in equipment and upgrades to the East Quogue UFSD, in addition to providing other school district and public benefits. The Hills at Southampton will be a local employer both during and after the construction phase contributing significant construction and operation jobs for the local workforce and providing related economic benefits. The Hills will also provide significant and substantial benefits to the East Quogue community, including but not limited to water quality improvement investments, community beautification, donation of land to the East Quogue Fire Department (EQFD), provision of public parking in the hamlet center, and habitat restoration on lands to be dedicated to the Town.

The watershed within which The Hills is located (the Weesuck Creek Watershed) is currently impacted by past and current land use practices including farming and high density residential use. The residential density at The Hills at Southampton is based on 1 unit/5 acres (the lowest residential density zoning in the Town), and is therefore classified as low-density; in addition, the seasonal-type use population will not occupy the site on a year-round basis but, based on DLC's experience, are not expected to exceed 60 days annually (16.4% of the year) (see Demographic Study in **Appendix A-5**). The proposed Covenant & Restrictions (**Appendix A-6**) state the following with respect to occupancy:

(a) The lots and/or units shall not be occupied as a place of primary legal or permanent residence and/or domicile;
(b) Between May 1 and October 15: no time limits on occupancy, provided, however, that the total number of days of occupancy in any calendar year shall not exceed one-hundred-eighty-three (183) days;
(c) Between October 16 and April 30 of following year: a lot or unit may not be occupied for more than thirty (30) consecutive days or an aggregate of sixty (60) days.

[2] It is important to note that there will be an incremental tax increases realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise, upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project. (See **Section 1.4.5** and **Appendix F** for a full discussion of fiscal impact benefits.)

This proposed covenant is voluntarily being offered to the Town in connection with the PDD application. This covenant is supported by demographics and marketing of other DLC projects and the demographics and marketing of this project, which indicate that the proposed resort will be seasonal in nature and the occupancy of the lots and units on the premises will be seasonally limited. In particular, DLC has further restricted the occupancy so that no lot or unit can be occupied greater than 183 days in any given year. The benefits of the project's demographics and the occupancy limitation are clearly evident with respect to environmental issues, but also allow DLC to have continued confidence that no owner of a lot or unit may claim the applicable residency to be eligible to enroll their child in the East Quogue UFSD. With respect to enforcement of such conditions and the covenant, it is intended that the amendment to the Town Zoning Code, which will be done by Local Law, will incorporate the limited occupancy conditions. As such, the Town can enforce such limited occupancy conditions as part of its normal zoning enforcement as well as enforcing the covenant. It is further intended that the covenants and restrictions (C&Rs) be incorporated into the homeowners association (HOA) agreement that is filed with the NY Attorney General and dictates the operations at the site, so that DLC and the future HOA can enforce the limited occupancy conditions. Given the registry program in the covenants, it is likely that the DLC and/or the HOA will be the first level of enforcement; however, the Town will have enforcement capabilities through the C&Rs and the zoning law that will be amended into Chapter 330 for The Hills MUPDD and will incorporate the seasonal occupancy restrictions.

Fertilizer dependent vegetation is limited to less than 15% of the site for the golf course as well as residential components, ensuring that excess fertilizer-nitrogen is not contributed to groundwater or surface water.

The Hills at Southampton project will provide substantial on-site and off-site environmental benefits including water quality improvement projects that will directly benefit water quality in Shinnecock Bay.

The proposed golf course will feature lined greens and state-of-the-art management practices to ensure that groundwater is protected, and experience with other golf courses in sensitive areas of the Town has demonstrated that such practices are effective and that professionally-managed golf courses that utilize an Integrated Turf Health Management Program (ITHMP), like that at Sebonack Golf Club in Southampton are environmentally sound. The project will be designed with stormwater and irrigation management systems that contain and recycle stormwater and existing contaminated groundwater for irrigation, and the project will provide strategic stormwater bio-retention areas for effective pollutant removal and recharge where appropriate such that net nitrogen recharge on the site will be negative. More specifically, the project will remove thousands of pounds of nitrogen in local groundwater from the aquifer that would otherwise migrate to Shinnecock Bay, and use it for irrigation and fertilization to ensure vegetative uptake and to reduce the quantity of fertilizer that would be needed for the golf course. The on-site stormwater design provides the highest level of stormwater containment, reuse, treatment and recharge for water quality protection.

Table 1-7 contains descriptions of the anticipated implementation procedures and mechanisms by which each Community Benefit will be provided by the Applicant, as well as information on the administration of each. It is acknowledged that the final determination as to how each Community Benefit will be administered will be at the discretion of the Town Board (in its function as SEQRA lead agency and decision-making board for the MUPDD zoning), the details of which will be included in the Findings Statement on the EIS.

Most significant is that, if the site were developed based on its existing zoning, 118 large homes with potential year-round occupancy would be constructed. Such a residential use would not provide the host of community and environmental benefits as the proposed project, would not generate the same level of tax revenue or jobs as the proposed project, and would create a greater burden on community service providers than the proposed project. These differences are due to the project's development as an MUPDD, which provides substantial Community Benefits, removes nitrogen from groundwater, eliminates enrollment pressure from the East Quogue UFSD, invests in water quality improvements, generates local jobs, and the seasonal occupancy of the units themselves. The Hills at Southampton reduces the nitrogen contribution to groundwater and the bay, includes stormwater management measures to control runoff, ensures that limits of clearing are maintained, reduces fertilizer application and overall is a much more environmentally sound project that is consistent with the recommendations of the East Quogue LUP, and which is able to achieve the benefits which an MUPDD can provide. This is in addition to the off-site environmental benefits that the project will provide to improve bay water quality.

The Hills at Southampton will result in highest level of environmental protection for on-site development with specific reduction in potential impact on water quality as compared to what would occur under existing zoning and which would happen under current conditions. Therefore, this type of land use addresses Town land use plans and environmental protection goals, as well as the standards and guidelines of the CPB CLUP. The project is subject to a full analysis under SEQRA, ensuring that full disclosure of facts and conclusions is aired through a public and independent agency review process. This document therefore provides the complete and necessary information for the Town Board and involved agencies to reach informed decisions with respect to the proposed project.

1.3 Project Description

1.3.1 Project Component Properties

The project's largest land component, known as The Hills Property, consists of 340.91 acres south of Sunrise Highway and 86.92 acres north of Sunrise Highway, for a total of 427.83 acres. The Applicant is in contract with the owner of a contiguous property to the west known as the Kracke Property which consists of 61.26 acres, as well as the owner of an assemblage of parcels to the east known as the Parlato Property which consists of 92.57 acres (plus proposed road abandonments of 9.34 acres for a total of 101.91 acres). Thus, the total size of the project site is 591.00 acres.

The project will be clustered on 166.86 acres (28.23%)[3] on the central and southern parts of the Hills South Parcel and on the Kracke Property (hereafter, when discussing this portion of these combined sites in reference to the proposed development, this area will be referred to as the *"Hills South Parcel/Kracke Property")*, so that the project can provide 424.14 acres of retained natural open space (71.77%). It should be noted that the project will clear only 122.80 acres of existing natural vegetation, and will revegetate 33.17 acres of existing disturbed land to create additional natural open space. This is achieved by:

- revegetating 15.78 acres of agricultural land on the Parlato Property; and
- revegetating the 17.39 acres of combined unvegetated, agricultural and brushy cleared land on the Hills South Parcel/Kracke Property.

Access to the site will be gained from an existing mapped but not constructed road associated with the Subdivision Map of Kijowski Family Farm which is immediately west of and abuts the Kracke Property (see **Figures 1-2 and 1-3**). As discussed in **Section 1.6.3**, this roadway is designated "Old Field Road."

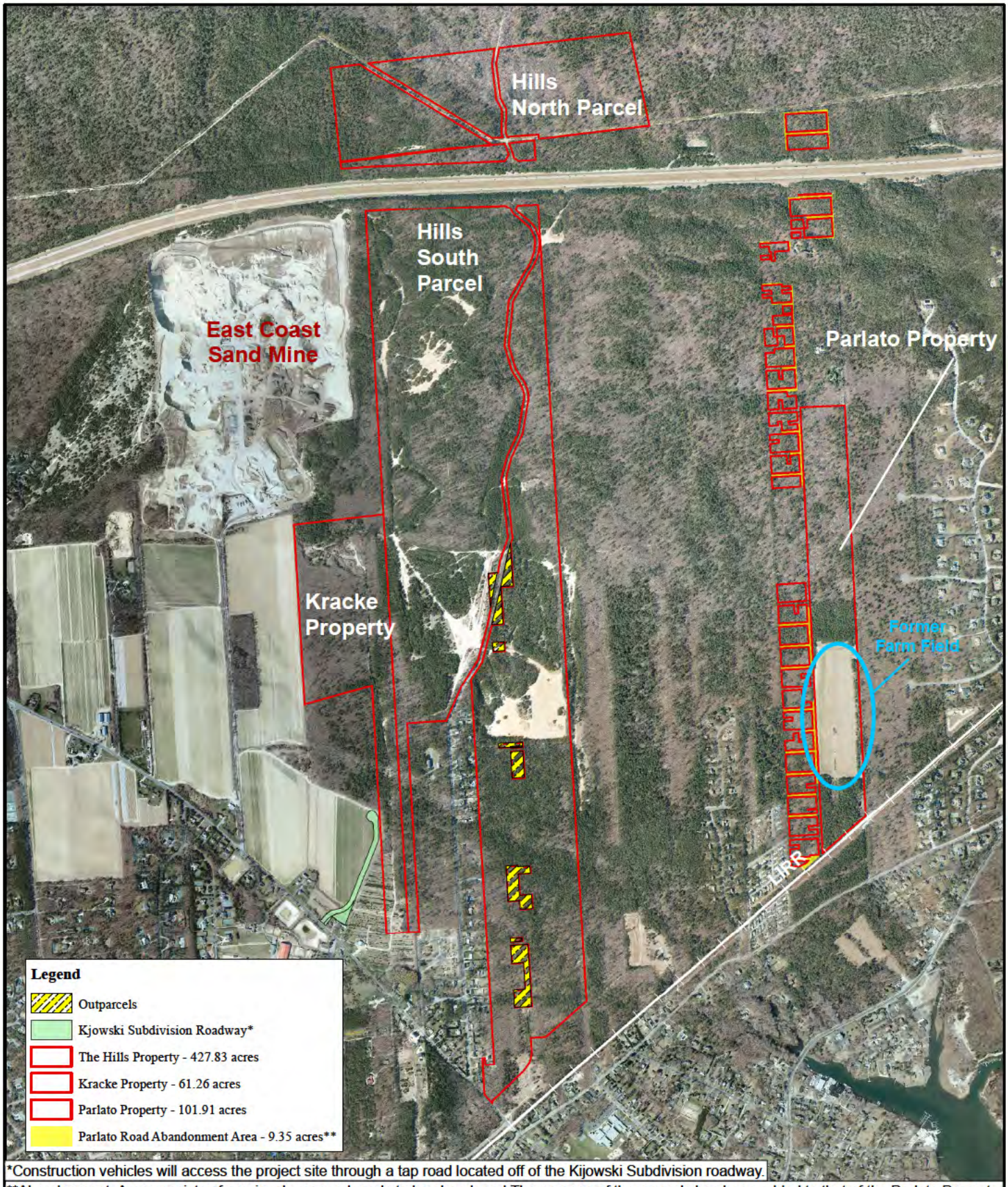
1.3.2 Architecture and Aesthetics

The project will feature attractive, coordinated architectural styling for the clubhouse, residential structures, and common areas (see **Appendices B-1 and B-2**). It is intended and expected that the project's architecture would, in coordination with landscaping, create a visually interesting and desirable environment for occupants and visitors. The development areas of the subject property are distant from Lewis Road and will not be readily visible from most of the community; however, the intent is that the project will blend with the natural environment and contribute positively to the character of the community in general through quality architectural design, pleasing and sustainable landscape design and significant retention of natural features of the site. Quality-of-life and respect for the natural environment will be the central tenets of the project, and this emphasis will be evident in the use of thoughtful building design, appropriate landscaping, well-equipped private residential recreational spaces and installation of attractive site entrances and external appearance. The materials in **Appendix B-3** exemplify the types of building character, street furniture and amenities (e.g., lighting fixtures, signage, benches, trash receptacles, kiosks, etc.) and overall aesthetic effect to which the Proposed Project will aspire.

1.3.3 Yield Analysis

Although the proposed project is not requesting an increase in yield or density from the current zoning yield, the proposed project could not be developed if the site were to remain in its existing CR-200 zoning, as its development requirements do not provide the flexibility of uses to allow for the amount and type of development that DLC proposes. A PDD was recognized in the East Quogue LUP and GEIS as a means to achieve the recommended golf course and resort development other than the recently up-zoned single-family residential use.

[3] Includes existing cleared areas that are not used for development.



*Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned.The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 1-3
EXISTING SITE
AND AREA CONDITIONS

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,500 feet

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Under a rezoning application, the Town of Southampton Zoning Code Section 330-244B(2)(h)[3] requires that the Applicant determine the base density of the project site under its existing zoning, and offset any increase in density with public benefits having a value equal to or greater than the increase in density. A **Yield Map** for the combined Hills Property and the Kracke Property is provided in a pouch at the back of Volume III. This map show that the acreage of the combined Hills Property and Kracke Property would provide for 94 lots under their existing CR 200 zoning. As for the Parlato Property, **Appendix A-7** contains a series of Development Rights Allocation Letters (DRALs) from the Town that certify that this parcel has a yield of 24 lots under its existing CR 200 zoning. Thus, the base density of these three properties is 118 lots.

The proposed project involves a seasonal resort community that will create 118 residences that will be purchased as second or third homes for their owners. As a consequence, the families that own in the resort community will not send their children to local schools in East Quogue. Support for these findings is provided in the NP&V demographic report entitled, "Defining Seasonal Residents at Discovery Land Company Communities," dated August 2015 (see **Appendix A-5**). This demographic analysis reviewed other DLC communities and found that average occupancy of these seasonal properties is less than sixty (60) days per year.

The report also addresses the potential for school-aged children, finding that because the communities are not occupied as year-round residences (except for a minute fraction in very temperate locations), no school-aged children are generated that would require educational services from the East Quogue UFSD. DLC's experience with second or third-home occupancy indicates that due to the average age (58.9 years) and limited age range (54.8-63.9 years), owners tend to have few or no school aged children. DLC is confident in these findings and the ownership pattern in their communities and therefore proposes voluntary covenants and restrictions that would ensure that no children that reside in The Hills at Southampton community will attend the school district. The project attorney has researched this issue and has prepared a draft C&R regarding occupancy of the units, as well as a Memorandum of Law addressing the legality of such C&Rs (see **Appendix A-6**). The draft C&Rs will be subject to review by the Town Attorney and approval of the Town Board.

The proposed project includes a private 18-hole golf course and clubhouse to be used as an on-site recreational amenity for the residents; it will not be open to the general public, apart from the annual Residents Day outing and outings and other donated rounds of golf provided by DLC. The golf course would operate for six (6) months per year from mid-April through mid-October, and the clubhouse would be open during these months and potentially during winter holidays (Thanksgiving, Christmas and New Year's) but otherwise would be closed from November through March.

The golf course will be an amenity that is available to all residents of The Hills at Southampton community. In addition, the golf course will provide 132 additional memberships to golfers that chose to join but do not live in The Hills at Southampton community. The golf course will be made available for five (5) charitable events per year and one (1) "resident's day" per year, when community members will have access to play golf at The Hills at Southampton golf course for a reduced rate. No other large special events are proposed.

On balance, the Applicant submits that the proposed project does not represent an increase in the intensity or density of land use over that which would have been realized by development under its existing zoning, based on the finding as noted above and summarized as follows:

- Residential homes at The Hills at Southampton will be occupied, on average, less than sixty (60) days per year. This reduces the intensity of land use as compared with a year-round residential subdivision.
- The residential component involves second, third and fourth homes used exclusively for vacations and "getaways" by owners and as a result will not contribute children to the school district or require the same service demand as fully occupied primary residences.
- The project will conform to Suffolk County Sanitary Code (SCSC) Article 6, and in fact is well below sanitary flow density limitations and will generate less wastewater than the as-of-right use given the seasonal, resort-use occupancy.
- The residential component is expected to generate less traffic than primary residences; the outside memberships number of approximately 132 and are not expected to generate substantial traffic as members intermittently use the course. Traffic patterns will be such that relatively few trips will occur during weekday morning and afternoon peak hours and during Saturday peak hours (see **Section 3.1**). This indicates a reduced intensity of use as compared to a single family subdivision
- The golf course design minimizes disturbance and fertilized vegetation and maximizes retention of natural habitat. The golf course would not be subject to activity during nights and winter seasons, and during times of play would be traversed in the limited areas defined for golf.
- The golf course is also a private amenity that is not subject to the needs of a public course to deliver a large number of rounds per year, which reduces the amount of fertilizer and irrigation water needed to maintain the health of the golf course; The Hills at Southampton golf course will be subject to far fewer rounds of golf than a typical public course.
- The clubhouse is only for use by the owners and members of The Hills at Southampton and will only be open to the public for six (6) days per year for charity events, and thus is a relatively low intensity use that is classified as an amenity for the owners/members.

The anticipated yields of the three project parcels, under their existing zonings and with their associated sanitary flows under SCSC Article 6, are presented in **Table 1-2**, which shows that, based on the site's existing CR-200 zoning, the project site could generate a total of 118 residential lots, assuming a clustered-lot design concept, which is required by the Town Planning Board and the Central Pine Barrens Joint Planning & Policy Commission. This type of development and this number of units would generate, under SCSC Article 6, a total of 35,400 gpd of wastewater. In contrast, the SCSC Article 6 density of the subject site (which indicates the maximum amount of sanitary wastewater that may be generated on a site before a sewage treatment plant (STP) is required), is estimated to be 144,300 gpd. Thus, the project would generate only 24.5% of the wastewater that would be generated by development that conforms to the site's CR 200 zoning. As a result, this scenario would be allowed to use individual septic systems for treatment and disposal of sanitary wastewater. While the project would then be allowed to use standard individual septic systems, the applicant is committed to using the most advanced wastewater treatment system available that can work within seasonal property usage scenarios and is approvable by the SCDHS.

Table 1-2
PARCEL YIELDS & SANITARY WASTEWATER FLOWS
Existing Zoning

	Existing Zoning	Yield	Sanitary Wastewater Flow (gpd) (1, 2)
Hills North Parcel	CR-200	18 units (3)	5,400 gpd
Hills South Parcel	CR-200	64 units	19,200 gpd
Kracke Property	CR-200	12 units	3,600
Parlato Property	CR-200	24 units	7,200 gpd
Totals	---	**118 units**	**35,400 gpd**

(1) gpd - gallons per day
(2) Per SCSC Article 6: 300 gpd/unit.
(3) Transferred to Hills South Parcel/Kracke Property.

1.3.4 Difference Between As-of-Right Yield and Proposed Yield

Based on the acreage of the site and the requirements for minimum lot size in the CR-200 zone, it is estimated that the site would yield 118 lots under the current zoning and in the proposed MUPDD; this is supported by yield maps submitted to the Town in connection with the MUPDD application and found to be acceptable by the Town Planning Board. The **Master Plan** for the proposed MUPDD indicates 118 residences for seasonal/resort home buyers, an 18-hole golf course (totaling 97.81 acres, of which 80.30 acres are playing surfaces) and a clubhouse (see **Table 1-8b**). The intent is to conform to the East Quogue LUP and GEIS with a use that is different from a uniform single-family residential use with year-round homes having 5-6 bedrooms. The Hills at Southampton mixed-use development reduces wastewater generation, minimizes groundwater and surface water impacts, eliminates school district impacts, maximizes tax revenue, meets required open space and clearing restrictions, limits fertilized areas and represents a comparable or lower intensity use than allowed by current zoning, as explained in greater detail herein, and is therefore supported by the recommendations of the East Quogue LUP and GEIS.

On balance, the Applicant submits that the proposed project does not represent an increase in the intensity or density of land use, rather, that the project represents an opportunity for a decrease in intensity of use and an improvement in area water quality. For the most part, the residential areas are tightly clustered in existing cleared areas. All allowed fertilizer dependent vegetation will fit within the 15% highly restrictive allocation of the overall site. The project will conform to SCSC Article 6, and in fact is well below sanitary flow density limitations and will generate significantly less wastewater than the as-of-right use. The project will result in two (2) low-intensity uses. The residential component involves second, third and fourth homes used primarily for vacations and "getaways" by owners, which will not contribute children to the school district or require the same service demand as fully occupied primary residences. The residential component is expected to generate less traffic than primary residences and the golf course would not be subject to activity during nights and winter seasons, and during times of play would be traversed in the limited areas defined for golf. The golf course minimizes disturbance and fertilized vegetation and maximizes retention of natural habitat.

The golf course is a private amenity that is not subject to the needs of a public course to deliver a large number of rounds per year; as a result, it is expected that the proposed project would experience a lesser number (both annual and peak-season) of rounds of golf than a comparable high-end private golf club, and a far lower number than a comparable public golf course. This means that the project's golf course will require a minimal amount of fertilizer, which will result in excellent water quality, as evidenced by the water quality results from similarly-used and similarly-managed courses like the Sebonack Golf Club. To support this finding, a more detailed evaluation of the potential number of rounds anticipated to be played at The Hills at Southampton is included herein as based on a comparable DLC project. The 357-residence Gozzer Ranch Golf and Lake Club project located at Harrison, Idaho (about 30 miles from Spokane, Washington), is a DLC project similar in nature to the proposed project, and so is expected to display golf usage characteristics similar to that anticipated for the proposed project. Since the golf course at Gozzer Ranch opened in 2007, it has experienced the following levels of annual golf course usage:

Year	Days Golf Course Open	Total Rounds Played*	Rounds Played, Daily Average
2007	115 days	5,044	44
2008	155 days	8,055	52
2009	159 days	8,252	52
2010	157 days	8,216	53
2011	157 days	9,430	60
2012	148 days	9,516	65
2013	146 days	8,785	60
2014	149 days	9,913	67
2015	150 days	10,564	71
2007-15	**1,336**	**77,775**	**59**

* Includes residents of the 357 units and their guests.

As can be seen, since it opened, the golf course at Gozzer Ranch is experiencing a slowly increasing number of rounds played. It is noteworthy that Gozzer Ranch has a total of 357 residences, whereas the proposed Hills at Southampton has one-third that number: 118 residences. Thus, it is anticipated that the golf course at The Hills at Southampton will also experience one-third the usage of the golf course at Gozzer Ranch, or an estimated 25 rounds per day, conservatively assuming the 2015 rate of Gozzer Ranch. As the proposed golf course will be open an estimated 180 days annually, a total of about 4,500 rounds of golf are expected to be played at the Hills at Southampton annually.

In contrast, other private golf courses of a similar nature on Long Island experienced the following numbers of rounds of golf in 2015:

- Sebonack Golf Club - 11,700 rounds
- Atlantic Golf Club - 8,700 rounds
- Friars Head - 8,900 rounds
- The Bridge Golf Club - 8,000 rounds
- East Hampton Golf Club - 9,000 rounds
- Long Island National Golf Club - 13,500 rounds

- Shinnecock Hills Golf Club - 13,000 to 14,000 rounds estimated)

In summary, the Hills at Southampton golf course would be subject to far fewer rounds of golf (in both total annual usage and daily usage) than a comparable private and/or public course, which would tend to minimize the potential for impacts to the rural character of the area from golf-related noise and traffic.

The property taxes paid by the proposed project would be greater than the taxes paid if the project site was developed as-of-right (AOR; see **Section 5.2**). This difference is due to the following:

- each of the 118 homes of the project would be valued at a substantially higher value than homes that would be built AOR, and
- the proposed project includes a golf course, which would be taxed, whereas AOR development would not have a golf course.

Conversations with the Town Assessor indicate that, per NYS Court of Appeals decision, the golf course will be assessed and taxed as a commercial property based on its revenues and other factors. Overall, the assessed value of the project (and its associated tax generation) would be about 1.77 times greater than that of AOR development (see **Section 3.3**).

It is noted that despite the finding that the proposed MUPDD use is not of a greater intensity or density of use than the AOR development, substantial Community Benefits will be provided. The Applicant has made efforts to identify and understand community needs in terms of environmental protection, water resource improvement opportunities, school and fire district needs, and other benefits that can be provided through the proposed project. **Section 1.4.6** outlines the significant benefits to accrue if the project is approved through the PDD change of zone process.

1.3.5 Use of Pine Barrens Credits

As discussed above, on balance, the proposed project will not result in an increase in intensity or density of use over that allowed as-of-right. Thus, there is no regulatory need to provide an offset for increase in yield (in the form of either or both Community Benefits or purchase of Pine Barrens Credits [PBCs]). The Applicant believes that the nature and benefits of the proposed project, in its totality, would justify the residential and golf course components. The Community Benefits of the proposed project that are listed in **Section 1.4.6** (some of which are made possible by inclusion of the golf course component) are believed to be sufficient to compensate for the form of development proposed. Finally, review of the CPB Credit Registry (http://www.pb.state.ny.us/pbc/pbc_registry.pdf) dated April 1, 2015 did not indicate the existence of PBCs in the East Quogue UFSD that could be purchased.

The Hills at Southampton MUPDD includes several parcels that are partially within the Core Preservation Area (CPA) of the Central Pine Barrens Zone (see **Figure 3-7** and **Table 1-3**). The Hills North Parcel includes 86.92 acres of land in the CPA, the Hills South Parcel includes

approximately 42.43 acres of land in the CPA (south of Sunrise Highway), and the Parlato Property includes 11.00 acres of CPA land (all of the Kracke Property is in the Compatible Growth Area [CGA]). This CPA acreage corresponds to a total of 22.46 PBCs that would, if sought, be assigned to these project parcels, for development of residences outside the CPA. The Hills North Parcel and the Parlato Property will be offered for dedication to the Town, and the 42.43 acres of land in the CPA south of Sunrise Highway will remain undisturbed , so that all 140.35 acres within the CPA will be preserved by the proposed project, as intended and required by the CLUP. This also means that the density allowed on these CPA acreages will effectively be transferred to the CGA through the proposed MUPDD development, and the potential PBCs associated with these CPA acreages will be extinguished.

Table 1-3
DISTRIBUTION OF ACREAGES
Component Properties

Portion of Site	Acreages		
	Total (acres)	**In CPA** (acres)	**In CGA** (acres)
The Hills North Parcel	86.92	86.92	0
The Hills South Parcel	340.91	42.43	298.48
Kracke Property	61.26	0	61.26
Parlato Property	92.57	8.72	83.85
Parlato Road Abandonment Area	9.34	2.28	7.06
TOTALS	**591.00**	**140.35***	**450.65**

* Corresponds to 22.46 PBCs, as CR-200 zone uses a factor of 0.16. As of 2014, the average value of a PBC in the Town of Southampton was $71,025.64.

1.3.6 Conformance to Recommendations of Land Use Plans

The specific land use proposed was envisioned in the Town of Southampton East Quogue LUP and GEIS as a use that would balance the goals of minimized impacts to the local school district, maximize tax ratables, and retain open space, while providing Community Benefits. The proposed project is precisely the type of development that is sought by the East Quogue LUP and GEIS; specifically including the following elements that are reflected in that Plan:

- PDD zoning; specifically, a Mixed-Use PDD Zone (MUPDD)
- Conformance with the CPB CLUP
- Promotion of numerous public and Community Benefits
- Protection of drinking water and enhancement of the public water supply system
- Conformance to the most stringent Town, County and State laws and policies for wastewater management
- Protection of natural habitats and provision of permanently protected open space
- Recreational/resort-style use
- Utilization of previously-cleared areas
- Does not seek any increase in residential yield from its existing zoning

The development area has preferentially been located on those parts of the development parcels that have previously been cleared. This design feature would reduce the amount of natural vegetation to be cleared and would help the project to conform to clearing restrictions of the Town CPB Overlay District, the Town Aquifer Protection Overlay District (APOD), and the CPB CLUP.

1.3.7 Road Abandonments and Maintenance of Access to Outparcels

Hills South Parcel Abandonments

There are a number of "outparcels" within the Hills South Parcel; refer to the **Survey** for their locations and ownerships. An "outparcel" is a parcel not owned by the applicant or its affiliates. All of these outparcels are lots shown on an old filed map that has not been opened or approved for development under Chapter 243 (Old Filed Maps) of the Town Code. Many of these outparcels are owned by the County of Suffolk or Town of Southampton and are already earmarked for preservation. "Legal access" or theoretical access to these outparcels will continue to be available via the Spinney Road, the mapped road known as Smith Avenue and potential internal connections designed into the proposed project. It is not expected that any of these outparcels will be ever be built upon due to the minimum lot area requirements for development parcels and other constraints under the Town Old Filed Map Law[4] and the fact that many are municipally-owned. The Hills South Parcel includes the acreage from abutting roads that would be eligible for abandonment within survey boundaries as identified herein, other than Spinney Road. The alignment of certain roads will be maintained where legal access on paper is needed for outparcels, as depicted in the **Master Plan**. To increase the applicant's holdings and allow a greater amount of the paper roads to be abandoned, the Applicant has and will continue to make efforts to purchase these outparcels; however, extensive efforts to date have not been successful in locating owners or securing ownership of these parcels.

Parlato Property Abandonments

The Parlato Property includes 121 single-and-separate tax parcels that are shown on lots in an old filed map. All of the Parlato Property is proposed to be dedicated to the Town, including the acreage within a network of proposed abandonments of the mapped old filed map roads (see **Figures 1-2 and 1-3**). This old filed map has not been opened or approved for development under the Town Code. Further, this land would never be developed if the PDD is approved and the development rights of these lots are transferred to the Hills South Parcel. This old filed map includes outparcels, but given that the Parlato Family owns a significant percentage of the lots in the map, the abandonment of many of the abutting mapped roads can be accomplished. The proposed abandonments include those portions of the mapped subdivision roads where both sides are owned by the Parlato Family. The abandonments will not involve those roads that must be left to maintain legal "paper" road access to the outparcels. Consequently, the opportunities for access to the undeveloped parcels in the vicinity of the Parlato Property upon approval of the PDD and the dedication of the land to the Town will not change.

[4] Chapter 243 of the Town Code.

Spinney Road Abandonment

In conjunction with the project, it is proposed that the portion of the Spinney Road right-of-way (ROW) within the development area (i.e., that portion of the ROW from the point where the road enters the site northward to the southern limit of "Parcel M", on the **Survey** for the Hills Property) will be abandoned, so that this acreage will be developed with the project. Access to the three roughly triangular-shaped outparcels located along this ROW will be maintained as a result of the project's site design in this area. This action will be undertaken under the jurisdiction of the appropriate Town entity, and will be subject to its approval.

1.3.8 Long Island Workforce Housing Law

Chapter 216 of the Southampton Town Code provides the regulations and requirements for housing for households that meet income standards, under the Town's Community Housing Opportunity Fund. Further, Article II of Chapter 216 contains the requirements for such housing, under the Long Island Workforce Housing Act, which was established by the NYS Assembly.

The following briefly summarizes these regulations:

- When the Town approves a project having five or more residential units, the applicant receives a density bonus, the number of which is determined by the Town and applicant. In such cases, the Town has the option to require that the applicant: (1) set aside at least 10% of such units for affordable workforce housing on-site; or (2) provide other land and construct the required affordable workforce housing units, on another site within the Town; or (3) pay a fee.
- All such fees collected by the Town shall be used to construct affordable workforce housing, acquire land for affordable workforce housing, or rehabilitating structures for affordable workforce housing. At the Town's discretion, the fees shall be (1) deposited in a single trust fund under the control of the Town; or, (2) paid to another local government within Suffolk County; or (3) paid into a single trust fund under the control of the Long Island Housing Partnership (LIHP).
- In determining which density bonus to utilize, that is, on-site housing, off-site housing, or payment in lieu of, the applicable Town agency shall first consider the recommendation of the Administrator of the Department of Land Management.
- The provisions of this article shall not apply when an applicant elects a lesser percentage than the maximum allowable residential density, or floor area ratio if part of a mixed-use development.
- The Town shall ensure that all affordable housing units created pursuant to this article remain affordable.

The proposed Hills at Southampton MUPDD does not include workforce housing. The reason for this is that the East Quogue LUP specifically seeks to minimize potential enrollment impacts to the East Quogue UFSD, by limiting residential development of the type that generates school-age residents. It is well-established that workforce housing is characterized by a high per-unit rate for school-age children, who would be expected to attend the East Quogue UFSD, whereas any school-age occupants of the proposed project would be prevented by C&R from doing so.

If the project were required to meet the Long Island Workforce Housing Law, there would be four options available to the Applicant. These are listed below, with brief descriptions of the Applicant's positions:

- Option 1. Provide the bonus units on the project site; these units would be similar in nature and appointments to the 118 proposed units, but would be permanently restricted as to sale price;
  It would be neither appropriate nor desirable if the proposed project were increased beyond the proposed 118 units of high-end housing of which 118 units would be market-priced (to a level in excess of $2 million each) and the bonus units were designated to be affordable; such a large price difference would be contradictory and unsupportable.

- Option 2. Provide the bonus units at an alternative location, sales price to be permanently restricted;
  The Applicant does not have control of any other sites in the community or East Quogue UFSD where affordable housing units could be constructed; furthermore, the Applicant does not develop units in this market niche

- Option 3. Reduce the maximum allowable residential yield of the project by at least one unit, so that the Long Island Workforce Housing Law would not apply to the project (see Section 216-9C); or
  Considering the value of the residences proposed, the Applicant is not amenable to reducing the proposed project by even one unit.

- Option 4. Pay an appropriate sum to a Town affordable housing fund, the dollar amount to be determined by considering the HUD Median Family Income for the Nassau-Suffolk Region for a family of four, and the number of bonus units.
  The Applicant is willing to consider a one-time payment to a Town-administered affordable housing fund in lieu of on-site or off-site provision of affordable housing units.

It is the applicant's expectation that, under the Town Board's legislative authority to grant the requested PDD, the Town's workforce housing law should be considered. However, should the Town Board choose to apply that regulation, it would be the applicant's position that neither Options 1 nor 2 would be appropriate or practicable, and so would not be considered. Options 3 and 4, although not desirable to the Applicant, would have to be weighed and considered further.

1.3.9 Summary

The Applicant has designed this project to meet the stated goals of the community through an appropriate and beneficial land use that minimizes impact on school and other services, substantially increases tax revenue, provides recreational use, preserves habitat, limits nitrogen load to the maximum extent practicable and ensures a balance of environmentally-sound development and land preservation and is therefore consistent with the Town Board adopted East Quogue LUP and GEIS.

The following narrative has been provided by Dan O'Callaghan, Director of Sales for DLC, discussing the early expressions of interest that DLC has received from potential buyers.

> "…I am providing below a brief description of the buyers that have indicated they are "fully committed" to purchasing property with our East Quogue project. I have been in sales with Discovery Land Co. for 11 years and I can honestly say I have never seen so much excitement for a project as I have for the Hills.

I have compiled a list of nearly 200 families that are high-probability buyers and feel confident that we have the possibility of selling out the Hills within 2 seasons.

Discovery Land Co is fortunate to have 17 other highly successful projects that include: Baker's Bay Golf & Ocean Club, The Yellowstone Club, El Dorado, Kuki'o, etc. It is not uncommon for us to have up to 25% to 30% of our membership come from another Discovery club… meaning many of our members are multiple owners at our clubs. This will be especially true at the Hills where I expect cross-ownership to possibly reach 40% based upon early interest.

Those who have indicated interest include:

- Several high level executives/partners from Goldman Sachs
- Dozens of partners from the world's largest hedge funds and private equity firms
- High-profile professional athletes from New York and around the world…specifically the sports of professional golf and baseball
- High-profile celebrities and entertainers
- Many families that already have homes in the Hamptons but desire a high-end, private golf club

Interest is not limited to the metropolitan area, as we have families from California, Texas, Florida and from Europe that are high-probability buyers

As you can see, I am extremely "bullish" about the sales prospects for the Hills and have no doubt this will be one of the most (if not the most) successful project in our company's illustrious history of real estate."

The proposed project has been designed to complement the area's rural character. The project includes a mix of resort residential dwellings, a golf course and a clubhouse, and is designed to complement the architectural character of the area and maximize retention of and regard for natural resources. The project does not propose any more residences than could be built on those properties under their existing CR-200 zoning and, due to the nature of the project the dwellings will be occupied on a seasonal basis and not year-round. In this way (among others), the project would conform to the type of land use that would be built under its existing zoning, at a yield that would have been built under the existing zoning. Finally, substantial Community Benefits will be provided as part of this project (see **Section 1.4.6**).

Under Town of Southampton Zoning Code Section 330-244B(2)(h)[3], the Applicant must determine the base density and offset any increase in density with public benefits having a value equal to or greater than the increase in density. The proposed project involves a resort community that will create 118 residences that will serve as second, third or fourth homes for their owners. This is the same number of units that could be developed under the site's existing zoning, so that no increase in yield is being requested.

As discussed in **Section 1.3.3**, the Applicant will provide a covenant that none of the school-age children residing on the project site (who would only dwell temporarily at The Hills at Southampton development) will attend the local public schools of the East Quogue UFSD. Based upon operations of other DLC projects and projections for The Hills at Southampton project, the average occupancy is less than sixty (60) days per year per residence. The market

for these homes is part-time vacation residents that are primarily existing "members" of other DLC resort communities.

The project includes a golf course and a clubhouse in addition to the homes. The golf course would operate for six months (from mid-April through mid-October), and the clubhouse would be open during these months and during winter holidays (Thanksgiving, Christmas and New Year's) but would otherwise be closed from November through March. The golf course would also offer approximately 132 additional memberships to those other than owners within The Hills at Southampton community. On balance, given the low occupancy and use of the resort homes, the golf course, and the clubhouse, it is suggested that the intensity of use of the site will be similar to or less than that which would occur under its base density (which would allow 118 year-round, 5-bedroom single-family homes).

1.4 Project Background, Need, Objectives and Benefits

1.4.1 Site Zoning and Descriptions of the PDD and MUPDD Ordinances

Current Site Zoning

Each of the project's component properties are presently zoned CR-200, which requires lot sizes of at least 200,000 SF in size for yield purposes. For the PDD Pre-Application, The Hills property was determined to have an individual yield of 82 lots based on a yield map. The Kracke and Parlato properties each have Town-recognized transfer yields of 12 and 24 lots, respectively. For the purpose of the PDD full zoning application, a yield map was requested for each property. Since The Hills and Kracke properties are adjoining, a combined yield map was prepared. This resulted in a yield of 78 lots on The Hills Property, and 16 lots on the Kracke Property. Therefore, based on the **Yield Map** for the Hills and Kracke Properties, and assuming 24 lots on the Parlato Property, a total of 118 residences could be developed, as follows:

- Hills Property 78 lots
- Kracke Property 16 lots
- Parlato Property 24 lots

Total 118 lots

Under either analysis, the total yield on the overall properties is 118 lots, and the yield on The Hills and the Kracke Properties combined is 94 lots.

Town PDD Ordinance

Section 330-240 of the Southampton Town Code describes the concept underlying the Planned Development District zoning, and the purposes and goals this zoning mechanism is intended to achieve:

A. It is hereby found and determined by the Town Board of the Town of Southampton that there exists in the Town vast but diminishing natural resources and tracts of land deserving of preservation and maintenance for this and future generations. This need is balanced by a need to accommodate and provide for the future economic welfare and development of the Town.

B. The purpose of this planned development district (PDD) legislation is to facilitate increased flexibility to achieve more desirable development through the use of more creative and imaginative design of residential, mixed use, commercial and industrial areas than is presently achievable under conventional land use techniques and zoning regulations and to preserve, adapt and improve existing open space, land uses and communities, consistent with the recommendations of the Town's Comprehensive Plan. The implementation of planned development shall be established on a floating zone basis with attendant controls and regulations intended to provide the means to accomplish the salutary purposes and goals set out herein.

C. A planned development district may be established as a receiving site for development rights or Pine Barrens credits pursuant to the applicable transfer of development right portions of this chapter and Section 261-a of the Town Law of the State of New York. Said transfer shall be consistent with the recommendations of the Central Pine Barrens Comprehensive Land Use Plan and/or the Town's Comprehensive Plan.

D. A planned development district may be established as a method of providing incentives or bonuses for development providing substantial community benefits or amenities pursuant to the applicable provisions of this article and Section 261-b of the Town Law of the State of New York. The development incentives or bonuses and the community benefits or amenities shall be consistent with the recommendations of the Central Pine Barrens Comprehensive Land Use Plan and/or the Town's Comprehensive Plan.

(1) "Community benefits or amenities" shall mean open space, housing for persons of low or moderate income, parks, elder care, day care, or other specific physical, social or cultural amenities, or cash in lieu thereof, of benefit to the residents of the affected community or communities and commensurate with the benefit to the applicant.

E. The various long-term goals which the Town Board wishes to achieve by this legislation are:

(1) Preservation and conservation of open space, natural resources, diverse ecological communities, species diversity, and groundwater quality and quantity.
(2) Connection of open space systems and maximization of open space corridors and to establish and maintain open space and open space corridors for active and passive uses.
(3) Preservation of agricultural lands and uses.
(4) Increase consideration of and coordination with school districts, utilities and governmental services.
(5) Encourage the most efficient and purposeful use of all remaining vacant land.
(6) Preservation and improvement of existing smaller communities.
(7) Preservation of a sense of place in communities and the creation and reestablishment of small hamlet communities and atmosphere which foster the sharing of amenities and the utilization of local services.
(8) Creation of planned residential communities providing an array of housing meeting the social and economic needs of the residents of the hamlets, the Town and the region.
(9) Reduction in the effective cost of governmental and other public services.
(10) Elimination of excessive and inefficient infrastructure and the minimization of infrastructure development and maintenance costs and maximization of efficiency and coordination of existing and planned transportation facilities and networks.

(11) Prevention of inappropriate development on stale previously filed subdivision maps encompassing wetlands, high-water-table areas, steep slopes and other impractical or unsuitable terrain and topography.
(12) Development of communities wherein, collectively, the mix of uses, aesthetically, physically, socially and economically encourages the creation and/or preservation of a sense of place, pride and values.
(13) Provide flexible but definitive standards to facilitate innovative and creative land use planning and development techniques not possible under conventional zoning ordinances.
(14) Encourage the development, rehabilitation and improvement of identifiable and unique historic and architecturally significant areas and communities, "main streets" and centers of residential, commercial and industrial activities.
(15) Encourage comprehensive and innovative planning and design of the highest quality, utilizing and incorporating a variety of land uses.
(16) Provide reasonable incentives and standards to encourage private participation in and compliance with the comprehensive goals of this article.
(17) Assure that lands set aside for receiving or sending areas are consistent and harmonious with the Town's comprehensive land use objectives and locate areas permitted to be developed in such a manner as to maximize the continuity and connection of open spaces, preserves and wildlife corridors.

Town MUPDD Ordinance

The specific type of PDD pursued by the applicant for the proposed Hills at Southampton project is, as regulated by the Town Zoning Code, Section 330-246B, a "Mixed-Use Planned Development District," described by the Town Zoning Code as follows:

> The Mixed-Use Planned Development District (MUPDD) is intended to provide a flexible mixture of usage among residential, commercial services and institutional uses while maximizing the preservation of natural vegetation and resources. The commercial uses provided in this district should provide convenient services to the residential uses therein. Clustering, open space preservation, elimination of sprawling complexes and developments, and the most efficient utilization of transportation systems, utilities and public services are intended to be achieved by the MUPDD. The intent is to support creative, desirable and affordable private residential and nonresidential development by providing incentives and flexibility which encourage the use of innovative planning and design techniques.

Section 330-240E (listed above) specifies the goals by which a proposed MUPDD is to be analyzed to determine whether it would achieve the Town Board's long-term goals. **Section 3.2.2** presents a point-by-point analysis of the proposed project's conformance to each PDD goal. That analysis indicates that the proposed project will provide a suitable land use in the context of the surrounding community while providing substantial Community Benefits, and thereby fulfill the Town Board's goals in its use of the PDD concept.

1.4.2 Site and Application Background and History

Site Background

None of the component properties have been previously developed with structures or utility services, though portions of the Hills South Parcel, the Kracke Property and the Parlato Property

have been partially cleared and/or have or currently are being used for farming (see **Appendices C-1, C-2 and C-3**, respectively). Additionally, unauthorized dumping and recreational activities (primarily hiking and all-terrain vehicle [ATV] usages) have resulted in the creation of a network of packed earth trails, particularly on The Hills property. The Hills site (south of Sunrise Highway) has been subject to unauthorized activity including ATV and dirt bike use, clearing, paintball use, dumping, illegal access/trespassing, fire pits and parties, and a variety of unauthorized uses that have adversely impacted the environmental quality of the property. It is noted that a portion of the Parlato Property had been used for farming, including the planting and harvesting of corn. It is not known whether or which agricultural chemicals (particularly atrazine, a pesticide) had been applied to this area in the past. However, as the proposed project would not develop the Parlato Property, but would revegetate the former farmed area to a natural condition and then dedicate the entire property to the Town, testing of this property at this time is not warranted. The farm field is in its existing condition and would remain so; it is neither upgradient nor downgradient of the project's developed area, and so would not represent any potential locus of impact. Upon approval and prior to dedication of the Parlato Property to the Town, the Applicant shall test for pesticides and remediate any conditions which warrant action.

This Section presents information on the history and existing physical conditions of each of the component properties, and the photographs in **Appendices D-1 and D-2** depict the areas of previous impact on the Hills South Parcel/Kracke Property, and the Parlato Property, respectively.

The aerial photographs in **Appendices C-1, C-2 and C-3** depict the use and clearing history of each of the project properties. As can be seen, no development has occurred on any of these sites, and there are no structures on any of these properties.

Figure 1-4 is based upon an aerial photograph of the project site and vicinity (photograph taken in 2010); it depicts the current conditions of the subject site and surrounding areas. This figure also depicts the relationship between the proposed project site and the surrounding properties, and indicates the presence/absence of potential constraints on development of the site, based on the results of the ESAs undertaken on each component parcel, as discussed below. The figure shows that, despite the presence of several loci of concern (e.g., L1-L4, CAR-1, Pile 1 & Pile 2, and PS-1 & PS-2) that merited additional testing and analysis (see below and **Section 2.1.1**), there are no significant constraints on the Hills South Parcel/Kracke Property

The overall subject site is presently undeveloped and primarily wooded, though portions totaling 44.06 acres have been disturbed for clearing and are now bare soil surfaces (21.98 acres), brushy land (3.66 acres), or in agricultural use (18.42 acres). More specifically, three large areas of bare, sandy soil lie exposed on the Hills South Parcel/Kracke Property: one such area lies in the northerly part, and two in the central portion. Other linear and open cleared areas of lesser size are present in the Hills South Parcel/Kracke Property, along Spinney Road and along an ATV road/trail on the west side of the parcel, with other scattered clearings throughout the north-central part of the Hills South Parcel/Kracke Property. The Hills North Parcel is also vacant and wooded; LIPA-owned land traverses this parcel from the northwestern corner to the southern boundary, and then turns easterly along the southern boundary. This land is occupied by several metal towers carrying high-voltage power lines.

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FIGURE 1-4
ISSUES FOR DEVELOPMENT

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,000 feet

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The Hills at Southampton

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Spinney Road enters the site from the south, and traverses the property toward the north. However, the majority of this roadway is an unpaved dirt path to and beyond NYS Route 27, across the Hills North Parcel.

The Hills North and Hills South Parcels - Phase I and II ESAs were prepared by NP&V for the Hills North and Hills South Parcels in May and June 2005, respectively. These studies sought to establish the presence and extent of soil contamination on this property and, if detected, to sample and characterize that contamination and recommend further remedial action, if warranted. The following brief description of the Hills South Parcel's history was presented in the Phase I ESA:

> Historic aerial photographs were reviewed to determine the prior uses of the [Hills South Parcel]. Aerial photographs from 1938, 1961, 1969, 1976, 1980, 1999, 2001 [and 2010, the most-recent year available] were reviewed in order to determine if any prior uses occupied that property [see **Appendix E-1**]. The [Hills South Parcel] was wooded in the 1938 aerial photograph, however, a pond and a few trails were observed in the portion located on the west side of Spinney Road. Small areas of the southern portion of the property located on the east side of Spinney Road were farmed. Significant areas of disturbance were noted in the areas on the west and east sides of Spinney Road in the 1961 to 1980 aerial photographs. The disturbed areas were undergoing succession in the 1999 and 2001 aerial photographs.

The Phase I ESA described the physical condition of the Hills South Parcel, and noted the presence of a number of areas that warranted further examination. This is discussed in more detail in **Section 2.1.1**.

Kracke Property - A Phase I ESA was also prepared for the Kracke Property in January 2013. The following description of the Kracke Property's history was presented in that document:

> Aerial photographs from 1938, 1957, 1961, 1969, 1976, 1980, 1994, 2006, 2008, 2009 and 2011 were reviewed in order to determine if any prior uses occupied the subject property [see **Appendix E-2**]. The subject property was not visible in the 1938 aerial photograph, but the surrounding area consisted mainly of farmland and wooded land, with some areas of residential development. In all of the remaining aerial photographs, the subject property appeared to be vacant land, with farmland in the southern portion of the subject property, a cleared path along the eastern and northern edges of the subject property, and wooded land in the remainder of the subject property. The presently wooded area along the cleared path in the southern portion of the subject property appeared to be cleared and utilized as farmland in the 1957-1980 aerial photographs, and appeared to be undergoing natural succession in all of the remaining aerial photographs. The surrounding area appeared to be lightly developed with a large amount of vacant, wooded land and farmland and some residential development east and south of the subject property. In addition, an area directly northwest of the subject property appeared to be undergoing development or sand mining.

The Phase I ESA described the physical condition of the Kracke Property, and noted the presence of a number of areas that warranted further investigation (see **Section 2.1.1**).

Parlato Property - This property was also the subject of a Phase I ESA. The following narrative describes this parcel's history, as presented in that report.

Aerial photographs from 1938, 1954, 1961, 1969, 1976, 1980, 1994, 2006, 2008, 2009 and 2011 were reviewed in order to determine if any prior uses occupied the subject property [see **Appendix E-3**]. The majority of the subject property was not visible in the 1938 aerial photograph with the exception of a small wooded area on the southern property edge, but the surrounding area consisted mainly of farmland and wooded land, with some areas of residential development. In all of the remaining aerial photographs, the subject property appeared to be vacant land, with farmland in the southeastern portion of the subject property, a cleared path along the eastern edge of the subject property, and wooded land in the remainder of the subject property. The surrounding area appeared to be lightly developed with a large amount of vacant, wooded land and farmland and some residential development east and southwest of the subject property.

The Phase I ESA described the physical condition of the Parlato Property, and noted the presence of a number of areas that warrant further examination (see **Section 2.1.1**).

Application History

The Applicant gained control of the Hills Property in 2013, at which time it was determined to pursue an MUPDD. The decision to pursue an MUPDD came after a number of prior applications and acquisition efforts, as well as a moratorium, preparation of a land use plan, and upzoning of the property. A brief chronology of this history, as well as a relevant acquisition of land in close proximity to the Subject Site is provided below:

Sept. 6, 05	Property acquired by East Quogue Partners, LLC
Dec. 16, 05	Submission of Pre-Application for 111-Lot Subdivision to Planning Board
April 26, 06	Town Board adopts East Quogue Moratorium
May 4, 06	Planning Board adopts Pre-Application Report for 111-lot plan.
April 24, 07	Town Board extends East Quogue Moratorium
Oct. 23, 07	Town Board extends East Quogue Moratorium
April 22, 08	Town Board extends East Quogue Moratorium
Aug. 11, 08	Expiration of East Quogue Moratorium
Oct. 14, 08	Submission of subdivision plan and SEQRA scoping document with density reduced to 82 lots as per East Quogue LUP & GEIS
Nov. 25, 08	Adoption of Findings Statement for East Quogue LUP & GEIS by Town Board
Dec. 9, 08	Town Board rezones CR-80 and CR-120 districts to CR-200.
Jan. 22, 09	Planning Board adopts Positive Declaration for 82-lot Subdivision
March 19, 09	Planning Board adopts Final Scope for DEIS
Oct. 12, 10	Town Board agrees to acquire The Links property with County at a purchase price of $9,968,700.00 (approx. $66,500 per acre)
Oct. 12, 10	East Quogue Partners, LLC offers land to Town for open space acquisition at same price per acre as The Links property (approx. $29,000,000.00)
Nov. 12, 10	Submission of Pre-Application for expired 82-lot plan
March 24, 11	Planning Board adopts Updated Pre-Application Report
July 7, 11	County Executive vetoes acquisition
Aug. 2, 11	County Legislature overrides veto
April, 12	Town and County close title on The Links property
Feb., 13	DLV assumes major partnership interest & re-titles property
April 24, 13	Meetings with Town officials regarding PDD Pre-Application
May 2, 13	Meeting with Town Board regarding PDD Pre-Application
May 3, 13	Town makes offer to acquire The Hills property for $18,535,000.00 (approx. $43,300 per acre)

May 29, 13	Town Board Offer declined as DLV is now unwilling seller and offer is 1/3 less than market value
June 7, 13	PDD Pre-Application Submitted
Aug. 27, 13	1st Public Hearing on PDD Pre-Application
Oct. 8, 13	2nd Public Hearing on PDD Pre-Application
Dec. 6, 13	Department of Land Management Staff Report (see **Appendix A-8**)
Dec. 19, 13	Planning Board adopts Advisory Report to Town Board supporting review of a Final PDD Application
Jan. 14, 14	Town Board adopts PDD Pre-Application Report authorizing submission of Final PDD Application
Oct. 21, 14	Submission of Final PDD Application
July 14, 15	Town Board adopts Scoping Outline
Dec. 21, 15	Submission of DEIS
Feb. 19, 16	Town Board deems DEIS is "incomplete for public review"

In response to a number of Town Planning Staff comments on the PDD Pre-Application, the Applicant undertook a number of revisions to refine the project and provide additional benefits and improvements, which were described in the PDD Application. These changes result in improved access to the site, improved and expanded retention of open space and further define both Community Benefits and general public benefits, and are intended to address Town and community input received to date. These project changes include:

1. The project site has changed to include the Parlato Property (101.91 acres) in order to cluster development from that site onto The Hills South parcel and allow the Parlato Property to be preserved in total.
2. The project site has changed to include the Kracke Property (61.26 acres) in order to provide alternative access that does not require disturbance of the south part of The Hills property for access to Lewis Road and to ensure that no access will occur via Spinney Road (other than emergency access).
3. The overall yield has been changed to 118 units, by transferring the as-of-right yields of 24 units of the Parlato Property and the 12 units of the Kracke Property to the Hills South Parcel/Kracke Property. Note that, while the project has increased by 36 units from that described in the PDD Pre-Application, the increase is due entirely from the increase of 163.17 acres of the Parlato Property and the Kracke Property. Under their existing zonings, these two properties would generate 36 residences, so that <u>the project described in the PDD Application (like the PDD Pre-Application) requests only the as-of-right yield of the properties that comprise the project site – no increase in residential yield is requested</u>.
4. In conformance with the requirements of the SCSC, the project's 108 detached residences will utilize individual septic systems to treat sanitary wastewater, while the clubhouse (and the 10 club condos within it) will utilize a separate septic system. The project's septic system design would be subject to Suffolk County Department of Health Services (SCDHS) review and approval. However, the applicant committed to providing enhanced wastewater treatment based on the acceptability of such a system to the SCDHS.
5. The project includes identification of watershed improvements to benefit the Weesuck Creek watershed and western Shinnecock Bay.
6. Vehicular access to the site has been relocated from Lewis Road near Spinney Road and the LIRR to a location farther west along Spinney Road. The new site access has excellent sight distance and locational aspects.

7. The new vehicle access will be designed in a "country lane" motif, to mimic the rural character of frontages along Lewis Road; project signage and lighting at this point will be muted, and the planned attended gatehouse will be placed farther up the roadway, where it will be hidden by retained buffering.
8. The Applicant's experience with the type of second- or third-home occupancy for similar projects nationwide indicates that any school-age children that may be present would reside on the site only temporarily and/or during periods when schools are not in session, and so would not attend East Quogue UFSD, so that no impact to the district's enrollments or expenditures would occur. This will be ensured through a restrictive covenant.
9. The project will result in the permanent preservation of all 140.35 acres within the CPA; the 22.46 potential PBCs that could have been established from this acreage will be developed within the CGA portion of the site, where appropriate services are available and in a manner that will not adversely impact the environment.
10. The project will result in the offer of dedication of 188.83 acres of land to the Town (all 86.92 acres of the Hills North Parcel and the entire Parlato Property of 101.91 acres).
11. The project will cease farming activities on portions of the Kracke and Parlato Properties.
12. The project will restore natural vegetation on the previously farmed portions of the site and will restore native vegetation in previously cleared areas that are not used as part of the development.

The nature of these changes is such that most represent benefits to the community that would not have resulted from the project as described in the PDD Pre-Application. **Section 1.4.5** discusses anticipated general public benefits of the proposed project.

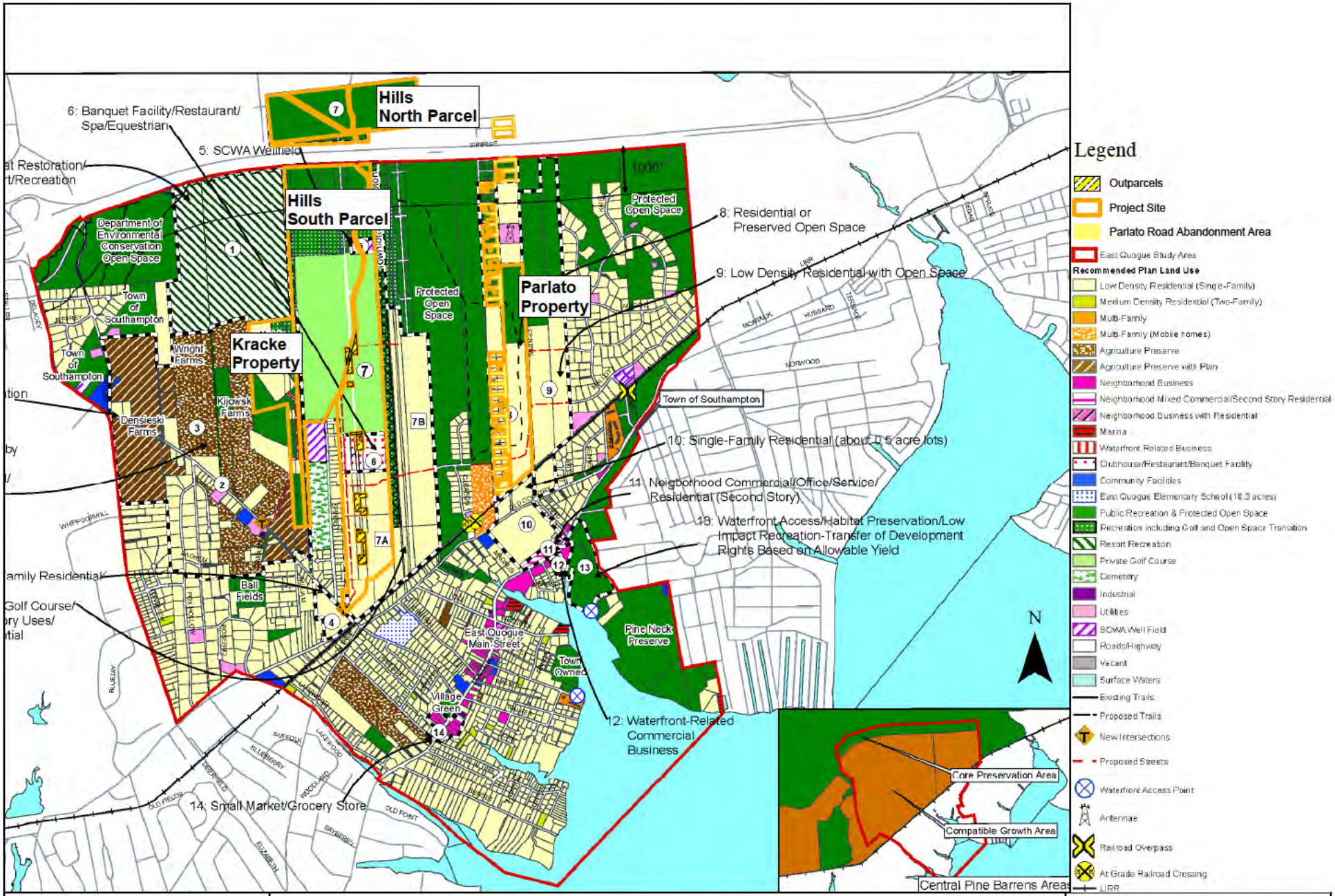
Town Board Moratorium

As noted above, the Southampton Town Board adopted Resolution 2006-396 in April 2006, which authorized a moratorium on development within a 4,100±-acre portion of East Quogue, so that a hamlet study could be prepared. The resulting study is known as the East Quogue LUP, and its potential environmental impacts were examined in the form of a GEIS. The subject site was located within the moratorium study area (see **Figure 1-5**). The moratorium expired in August 2008, at which time the subject site was rezoned from its mix of CR-80, CR-120 and CR-200 districts (see **Figure 3-6**) to the 5-acre (CR-200) zoning district that was recommended for the site by the East Quogue LUP. The proposed Hills at Southampton MUPDD is intended to and has been designed to conform to the goals and recommendations of the East Quogue LUP, as it is understood that these reflect the community's and Town's vision for the property.

Refer to **Section 3.2.2** for an analysis of the project's conformance to the pertinent recommendations of the East Quogue LUP and Findings Statement.

1.4.3 Public Need and Municipality Objectives

The proposed project is intended to fulfill the goals of the community, in that The Hills at Southampton PDD conforms to the East Quogue LUP and GEIS, eliminates the potential for school-aged children, increases tax ratables and school district fiscal benefits, reduces potential impact on groundwater as compared with as of right use, and retains significant permanently protected open space. As detailed in **Section 5.3.1**, the proposed project would not only meet the community's goal for the future use of the site as expressed in its East Quogue LUP, but the



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1-5 RECOMMENDED LAND USE, EAST QUOGUE FINAL GEIS

Source: Town of Southampton GEIS, 2008
Scale: 1 inch = 3,000 feet

The Hills at Southampton

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project would exceed those goals, as it would not include any of the more intensive uses of the site that were found to be acceptable to the public, including a public restaurant, public banquet facility, public horse stable, and public golf course.

The project would satisfy a frequently encountered public comment concerning the site, specifically, the community seeks the permanent preservation of the property as open space, for natural habitat and aesthetic purposes. The proposed project would dedicate a total of 188.83 acres of the Hills North Parcel (86.92 acres) and the Parlato Property (101.91 acres) to the Town of Southampton as permanent publicly-owned open spaces; note that the project will revegetate the 15.78 acres of agricultural land on the Parlato Property to a natural condition. Overall, 424.14 acres (or 71.77%) of the site will be permanent natural open spaces in either public or private ownership. The project will also revegetate a total of 17.39 acres of currently unvegetated, agricultural and brushy cleared land on the privately-owned Hills South Parcel/Kracke Property to a natural condition.

The proposed project conforms to the recommendations of the East Quogue LUP and GEIS, as well as to the Town's PDD zoning ordinance (see **Section 3.2.2**), and the standards and guidelines of the CPB CLUP. The project will result in an environmentally-sound development that conforms to the resort, recreational recommendations of the East Quogue LUP, and will eliminate adverse impact on the East Quogue UFSD while maximizing tax revenue generation and fiscal/economic benefits to the community.

The proposed Hills at Southampton MUPDD will provide a substantial number of Community Benefits, which would not have been provided by other, as-of-right development. The value of these benefits is substantial and is outlined in detail in **Section 1.4.6**.

1.4.4 Objectives of the Project Sponsor

The Applicant is seeking to create a seasonal resort community for second, third and fourth owners in keeping with their successful business model that has been used in other areas of the country as well as in the Bahamas and Mexico. The Applicant seeks to invest in the community, provide a project that conforms to the Town's land use plans for the site, provide substantial Community Benefits, and ultimately, realize a financial gain from the development of a high-quality resort community. The Applicant further seeks to protect and enhance the environmental resources of the site and restore and improve natural and water resources permanently, through innovative design and use restrictions. As stated by the applicant,

> Discovery Land Company's core philosophy is to enhance the natural character and cultural heritage of each property it develops in order to create a unique sense of place that truly captures the innate spirit of the land itself. Within the ideal setting of East Quogue, Discovery Land Company will demonstrate a commitment to environmental sensitivity through preservation and protection of natural resources, architectural design for resilience, adaptation and harmony as well as providing sustainability measures.

1.4.5 Benefits of the Proposed Project

General Project Benefits

In addition to the Community Benefits quantified in **Table 1-7** below, a number of the features of the proposed project, including those associated with the project revisions noted above, will generally benefit the neighborhood and public at large, and include:

General Water Resources-Related Benefits

1. The Hills at Southampton will install an irrigation well to intercept existing elevated concentrations of nitrogen in groundwater due to upgradient historic farming, and will utilize the water pumped from this well to irrigate the golf course; this will reduce the quantity of fertilizer needed to maintain healthy turf, and will ensure plant uptake of nutrients such that a portion of the nitrogen will be removed from the groundwater system that would otherwise have discharged to Shinnecock Bay. This will provide for partial mitigation of the current nitrogen load to Shinnecock Bay.
2. In conformance with the requirements of SCSC Article 6, the project's 108 detached residences will utilize individual septic systems to treat sanitary wastewater, while the clubhouse (and the 10 units within it) will utilize a separate septic system. The project's septic system design would be subject to Suffolk County Department of Health Services (SCDHS) review and approval. In terms of the number of people on the property, the intensity of use of the site is reduced as a result of the expected seasonal, temporary occupancy of this form of residential development.
3. The applicant remains committed to providing the highest possible standard of wastewater treatment (and hence, of groundwater quality protection) by use of an enhanced wastewater treatment, based on the acceptability of such a system to the SCDHS.
4. The applicant will install a system of impervious liners beneath the golf course greens to contain recharge, and if there is overflow, divert stormwater that infiltrates through the greens into rain gardens to be biologically treated before it is recharged.
5. Due to its seasonal use, strictly managed golf course, conformance to the Town CPB Overlay District and the CPB CLUP, and restriction on use of fertilizer-dependent vegetation, the proposed project is expected to reduce nitrogen loading in recharge compared to as-of-right development (which homes would, unlike the proposed project, be occupied year-round), with no significant adverse impact on groundwater quality.
6. In consideration of the water quality-protective measures incorporated into its design, the proposed project is not expected to adversely impact the quality of surface water in Weesuck Creek or Shinnecock Bay, due to the reduced residential occupancy, landscape fertilizer limitations, conformance to SCSC Article 6, and the planned best management practices to be implemented for the landscaped portions of the golf course.
7. An Integrated Turf Health Management Plan (ITHMP) has been prepared, to document the balance achieved between the requirements of healthy golf course turf and protection of groundwater quality. Maintaining healthy turf with minimal use of fertilizers and pesticides ensures maximum uptake of nutrients applied as fertilizer.
8. Groundwater Monitoring Protocols (GMPs) have been prepared, to document the efforts to be taken to ensure that groundwater quality is protected by implementing the ITHMP. Such measures have been successfully implemented at other golf courses on Long Island's East End, including as Sebonack and The Bridge.
9. The project will cease farming on portions of the Kracke and Parlato Properties; this will reduce existing nitrogen loading that occurs under current conditions at the property.

General Ecological Resources-Related Benefits

1. The project will result in the offer of dedication of 188.83 acres of land to the Town (The Hills North Parcel/86.92 aces and the Parlato Property/101.91 acres). These lands will align with other contiguous publicly-owned lands and complement the open space continuum in East Quogue.
2. Including the dedicated lands, the project will preserve a total of 424.14 acres of natural land for use by wildlife as habitat.
3. The project will includes "tip-up" curbs, to ease movement across roadways for small animals.
4. The project will include bird and bat boxes, for wildlife use and to help control mosquito populations.

General Land Use, Zoning and Plans-Related Benefits

1. The project's conformance to the applicable recommendations of the various land use plans would benefit the community by reducing the ability of future applications in the area to justify development that does not conform to such controls – the proposed project would set a beneficial precedent. In this way, the community would be assured that its input and growth goals are realized.
2. The proposed project's yield of 118 units represents the same overall residential yield of the project sites if developed under their existing zonings, so that <u>the MUPDD Application requests only the as-of-right yield of the properties that comprise the project site – no increase in yield is requested</u>.
3. The proposed project will permanently protect the Hills North Parcel and the Parlato Property from potential future development, and will incorporate their yield into the proposed project on the Hills South Parcel/Kracke Property, where development will be clustered, strictly controlled and used at less intensity than if these properties were developed individually.
4. The project complements and enhances land uses adjacent and in the community at large.
5. The proposed golf course will occupy previously-impacted parts of the site, which represents a low-intensity land use, and is configured to retain maximum natural habitat.

General Community Character-Related Benefits

1. The proposed project would establish uses on the site that, with the anticipated average occupancy of approximately 60 days per year, would have a significantly lower overall intensity of land use (based on water use, need for and cost of community services etc.) than would result if the site were to be developed with a typical 118 single-family homes under its existing CR-200 zoning. In this case, the community would be assured of a permanent site use that would not significantly contribute to any diminution of community character.
2. The new vehicle access will be designed in a "country lane" motif, to mimic the rural character of frontages along Lewis Road, and the planned attended gatehouse will be placed farther up the roadway, where it will be hidden by retained buffering.
3. The proposed project will incorporate sustainable design features, which would tend to promote the use of this beneficial design ethos elsewhere in the Town and region, for the benefit of the community at large.

General Transportation Resources-Related Benefits

1. The proposed residential component is intended for seasonal occupancy, so that its vehicle trip pattern would result in reduced traffic impacts than if the residences were primary residences.
2. No new road will be created for the development; access will be taken from the existing mapped and approved road alignment for the Kijowski Family Farm subdivision.
3. The lone vehicle access into the site has been relocated on Lewis Road from a point near Old Country Road and the Long Island Rail Road (LIRR), to a more suitable location along Lewis

Road, so that minimal potential for adverse traffic and traffic-related impacts on residences will occur.

General Economics and Community Facilities & Services-Related Benefits

1. The proposed project is expected to provide a significant increase in property tax revenues to the Town, local taxing agencies and all applicable community service providers, without a corresponding significant increase in the need (or associated cost) for increased services.
2. The Applicant proposes to recruit from the local labor pool for both the construction and post-construction periods, for jobs such as clubhouse operations and maintenance personnel, golf course caddies, and operations and maintenance personnel.
3. The Applicant proposes to preferentially source services from local vendors.

In addition to the general benefits described above, there are a number of benefits that would occur as a consequence of assembling multiple land holdings into one cohesive project, enabling the public benefits inherent in and sought by the PDD concept to be realized. More specifically, DLC has placed the Kracke and Parlato Properties in contract and incorporated them into the proposed project. Benefits associated with this action include the following:

1. With respect to the Parlato Property, there would be no need to seek further access through the adjacent site of the defunct The Pines project, or across the LIRR, as was recommended in the East Quogue LUP.
2. The Parlato/Kracke density/units will be incorporated into the proposed project, which will subject them to all of the attendant development restrictions of the proposed project, including environmental and sewage disposal restrictions and the elimination of school-aged children attending the East Quogue UFSD.
3. The transfer of the density to the project site will fulfill the East Quogue LUP, the regional Western GEIS, the Town Comprehensive Plan, and the CPB CLUP goals and objectives to transfer development to the subject property, which is recognized as a site for more intensive development and a transferred development rights (TDR) receiving site.
4. The dedication of the Parlato Property and The Hills North Parcel to the Town for open space allows more contiguous block of open space, which will have tremendous environmental benefits from the open space continuity, such as public recreation and habitat value.
5. The dedication of the Parlato Property fulfills municipal open space preservation objectives and will likely promote further preservation of the parcels surrounding the Parlato Property, particularly old filed map parcels.

<u>Fiscal Benefits</u>

The anticipated fiscal impacts of the proposed project are detailed in the document, "Fiscal and Economic Impact Analysis and Assessment of the Project Needs and Benefits," which is contained herein in its entirety in **Appendix F**. The following has been taken from that report.

- For taxing purposes, the total estimated market valuation of the proposed project is approximately $372.4 million [see **Table 1-4**].[5]

[5] The total estimated market valuation of the proposed project was prepared in coordination with the Southampton Town Assessor, which confirmed their methodology for determining assessed valuation for both the residential component of the proposed project as well as the golf-course and related components. For the single-family residential component of the project, the assessed valuation was based on the estimated selling price of each unit, which should in essence, equal market value at the time of sale. For the condominium, golf-course and related

- The proposed project will significantly increase taxes generated by the site, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. Upon the completed sale of all housing units, full build-out of the golf course and a stabilized year of operations, the proposed project is estimated to contribute over $4.5 million[6] in annual tax revenue.

Table 1-4
ESTIMATED ASSESSED VALUATION

Type of Use	Number of Units	Estimated Selling Price	Assessed Valuation
Single-Family Residential Units	108	---	$345,500,000
Woodland Estate Homes	*26*	*$4,125,000.00*	*$107,250,000*
Village Lots	*53*	*$2,800,000.00*	*$148,400,000*
Village Estate Homes	*16*	*$3,300,000.00*	*$52,800,000*
Club Cottages	*13*	*$2,850,000.00*	*$37,050,000*
Club Condos	10	---	$12,473,680*
Golf Course and Related Use	---	---	$14,418,000*
Full Market Valuation			$372,391,680
Equalization Rate			100.00%
Total Assessment			**$372,391,680**

Source: Data provided by DLV Quogue, LLC; Southampton Town Assessor; Analysis by Nelson, Pope & Voorhis, LLC.
* This component of the project's assessed valuation was determined by the Southampton Town Assessor.

- Upon full build-out, the proposed project will levy approximately $3.4 million to the East Quogue UFSD. This levy accounts for the limitations on the school district, per the tax levy 2% cap, which limits the amount of taxes that the school district can request from year to year (the lesser of 2% or the rate of inflation). Full details on the school tax levy are provided in **Appendix F**.
- An increase in the taxable value of the land within the Town will lower the school tax rate. This decrease in the school district tax rate would therefore lessen the burden on other taxpayers in the school district, translating into an annual savings of approximately $919 for the average homeowner residing within the school district.
- The proposed project will levy over $130,000, or 2.9% of the taxes, to the Library District.
- Over $77,000, or 1.7% of the total tax revenues, are projected to be distributed to Suffolk County.
- Approximately 11.8% of the tax revenue is projected to be levied to the Town of Southampton, which includes the Southampton Town General Fund, Highway Fund, Police Fund, Emergency Dispatching Fund, Part-Town Outside of Villages Fund, and the Out of County Tuition Fund. These six line items combine to total $533,637 in projected tax revenues.
- The East Quogue Fire District is projected to levy over $267.000, or 5.9% of the total tax revenue

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components of the proposed project, the assessed valuation was actually prepared by the Southampton Town Assessor, and based on the income-approach, which examines the revenues anticipated to be generated by this component of the project. Applicable correspondence from the Town Assessor pertaining to appropriate methodology is included in **Appendix F, Attachment B**.

[6]. It is important to note that there will be an incremental tax increase that would be realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise, upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project.

generated by the proposed project.

- The balance of the current property tax revenues are projected to be apportioned to various other local taxing jurisdictions including New York State Real Property Tax Law, New York State MTA Tax, and the East Quogue Lighting District.
- While a maximum potential of 130 school-aged children could reside at the proposed project, it is important to note that the residential component of the proposed project involves second homes used for vacations and "getaways" by owners. The Applicant's experience with the type of second- or third-home occupancy for similar projects nationwide indicates that any school-age children that may be present would reside on the site only temporarily and/or during periods when schools are not in session. This will be ensured through a voluntary covenant provided by the Applicant that no children from the proposed project will attend the local public schools of the East Quogue UFSD. The proposed project will not contribute children to the school district or require the same service demand as fully occupied primary residences.
- It is estimated that the school district will receive additional property taxes from the proposed project, without incurring the expenditures associated with educating an increase of students in the district. This net revenue could ease the district's need to tap into additional fund balances, and reduce their financial burden. These revenues are most crucial during a time of fiscal and economic hardships throughout the East Quogue UFSD, as well as throughout Long Island, New York State and the nation.

A summary of the project's key fiscal findings discussed above is provided in **Table 1-5**.

Table 1-5
SUMMARY OF KEY FISCAL FINDINGS
Proposed Project

Fiscal Parameter	Impact
Total Residents (maximum potential seasonal)	444
School-Aged Children (maximum potential if not seasonal)	*130 (1)*
Expenditures Incurred by School District by Project	$0
Projected Total Tax Revenue: Proposed Project[7]	$4,513,946
To East Quogue UFSD	*$3,431,031*
To Library District	*$130,709*
To Suffolk County	*$77,830*
To Town of Southampton	*$533,637*
To Other Local and Special Taxing Jurisdictions	*$340,738*
Net Annual Revenue (Impact) on School District	$3,431,031

Source: Analysis by Nelson, Pope & Voorhis, LLC.
(1) Will not attend East Quogue UFSD due to restrictive covenant.

[7] It is important to note that there will be an incremental tax increase that would be realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise, upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project.

Economic Benefits

The anticipated economic impacts of the proposed project are also detailed in the report presented in **Appendix F**. The following has been taken from that report. It is important to note that during construction, each of these impacts are temporary and are projected to occur only while the proposed project is being constructed. Economic impacts generated during operations; however, are permanent and on-going and they are projected on an annual basis, assuming continued stabilized operations.

- For the purpose of this analysis, it is anticipated that construction of the proposed project will commence in the second half of 2017, and will be complete after approximately six (6) years, culminating at the end of 2022.
- The construction period is projected to represent a total of approximately $227.6 million in investment. This direct output is projected to generate an indirect impact of over $70.7 million, and an induced impact of over $103.8 million, bringing the total economic impact on output to over $402.1 million during the construction period.
- It is projected that the construction period will necessitate 310.0 full time equivalent (FTE) employees. For the purpose of this analysis, it is assumed that the same basic construction crew will be utilized from the commencement until the culmination of construction, lasting six (6) years in duration.
- The 310.0 FTE jobs created during the construction period will have an indirect impact of 534.5 FTE employees and an induced impact of 734.1 FTE employees in other industry sectors, bringing the total impact of construction to 1,578.6 FTE jobs during the construction period. This job creation – direct, as well as indirect and induced – is most crucial during Long Island's present economic state, and presents opportunities for persons who remain unemployed throughout the Town and the region.
- Labor income from the construction jobs are projected to amount to $66,651 per year, per employee. This represents over $120.2 million in collective earnings among the 310.0 FTE construction employees. This labor income is projected to have an indirect impact of over $26.2 million and an induced impact of over $35.7 million, bringing the total economic impact of the construction to over $182.2 million in labor income.
- For the purpose of this analysis, it is assumed that the proposed project will begin the operational phase of development upon the completion of the construction period, anticipated to occur by the end of 2021. For the purpose of this analysis, a stabilized year of operations is assumed to occur in 2022.
- The proposed project is projected to generate over $12.6 million in annual operational revenues, stemming from annual golf course and homeowners/condominium association revenues. This generates an estimated $350,000 in annual taxes.
- The direct operational revenues are projected to generate an indirect impact of over $3.3 million and an induced impact of nearly $5.5 million per year. This increased output is generated through round-by-round sales made at various merchants in other sectors of the regional economy. These include local retailers, service providers, banks, grocers, restaurants, financial institutions, insurance companies, health and legal services providers, and other establishments in the region.
- The sum of the direct, indirect and induced impacts results in a total economic impact on output of over $21.4 million during annual operations.
- It is estimated that the development will generate approximately 101.8 full-time equivalent (FTE) positions during annual operations.
- The 101.8 FTE direct employment positions are projected to result in an indirect impact of 18.7 FTE jobs, and an induced impact of 34.1 FTE jobs throughout the region, bringing the total economic impact of operational employment to 154.6 FTE jobs.

- The 101.8 FTE employees are anticipated to earn a total of approximately $6.6 million in collective labor income. This direct labor income is projected to result in an indirect impact of over $1.0 million and an induced impact of over $1.8 million, bringing the total economic impact of labor income to nearly $9.5 million during annual operations.

A summary of key economic findings is provided in **Table 1-6**. It is important to note that during construction, each of these impacts are temporary and are projected to occur only while the proposed project is being constructed. Economic impacts generated during operations; however, are permanent and on-going and they are projected on an annual basis, assuming continued stabilized operations.[8]

Table 1-6
SUMMARY OF KEY ECONOMIC FINDINGS
Proposed Project

Impact Type	Output (Revenue)	Employment (Number of Jobs)	Labor Income (Wages)
Economic Impact During Construction			
Direct Impact	$227,630,000	310.0	$120,258,000
Indirect Impact	$70,703,690	534.5	$26,249,084
Induced Impact	$103,802,935	734.1	$35,766,485
Total Impact	$402,136,625	1,578.6	$182,273,569
Economic Impact During Annual Operations			
Direct Impact	$12,627,876	101.8	$6,615,409
Indirect Impact	$3,327,201	18.7	$1,005,603
Induced Impact	$5,479,468	34.1	$1,860,451
Total Impact	$21,434,545	154.6	$9,481,463

Source: Direct impact of output, employment and labor income provided by DLV Quogue, LLC; Analysis by Nelson, Pope & Voorhis, LLC, via IMPLAN software.

Restrictive Covenant on Occupancy and Local Public School Attendance

The nature of the project is such that the 118 residences would not be utilized by their owners as full-time residences, but would be "second home" units (or even third or greater based on other DLC communities) that would not be occupied on a year-round basis. Corporate experience with its other, similar developments indicates that nearly 99% of owners at DLC's five most recent communities are part-time residents. A similar part-time to full-time residential profile is expected to occur at the Hills at Southampton due to the DLC business model, expected unit purchases by existing DLC members, seasonality caused by the resort and social trends of the area, climate, and the full-scale clubhouse operational and service programming offered during the summer peak season only. In addition, the affluent target buyer profile likely has other personal residences (including those at other resort destinations such as DLC members) that will limit their use of The Hills at Southampton property.

[8] The Economic Impact Analysis prepared as part of **Appendix F** examines the impact on output, employment and labor income during the construction of the proposed project. More detailed information pertaining to the annualized construction impact on the number of direct employees can be found in **Section 1.7**, and **Table 1-16**.

Based on DLC experience at its other similar facilities (see **Appendix A-5**), it is anticipated that the residents of The Hills at Southampton will utilize their homes approximately 60 days per year, on average, for family summer vacation retreats to golf, enjoy the beach, attend social and business events, and seek city reprieve. The residential occupancy patterns and trends mentioned above are expected to result in minimal impacts on East Quogue and the Town of Southampton's public services and infrastructure. It is however expected that owners will patronize local establishments and support the local economy when they are present at project site.

Appendix A-6 contains a draft of the proposed restrictive covenant to be voluntarily offered and filed by the Applicant, by which occupancy of the 118 residences will be regulated. The following has been taken from the draft covenant:

> WHEREAS, The Hills at Southampton is intended to be developed and operated as a seasonal resort community with a uniform plan for the use, occupancy, ownership, improvement of all residential lots and units in said project for the benefit of the present and future owners of said residential lots and units; and
> WHEREAS, development and operation of the resort amenities and occupancy of the residential lots and units of The Hills at Southampton on a seasonal basis has been recognized to provide significant environmental, social and economic benefits to the East Quogue community, and the Town of Southampton; and lessen potential impacts to the East Quogue School District; and
>
> WHEREAS, Section 330-248 ___ of the Zoning Law states:
> The residences at The Hills at Southampton are intended to be occupied on a seasonal basis and are not intended to be occupied as a place of primary legal residence and/or domicile. Therefore, the planned seasonal occupancy of the residential lots and units on The Hills at Southampton shall be restricted as follows:
> (a) The lots and/or units shall not be occupied as a place of primary legal or permanent residence and/or domicile;
> (b) Between May 1 and October 15: no time limits on occupancy, provided, however, that the total number of days of occupancy in any calendar year shall not exceed one-hundred-eighty-three (183) days;
> (c) Between October 16 and April 30 of following year: a lot or unit may not be occupied for more than thirty (30) consecutive days or an aggregate of sixty (60) days.
>
> To guarantee compliance with this condition the applicant shall submit a Declaration of Covenants in a form approved by the Town Attorney and record such Declaration of Covenants with such restrictions as set forth above in the Office of the Suffolk County Clerk prior to the issuance of a Certificate of Occupancy.

The covenant will be voluntarily offered by the Applicant, and would apply to the overall development and each future homeowner, to be clearly disclosed as part of the future sale of the units, and will be enforced by the HOA that will own and operate the common elements of the project as well as the Town through the C&R and PDD approval.

Using standard per-unit multipliers published by Rutgers University's Center for Urban Policy Research for the size and anticipated selling prices of the four types of residences, if the dwellings were occupied on a year-round basis, a maximum potential of 444 occupants would be

anticipated, of which 130 would be expected to be between the ages of 5 and 17 years. No such occupancy will occur as a result of the proposed project as previously indicated.

Based on the foregoing, the 118 residential units represent a lower-intensity residential use than a standard residential subdivision. These units would not result in an enrollment impact on the local school district. In addition, as the occupants would not be employed locally, they would not participate in work-related traffic or commuting, and as a result, traffic impacts would be less, particularly during peak hours.

1.4.6 Community Benefits of the Proposed Project

First and foremost, it should be acknowledged that, as defined under Town Zoning Code Section 330-240D, Community Benefits are required for a proposed PDD <u>where there is a request for an increase in yield (over that of as-of-right yield) that typically is sought for such a proposal</u>. However, the proposed project does not seek an increase in residential density over the yield that would be realized under its existing zoning. The existing CR-200 zoning would yield 118 residences, which is the same as that of the Hills at Southampton. Furthermore, the residential use proposed involves resort residences that are not occupied year-round and do not result in school enrollment increases, thereby reducing the intensity of use as compared with the as-of-right yield of 118 year-round homes. The proposed project does include a golf course use in addition to resort residences, thus providing an active recreational amenity. But the golf course (and its associated clubhouse) is an amenity limited to only the owners of the project's residences; it is not a facility that will be available for the use of the general public (except as provided for during the six (6) annual events to benefit local charities and the community). As a result, the project does not result in an increase in the intensity of use compared to what could be developed on the site as-of-right. Nevertheless, the proposed project includes an extensive (and costly) array of Community Benefits, which are discussed below.

Town Zoning Code Section 330-245 I, provides a listing of criteria which the Town Board is to consider when determining the validity of a proposed Community Benefit. Of particular note is 330-245 I (2), which includes the following:

(2) The value to the Town and hamlet of achieving the proposed development or redevelopment project in the project location, including, but not limited to, whether the project:
- (a) Advances the goals of the Town's Comprehensive Plan and other adopted plans relevant to the project location;
- (b) Eliminates a nonconforming use;
- (c) Meets an established community need;
- (d) Involves site rehabilitation or reclamation;
- (e) Will set a model for future area development or redevelopment; or
- (f) Stimulates desired economic development activity;

A number of the proposed Community Benefits satisfy the criteria in (2)(a), (e) and (f) above, by:

(a) the project is specifically designed to address the recommendations of the East Quogue LUP for this specific site (and thereby advance the plan's goals, by supporting uses recommended by it),
(e) the project sets the standard by which future development or redevelopment in the area will occur, by way of its sensitive site design, facility operations & management, and use of advanced technologies in implementing measures to mitigate existing surface water issues, and to protect groundwater supplies;
(f) by increasing employment in the area, by increasing the number of potential patrons of local businesses, by rehabilitating impacted portions of the project properties to enhance their open space quality (and thereby their potential visitation), and by providing a number of needed and useful community improvements.

The validity of a proposed Community Benefit as sufficient with respect to the Town's PDD law is defined by NYS Town Law Part 261b. That regulation states, *"Community benefits or amenities shall mean open space, housing for persons of low or moderate income, elder care, day care, parks or other specific physical, social, or cultural amenities, or cash in lieu thereof, of benefit to the residents of the community authorized by the town board."(emphasis added)* The applicant submits that the roster of proposed Community Benefits would satisfy this requirement, by providing significant amounts of open space, improvements to a public school playground, specific physical, social and cultural amenities in the form of bay protection strategies, as well as significant cash donations to entities that can accomplish needed community goals. Additionally, substantial other Community Benefits would accrue that are not readily quantifiable, such as the reduction in nitrogen and other chemical substances recharged to groundwater due to the project's use of existing groundwater with elevated nitrogen for golf course irrigation, minimal use of fertilizers, biological uptake of nutrients, etc. This aspect of the project would help to maintain current groundwater quality (thereby protecting water supply) as well as current surface water quality in Weesuck Creek and Shinnecock Bay (from groundwater outflow).

The items listed in **Table 1-7** represent the Community Benefits of the proposed project as described in this MUPDD Application. The table provides a description of the benefit and identifies the dollar value of each benefit, with supporting information provided as to how value was determined. Additional information describing the Community Benefits in more detail, as well as information on how the benefits would be implemented is contained in **Table 1-7**. The project plan for the MUPDD Application will provide a wider range of benefits to the community than would have been realized by the plan as described in the PDD Pre-Application document. These benefits reflect the evolution of the project and the range and extent of public outreach and planning efforts undertaken by the Applicant.

Appendix A-9 contains a copy of the Letter of Understanding between the applicant and East Quogue UFSD documenting the Community Benefits to be provided by the applicant to that community service.

A benefit analysis was prepared to evaluate one-time benefit value, annual benefit value which is then illustrated over a fifty (50) year time period, as these benefits will recur annually and will accumulate over time. All long-term Community Benefits assume an industry-standard annual inflation factor of 3% for each of the 50 years under analysis. This factor was applied to each

benefit to accurately project the long-term Community Benefits that will accrue from the annual operations of the proposed project.

Based on the above table and its accompanying notes, the project will provide the following Community Benefit values:

- Single time Community Benefits of: $4,898,290
- Annual Community Benefits of: $13,413,374
- Compounded 50-yr. Community Benefits with 3% annual inflation factor: $1,512,986,567

The Community Benefits identified above and the public benefits identified above are the natural outgrowth of the MUPDD that is proposed as The Hills at Southampton project, whether as a result of its necessary conformance to land use controls or the regular business practice of the applicant to construct high-quality development projects.

It is also noted that none of the proposed Community Benefits would otherwise be required for development of the subject site under existing zoning, through the subdivision, SEQRA, or other regulatory review process. Each and every one of the proposed Community Benefits was determined between the applicant and appropriate members and/or entities of the community through an interactive discussion process. Thus, the proposed Community Benefits represent a true set of measures desired by the community and amenable to the applicant.

Table 1-7 briefly describes how each of the project's Community Benefits will be implemented. It assumes that the project would follow the implementation schedule, and would commence at the time the project receives full and final approval from the various Town and County reviewing entities, which is tentatively expected in June of 2017.

It should be noted that a number of entities within and outside of the Town of Southampton will have jurisdiction over the administration of a number of the Community Benefits, so that more detail cannot be provided by the Applicant at the present stage of the project review process. It is acknowledged that the final determination as to how each Community Benefit will be administered will be at the discretion of the Town Board (in its function as SEQRA lead agency), the details of which will be included in its Findings Statement.

1.5 Project Area Location

The subject site is located in the hamlet of East Quogue, Town of Southampton, and is comprised of four (4) separate land holdings in three distinct properties. The project site is located generally northeast of Lewis Road and north of the LIRR right-of-way in the vicinity of Spinney Road, East Quogue, and extends northward to and beyond NYS Route 27 (aka Sunrise Highway).

Table 1-7
COMMUNITY BENEFITS

Benefit	Description of Community Benefit	Implementation	Estimated Benefit Value	
			One-Time	Annual
		East Quogue UFSD Benefits		
1	No enrollment impact for EQ UFSD, ensured through restrictive covenant	This benefit would go into effect immediately; simply put, there would be no increase in district enrollment from the residences on the project site. This would be enforced by the project's covenant.	-	-
2	Increased school district taxes generated by the project site	The increase in school district taxes would, due to the 2% tax cap, result in a reduction of the school district tax rate for district taxpayers	-	$3,431,031
3	Use of the site for EQ UFSD educational programs	The use of the site for school district educational programs would commence at the time the project receives full and final approval from the various Town and County reviewing entities (tentatively expected in June of 2017), acknowledging that such access would be compromised in areas when heavy construction occurs in them. However, this should not affect any activity in preserved areas.	-	$75,000
4	Allow Westhampton Beach High School golf teams to practice at the golf course	The access to the golf course for the Westhampton Beach High School golf teams would commence immediately upon completion and opening of the golf course, anticipating a 24-month construction period for this feature. Tentatively, the golf course is estimated to be completed and opened in June 2019, after a construction start date of June 2017.	-	$26,880
5	Annual EQ UFSD charity outing (based on cost for facility) (1)	The first charity outing for the East Quogue UFSD will take place in the fall of 2019 and will take place every year thereafter.	-	$72,000
6	Fund two college scholarships for graduates of EQ UFSD, awarded for 10 years	The scholarship program will be funded immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. Awarding of scholarships will commence in the following year, for the benefit of the senior class in the school year of 2017-2018.	$200,000	-
7	*Contribution to EQ UFSD Capitol Improvement Fund*	The contribution to the East Quogue UFSD Capitol Improvement Fund will occur immediately on full approval and will be paid in full. DLC will be responsible for the construction the playground, which would occur in the summer of 2017.	*$500,000*	-
	Improvements to EQ Elementary School Playground		*$200,000*	-
	Total EQ Elementary School improvements:		$700,000	-
Total Dollar Value of EQ UFSD Benefits			**$900,000**	**$3,604,911**
		Water Resources-Related Community Benefits		
1	Annual charity outing for water quality communal fund (based on cost for facility) (1)	The first charity outing for the water quality communal fund will take place in the fall of 2019 and will take place every year thereafter.	-	$72,000
2	Discovery Foundation fund-raiser for Shinnecock Bay Restoration (after 5 years)	The Discovery Foundation fundraiser will take place in the summer of 2024.	$350,000	-
3	Facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for EQ residents (2)	This $1 million contribution will be paid in full by DLC, and will occur immediately upon the receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017, in order to ensure that the money is spent as soon as possible. The name of this fund and the mechanisms for paying it need to be specified by the Town.	$1,000,000	-
4	Restoration of impacted eelgrass	The funds for eelgrass restoration, clam racks and upwellers, and shellfish seeding will be made available by DLC immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds and determine in what proportions this money will be spent. The Applicant suggests that this function be performed by a combination of SUNY/Stony Brook and the Town Trustees.	$350,000 (3)	-
5	Participate in funding restoration of Bay by seeding filter-feeding bivalves			
6	Install clam racks & upwellers			
7	Dedicate 4 acres of land to SCWA for a new wellfield	The Applicant will dedicate the four acres of land to the SCWA immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$220,000	-
8	Participate in funding natural resources research and education	DLC will provide funds for natural resources research and education will be made available on full and final approval of the project. The Town will specify the entity that will administer these funds and determine in what proportions this money will be spent. The Applicant suggests that this function be performed by a combination of SUNY/Stony Brook and the Shinnecock Bay Restoration Project.	$150,000	-
9	Participate in funding comprehensive study of nitrogen in Shinnecock Bay	DLC will provide funds for the comprehensive nitrogen study of Shinnecock Bay at the time the project receives full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds. The Applicant suggests that this function be performed by SUNY/Stony Brook.	$50,000	-
10	Contribute to funding clean-up of storm drains in East Quogue	DLC will provide funds for the clean-up of storm drains in East Quogue immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017, and will continue annually thereafter. The Town will specify the entity that will administer these funds.	-	$25,000
11	Maintain database quantifying watershed nitrogen reduction due to project	DLC will fund the creation of a watershed database immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017. The Town will specify the entity that will administer these funds. The maintenance costs of the database will commence at that time, and DLC will continue to fund maintenance costs on an annual basis.	$50,000	$5,000

Total Dollar Value of Water Resources-Related Community Benefits			**$2,170,000**	**$102,000**
		General Community Benefits		
1	Charity outings (3/year, including one for EQFD; based on cost for facility) (1)	The first charity outing for the EQFD and the two outings for the Town will take place in the fall of 2019 and will take place every year thereafter.	-	$216,000
2	Fund purchase of land for new EQFD facility	DLC will fund the acquisition of land for the EQFD immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$412,500	-
3	Provide additional parking for downtown East Quogue	DLC will fund the acquisition and construction of the municipal parking lot in the East Quogue hamlet center immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$650,000	-
4	Restore habitat on the Hills South Parcel and the Kracke and Parlato Properties	DLC will fund the habitat restoration, which is anticipated to take place over a two year period, commencing immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$663,400	-
5	Creation of new permanent seasonal operational jobs in the area, per Town Code Section 330-245I.(2)(f) :	DLC anticipates that the jobs created by the project will be filled over the four-year period 2017-2021.	-	-
	Direct jobs (101.8 FTE)		-	*$6,615,409*
	Indirect jobs (18.7 FTE)		-	*$1,005,603*
	Induced jobs (34.1 FTE)		-	*$1,860,451*
	Total income of new permanent seasonal operational jobs		-	$9,481,463
6	Donation to facilitate East Quogue Renaissance	DLC will provide funds for the East Quogue Renaissance immediately upon receipt of full and final approval from the various Town and County reviewing entities, tentatively expected in June of 2017.	$100,000	-
7	East Quogue signage (3 signs)	DLC would fund and install the noted signage.	$2,390	-
8	Annual event; one-day public access to golf course; maximum of 120 players (1)	The first public golf event/charity outing will take place when the course has been completed, which is anticipated in the fall of 2019, and will take place every year thereafter. All proceeds will be donated to a local charity, to be determined by the host entity.	-	$9,000
Total Dollar Value of General Community Benefits			**$1,828,290**	**$9,706,463**
TOTAL DOLLAR VALUE OF ALL COMMUNITY BENEFITS			**$4,898,290**	**$13,413,374**

(1) Total of 6 charity events annually; no other large special events proposed.
(2) To be prioritized based on maximum nitrogen reduction and availability of receptive residences and commercial/institutional establishments. And, will install septic systems using the best available technology on the project site.
(3) Does not include the value of the ecological services to be provided by the eelgrass, bivalves and clams.

East Quogue UFSD Benefits

1. Benefit to be realized in the form of an adverse impact (an enrollment increase) that will not occur. This impact elimination means that there will be no increased school district expenditures necessary as a result of the project.
2. School taxes.
3. Based on direct value to EQ UFSD; includes transportation ($25,000) and program value ($50,000).
4. Based on 16 players twice weekly over 28 week season, greens fee of $30/player /round (fee for Suffolk County Parks Dept. courses).
5. Based on 72 participants, at $1,000 each.
6. Donation of funds.
7. Donation of funds.

Water Resources-Related Community Benefits

1. Based on 72 participants, at $1,000 each.
2. Donation of funds.
3. Assuming $60/gallon, 41,814 gpd; to be applied so as to benefit water quality of western Shinnecock Bay.

4-6. Donation of funds; to be applied under oversight of Town Trustees.

7. Based on estimate of current value of raw land of $55,000/acre.

8-10. Donation of funds.

11. To be made available to the public, possibly on project website, in GIS format.

General Community Benefits

1. Based on 72 participants, at $1,000 each.
2. Value of donated land based on estimate of current value of raw land.
3. Donation of funds; see **Figure 1-6** for location and configuration of this parking lot.
4. Based on estimate of cost of restoration of $20,000/acre, for 33.17 acres of impacted land
5. Based on review of specific jobs and salaries of similar facilities, per applicant. Additional $182,120,000 in 1,578.6 FTE Direct, Indirect & Induced construction jobs (temporary duration).

6-7. Donation of funds.

8. Based on estimated $75 difference between greens fees for project site and typical greens fee at comparable area course; golf cart fee not included. All proceeds to be donated to a local charity.

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FIGURE 1-6
PROPOSED PUBLIC PARKING LOT, EAST QUOGUE HAMLET CENTER

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 50 feet

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The Hills at Southampton

Draft EIS

As shown in **Figure 1-1b**, the majority of the site is south of Sunrise Highway, with two smaller portions located north of this roadway. More specifically, the lands south of Sunrise Highway include the Hills South Parcel, the Kracke Property, and most of the Parlato Property; the land north of the highway is the Hills North Parcel, with 3.90 acres of the Parlato Property. The Hills South Parcel is 340.91 acres and the Hills North Parcel is 86.92 acres in size. Collectively, these are referred to as "The Hills Property," and total 427.83 acres. Parts of the Hills South Parcel site have been cleared, vegetation has been removed and the site is subject to unauthorized use by dirt bikes and ATVs. The Kracke Property consists of 61.26 acres abutting to the west of the Hills South Parcel. This land is mostly vacant and wooded, though an estimated 2.64 acres are presently farmed as a nursery and other portions of the site have been cleared. The Parlato Property is 101.91 acres in size (including an assemblage of parcels and road abandonment acreage), and is located mostly south of Sunrise Highway, to the east of the Hills South Parcel. As noted above, 3.90 acres of the Parlato Property are located north of Sunrise Highway, east of the Hills North Parcel. The Parlato Property is mostly wooded; however, 15.78 acres of this site are actively farmed and 1.15 acres are unvegetated.

The Applicant is in contract with the owner of a contiguous Kracke Property, as well as the owner of the Parlato Property. The combined total acreage of the project site is therefore 591.00 acres, of which 9.34 acres would be gained through road abandonments associated with the Parlato Property.

Table 1-3 details the distribution of the individual parcels into the CPA and the CGA of the CPB, and land area outside the CPB entirely, and provides totals for each. As can be seen, an estimated 140.35 acres of the site (23.75%) are within the CPA, and the remaining 450.65 acres (76.25%) are in the CGA.

Surveys of each of the component properties (with tax lot numbers) can be found in pouches at the back of Volume III; **Table 1-8a** lists the acreages of the land cover types on each of the project's component the sites, and **Section 1.4.2** presents information on the current conditions of each property.

The project site is located in the following service and special planning districts:

- CR-200 Zoning District
- Groundwater Management Zone III (300 gallons per day [gpd]/acre)
- Flood Hazard Zone X, Federal Emergency Management Agency (FEMA)
- CPB Zone, CPA; 140.35 acres
- CPB Zone, CGA; 450.65 acres
- Henry's Hollow Region, Critical Resource Area (CRA); portions of Parlato Property
- Town of Southampton APOD
- Central Suffolk Special Groundwater Protection Area (SGPA)
- East Quogue GEIS and LUP
- SCWA, Distribution Area 20
- Riverhead Central School District (CSD; Hills North Parcel & 3.90 acres of Parlato Property)
- East Quogue UFSD (Hills South Parcel/Kracke Property & 98.01 acres of Parlato Property)
- Southampton Town Police Department
- East Quogue Fire Department (fire protection and ambulance services)

- Public Service Electric & Gas (PSE&G; electricity)
- National Grid (natural gas)
- Town Department of Municipal Works

1.5.1 East Quogue LUP

Figure 1-5 depicts the recommended land uses for the area, as defined by the East Quogue LUP and GEIS. As can be seen, the Hills South Parcel would be a combination of "Public Recreation and Protected Open Space," "Recreation, including Golf and Open Space Transition," "Private Golf Course," "Banquet Facility/Restaurant/Spa/Equestrian," and "Low-Density Residential" uses, while the Hills North Parcel would be entirely "Public Recreation and Protected Open Space." The Kracke Property was to be a combination of "Public Recreation and Protected Open Space," "Recreation, including Golf and Open Space Transition," and "Low-Density Residential" uses, and the Parlato Property was to be "Public Recreation and Protected Open Space" and "Residential or Preserved Open Space" uses. The potential impacts of such development are analyzed as Alternative 3, described and discussed in **Section 5.3**.

Generally, future development per the East Quogue LUP in the vicinity was to produce a wide range of land use types and intensities, from protected open space to golf course recreational use to banquet facility/restaurant/spa/equestrian center. **Section 3.2.2** of this DEIS provides a full assessment of the project's conformance with the East Quogue LUP.

1.5.2 Critical Resource/Environmental Area Designation

The subject site is in the CPB Zone, the Town's APOD, and a portion of the Parlato Property is within the Henry's Hollow Region CRA (per the CPB CLUP), which are also designated as Critical Environmental Areas (CEAs). Development of sites within such areas is subject to additional scrutiny to ensure protection of the resources that caused the area to be designated as a CEA. For these three CEAs, those resources include natural vegetation and quality of groundwater recharge. The location of the site within the CRA in and of itself does not require involvement of the CPBJPPC; however, the Commission sought to assert their jurisdiction over the project by majority vote at the meeting of October 21, 2015. The proposed project will therefore be subject to review by the CPBJPPC and will conform to all of the Standards and Guidelines of the CPB CLUP. The location of the site within a CEA means that the application should be accompanied by a Full EAF Part 1, and the project is subject to coordinated review with involved agencies. A Full EAF Part 1 was submitted and a coordinated review was completed, thereby fulfilling the process required for a CEA. The proposed project will conform to the applicable standards and guidelines of the CPB CLUP, and has been designed to ensure protection of the resources identified as important with respect to the CEA designations.

1.6 Project Design and Layout

Table 1-8a and Table 1-8b summarize the physical characteristics of the component properties, under both their existing conditions and the proposed project (see **Figure 1-2**), respectively. These two tables also provide summaries of the traffic conditions as determined by Level of Service (LOS) for each of the intersections studied, based on the future "Build Condition" which includes the proposed project. **Table 1-8c** provides a detailed list of the site coverage types of each component of the proposed project.

1.6.1 Overall Site Layout, Components and Structures

General Site Layout

The 118-unit yield of the proposed project is detailed in **Section 1.3.3**. The **Master Plan** is consistent with the requirements for a PDD Application submission. The developed portion of the subject site will be occupied as follows:

- Residential/Revegetated Area: 64.80 acres
- Golf Course Area: 97.81 acres (golf play surfaces total 80.30 acres)
- Clubhouse Area: 4.25 acres
- Total: 166.86 acres

The amount of clearing for the project conforms to the Town's requirement for its CPB Overlay District and the CPB CLUP (see also **Section 1.6.2 and Table 1-12**). The developed area will be served by a comprehensive stormwater drainage system comprised of roadside catch basins, subsurface leaching pools, drainage reserve areas (DRAs), two artificial ponds and rain gardens to gather, store, treat and recharge all runoff generated on the site within the site. Additionally, a system of impervious liners consisting of 40 mil[9] HDPE (high density polyethylene) will be installed beneath the golf course greens to contain recharge, and if there is overflow, divert stormwater that infiltrates through the greens into rain gardens to be biologically treated before it is recharged.

The layout of the project is dominated by the decision to concentrate development in the central and southern portions of the Hills South Parcel/Kracke Property, where previous clearing has occurred. In this way, the amount of new clearing of natural vegetation would be minimized and the amount of open space can be maximized (see also **Section 1.6.6**).

The development will gain access from Lewis Road through the existing mapped Kijowski Family Farm subdivision road alignment on land to the west (see **Figures 1-2 and 1-3**). This is an existing mapped road that has not as of yet been constructed, but is designated Old Field Road. This access roadway will continue northward into the property to provide all vehicular access to the residences and golf course components (see also **Section 1.6.3**).

[9] A "Mil" is equal to one one-thousandth of an inch.

Table 1-8a
SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Existing Conditions/Alternative 1*

Parameter	Parlato Property	Hills North Parcel	Hills South Parcel & Kracke Property	*Totals*
Use & Yield	Vacant			---
Coverages (acres):	---	---	---	---
Unvegetated	1.15	0	20.83	*21.98* (1)
Agriculture	15.78	0	2.64	*18.42* (1)
Freshwater Wetland	0	1.40	0	*1.40*
Natural Vegetation	84.98	85.52	375.04	*545.54*
Brushy Cleared Land	0	0	3.66	*3.66* (1)
Revegetated	0	0	0	*0*
Landscaped	0	0	0	*0*
Ponds	0	0	0	*0*
Buildings	0	0	0	*0*
Paved/Impervious	0	0	0	*0*
Totals	101.91	86.92	402.17	*591.00*
Water Resources:	---	---	---	---
Domestic Use (gpd)	0	0	0	*0*
Irrigation, golf course (gpy)	0	0	0	*0*
Irrigation, non-golf course (gpy)	0	0	0	*0*
Total Water Use (gpy)	0	0	0	*0*
Recharge Volume (MGY) (2)	432.61			*432.61*
Nitrogen Conc. (mg/l) (2)	0.24			*0.24*
Trip Generations (vph):	---	---	---	---
Weekday AM Peak Hour	0	0	0	*0*
Weekday PM Peak Hour	0	0	0	*0*
Saturday Midday Peak Hour	0	0	0	*0*
Miscellaneous:	---	---	---	---
Parking Provided (spaces)	0	0	0	*0*
Residents (max. potential)	0	0	0	*0*
School-Age Children	0	0	0	*0*
Taxes Generated ($/year)	272,986			*272,986*
School Taxes ($/year)	218,580			*218,580*
Employees (FTE):	---	---	---	---
Direct	0	0	0	*0*
Indirect	0	0	0	*0*
Induced	0	0	0	*0*

MGY-million gallons per year; mg/l-milligrams per liter; vph-vehicles per hour.

* Quantities in this table also represent those assumed for Alternative 1: No Action; see **Section 5.1**.

(1) Total cleared area of 44.06 acres.

(2) See **Appendix G-2**.

Table 1-8b
SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Proposed Project

Parameter	Parlato Property	Hills North Parcel	Hills South Parcel & Kracke Property*	*Totals*
Use & Yield	Open Space	Open Space	118 resort units & golf	---
Coverages (acres):	---	---	---	---
Unvegetated	1.15	0	2.30	*3.45*
Agriculture	0	0	0	*0*
Freshwater Wetland	0	1.40	0	*1.40*
Natural Vegetation	84.98	85.52	252.24	*422.74*
Brushy Cleared Land	0	0	0	*0*
Revegetated	15.78	0	17.39	*33.17*
Landscaped	0	0	101.15	*101.15* (1)
Ponds & Pools	0	0	4.52	*5.85*
Buildings	0	0	8.43	*8.43*
Paved/Impervious	0	0	16.14	*14.81*
Totals	101.91	86.92	402.17	*591.00*
Water Resources:	---	---	---	---
Domestic Use (gpd) (2)	0	0	41,814/6,874	*41,814/6,874*
Irrigation, golf course (gpy)	0	0	45,236,957	*45,236,957*
Irrigation, non-golf course (gpy)	0	0	6,219,191	*6,219,191*
Total Water Use (gpy)	0	0	51,456,148	*51,456,148*
Recharge Volume (MGY) (3)	474.27			*474.27*
Nitrogen Conc. (mg/l) (3)	0.59/0.34 (assumes advanced wastewater system)			*0.59/0.34*
Trip Generations (vph):	---	---	---	---
Weekday AM Peak Hour	0	0	92	*92*
Weekday PM Peak Hour	0	0	122	*122*
Saturday Midday Peak Hour	0	0	114	*114*
Miscellaneous:	---	---	---	---
Parking Provided (spaces)	0	0	385 (601 w/driveways)	*385/601*
Residents (max. potential) (4)	0	0	444	*444*
School-Age Children (4)	0	0	130	*130*
Taxes Generated ($/year) (4)	4,513,946			*4,513,946*
School Taxes ($/year) (4)	3,431,031			*3,431,031*
Employees: (FTE) (5)	---	---	---	---
Direst	0	0	101.8	*101.8*
Indirect	0	0	18.7	*18.7*
Induced	0	0	34.1	*34.1*

* See **Color-Coded Master Plan**, in a pouch in Volume III.

(1) Total fertilized landscaped acreage is 88.53 acres (14.98% of the site), as: 78.00 acres of Golf Course Play Area, 2.31 acres Clubhouse Landscaping, and 8.22 acres of Residential Area Landscaping, where up to 88.65 fertilized acres/15% are allowed (CPB CLUP Standard 5.3.3.6.3).

(2) Assuming SCDHS design flow rates for wastewater systems (see **Section 1.6.4)**/flow reduction due to seasonal occupancy (see **Table 1-14**).

(3) See **Appendix G-3**.

(4) Will not attend East Quogue UFSD due to restrictive covenant; see **Appendix F.**

(5) Per applicant.

Table 1-8c
DETAILED SITE COVERAGES
Proposed Project

Parameter	Parlato Property	Hills North Parcel	Hills South Parcel & Kracke Property	*Totals*
Golf Course Play Area				
Tees	0	0	3.62	3.62 (1)
Greens	0	0	2.62	2.62 (1)
Fairways	0	0	35.00	35.00 (1)
Rough	0	0	36.76	36.76 (1)
Bunkers	0	0	2.30	2.30 (2)
Total Golf Course Play Area	*0*	*0*	*80.30*	*80.30*
Golf Course Non-Play Area				
Revegetated Native Areas	0	0	9.55	9.55
Rain Gardens	0	0	1.40	1.40 (2)
Drainage Pond (18th Hole)	0	0	0.64	0.64
Comfort Station	0	0	0.01	0.01
Irrigation Pond (3rd & 9th Holes)	0	0	3.88	3.88
Pond House	0	0	0.01	0.01
Landscaping at Pond House	0	0	0.38	0.38 (2)
Maintenance Building	0	0	0.21	0.21
Maintenance Yard/Parking	0	0	0.84	0.84
Maintenance Area Landscaping	0	0	0.59	0.59 (2)
Total Golf Course Non-Play Area	*0*	*0*	*17.51*	*17.51*
Total Golf Course Area	***0***	***0***	***97.81***	***97.81*** (3)
Clubhouse Area				
Building	0	0	0.93	0.93
Paved (roads, driveways & patios)	0	0	0.91	0.91
Swimming Pool	0	0	0.10	0.10
Landscaping	0	0	2.31	2.31 (1)
Total Clubhouse Area	*0*	*0*	*4.25*	*4.25* (3)
Residential/Revegetated Area				
Buildings	0	0	7.27	7.27 (3)
Paved (roads, driveways & patios)	0	0	13.06	13.06 (3)
Swimming Pools	0	0	1.23	1.23 (3)
Landscaping	0	0	18.47	18.47 (1, 3 & 4)
Unvegetated	1.15	0	0	1.15 (3)
Revegetated	15.78	0	7.84	23.62 (2, & 3)
Total Residential/Revegetated Area	*16.93*	*0*	*47.87*	*64.80*
Undisturbed Natural Area				
Freshwater Wetland	0	1.40	0	1.40 (5)
Natural Vegetation	84.98	85.52	252.24	422.74 (5)
Total Undisturbed Natural Area	*84.98*	*86.92*	*252.24*	*424.14*
Total Non-Golf Course Area	***101.91***	***86.92***	***304.36***	***493.19***
TOTAL PROJECT	**101.91**	**86.92**	**402.17**	**591.00**

(1) Total fertilized landscaped acreage is 88.53 acres (14.98% of the site), as: 78.00 acres of Golf Course Play Area, 2.31 acres Clubhouse Landscaping, and 8.22 acres of Residential Area Landscaping, where up to 88.65 fertilized acres/15% are allowed (CPB CLUP Standard 5.3.3.6.3). Unfertilized landscaping totals 12.62 acres, and is comprised of Rain Gardens (1.40 acres), Pond House (0.38 acres), Maintenance Area (0.59 acres) and Residential Area (10.25 acres).
(2) Unfertilized.
(3) These areas total 166.86 acres, and reflect the acreage to be cleared.
(4) As 8.22 acres fertilized and 10.25 acres unfertilized.
(5) These areas total 424.14 acres, and reflect the natural acreage to remain undisturbed.

In order to preserve the character of the Lewis Road corridor and promote privacy, it is expected that the site's access roadway at Lewis Road will not be marked with a sign. This access would be distinctively but subtly landscaped, perhaps including appropriate fencing and/or a retaining wall (subtle lighting may also be installed here), and a manned gatehouse will be provided on the north-south roadway within the site (so that this structure is not visible from Lewis Road to minimize visual impact).

Within the site, the proposed access roadway divides into two branches near the southwestern corner of the developed area. From this point, the westerly branch accesses 14 homes, while the easterly branch accesses the golf course maintenance area, the golf course, the clubhouse and the remaining 104 residences. As can be seen in the **Master Plan**, the residences and clubhouse are located in the central portion of the site, with the golf course play areas located to the north and south. Neither the golf course nor the 4-acre area dedicated to the SCWA for a new wellfield extends into the CPB CPA, in the north of the site.

The project will feature attractive, coordinated architectural styling for the residential structures, common areas (e.g., lighting fixtures, signage, benches, trash receptacles, kiosks, etc.; see **Appendices B-1** and **B-2**) and clubhouse amenities. It is intended and expected that the project's architecture would, in coordination with landscaping, create a visually interesting and desirable environment for occupants and visitors, and will enhance the community in general (see also **Section 1.6.5**).

The overall project, and particularly the golf course, will be managed to ensure that no adverse impacts to groundwater quality will occur, by incorporating and improving on management techniques outlined in the East Quogue LUP and GEIS.[10] The Town CPB Overlay District limits fertilized areas to no more than 15% of the overall site. This includes residential and golf play areas. These regulations also require conformance with Article 6 of the SCSC for density of development. Given the large lot zoning (equivalent to roughly a 5-acre minimum lot size) and the limited areas of fertilized vegetation, the development will conform to SCSC Article 6 and therefore be a substantial improvement over the benchmark of conformance with Article 6 for groundwater protection (see also **Section 1.6.4**).

Golf Course Component and Structures

As noted above, the golf course component is distributed over the central and southern portions of the Hills South Parcel/Kracke Property. The course includes 78.00 acres of fertilized vegetation, the clubhouse area has 2.31 acres of fertilized landscaping, and 8.22 acres of

[10] The East Quogue LUP and GEIS incorporate protection measures implemented and found to be successful at Golf at the Bridge and Sagaponack Golf Club, Southampton.

fertilized landscaping on the residential area (total of 88.53 acres) equals 14.98% of the site (where up to 88.65 acres/15% fertilized vegetation is allowable under the CPB Overlay District). Additional, non-fertilized landscaping totals 11.22 acres, with 1.40 acres of non-fertilized rain gardens. None of the 33.17 acres of revegetated land (shown in the **Landscape Concept Plan**) will be fertilized, of which 15.78 acres are on the Parlato Property, and 17.39 acres are on the Hills South Parcel/Kracke Property. The course will be designed to incorporate the site's existing rolling topography as much as practicable, thereby minimizing the acreage of land clearing and volume of soil affected by grading. The majority of the site's natural vegetation will be retained, to act as a visual and noise buffer between fairways, and between the site and its neighbors. As illustrated in the imagery, as well as on the **Master Plan**, fairways are narrow, adjacent "rough" areas are limited, and greens and tees occupy small areas of the golf play area. There are areas where "playover" is a design feature of the course. These areas involve retaining existing topography and groundcover vegetation in the alignment of the ball track. In these areas, tall trees would be removed; however, natural habitat and topography would be retained. Any areas where existing vegetation is altered are not accounted for as retained natural vegetation of 424.14 acres in the allowable clearing analysis. All efforts have been made to design the course to have the least environmental impact and the greatest habitat retention possible, not only by retaining the required natural area as required under the Town CPB Overlay District and the CPB CLUP, but for other revegetated portions of the golf course as well.

The clubhouse will provide 37,860 SF of member facilities; additional spaces for maintenance/management/mechanical/storage areas, two levels of below-grade parking, and 24,000 SF in the 10 club condos, which would be similar in style and appointments to a luxury hotel unit. Each of these units would have 2,400 SF of floor area, and average three bedrooms. The clubhouse will not be available for public use; its facilities will be reserved exclusively for the use of the residents of the project; however, the facility will be made available to the community for a total of six (6) annual charity golf outings. The golf course maintenance area is located in the south-central portion of the site, south of the clubhouse, on the south side of the drive (for ease of access) and isolated from view of the residences by vegetation.

An ITHMP has been prepared to ensure that the potential for impact to groundwater and surface waters in Weesuck Creek and western Shinnecock Bay from groundwater outflow will be minimized by the turf maintenance (i.e., irrigation and chemical applications) activities planned for the golf course. Additionally, a GMP has been prepared to independently monitor actual water recharged on the site (from irrigation practices and through the drainage systems) for impact to the quality of groundwater to ensure protection of groundwater and surface waters. The GMP includes lysimeters to monitor recharge in the vadose zone, before it reaches groundwater, as well as strategically placed monitoring wells to ensure detection and early warning of groundwater quality. The GMP follows the protocols and will be implemented in a similar manner to the ongoing and very successful monitoring efforts at Golf at the Bridge and Sebonack Golf Club. Together, the ITHMP and GMP will operate in tandem to actively protect water resources based on the environmental design, management and monitoring of the golf course. Other aspects of golf course maintenance are discussed in **Section 1.6.8**.

Residential Component and Structures

Table 1-9 details the numbers and types of residential units proposed; 108 of the residences would be detached, free-standing units on individual lots, and the remaining 10 units would be located within the clubhouse structure.

Table 1-9
PROPOSED PROJECT BREAKDOWN
Unit Types and Details*

Unit Type	Bedrooms		Total Units	Lot Sizes (acres)	Unit Square Footage		Selling Price ($K)
	Per Unit	Total			Per Unit	Total	
Woodland Estate Lots	6	156	26	1.0 to 2.3	5,200	135,200	4,125
Village Lots	4	212	53	0.18 to 0.26	3,200	169,600	2,800
Village Estate Lots	4-5	64-80	16	0.36 to 0.56	4,250	68,000	3,300
Club Condos	3	30	10	---	2,400	24,000	2,400
Club Cottages	4	52	13	---	3,000	39,000	2,850
Totals	---	**514-530**	**118**	---	---	**435,800**	---

* Residences are anticipated to be 2 to 3 stories in height, except for Club Cottages, which will be 2 stories high.

The project will feature attractive, coordinated architectural styling for the residential structures. There are a total of 118 residential units proposed for the site, of which 95 are second-home seasonal residences (the Woodland Estate, Village and Village Estate lots) and 23 are associated with seasonal use by golf course enthusiasts who seek to own a smaller golf-related unit (the club cottages and club condos). All 118 residences will be sold for use by their owners; no rental units are proposed. Using standard per-unit multipliers published by Rutgers University's Center for Urban Policy Research for the size and anticipated selling prices of the four types of residences, if the dwellings were occupied on a year-round basis, a maximum potential of 444 occupants would be anticipated, of which 130 would be expected to be between the ages of 5 and 17 years. However, given the second-home (and greater) nature of these residences, and the proposed C&Rs, no children from this resort community would attend the East Quogue UFSD. The Hills North Parcel and 3.90 acres of the Parlato Property lie within the Riverhead CSD; however, as these parcels will not be developed, they would not send any school-age children to the Riverhead CSD under any circumstance. Thus, the proposed project would not impact school enrollment or expenditure patterns of the Riverhead CSD or the East Quogue UFSD.

The Applicant anticipates that the detached, single-family homes that would be developed on the Woodland Estate Lots (26) would each have a total of about 5,200 SF of floor space, and have six bedrooms. The homes on the 53 Village Lots would have four bedrooms and 3,200 SF of floor space. For the 16 Village Estate Lots, each four or five bedroom home would have 4,250 SF of floor space.

Like the 95 detached homes, the 13 club cottages would be occupied on a temporary, seasonal basis by their owners. These units would take the form of attached or detached single-family units, and have about 3,000 SF of floor area and feature four bedrooms.

It is expected that each of the Woodland Estate, Village Estate, and Village units will have a two-car garage, with sufficient driveway space to park two or, for the Woodland Estate Units, three additional cars; no on-street parking is expected. Each of the 10 club condo and 13 club cottage units are expected to have two parking spaces available, located beneath the clubhouse as structured parking.

Residential area maintenance practices are discussed in **Section 1.6.8**.

1.6.2 Clearing & Grading and Drainage System

Clearing & Grading

The proposed project would develop the interior of the Hills South Parcel/Kracke Property and retain substantial surrounding open space such that deep naturally-vegetated buffers would be retained to present a natural setting from outside observation. Based on the information presented in **Table 1-8b**, **Table 1-10** details the amounts of each coverage type anticipated to be cleared, and the Drainage & Water Distribution plan (see Hydrology Report, **Appendix A-10**) illustrates the extent of the grading program. Overall, the proposed project is anticipated to require clearing and grading of 166.86 acres of the site (28.23%), of which only 122.80 acres will be existing natural vegetation.

A crucial aspect of grading is minimizing the volume of excavated soil that exceeds the volume that will be reused on the site, and therefore must be removed. In this way, the number of truck trips necessary to remove the excess soil can be minimized, which minimizes the duration and intensity of impacts to the neighborhood from truck noise, road congestion, engine exhausts, roadwear, traffic and pedestrian safety, dust, etc.

Table 1-10
ANTICIPATED CLEARING & GRADING
Hills South Parcel/Kracke Property

Coverage Type	Existing Coverage (acres)	Subject to Clearing (acres)
Natural Area:	---	---
Freshwater Wetland	*1.40*	*0*
Natural Vegetation	*545.54*	*122.80*
Total Natural Area	546.94	122.80
Previously-Cleared Area:	---	---
Unvegetated	*21.98*	*21.98* (1)
Agriculture	*18.42*	*18.42* (2)
Brushy Cleared Land	*3.66*	*3.66* (1)
Total Previously-Cleared Land	44.06	44.06
Totals	**591.00**	**166.86**

(1) 17.39 acres on the Hills South Parcel/Kracke Property to be Revegetated and 4.59 acres to be developed.
(2) 15.78 acres on the Parlato Property to be Revegetated and 2.64 acres on the Hills South Parcel/Kracke Property to be developed.

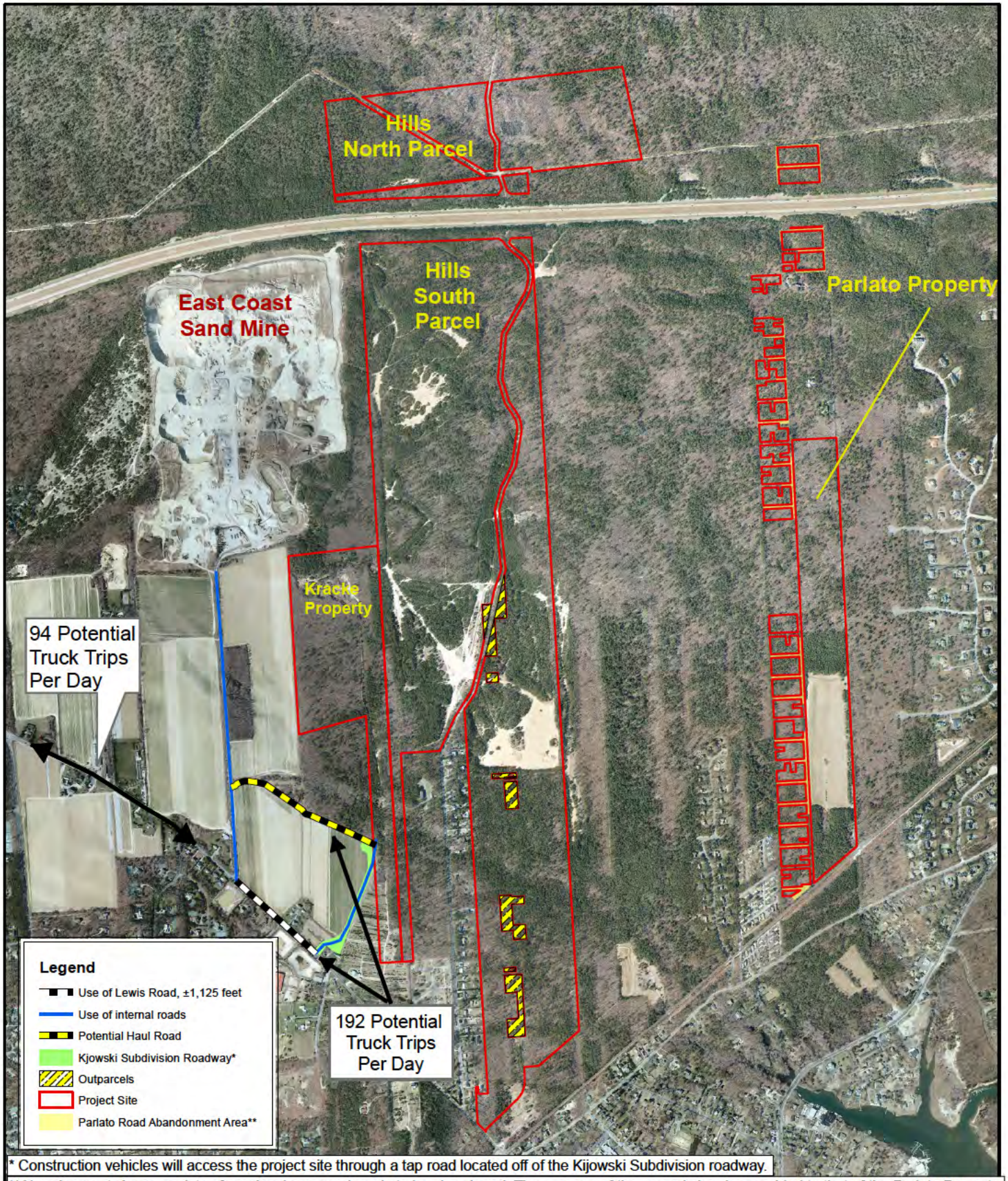
The applicant has made all efforts to reduce site grading to the maximum extent practicable. Based on a preliminary analysis, it is expected that, after the clearing phase is completed for the project and rough grading of the eighteen golf course holes and practice range is completed, there will be an excess of approximately 250,000 cubic yards (CY) of soil. Any impacts related to soil removal would be temporary and of relatively short term duration.

As for grading of the remainder of the site, two cases have been studied to establish a range in the amount of excess soil to be removed from the site. It is expected that the ultimate volume of soil excavated would be determined during the site plan application review, to be conducted by the Town. Case A would grade the internal roads and homesites, placing the roads in cut for drainage purposes to depths that, with lot grading, would generate a volume of cut of approximately 100,000 CY. Case B would grade the internal roads and homesites by placement of fill generated from the golf course area such that only about 30,000 CY of excess material would be generated in these areas, which would be more than offset by the placement of 70,000 CY of the excess golf course soil as fill. Thus, Case B would require removal of a total of only about 200,000 CY of excess soil. The above discussion indicates that between 200,000 and 350,000 CY of excess soil material would be generated. **Section 1.7** contains a generalized description of the anticipated soil removal process and associated impacts. A NYSDEC Mining Permit will be required, for the two man-made ponds.

The clearing of the vegetated areas is estimated to generate approximately 61,400 CY of organic detritus. This will be processed and used as mulch on site for rain garden media, edge of rough and native restoration areas, to the maximum extent practicable. This practice will further reduce the likelihood of nutrient and pesticide leaching to groundwater.

The applicant is currently negotiating an innovative method by which the excess soil will be removed, but without impact to local road conditions and reduced potential adverse impacts to the neighborhood. The excess soil will be taken by truck to the adjacent East Coast Sand Mine property via an internal route, so that Lewis Road will not be impacted (see **Figure 1-7**). All efforts will be made to obtain the necessary approvals and secure an easement between the subject site and the East Coast Sand Mine access road to provide a means of soil transport between these two (2) sites. If found to be feasible, it is noted that this route would not involve the use of any public roadways (particularly Lewis Road), so that this operation would not cause any impact to local traffic flow. The applicant and East Coast Mines have tentatively agreed to the following with respect to this operation.

> DLV Quogue, LLC [“DLV”, the applicant] will export clearing debris, soils and aggregates generated from construction of the golf course, amenities, man-made ponds, infrastructure and residential development to East Coast Mines under a purchase agreement that shall be agreeable to each party. Said agreement will allow DLV to purchase and import soils and aggregates from East Coast Mines as necessary for development. The materials will include engineered soils (root zone mixes, drainage gravel, and bunker sand) and top soil that meet the material quality and control standards of DLV.
>
> DLV and East Coast Mines will endeavor to develop an internal “haul road” system to serve the import and export of the materials outlined in the agreement. The “haul road” location shall be selected to avoid and or minimize the commercial truck traffic on Lewis Road, minimize nuisance impacts (noise and dust) and maximize the use and efficiency of off-road vehicle transport.



* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 1-7
USE OF LEWIS ROAD BY TRUCKS FOR CONSTRUCTION ACTIVITIES

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,500 feet

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It is expected that excess material will be transported to East Coast Mines, and engineered soils (root zone mixes, drainage gravel and bunker sand will be imported from East Coast Mines. The 2.62 acres of greens will require approximately 4,227 CY (assuming 12-inch depth) of greens mix and in the range of 2,000 CY of drainage gravel. Thus, approximately 6,227 CY of material will be imported to the site. **Section 1.7** addresses soil import/export impacts.

Should soil be required for import (e.g., appropriate cover materials such as top soil for landscaping), it will be certified to meet the requirements established in the Section 5.4(e) of the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation. Soil will either be certified as clean by the vendor, or sampled prior to placement at the site. Soil sampling, if necessary, will include volatile and semi-volatile organic compounds, metals (including lead, arsenic, cadmium and mercury), pesticides and PCBs.

Specifically, soil imported to the property will be free of extraneous debris or solid waste, should be recognizable as soil and will be subject to sampling and chemical analysis, or certified as "clean fill" under standards established by the appropriate regulatory authority. Results of analytical testing should demonstrate that imported fill or soil does not exceed the allowable constituent levels provided in Appendix 5 of DER-10 consistent with the use of the site or where the protection of ecological resources is required. A minimum of one sample will be analyzed from each new source of fill material at the following sample frequency:

- for soil or sand imported from a virgin mine/pit, at least one round of characterization samples for the initial 100 cubic yards (CY) of material in accordance with Table 5.4(e)10 of DER-10 (provided below);
- material sources other than a virgin mine/pit should be sampled in accordance with the schedule established in Table 5.4(e)10 of DER-10; or
- sites where large amounts of cover material/backfill are required, the sampling frequency can be reduced from that specified in Table 5.4(e)10 of DER-10 once a trend of compliance is established.

Table 1-11 describes the required sampling regime for the quantity of soil imported to the site.

Documentation detailing the source of soil imported to the site should be provided for future reference as well as for any municipal and regulatory approvals that may be required. The documentation should include the following:

- name of the person providing the documentation and relationship to the source of the fill;
- the location where the fill was obtained;
- identification of any State or local approvals as a fill source;
- if no prior approval is available for the source, a brief history of the use of the property which is the source of the fill; and
- bills of lading should be provided to document the source of the fill.

<u>Conformance to Clearing Restrictions</u>
The anticipated clearing/grading program for the proposed project will fit within the allowable clearing restrictions of the CPB CLUP and Overlay District (see **Table 1-12**). According to

these regulations and based on the site's zonings at the time the regulating plans were effectuated, up to 166.96 acres (28.25% of the site) may be cleared; the proposed project would clear 166.86 acres, or 28.23%, of which only 122.80 acres will be existing natural vegetation.

Table 1-11
SAMPLING REGIME SUMMARY

Contaminant	Testing for Volatiles	Testing for Semi-Volatiles, Metals, Pesticides & PCBs
Soil Quantity (CY)	Discrete Samples	Composite Samples
0-50	1	1
50-100	2	1
100-200	3	1
200-300	4	1
300-400	4	2
400-500	5	2
500-800	6	2
800-1,000	7	2
>1,000	Add 2 samples for volatiles and 1 sample for composite for each 1,000 CY	

Note: Composite samples of 3-5 discrete samples collected from different locations in the fill proposed for import.

Table 1-12
MAXIMUM CLEARING ALLOWED UNDER CLUP
Prior Zonings and Acreages

	Prior (1995) Zoning District	Acreage (acres)	Estimated Yield (lots)*	Maximum Allowed Clearing Under CLUP	
				%	acres
Hills North Parcel	CR-200	86.92	14	25	21.73
Hills South Parcel	CR-80	58.14	24	35	20.35
	CR-120	132.93	36	30	39.88
	CR-200	149.84	24	25	37.46
Kracke Property	CR-80	10.32	4	35	3.61
	CR-120	50.93	14	30	15.28
	CR-200	0.01	0	25	0.0025
Parlato Property	CR-120	58.96	16	30	17.69
	CR-200	33.61	5	25	8.40
Parlato Road Abandonment Area	CR-120	4.43	1	30	1.33
	CR-200	4.91	1	25	1.23
Total Property		**591.00**	**129**	---	**166.96****

* Calculated as: (acreage x 43,560 x 0.75)/lot size under zoning.
** Up to 28.25% clearing is allowed; based on 166.96 acres of allowable clearing.

Drainage Systems

A Hydrology Report (see **Appendix A-10**) has been prepared for the proposed project, in order to support the engineering and design of the site's drainage system. Stormwater runoff from The Hills at Southampton development areas will be retained and recharged on-site for the required

design storm. Retention areas, as presently proposed, will consist of DRAs, leaching pools, and ponds, with stormwater conveyed to these retention areas by means of:

- Overland flow
- Vegetated swales
- Curb and gutter
- Inlets and piping

Additionally, all of the golf course greens will be lined with an impervious 40 mil liner so that precipitation and irrigation water infiltrating from these surfaces will be contained and collected after it has passed through the soil, (*see description below*) and if there is overflow, this will be diverted to rain gardens for biological treatment.

The terrain of The Hills at Southampton falls into two categories: rolling and flat, with runoff coefficients assigned to each category consistent with those in the Town Road and Drainage Standards. The golf course incorporates a number of DRAs in strategic locations to capture runoff from the course and adjacent areas to be developed with housing. These DRAs are designed as shallow vegetated depressions that are normally dry and blend into the fairway areas or non-vegetated hazard areas, of the course, both as playable features. DRAs are the dominant retention method to be utilized because of the ability to blend them seamlessly into the surrounding terrain. Additionally, DRA's adjoining fairways include rain gardens to provide treatment of direct runoff from fairway surfaces. Substantially all stormwater storage is accomplished within areas to be cleared for the golf course or within already cleared areas, with the exception of a small DRA (8,000 SF) located where the project entrance road crosses an existing swale and the existing cleared area at that location is not large enough to accommodate the required DRA. Some additional clearing is required for installation of drainage piping to access DRAs from other site areas to be developed. Supplemental rain gardens will be used where possible for additional treatment.

Roadways in the site will contain drainage inlets within gutter areas to capture runoff from roads and adjacent vegetated lot areas and either piped to DRAs or captured directly in leaching catch basins for storage and infiltration. Runoff from on-lot structures and driveways will be captured in leaching pools within the lot area. Several areas will be served exclusively with leaching pools, principally the clubhouse maintenance area, and the southerly section of the entrance road.

Two golf course-related ponds totaling 4.52 acres near the center of the developed area will be aesthetic features and will also serve as an irrigation pond, using captured stormwater runoff that will then be pumped through the golf course irrigation system. For areas tributary to this pond, a five-inch design storm will be utilized. For the DRAs, a 2-inch design storm will be utilized.

In addition to golf play and drainage functions, the two ponds will provide an aesthetic and functional role for visual interest in proximity to the clubhouse and the residential units. The ponds will be lined to maintain a minimum depth of five feet and aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. The larger pond will be excavated to a depth of 8-10 feet and will be lined to retain water to the design depth. The smaller pond will have a minimum depth of 5-6 feet and will also be lined to retain water. Below the

minimum water depth, the ponds will have side slopes of 1:3. Above the minimum pond elevation, the ponds will have a slope of 1:5 in an area that will provide "freeboard" for side wall leaching of stormwater to recharge groundwater when pond elevation rises due to stormwater. In addition to side wall leaching, the ponds will have positive overflow to inter-connected portions of the overall drainage system as described in other sections of this report. Pond capacity in the freeboard area is accounted for in preliminary drainage calculations for the purpose of stormwater design capacity.

During rain events, the normal pond elevation is designed to rise by up to two feet for the design storm event and then subside back to the normal pond elevation by recharge.

The southerly part of the project site is traversed by two swales (normally dry) that have a combined off-site tributary area of about 600 acres to the limit of property. These swales may carry runoff when the infiltration capacity of soils within the contributing area is exceeded. This is a source of drainage and flooding issues at the low points along Spinney Road. Under post-development conditions, the site will allow off-site stormwater to pass through the on-site swales; however, runoff generated by changed conditions on the site will be retained and recharge as part of the site drainage system, thus reducing the on-site contribution of runoff that leaves the subject property.

Ponds will be managed in a manner that will add to the ecological qualities of the site. Areas adjoining golf play will consist of turf and a narrow vegetated strip of native grasses (1 to 2 feet) adjoining the pond in order to discourage waterfowl activity between the golf course and ponds. Areas adjoining portions of the ponds that are not used for golf play (e.g., residential use and/or open space), will be vegetated with minimum ten-foot buffers of native grasses and shrubs in order to promote habitat, filter stormwater and discourage wildfowl activity. The ponds "freeboard" areas on areas not adjoining golf play will be vegetated with native freshwater wetland species (e.g., cattails; sedge and rush species) to promote biological uptake and natural filtration of pond water to promote water quality and provide habitat diversity. Ponds will be of sufficient depth to support overwintering of fish populations and will be "stocked" with appropriate species to promote mosquito larvae control and improve the ecological diversity and natural system qualities of the ponds. Typical fish stocking species include a bass-bluegill assemblage; however, the NYSDEC will be consulted and any and all necessary authorizations and/or permits will be obtained in connection with stocking programs.

Overall, the ponds will be designed and maintained for multiple functions of aesthetic quality, utilitarian function and habitat diversity. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC environmental input will be sought and incorporated into pond management as appropriate.

<u>Golf Greens Liner Collection and Treatment System</u>
As discussed in **Section 1.6.5,** the overall project site will have fertilized landscaping totaling 88.53 acres (14.98% of the site), of which 78.80 acres would be devoted to golf course fertilization, 2.31 acres at the clubhouse, and 8.22 acres for the residences. Even though this will meet the CPB CLUP requirement, further methods for nitrogen reduction will be employed.

The 2.62 acres of greens (0.44% of the overall project site) will be fertilized at a similar rate as the fairways, but due to the drainage qualities of these greens, it is advisable to provide a means to capture and treat recharge. Specifically, each of the 18 greens on the golf course will be lined with an impervious material (40 mil thick high density polyethylene, HDPE), to capture the stormwater infiltrating through these surfaces as it passes into the subsoil. Due to runoff, it is estimated that approximately 50% of the water will be collected from the green liners.[11] The recharged water from these surfaces will be directed into rain gardens which will ensure that 70% of the nitrogen is absorbed by plant uptake and/or through denitrification processes. The rain garden system provides a mulch layer and a restrictive soil medium to increase the residence time of the runoff from the greens within the rain garden media. The longer residence time provides an anaerobic state within the soil media that results in increased fixation of nitrogen within the media. Recent studies show overall nitrate-nitrite retention of 70-80% depending upon more mulch content and anaerobic conditions (**Three Rivers Park District, 2005** and **Tornes, 2005**). **Figure 1-8a** and **Figure 1-8b** provide schematic drawings of this system.

The golf course design goes beyond just maintaining less than 15% overall fertilizer dependent vegetation. Through the use of lined greens, a carefully managed irrigation strategy, the implementation of an ITHMP , and by conducting groundwater monitoring (in conformance with a GMP), environmentally-conscious management of the golf course will be ensured and nitrogen load on areas devoted to fertilizer dependent vegetation will be substantially less than would occur under an AOR development with no such controls.

As for pesticides from the greens, research on pesticide attenuation by rain gardens indicates that the majority of pesticides appear to be broken down via microbial degradation. However, some, such as DDT, can persist for years (**Balovsek, n.d.**). Groundwater contamination will occur when the residence time of the pesticide in the vadose zone is less than that of the time it takes the pesticide to be broken down or transformed (**Pitt et al., 1994**). Bucheli et al. **(1998)** investigated pesticides in rainwater, roof runoff and artificially infiltrated runoff. Pesticide concentrations in percolating groundwater at different depths and at different infiltration rates were found to be very similar to those in the runoff. Their research data indicates that in cases of quick infiltration of runoff with low soil layer retention may result in contaminants leaching to groundwater; however, rain gardens for greens are designed to have a mulch layer and a restricted soil retention zone, specifically engineered to slow the infiltration rate within the rain garden to gain more residence time in the soil. This will help lengthen the time the pesticides and other contaminates to be within the engineered soils and thus be retained or provide increased residence time to promote microbial degradation and chemical breakdown. The pesticides listed in the ITHMP are directed by toxicity studies and past experience from other golf courses in the Town, and the current list eliminates higher risk pesticides in favor of those with lower toxicity and shorter short half-lives. The ITHMP provides a regimen to reduce use of pesticides to the maximum extent through integrated pest management, spot application, frequent monitoring of turf conditions and by promoting healthy turf that is resistant to infestations that require use of pesticides. This coupled with the design of the rain gardens to increase retention and promote breakdown indicates that monitoring program for soil (lysimeters) and groundwater

[11] Per A.M. Petrovic, testing at Sebonack Golf Club in November 2015 found about 50% of the water was collected from green liners.

WATER QUALITY VOLUME AS PER THE CURRENT NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL'S 90% DESIGN STORM RULE = 1.5" FOR THE SITE

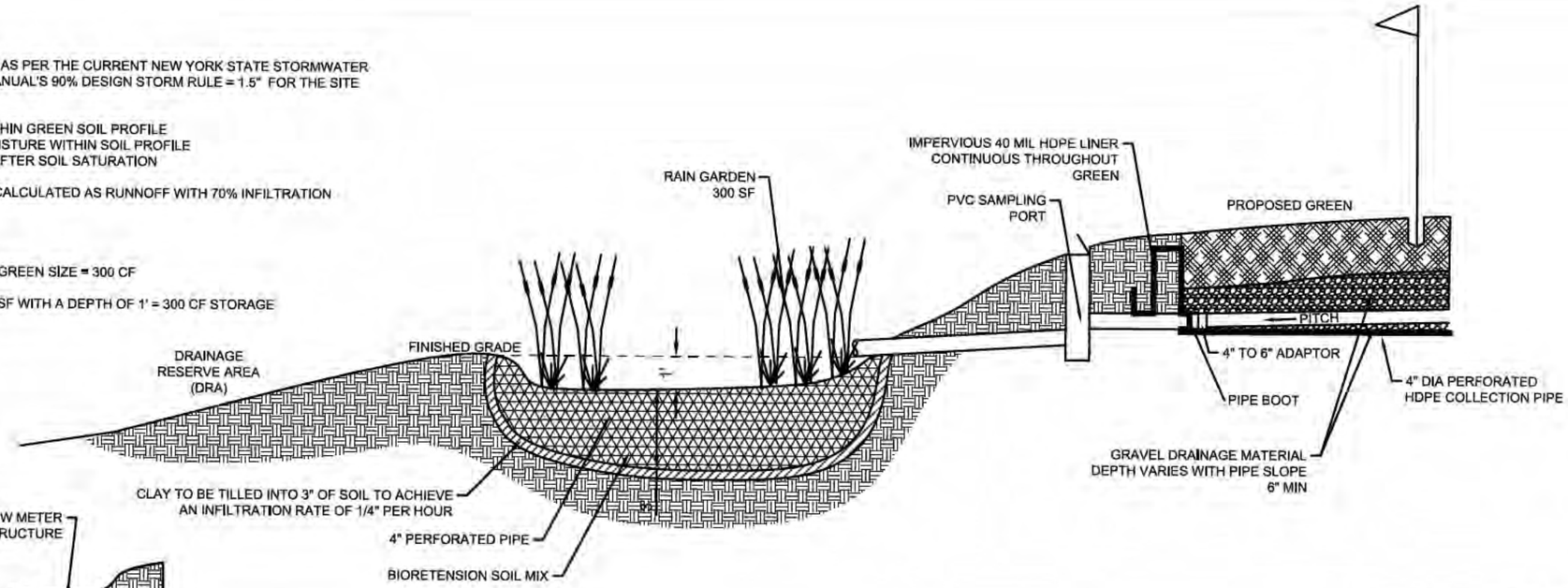
1.5" = 90% RULE
-0.75" = STORAGE WITHIN GREEN SOIL PROFILE
+0.18" = RESIDUAL MOISTURE WITHIN SOIL PROFILE
0.93"= REMAINDER AFTER SOIL SATURATION

-0.28" = 30% OF 0.93" CALCULATED AS RUNNOFF WITH 70% INFILTRATION
0.65" INFILTRATION

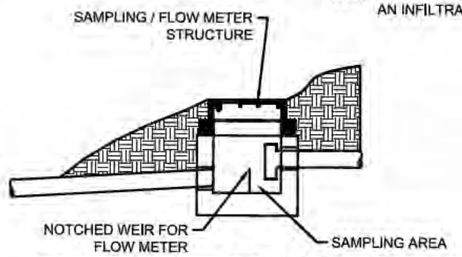
0.65" / 12" = 0.05'

0.05' X 6,000 SF AVERAGE GREEN SIZE = 300 CF

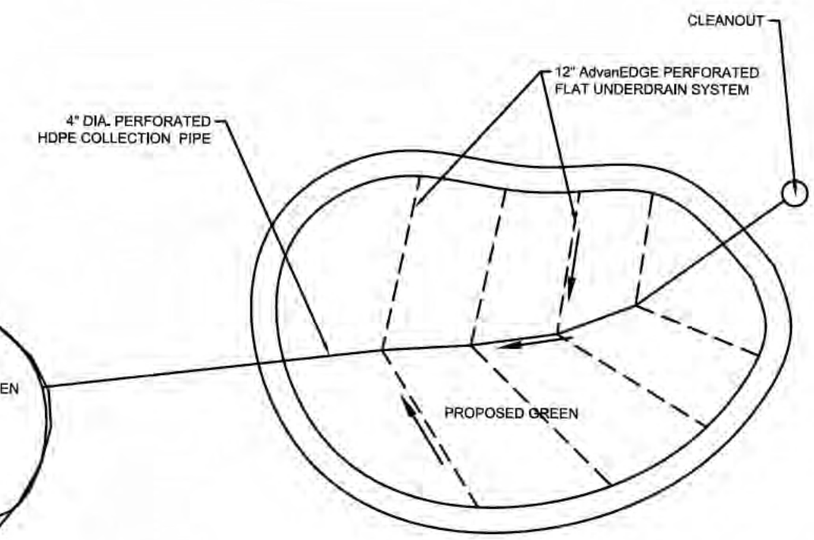
RAINGARDENS TO BE 300 SF WITH A DEPTH OF 1' = 300 CF STORAGE

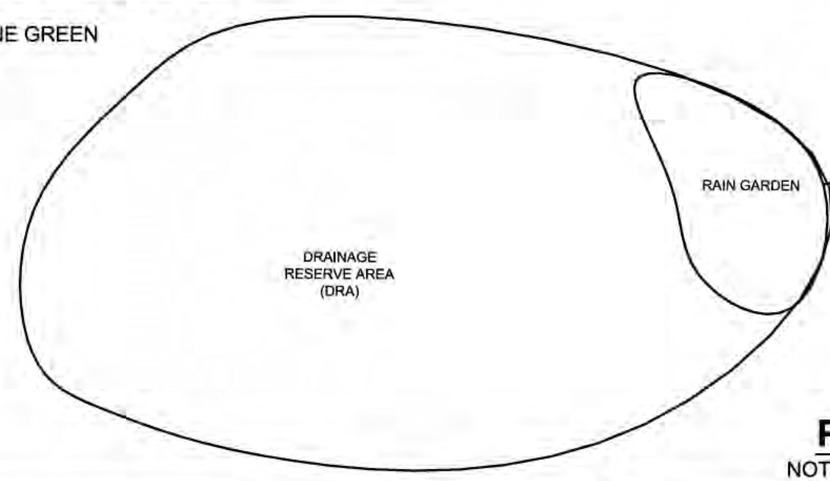


SECTION
NOT TO SCALE



FLOW METER STRUCTURE
NOT TO SCALE
TO BE INSTALLED ON ONE GREEN





PLAN
NOT TO SCALE

FIGURE 1-8a
GREEN LINER SCHEMATIC

Source: Diagram from NP
Scale: NTS

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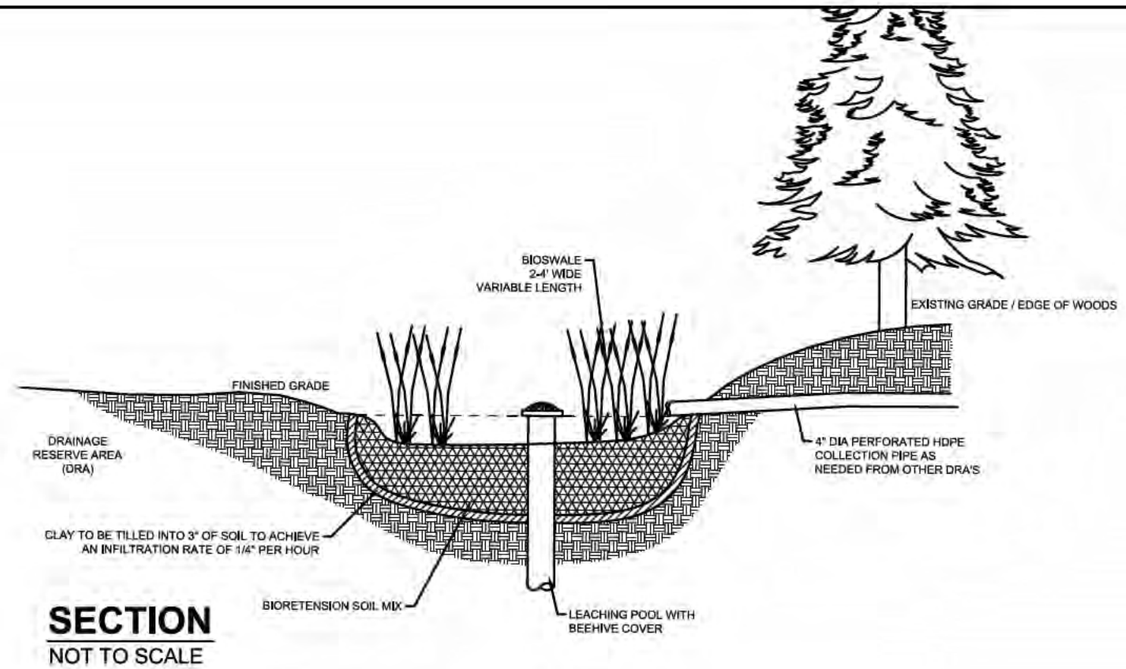

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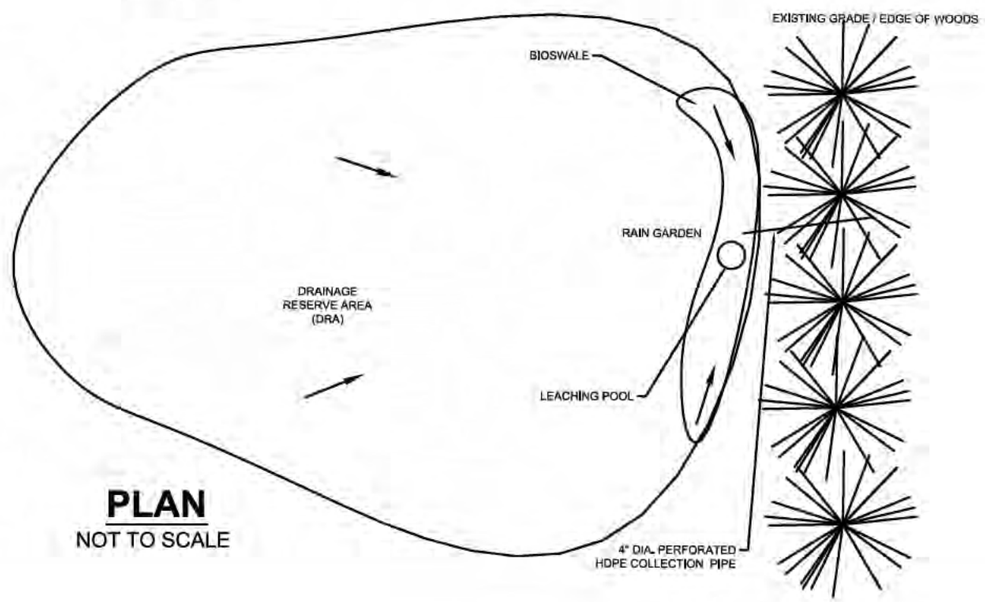

PLAN
NOT TO SCALE

FIGURE 1-8b
GREEN LINER SCHEMATIC

Source: Diagram from NP
Scale: NTS

NORTH

The Hills at Southampton

Draft DEIS

in strategic areas of the site will ensure early detection of any chemical release so that management practices can be modified and any recorded pesticide concentrations are addressed.

Erosion Control Measures and Requirements

The drainage systems will comply with requirements under NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP 0-15-002 or "General Permit") and Chapter 285 of the Town Code. Under these requirements, a site-specific Storm Water Pollution Prevention Plan (SWPPP) must be prepared and submitted to the Town for review and approval as a condition to final site plan approval. The SWPPP evaluates the proposed drainage system to ensure that it meets the NYSDEC and Town requirements for treatment and retention of stormwater runoff. The SWPPP must demonstrate that the proposed stormwater management system is sized adequately to ensure that there is no net increase in peak stormwater discharges from a property once developed.

Additionally, the SWPPP will include details of the erosion controls to be employed during construction; these measures are discussed in **Section 1.7.4**. Preliminary Pre- and Post-Development Drainage Plans and a Preliminary Network Diagram and Hydrograph Comparison have been prepared (see Hydrology Report, **Appendix A-10**) to support a finding that the SWPPP to be prepared based on final design will ensure that post-development stormwater will be less than pre-development stormwater. The proposed dimensions, material specifications, and installation details for all erosion and sediment control practices are provided on the **Erosion Control Plans**, which will be subject to Town review and approval as part of the Town's site plan review process.

1.6.3 Vehicle Access and Internal Road System & Circulation, and Parking

Vehicle Access and Internal Road System & Circulation

The **Master Plan** shows that the layout of the project's internal road system. The main vehicle access point to the project is proposed from Lewis Road, at the southwestern corner of the property in line with an existing mapped subdivision road associated with the "Kijowski Family Farm" subdivision (see **Figures 1-2 and 1-3**). At a point within the site, a manned Greeter House will be placed, to control entry to the project. North of this facility, the proposed access roadway divides into two branches near the southwestern corner of the developed area. From this point, the westerly branch accesses 14 homes (ending in a cul de sac), while the easterly branch continues in a roughly northerly direction, and accesses the golf course maintenance area, and then the clubhouse, in front of which this roadway terminates in a loop. From this point, roadways branch to the east and west, to give access to the remaining 94 residences. Each of these roadways ends in a cul de sac.

The Hills Property has street frontage on Lewis Road near the LIRR intersection and on Spinney Road. Due to potential traffic impacts at these access points, the Town Board in its resolution electing to consider the MUPDD, dated January 14, 2014, expressly requested that the *"Applicant must explore alternative connections to Lewis Road, specifically a connection with the Noble Farms subdivision, immediately west of the Hills property, as an alternative means of access to Lewis Road, as promoted in the findings of the GEIS."* These recommendations

originated from the Planning Board's review and approval of the Subdivision Map of Kijowski Family Farm and the Subdivision Pre-Application Reports for the subdivisions of The Hills and Noble Farms (the Kracke Property). The Planning Board envisioned and planned for a single subdivision road accessing onto Lewis Road, with such road originating on the Kijowski Family Farm property. Thus, as the Kijowski Family Farm property abuts and provides street frontage and access to the development of Noble Farms (Kracke Property), an access to the Kijowski Family Farm property cans also provide access to the development of The Hills Property.

The Kijowski Family Farm subdivision was filed November 30, 2007 as Map No. 11583, and a street named Old Field Road and accompanying drainage area was mapped and designated as SCTM Nos. 0900-288.00-01.00-058.013 & 058.012. Old Field Road extends from Lewis Road and abuts the Noble Farms (Kracke Property). The Kijowski Family posted a performance bond agreement with two deeds as security to guarantee the completion of the necessary public improvements, and an Offer of Dedication for Old Field Road and the accompanying drainage area was recorded in Liber 12533, page 831.

The Applicant thereafter negotiated with Mr. Kracke and entered a contract to purchase the Noble Farms or Kracke Property, which has been incorporated into the project. The Applicant also contacted the Kijowski Family and they have agreed to grant necessary title and access over Old Field Road in exchange for the Applicant's agreement to assume and undertake the required public improvements as required by the Planning Board and bonded. The Applicant has agreed to undertake the public improvements to Old Field Road and the drainage area as originally planned by the Planning Board, and is willing to consider any modifications or changes as may be required by the Planning Board during its review of the project.

The intersection of Old Field Road and Lewis Road would be controlled by a Stop sign at Lewis Road for exiting traffic. A manned gatehouse will be established on the access roadway within the panhandle portion of the Kracke Property, in order to minimize the appearance of development for potential observers on Lewis Road. Old Field Road will be provided with appropriate curbing, striping, signage, lighting and drainage facilities, subject to the Town as determined during the site plan application review process.

It is expected that a second vehicle access will be provided, but will be strictly limited to emergency vehicles and used only in cases where access through the main access point is not optimal. This emergency vehicle access will be provided at the end of Spinney Road, and would connect to the project's internal road system at a point just southeast of the clubhouse. This access point would be provided with an emergency "activated gate," which would remain closed unless and until an emergency vehicle with the necessary pass card to open the activated gate approaches, for emergency purposes only. As a result, this gate would only be opened by proper emergency personnel of the East Quogue Fire Department or other authorized emergency service vehicles. General roadway maintenance activities such as snowplowing and street sweeping, as well as replacement of worn striping, street lighting maintenance, etc., will be performed by the ownership.

The Links application was previously proposed for the property adjacent to the east of the Hills Property, and the East Quogue GEIS (see **Section 3.2.1**) had recommended that a cross-access

easement be provided for it and the subject site. However, the Links application is no longer active as the property was purchased for open space purposes. As a result, no cross access easement need be or will be provided on the subject site.

Parking

Adequate parking to serve the needs of individual residences as well as the golf course and clubhouse components will be provided. All parking on the project site will be in designated parking areas, or on individual residential lots; no on-street parking will be provided.

Each of the Woodland Estate, Village Estate, and Village residences will have an attached two-car garage; the driveways for these units are expected to be large enough to park an additional two or, particularly for the Woodland Estate lots, three cars. Each of the 13 club cottages and each of the 10 club condos will have two parking spaces allotted, to be located in below-grade parking levels beneath the clubhouse structure. This latter facility will have a total of 170 parking spaces, distributed in two below-grade parking levels; 26 spaces will be allotted for the club cottages and 20 spaces for the club condos, leaving 124 spaces for patrons, clubhouse employees and visitors. There will be an additional 25 staff parking spaces at the Maintenance Area. Thus, total parking capacity on the property, not counting driveway spaces, is 385 spaces. If the driveway spaces are included, there will be space for a total of 601 cars on the site (see **Table 1-13**).

Table 1-13
PARKING SPACES
per Town Code & per Proposed MUPDD

Project Component	**Yield**	**Bedrooms/Unit**	**Parking Spaces Required**, per Town Code (1)		**Parking Provided**, per Proposed MUPDD	
			Requirement	Spaces	Provided	Spaces
Woodland Estate Units	26	6	2/unit, plus 1 for each bedroom in excess of 3 bedrooms	130	2/unit (in garage)	52/130 (2)
Village Units	53	4		159		106/212 (3)
Village Estate Units	8	4		24		16/32 (3)
	8	5		32		16/32 (3)
Club Cottages	13	4		39	2/unit (clubhouse below-grade parking)	26 (4)
Club Condos	10	3		20		20
Golf Course	---	---	3/hole, plus 1 per employee	156 (5)	124 (clubhouse below-grade parking)	124
Clubhouse	---	---				
Maintenance Area	---	---			25 (employees)	25
Totals	---	---	---	**560**	---	**385/601**

(1) Assuming site zoned CR-200, applying standards of Zoning Code Sections 330-94 and 330-95.
(2) Conservatively assuming 3 additional spaces/driveway.
(3) Conservatively assuming 2 additional spaces/driveway.
(4) Usage in Clubhouse garage expected to allow Club Cottage parking in excess of 2 spaces/unit to use unreserved Clubhouse garage spaces.
(5) As 54 spaces for golf course & maintenance, and 102 spaces for the 102 FTE employees.

Table 1-13 shows that the Town Zoning Code parking requirements would require a total of at least 560 parking spaces. Thus, if only the parking in the garages of the 95 residential lots, the clubhouse garage, and the Maintenance Area parking lot were considered, the project would not meet the Town parking requirement. However, considering the additional spaces gained from use of driveways for parking, the project will exceed the Town Code requirement for parking.

It is expected that, based on the nature of the proposed PDD project and its associated residential occupancy and golf course and clubhouse usage patterns, the number of parking spaces proposed will be more than sufficient to address all potential parking needs. It must be noted that Town parking requirements are based on full-time, year-round occupancy of the residences, and public access to the golf course and clubhouse. Neither of these assumptions apply to the proposed project, so that the number of parking spaces necessary to properly serve the site should be and will be less than the number which would otherwise be required by the Town standards. For example, it would not be expected that the occupants of the 95 residences or the club cottages would drive from their homes the short distance to the clubhouse garage to park when playing golf or using the amenities of the clubhouse; they would walk or use a privately-owned golf cart to do so. This would tend to reduce parking demand in the clubhouse garage. Generally, it is expected that there will be a sufficient number of unused spaces in the clubhouse garage to accommodate any excess, limited parking demand associated with the 13 club cottages. Such a conclusion is supported by the PDD requested, under which the project has been designed.

Incorporating the PDD concept into the Zoning Code indicates the Town Board's intention to enable development of innovative mixed-use projects designed in an internally-cohesive manner, so that the older, more rigid design standards based on single uses (as reflected in the parking standards of Sections 330-94 and 330-95) would not apply, and flexibility in such requirements can be applied based on the nature of the proposed use. Based on the specific uses proposed and the nature of those uses, the Hills at Southampton is appropriately designed based on a parking standard unique to itself.

1.6.4 Water Supply and Wastewater Disposal Systems

<u>SCSC Article 6 Flow and Water Use</u>
The project site is located in Groundwater Management Zone III as defined by the SCDHS. Based on the requirements of SCSC Article 6, allowable sanitary flow on a site that is subject to subdivision is based on the 40,000 SF yield map, with the number of lots multiplied by 300 gpd per unit. In lieu of a 40,000 SF yield map, SCDHS provides a formula for determining allowable flow. For the proposed project, the allowable sanitary flow is based on the calculation:

(Site acres - wetland acres) x 0.75 x [(43,560 SF/acre)/(40,000 SF/unit)] = allowed units,

Thus, the final calculation is as follows:

(591.00 - 1.40) x 0.75 x 1.089 = 481 units

As each unit is allocated a flow of 300 gpd, the total allowed sanitary flow for the project site is obtained from: 481 units x 300 gpd/unit = 144,300 gpd.

The design flow is based on the sanitary wastewater generated by the proposed use. It is noted that the proposed project involves a golf course. Under *"General Guidance Memorandum #17, Agricultural and Golf Course Density,"* fertilized areas of golf course use contribute to nitrogen load and are accounted for in terms of wastewater flow by a factor of 300 gpd per fertilized acre. In this case however, the area of fertilizer dependent vegetation is limited to 15% of the overall site and as a result, the golf use does not increase the area of fertilizer dependent vegetation. The site design conforms to this limit on fertilizer dependent vegetation including the golf course and residential use portions of the site. In other words, the proposed project will not increase fertilized area over that of a residential use with no golf course. As a result, the factor related to golf course fertilized areas would not apply. Nevertheless, the design flow calculation has been prepared based on the wastewater flow alone, as well as the combined wastewater flow and additional flow allocated to golf course use. In both cases, the proposed project is significantly below the allowable flow provided for under SCSC Article 6. In addition, the residential portion of the residential use will not be fully occupied 365 days per year due to the second (and greater) home resort type use that is typical of DLC resorts.

Based on the uses and yields proposed and the SCDHS design standards for wastewater system design (and per SCSC Article 6), the project would generate 41,814 gpd of sanitary wastewater if it were occupied on a full-time, year-round basis, estimated as shown in **Table 1-14**.

This is substantially less than the design flow of 144,300 gpd, and therefore conforms to Article 6 of the SCSC. In fact, the resort community will be used primarily during summer months and is expected to seldom, if ever, operate at full occupancy; the expected occupancy is on the order of 60 days per year per unit. In addition, C&Rs and other appropriate restrictions will be filed to ensure that no children from the resort community will enter the East Quogue UFSD, making it less likely that the owners would be present during the school year (i.e., outside of the summer months). The community is expected to be intermittently utilized during the off-season, i.e., fall, winter and spring. As a result, it is expected that the actual water usage of and wastewater generation flow from the project will be significantly less than that identified as Total Sanitary Wastewater Generation in **Table 1-14**. Specifically, the "adjusted" flow for expected occupancy is 6,874 gpd accounting for 60 days of occupancy per unit per year a based on demographic and supporting information provided in **Appendix A-5** and previously referenced in **Section 1.3.3**.

If the fertilized area of the golf course is added to the project's wastewater flow, this factor would add 23,400 gpd (78.00 fertilized acres x 300 gpd/acre). As a result, the total design flow would be 65,214 gpd, which is 79,086 gpd less than the allowable flow under Article 6 and would also conform to the density limitations under Article 6 of the SCSC.

The project is in SCWA Distribution Area 20. All water used by the project for domestic (i.e., no-irrigation) purposes will be provided from the public water supply system of the SCWA. It is expected that the project will utilize water pumped at the Spinney Road Wellfield. Based on the SCWA response to a letter requesting specific input on water service (see **Appendix I**):

We have reviewed the potential water demand for the proposed "Hills at Southampton" development – peak domestic demand of 120 gpm and fire flow demand of 1,500 gpm, 1620 [gpm] combined. Currently the existing SCWA system in this area would require improvements in capacity to provide service at the proper pressure for either domestic supply or fire flow. The discussion in our meeting in early September identified improvements we anticipate will be needed in our Quogue Intermediate zone to enable service to this development.

Table 1-14
WATER USE & SANITARY WASTEWATER GENERATION (1)
Proposed Project

Residential Component:			
Woodland Estate Lots	26 units	300 gpd/unit	7,800 gpd
Village Estate Lots	16 units	300 gpd/unit	4,800 gpd
Village Lots	53 units	300 gpd/unit	15,900 gpd
Total Residential Component			28,500 gpd
Golf Course Component:			
Club Condos	24,000 SF (10 units)	300 gpd/unit	3,000 gpd
Clubhouse Facilities	131,760 SF (2)	---	6,414 gpd
Club Cottages	13 units	300 gpd/unit	3,900 gpd
Total Golf Course Component			13,314 gpd
Total Sanitary Wastewater Generation			**41,814 gpd**
Adjusted Sanitary Wastewater Generation (3)			**6,874 gpd**

(1) Assuming appropriate SCDHS design flow factors.
(2) Includes maintenance/management/mechanical/storage spaces and member facilities; below-grade parking areas exempt.
(3) Based on 60 days per year expected occupancy (41,814 X [60/365]); see **Appendix A-5** and **Section 1.3.3**.

They are as follows:

1) An extension of the existing 12-inch water main east on Lewis Rd onto the proposed entrance road and into our Spinney Rd. well field property - approximately 5,500 feet.
2) An upgrade of the pumping capacity at the Quogue - Riverhead Rd. booster.
3) Construction of an additional booster at Spinney Rd.

Service into the development would be in the vicinity of Spinney Rd. well field.

Provided these improvements are made we are confident we can meet your water supply requirements. As the project moves forward and the scope is further refined we will work together to develop the plan and determine the appropriate arrangement for sharing costs. The developer then would have to execute a contract with SCWA and fund their portion of the construction.

It is also expected that the project's preliminary design will be subject to more detailed engineering review by the SCWA as part of the Town's site plan review process, at which time final arrangements for infrastructure improvements will be made.

In addition to the use of retained stormwater for golf course irrigation, the project will install two new irrigation wells to supplement stormwater inflow to the drainage and irrigation ponds.

These wells will be sized to provide irrigation water for the golf course and to maintain a minimum water depth of 5 feet in the ponds. The main pond will be used to store and blend irrigation water. As shown in **Table 1-8b**, it is expected that a total of 34,731,862 gallons/year (gpy) will be used for all landscape irrigation, broken down as follows: 30,050,978 gpy for the golf course and 4,680,704 gpy for the golf clubhouse area, residential areas and other non-golf areas. The on-site irrigation wells will be subject to NYSDEC well permits, therefore, there is no impact to public water supply and hydraulic considerations will be addressed to ensure that there is no impact on groundwater storage or water table elevations.

Wastewater Disposal

It is clear that, based on sanitary wastewater design rates for the golf course and 118 units, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6 based on wastewater flow, or the combined design flow based on wastewater based on the fertilized golf portions of the site under Memorandum #17. Therefore, the Applicant may utilize individual septic systems in compliance with Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos.

It should be noted that the actual water use and wastewater flow values of the proposed project will be substantially less than the total wastewater generation projections in **Table 1-14**, as the residences and clubhouse will not be occupied year-round. This also means that the concentration of nitrogen in recharge resulting from sanitary wastewater recharge of the project will be less than those of as-of-right development (see **Section 5.2**) and/or year-round occupancy of the proposed project.

It is noted that the MUPDD application that was submitted to the Town Planning Board in January 2015 stated that the proposed project would provide an enhanced treatment system for its sanitary wastewater, as one of the public benefits of the project, to demonstrate the applicant's commitment to provide enhanced wastewater treatment for the project. Further examination of this commitment for this Draft EIS (see **Appendix A-11**) indicates, however, that due to the varying rate that wastewater is generated on the site (from the varying pattern of occupancy and, therefore, of wastewater flow), such a treatment system could not operate properly and therefore would not be expected to receive approvals from the regulatory authority. Therefore, the Hills at Southampton will conform to SCSC Article 6, and use individual septic systems on each of the 108 residential lots, and one septic system for the clubhouse and 10 club condos. However, as discussed below, it is the Applicant's intention to use these septic systems as an interim solution for wastewater treatment, until such time that the Applicant can and will install enhanced wastewater treatment systems approved by the SCDHS for the project.

The Applicant reiterates this commitment; however, the SCDHS (which has jurisdiction over the type of sanitary system that could be allowed) has not completed its review of such enhanced systems. The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method (and close the septic systems noted above) if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow.

Ultimately, the choice of sanitary system will be made in consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected and improved.

It is also noted that projections of nitrogen in recharge and nitrogen loading indicate that the proposed project will reduce nitrogen load from current conditions and will have an extremely low concentration of nitrogen in recharge (i.e., less than 1 mg/l, where the CPB CLUP requires less than 2.5 mg/l). As a result, no impact from the use of conventional systems is anticipated. Furthermore, the Applicant is committed to funding of advanced wastewater treatment to benefit the aquifer and the bay. Since on-site treatment does not provide adequate cost-benefit, and by all indications is not feasible, the Applicant has committed $1 million dollars to facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for East Quogue residents (see **Table 1-7**). This ensures that in addition to the net negative nitrogen load that will result from the proposed project, additional watershed nitrogen reductions occur that will ultimately reduce nitrogen load to the western Shinnecock Bay.

1.6.5 Landscaping, Lighting and Amenities

Landscape Materials and Coverages

The **Landscape Concept Plan** for the proposed project depicts the distribution of the general types of landscape species within the site, and the **Preliminary Plant List** provides the specific species to be planted in each. Where pine barrens species are to be used in a landscape function, species listed in the CPB CLUP (Figure 5-1 of the CLUP) will be provided. This policy conforms to the Community Landscape Vision of use of native plant materials, informal planting arrangements, and limited use of ornamentals.

The **Landscape Concept Plan** shows the areas planned for landscape treatment, based on the functional area of the project, as follows:

1. Golf Area (78.00 acres, fertilized): trees, shrubs, native grasses & wildflowers
2. Clubhouse Shrub & Groundcover (2.31 acres, fertilized): trees, shrubs, native grasses, wildflowers, ferns & groundcovers/vines
3. Native Revegetation (33.17 acres, not fertilized: trees, shrubs, native grasses & groundcovers/vines
4. Village Landscape/Streetscape (18.47 acres, 8.22 acres fertilized, 10.25 acres not fertilized): trees, shrubs, native grasses, wildflowers, ferns & groundcovers/vines
5. Wetland/Pond House Landscape (0.38 acres, not fertilized): trees, shrubs, native grasses, wildflowers & ferns
6. Screening Landscape at Maintenance Area (0.59 acres, not fertilized): trees, shrubs & native grasses

Irrigation Strategy

Irrigation Wells - The proposed project will install two new shallow irrigation wells. One will be located on the south part of the site and placed to intercept groundwater with elevated nitrogen concentrations from the upgradient watershed. On-site groundwater sampling completed for characterization of water resources (see **Section 2.2.1**) identified total nitrogen concentrations as high as 29 mg/l. Removal of this groundwater for irrigation will result in withdrawal of nitrogen from the aquifer. This water will be pumped to an isolated portion within the large pond and blended with water from a second shallow irrigation well (to be placed in proximity to the large pond) and/or the balance of the large pond. The combination of these wells will allow the golf course superintendent to use nitrogen containing groundwater, lower nitrogen groundwater and stormwater collected in the pond for irrigation, or in this case, the more appropriate term is "fertigation." The irrigation sources will be monitored for nitrogen concentrations and adjusted for optimal use for fertigation, and this will allow the golf course superintendent to reduce the quantity of fertilizer product that is used to maintain healthy turf at the golf course and residential landscaped areas. Irrigation nitrogen sources include the stormwater pond and an isolated area for irrigation well water from the high nitrogen irrigation well, and an additional well located in an area with low/background nitrogen concentrations near the pond. It is expected that sampling for nitrogen concentrations will occur bi-weekly during the irrigation season of April through October.

The wells would require hydrologic evaluation and would be permitted by NYSDEC under the NYS Well permit program. A preliminary hydrologic assessment and feasibility report has been prepared to address the design elements of this system (see **Appendix A-12**). The golf course irrigation well system would function independent of all water supply systems connected to the SCWA distribution which would provide potable water to the subject site.

Golf Course - The irrigation system for the golf course component will be designed using the most up-to-date, state-of-the-art materials available. The system will be a "full-coverage" system over the 78.00 acres of vegetated golf play surfaces and will be designed to cover greens, tees, fairways and primary rough. The 2.30 acres of golf course bunkers will be neither fertilized nor irrigated, and will not be subject to pesticide application. It will be designed to confine irrigation to the grassed areas only and avoid irrigation into the forested areas surrounding the golf holes.

The irrigation system would include a meteorological station to monitor weather and precipitation conditions and soil moisture monitoring would be routinely conducted so that any irrigation applied is as a supplement to natural rainfall. Through automated controls and management oversight, the golf course superintendent would adjust fertigation/irrigation and fertilization for optimal plant uptake. Irrigation will be used as a supplement to natural precipitation. It is expected that irrigation will occur during 24-28 weeks (part of April and May through October) of the year. Irrigation quantities are identified in **Table 1-8b** and **Section 1.6.4** above.

Fertilizer application rates are discussed in the ITHMP provided in **Appendix J** of this Draft EIS. The overall site is limited to not more than 15% fertilizer dependent vegetation which includes both the golf course and non-golf areas. It is expected that the golf rough areas and

residential landscape will be fertilized at a rate of 1.0 pounds of nitrogen in fertilizer per 1,000 SF, and golf greens, tees and fairways will be fertilized at a rate of 2.5 pounds/1,000 SF.

The emphasis on irrigation system design for new golf courses is for smaller sprinklers on tighter spacing with lower flow (expressed in gallons per minute, gpm), therefore yielding lower irrigation rates. This gives today's golf course superintendent the ability to more efficiently distribute water to where it is needed, and on a much smaller scale than currently exists for an older irrigation system. This has been made possible by the advancement in sprinkler and nozzle technology, allowing the irrigation designer to utilize these smaller spacings and smaller sprinkler flows. This equates to lower energy cost due to the lower pump horsepower requirements. The newer sprinklers also perform better in the wind at lower pressures and produce more uniform coverage.

The fairway irrigation will be a minimum of triple row with ins and outs along the outer two rows to allow the roughs to be irrigated separately from the fairways. Rough irrigation should be added where not adequately covered by the outs along the fairway edges. Coverage will also include the roughs between the tees and fairway start. Tee boxes will be irrigated with smaller sprinklers to more efficiently irrigate the tee surface and the surrounds.

No irrigation, fertilizer or pesticides will be applied to bunkers. If necessary, below ground drip irrigation will be installed in areas where bunkers are in areas of play and the edges are vegetated and thus require irrigation.

Two sets of sprinklers will be installed at each green complex. One set will be part circle sprinklers to irrigate the greens with the other set being part circle directed to irrigate the surrounds without irrigating the putting surface. Any sprinkler not part of the greens irrigation such as approaches and greens surrounds directed back towards the green, shall be positioned so as not to irrigate the putting surface.

Additionally, The Hills of Southampton's control system will be based upon evapotranspiration (this is the amount of water lost during the day between the turf grass plant and the soil). In conjunction with an on-site weather station, the control system will determine how much water was lost from the plant and soil during the day, determine how long each individual station needs to run to replenish this amount, and then communicates this information to the satellite controller. This reduces the amount of excess irrigation that is done, shortens the water time window and reduces the cost of pumping.

The most critical feature that the control system offers however is flow management. These control systems monitor the amount of water running at any given moment and can turn on sprinklers to keep the pump station running at its maximum efficiency.

In addition to the weather station, soil moisture sensors will be installed in the ground over the golf course to more specifically monitor the moisture in the soil reservoir and allow the golf course superintendent to more accurately determine real-time turfgrass needs and irrigate only as needed.

The piping network to be used is HDPE, which reduces the carbon footprint over other piping materials such as polyvinyl chloride piping.

Residential and Other Areas - Like that of the golf course, the irrigation system for the residential lots and other landscaped non-golf and non-residential common areas (such as adjacent to the clubhouse and along the access drive) will be designed using the newest techniques and irrigation design concepts available. These systems will be designed to confine irrigation to the landscaped areas only.

Fertilizer application rates are discussed in the ITHMP provided in **Appendix J** of this DEIS. The overall site is limited to not more than 15% fertilizer dependent vegetation which includes both golf course and non-golf areas (residential, clubhouse). It is expected that the residential landscape will be fertilized at a rate of 1.0 pound of nitrogen in fertilizer per 1,000 SF.

The emphasis on irrigation system design today is for use of smaller sprinklers on tighter spacing with lower flow, therefore yielding lower irrigation rates. This provides for more efficient distribution of water to where it is needed, and on a much smaller scale. This has been made possible by the advancement in sprinkler and nozzle technology, allowing the irrigation designer to utilize these smaller spacing and smaller sprinkler flows. This equates to lower energy cost due to the lower pump horsepower requirements. The newer sprinklers also perform better in the wind at lower pressures and produce more uniform coverage.

The anticipated control systems will consider the effect of evapotranspiration on the amount of water needed to be delivered. In conjunction with an on-site weather station, the control system will determine how much water was lost from the plant and soil during the day, determine how long each system needs to run to replenish this amount, and then communicates this information to the operator. This reduces the amount of excess irrigation that is done, shortens the water time window and reduces the cost of pumping.

The most critical feature that the control system offers however is flow management. These control systems monitor the amount of water running at any given moment and can turn on sprinklers to keep the pump station running at its maximum efficiency.

In addition to the weather station, soil moisture sensors will be installed to more specifically monitor the moisture in the soil reservoir and allow the golf course superintendent to more accurately determine real-time turfgrass needs and irrigate only as needed.

Like that of the golf course, the piping network to be used is HDPE, which reduces the carbon footprint over other piping materials such as PVC piping.

<u>Groundwater Monitoring and Protection Measures</u>
The proposed project will ensure that landscape maintenance practices will occur in a manner that is fully compliant with the CPB CLUP and Overlay District and goes beyond these requirements in terms of Best Management Practices (BMPs) to reduce nitrogen load at the site. In order to achieve this, two plans, an ITHMP and a GMP **(Appendix K)**, have been prepared to work in tandem to ensure that these practices protect groundwater quality.

The golf course superintendent will be responsible for ensuring that all fertilizer and pesticide applications are performed in accordance with the standards and methodologies developed for the proposed project, and described in the ITHMP. The Applicant will coordinate with the Town to install the GMP well and lysimeter network, and fund the retention of an independent testing company to monitor the site on a routine basis. All results will be reported to the Town and reviewed by the Town's technical consultant, funded by the Applicant. This will ensure complete monitoring on a regular schedule with data review and response as needed and outlined in the GMP.

ITHMP - The ITHMP has been prepared to ensure proper golf course management in terms of fertilizer and pesticide use. The purpose of the ITHMP is to minimize use of fertilizer and maximize uptake by turfed and fertilized areas as well as to minimize the use of pesticides. Fertilizers and pesticides are products that add to golf course maintenance costs. It is in the best interest of golf course management to minimize the use of these products. Maintaining healthy turf through proper irrigation (discussed above), fertilization and pest control measures, ensures maximum uptake by turfed areas, thus reducing leaching through the root zone.

Through an ITHMP, proper management can occur such that nitrogen loads are minimized to near zero. In addition, Integrated Pest Management (IPM) methods will be employed to ensure that pests are controlled locally with spot applications based on extensive and thorough monitoring of turf conditions. The ITHMP details the techniques to be employed for management of healthy golf course turf and fertilizer dependent vegetation.

The proposed golf course will utilize non-traditional turf management practices outlined in the ITHMP in order to comply with the organic golf course management standards established by Suffolk County as well as meet or exceed the BMPs for New York State. The implementation of the ITHMP will be assisted through several elements related to golf course design and maintenance techniques which will include:

- Development of a healthy soil profile
- Proper course irrigation and drainage
- Installation of appropriate disease and pest resistance turf
- Utilization of native vegetative species where applicable
- Soil ecology monitoring and management
- Routine monitoring of the Hills at Southampton golf course for early detection of maintenance needs and detection of problem areas

GMP - The GMP has been prepared to independently monitor the quality of the water recharged on the site for its potential impact on the quality of groundwater passing beneath the site, to ensure the protection of groundwater resources and surface waters in Weesuck Creek and western Shinnecock Bay. With the ITHMP, the GMP will actively protect water resources quality based on the environmental design, management and monitoring of the golf course; essentially, the ITHMP provides a set of measures to protect groundwater quality associated with the golf course, and the GMP provides a set of procedures to verify the efficacy of those measures.

The GMP provides strategic well placement downgradient of uses at The Hills at Southampton site to intercept groundwater recharged on the site, as well as upgradient wells to establish ambient conditions. Existing water quality monitoring has been conducted on the site for baseline information, which will be supplemented by pre-golf course operation monitoring after project approvals and prior to operation. In addition, the GMP includes installation of lysimeters to monitor water quality of recharge below the root zone an above the water table (referred to as the vadose zone). Results from monitoring events described in the GMP will be reviewed on a quarterly basis to assess groundwater quality in strategic areas of the golf course including up- and downgradient monitoring of pre- and post-construction conditions.

The GMP will be enacted for a period of five years, following which a review will be conducted in order to assess whether and what modifications to the monitoring program may be necessary.

Lighting

The Southampton Town Dark Skies Advisory Committee was established to, among its other goals, support a policy to retain the Town's night-time rural aesthetic, by encouraging conformance to the Town's outdoor lighting ordinance. The following brief description of the committee's charge in this regard has been taken from the Town website:

> Mission: The purpose of the Southampton Town Dark Skies Advisory Committee is to curtail light pollution and to encourage compliance with the town's outdoor lighting regulations by means of educational and legislative efforts in order to prevent dangerous glare, save energy and money, limit damage to the environment and to human health, and preserve our view of the star-filled night sky.

Article XXIX of the Town Zoning Code contains the Town's regulations on outdoor lighting that the committee seeks to support, and will pertain to the project. Section 330-340 of these regulations states the following with respect to the purpose and intent of the regulations:

> The purpose of this article is to provide regulations which will protect the health, safety and welfare of the general public, conserve valuable energy resources, prevent light trespass from interfering with our quality of life, protect our ecological and natural resources, and preserve the ability to view the celestial features of the night sky for present and future generations. By this legislation, the Town Board wishes to establish provisions and a process for review so that outdoor lighting that is protective of the environment is installed on all new construction and is used when current outdoor lighting fixtures that are not in compliance with this article need replacement. These standards provide for the following:
>
> A. Comprehensive regulations and guidelines in order for residents, business owners, and the municipality to comply with standards set by the community for outdoor lighting.
> B. Preservation of our rural character, aesthetic value, and the unique quality of life enjoyed by Southampton Town residents by preserving and enhancing the ability to view the night sky.
> C. Advancement of sound environmental policies which will benefit residents and serve as a positive example.
> D. Proper direction and use of light in order to minimize light trespass, glare, and energy wasted on unnecessary and indiscriminate illumination.
> E. Elimination of the need for commercial establishments to compete for visual attention by escalating outdoor lighting levels.

F. Reduction in excessive illumination which can have a detrimental effect on flora and fauna that depend on the natural cycle of day and night for survival.
G. Prevention of nuisances caused by unnecessary light intensity, glare, and light trespass.

These goals are to be achieved for the residential portion of the project by conforming to the following design regulations, per Section 330-345:

All residential and multifamily residential properties shall comply with the following standards. For new construction, the Architectural Review Board may permit minor adjustments to any lighting requirement herein, provided that the proposed outdoor lighting is found to be reasonable, necessary, and consistent with the purposes of this article.

A. Nuisance prevention. Outdoor lighting on residential properties shall be designed and installed so that all light which is emitted by any outdoor light fixture shall not shine on or illuminate any neighboring property. No outdoor lighting shall be maintained or operated in such a manner so as to be nuisance lighting, as defined in Section 330-341.

B. Shielding. All outdoor lighting fixtures shall be fully shielded and aimed straight downward, with the following exceptions:
   (1) Outdoor lighting fixtures with total light output of 900 lumens or less (60 watts incandescent or less) are exempt from the shielding and aiming requirement above.
   (2) Outdoor lighting fixtures with total light output of 900 lumens or less (60 watts incandescent or less) are exempt from the shielding and aiming requirement above.
   (3) Unshielded outdoor lighting fixtures operated by motion sensors are permitted, provided that:
      (a) The fixture is set to go on only when activated and to go off within five minutes after activation has ceased; and
      (b) The sensor shall not be triggered by activity off the property; and
      (c) The output per fixture does not exceed 1,800 lumens (100 watts incandescent.
   (4) Unshielded floodlights not exceeding 1,800 lumens per fixture (100 watts incandescent) are permitted, provided they are aimed no higher than 45° and do not cause nuisance lighting, as defined in Section 330-341.

C. Mounting height
   (1) The mounting height of a fixture attached to any structure shall not exceed 12 feet from the lowest light-emitting point on the fixture to the area to be lit directly below the fixture, except for fully recessed soffit lighting that otherwise complies with this article.
   (2) The mounting height of any freestanding light fixture shall not exceed 10 feet and, when located in side and/or rear yards, shall meet the setback requirements of Subsection **D** below, unless otherwise authorized by the Town.

D. Setback. The setback for freestanding light fixtures from closest side and/or rear yard property lines shall be greater than or equal to three times the mounting height.

E. Hours of operation. Automated shutoff controls for outdoor lighting are encouraged to conserve energy, to extinguish lighting that is not needed for safety, and to alleviate nuisance lighting.
   (1) Nonessential outdoor lighting shall not remain on continuously from 12:00 midnight until dawn.

(2) Essential outdoor lighting sufficient for security purposes may be in operation continuously from 12:00 midnight until dawn, provided that illumination on the ground or on any vertical surface is not greater than 0.5 footcandles.

F. HID (high-intensity discharge) light fixtures are not permitted for residential use, except for sports lighting pursuant to Section 330-346 I(6).

As for the clubhouse portion, it is expected that the regulations of Section 330-346 (Nonresidential lighting standards) would apply. These include:

Properties with nonresidential lighting, as defined in Section 330-341, shall comply with the following standards. The Town Planning and Development Administrator or Planning Board may permit minor adjustments to any lighting requirement herein, provided that the proposed outdoor lighting is found to be reasonable, necessary, and consistent with the purposes of this article.

A. Nuisance prevention. Outdoor lighting on nonresidential properties shall be designed and installed so that all light which is emitted by any outdoor light fixture shall not shine on or illuminate any neighboring property. No outdoor lighting shall be maintained or operated from any structure in such a manner so as to be nuisance lighting, as defined in Section 330-341.

B. Shielding. Unless otherwise specified, all outdoor lighting fixtures shall be fully shielded and aimed straight downward.

C. Mounting height.
(1) Building or structure. Outdoor lighting fixtures shall not be installed at a height greater than 12 feet from grade to the lowest light-emitting part of the fixture, except for fully recessed soffit lighting that otherwise complies with this article.
(2) Free-standing pole. The Planning Board may consider heights of outdoor lighting fixtures up to but not greater than 14 feet from the natural grade to the lowest light-emitting part, unless it is demonstrated to the Planning Board's satisfaction that a greater mounting height would better accomplish the purposes of this article.

D. Limits of illumination.
(1) The Town recognizes that not every situation will require lighting, such as situations that may utilize reflectorized markers, lines, or other passive means.
(2) Light levels shall not exceed the minimums recommended by the Illuminating Engineering Society.
(3) Except for municipal athletic fields, light levels shall not exceed the values listed in Tables 1 through 5 for the appropriate task.
(4) Light levels for sidewalks, doorways, and building approaches shall not exceed those in Table 1.
(5) Illumination of building facades, sculptures, or structures is prohibited, except as approved by the Planning Board.
(6) Light levels for parking lots, sidewalks, and other walkways shall include light contributions from nearby sources, and shall be expressed in footcandles on any lighting plan submitted for review and approval.

H. Light trespass limits.

(1) Illuminance at or beyond a property line abutting a residential parcel, nature preserve, or waterway shall not exceed 0.05 footcandles as measurable from any orientation of the measuring device.
(2) Illuminance at or beyond a property line abutting a nonresidential property or public right-of-way shall not exceed 0.1 footcandles as measurable from any orientation of the measuring device.

I. Additional lighting requirements for specific applications. In addition to Sections 330-346A through H, the following requirements shall apply to the specific lighting applications below:
(1) Parking lot illumination.
(a) All fixtures shall be full cutoff.
(b) Light levels shall not exceed those in Table 2 [of the Town Outdoor Lighting Ordinance].

(2) Streetlighting. No new or replacement streetlights shall be installed unless a determination has been made by the Town Highway Superintendent that the purpose of the new lighting installation or replacement cannot be achieved by reflectorized roadway markers, lines, warnings, informational lighting or other passive means.
(a) Any fixture used for streetlighting shall be full-cutoff and angled straight downward, except that an historic-style decorative fixture may emit up to 2% of its total lumens above the horizontal plane.
(b) Streetlighting installed in the public right-of-way is exempt from height restrictions and ratio of height to property lines, as well as light trespass limits.
(c) New and replacement streetlighting installations shall not exceed the light levels as specified in Table 3 [of the Town Outdoor Lighting Ordinance].
(d) No new lighting, other than municipal streetlighting, shall be leased, installed, or maintained by any person or agency on public utility poles.

The proposed action is for a change of zone, which, if granted will be followed by preparation of detailed site plans to the level needed for preparation of a site specific lighting plan. This plan will be prepared per Section 330-347D) for the site plan application. For this document, the applicant has prepared a **Conceptual Lighting Sketch** that depicts the portions of the site and/or project features that will be illuminated, and the estimated illuminances of each. These include the security gatehouse area and a typical intersection within the site, the maintenance area, and the clubhouse area. Note that neither the golf course nor the driving range will be illuminated, so that dusk will effectively shut down the use of these features. Generally, the plan is based on downcast lighting and the use of shields on all fixtures, so that minimal potential for the project to cause or contribute to sky glow and/or light trespass would occur. Additionally, due to the retention of deep and dense naturally-vegetated buffers along the site's borders and between the residences and the clubhouse area, the potential for fugitive lighting impacting adjacent properties would be minimized.

The applicant has prepared the following, which describes the underlying concept of the lighting system:

> Consistent with the guidelines outlined in the Town of Southampton Lighting Code, the overall lighting concept for The Hills at Southampton is one of subtlety and safety. A combination of low-voltage light-emitting diode (LED), fully-shielded, pole-mounted down lights, path and bollard lights, building mounted down lights, and signage lighting will provide appropriate lighting in key areas so

as to create a safe community, while still maintaining the natural quality of the surrounding Pine Barrens environment.

In compliance with the Town of Southampton Code Article XXIX (Outdoor Lighting), street lighting throughout the community is to be at minimal levels. Intersections and areas of vehicular conflict may have down lighting and traffic signage lighting on timers for safe intersections during early evening use. As per the Town of Southampton Illumination Limits, the average footcandle (fc) levels are not to exceed 0.4 fc. Community sidewalks and trails will have periodic down lighting and path lights on timers, including safety lighting at road crossings. At points of roadway and pedestrian conflicts a minimum of 0.3 fc will be maintained as per American National Standards Institute (ANSI) standards.

The entry, the gatehouse is proposed to have shielded down lights mounted to the building, as well as pole mounted vehicular lights, path and possibly bollard lights to provide sufficient lighting to safely announce the entry and for the guards to identify approaching vehicles. Light trespass off the project site will not be permitted.

Throughout the clubhouse area, shielded pole and building mounted down lights and path lights will provide lighting for users to safely move throughout the club facilities as well as for uses such as outdoor dining and pool area use. Additionally, pools and spas will include underwater lighting for night time use.

Minimal down lighting will mark homesite driveways and/ or street number signs and will be controlled either by timers or motion sensors. Each homesite will be required to follow the lighting standards included in the homeowners design guidelines, which will be consistent with the town code and the concepts described above.

The golf course will have minimal lighting for safety and security at the comfort stations, and practice range tee area and minor lighting at a few additional areas.

The maintenance area will have, pole and building shielded down lighting and well as path and bollard lighting to allow for safe use during hours of darkness. Lighting shall be compliant with the Town code as to lighting of parking areas.

Amenities

With the exception of the security gatehouse area, all residential amenities associated with the proposed project will be located in and around the clubhouse (see **Section 1.6.1** for a roster of these amenities). As discussed in **Section 1.6.8**, the costs of clubhouse-related maintenance will be borne by the development through revenues generated by golf course and clubhouse revenues.

1.6.6 Open Space System

The entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres) will be offered to the Town for dedication as public open spaces to be permanently preserved. Upon dedication, these 188.83 acres will be subject to Town maintenance and oversight. As for the remaining 235.31 acres of natural retained land, these areas will remain in private ownership of the project; this land will also be permanently preserved and protected by C&Rs, to be filed with the Suffolk County Clerk.

The entire Hills North Parcel, the northernmost portion of the Hills South Parcel/Kracke Property (the area within 1,000 feet of NYS Route 27, totaling 42.43 acres), and the northernmost 11.00 acres of the Parlato Property (of which 3.90 acres are north of Sunrise Highway) are within the CPA. As a result of the restrictions of the CLUP, no development may occur within these areas (though the yield that could be realized by this acreage will be utilized in the developed area, on the remainder of the Hills South Parcel/Kracke Property). While the northernmost 42.43 acres of the Hills South Parcel are also in the CPA, the applicant will retain this area as permanent undisturbed open space under private ownership, protected through binding site plan approval as well as C&Rs, conservation easement or appropriate mechanism.

In summary, the project will retain 424.14 acres (71.77%) of the subject site as undisturbed natural land; note that additional Unvegetated and Agricultural lands on the Parlato Property totaling 16.93 acres will be dedicated but are not naturally-vegetated, and so are not included in the 424.14-acre figure.

There are a number of ways to describe and quantify the vegetation to be retained on the subject site:

- *Undisturbed Dedicated Land* - in addition to the entire Hills North Parcel (86.92 acres), the applicant will offer the entire Parlato Property (101.91 acres) to the Town as dedicated, undisturbed open spaces, for a total of 188.83 acres, or 31.95% of the subject site.
- *Undisturbed Naturally-Vegetated & Revegetated Land* - in addition to the above, there will be a substantial amount of undisturbed naturally-vegetated land to be retained on the Hills South Parcel/Kracke Property (252.24 acres), plus the 17.39 acres of disturbed land on the Hills South Parcel/Kracke Property to be revegetated to a natural condition as part of the project. These areas will remain privately-owned, but will be protected by C&Rs with the Town. Including the dedicated open spaces noted above, undisturbed naturally-vegetated and revegetated surfaces will total 458.46 acres, or 77.57% of the subject site.
- *Vegetated Land* - with the 21.75 acres of non-golf course landscaping and the 78.00 vegetated acres of the golf course play area, vegetated surfaces (both undisturbed and developed) would total 558.21 acres, or 94.45% of the subject site.
- *Habitat/Open Space* - if considering the other types of surface that will contribute a habitat and/or open space function, such as the golf course ponds (4.52 acres) and the golf course play area (the Town Planning staff has acknowledged that golf courses are considered Open Space), habitat/open space area would total 562.73 acres, or 95.22% of the subject site.

Under the Town CPB Overlay District and the CPB CLUP, the allowed maximum clearing is determined by the zoning of the site at the time that the CLUP was adopted, which was in 1993 (see also **Section 1.7.2**). Based on the prior zonings of the project sites, up to 166.96 acres may be cleared, or 28.25% of the site. The actual clearing proposed is 166.86 acres or 28.23% of the site and thus the project conforms to the vegetation clearance limits of the Town CPB Overlay District and the CPB CLUP. Minimum 100-foot deep natural corridors are maintained between the golf holes in order to interconnect the on-site open spaces, and maintain contiguity with open space in the area (see **Figure 1-9**). In addition, the golf course is designed to conform to topography and maximize use of existing cleared areas in conformance with the CPB Overlay District and CLUP.

*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

NELSON, POPE & VOORHIS, LLC
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FIGURE1-9
CONTIGUITY OF OPEN SPACE WITH ADDITION OF PROJECT RELATED PUBLIC AND PRIVATE OPEN SPACE

Source: NYSGIS Orthoimagery Program, 2013; NPV GIS Library
Scale and North Arrow from Vita figure

The Hills
at
Southampton

Draft EIS

1.6.7 Sustainable Features

While uses of specific building materials, mechanical systems and construction measures have not been finalized at this point, it is expected that the project will utilize energy- and resource-conserving features, materials and systems and may incorporate systems and features associated with the LEED® system and applicable sustainability design measures under the Institute for Sustainable Infrastructure (ISI). However, the Applicant is not prepared at the present stage of the review process to commit to seek LEED® certification for the proposed project. **Table 1-15** presents a list of sustainable features that will be considered for inclusion in the project; the table includes modern, energy-efficient building materials (e.g., insulation, windows, weather stripping, door seals, etc.) and mechanical systems, (e.g., air conditioners, heating systems, combined heating/ventilation/air conditioning (HVAC) systems, water heaters, heat pumps, etc.). Incorporation of such energy-conserving measures is a sensible building practice, particularly in light of the increasing cost of energy resources, and the Applicant's desire to create an environmentally responsible and sustainable project.

The sustainability strategy outlined below provides the applicant's intent, subject to further refinement of the project through the change of zone process. The final list and design of sustainable features will be developed as the project evolves, and will be finalized during the Town's review of the site plan application.

Table 1-15
CANDIDATE SUSTAINABILITY STRATEGY MEASURES
Proposed Project

Sustainability Topic	Strategies	Potential Techniques to Achieve Strategy
Environmental Stewardship	• Open space preservation • Efficient land planning, compact layout, site access, golf course planning • Funding for hydrologic and hydrogeologic watershed study • Land dedication to SCWA • Use of site for school education programs • Habitat restoration research program for Shinnecock Bay	• Dedicate land for open space preservation and protection • Project yields lower intensity than 118 typical single-family homes at a limited average occupancy rate of 60 days per year • Identification of watershed improvements to benefit the Weesuck Creek/Western Shinnecock Bay Watershed • Closure of farming on portions of the Kracke and Parlato Properties will eliminate two sources of nitrogen impact in the Weesuck Creek groundwater shed • Dedication of 4± acres of land on the Hills South Parcel/Kracke Property to the SCWA for a new public water supply wellfield • Restoration of habitat on the Hills South Parcel and the Kracke and Parlato Properties, with additional restoration on Town site contiguous to the east • Installation of "tip-up" curbs, to allow ease of movement of small animal species • Install bird and bat boxes for mosquito control & wildlife benefit. • Use of rain gardens in golf course. • Restore impacted eelgrass. • Help restore Shinnecock Bay by seeding filter-feeding bivalves. • Install clam racks and upwellers.
Energy Conservation	• Designed to Energy Star certification for the clubhouse	• Energy efficient windows and doors • Energy efficient appliances

	• Optimized building orientation for maximum natural daylighting • Natural ventilation strategies • Landscape strategies to provide summer shade • High thermal mass and insulation in building wall and ceilings • Raised floor design for underfloor cooling	• Smart, intelligent programmable thermostat for residential units • Hot water circulation pumps • Tight building design and ductwork installation techniques • LED lighting in units, site and common area • Motion sensor lighting switches • Plug load monitors in residential units
Water Conservation	• Water efficiency within buildings • Water efficient landscaping • Use of captured rainwater for irrigation • Irrigation efficiency	• Low-flow faucet fixtures and showers in clubhouse and residential units • High-efficiency washers in all units • Dual flush toilets in all units and public restrooms • Leak detection sensors in all residential units • High-efficiency and water recapture in commercial laundry equipment • Use of native plant species for landscaping (xeriscaping) • Use of on-site ponds for collection of stormwater and use the same for golf course irrigation • Impervious lining below the greens throughout site to reuse the water for irrigation • Smart irrigation time clocks • Moisture sensing landscape technology and irrigation • Drip irrigation as predominant delivery system
Wastewater Treatment	• Sponsoring research into the use of high-tech septic systems for general use in the Town	• Provide funding and support
Materials & Waste Reduction	• Reduce off-site hauling and disposal of construction waste • Reduce amount of waste to landfill • Materials reuse • Materials specification and delivery with minimum packaging; • Use of building products that incorporated recycled content • Use of rapidly renewable building materials (bamboo, wool, cotton insulation, agrifiber, linoleum, wheatboard, strawboard, cork); • Use of regional building materials (extracted, harvested, recovered, or manufactured within 500 miles)	• Balance excavation and fill insofar as practicable • Re-use as much excavated soil material on-site as possible • Design to use standard material sizes to minimize waste • On-site sorting and separation of construction waste for recycling including glass, metal, cardboard, and sheetrock.
Foster Local Economy	• Maximize number of local jobs (permanent & construction jobs), service sector and local vendors • Increase in tax revenue • Contribution for construction of playing fields needed in the area • Fund improvements to local school (fixing play fields, playgrounds, high-tech study aids, etc.) • Improve surrounding property value	• The proposed project anticipates providing 101.8 FTE jobs at the facility for management and operation of the facility; • Tax ratable project; large dollar value of taxes • Recruitment from the local labor pool for jobs, both for construction and post-construction operations, is expected, where practical • Contribution toward additional public parking in East Quogue hamlet center to support downtown economy

	• Charity outings for the Town/East Quogue/Quogue (five annually; 1 for water quality & 1 for school) • Support public parking in the East Quogue hamlet center	

1.6.8 Site Ownership & Operations and Maintenance

Site Ownership & Operations

The Applicant has provided the following description of the project's anticipated ownership and operations characteristics:

> The residential units will belong to a Home Owners Association (HOA) or Condominium Owners Association (COA), based on the type of residence. Annual HOA/COA dues are estimated to be $10,000 per year. The HOA/COA covers residential common area landscaping, security, utilities, insurance, roads, repairs and maintenance, and other direct residential common area expenses.
>
> The project will include a golf club with approximately 250 equity memberships. The memberships are sold separately from the residences. The memberships are projected to sell for $250,000 each (a total projected sellout of $62.5 million over the project life) and have annual dues of $25,000. Membership dues cover club related expenses including golf course, clubhouse, spa, restaurant, clubhouse services and other facility operating and maintenance expenses.
>
> The clubhouse facilities are anticipated to be fully open during the summer months (i.e., June through September), though the golf course and associated operations within the clubhouse would be available for play for a period of between 6 and 6-1/2 months. Select salaried employees and executives will be employed year-round. A majority of the clubhouse employees will be employed full-time while the clubhouse is open.

During operations, direct *employment* refers to the number of persons that are employed by the proposed project, but not including those employees who will be contracted by the proposed project. It is estimated that the development will generate approximately 101.8 full-time equivalent (FTE) positions during annual operations.[12] This includes:

- 1 FTE Food and Beverage Director;
- 1 FTE Executive Chef;
- 1 FTE Sous Chef;
- 4.5 FTE Cooking and Kitchen Staff;
- 3.6 FTE Service Staff and Stewards;
- 1 FTE Director of Golf;
- 4.75 FTE Pro/Golf Shop Staff;
- 3.7 FTE Guest Service Staff;
- 1 FTE Superintendent;
- 1 FTE 1st Assistant Superintendent;

[12] All direct employment provided by DLV Quogue, LLC in October 2015. It is important to note that these positions reflect an adjustment factor for part-time and seasonal employees.

- 1 FTE ITHM Specialist;
- 1 FTE Mechanic;
- 1 FTE Assistant Mechanic;
- 1 FTE Irrigation Specialist;
- 2 FTE Maintenance Staff;
- 11.7 FTE Additional Maintenance Staff;
- 1 FTE Grounds and Facilities Manager;
- 4 FTE Grounds and Facilities Staff;
- 1 FTE Spa and Fitness Manager;
- 3.2 FTE Spa Attendants and Therapists;
- 1 FTE Outdoor Pursuits Manager;
- 0.9 FTE Outdoor Pursuits Staff;
- 0.9 FTE Concierge/Guest Relations Staff;
- 1 FTE Member Services Coordinator;
- 1.35 FTE Member Services Staff;
- 1 FTE General Manager;
- 1 FTE Assistant General Manager;
- 1 FTE Chief Financial Officer;
- 1 FTE Business Manager/Analyst;
- 1 FTE Controller;
- 3 FTE Other Finance and Administration Staff;
- 3.1 FTE Housekeeping Staff;
- 2.2 FTE Security Staff;
- 7.9 FTE Additional Security Staff;
- 1 FTE Director of Marketing and Sales;
- 2 FTE Marketing and Sales Hosts;
- 5 FTE Sales Staff;
- 1 FTE Homeowners Association Manager;
- 1 FTE Residential Services Manager;
- 8 FTE Residential Services Staff; and,
- 8 FTE Development Staff.

The 101.8 FTE direct employment positions are projected to result in an indirect impact of 18.7 FTE jobs, and an induced impact of 34.1 FTE jobs throughout the region, bringing the total economic impact of operational employment to 154.6 FTE jobs during annual operations.[13]

Site Maintenance

The golf course superintendent will be responsible for ensuring that all fertilizer and pesticide applications are performed in accordance with the standards and methodologies developed for the proposed project, and described in the ITHMP. As noted, the turf maintenance for the golf course will be extended to address residential and common areas on the site so that managed turf maintenance protocols will be implemented throughout the site.

[13] According to IMPLAN, a multiplier of 18.257264 represents the total change in the number of jobs that occurs in all industries for each additional one million dollars of output delivered to final demand by "Other amusement and recreation industries" (IMPLAN Sector 496); and a multiplier of 22.688659 represents the total change in the number of jobs that occurs in all industries for each additional one million dollars of output delivered to final demand by "Labor and civic organizations" (IMPLAN Sector 516) in Suffolk County, New York.

Golf Course and Clubhouse - Descriptions of the golf course and clubhouse operations are provided in **Section 1.6.1**; descriptions of the various golf course maintenance activities are presented in **Section 1.6.8**. It is expected that the costs of golf course- and clubhouse-related maintenance will be borne by the development through revenues generated by golf course and clubhouse revenues. These costs may include: parking area surfaces repair and snowplowing, parking area lighting, exterior building area and security lighting, clubhouse area drainage system, clubhouse water & energy supply, solid waste removal, and all costs associated with golf course landscaping maintenance. It is expected that the clubhouse and the maintenance area will each will have an exterior dumpster (in the clubhouse service yard and adjacent to the maintenance building, respectively) for regular pick-up by a licensed private carter.

Residential and Common Areas - A description of the residential component is provided in **Section 1.6.1**. As indicated by the Applicant, the costs of maintenance of the residential and common areas of the site (i.e., the portion of the site not associated with the golf course or clubhouse area) will be paid from the annual HOA/COA dues. These areas would include the internal roads, entrance gatehouse, drainage system, roadway lighting, water & energy supply, telephones & cable television, landscaping, security, solid waste removal, insurance, etc.). Solid wastes generated in the residences will either be brought by the homeowner or will be picked-up by project maintenance personnel to the maintenance area dumpster.

1.7 Construction Process and Operations

1.7.1 Construction Schedule

Table 1-16 presents the Applicant's anticipated construction/development schedule and milestones (including phasing and the components to be included in each phase). Generally, the Applicant anticipates the following general information on the schedule for construction:

- Following a change of zone and site plan review period, the project is anticipated to break ground in the summer of 2017, and be completed over 5-1/2 years, with completion scheduled to occur at the end of 2022.
- The golf course construction is expected to take 3-1/2 years and start in the second half of 2017.
- The clubhouse construction phased over 3 years; initial phase starting in the first half of 2018.
- Residential construction phased with sales; planned to commence in the second half of 2017.

Based on the anticipated construction timeline, the entire construction phase would last a period of 5-1/2 years. Consequently, some level of construction activity would be expected for a similar length of time. The nature, intensity and scale of construction-related impacts would vary from quarter to quarter, and would be associated with the numbers of construction workers on-site as well as with the work tasks to be accomplished during each quarter.

The number of workers on the site during each quarter will increase from 35 (at the onset of construction), an increase to 165 in the spring of 2018 (associated with grading and drainage system development), followed by a slight decrease until the following spring, at which time the number of workers will again increase until the fall of 2019, at which time the work staff will

decrease over the winter. In the spring of 2020, the number of workers will again increase and reach its peak in the summer of 2020, after which the number of workers will generally decrease until the construction phase ends.

Table 1-16
ANTICIPATED CONSTRUCTION TIMELINE

Year	Quarter	Total Workers*	Golf Course Construction		Clubhouse Construction		Residence Construction	
			Workers	Duties	Workers*	Duties	Workers*	Duties
2017	Jan.-March	0	0	---	0	---	0	---
	April-June	0	0	---	0	---	0	---
	July-Sept.	80	35	Civil	0	---	45	Civil
	Oct.-Dec.	75	45	Temporary Roads	0	---	30	Excavation
2018	Jan.-March	85	45	Cut & Fill	0	---	40	Utilities
	April-June	130	65	Grading	15	Civil	50	Pad
	July-Sept.	165	90	Drainage	15	Excavation	60	Foundation
	Oct.-Dec.	135	65	Shaping	15	Utilities	55	Waterproofing
2019	Jan.-March	125	50	Sand Capping	15	Pad	60	Framing
	April-June	185	90	Fine Grading	20	Foundation	75	Windows, Doors
	July-Sept.	225	90	Grassing	35	Framing & Siding	100	Siding
	Oct.-Dec.	230	65	Irrigation	40	MEP*	125	Roofing
2020	Jan.-March	170	50	Landscaping	30	Roofing	90	Mechanical
	April-June	240	80	Hardscaping	35	Interiors	125	Plumbing
	July-Sept.	255	90	Water Features	40	Landscaping	125	Electrical
	Oct.-Dec.	215	75	Signage	40	F&B**	100	Insulation
2021	Jan.-March	180	50	Maintenance	40	FFE**	90	Drywall
	April-June	100	0	---	0	---	100	Cabinets, Millwork
	July-Sept.	125	0	---	0	---	125	Flooring
	Oct.-Dec.	100	0	---	0	---	100	Tile & Granite
2022	Jan.-March	90	0	---	0	---	90	Finish MEP
	April-June	90	0	---	0	---	90	FFE
	July-Sept.	90	0	---	0	---	90	Hardscaping
	Oct.-Dec.	75	0	---	0	---	75	Landscaping

* Column refers to workers per day during specified construction period.
** MEP - mechanical, electrical & plumbing; F&B - food & beverage; FFE - furniture, fixtures & equipment.

Additionally, the timeline shows that there would be some overlapping of development schedules between the three phases of construction. Construction would start with the golf course and the residences; construction of the clubhouse would not begin for another nine months. The golf course and the clubhouse are scheduled to be completed during the same

quarter; construction of the residences (the phase having the longest construction duration of the project) would take an additional 21 months to complete.

Construction related impacts are not permanent and are variable during the construction process such that lesser levels of construction activity will occur during the overall construction period. In terms of the permanent use and occupancy of The Hills at Southampton project site, construction is of limited duration and will be managed by the applicant to comply with Town Code requirements and proper construction management practice.

1.7.2 Construction Process and Operations

The following generally describes the anticipated process and methods whereby construction of the proposed project will take place:

- The construction process will begin with clearing, grading and stabilization for the access road off Lewis Road (in the approved alignment for the Kijowski Family Farm subdivision, designated "Old Field Road"), to create the construction entrance, and clearing and grading for the internal construction access roadways within the site's development area.
- Next comes the establishment and approval of flagged clearing limits within the development area.
- This will be followed by the installation of erosion and sediment control measures such as identification of stockpile areas, installation of silt fencing, stabilized construction entrance, truck washdown station, etc. as outlined & detailed on the approved Erosion and Sediment Control drawings and the filed SWPPP.
- At this stage, clearing of the development area will commence. Excess vegetation debris will be chipped and/or mulched, for removal or for re-use on the site at a later time.
- Rough grading of the site and golf course as well as excavation of the ponds will then commence with surplus soil exported off-site.
- Once appropriate grades have been established in the areas of the proposed clubhouse and Village lots, construction of footing and foundations for these structures will commence immediately followed by the construction of the structures themselves.
- The installation of site utility infrastructure for the clubhouse village lots will be concurrent with the building construction.
- The construction of internal site roadways and parking areas will immediately follow the infrastructure installation.
- The installation of the infrastructure supporting the estate lots may take place at the same time as the clubhouse and Village Lots or may be paced as the market for housing sales advances.
- At all times, in accordance with the SWPPP, the time span that denuded soil is exposed to erosive elements shall be minimized by the installation of permanent structures as soon as practically possible. If the construction of permanent structures is delayed for any reason, the exposed areas shall be protected as outlined in the SWPPP.
- Once heavy construction is complete, finish grading will occur, followed by soil preparation using topsoil and installation of landscaping.
- After establishment of permanent plantings, structures and other permanent erosion control measures, the temporary measures, silt fences, construction entrance, etc. shall be removed and a Notice of Termination shall be filed with the NYSDEC and Certificates of Occupancies obtained.

The following briefly describes several aspects or features of the construction program that may be of particular concern to the Town and/or community:

- *the construction vehicle access point* - as the site has only one access onto a public road (Lewis Road), it is expected that the lone construction vehicle access will be on the same alignment as the project's final vehicle access point, through the alignment of the approved Kijowski Family Farm subdivision, known as "Old Field Road".
- *delivery truck routes* - it is expected that trucks delivering materials to the site as well as truck removing materials from the site will use that portion of Lewis Road north of the site's access point, to Exit 64 of NYS Route 27 (Sunrise Highway). From here, fast and efficient movement eastward and westward is available for these vehicles.
- *construction worker parking, truck loading and unloading areas, and building materials storage and staging areas* - it is expected that these functions and areas will be located in the vicinity of the proposed golf course maintenance area.
- *hours of construction operations* - Chapter 235 of the Town Code regulates noise generation. For the hours 7 AM to 7 PM, noise from a residentially-zoned site may not exceed 65 dBA at the property line; however, construction-related activities are specifically exempted from this regulation. Nevertheless, the applicant expects to limit the hours of construction to within the period 7 AM to 7 PM, on weekdays and, should the construction schedule require it, Saturdays. Construction on Sundays or holidays is not expected.

1.7.3 Excess Soil Removal, Truck Trips and Impacts

As discussed in **Section 1.6.2** and based on a preliminary analysis, it is expected that between 200,000 and 350,000 CY of excess soil would be generated by the project's grading program. Typically, this volume would need to be removed from the site, to be reused elsewhere (if it proves to be acceptable for this purpose). However, if feasible, the applicant will arrange direct access to the adjacent East Coast Sand Mine site via an internal haul roadway that would not require access to Lewis Road. It is anticipated that the haul road will follow the route identified in **Figure 1-7**. The proposed route follows an existing farm road connecting the site to the East Coast Sand Mine. This farm road is compacted and is not part of the agricultural use area of the site other than for traversing of farm equipment. No additional clearing is needed for the construction of the haul road. The farm road is to be improved with the addition of six inches of 2-inch stone or recycled concrete. Filter fabric shall be placed upon farm road prior to the placement of stone. The proposed haul road shall be approximately 24 feet in width. Any existing surface water runoff currently directed towards the proposed haul road will maintain its existing pattern of flow, be retained in swales along the roadside, or will be piped across the haul road to maintain the existing drainage flow. Upon completion of the usefulness of the haul road, it will be removed and restored to the preconstruction farm road condition.

Assuming that trucks having a capacity of 40 CY are used to remove this material, between 5,000 and 8,750 truckloads of soil would be generated, or between 10,000 and 17,500 truck trips would be necessary to complete this removal process. No additional truck activity is expected as a result of land clearing as wood material will be processed and used on site to the maximum extent practicable. Some additional truck activity will result from import of engineered soil for greens. As noted in **Section 1.6.2**, approximately 6,227 CY of material is expected to be

imported. This equates to 230 truck trips; however, since soil removed from the site is expected to be transported to East Coast Mines, trucks returning to The Hills site can be loaded with engineered soil product for the return trip and thus additional truck traffic would not occur as a result of this import of material.

It is expected that the project's grading operation would occur in a number of locations simultaneously, so that a number of stations would be established to load trucks with the excess material. Assuming that a truck can be loaded with soil in about 15 minutes, each loading station could fill 32 truckloads during an 8-hour working day.

Table 1-17 has been prepared to provide an estimate of the length of time that the soil removal process could last, assuming an as-yet-unknown number of loading stations and the low- and high-end estimates of excess soil to be removed. As can be seen, the greater the number of loading stations operating during the grading process, the faster this period can be completed.

Table 1-17
RANGE IN NUMBER OF TRUCKLOADS
Removal of Excess Soil from Site

Number of Loading Stations	For 200,000 CY of Excess Soil			For 350,000 CY of Excess Soil		
	Number of truckloads daily	Number of truck trips daily	Duration of removal process	Number of truckloads daily	Number of truck trips daily	Duration of removal process
1	32	64	157 days	32	64	274 days
2	64	128	79 days	64	128	137 days
3	96	192	53 days	96	192	92 days
4	128	256	39 days	128	256	69 days
5	160	320	32 days	160	320	55 days

The actual number and location(s) of soil loading stations would be determined by the Applicant's excavation contractor in consultation with the general construction manager of the site. Given the size and configuration of the site, and number of trucks that may be mobilized on a given day, it is expected that no more than 3 stations would operate simultaneously. The exact number of stations (1-3) would vary depending on the golf course construction process, number of available trucks and as grading operations shift from place to place as grading operations proceed. Based on the above, no more than 96 one-way, and 192, two-way trips would occur on a given day based on soil removal activities.

If East Coast Sand Mine is used to dispose of the excess soil, but an internal haul road is not feasible, a small segment of Lewis Road would be used by the trucks to access the East Coast Sand Mine access road approximately 1,125 feet west of the proposed project site entrance. This road segment has one home on the north side (Kracke) and three homes on the south side of Lewis Road and is primarily flanked by farmed land (north) and recharge basins (to the south). East Coast Sand Mine is an active, ongoing operation that mines, receives, processes and sells sand and gravel product. As a result, there is a high level of trucking activity in the area which would potentially experience an incremental increase (depending on the status of operation at the

mine), or would displace existing trucking activity at the mine. In any case, impacts would be limited in duration and geographic scope and would not be expected to be significant given the existing mining operation. Additional assessments of other aspects of construction-related activities are provided in **Section 4.1**, Construction-Related Impacts.

With respect to potential impacts from the soil removal process (such as dust and truck and equipment noises), these impacts will be temporary in duration, would be limited to the project site, the adjacent East Coast Sand Mine site and the non-residential properties abutting these areas, would be limited to weekday hours, and would conform to any and all Town requirements for specific hours of operation.

Truck trips will also occur as a result of construction activities associated with road construction, clubhouse construction and construction of residential units (see **Table 1-18**). These trips are primarily associated with delivery of equipment and materials. Truck trips may vary depending on the stage of construction, number of homes being constructed and overlapping construction activities, availability of materials and other factors. Truck trips may also involve many deliveries in one day, and then no deliveries for a time period until more material is needed. An example would be delivery of forms for concrete setup which could involve multiple deliveries in a day, and then no deliveries until concrete is ready to be poured or forms are ready to be removed. Over the course of a day, if the worst case scenario involves simultaneous construction of roads, clubhouse and residential units (which could occur at times during the construction schedule), estimates can be provided of the average number of trucks per day for construction of various components of the project. The following table provides an estimate of truck trips related to these activities.

The construction of the proposed project is anticipated to result in truck trips primarily associated with earth moving, delivery of equipment and materials and vehicles trips associated with construction employees. Delivery trucks trips may vary depending on the stage of construction, number of homes being constructed and overlapping construction activities, availability of material and other factors. Because the construction of this project will result in construction related trips, we have prepared a trip generation estimate to account for this traffic. This estimate was prepared by distributing trips associated with construction employees and delivery of construction material to the adjacent street network. In order to prepare a conservative construction trip estimate, we accounted for the possibility of all four components (golf course, road construction, clubhouse and residential construction) of the project to occur simultaneously. Based on the Applicant's anticipated construction/development schedule shown in **Table 1-16**, the maximum number of anticipated construction personnel is 255 workers. This relates to the period July-September, 2020 in **Table 1-16**; since it is a maximum, all other time periods will have a lesser number of trips related to construction workers and therefore less impact.

Since some workers will carpool to/from the site in personal vehicles or arrive/depart via large groups in commercial vehicles, it is reasonable to assume vehicle occupancy of more than one (1) worker per vehicle. The applicant will encourage, promote and facilitate car-pooling through construction contracts and construction management during this phase of the project. Since actual vehicle occupancy information is not available, two vehicle occupancy scenarios were analyzed:

- Vehicles occupancy of 1 worker per vehicle was utilized; this equates to approximately 255 vehicles per day (510 trips per day).
- Vehicles occupancy of 1.5 workers per vehicle was utilized; this equates to approximately 170 vehicles per day (340 trips per day).

Table 1-18
CONSTRUCTION TRUCKLOADS[1]
Other Than Soil Removal

Parameter	Number of truckloads daily	Number of truck trips daily
Road Construction	3	6
Clubhouse Construction	4	8
Residential Construction [2]	2 x 20 = 40	80
Total	47	94

Notes: 1 Estimating assistance provided by RLW4 Builders, LLC; RLW4 Builders, LLC is involved with DLC in the construction of another project in Westhampton Beach.
2 Assumes construction of 20 homes at one time.

Based on the above, it is estimated that on average approximately 94 truck trips may occur daily as a result of construction equipment and material deliveries. These truck trips would generally travel along Lewis Road, to and from Sunrise Highway.

A small segment of Lewis Road may experience up to 286 truck trips per day during intermittent periods of construction when all four (4) components of the project are occurring simultaneously (i.e., golf course, road construction, clubhouse and residential construction). The 192 soil transport trips would only occur on a small segment of Lewis Road if an internal haul road is not provided. Other truck trips would likely occur more intermittently with more some days and less on others, and likely would be less as not all components of the project will be active simultaneously over the period of construction. **Figure 1-7** provides an illustration of this combined, worst-case, average scenario of truck trips related to construction. However, to perform conservative analyses, a total of 286 construction delivery truck trips was utilized. The truck trips were converted to passenger car trips by applying a passenger car equivalent (PCE) of 1.5 to the truck trips. The 286 daily trucks trips are equivalent to 429 daily passenger car trips. The construction employee and construction truck trips were then distributed hourly and the trips during the peak hours identified. The anticipated maximum number of construction generated trips are summarized in **Table 1-19** below.

As shown in **Table 1-19**, the construction phase of the project may generate between 39 and 48 trips during the AM peak hour, between 81 and 107 trips during the PM peak hour and between 52 and 57 trips during the Saturday Midday peak hour (42 entering, 45 exiting). A detailed project construction trip generation calculation for an entire weekday and Saturday conducted to justify the trip generation characteristics of the construction traffic are contained in Appendix C [of **Appendix H**].

1.7.4 Erosion Control Measures

As noted in **Section 1.6.2**, the SWPPP will also include details of the erosion controls to be employed during the construction period to contain stormwater runoff on-site so that there is no transport of sediment to neighboring properties. The proposed locations, sizes, and lengths of each of the temporary erosion and sediment control practices planned during site construction activities, and the dimensions, material specifications, and installation details for all erosion and sediment control practices are also provided on the **Erosion Control Plans**, to be reviewed and approved by the Town as part of the site plan review process (see **Appendix A-13** for a discussion of these plans).

It should be noted that if sod/turf product is used at the site, it will originate from a Suffolk County source.

Table 1-19
TRIP GENERATION, Construction Phase
Proposed Project

Time Period	Distribution	Construction Trucks	Construction Employees (1)	Construction Employees (12	Total (1)	Total (2)
Weekday AM Peak Hour	Enter	13	20	14	33	27
	Exit	13	0	0	13	13
	Total	26	20	14	46	40
Weekday PM Peak Hour	Enter	15	0	0	15	15
	Exit	15	77	51	92	66
	Total	30	77	51	107	81
Saturday Peak Hour	Enter	22	0	0	22	22
	Exit	22	13	9	35	31
	Total	44	13	9	57	53

1 - Occupancy of 1 worker per vehicle
2 - Occupancy of 1.5 workers per vehicle

1.7.5 Other Operations

Maintenance Area Facilities and Operations

The project's maintenance area will be located in the south-central portion of the Hills South Parcel/Kracke property, and will be buffered from outside views (from vantage points both within and outside the project site; see page 9, **Appendix B-1**) by a 50 to 100 foot deep planted buffer screen along the internal roadway, as well as by retained natural vegetation between the maintenance area and the site's boundaries. This area will include a single, 9,000 SF structure housing office space, employee breakroom, garage space and mechanical shop. Outdoor spaces for fueling, equipment washdown, material storage/handling (including protected spaces wherein fertilizers, pesticides, etc. will be stored and loaded into application equipment), and a dumpster are also located in this area. Parking for 25 cars will be provided.

The following brief description of the maintenance facility and associated turf management facility has been taken from the ITHMP :

> *Turf Management Facility*
> The turf management facility will occupy approximately 20,000 SF within the golf course facilities. The facility will be equipped with an SCDHS Article XII approvable pesticide storage building and fuel tanks. The maintenance area will include an equipment wash-down pad where wash water will be captured, treated and recycled. This equipment (Appendix 8, within **Appendix J**) is currently in use on New York golf courses and is manufactured and supplied by EDS. After washing equipment, a series of settling tanks remove solids (soil, grass clippings), cyclones reduce particulate matter, and carbon activated filters clean the wash water prior to water reuse. Solids from the wash water treatment system are collected from the tanks, removed to a secure temporary storage area, placed on an impermeable surface, and covered with plastic sheets to minimize runoff. The wash down solids are transported off site and disposed of at an approved NYSDEC solid waste facility. The Hills will also utilize the EDS chemical pad and collection system for turf sprayer wash out and recovery. The State's BMP for golf courses cites the importance of turf management facilities as emergency response centers for accidental spills of fuels and chemicals. Typical facilities provide staff break rooms, locker rooms, mechanical repair/parts areas, soil and sand topdressing storage areas, equipment warehousing and act as informational centers for turf employee records, OSHA and MSDS and turf related communications.

The operation of the golf course maintenance area at The Hills at Southampton will ensure the highest level of environmental management, safety and care in operations. The following paragraphs include a discussion of maintenance area operations and measures to be taken to protect resources, and reflects the operations in effect at other facilities.

The Hills at Southampton project will employ a number of the standards of the Audubon International Signature Program in its golf course maintenance and operations practices. In this program, the maintenance area is to be developed with comprehensive quality and environmental requirements and is called the Natural Resources Management Center (NRMC). The approach to this area will involve interior storage of materials and operations that follow NRMC standards, and all installations and operations will comply with the regulatory requirements of SCSC Articles 7 and 12, as well as the Town Fire Marshal's requirements for fuel storage and dispensing.

The NRMC area will be graded to control stormwater flow and use a two-stage catch basin/leaching pool system and/or vegetated natural recharge areas to handle stormwater drainage and protect nearby areas from potential stormwater flows. Stormwater generated will originate from roof, driveway, parking and natural or natural revegetation areas, and therefore would be similar to any building and parking installation and not generate pollutants.

At the fuel storage/dispensing building and the material storage/handling area, where the turf care products are stored, mixed, and loaded, all materials will be stored and mixed on solid concrete floors and spill containment structures will be included in design. All storage will conform to SCSC Article 12 and dry material/wet material storage will be designed, permitted, constructed and operated in conformance with the requirements of Article 12. Additionally, the equipment washdown building will be enclosed or protected from the elements and will employ

recirculation and treatment technology on the rinse water. This will improve the water conservation and water quality protection aspects of this area and provides a means to comply with Article 12.

It is anticipated that a 1,000-gallon diesel fuel storage tank and a 500-gallon gasoline storage tank will be used, to be placed in separate lined, vented, monitored and alarmed underground vaults and will be designed, permitted, constructed and operated in conformance with Article 12 of the SCSC. This will ensure that no release may occur from these installations.

Though a spill is extremely unlikely based on the operational intent of the NRMC, spill contingency is an important aspect of the facility. This ensures that in the unlikely event that a spill occurs, protocols are in place to manage the event. **Appendix A-14** provides a Spill Response Plan as prepared by Cornell Cooperative Extension. This or a similar protocol will be established in connection with the maintenance facility as well as the overall site operation.

Chemical Application Procedures and "Drift" Prevention Measures

This subsection describes the use of chemicals at the golf course in order to establish a basis to *"evaluate and report on the potential for the pesticides used to maintain the golf course to become air-borne, causing the spread of pollutants to sites outside of the project,"* as required in the Final Scope. The practices described herein will be used for application procedures in both the golf course and residential areas, in order to prevent adverse environmental impacts and eliminate risks to residents from potential exposure. No fertilizer or pesticides will be applied to the bunkers; on occasion, non-selective week control may be needed in the bunkers. Any such application will only be done during dry periods. As noted previously, the golf course superintendent will be responsible for ensuring that all fertilizer and pesticide applications are performed in accordance with the standards and methodologies developed for the proposed project, and described in the ITHMP. Based on the pesticide drift prevention measures outlined herein, the chemical application procedures and drift prevention regulations to be adhered to, as well as the discussion of the actual characteristics of airborne chemical drift, pesticide drift beyond the target application areas will not occur. Any time that pesticides are to be applied, the operator will record the following meteorological conditions in order to facilitate emergency clean-up efforts in case of a spill or environmental incident: wind speed and direction, relative humidity, and rainfall conditions.

As described in the ITHMP submitted with the PDD application, and revised for this Draft EIS, the project's turf management approach will utilize professionally trained turf managers, qualified superintendents and state of the art equipment. Pesticides will be carefully managed and strategically applied such that these substances are not expected to spread beyond the immediate area of application.

In the United States, the legal use of pesticides is controlled by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), enacted in 1947. The most significant amendment to FIFRA was the Federal Environmental Pesticide Control Act of 1972. One significant part of the amendment required the federal Environmental Protection Agency (USEPA) to register all pesticides as well as each use of that pesticide and approve the product label. In summary the EPA reviews all pesticides brought to market and either rejects or registers the pesticide for use.

The pesticide label is required to provide product information mandated by federal law. This requirement is generally interpreted as, "the pesticide label is the law." Each label includes:

- Product Name
- Active Ingredients (by percent)
- Inactive Ingredients (by percent)
- Signal Words (Caution, Warning, Danger)
- First Aid
- Precautionary Statements (hazards to humans, animals, aquatic environments, etc.)
- Personnel Protective Equipment (PPE)
- User Safety Requirements
- Engineering Controls
- User Safety Recommendations
- Environmental Hazards
- Directions for Use (Agricultural and Non-Agricultural)
- Aerial Drift Advisory Information
- Integrated Pest Management Statements
- Target Organism Resistance Management
- Mixing, Loading and Application Instructions
- Application Rates and Application Sites and Timing
- List of Target Organisms Controlled
- Maximum Allowable Quantity of Active Ingredient Allowed per Application per Year.
- Storage and Disposal

Three classifications for pesticides are used to categorize toxicity and provide warning statements for the applicator. The product's safe handling measures are detailed on each label. The label is required to provide "signal words" that advise applicators of potential concerns.

Category	Signal Word	
IV	"Caution"	Relatively non- toxic
III	"Caution"	Slightly toxic
II	"Warning"	Moderately toxic
I	"Danger/Poison" (with skull & crossbones)	Highly toxic

Note: all registered pesticide labels state, "Keep-Out of Reach of Children."

The extent of PPE and work clothing generally required for pesticide handling activities for each Category is as follows:

Route of Exposure	Toxicity Category			
	I	II	III	IV
Dermal toxicity or skin irritation potential	Coveralls worn over long-sleeved shirt and long pants	Coveralls worn over long-sleeved shirt and long pants	Long-sleeved shirt and long pants	Long-sleeved shirt and long pants
	Socks, chemical-resistant footwear & chemical-resistant gloves	Socks, chemical-resistant footwear & chemical-resistant gloves	Socks, chemical-resistant footwear; no minimum	Socks, chemical-resistant footwear; no minimum
Inhalation toxicity	Respiratory protection device	Respiratory protection device	No minimum	No minimum
Eye irritation potential	Protective eyewear	Protective eyewear	No minimum	No minimum

Note: If the chemical is an eye irritant, applicators wear eye protection.

The applicator makes the final decision on what PPE is necessary based on the statements provided on the product label. Every pesticide label is reviewed for its specific personal safety requirements based on its specific toxicity rating. For golf courses, the majority of pesticide applications are fungicides, which generally are listed as Category III, with less frequent applications of herbicides and insecticides listed as Category III or II. For example, the soil fumigant *Basamid* (Dazomet) is Category II. Soil fumigants are commonly used for pre-plant controls of soil nematodes, fungi and weed seed germination. The project's golf course will not need the use of soil fumigants for the construction or operational phases.

The USEPA is also responsible for administering the national program that assures a desired level of technical competence associated with private and commercial pesticide applicators. In New York State, the lead agency designated for pesticide registration, pesticide use, applicator certification and enforcement of state and federal regulations is the NYSDEC, Division of Materials Management, Bureau of Pesticides Management. Commercial pesticide applications can only be performed by a NYS Certified Commercial Pesticide Applicator. General eligibility requirements for certification are:

- Qualify as a Commercial Technician- Minimum age of 17; Completion of 30-hour NYSDEC approved training program.
- Pass Core Exam - 90 minutes 50 questions- closed book
- Pass Technical Exam- 90 minutes 50 questions-open book
- Provide Proof of One-year experience with pesticide applications performed under supervision of a NYS Certified Commercial Applicator
- Complete 12 hours of category specific certification training credits from pesticide courses approved by the NYSDEC
- Pay NYS Certification fees

The NYSDEC regulates pesticide applications pursuant to 6NYCRR Part 325 Rules and Regulations Relating to the Application of Pesticides. Part 325.16 describes twelve categories of commercial pesticide applications. Generally, turf professionals are certified in the category 3A:

Ornamentals and Turf. On-site staff involved in the application of pesticides shall at a minimum be NYS Certified Commercial Pesticide Applicators-Category 3A.

The NYSDEC also registers pesticides for use in the state, such that all USEPA registered pesticides are not legally permitted for use in New York unless the product is also registered by the state. The NYSDEC further restricts pesticide use within specific counties, with Nassau and Suffolk Counties having the most restrictions on pesticides available for use and limitations of annual cumulative application quantities for specific pesticides.

Pesticides are available in several different formulations. These include aerosols, granules, ready-to use, emulsified concentrates, wettable powders, soluble powders, flowables and fumigants. Controlling drift is important for the commercial applicator. The pesticide's formulation together with selection of pesticide application equipment can be effective in reducing the potential for drift. For example a pesticide as an aerosol formulation would have a greater potential for aerial drift than that same pesticide in a large particle granule formulation. With regard to equipment, an accurately calibrated drop spreader would apply a pesticide in a more precise location than a broadcast spreader.

To be effective, the pesticide must be applied precisely on the target at the correct rate, volume and pressure. Particle drift can be influenced by particle size, nozzle design and orientation, pressure, temperature, humidity, evaporation, height of release, air velocity and movement, and each must be considered.

To avoid aerial drift and minimize the potential for the spread of pollutants to sites outside of the project area, the applicator shall be required to follow the pesticide label. Typical label instructions include:

- Use the largest particle and droplet size
- Use the lowest practical pressure
- Select nozzles that produce large numbers of large particles
- Apply as close as practical to the target
- Use a drift control additive (i.e., an additive that allows the pesticide to adhere to the plant leaf or soil for more effective performance; aka "stickers")
- Not apply when wind, temperature or humidity are unfavorable (i.e., periods of temperature inversions, high humidity, variable wind direction, winds generally in excess of 10 mph)
- Choose non-volatile pesticide formulations
- Increase flow rates of the application
- Establish buffer zones to avoid ecologically sensitive areas and waterways
- Use new technologies including: drift reduction nozzles, spray shields-boom curtains, air-assist spray and GPS area control equipment.

There are three primary methods of applying pesticides to turfgrass and ornamental plantings:

1. Low pressure (30-60 pounds per square inch [psi]) boom sprayers, typically mounted on a small utility vehicle with multiple (11-21) nozzles located approximately 20 inches above the ground surface. This equipment is used for pesticide formulations that are mixed with water (emulsified concentrates, wettable powders, soluble powders, emulsifiable concentrates, and flowables).

2. Spreaders either rotary broadcast spreaders or drop spreaders either walked or towed by a tractor or utility vehicle. This equipment is used for dry particle pesticide applications (granules).
3. Hand held/back-pack sprayers are used for "spot spraying" generally defined as placing the hand held discharge nozzle directly on the target organism (typically a weed). Spot spraying applications are generally limited to areas of 900 SF or less per application.

All pesticide application equipment must be calibrated by the applicator to determine the rate of the application and adjust the equipment for the correct discharge of the active ingredient whereby pesticides are not over or under applied. Schedules for regular calibration of both the pesticide and the fertilizer application equipment are provided in the ITHMP **(Appendix J)**, to maximize the efficiency and effectiveness of these procedures.

Typically the majority of golf course pesticide applications utilize a low pressure boom sprayer. Depending on the product formulation and environmental conditions, rotary and broadcast spreaders are also used, and low pressure hand held sprayers utilized for spot spray weed control. To minimize the potential for the pesticides used to maintain the golf course to become air-borne, and causing the spread of pollutants to sites outside of the project, the project' NYS Certified Commercial Pesticide Applicators will in addition to product label instructions, utilize a powered turf boom sprayer, equipped with a spray nozzle boom wind-curtain. The boom curtain encapsulates the boom (the boom is where the nozzles are mounted approximately 20-inches above the ground), isolates the spray from the weather conditions and directs the spray directly to the turf. The use of the curtain reduces the potential of drift to nearly zero. The sprayer uses a global positioning system (GPS) system with on-board real time computerized application controls. The controls are designed to specifically apply inputs at pre-set rates, continuously adjusted for various ground speeds, within the GPS pre-programmed mapped areas (footprints of the greens, tees and fairways are programed into the sprayer's on-board computer and GPS). The equipment directs application of nozzle spray downward, only within the designated areas, with minimal potential for overspray. In combination with the boom curtain, the GPS system is the most advanced sprayer technology available designed to minimize applicator error, conserve inputs and avoid impacts to non-target areas and organisms.

The use of hand held sprayers for spot spraying and low pressure boom sprayers equipped with GPS and spray shield-boom curtains, together with experienced certified applicators and pesticide label instructions, particle drift is expected to be avoided or be limited to areas within the immediate Hills property boundaries. Label instructions require applicators to follow specific set-back distances from environmentally sensitive areas, water resources and non-target plants. This requirement will be implemented through on board computer programing of the sprayer and the GPS mapping systems. This technology automatically shuts off the sprayer or sprayer nozzles within programmed geographic areas to avoid non- target releases.

The Hills at Southampton turf management facilities will be equipped with PPE, federal Occupation Safety and Health Administration (OSHA)-required Material Safety Data Sheet (MSDS) and employee hazard communication programs, emergency response and spill cleanup kits, trained personnel, wash down and wastewater recycling equipment.

Fuel and chemical storage and handling equipment will exceed the minimum standards for SCDHS and NYSDEC. Turf and soil samples will be routinely (i.e., at least whenever the turfs exhibit an unhealthy appearance, are symptomatic of a disease or pest condition and at least twice annually for nutrients assessments) collected and analyzed by qualified laboratories to determine nutrient levels, plant physiological conditions, evaluate physical properties of soils and identify turf pathogens. The frequency of this sampling procedure would be determined in consideration of turf appearance or symptoms of a disease or pest condition, and would also occur at least twice annually for turf nutrient assessment. This part of the IPM and ITHMP provide alternative controls to pesticide applications necessary to address turf health.

1.8 Permits and Approvals Required

The Applicant prepared and submitted the required PDD Pre-Application document to the Town Board on June 7, 2013, and the Town Board held two public hearings on that application on August 27, 2013 and October 8, 2013. The Town planning staff prepared a Pre-Application Summary Report and the Town Board adopted it on December 6, 2013. The Town Board then determined (on January 14, 2014) to authorize the applicant to prepare a PDD Application, which was submitted in January 2015.

Prior to the issuance of any permits or approvals, the applicant and Lead Agency must fulfill the requirements of SEQRA. This document is part of the official record under the SEQRA process outlined in Title 6 of the New York Code of Rules and Regulations (6 NYCRR) Part 617, with statutory authority and enabling legislation under Article 8 of the NYS ECL. The Southampton Town Board is the Lead Agency for the MUPDD Application, as the application that triggered the SEQRA process is under the jurisdiction of that Board. The Town Board determined that the proposed project is a Type I Action pursuant to SEQRA, and the regulating provisions of 6 NYCRR Part 617. As lead agency under SEQRA, the Town Board adopted a Positive Declaration on the proposed project on March 24, 2015. The Town Board also conducted formal scoping in conformance with 6 NYCRR Part 617.8, providing forums for oral and written comments on the Draft Scope of the content for the draft EIS, which was issued as the Final Scope on July 14, 2015. This Draft EIS describes the proposed project, catalogues site and area resources, discusses potential environmental impacts of the project, presents measures to mitigate adverse impacts, and examines alternatives to the project.

This Draft EIS provides the Southampton Town Board (as lead agency under SEQRA) and all involved agencies with information necessary to render informed decisions on the MUPDD application. Once accepted by the lead agency as complete, this document will be subject to public and agency review, a public hearing, and a subsequent period wherein written public and/or agency comments accepted. This period is followed by preparation of a Final EIS that addresses the substantive verbal or written comments provided. Upon acceptance of the Final EIS, the Town Board will be responsible for the adoption of a Statement of Findings on the MUPDD Application and the information contained in the EIS. Each involved agency will prepare its own Findings Statement independently of the lead agency, pursuant to SEQRA, prior to rendering its own decision on the PDD Application. If the PDD Application is approved, the

applicant will then proceed to a detailed Site Plan application for the Town Planning Board to review, in consideration of the description and impact analyses contained in the EIS.

Table 1-20 lists the permits and approvals that will be required:

Table 1-20
PERMITS & APPROVALS REQUIRED
Proposed Project

Issuing Agency	Required Permit or Approval
Town Board	MUPDD Application Approval
	SEQRA Review (as Lead Agency)
Town Planning Board	Site Plan Approval
	Subdivision Approval
Town Building Department	Building Permit
Town Highway Department	Road Access Permit (via approved Kijowski Family Farm subdivision)
	Emergency Access Curb Cut (Spinney Road)
SCDHS	SCSC Article 4 (Water Supply) Permit
	SCSC Article 6 (Wastewater Treatment) Permit
	SCSC Article 12 (Toxic and Hazardous Materials Storage and Handling Controls) Permit (for maintenance facility)
SCWA	Water Supply Connection Approval
NYSDEC	Mining Permit (for Irrigation and Drainage Ponds)
	Pond Stocking Approval
	Long Island Well Permit(s)
	SWPPP Approval
	SPDES Permit
CPBJPPC	CPB CLUP Conformance Review and Approval

SECTION 2.0

NATURAL ENVIRONMENTAL RESOURCES

2.0 NATURAL ENVIRONMENTAL RESOURCES

2.1 Geological Resources

2.1.1 Existing Conditions

Soils

The Soil Survey of Suffolk County, prepared by the US Department of Agriculture in 1975[1], is a useful source of soils information, which identifies soil types resulting from natural deposition and modification, as well as man-induced alterations associated with land use. The Soil Survey indicates that the following 13 soil types underlie the subject property (see **Figure 2-1**):

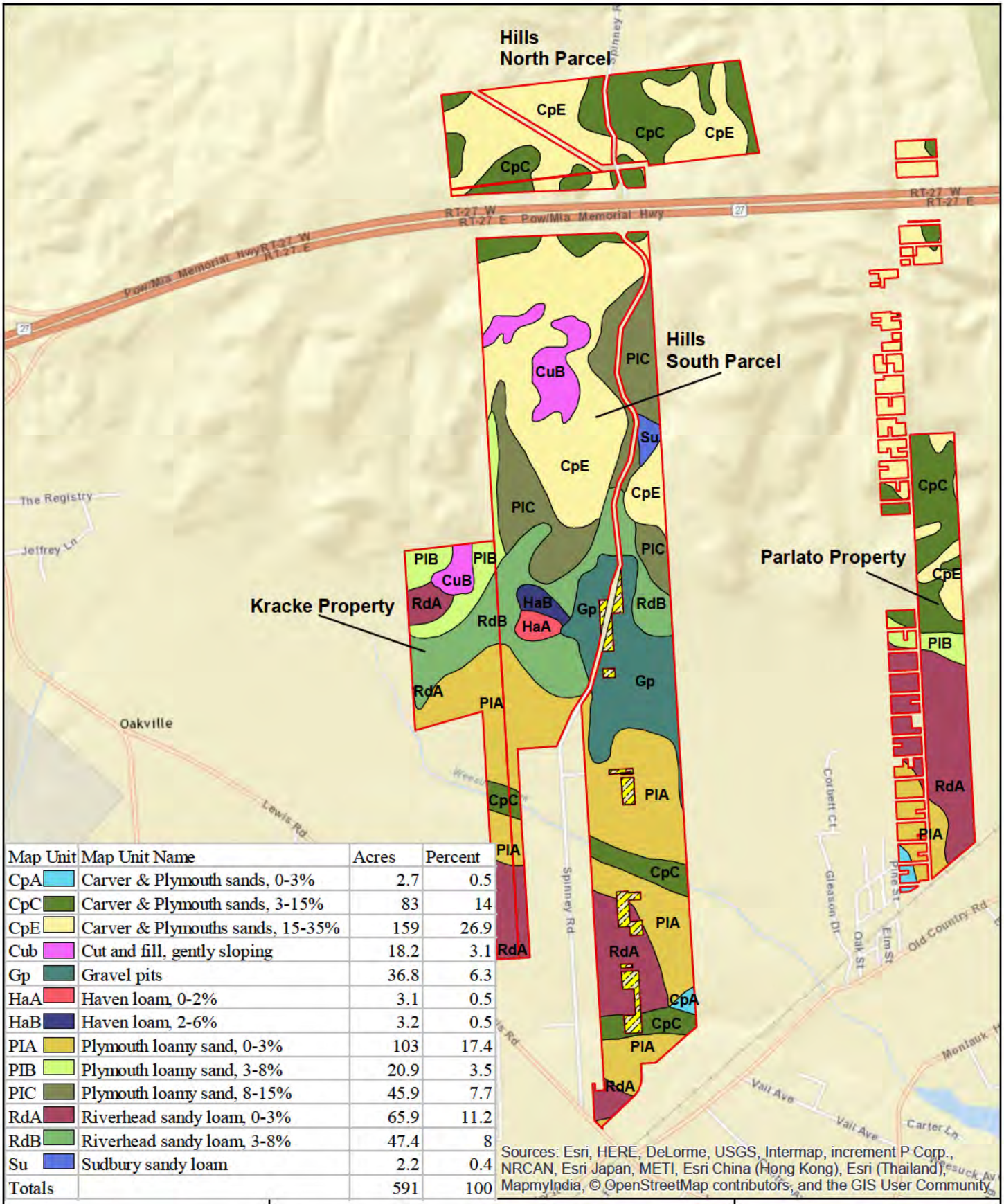
- CpA - Carver Plymouth Sands, 0-3% slopes; occupies approximately 2.7 acres/0.5% of site
- CpC - Carver Plymouth Sands, 3-15% slopes; occupies approximately 83.0 acres/14.0% of site
- CpE - Carver Plymouth Sands, 15-35% slopes; occupies approximately 19.0 acres/26.9% of site
- CuB - Cut and Fill Land, Gently Sloping; occupies approximately 18.2 acres/3.1% of site
- Gp - Gravel Pit; occupies approximately 36.8 acres/6.3% of site
- HaA - Haven Loam, 0-2% slopes; occupies approximately 3.1 acres/0.5% of site
- HaB - Haven Loam, 2-6% slopes; occupies approximately 3.2 acres/0.5% of site
- PlA - Plymouth Loamy Sand, 0-3% slopes; occupies approximately 103.0 acres/17.4% of site
- PlB - Plymouth Loamy Sand, 3-8% slopes; occupies approximately 20.9 acres/3.5% of site
- PlC - Plymouth Loamy Sand, 8-15% slopes; occupies approximately 45.9 acres/7.7% of site
- RdA - Riverhead Sandy Loam, 0-3% slopes; occupies approximately 65.9 acres/11.2% of site
- RdB - Riverhead Sandy Loam, 3-8% slopes; occupies approximately 47.4 acres/8.0% of site
- Su - Sudbury Sandy Loam; occupies approximately 2.2 acres/0.4% of site

The characteristics of these soil types are identified as follows:

Carver and Plymouth Sands, 3-15% slopes (CpC) - These soils are mainly on rolling moraines; however, they are also on the side slopes of many drainage channels on the outwash plains. Individual areas of this mapping unit are large on the rolling topography of the Ronkonkoma Moraine, and in these areas slopes are complex. On the outwash plain, this unit is in long, narrow strips parallel to drainageways. The hazard of erosion is slight to moderate on the soils in this unit. These soils are droughty, and natural fertility is low. In some places, slop is a limitation to use. These soils are not well suited to crops commonly grown in the county. These sandy soils severely limit installation and maintenance of lawns and landscaping shrubs. Almost all of these soils are in woodland.

Carver and Plymouth Sands, 15-35% slopes (CpE) - These soils are almost exclusively on moraines except for a few steep areas on side slopes along some of the more deeply cut drainage channels on outwash plains. On morainic landforms these areas are large, and slopes generally are complex, especially on the Ronkonkoma Moraine. On the outwash plains, the areas are in long, narrow strips parallel to the drainage channels. The hazard of erosion is moderate to severe on the soils in this

[1] Updated/digitized maps used for figures from Soil Survey Geographic Database for Suffolk County, New York (SSURGO); USDA Natural Resources Conservation Service; 2010; updated September 24, 2015; the Suffolk County Soil Survey (**Warner, 1975)** provides soil descriptions/constraints.



Map Unit	Map Unit Name	Acres	Percent
CpA	Carver & Plymouth sands, 0-3%	2.7	0.5
CpC	Carver & Plymouth sands, 3-15%	83	14
CpE	Carver & Plymouths sands, 15-35%	159	26.9
Cub	Cut and fill, gently sloping	18.2	3.1
Gp	Gravel pits	36.8	6.3
HaA	Haven loam, 0-2%	3.1	0.5
HaB	Haven loam, 2-6%	3.2	0.5
PIA	Plymouth loamy sand, 0-3%	103	17.4
PIB	Plymouth loamy sand, 3-8%	20.9	3.5
PIC	Plymouth loamy sand, 8-15%	45.9	7.7
RdA	Riverhead sandy loam, 0-3%	65.9	11.2
RdB	Riverhead sandy loam, 3-8%	47.4	8
Su	Sudbury sandy loam	2.2	0.4
Totals		591	100

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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FIGURE 2-1
SOILS MAP

Source: ESRI Web Mapping Service; NRCS SSURGO Soils Database
Scale: 1 inch = 1,500 feet

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unit. These soils are droughty, and natural fertility is low. Moderately steep to steep slopes are a limitation to use. The soils in this unit are poorly suited to crops commonly grown in the county. Areas of these soils have not been cleared for farming.

Cut and Fill Land, Gently Sloping (CuB) - This unit is made up of level to gently sloping areas that have been cut and filled for nonfarm uses. Slopes arrange from 1 to 8 percent, and because of final grading around houses and other buildings, slopes generally are complex. The areas generally are large but some areas are about 5 acres in size. This land has few, if any, limitations to use as building sites.

Gravel Pits (Gp) - Gravel pits are open excavations that have been made for the purpose of mining sand and gravel. These pits range in depth from 8 or 10 feet to more than 100 feet. The sides of the pit are generally left nearly vertical and the bottoms are level. Abandoned pits are not suitable for farming. Most of these areas are in a cover of native vegetation. Houses have been built in some of the larger pits.

Plymouth Loamy Sand, 0-3% slopes (PlA) - This soil has the profile described as representative of the series. It is mainly on outwash plains south of the Ronkonkoma moraine. It is also on flat hilltops and in drainageways on morainic deposits. The areas generally are nearly level, but they are somewhat undulating in some places. Areas on outwash plains are large and uniform, and areas on the moraine are small and irregular. The hazard of erosion is slight on this Plymouth soil. The soil is fairly well suited to crops commonly grown in the county. Many areas were formerly cleared for farming, but most of these areas are idle or are in brush and trees. Small areas that are in large tracts with Riverhead or Haven soils are the only areas used for farming.

Plymouth Loamy Sand, 8-15% slopes (PlC) - This moderately sloping soil is on moraines and outwash plains. Where it occurs on moraines, slopes are rolling in many places, and the surface s broken by closed depressions. On outwash plains, this soil is on the short side sloes along intermittent drainageways. Areas on moraines are fairly large, but most other areas are small and long and narrow. The hazard of erosion is moderate to severe because of slope and the sandy texture of this soil. A cropping system that includes several years of close-growing crops is necessary to provide adequate protection from erosion. Slopes and droughtiness are the main limitations on this soil for most nonfarm uses. This Plymouth soil is not well suited to crops commonly grown in the county. Most of this soil is wooded. Small acreages are cleared and are farmed with adjoining acreages of level or gently sloping soils. Such areas are used mainly for growing grasses, but some areas are idle. Where extensive excavating is not needed, some areas are used for estate-type housing developments.

Riverhead Sandy Loam, 0-3% slopes (RdA) - This soil has the profile described as representative of the series. It generally is on outwash plains, and the areas are large and uniform. Where this soil occurs on outwash plans, it generally has slope characteristics of this landform. Slopes are undulating in places. A few small, irregular areas are on moraines. The hazard of erosion is slight on this Riverhead soil. This soil is limited only by moderate droughtiness in the moderately coarse textured solum. It tends to develop a plowpan if it is intensively farmed. This soil is well suited to crops commonly grown in the county, and it is used extensively for that purpose.

Riverhead Sandy Loam, 3-8% slopes (RdB) - This soil is on moraines and outwash plains. It generally is on areas along shallow, intermittent drainageways. Slopes generally are moderately short, but large areas on moraines are undulating. The profile of this soil is similar to the one described as representative of the series, though in cultivated areas this soil is likely to be 2 to 3

inches shallower to coarse sand and gravel, and the surface layer is likely to contain a slightly larger amount of gravel. The hazard of erosion is moderate to slight on this Riverhead soil. The main concerns of management are controlling runoff and erosion and providing adequate moisture. This soil is well suited to crops commonly grown in the county, and it is used extensively for this purpose.

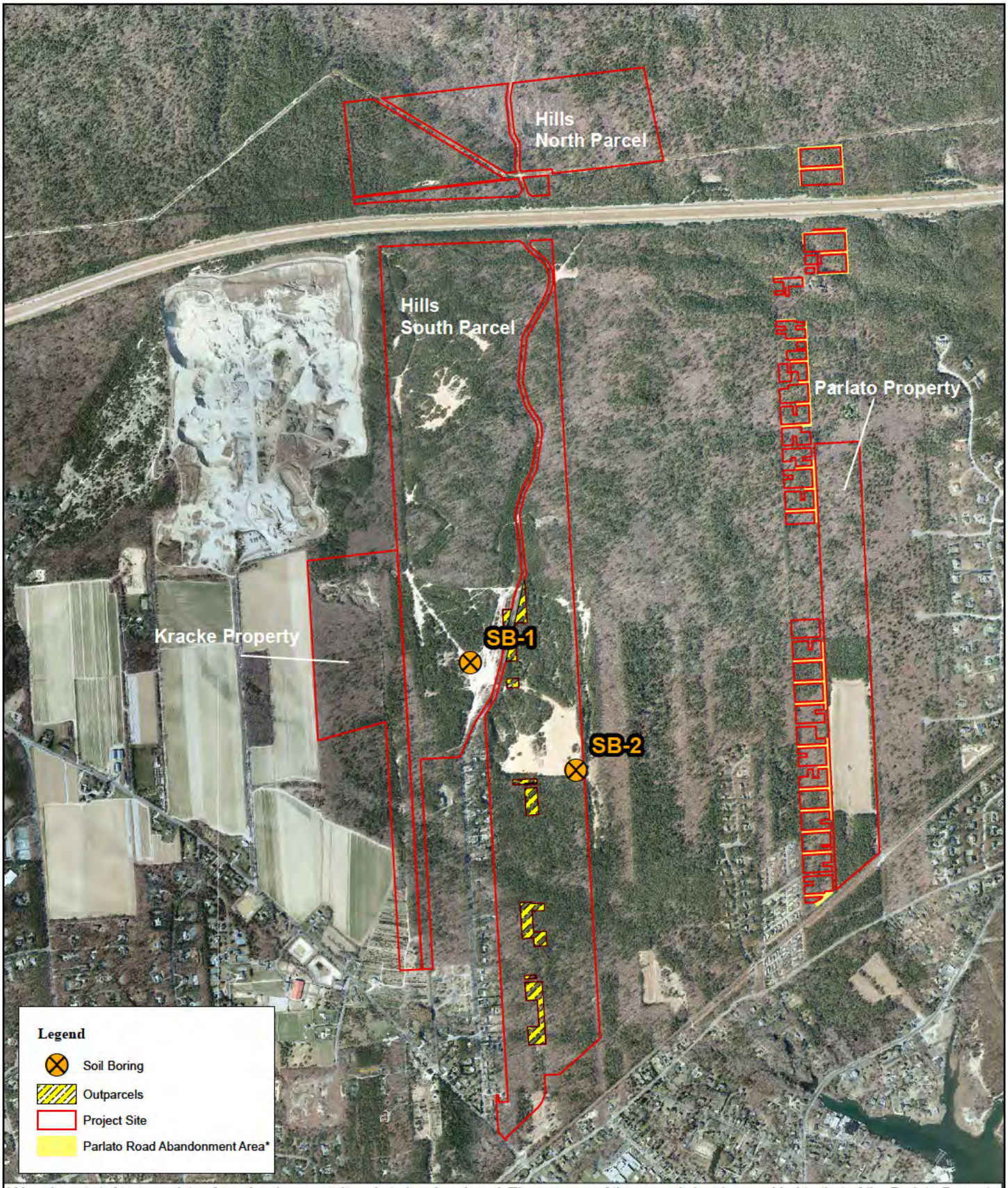
Table 2-1 is a listing of those factors of each soil type that may present limitations on site development, as well as those soil features that should be considered when developing the site.

The data indicate that the soils generally have acceptable characteristics with respect to engineering properties, suggesting that there would be no undue impediments to development. The table shows that the soils do not possess features that would affect provision of roadways, artificial ponds, building foundations or landscape irrigation. Finally, except for the CpA, HaA and RdA soils, the presence of steep slopes and/or a sandy surface layer would limit the performance of or the ability to provide sewage disposal fields, homesites, roadways, lawns and play areas. However, these limitations could be overcome by grading/filling, substitution of other soils or avoidance of these soils.

On site observations note that soils are subject to disturbance due to ATV and dirt bike activity with resultant erosion, as well as fire pits, paintball games and other unauthorized activity which has occurred at the site and caused soil disturbance (see site photographs, **Appendix D-1**). Specific information regarding soil characteristics was obtained during the installation of two soil borings on the subject property. The first was located in the center of the property and the second was located along the eastern property line. Review of the boring logs for each revealed that surface and subsurface soils consisted of fine sands with traces of gravel. Copies of the logs for each boring are provided in **Appendix A-15**, and **Figure 2-2** depicts the locations of these borings.

As discussed in **Section 1.4.2**, four specific locations within the site were further sampled and tested for potential soil contamination resulting from prior use for a shotgun range (lead), stained soil beneath an abandoned car (volatile and semi-volatile organic compounds and metals), prior farm use (pesticides and metals) and unauthorized dumped soils (hydrocarbon compounds). The test results all indicated that no elevated levels of these contaminants were found, and that no additional testing was necessary or recommended.

As will be discussed in **Section 2.2.1**, the water table lies at an elevation of ranging from approximately 11 to 15 feet above sea level (asl) in the area beneath the subject site. As the site varies in elevation between 17 feet asl and 255 feet asl (see below), the depth to the water table on-site is between 6 and 240 feet. This minimum vertical separation is expected to be sufficient to ensure that the soil matrix beneath the septic and drainage systems will be deep enough to allow for their proper operation.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-2
SOIL BORING LOCATION MAP

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,500 feet

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Table 2-1
SOIL PROPERTIES & LIMITATIONS*

Parameter	CpA	CpC	CpE	CuB	HaA	HaB	PlA	PlB	PlC	RdA	RdB	Su
Engineering Properties												
Depth to seasonal high water table	>4 feet			**	>4 feet							1.5-2 feet
Profile/USDA texture	0-22 in.: Fine sand to coarse sand 22-60 in.: Coarse sand to gravelly sand			**	0-19 in.: Loam, silt loam, and very fine sandy loam 19-28 in.: Silt loam, very fine sandy loam and gravelly loam 28-55 in.: Gravelly sand, loamy sand sandy loam or stratified sand and gravel		0-27 in.: Loamy sand, loamy fine sand, gravelly loamy sand, and sand 27-58 in.: Sand and gravel, coarse sand, and gravelly coarse sand			0-32 in.: Sandy loam and fine sandy loam 32-65 in.: Sand, loamy sand, gravelly sand, gravelly loamy sand		0-24 in.: Sandy loam and fine sandy loam 24-51 in.: Loamy sand, sand and gravel
Permeability	0-22 in.: >6.3 in./hr. 22-60 in.: >6.3 in./hr.			**	0-19 in.: 0.63-2.0 in./hr. 19-28 in.: >2.0 in./hr. 28-55 in.: >6.3 in./hr.		0-27 in.: >6.3 in./hr. 27-58 in.: >6.3 in./hr.			0-32 in.: 2.0-6.3 in./hr. 32-65 in.: >6.3 in./hr.		0-24 in.: 0.63-6.3 in./hr. 24-51 in.: >6.3 in./hr.
Available moisture capacity	0-22 in.: 0.03-0.04 in./in. 22-60 in.: 0.02-0.04 in./in.			**	0-19 in.: 0.14-0.20 in./in. 19-28 in.: 0.03-0.14 in./in. 28-55 in.: 0.01-0.04 in./in.		0-27 in.: 0.04-0.08 in./in. 27-58 in.: 0.02-0.04 in/in.			0-32 in.: 0.11-0.15 in./in. 32-65 in.: 0.02-0.07 in./in.		0-24 in.: 0.12-0.16 in./in. 24-51 in.: 0.02-0.06 in./in.
Suitability as a source of:												
Topsoil	Poor: coarse texture			**	Good		Poor: coarse texture			Good		Good: seasonal high water table
Fill material	Good: needs binder in places			**	Fair to 28 inches; silty. Good below a depth of 28 inches but needs binder in places		Good: material below a depth of 27 inches needs binder in places					Good: underwater excavation necessary in places; material below a depth of 24 inches needs binder in places
Soil features affecting:												
Highway location	Poor trafficability; extensive cuts and fills likely on CpC and CpE			**	Very shallow cuts have nonuniform subgrade in places		Extensive cuts and fills likely on unit PlC			---		Seasonal high water table
Embankment foundation	Strength generally adequate for high embankments; slight settlement; moderately steep to steep slopes on CpC & CpE			**	Strength generally adequate for high embankments; slight settlement							
Foundations for low buildings	Low compressibility; large settlement possible under vibratory load; moderately steep to steep slopes on CpC &CpE			**	Low compressibility		Low compressibility; moderate slopes on unit PlC			Low compressibility		Seasonal high water table; low compressibility
Farm ponds (reservoir)	Rapid permeability; moderate and moderately steep to steep slopes on CpC & CpE			**	Rapid permeability in layers of substratum		Rapid permeability; moderate slopes on unit PlC			Rapid permeability in layers of substratum		Seasonal high water table; rapid permeability in substratum
Irrigation	Very low available moisture capacity; rapid water intake; moderate and moderately steep to steep slopes on CpC & CpE			**	No unfavorable features		Very low available moisture capacity; rapid water intake, moderate slopes on unit PlC			Moderate to rapid water intake; moderate available moisture capacity		Seasonal high water table; moderate to rapid water intake; moderate available moisture capacity
Limitations of the soil for:												
Sewage disposal fields	Slight	Slight to moderate: slopes in places	Severe: slopes	Slight	Slight	Slight	Slight	Slight	Moderate: slopes	Slight	Slight	Moderate: seasonal high water table at depth of 1.5-2 feet
Homesites												
Streets and parking lots		Moderate to severe: slopes		Moderate: slopes		Moderate: slopes		Moderate: slopes	Severe: slopes		Moderate: slopes	
Lawns, landscaping and golf fairways	Severe: sandy surface layer		Severe: slopes; sandy surface layer	Severe: sandy surface layer		Slight	Severe: sandy surface layer				Slight	
Paths and trails			Severe: sandy surface layer, slopes	Moderate: sandy surface layer			Moderate: sandy surface layer					
Picnic grounds and extensive play areas												

* Gravel Pits (Gp) have not been included since characteristics are too variable to estimate for all limitations.
** Per Soil Survey, not included because characteristics are too variable to estimate.

Soil and Recognized Environmental Conditions

The Hills North and Hills South Parcels - As noted in **Section 1.4.2**, Phase I and II ESAs were prepared by NP&V for the Hills North and Hills South Parcels in May and June 2005, respectively. These studies sought to establish the presence and extent of soil contamination on this property and, if detected, to sample and characterize that contamination and recommend further remedial action, if warranted. The Phase I ESA described the physical condition of the parcel, and noted the presence of a number of areas that warranted further examination. The following description of the areas cited for further examination has been excerpted from the Phase I ESA:

> The subject property is not used for any authorized purpose [see **Figure 1-3**]. The parcels located to the north of Sunrise Highway (NYS Route 27) have undulating topography. A LIPA [Long Island Power Authority] right-of-way runs adjacent to these parcels. These northern parcels were relatively free of debris. No paths were observed. North of Sunrise Highway (NYS Route 27), an area of forested swamp was observed east of Spinney Road and possible areas of ponding were observed west of Spinney Road.
>
> The areas located to the east of Spinney Road have variable topography with cleared formerly mined areas. The southern portion of this area was generally flat, whereas the northern and central portions have undulating topography. Historical aerials photograph have indicated that the southern portion of this area was formerly farmed. Several cleared areas and paths were observed in this portion of the property. Debris was observed throughout the property, predominantly in the cleared areas and along paths. The debris included several vehicles and vehicle parts, vehicle batteries, numerous empty quarts of motor oil, partially full paint cans, metal, tires, wood, plastic and glass bottles and containers, several appliances, construction and demolition debris, shot gun shell casings and yard waste. A large area of yard waste, including tree branches and numerous stumps, was observed in the western portion of this area, behind the existing residences that are located east of Spinney Road. Two (2) areas containing mounds of soil were also observed at the rear of the residences. The mounds were covered with grass. Several empty, rusted drums were observed in the vicinity of the southeastern property boundary. A small, wooden shack was observed in the south-central portion of this area.
>
> The parcel located on the west side of Spinney Road also had variable topography. The remaining area of the property consists of paved parking area and landscaped area. The southern portion of this area was generally flat, whereas the northern and central portion had undulating topography. Several cleared areas and paths were observed. Debris was observed throughout the property, predominantly in the cleared areas and along paths. The debris included several vehicles and vehicle parts, vehicle batteries, numerous quarts of motor oil, paint cans, metal, tires, wood, pool filters, plastic and glass bottles and containers, several appliances, construction debris, mattresses, furniture, one (1) empty 275 gallon storage tank, shell casings, televisions, computer monitors, other household electronics and sundry items. There were no visible signs of release associated with any of the debris, except one area where a petroleum odor was evident in the vicinity of one of the abandoned cars. Some of the debris was used for target practice as evidenced by the shell casings observed in their vicinity. Evidence of past use of fireworks was observed on top of one hill. Evidence of bonfires and vehicle fires were observed in several locations throughout the property.
>
> Based on these findings the Phase I ESA identified recognized environmental conditions that prompted the performance of a Phase II ESA. These conditions include:

1. The area of petroleum odor by the abandoned car [designated "CAR-1" in **Figure 1-4**] should be examined in more detail and soil samples should be collected to determine the appropriate action.
2. The soil mounds east of homes along Spinney Road [designated "Pile-1 and Pile-2" in **Figure 1-4**] should be sampled to determine if contamination is present.
3. Soil samples should be collected in areas with high concentrations of shell casings [designated "L-1 to L-4" in **Figure 1-4**] and analyzed for lead.
4. Soil samples should be collected from areas of the property that were formerly used for agricultural purposes [designated "P-1 and P-2" in **Figure 1-4**] and analyzed for pesticides and metals.

The Phase II ESA testing determined as follows for the four areas of potential contamination discerned by the Phase I ESA (see **Appendix E-4**):

1. The soil from beneath the engine of an abandoned car was sampled and analyzed for the presence of volatile and semi-volatile organic compounds and metals to determine if a prior release had occurred. The analytical results revealed no elevated concentrations of any of the analyzed constituents were detected. As a result, no further work is recommended for this area.

2. The soil piles located in the southern portion of the property were field screened to determine of elevated concentrations of hydrocarbon compounds were present. This field screening did not identify any elevated hydrocarbon readings. Therefore, no further work is recommended for these soil piles.

3. The soils in the area of the shotgun range were sampled and analyzed for the presence of lead. The analytical results revealed that none of the analyzed constituents exhibited elevated concentrations in excess of the regulatory guidance values. As a result no further action is recommended for this area.

4. The former farm located in the southern portion of the property was sampled and analyzed for the presence of pesticides and metals. The analytical results revealed no elevated concentrations in excess of the regulatory guidance values were present. As a result, no further action is recommended for the former farm area.

As a result of the analyses conducted for the Phase I and II ESAs, no significant soil contamination issues have been documented on the Hills South Parcel/Kracke Property.

Kracke Property - A Phase I ESA was also prepared for the Kracke Property in January 2013. It described the physical condition of the Kracke Property, and noted the presence of a number of areas that warranted further investigation. The following description of these areas has been taken from the Phase I ESA:

> The subject property consists of an irregularly-shaped, undeveloped parcel of land with moderately sloped topography, that trends from higher elevations in the northern portion of the property towards lower elevations in the southern portion of the property. The majority of the subject property is wooded with underbrush with the exception of an agricultural nursery area in the southernmost portion of the property, a cleared dirt trail that runs along the eastern property edge and forms a loop in the northern portion of the property, and some additional areas on the property that have been

previously cleared and are currently undergoing natural succession. There was no evidence of any existing or past structures on the subject property.

Farming and construction debris and natural debris piles were observed in several areas along the cleared dirt path and previously cleared areas. Debris observed consisted of slate roof tiles, broken concrete fragments, planting containers, a rusted and dilapidated trailer, wooden crates, a rusted and dilapidated vehicle, pieces of machinery, plastic, tires, and piles of natural material including: wood chips, leaves, twigs and soil. The soil piles appeared to consist of dumped landscaping debris piles, possible composting piles, and native soil piles from past clearing.

A large amount of debris was observed in the northern portion of the subject property, in the vicinity of the previously cleared area and dirt path loop. The debris observed included several 55-gallon drums. The drums appeared to be empty and rusted, and were possibly utilized for recreational target practice. No staining was observed in the vicinity of any of the drums or debris. However, it was not possible to inspect some of the drums located within the debris piles. There was no evidence of any staining, storage tanks, discharge, areas of stressed vegetation, residue of oils or other toxic substances, pools of discharge, petroleum or chemical odors, or other such indicators noted during the site reconnaissance.

The Phase I ESA noted three (3) recognized environmental conditions (RECs) on the Kracke Property based on the site reconnaissance, interviews and regulatory agency records review:

1. Several soil and debris piles were observed along the cleared path on the eastern property edge and in the vicinity of the cleared area in the northern portion of the subject property. Some of these piles appeared to have been imported or dumped from outside sources. These piles should be sampled in order to ensure that they are not adversely affecting the subsurface resources of the subject property. Following sampling, all of the debris piles should be removed and properly disposed of.

2. A rusted and dilapidated vehicle and other pieces of machinery were observed during the reconnaissance of the subject property. Any metal debris associated with the vehicle and machinery should be removed and properly disposed of. Any engines encountered during removal should be inspected for evidence of staining and sampled beneath in order to ensure that they have not adversely affected the subsurface resources of the subject property.

3. Several 55-gallon drums were observed in the vicinity of the previously cleared area and dirt path loop. The drums appeared to be empty and rusted, and were possibly utilized for recreational target practice. No staining was observed in the vicinity of any of the drums or debris. However, it was not possible to inspect some of the drums located within the debris piles. The debris pile should be sampled in locations that drums are present and the drums should be more closely inspected. Any drums found to be sealed and containing liquid should be inspected for leakage and sampled in order to ensure that they have not adversely affected the subsurface resources of the subject property. Following inspection and sampling, all drums should be removed from the subject property and properly disposed of.

In addition to the above-detailed RECs, two (2) de minimus conditions were noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review.

1. The southernmost portion of the subject property is presently utilized as an agricultural nursery. In addition, historic aerial photographs revealed that a larger area along the existing dirt path in

the southern portion of the subject property was previously cleared for agricultural use. If the property is to be used for residential or active recreation, it is recommended that a pesticide survey be conducted in order to ensure that the surface soils have not been impacted by previous agricultural operations.

2. Farming and construction debris and some piles of native natural material were observed along the cleared dirt path on the eastern property edge and throughout the previously cleared areas of the subject property. Debris observed consisted of slate roof tiles, broken concrete fragments, planting containers, a rusted and dilapidated trailer, wooden crates, plastic, tires, and some piles of native natural material. This debris is not expected to have adversely affected the subsurface resources of the property; however, the debris should be removed and properly disposed of.

The actions recommended to address the five items are discussed below.

Parlato Property - This Phase I ESA described the physical condition of the Parlato Property, and noted the presence of a number of areas that warrant further examination. The following description of the Parlato Property and the identified areas of concern have been taken from the Phase I ESA:

> The subject property consists of an irregularly-shaped, undeveloped parcel of land with moderately sloped topography and some areas of steeply sloped topography that generally trends from higher elevations in the northern portion of the property towards lower elevations in the southern portion of the property. The majority of the subject property is wooded with underbrush with the exception of a large portion in the southeast corner of the subject property that is utilized for agricultural purposes. In addition, a cleared dirt trail runs along the eastern property edge that is utilized as an access road and several additional cleared dirt trails are present throughout the wooded areas of the subject property that appear to be utilized for recreational use. There was no evidence of any existing or past structures on the subject property.
>
> Several piles containing natural materials were observed south of the cleared agricultural area and in areas along the cleared dirt paths that appeared to consist of landscaping debris and some farming or construction debris from unknown sources. Miscellaneous litter was also observed throughout several portions of the subject property. A 55-gallon drum was observed on the southern edge of the cleared agricultural area, near irrigation equipment. The drum was unlabeled, covered and empty. There was no evidence of any staining in the vicinity of the drum.
>
> Two large storage containers were observed in the northwestern corner of the cleared agricultural area. The contents of the containers were unknown. In addition, a pole-mounted transformer was observed along the path on the eastern property edge and an electric utility box was observed on the ground along the path. The transformer appeared to be in good condition. There was no evidence of staining, storage tanks, discharge, areas of stressed vegetation, residue of oils or other toxic substances, pools of discharge, petroleum or chemical odors, or other indicators noted.

The Phase I ESA noted one (1) REC was noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review.

1. Several soil and debris piles were observed south of the cleared agricultural area and along the cleared dirt paths. It is possible that some of these piles have been imported or dumped from outside sources. These piles should be sampled in order to ensure that they are not adversely

affecting the subsurface resources of the subject property. Following sampling, all of the debris piles should be removed and properly disposed of.

In addition to the above, three (3) de minimus conditions were noted on the subject property based on the site reconnaissance, interviews and regulatory agency records review.

1. The southernmost portion of the subject property is presently utilized for agricultural purposes. In addition, historic aerial photographs revealed that the farm area previously extended further northward on the subject property. If the property is to be used for residential or active recreation, it is recommended that a pesticide survey be conducted in order to ensure that the surface soils have not been impacted by previous agricultural operations.

2. Miscellaneous litter, recreational debris, and piles of native natural material were observed in the southern portion of the subject property and along several of the cleared dirt paths throughout the subject property. This debris is not expected to have adversely affected the subsurface resources of the subject property; however, the debris should be removed and properly disposed of.

3. A 55-gallon drum was observed on the southern edge of the cleared agricultural area. The drum was covered, unlabeled and empty. Since there was no evidence of staining in the vicinity of the drum, it is not expected to adversely affect the subject property. However, this drum should be removed and properly disposed of.

The actions recommended to address these four items are discussed below.

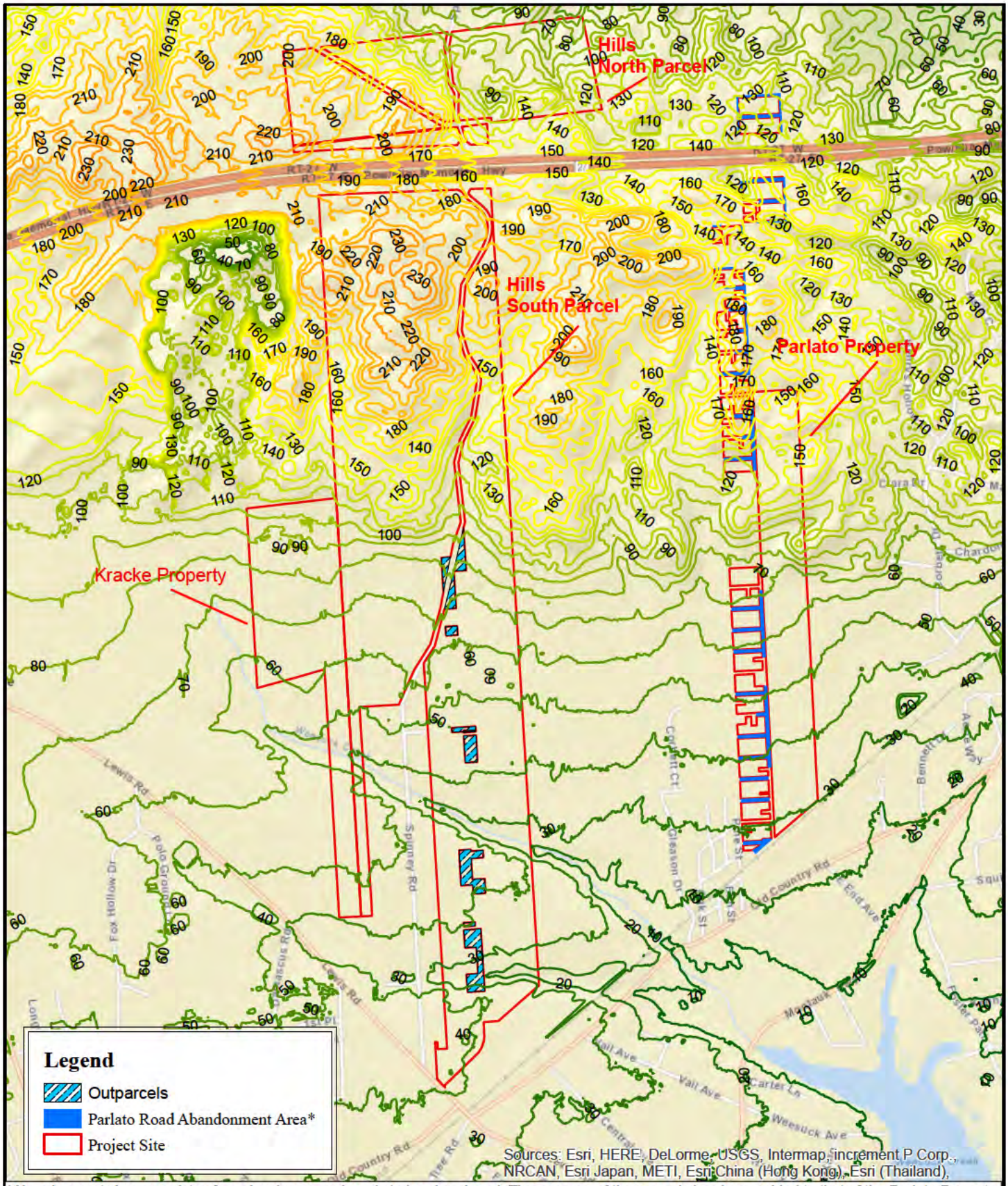
The Applicant is committed to performing the recommended follow-up actions on the Kracke Property and Parlato Property, as specified in the respective Phase I ESAs. The parcels are in contract and are not owned by DLC. Therefore, it is expected that further examination of these properties and any activities needed to prepare these sites for use will occur simultaneously with the onset of construction of the proposed development.

Topography

The parcel located to the north of Sunrise Highway has undulating topography. In this area, a forested swamp is found east of Spinney Road and possible areas of ponding were observed west of Spinney Road as well (see **Figure 2-3a**).

The project parcels located south of NYS Route 27, which comprise the majority of site acreage and occupy the east and west sides of Spinney Road, are characterized by variable topography with steep slopes and higher elevations found on the northern portions of these parcels.

The site areas located to the east of Spinney Road have variable topography, with an approximately 11 acre area of cleared land that consists of barren soils. The southern portion of this area is generally flat, whereas the northern and central portions have undulating topography. Review of historical aerial photographs indicates that the southern portion of this area was farmed in the period from 1938 to some time prior to 1961. Several cleared areas and paths were also observed in this portion of the property. The parcel located on the west side of Spinney Road also has variable topography. The southern portion of this area was generally flat, whereas



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-3a
TOPOGRAPHY

Source: ESRI Web Mapping Service; Suffolk County LiDAR, 2006
Scale: 1 inch = 1,500 feet

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the northern and central portion had undulating topography. Several cleared areas and paths were observed.

The south part of the property extending to Lewis Road from where Spinney Road exits the property is relatively flat with the exception of two topographic swales which transect the site from northwest to southeast. These swales are geologic meltwater valleys and trend to the southeast and eventually form the headwaters of the western branch of Weesuck Creek.

The property's high point is located in the northern end of the Hills South Property, at an elevation of approximately 255 feet asl; the low point is located in the southern end of the Hills South Property, and is approximately 17 feet asl.

Figure 2-3b indicates the areas of steep slopes on the site. The analysis divides the site into three slope intervals generally described as low slopes (0-10%), moderate slopes (10-15%), and steep slopes (15% and above). **Table 2-2** below indicates the acreages and percentages of the entire site are occupied by these three groupings. As can be seen, the majority of the site (429.57 acres, or 72.69%) is characterized by low slopes, with an additional 15.45% (91.32 acres) describable as moderate slopes. Only approximately 11.86% of the site (70.11 acres) is describable as steep slopes.

Table 2-2
SLOPE ANALYSIS
Project Site

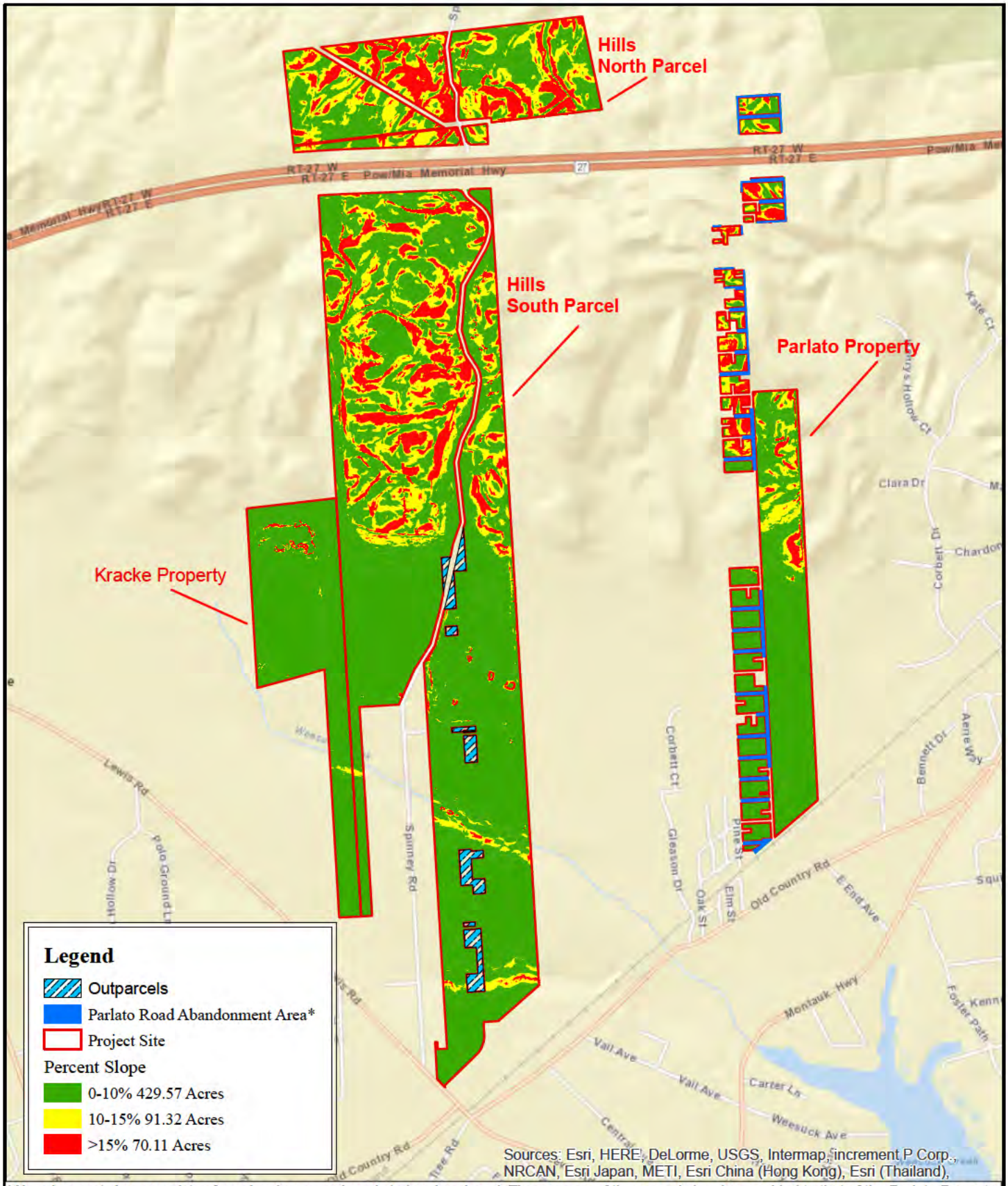
Property/Parcel	**Slope Intervals and Areas** (acres)			**Totals**
	0% - 10%	10% - 15%	>15%	
Hills North Parcel	39.11	25.11	22.70	86.92
Hills South Parcel	254.08	50.61	36.22	340.91
Kracke Property	59.73	0.81	0.72	61.26
Parlato Property	70.04	13.23	9.30	92.57
Parlato Road Abandonment	6.61	1.56	1.17	9.34
Totals	**429.57**	**91.32**	**70.11**	**591.00**

2.1.2 Anticipated Impacts

Soils

Some development will occur within all of the various soil types present on the subject property. **Table 2-1** is used to determine soil properties and constraints with respect to development. Severe to moderate constraints to development are related to several soil types present on the subject property and consist of sandy surface layer, slopes and seasonal high water table.

Soils exhibiting limitations related to sandy surface layer consist of CpA, CpC, CpE, CuB, PlA, PlB and PlC soils which comprise approximately 72.7% of the subject property. The limitation of a sandy surface layer is not expected to be an impediment to location of roads, parking, or buildings. Establishment of turfed and landscaped areas is limited to 15% of the site, and



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-3b
SLOPE INTERVAL MAP

Source: ESRI Web Mapping Service; Suffolk County LiDAR, 2006; Geomaps, 2014
Scale: 1 inch = 1,500 feet

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impediments with respect to a sandy surface layer will be managed through soil preparation for the intended use. Soils will be amended to establish healthy growing conditions and nutrient and water retention properties needed to support the limited areas of landscaping. In the case of the proposed project this may potentially affect lawns, ornamental shrubs and golf course turf grasses. The potential impacts related to this limitation with respect to erosion potential and revegetation can be overcome by using proper grading techniques and erosion control measures, installing proper drainage and using suitably-adapted drought tolerant indigenous vegetative species for landscaping as well as site stabilization and restoration. These measures will be used to minimize potential impacts due to surface soils where appropriate. In addition, the initiation of an integrated turf health management plan for the golf course will ensure not only the health and vitality of fairways and greens but also limit impacts from nutrient replenishment applications to groundwater and the environment. Landscaping practices common to sandy soil areas will be employed and implemented at the time of construction, following the site plan review and approval process which will include landscape plan preparation. This will ensure that potential impacts with respect to a sandy surface layer are adequately addressed and as a result, no long-term soil impacts are expected.

Short-term soil impacts will be mitigated through erosion control measures which detailed under a site specific erosion control plan which will be discussed in greater detail below.

Soils exhibiting limitations related to slopes consist of CpC, CpE, HaB, PlB, PlC and RdB soils which comprise 52.9% of the site. The limitation of slopes may affect the installation of sewage disposal fields, homesites, streets and parking lots as well as the establishment of landscape vegetation related to concerns of providing stable surface areas to properly control erosion and drainage.

The site master plan has been designed to take slope constraints into consideration. Roads have been placed in low slope areas and homesites are planned in areas with construction areas of flatter surfaces. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes and create a challenging environment for golf play. Planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. A detailed discussion of grading is provided below under topography.

Limitations related to seasonal high water are limited to only the Su soils and only comprise approximately 0.4% of the subject property. This portion of the property is proposed to be occupied by a green and fairway as well as a golf hazard and natural area. Impacts related to high water table are expected to be extremely limited and are primarily related to flooding which will be mitigated through proper grading and drainage design as well as mitigative features of the golf course consisting of lined golf greens which will collect irrigation water for reuse.

It should also be noted that grading of the subject property will result in the mixing of soils types on the site which would be expected to change the soil characteristics from current condition and as described in the Suffolk County Soil Survey **(1975)**. Based on the existing soils as described in the Soil Survey, test borings and observed as visibly exposed on the site, soils are coarse-textured, well drained tan sand and gravel characteristic of outwash plains. The overall grading

of the property is expected to result in a well graded cut and fill soil characteristic that will provide a suitable and stable soil surface for the intended use. Grading will be conducted with heavy equipment that will redistribute soils in the general area of their origin, and there are no soil sorting processes that would generate excessive fine material. In addition, it should be noted that all of the soils subject to grading and development fall within a single soil association. Specifically, the portion of the subject property which will be subject to development falls within the Plymouth-Carver Association, nearly level and undulating. In general soil series and types within this association are described as deep, excessively drained, coarse textured soils on outwash plains. These soils are consistent with those found during the installation of soil borings which identified the site as being comprised of sands with traces of gravel. The major soils in this association are coarse textured, droughty, low in fertility and have few limitations for nonfarm uses which is consistent with the specific soil limitation descriptions provided in **Table 2-1**. Development of areas occupied by this association has been mainly for housing developments. Since these soils fall within the same association and generally have similar characteristics, the mixing of soils during grading is expected to result in a combined soil that will continue to be representative of the overall regional association. As a result, the characteristics of soils on the subject property are not expected to present an impact to or be significantly impacted by development following the implementation of appropriate mitigation measures (i.e. grading, installation of appropriate landscape species, appropriate sanitary and drainage design, etc.) to be instituted through project design.

Topography

As noted previously, planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes and create a challenging environment for golf play. Overall, it is anticipated that 166.86 acres (28.23%) of the subject property will be subject to grading operations.

The areas of the site proposed to accommodate development will require grading to provide appropriate surface areas to accommodate development. However, a majority of the proposed development areas are comprised of relatively flat topography which does not require extensive overall grading, therefore, no significant adverse impacts are expected. The most extensive grading is expected to occur in the northern portion of the property that exhibits the most severe slopes in order to accommodate fairways and greens, roadways and nine residential lots. In addition, the pond locations will involve soil removal from the site and will be graded such that pond liners can be installed to establish these water features; this will not result in a significant impact to the overall property elevations. Overall it is anticipated that approximately 402,254 CY of cut will be required for development. Fill will be required in some areas of the property and the material required can be obtained from on-site sources and redistributed as necessary. It is expected that 105,758 CY of cut generated will be reused as fill where required. Ultimately a net surplus of approximately 250,000 CY of excess cut will require removal from the site. Profiles of the internal roadway system will be prepared at the time of site plan review, to conform with Town road grade design specifications in order to provide a safe road system, and this will control overall site grading. In general, the site will continue to exhibit its regional topographic profile decreasing in elevation from north to south. All created soil slopes outside of

the golf course area will be 1:3 or less and will be stabilized using ground cover material. The course will be designed to incorporate the site's existing rolling topography as much as practicable, thereby minimizing the acreage of land clearing and volume of soil affected by grading. Slopes within the golf course are expected to vary to create a challenging environment for play but will also be stabilized using appropriate turf species or other engineering means where necessary. As a result, it is expected that topographic impacts will be minimized to the maximum extent practicable.

Preliminary grading plans have been prepared to ensure that the site can be developed as proposed and grading can be minimized to ensure retention of 28.23% of the existing natural vegetation will remain. The grading plan is used for preliminary drainage design and the preliminary SWPPP (see Grading & Drainage Plan in the Hydrology Report, **Appendix A-11**). A detailed grading and drainage plan will be prepared for the site plan application, and will provide details of overall site grading and will require Town Division of Planning review and Planning Board approval prior to initiation of grading activities. Further information on grading proposed for the site and the review and approval process are provided in **Section 1.5.2**.

Article XXIV, Section 330-220 of the Town Code requires that development projects shall minimize disturbance of the grade and/or natural vegetation where slopes exceed 10%. A review of **Table 2-2** reveals that 14.95% (88.36 acres) of the site contains slopes in excess of 10%. Construction in these areas may be approved if the design incorporates adequate soil stabilization and erosion control measures so as to mitigate negative environmental impacts. A grading plan has been prepared to consider these slopes in relation to the proposed use. The proposed golf course uses existing topography and situates development in existing cleared areas to the maximum extent practicable. Homesites have been selected such that driveways will parallel contours as much as possible, to access more level building locations. The south part of the site does not exhibit steep slopes and thus requires less grading and erosion control. The Draft EIS includes a slope analysis depicting slopes in the range similar to that provided in **Table 2-2** (see **Figure 2-3b**). In addition, Erosion and Sediment Control Plans has also been prepared and are included in the plan sheets at the end of this document. The proposed project will be subject to review through the EIS process and final plans will be prepared during site plan review subsequent to the change of zone. Where applicable, details of retaining walls and erosion control structures will be provided for construction in areas where slopes exceed 15% (estimated at 6.25% or 36.94 acres of the site) and for roads and driveways traversing slopes of 10%.

An additional safeguard is achieved through the NYSDEC State Pollutant Discharge Elimination System (SPDES) review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002). Under this program, a Notice of Intent must be filed with the NYSDEC 60-days prior to commencement of construction, and a site specific Stormwater Pollution Prevention Plan (SWPPP) must be maintained on site. In addition, a copy of the final Notice of Intent (NOI), SWPPP and erosion & sedimentation control plan will be submitted to the Town of Southampton Engineering Division simultaneously with the NYSDEC submission. This process, as well as construction and operation of the proposed project are discussed in **Section 1.7**. Given the design of the project which avoids steep slope areas, the balanced cut and fill, erosion control measures, and the review and approval process, no significant adverse long-term impacts are expected with

respect to topography. Short term impacts may occur; however, these are also minimized through project design and government oversight. Short term impacts may include dust, noise, truck activity on roads and disturbance in the area. Truck access will be only from the proposed site access, and all equipment, materials and trucks will be stored and staged within the site. Short term construction impacts are not expected to be significant given the erosion control measures, presence of a water truck to wet dry soils, short-term duration of the proposed project, activities to occur during normal daytime hours, lack of sensitive receptors or immediate neighbors, perimeter buffering from existing homes in the area, and the review, approval, construction management and development oversight that will occur with respect to this project.

2.1.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- Erosion and sedimentation may occur, particularly during the construction phase of the project. The potential impacts with respect to erosion potential can be overcome by using proper grading techniques and implementing erosion control measures, installing proper drainage facilities and using suitably-adapted drought-tolerant indigenous vegetative species for landscaping as well as site stabilization and restoration.
- The significant acreages of new landscaping may erode and/or not grow-in properly and evenly, leading to areas of dead plantings and bare soil, which would tend to lead to erosion and sedimentation. Initiation of an ITHMP for the golf course will ensure not only the health and vitality of fairways and greens but also limit impacts from nutrient replenishment applications to groundwater and the environment.
- Landscaping practices common to sandy soil areas will be employed and implemented at the time of construction, following the site plan review and approval process which will include landscape plan preparation. This will ensure that potential impacts with respect to a sandy surface layer are adequately addressed and as a result, no long-term soil impacts are expected.
- Short-term soil impacts will be mitigated through erosion control measures which are detailed under a site-specific erosion control plan (see **Erosion Control Plans** *in pouches in Volume III*).
- Planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Fill will be required in some areas of the property and it is expected that the material required can be obtained from on-site sources and redistributed as necessary.
- Profiles of the internal roadway system will be prepared to conform with Town road grade design specifications in order to provide a safe road system, and this will control overall site grading. In general, the site will continue to exhibit its regional topographic profile decreasing in elevation from north to south.
- All created soil slopes outside of the golf course area will be 1:3 or less and will be stabilized using ground cover material.
- The course will be designed to incorporate the site's existing rolling topography as much as practicable, thereby minimizing the acreage of land clearing and volume of soil affected by grading.
- Slopes within the golf course will be stabilized using appropriate turf species or other engineering means where necessary.

- Preliminary grading plans have been prepared to ensure that the site can be developed as proposed and grading can be minimized to ensure retention of 28.23% of the existing natural vegetation will remain. The grading plan is used for preliminary drainage design and the preliminary SWPPP. A detailed grading and drainage plan will be prepared for the site plan application, and will provide details of overall site grading and will require Town Division of Planning review and Planning Board approval prior to initiation of grading activities.
- An additional safeguard is achieved through the NYSDEC SPDES review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002).

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to geological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

2.2 Water Resources

2.2.1 Existing Conditions

Hydrogeology

Groundwater on Long Island is derived from precipitation. Precipitation entering the soils in the form of recharge passes through the unsaturated zone to a level below which all strata are saturated. This level is referred to as the water table. In general, the groundwater table coincides with sea level on the north and south shores of Long Island, and rises in elevation toward the center of the Island. The high point of the parabola is referred to as the groundwater divide. Differences in groundwater elevation create a hydraulic gradient which causes groundwater to flow perpendicular to the contours of equal elevation, or generally toward the north and south shores from the middle of the Island **(Freeze and Cherry, 1979)**. Near the shore, water entering the system tends to flow horizontally in a shallow flow system through the Upper Glacial Aquifer to be discharged from subsurface systems into streams or marine surface waters as subsurface outflow. Water that enters the system further inland generally flows vertically to deeper aquifers before flowing toward the shores (**Krulikas, 1986**).

The major water-bearing units beneath the subject site include the Upper Glacial aquifer, the Magothy aquifer, and the Lloyd aquifer **(Jensen and Soren, 1974; Koszalka, 1984).** The top altitude of the Upper Glacial aquifer is equal to the topographic elevation of the property which ranges from 17 to 255 feet above mean sea level (asl) and ranges in thickness from 117 to 355 feet. The top of the Magothy aquifer is approximately 200 feet below msl (bsl) and exhibits an approximate thickness of 800 feet **(Koszalka, 1984)**. Below the Magothy lies the Raritan Clay which restricts vertical flow between the Lloyd aquifer and the Magothy. The Lloyd aquifer is 1,100 feet bsl and exhibits a thickness of 350 feet **(Jensen and Soren, 1974; Koszalka, 1984).** Bedrock is present at a depth of about 1,450 feet bsl.

The subject parcel is southeast of the regional groundwater divide, indicating that flow is generally toward the southeast. **Figure 2-4** depicts the general direction of groundwater flow in the area of the subject site. Groundwater will be ultimately discharged from the subsurface system in the form of stream flow and/or subsurface outflow to the waters of Weesuck Creek and

*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-4
WATER TABLE CONTOUR MAP

Source: NYS Orthophotos, 2013; USGS SIM 3270, 2010 data, Suffolk County Water Authority
Scale: 1 inch = 3,000 feet

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western Shinnecock Bay. A generalized geologic cross section is provided in **Figure 2-5**, in order to illustrate the water bearing units and flow patterns.

The elevation of groundwater beneath the subject site ranges from approximately 10 to 15 feet asl, depending on meteorological conditions associated with the water year (**Eckhardt, Wexler, 1986.** The average topographic elevation of the property ranges from approximately 17 to 255 feet asl, therefore, the depth to groundwater is ranges from approximately 6 to 240 feet asl.

Review of the present geographic delineation of the Groundwater Management Zones as determined by SCDHS indicates that the site lies within Zone III, a deep recharge area of pristine water quality (see Groundwater Protection Plans below).

The aquifer underlying the subject property is the Upper Glacial aquifer and is noted to have an average horizontal hydraulic conductivity of 254.6 feet per day (ft/day) (**McClymonds and Franke, 1972)** and an average vertical hydraulic conductivity of 27 feet/day (**Franke and Cohen, 1972**). Darcy's Law uses horizontal hydraulic conductivity, porosity and the slope of the water table to compute the velocity of groundwater flow. The formula for velocity, $V = Ki/n$, was solved using hydraulic conductivity ($K = 254.6$ feet/day), hydraulic gradient ($i = 0.0012121$ feet/foot; based on 2 feet vertical over 1,650 feet horizontal), and porosity ($n = 0.30$). Using Darcy's Law the groundwater velocity in the vicinity of the site is estimated to be 1.03 feet/day.

Groundwater Quality

Groundwater quality data was available for the immediate area of the parcel was obtained from the Suffolk County Water Authority who maintains a well field at the northern end of Spinney Road. The data provided consists of untreated raw water withdrawn from the Upper Glacial aquifer. Review of the data revealed the presence of several inorganic compounds. Of these detections chromium was the only inorganic compound was found to exceed its respective NYSDEC TOGS 1.1.1 ambient water quality standards for class GA groundwaters (GA groundwaters are classified as a source of drinking water). In addition, several pesticide compounds were also detected and include aldicarb sulfoxide, aldicarb sulfone and DCPA diacid which are probably related to agricultural land use in the area upgradient of the site. The detections of aldicarb sulfoxide and aldicarb sulfone were found to exceed their respective NYSDEC TOGS 1.1.1 ambient water quality standards for class GA groundwaters.

Also of note are the detections of nitrate which was found at concentrations ranging from 9.22 to 15.22 mg/L and exceeds its respective NYSDEC TOGS 1.1.1 ambient water quality standards for class GA groundwaters. A summary of the SCWA groundwater quality data is provided in **Table 2-3**.

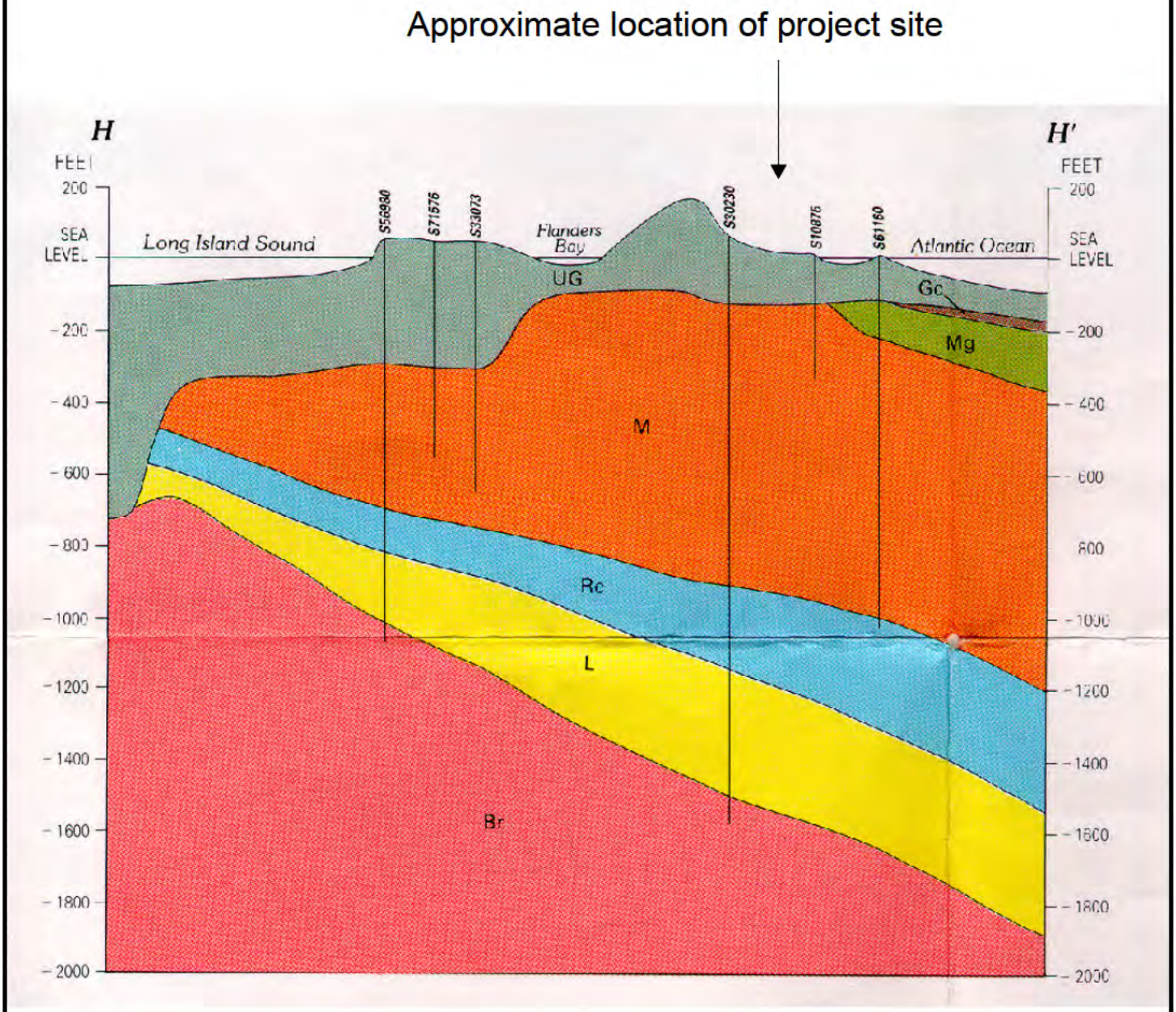

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FIGURE 2-5
GEOLOGIC CROSS-SECTION

Source: section H from Smolensky, et. al; USGS Hydrologic Atlas:709, 1990
Scale: 1 inch = 2,000 feet

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Table 2-3
GROUNDWATER QUALITY DATA
SCWA Spinney Road Upper Glacial Wells, July & August, 2014

Constituent	Spinney Road Well #1	Spinney Road Well #2	Unit	TOGS GA Groundwater Standards
Inorganics				
Alkalinity, total	<20.0	<20.0	mg/l	NS
Aluminum	ND	ND	mg/l	NS
Ammonia, free	ND	ND	mg/l	2
Arsenic	ND	ND	µg/l	0.025
Barium	0.0608	0.0793	mg/l	1
Boron	ND	ND	mg/l	1
Bromide	ND	ND	mg/l	2
Cadmium	ND	ND	µg/l	0.005
Calcium	20.8	22.7-23.4	mg/l	NS
CO_2	44	35.3	mg/l	NS
Chloride	17-17.2	20.4-21.0	mg/l	250
Chromium, total	ND	0.67	µg/l	0.05
Cobalt-59	ND	ND	µg/l	NS
Color	5	<5.0	Color units	NS
Copper	ND	ND	mg/l	0.2
Fluoride	ND	ND	mg/l	1.5
Hardness, calculated	85.1	106-108	mg/l	NS
Hexavalent Chromium	0.32	0.64	µg/l	0.05
Iron	ND	ND	µg/l	300
Lead	ND	ND	µg/l	25
Lithium	ND	1.09	µg/l	NS
Magnesium	8.08	11.9-12.1	mg/l	NS
Manganese	0.0156	ND	µg/l	300
Molybdenum	ND	ND	µg/l	NS
Nickel	0.59	0.69	µg/l	100
Nitrate	9.22-9.60	14.0-15.20	mg/l	10
Nitrite	ND	ND	mg/l	1
Perchlorate	1.31-1.34	3.28-3.44	µg/l	NS
Phosphate, total	ND	ND	mg/l	NS
pH	5.37-5.64	5.33-6.50	pH Units	NS
Potassium	2.56	2.36-2.49	mg/l	NS
Silicon	4.83	5.42	mg/l	NS
Sodium	6.79	7.74-7.99	mg/l	20,000
Specific Conductance	256	310	µmho/cm	NS
Strontium	0.0628	0.133	mg/l	NS
Sulfate	39.8-40.6	43.7-44.2	mg/l	250
Surfactants, anionic	ND	ND	mg/l	NS
Titanium	ND	ND	µg/l	NS
Total Dissolved Solids	155	192	mg/l	NS
Total Organic Carbon	ND	ND	mg/l	NS
Total Coliform	Absence	Absence	Absence/Presence	NS

Turbidity	<0.40	<0.40	NTU	NS
Vanadium	ND	ND	µg/l	NS
Zinc	ND	ND	mg/l	2,000
Pesticides, Herbicides, Pharmaceuticals and Personal Care Products				
Acetochlor ESA	ND	ND	µg/l	NS
Alachlor	ND	ND	µg/l	NS
Alachlor ESA	ND	ND	µg/l	NS
Alachlor OA	ND	ND	µg/l	NS
Aldicarb Sulfone	1.07	0.50	µg/l	NS
Aldicarb Sulfoxide	1.25	0.58	µg/l	NS
Carbamazepine	ND	ND	µg/l	NS
DCPA Diacid	5.52	4.25	µg/l	NS
Dilantin	ND	ND	µg/l	NS
Diethytoluamide (DEET)	ND	ND	µg/l	NS
1,4-Dioxane	ND	ND	µg/l	NS
Gemfibrozil	ND	ND	µg/l	NS
Hexazinone	ND	ND	µg/l	NS
Ibuprofen	ND	ND	µg/l	NS
Imidacloprid	ND	ND	µg/l	NS
Meprobamate	ND	ND	µg/l	NS
Metalaxyl	ND	ND	µg/l	NS
Metolachlor	ND	ND	µg/l	NS
Metolachlor ESA	ND	ND	µg/l	NS
Metachlor OA	ND	ND	µg/l	NS
Naproxen	ND	ND	µg/l	NS
PFHpA	ND	ND	µg/l	NS
PFHxS	ND	ND	µg/l	NS
PFOS	ND	ND	µg/l	NS
Tetrachloroterephthalic Acid	ND	ND	µg/l	NS
Volatile Organic Compounds				
Carbon Tetrachloride	ND	ND	µg/l	5
Chlorobenzene	ND	ND	µg/l	5
Chlorodifluoromethane	ND	ND	µg/l	5
Cis-1,2-Dichloroethene	ND	ND	µg/l	5
Dichlorodifluoromethane	ND	ND	µg/l	5
1,1-Dichloroethane	ND	ND	µg/l	55
1,1-Dichloroethene	ND	ND	µg/l	5
1,2- Dichloroethane	ND	ND	µg/l	0.6
1,2-Dichloropropane	ND	ND	µg/l	1
Ethyl Benzene	ND	ND	µg/l	5
Methylene Chloride	ND	ND	µg/l	5
Methyl-Tert-Butyl Ether	ND	ND	µg/l	NS
o-Xylene	ND	ND	µg/l	5
p,m-Xylene	ND	ND	µg/l	5
Tetrachloroethene	ND	ND	µg/l	5
1,1,1-Trichloroethane	ND	ND	µg/l	5
Tetrahydrofuran	ND	ND	µg/l	50
Toluene	ND	ND	µg/l	5

Trichloroethene	ND	ND	µg/l	5
Trichlorofluoromethane	ND	ND	µg/l	5
1,2,3-Trichloropropane	ND	ND	µg/l	0.04
1,1,2-Trichlorotrifluoroethane	ND	ND	µg/l	NS
Disinfectant and Disinfection By-Products				
Bromochloroacetic Acid	ND	ND	µg/l	NS
Bromodichloroacetic Acid	ND	ND	µg/l	NS
Bromodichloromethane	ND	ND	µg/l	5
Bromoform	ND	ND	µg/l	50
Chlorate	ND	ND	mg/l	NS
Chlorine residual, free	ND	ND	mg/l	NS
Chloroform	0.36	ND	µg/l	7
Dibromochloromethane	ND	ND	µg/l	5

In addition, to SCWA groundwater data, site specific data was collected from four well points installed on the subject property. The water samples were taken from the groundwater interface using fully screened wells with 15 feet of screen with 5 feet above the water table and 10 feet into the water table. Samples were extracted from the groundwater interface after purging with dedicated hand bailers. Review of the data revealed the presence of three inorganic compounds (iron, lead and manganese) that were above their respective NYSDEC TOGS 1.1.1 ambient water quality standards for class GA groundwaters and are likely the result of natural sources related to geologic deposits. Total nitrogen was detected in concentrations that ranged from ND to 29 mg/l indicating substantially elevated nitrogen concentrations in areas downgradient of agricultural areas. A summary of the site specific groundwater quality data is provided in **Table 2-4.**

Table 2-4
ON-SITE GROUNDWATER QUALITY DATA

Constituent	MW-1	MW-2	TW-1	TW-2	NYSDEC TOGS 1.1.1
Volatile Organics	None Detected				
Semi-volatile Organics	None Detected				
Metals	**mg/l**	**mg/l**	**mg/l**	**mg/l**	**mg/kg**
Barium	NA	NA	ND	0.12	1
Copper	0.05	0.03	ND	ND	0.2
Iron	43.6	30	0.18	1.87	0.3
Lead	0.064	ND	ND	ND	0.025
Manganese	3.16	2.63	0.02	0.34	0.3
Zinc	0.13	0.08	ND	ND	2
Nitrogen Parameters	**mg/l**	**mg/l**	**mg/l**	**mg/l**	
Total Nitrogen	2.00	ND	**29.00**	4.65	10
Total Organic Nitrogen	ND	ND	ND	ND	
Total Kjeldahl Nitrogen	1.2	ND	1.5	ND	
Chloride	7.86	7.49	24.70	11.10	250
Nitrate	0.80	0.65	27.50	4.65	10
Nitrite	ND	ND	ND	ND	1
Sulfate	7.89	6.19	31.60	19.30	250
Total Phosphorus	0.398	0.584	ND	ND	NS
Ammonia	1.30	ND	ND	ND	2

Notes: Elevated concentrations of metals may be due to samples being unfiltered and turbid.

Water Supply

The subject property is located within Distribution Area 20 of the Suffolk County Water Authority (SCWA) who provides water supply services to the area surrounding the subject property. There are three SCWA water supply wells within the vicinity of the subject property and consist of the following (see **Figure 3-13**):

Spinney Road Well Field

Located on the west side of Spinney Road, immediately south of the subject property. Supply Wells #1 and #2 of the well field are screened within the Upper Glacial aquifer. Wells #3 and #4 are screened within the Magothy aquifer. The wells have the following total depths and screen intervals relative to mean sea level:

Spinney #1: S-23184, -25 feet to -63 feet
Spinney #2: S-53593, -69 feet to -109 feet
Spinney #3: S-123249, -417 feet to -478 feet
Spinney #4: S-133227, -417 feet to -478 feet

Quogue-Riverhead Road Wellfield

Located on the northeast side of Quogue-Riverhead Road, approximately 800 feet north of Lewis Road. This well field is located approximately 1.70 miles west of the subject property. This well field has one well screened in the Upper Glacial aquifer, and one in the Magothy aquifer. The total depths and screen intervals relative to MSL for these wells are as follows:

Quogue-Riverhead Rd #1: S-94286, -311 feet to -371 feet
Quogue-Riverhead Rd #2: S-108161, -70 feet to -110 feet

Malloy Drive Well Field

Located on the south side of Malloy Drive, immediately east of Emmett Drive. This well field is located approximately 1.3 miles east of the Hills South portion of the property. Wells #1 and #2 which comprise the wellfield are screened within the Upper Glacial aquifer. The total depths and screen intervals relative to MSL for these wells are as follows:

Malloy #1: S-115945, -86 feet to -100 feet
Malloy #2: S-115899, -67 feet to -98 feet

In addition, there are several small areas located to the south and southeast of the subject property that are not within the distribution network of the SCWA and likely utilize private wells for potable water supply. The SCWA distribution system in the area of the subject property is provided on **Figure 3-13**.

Source Water Assessment Program

A mission of the New York State Department of Health (DOH) is to protect and promote the health of the citizens of New York State. Within the DOH, the Bureau of Public Water Supply Protection has the primary responsibility of administering the Public Water System Supervision program (PWSS) and for assuring that safe, potable water, in adequate quantities, is provided throughout the state. This is accomplished through:

- Oversight of local water supply regulatory programs;
- Training and certification of water supply operators;
- Maintenance of a statewide database on individual public water systems;

- Development and initiation of enforcement policies;
- Plan review;
- Maintenance of a water quality surveillance program; and
- Providing technical assistance to both regulatory units and water suppliers.

As part of this responsibility Source Water Assessment Program (SWAP) maps, which delineate the time capture zones for well fields, are generated to delineate the area of capture over time for each well field. Review of the SWAP map for the three well fields in the area of the proposed project finds that only the Spinney Road well field and the Malloy Drive well field have capture zones that encroach onto the subject property. Specifically, two residential lots in the western portion of the proposed development fall within the 25 year capture zone of the Spinney Road well field and a small portion of the golf course falls within the 50 year capture zone of the Malloy Dive well field. A depiction of the SWAP maps superimposed on the proposed project is provided as **Figure 2-6**.

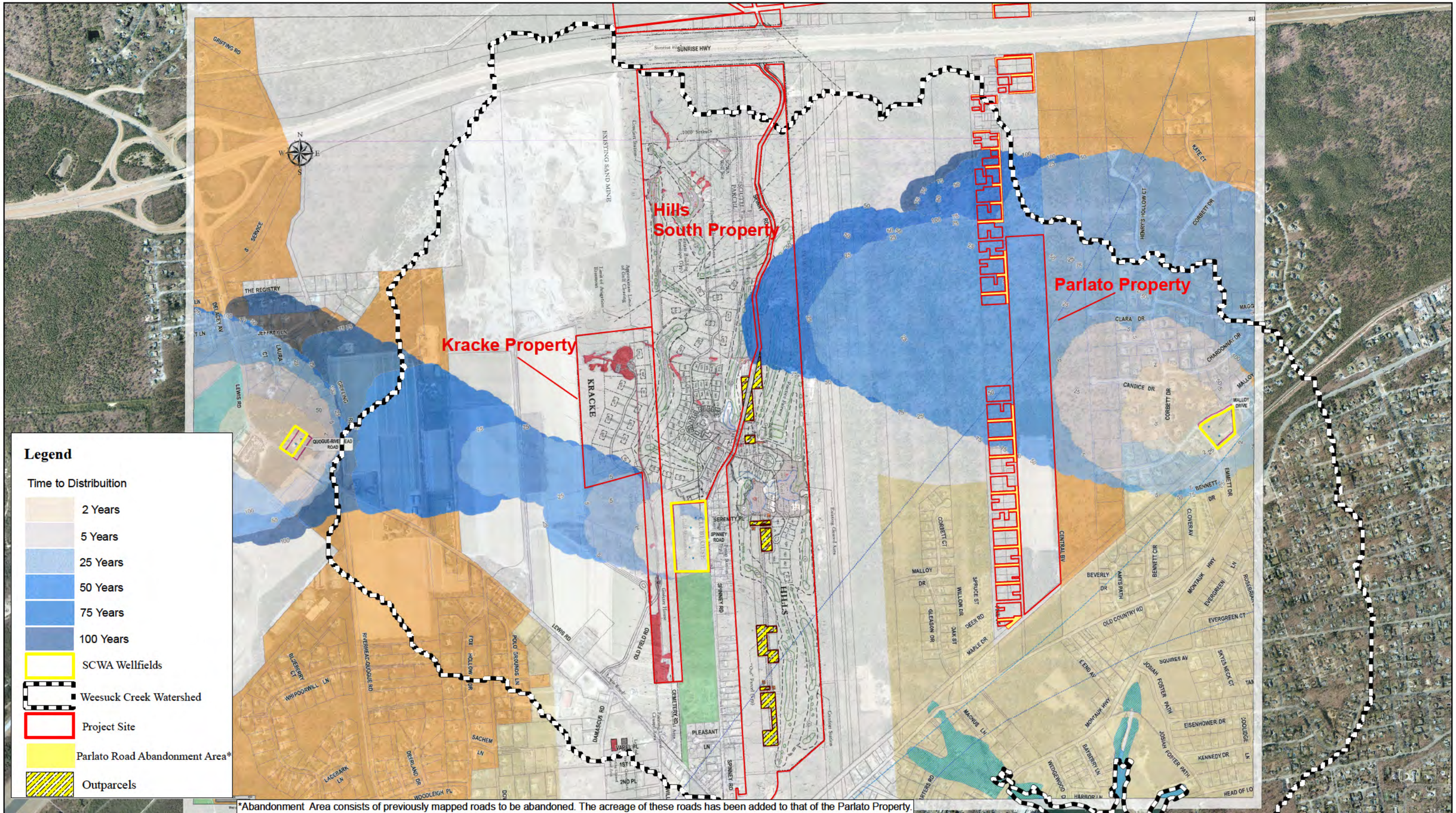
Surface Water

Wetlands - NYSDEC Freshwater Wetlands Maps as well as National Wetland Inventory maps also do not depict any wetlands as being present on the subject property. However an approximately 1.40 acre wetland area situated within two depressions is located on the Hills North section of the property. Approximately eight to twelve inches of standing water was observed within these wetland features during 2015 site visits.

As noted previously, the south part of the site has two topographic swales which transect the site from northwest to southeast. These swales are geologic meltwater valleys and trend to the southeast and eventually form the headwaters of the western branch of Weesuck Creek. The swales are bisected by Spinney Road and have been altered by the road itself and construction of homes.

The nearest off-site wetlands to the subject property consists of upper reaches of Weesuck Creek which are located approximately 1,500 feet southeast of the Hills portion of the property. The nearest portions of Weesuck Creek are designated as Q-10 on the NYSDEC Freshwater Wetlands maps. This is identified by the NYSDEC as a Class 2 wetland, indicating that while the wetland is not considered pristine, it is of higher quality. A full definition of the classification is provided in **Appendix L-1**. National Wetland Inventory Maps designate portions of the upper reaches of Weesuck Creek as consisting of three separate ecological systems identified as “PFO1C” (Palustrine, Forested, Broad leaved Deciduous, Seasonal); “PEMF” (Palustrine, Emergent, Semipermanent); and “E2FLM” (Estuarine, Intertidal, Flat, Irregularly Exposed). The NYSDEC Freshwater Wetlands and National Wetland Inventory Maps are provided as **Figures 2-7** and **2-8**, respectively.

The remaining portion of Weesuck Creek is tidal and flows into Shinnecock Bay. Intertidal marsh (IM) is located along the banks of the northern reaches of the tidal portions of the creek, while areas of both high marsh (HM) and intertidal marsh (IM) are located near the mouth of the creek. The central portion of the creek is classified as a littoral zone (LZ). Shoals, bars and mudflats (SM) are present at the interface of the creek and Shinnecock Bay.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-6
SOURCE WATER ASSESSMENT PROGRAM, WELLFIELD MAP

Source: NYSGIS Orthoimagery Program, 2013; SCWA SWAP zones created 2015
Scale: 1 inch = 1,200 feet

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FIGURE 2-7
NYSDEC FRESHWATER WETLANDS MAP

Source: ESRI WMS; NYSDEC, 2013

Scale: 1 inch = 3,000 feet

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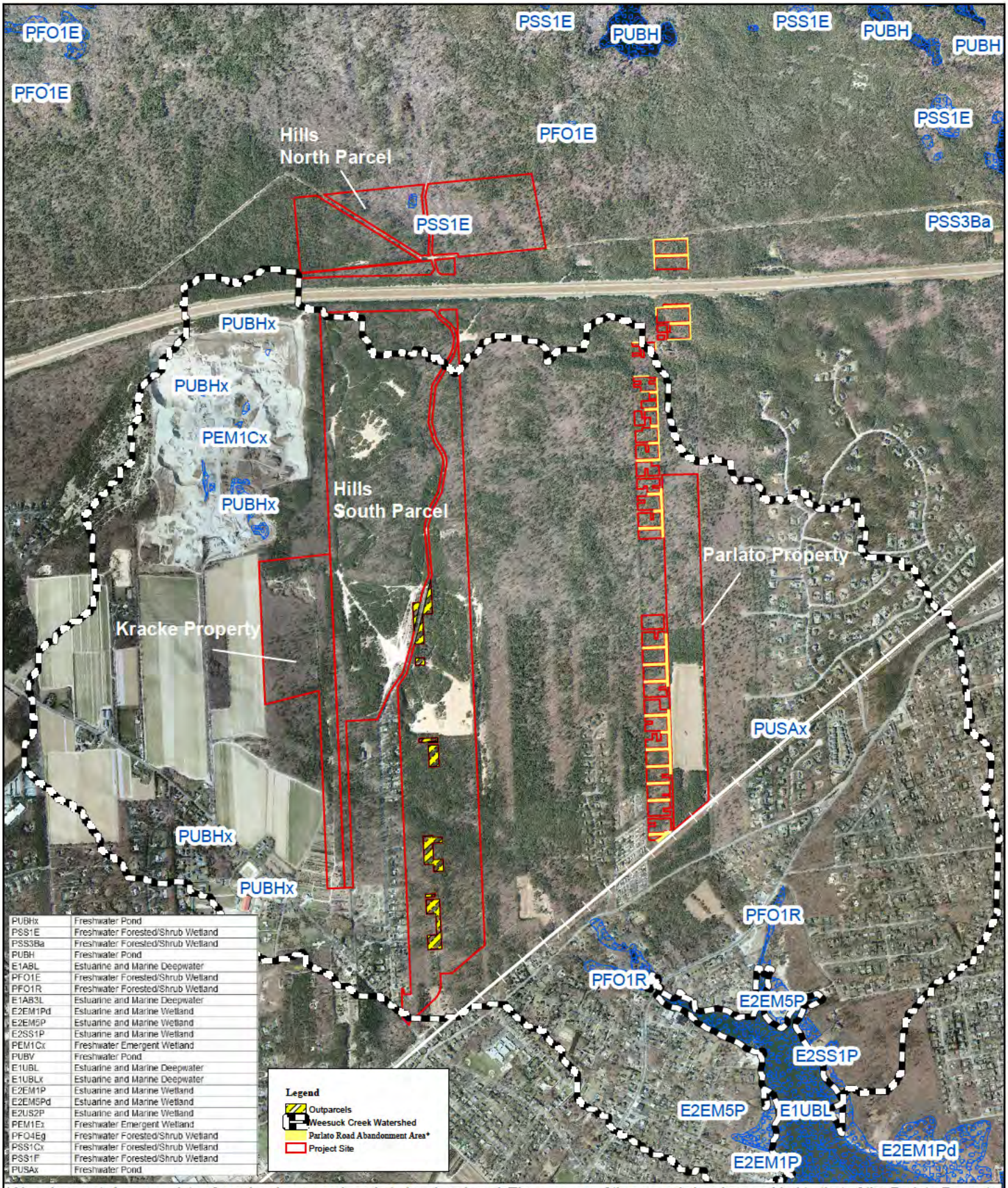

PUBHx	Freshwater Pond
PSS1E	Freshwater Forested/Shrub Wetland
PSS3Ba	Freshwater Forested/Shrub Wetland
PUBH	Freshwater Pond
E1ABL	Estuarine and Marine Deepwater
PFO1E	Freshwater Forested/Shrub Wetland
PFO1R	Freshwater Forested/Shrub Wetland
E1AB3L	Estuarine and Marine Deepwater
E2EM1Pd	Estuarine and Marine Wetland
E2EM5P	Estuarine and Marine Wetland
E2SS1P	Estuarine and Marine Wetland
PEM1Cx	Freshwater Emergent Wetland
PUBV	Freshwater Pond
E1UBL	Estuarine and Marine Deepwater
E1UBLx	Estuarine and Marine Deepwater
E2EM1P	Estuarine and Marine Wetland
E2EM5Pd	Estuarine and Marine Wetland
E2US2P	Estuarine and Marine Wetland
PEM1Ex	Freshwater Emergent Wetland
PFO4Eg	Freshwater Forested/Shrub Wetland
PSS1Cx	Freshwater Forested/Shrub Wetland
PSS1F	Freshwater Forested/Shrub Wetland
PUSAx	Freshwater Pond

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FIGURE 2-8
NATIONAL WETLANDS INVENTORY MAP

Source: NYS Orthophotos, 2013; USF&W wetlands layer
Scale: 1 inch = 2,500 feet

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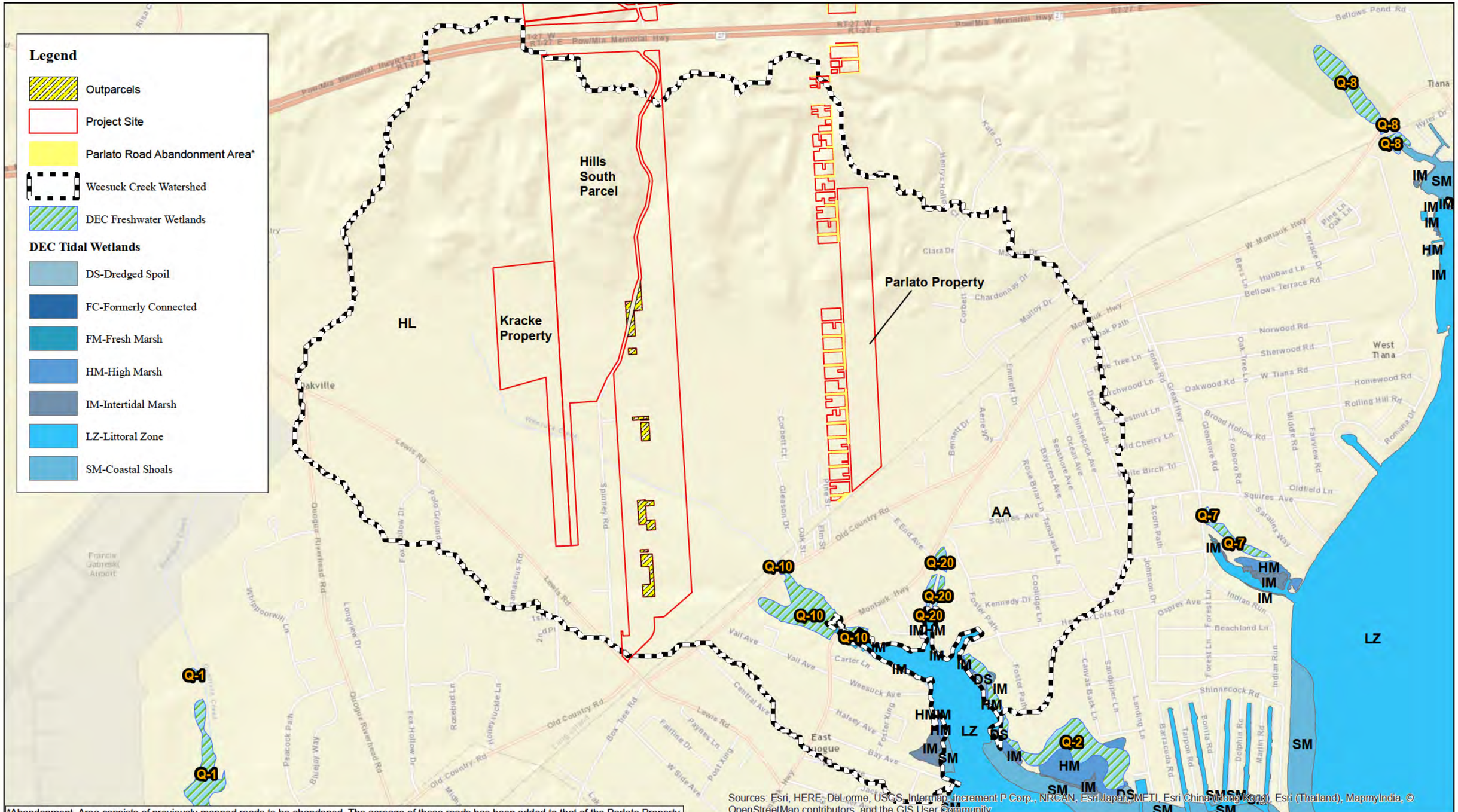
Shinnecock Bay is a tidal waterbody which primarily consists of littoral zone (LZ) habitat. Areas of high marsh (HM) and intertidal marsh (IM) are located in select areas along the shoreline of the Bay. NYSDEC definitions of the tidal wetland categories are provided in **Appendix L-2**.

Surface Waters - The NYSDEC classifies surface waters into several categories, depending on whether the water body is freshwater or tidal. As indicated by the NYSDEC, "All waters of the state are provided a class and standard designation based on existing or expected best usage of each water or waterway segment." Descriptions of these classifications are provided in **Table 2-5** below, and classifications for waters that comprise Weesuck Creek and Shinnecock Bay are provided in **Figure 2-9**. The northernmost portion of Weesuck Creek (the only portion that is considered freshwater), located approximately 640 feet north of Montauk Highway, is classified C, indicating it is primarily suitable as fish and wildlife habitat. The northernmost tidal portion of Weesuck Creek, north of Bay Avenue, is classified as SC, indicating that the most appropriate use for this area is as habitat for fish, shellfish and wildlife and may be utilized for recreational purposes; however, other factors (e.g. size, invasive species) may limit their use for recreation. The remaining portion of Weesuck Creek and Shinnecock Bay are classified as SA, indicating that these waters should be suitable for shellfishing, fishing and recreation in addition to wildlife propagation and survival. **Figure 2-10** presents the Federal Emergency Management Agency's (FEMA) Flood Hazard Map for the area. As can be seen, the subject site is not within a designated flood hazard zone.

<u>Surface Water Quality</u>

According to the NYS 303(d) list, Weesuck Creek and Shinnecock Bay are impaired waterbodies; Weesuck Creek is impaired due to the presence of high levels of pathogens which impair shellfishing, while Shinnecock Bay is impaired due to high concentrations of nitrogen. Data collected by Suffolk County was reviewed for the station in Shinnecock Bay in closest proximity to the mouth of Weesuck Creek, as this station is most representative of water quality affected by contributions from Weesuck Creek. Data for this station have been collected since 1977. In total, over 37 years of data is available for this station, with 532 samples for various parameters collected within that time period. A summary of the data results for key parameters are provided in **Table 2-6** below, and the original data set is provided in **Appendix L-3**.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-9
SURFACE WATER CLASSIFICATION MAP

Source: ESRI Web Mapping Services; NYSDEC Fresh and Tidal Wetlands
Scale: 1 inch = 1,500 feet

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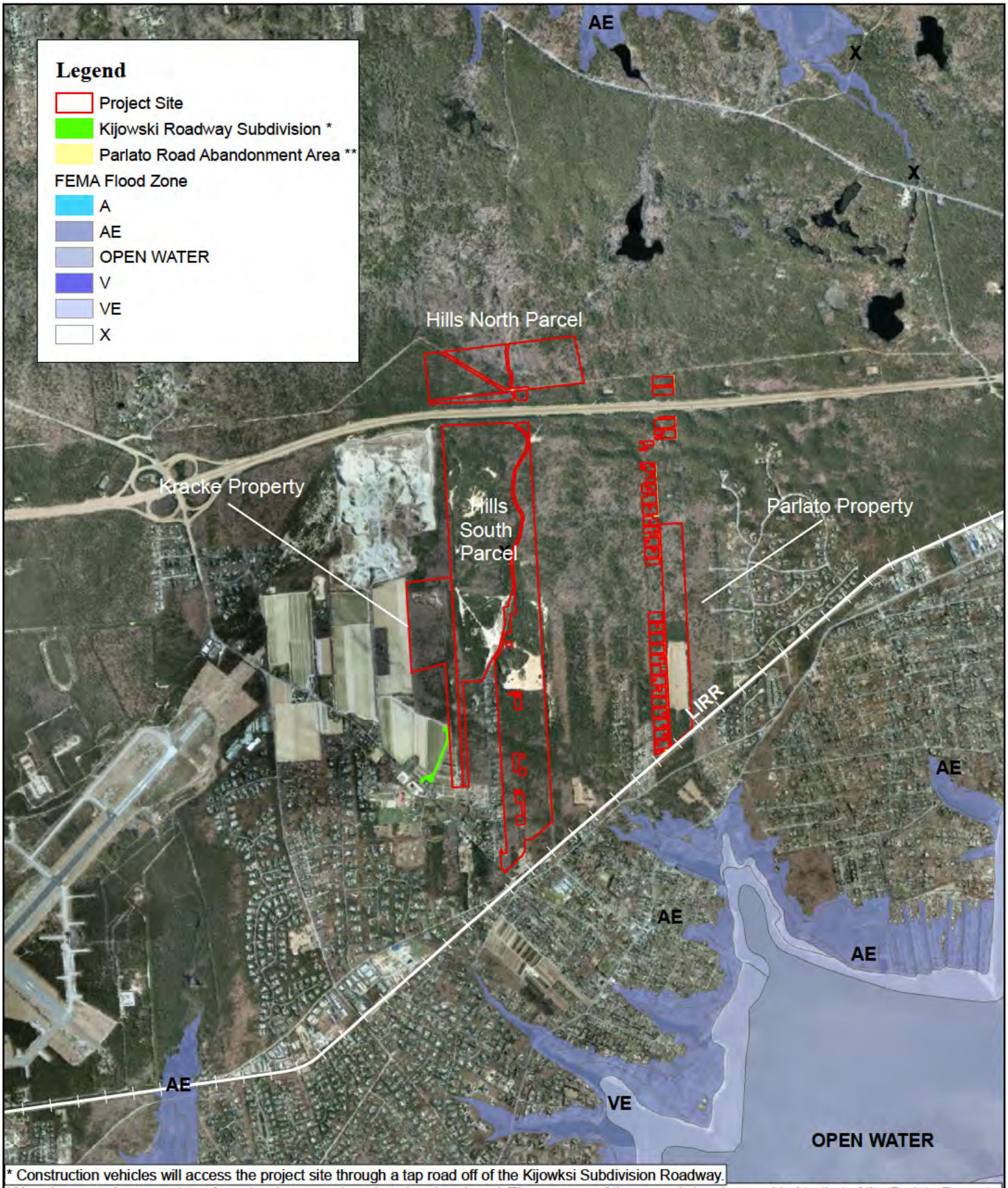

* Construction vehicles will access the project site through a tap road off of the Kijowksi Subdivision Roadway.

*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-10
FEMA FLOOD HAZARD ZONE MAP

Source: NYS Orthophotography, 2013; FEMA 2013

Scale: 1 inch = 3,000 feet

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Table 2-5
NYSDEC SURFACE WATER QUALITY CLASSIFICATIONS

Freshwater Classification	Best Usage
AA	Source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. Suitable for fish, shellfish and wildlife propagation and survival.
A	Source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. Suitable for fish, shellfish and wildlife propagation and survival.
B	Primary and secondary contact recreation and fishing. Suitable for fish, shellfish and wildlife propagation and survival.
C	Suitable for fish, shellfish and wildlife propagation and survival. Also, for primary and secondary contact recreation, although other factors may limit the use for these purposes.
D	Due to such natural conditions as intermittency of flow, water conditions not being conducive to propagation of game fishery, or unsuitable stream bed conditions, the waters will not support fish propagation. Suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Marine Water Classification	Best Usage
SA	Shellfishing for market purposes, primary and secondary contact recreation and fishing. Suitable for fish, shellfish and wildlife propagation and survival.
SB	Primary or secondary contact recreation and any fishing. Suitable for fish, shellfish and wildlife propagation and survival.
SC	Suitable for fish, shellfish and wildlife propagation and survival. Also, suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.
I	Secondary contact recreation and fishing. Suitable for fish, shellfish and wildlife propagation and survival.
SD	Suitable for fish, shellfish and wildlife survival. This classification may be given to those waters that cannot meet the requirements for primary and secondary contact recreation and fish propagation for reasons of natural or man-made conditions.

Source: 6NYCRR Parts 700-705, Water Quality Regulations for Surface Waters and Groundwaters, effective September 1, 1991.

Note: Examples of primary contact recreation include swimming, diving, and surfing. Examples of secondary contact recreation include fishing and boating.

Table 2-6
SUFFOLK COUNTY STATION 070180 WATER QUALITY SAMPLE RESULTS

Station	Date Range for Samples	Sampling Timeframe (Years)
070180	03/21/1977-12/5/2013	36.73

Number of Samples for Total Coliforms	Geometric Mean of Total Coliform (MPN/100 ml; Regulatory limit of 330 MPN/ml)	Number of Samples Exceeding the Single Sample Regulatory Limit of 70 MPN/ml	Percent of Single Samples Exceeding the Regulatory Limit (70 MPN/ml)
131	15.42	14	10.69%

Number of Samples for Fecal Coliforms	Geometric Mean of Fecal Coliform (MPN/100 ml; Regulatory limit of 49 MPN/ml)	Number of Samples Exceeding the Single Sample Regulatory Limit of 14 MPN/ml	Percent of Single Samples Exceeding the Regulatory Limit (14 MPN/ml)
112	9.59	48	42.86%

Number of Samples for Nitrogen (as TKN)	Average Total Nitrogen (mg/l; PEP limit of 0.45 mg/l)	Number of Samples Exceeding 0.45 mg/l	Percent of Samples Exceeding 0.45 mg/L
111	0.52	59	53.15%

Number of Samples for Nitrogen (as TN)	Average Total Nitrogen (mg/l; PEP limit of 0.45 mg/l)	Number of Samples Exceeding 0.45 mg/l	Percent of Samples Exceeding 0.45 mg/L
171	0.3	21	12.28%

Limited data is available for Weesuck Creek itself. Two USGS stations situated at the same geographic location (where Weesuck Creek intersects with Montauk Highway) have sample data available. Station 01304745 was sampled three times, once in 1966, once in 1973 and once in 1986. Samples were tested for minerals and nutrients, solvents and surfactants. Station 01304755 was sampled two times, once in 1993 and once in 1995. Samples at this station were tested for volatile organic compounds, solvents, and pesticides, however, no detections of these analytes occurred in either sample and as a result, a summary table for these samples in not provided herein. A summary table of pertinent findings from Station 01304745 is provided as **Table 2-7** below. Trace concentration of some organics were detected intermittently. Nitrate concentrations of 0.5 and 1.3 mg/l in 1966 and 1973, respectively. The 1973 sample included concentrations for nitrite at 0.02 mg/l and ammonia 0.06 mg/l. A single value for phosphorus is provided, with a level of 0.002 mg/l. As the standard for freshwater bodies is 0.02 mg/l, the value recorded is well below the regulatory threshold, suggesting no excess levels of phosphorus were present when the sample was taken. Other data provides historical information but there is insufficient information to establish trends or determine more recent water quality characteristics as no further data regarding Weesuck Creek is available.

Table 2-7
USGS STATION 01304745 WATER QUALITY SAMPLE RESULTS

Analyte	Sample Date		
	1966-05-11	1973-03-14	1986-07-28
1,1,1-Trichloroethane			
1,1,2,2-Tetrachloroethane			
1,1,2-Trichloroethane			
1,1-Dichloroethane			
1,1-Dichloroethylene			
1,2-Dichloroethane			
1,2-Dichloropropane			
1,3-Dichloropropene			
2-Chloroethyl vinyl ether			
Alkalinity (mg/l $CaCO_3$)	7	7	
Ammonia and ammonium (mg/l)		0.06	
Benzene			
Bicarbonate (mg/l)	9	8	
Calcium (mg/l)		3.9	
Carbon dioxide (mg/l)	4.6	4	
Carbon tetrachloride			
Carbonate (CO_3) (mg/l)	0	0	
CFC-11			
CFC-12			
Chloride (mg/l)	24	30	
Chlorobenzene			
Chlorodibromomethane			
Chloroethane			
Chloroform (µg/l)			0.4
Chloromethane			
cis-1,3-Dichloropropene			
Color (PCU)	6		
Dichlorobromomethane			
Ethylbenzene			
Fluoride			
Hardness, non-carbonate (mg/l $CaCO_3$)	8	14	
Hydrogen ion (mg/l)	0.00032	0.00032	
Iron (mg/l)	80	90	
Magnesium (mg/l)		2.6	
Manganese (µg/l)		40	
m-Dichlorobenzene			
Methyl bromide			
Methylene chloride			
Nitrate (mg/l)	0.5	1.3	
Nitrite (mg/l)		0.02	
o-Dichlorobenzene			
Organic nitrogen (mg/l)		0.13	
p-Dichlorobenzene			

pH (std units)	6.5	6.5	
Phosphorus (mg/l)		0.002	
Potassium (mg/l)		1	
Silica (mg/l)		8.3	
Sodium (mg/l)		19	
Sodium adsorption ratio (mg/l)	1.8	1.8	
Sodium plus potassium (mg/l)	16		
Sodium, percent total cations (%)	70	66	
Specific conductance (µS/cm @25°C)	117	141	
Stream flow, instantaneous (ft^3/s)		1.4	
Stream flow, mean. Daily (ft^3/s)	0.5	1.4	
Sulfate (mg/l)	7.9	9	
Surfactants -- CWA 304B (mg/l)	0	0.02	
Temperature, water (°C)		9	
Tetrachloroethylene			
Toluene			
Total dissolved solids (mg/l)		79	
Total hardness -- SDWA NPDWR (mg/l $CaCO_3$)	15	20	
trans-1,2-Dichloroethylene			
trans-1,3-Dichloropropene			
Tribromomethane			
Trichloroethylene			
Trihalomethanes (four), total, from SDWA NPDWR (µg/l)			0.4
Vinyl chloride			

*A blank box indicates that the analyte was not detected in the sample.

Review of "Toxic Fairways: Risking Groundwater Contamination from Pesticides on Long Island Golf Courses" - In 1991, the Environmental Protection Bureau of the Attorney General of New York issued a report on the use of pesticides on Long Island golf courses, their potential for ground water contamination, and their potential for health effects. Some statements were made regarding pesticide use on lawns, as well (this report was revised in 1994 and 1995). **Appendix L-4** of this Draft EIS contains a review of that report, prepared by Stuart Z. Cohen, Ph.D., CGWP (President of Environmental and Turf Services, Inc., of Wheaton, Md.); the following is taken from the review's Executive Summary:

> Conclusions about pesticide use were based partly on a survey of the golf courses and partly on the work of Cornell University researchers regarding agricultural use. Most of the statements about health effects were not supported with references. The authors were highly critical of the US EPA's regulatory program for pesticides. Many people have been citing this report as part of public discussion about a proposed development in Suffolk County, The Hills at Southampton.
>
> The authors concluded that Long Island golf course managers use pesticides at rates four to seven times the number of pounds per acre used in agriculture, and home owners use between three and six times the number of pounds per acre used in agriculture. They also made many allegations regarding the deficient review of pesticides on the market and their health effects.
>
> Golf Course Pesticide Use. It was difficult to critically examine the quantitative analysis done by the Cornell group of the broad agricultural use categories. This is because they did not provide the underlying data. A quantitative analysis of pesticide use on 90 crops I did in collaboration with the

US EPA and the National Center for Food & Agricultural Policy concluded the following (Cohen, 1995): *"Golf courses are in the middle range of pesticide use when one considers total acreage, and do not reach the top 10 percent when one considers actual treated acreage. Golf courses appear to account for about 1 percent of agricultural pesticide use in the United States."*

Further, the AG's office apparently made arithmetic errors. I obtained an application rate comparison of 3.7-4.9 times for the golf to agricultural use rate ratio using their information (rounded to four to five times), not four to seven times.

Home Lawn Pesticide Use. The support for the three to six times the ag use rate statement (see above) was a highly biased article published in Time magazine. It was written by a reporter who provided no references nor offered any data to support his claim. It is unconscionable that the State Attorney General's scientific staff would rely on this source for such a conclusion.

Pesticide Regulation by the US EPA. The pesticide regulatory program at the USDA - - prior to the creation of the EPA in 1970 - - was weak. But it became much stronger with the passage of the Federal Insecticide, Fungicide, and Rodenticide Act in 1972. Then a series of rigorous, comprehensive data requirements were promulgated ca. 1982-1984 (Title 40 of the Code of Federal Regulations, Part 158) that required pesticide registrants to conduct 75-100-plus studies in the areas of toxicology, environmental fate, ecological effects, product chemistry, worker exposure, turf transferrable residues, and crop residues for each pesticide. Also, a systematic and comprehensive program to evaluate the "inert" ingredients was begun in 1986. Finally, since 1996, the risk-based standard for most turf pesticides has been "a reasonable certainty of no harm" to children and others. Apparently, the report's authors chose not to balance their criticisms with this information.

Ground Water Contamination by Pesticides. The title of the report and several of its statements tend to give the reader significant concerns about ground water contamination by golf course pesticides. Yet studies by the SCDHS (2002) and us (Baris et al., 2010) indicate groundwater contamination by pesticides applied to golf courses is not a significant problem.

Health Effects. The report contains many comments regarding adverse health effects caused by pesticides. References are not provided to support the statements. For example, the report states in the Introduction, *". . . some [pesticides] have been linked to birth defects."* We are not aware of birth defects caused by pesticide applications, particularly applications made within the last 30 years.

Shinnecock Bay - Nitrogen - In general, the data reveals that during the period nitrogen was collected as TKN (1977 – 2000), nitrogen levels were increasing over time **(Chart 2-1)**. In 2000, nitrogen was no longer collected as TKN and was collected as TN; review of this data reveals a steady trend of nitrogen levels in surface water, with no increasing or decreasing trends apparent over time (**Chart 2-2**).

Chart 2-1
SCDHS STATION 070180 TKN RESULTS

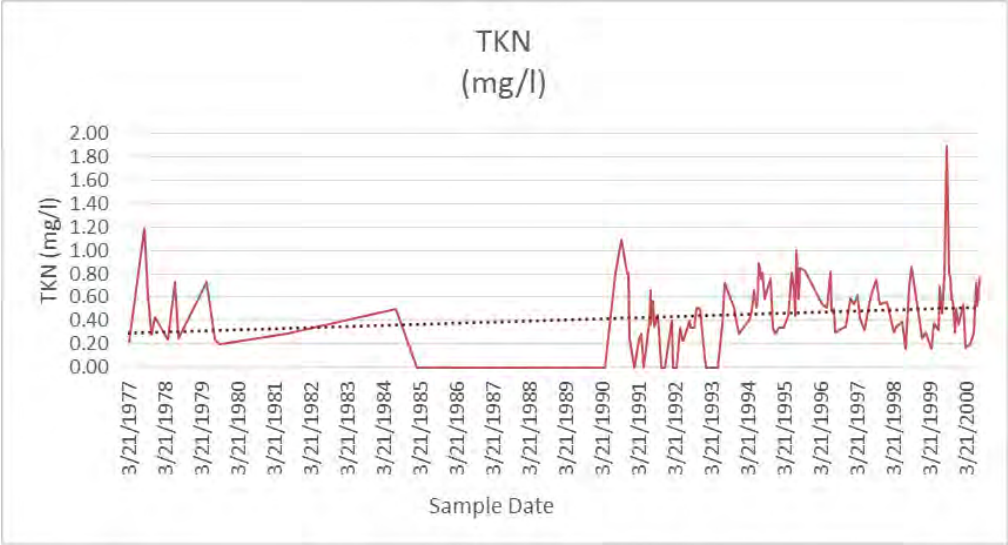
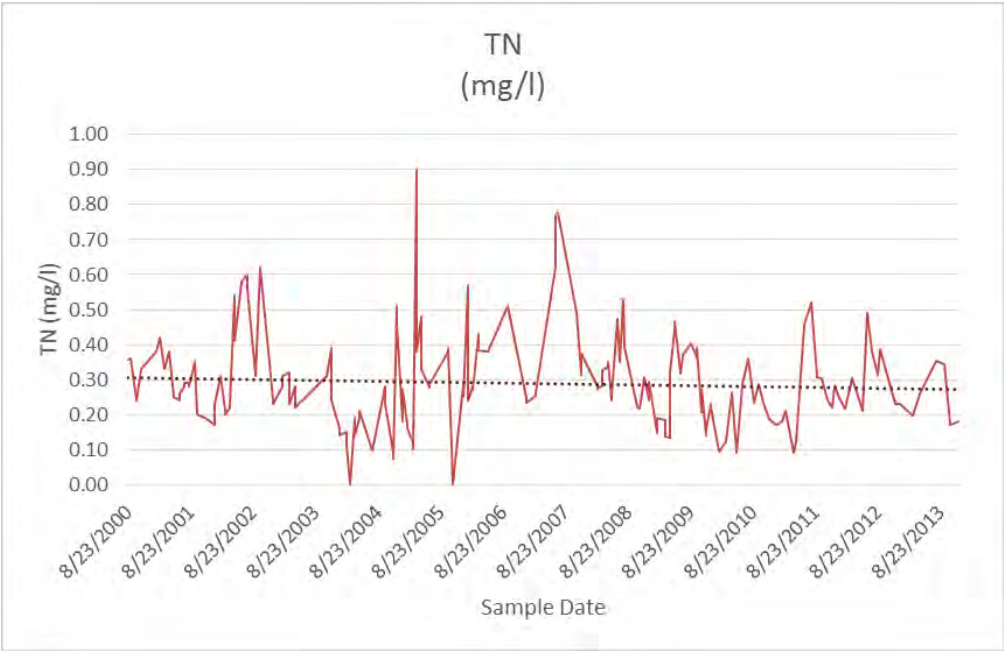


Chart 2-2
SCDHS STATION 070180 TN RESULTS



It is noted, however, that both TKN and TN levels oscillate through time, with a peak value 1.19 mg/l recorded in August 1977 for TKN and a peak value of 0.90 mg/l recorded in April 2005 for TN. 23 of the 180 samples collected for TN exceeded the recommended limit of 0.45 mg/l for marine surfaces waters, indicating that the station experiences high nitrogen levels in approximately 13 percent of samples. Of the 111 samples collected for TKN analysis, 60 exceeded the recommended marine surface water limit, indicating high nitrogen levels were experienced in approximately 54 percent of samples. The average value of TKN is 0.52 mg/l, while the average value of TN is 0.30 mg/l. Review of the trend, percent of samples exceeded and the average value for both sets of data, indicate an improvement in nitrogen at this station over time. It is noted, however, that this station is located in the central portion of the bay which experiences greater flushing than the areas of the bay closer to the shoreline and as a result, water quality in this area is expected to be better than that of areas which do not experience rapid water movement.

Pathogens - Pathogen data is collected by the County as both Total Coliforms and Fecal Coliforms. The most stringent regulatory limits for both Total and Fecal Coliforms are those imposed to protect human health for consumption of shellfish. As a result, these limits are utilized for conservative analysis of the data. 6 NYCRR §47.3 provides a limit of 70 colonies/100 ml sample for a single sample and 330 colonies/100 ml sample for the geometric mean of samples for Total Coliforms, while a limit of 14 colonies/100 ml sample for a single sample and 49 colonies/100 ml sample for the geometric mean of samples is established for Fecal Coliforms.

Review of the County data reveals a total of 132 samples collected for Total Coliforms and 113 samples collected for Fecal Coliforms since 1977. Of the samples collected for Total Coliforms, 16 exceeded the individual sample limit of 70 colonies/ml, while 49 Fecal Coliform samples exceeded the individual sample limit of 14 colonies/ml. As illustrated in **Charts 2-3** and **2-4**, both Total and Fecal Coliform levels demonstrate a decreasing trend at the sample station. Similar to nitrogen levels, it is noted that this station is located in the central portion of the bay which experiences greater flushing than the areas of the bay closer to the shoreline and as a result, water quality in this area is expected to be better than that of areas which do not experience rapid water movement.

Chart 2-3
SCDHS STATION 070180 TOTAL COLIFORM RESULTS

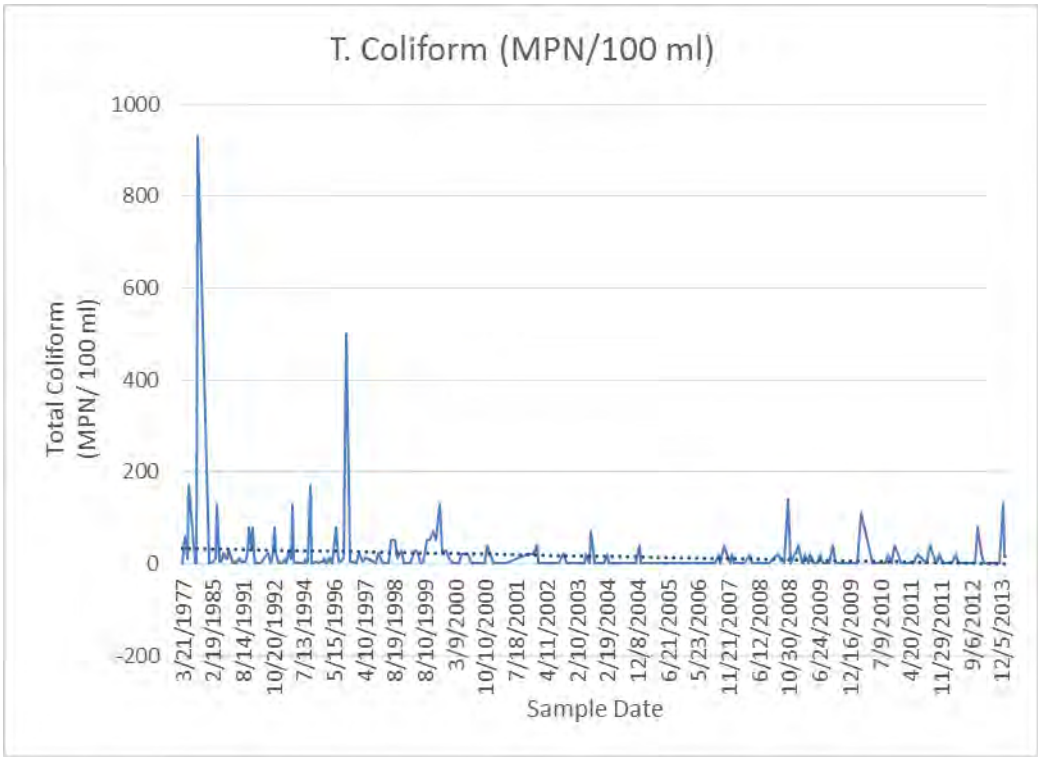
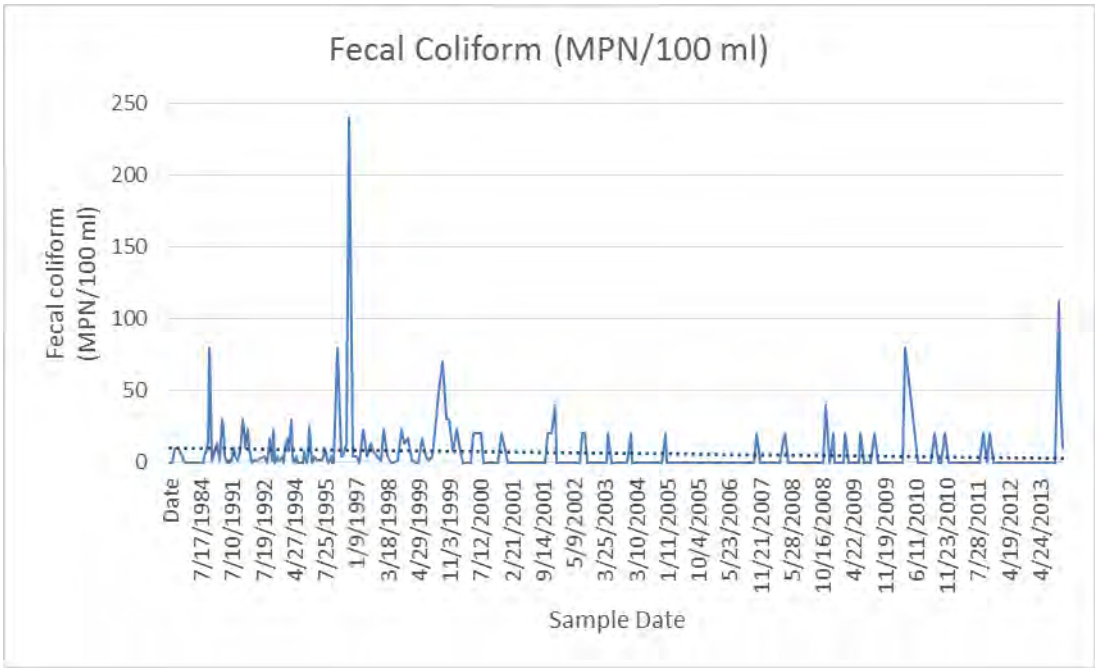


Chart 2-4
SCDHS STATION 070180 FECAL COLIFORM RESULTS

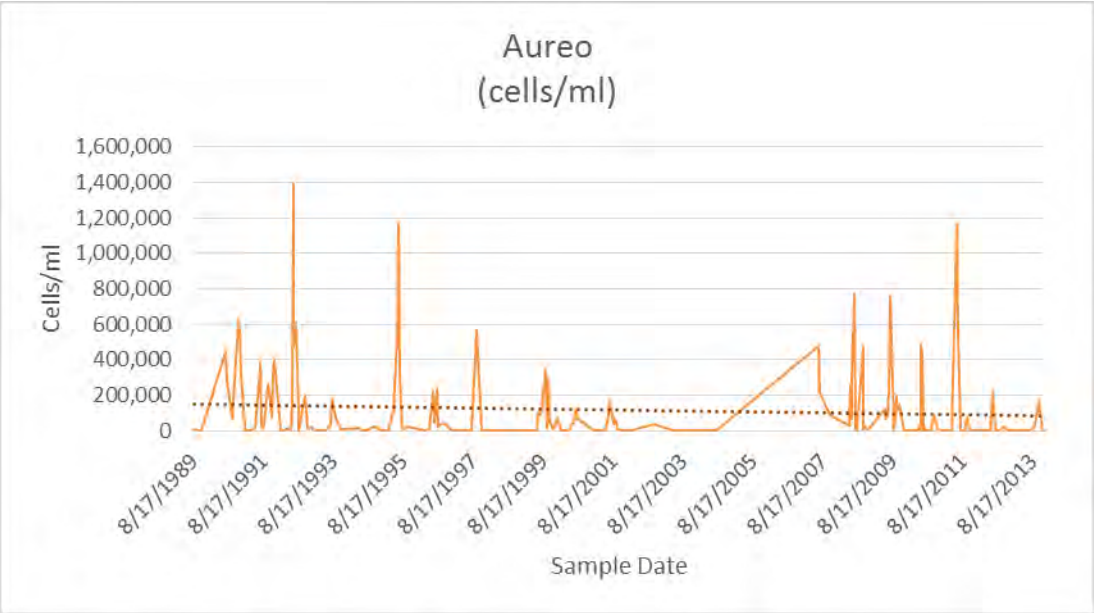


Harmful Algal Blooms - Harmful Algal Blooms (HABs) are occurrences of large quantities of algae that when present at high concentrations present a threat to humans and shellfish. Harmful algal blooms result from excessive levels of nitrogen, which periodically occur as indicated above. Data on brown tide (*Aureococcus anophagefferens*) has been collected at the County sample station since 1989; a total of 194 sample have been collected and analyzed for this algae. While regulatory limits for the algae do not currently exist, an index was developed by **Gastrich & Wazniak** (**2002**) to indicate at what levels of thisalgae will have a potential impact on a waterbody. The index provides the following limits:

- <35,000 cells/ml – No impacts to marine organisms
- 35,000 – 200,000 cells/ml – reduction in growth and feeding of clams, mussels and scallops
- >200,000 cells/ml – Significant impacts to shellfish and eelgrass

Of the samples collected, 47 were in the moderate range category indicating an impact to the health of marine organisms, while 36 samples contained more than 200,000 cells/ml, indicating a significant bloom occurred that would have the potential to affect the health of marine organisms (see **Chart 2-5**).

Chart 2-5
SCDHS STATION 070180 *A. ANOPHAGEFFERENS* RESULTS



The Harmful Algal Event Database (www.haedat.iode.org) provides data regarding HAB events in the United States. The available dataset was reviewed and eighteen occurrences of harmful algal blooms have been recorded in this database in Shinnecock Bay since 1990. The majority of the recorded blooms have been comprised of *Aureococcus anophagefferens*, the algae associated with brown tide, however, two recent blooms (recorded in 2012) have been comprised of red tide caused by both (*Cochlodinium polykrikoides*) and (*Alexandrium fundyense*). *Aureococcus anophagefferens* is particularly damaging to marine life, as it can restrict growth, reproduction,

and survivorship of shellfish and eelgrass. *C. polykrikoides* has been known to cause fish kills in Asia, impact the growth of oyster larvae, and may eventually cause mortality in both oysters and scallops (**Gobler et. al., 2008**). *A. fundyense* produces toxins that bioaccumuulate in shellfish, which can lead to Paralytic Shellfish Poisoning in humans (**Woods Hole Oceanographic Institution, 2015**). In general, an increasing trend of blooms with significant impacts to the ecosystem is occurring within the waterbody.

Stormwater

There are no stormwater collection or retention facilities on the subject property. Precipitation that falls on the site travels along the topography of the property and recharges through the ground surface and underlying vadose zone where it directly recharges the Upper Glacial aquifer.

Stormwater, as runoff, is the vehicle by which pollutants move across land and through the soil to groundwater or surface waters. Contaminants accumulate or are disposed of on land and improved surfaces. Sources of contaminants include:

- animal wastes
- highway deicing materials
- decay products of vegetation and animal matter
- fertilizers
- pesticides
- air-borne contaminants deposited by gravity, wind or rainfall
- general urban refuse
- by-products of industry and urban development
- improper storage and disposal of toxic and hazardous material

In 1982, the Long Island Regional Planning Board (LIRPB) prepared the L.I. Segment of the Nationwide Urban Runoff Program (NURP Study). This program attempted to address, among other things, the following:

- the actual proportion of the total pollutant loading that can be attributed to stormwater runoff, given the presence of other point and non-point sources and conditions within the receiving waters;

The purpose of the NURP Study, carried out by the USGS, was to determine:

- the source, type, quantity, and fate of pollutants in stormwater runoff routed to recharge basins, and
- the extent to which these pollutants are, or are not attenuated as they percolate through the unsaturated zone.

In order to accomplish this, five recharge basins, located in areas with distinct land use types, were selected for intensive monitoring during and immediately following storm events. Five recharge basins, three in Nassau and two in Suffolk, were chosen for the study on the basis of type of land use from which they receive stormwater runoff. The following is a listing and description of each drainage area:

Site Location	Land Use
Centereach	Strip Commercial
Huntington	Shopping Mall, Parking Lot
Laurel Hollow	Low Density Residential (1 acre zoning)
Plainview	Major Highway
Syosset	Medium Density Residential (1/4 acre zoning)

Based on the sampling program, the NURP Study reached the following relevant findings and conclusions:

Finding: Stormwater runoff concentrations of most of the inorganic chemical constituents for which analyses were performed were generally low. In most cases, they fell within the permissible ranges for potable water; however, there were two notable exceptions:

- median lead concentrations in stormwater runoff samples collected at the recharge basin draining a major highway (Plainview) consistently exceeded the drinking water standards;
- chloride concentrations in stormwater runoff samples generally increase two orders of magnitude during the winter months.

Conclusion: In general, with the exception of lead and chloride, the concentrations of inorganic chemicals measured in stormwater runoff do not have the potential to adversely affect groundwater quality.

Finding: The number of coliform and fecal streptococcal indicator bacteria in stormwater range from 10^0 MPN to 10^{10} MPN per acre per inch of precipitation.

Conclusion: Coliform and fecal streptococcal indicator bacteria are removed from stormwater as it infiltrates through the soil.

The handling of stormwater for the proposed use and potential impact on groundwater will be considered in **Section 2.2.2**.

Groundwater Protection Plans

Land Use and Water Quality in the Pine Barrens of Southampton - [2] (Cornell Study, 1983) – This study, which was published in 1983, is a seminal document that established the foundation for land use controls, housing density, golf course management, organic compound and pesticide controls in Southampton and the region. The study includes mass-balance analysis for nitrogen concentration in groundwater that provided the basis for models such as WALRUS, BURBS and SONIR, and many of the references, analyses, methodology and findings of this report are used currently. This study also established the basis for 1 unit per 5 acre zoning in Southampton, in order to meet a nitrate-nitrogen goal of 2-3 mg/l, which later was incorporated into the CPB CLUP as Guideline 5.3.3.1.3. The Cornell Study was much of the basis for the 5 acre (CR-200) zoning that the Town created for sensitive areas and more recently applied to the subject property and Pine Barrens areas in East Quogue subsequent to the East Quogue LUP and GEIS.

[2] Hughes, Henry B.F.; and Porter, K., 1983, Land Use and Groundwater Quality in the Pine Barrens of Southampton, Cornell University, Water Resources Program, Center for Environmental Research, Ithaca, NY.

Overall, this report has been an important tool in land use planning in Pine Barrens areas of Southampton. A more detailed review of this plan is provided herein, and the full document is included with this Draft EIS as **Appendix A-16**. In summary, the design, water quality protections, and best management practices planned for The Hills at Southampton are consistent with the water quality recommendations outlined in the Cornell Study.

Synopsis

Cornell University's Center for Environmental Research issued the 1983 report, *Land Use and Water Quality in the Pine Barrens of Southampton*, (Cornell Study) following its study of the correlation between land use and water quality in the undeveloped Southampton Long Island Pine Barrens and adjacent agricultural and residential lands. The report provides recommendations pertaining to future development and prevention of Pine Barrens groundwater contamination. The analysis was part of New York State's Ground Water Management Program and looked at three groups of contaminants: nitrate, pesticides and organic chemicals. The initial objectives were to respond to questions facing local governments and to demonstrate tools for managing critical recharge areas by applying computer model systems analysis techniques known as WALRAS (Water and Land Resource Analysis System) to Pine Barrens conditions. An East Quogue area within the Town of Southampton was selected as a demonstration site for detailed application of the systems analysis techniques at a time when the Town was in the process of updating the Town Master Land Use Plan and wanted to include water quality considerations in land use planning for Pine Barrens areas. The primary issues addressed encompassed: (1) the extent and cause of groundwater contamination in the study area, (2) the potential for future contamination resulting from changes in management and in land use, and (3) the management options available for protection of the ground water resource. The study evaluated the impact of a hypothetical golf course and a new residential development on nitrate-nitrogen concentrations in ground water. The WALRAS models were used to estimate how much nitrate would leach into the groundwater under several assumed scenarios of development.

Recommendations

The Cornell Study identified potential ground water contamination problems in the Pine Barrens and methods for preventing them. The authors concluded:

- *Residential dwellings should be limited to the lowest feasible density. This study found that as housing density increases, so does the percentage of wells that are contaminated by organics. Thus, limiting residential land to the 1/5 house per acre density would be a prudent step toward preventing organic contamination.*

- *Nitrate-nitrogen concentrations in groundwater underlying residential and agricultural land in the study area are substantially higher than in undisturbed areas. Nitrogen from fertilizers and on-site wastewater disposal systems are the major sources of this nitrogen.*

- *As housing density decreases so does the average nitrogen concentration in recharge. At the lower densities, turf is the major source of nitrogen in recharge and in order to obtain lower nitrogen concentrations of recharge at these low densities it will be necessary to reduce the impact of turf.*

- *We recommend that for critical recharge areas in the Pine Barrens, a criterion for nitrogen concentration in recharge water of an average of 2 or 3 mg/l be selected as a basis for land use ordinances, and that every house lot be required to be designed so that the average nitrogen concentration from that lot be less than the criterion.*

- *Nitrate contamination from residential land at 1/5 house/acre density can be held to a level of 3 mg/l or 2 mg/l as long as provisions are taken to limit the amount of nitrogen which leaches from turf. One way to accomplish this is by restricting the percent of land devoted to turf to 18% or 10% depending on whether a 3 mg/l or 2 mg/l criterion is used, provided that the remaining pervious land is covered by unfertilized vegetation.*

- *Further study would be necessary to determine the impacts that golf courses and nurseries would have on groundwater under various management schemes. The average management practices assumed for this study resulted in simulated nitrogen concentrations in recharge which were higher than 3 mg/l. An evaluation of other management practices using data from field experiments would be desirable to determine if these land uses might be able to meet the nitrogen criterion with particular management practices.*

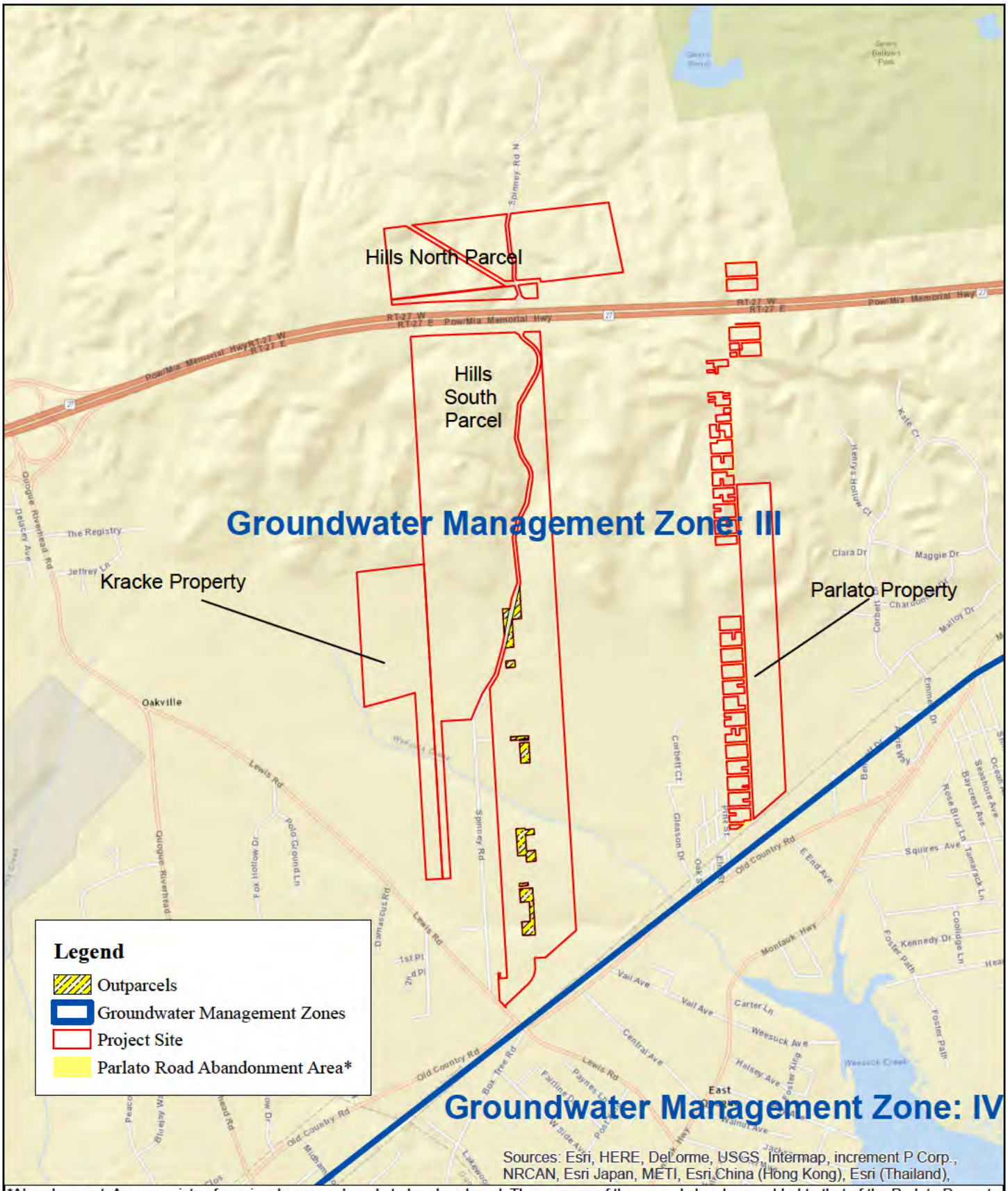
The study also recommended best management practices for pesticides and organic compounds to ensure that groundwater impacts from such chemicals would not occur.

Town Aquifer Protection Overlay District - The subject site lies in an area designated for special aquifer protection with limitations as to the type and amount of land use activity that may take place within the District. Numerous studies have located geographic areas in Town where water recharge into the aquifers is the deepest and the greatest. These areas have been designated as water catchment areas for the purpose of planning and zoning decisions.

Due to the fact that the sole source of drinking water for the Town of Southampton lies in its underground aquifers, the Federal government has given sole source aquifer designation to this area. Thus, the type and amount of land use in the water catchment regions must be compatible with the function of water recharge to ensure the overall goal of protecting the supply of drinking water. The restrictive land uses apply to protecting the existing natural vegetation to the maximum extent possible.

Town Central Pine Barrens Overlay District - The site lies within the Core Preservation Area (CPA) and the Compatible Growth Area (CGA) of the Central Pine Barrens Zone (see **Figure 3-7).** The Town of Southampton adopted the standards of the Pine Barrens Plan into the Town Code and established Overlay Districts to implement many of the guidelines suggested in the Pine Barrens Plan under Article XXIV. Development within the CPA and the CGA must adhere to land use restrictions as set forth in Sections 330-219 and 330-220 of the Town Code. The specific development regulations from Section 330-219 and 330-220 are provided in **Section 3.1.2**, followed by a conformance assessment of the proposed project.

The Long Island Comprehensive Waste Treatment Management Plan (208 Study) - The Long Island Regional Planning Board, in conjunction with other agencies, prepared a management plan for Long Island groundwater resources in 1978 under a program funded by Section 208 of the 1972 Federal Water Pollution Control Act Amendments. The purpose of the 208 Study was to investigate waste disposal options and best practice for ground and surface water protection. As mentioned previously the subject site is located in Groundwater Management Zone III (see **Figure 2-11**). In this zone, much of the area is in low density, primarily non-agricultural, land use. It has been recommended that this zone should be protected by applying land use restrictions as well as strict pollution source controls. As such the area surrounding the subject



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-11
GROUNDWATER MANAGEMENT ZONE MAP

Source: ESRI WMS, SCDHS
Scale: 1 inch = 2,000 feet

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The Hills at Southampton

Draft EIS

property has been designated as a Compatible Growth Area within the Central Pine Barren Zone. This designation allows development of the subject property in accordance with all applicable zoning regulations as long as it is compatible with other property uses in the region. It is recommended in the 208 Study that development in this zone utilize public sewers if available, or provide for wastewater collection/treatment where the wastewater generation rate is 300 gpd/ac or more. Therefore, for this 591 acre site, a septic tank/leaching pool system could be used to treat wastewater if, the volume of wastewater generated on-site is kept to 177,300 gpd or less. In addition, the 208 Study recommends: 1) that stormwater runoff be controlled on-site by preventing sediments, nutrients, metals, organic chemicals and bacteria from reaching surface and, eventually, ground waters; 2) that on-site disposal systems should be maintained properly; and 3) fertilizer use should be minimized on lawn areas.

Suffolk County Comprehensive Water Resource Management Plan, 2015 - The 2015 Suffolk County Comprehensive Water Resource Management Plan (SCCWRMP) is an update to the 1987 SCCWRMP to reflect more recent development trends, resource plans and studies, and government programs and regulations pertinent to water supply and water resource protection. The following description of that update program has been taken from the Executive Summary, dated March 2015:

> <u>Introduction</u>
> Water is the single most significant resource for which Suffolk County bears responsibility. As the impact of Superstorm Sandy underscored, more than at any time in our history, we are obliged to come to terms, in every sense, with the water that surrounds us. Suffolk County's water quality is at a tipping point. We face an alarming trend in the quality of the water our families drink, compounded by impairment of many bodies of water in which our families play. Moreover, the source of these impairments has demonstrably degraded the wetlands that serve as our last line of natural defense against storm surge.
>
> While today our drinking water generally meets quality standards, elevating levels of contaminants raise serious concern. Many of our rivers, estuaries and bays are impaired as result of eutrophication. Nitrogen, which primarily spews from residential septics and cesspools, as well as fertilizer, are the principle culprits that spur hypoxia, harmful algal blooms, diminution of sea and shellfisheries, and degradation of our protective natural infrastructure – wetlands and seagrass beds that act as wave and storm surge buffers. Sea level rise, which also contributes to marshland degradation, is projected to raise groundwater levels, increasing vulnerability to saltwater inflation, and further compromising on-site wastewater treatment infrastructure largely composed of cesspools and septic tanks.
>
> Perhaps nowhere have we seen the impact of nitrogen pollution in more stark terms than in the Great South Bay. At one time, this bay produced more than half the clams eaten in our country. However, over the past quarter-century, the clam harvest in the Great South Bay has fallen by 93 percent, destroying an entire industry which once accounted for 6,000 jobs. While clams were once over-harvested, they have largely failed to recover due to recurrent brown tides fed primarily from nitrogen from septic systems and cesspools. We must decide if this type of impaired surface water body will be our region's future or if we can restore our bays to health.
>
> In advance of the release of the 2015 Suffolk County Comprehensive Water Resources Management Plan ("Comp Plan"), this Executive Summary Update is spotlighting the Comp Plan's critical findings, and relevant post-Superstorm Sandy considerations, in order to spur a critical public dialogue about the scope of the problem and begin to frame near-term solutions. While many environmental issues related

to groundwater and surface waters have arisen since the previous Plan (1987), one elemental condition has remained constant: the vast majority of Suffolk residents rely on on-site wastewater disposal systems that discharge to groundwater. In addition, fertilizer use, industrial and commercial solvents, petroleum products, pesticides and a host of other manmade contaminants have had profound and long-lasting impacts on groundwater quality, as well as on fresh surface waters and coastal marine waters into which groundwater and stormwater runoff discharge.

In the face of sea-level rise and extreme weather events, Suffolk County is compelled to devise the means and methods to live and thrive with the water beneath, by and around us.

The updated SCCWRMP delineated and addressed the following Critical Findings:

Critical Findings
*"We have a million and a half people, approximately 74%, or roughly a million people, who are **not sewered**. This is probably the only place in the world with that large a density in this tight a space where the waste is going into a sole source aquifer immediately beneath us that we're drinking, and this is **a big concern.**"*

Downward Trajectory in Groundwater Quality:

1. Nitrogen is public water enemy #1, as **nitrate contamination** from unsewered housing and fertilizer use poses a threat to both drinking water supplies and coastal marine habitat and resources. Nitrogen-induced nutrient loading and eutrophication can lead to many negative impacts on estuarine environments including harmful algal blooms (HABs), hypoxia [little or…], and even anoxia [no oxygen];
2. Volatile organic chemicals (VOCs), another **priority contaminant group**, derived from commercial, industrial, and consumer use, impacting large portions of the aquifer, public water supply and private wells;
3. Pesticides pose a threat, especially to private wells in agricultural areas; and,
4. Pharmaceuticals and personal care products are an **emerging concern.**

Surface Water Impairments:

5. Due to excess coliform bacteria and nitrogen, **many of the water bodies surrounding Suffolk County have been designated as impaired by the New York State Department of Environmental Conservation** (NYSDEC). In fact, the vast majority of Long Island's 60-mile long South Shore Estuary Reserve was declared impaired by the NYSDEC in 2010.
6. **Brown tide** algae invasions have been plaguing Long Island estuaries for nearly a quarter-century, according to Dr. Chris Gobler of Stony Brook's School of Marine & Atmospheric Sciences (SoMAS), **obliterating a shellfish habitat** that once provided one half of all hard clams for the nation.
7. There was an 18-36% **loss of tidal wetlands** between 1974 and 2001 according to NYSDEC.
8. The NYS Seagrass Taskforce estimates that the 200,000 acres of seagrass in Long Island's bays and harbors in 1930 have shrunk by nearly 90% to 22,000 acres.

*The costs of redressing water-related issues are significant; the economic consequences of not doing so are **potentially devastating in property values alone.** Then there is Long Island tourism, producing revenues of $4.7B/yr, with approximately 28% of visitors – 5.1M/yr – visiting parks and beaches. "Coastal habitats shield people and property from sea-level rise and storms," reducing their exposure by half, according to marine ecologists at Stanford Woods Institute for the Environment.*

Nitrogen from Unsewered Areas

Suffolk County, with a population larger than 11 states and a region that derives its drinking water from the ground, must pay particular attention to the 360,000 sub and non-performing septic/cesspools in Suffolk, accounting for well over 74% of the homes. They are particularly problematic in areas with high water tables and in close proximity to surface waters. When flooded or submerged in groundwater, septic systems do not function as designed and they fail to adequately treat pathogens. Excess nitrogen from sewage threatens our valuable natural resources, coastal defenses, and human health.

Suffolk County has identified priority high density (greater than 5 homes per acre) and medium density (1 to 5 homes per acre) residential subregions within the contributing areas with the following characteristics:

1. With a depth to groundwater of 10 feet or less; and/or
2. Contribute to an area that is listed as a 303(d) impaired water body.

Finally, the updated SCCWRMP settled on the following management goals, designed to protect groundwater and surface water resources:

Water Resource Management Plan Goals

The goals and objectives summarized on Table ES-1 are targeted to protect and improve ground and surface water quality in the coming years, recognizing that maintenance of these invaluable resources is vital to the health and economic well-being of Suffolk County residents, and to enable provision of a healthy and safe supply of potable water to County residents through 2030. Although it is acknowledged that full achievement of these goals within the next twenty years may not be realized, the recommendations presented in this document provide the framework for continued improvement of the County's water resources and provision of a reliable, high quality potable supple for future generations.

The goals and objectives are consistent with County policy declarations that are articulated in the Suffolk County Sanitary Code:

> *…760-701: "The designated best use of all groundwaters of Suffolk County is for public and private water supply, and of most surface waters for food production, bathing and recreation…it is hereby declared to be the policy of the County of Suffolk to maintain its water resources as near to their natural condition of purity as reasonably possible for the safeguarding of the public health, and to that end, to require the use of all available practical methods of preventing and controlling water pollution from sewage, industrial and other wastes, toxic or hazardous materials, and stormwater runoff" and*
>
> *760-401: "the policy of the County of Suffolk is to protect the groundwater to insure the availability of an adequate and safe source of water supply for generations to come by: enforcing the local, state and federal laws regulating water supply; promoting the extension of public water supply to all areas of the County; maintaining a process of groundwater planning; carrying out research and development in the field of alternatives to community water supply; and by promoting education and acceptance of the importance of groundwater management and protection."*

Town of Southampton Coastal Resources and Water Protection Plan (CRWPP; April, 2016) - The purpose of the CRWPP is to document and guide the Town's management, use and protection of its waters, waterfront, and associated resources. With the original intent to adopt a Local Waterfront Revitalization Plan (LWRP), the Town decided in October 2015 that they would adopt a revised version of the LWRP, as an amendment to the Town's Comprehensive Plan rather than as an LWRP. Essentially remaining an LWRP, the CRWPP contains 13 policies and recommendations designed to protect the Town's coastal resources. Policies include, among others: development and land use; flooding, water quality; ecosystem and natural resources; and sustainable use of living marine resources. The following outlines the boundary of the plan, and recommendations of the plan pertaining to water quality that may be relevant to proposed project.

CRWPP Boundary

The Town of Southampton boundary includes the Town's coastal waters, waterfront, and associated coastal resources. Based on the illustration provided in the Plan, the Hills at Southampton is situated outside the CRWPP boundary.

Water Quality Recommendations

p.29: Minimize the potential for adverse impacts from any development that individually may not result in a significant adverse environmental impact, or otherwise substantially hinder the achievement of the policies of this Plan, but when taken together with other existing or likely future similar development, could contribute to or induce subsequent significant adverse impacts by considering the cumulative and secondary effects of the development.

p. 68 and p. 232: Even if County-approved septic systems are maintained and meet the federal nitrogen standards for safe drinking water (10 mg/l), the contaminant level for maintaining a healthy environment is 0.1-0.2 mg/l – well below the threshold for safe drinking water.

p.72: Various recommendations noted as follows:

- Reduce nutrients to levels necessary to support a healthy ecosystem; one that allows for harvestable, sustainable fish and shellfish populations, healthy submerged aquatic vegetation, and traditional human uses in the Town's waters.
- Reduce the input of nutrients from all sources including human waste, pet waste, storm water, and fertilizers.
- Employ effective means to reduce nutrients, such as, composting toilets, urine diverting toilets, denitrifying septic systems, permeable reactive barriers, sewage collection and treatment, decentralized/clustered wastewater treatment systems, storm water control, aquaculture, increased flushing of embayments, open space protection, and limits on fertilizer use.
- Utilize the most efficient and cost-effective combination of methods to reduce nutrients at their source, in the ground water, and in the waters of the embayments.
- Support the establishment of TMDLs for nitrogen discharges to the major estuaries within the Town. In their absence, utilize best available science, including the various sub-watershed models available, to estimate the level of nutrient reduction required and the relative contribution of nutrients from the various sources in the watershed and manage accordingly.

p. 74 and p 238: Consider current subdivision regulations and how they may be amended to progress toward the goal of creating clustered denitrification systems for new neighborhoods or require the use of the most feasible approved technologies and strategies to reduce the input of nutrients. Consider

the model provided by the Town of Falmouth, MA, where the subdivision review includes limiting total nitrogen concentrations from wastewater discharge.

p. 77 and 237: Identify watersheds/sub-watersheds that, through future development, may cause elevated nutrient levels in excess of the TMDLs, and consider options to either limit future development or to take action to reduce nutrient discharge.

p. 77 and 237: Prepare a build-out plan for the areas of the town subject to future development to assess the potential for future nutrient inputs.

p. 78: Establish limitations or require BMPs for irrigation infrastructure, especially in areas using fertilizers.

p. 80 and 241: Amend the Stormwater Pollution Prevention Plan (SWPPP) to require runoff control practices that would result in no net increase of nutrient and sediment pollution from new development (See: policies of the Philadelphia Water Department) and reduce the threshold for a SWPPP from one acre to [number to be determined].

p. 80 and 242: Calculate the current percentage of impervious surfaces in Town and set a target percentage to achieve. Develop new regulations, policies and programs to achieve that target percentage. Consider lower target percentages in particularly sensitive areas (e.g., aquifer recharge zones, costal and riparian areas).

p. 83, 213 and 239: Chapter 330, Zoning; Article XII, Aquifer Protection Overlay District: Add language to limit the amount of impervious surface allowed within a development project; expand the Overlay District to protect aquifer recharge areas in the eastern and western portions of the Town. Areas for particular consideration include locations identified as Critical Environmental Areas (see list at: http://www.dec.ny.gov/permits/25153.html).

p. 78 and 240: Encourage the SCDHS to create and implement new regulations pertaining to septic system standards that remove nitrogen in order to protect natural resources. One approach would be to adopt more stringent standards that would apply to the entire County. An alternative strategy might be to adopt more strict nitrogen standards in areas identified to be especially "nitrogen sensitive" such as areas surrounding important drinking water resources (e.g., the Aquifer Protection Overlay District), and areas within the 25-year influence zone for contributing groundwater to surface water.

The proposed project's conformance to the goals and recommendations of the above noted groundwater protection plans is discussed in **Section 2.2.2** below.

Water Balance and Nitrogen

Groundwater flows generally perpendicular to the lines of equal water table elevation as a result of this hydraulic gradient. The shape of the water table is such that the site is located on the southeast part of the regional groundwater mound, south of the groundwater divide. Therefore, groundwater will flow generally south, with a southeasterly component due to the shape of the water table and the hydrologic influence of Weesuck Creek. As a result, the direction of flow from the project site has a southeast component of flow.

The project site is currently occupied by vacant woodlands, cleared areas and farming areas on the Kracke and Parlato sites. The vacant areas do not withdraw water from the underlying aquifer. The Kracke nursery area receives irrigation and though farming is now ceased on the Parlato agricultural area, this area was previously irrigated.

The groundwater budget for an area is expressed in the hydrologic budget equation, which states that recharge equals precipitation minus evapotranspiration plus overland runoff. This indicates that not all rain falling on the land is recharged. Loss in recharge is represented by the sum of evapotranspiration and overland runoff. The equation for this concept is expressed as follows:

$$\mathbf{R = P - (E + Q)}$$

where: **R** = recharge
P = precipitation
E = evapotranspiration
Q = overland runoff

Nelson, Pope & Voorhis, LLC (NP&V) has utilized a microcomputer model developed for its exclusive use in predicting both the water budget of a site and the concentration of nitrogen in recharge. The model, named **SONIR** (**S**imulation **O**f **N**itrogen **I**n **R**echarge), utilizes a mass-balance concept to determine the nitrogen concentration in recharge. Critical in the determination of nitrogen concentration is a detailed analysis of the various components of the hydrologic water budget, including recharge, precipitation, evapotranspiration and overland runoff.

The **SONIR** model includes four sheets of computations: 1) Data Input Field; 2) Site Recharge Computations; 3) Site Nitrogen Budget; and 4) Final Computations. All information required by the model is input in Sheet 1. Sheets 2 and 3 utilize data from Sheet 1 to compute the Site Recharge and the Site Nitrogen Budget. Sheet 4 utilizes the total values from Sheets 2 and 3 to perform the final Nitrogen in Recharge computations. Sheet 4 also includes tabulations of all conversion factors utilized in the model.

It should be noted that the simulation is only as accurate as the data which is input into the model. An understanding of hydrologic principles is necessary to determine and justify much of the data inputs used for water budget parameters. Further principles of environmental science and engineering are applied in determining nitrogen sources, application and discharge rates, degradation and losses, and final recharge. Users must apply caution in arriving at assumptions in order to ensure justifiable results. There are a number of variables, values and assumptions concerning hydrologic principles, which are discussed in detail in a user manual developed for the SONIR Model and provided in **Appendix G-1.**

The model was run to obtain the existing water budget and nitrogen concentration in recharge (see **Table 1-8a**). The run was based on current site conditions and coverages, which includes 21.83 acres of unvegetated land, 18.42 acres of agricultural land, 1.40 acres of freshwater wetlands, and 549.35 acres of natural and vegetated land. The site currently has a total site recharge of 432.61 million gallons per year (MGY), with a total nitrogen concentration of 0.24 milligrams per liter (mg/l) and 872.53 pounds (lbs) of nitrogen loading per year of which 315.85

lbs/year are due to farming and the balance is precipitation nitrogen which is an existing condition related to atmospheric deposition. The results of this analysis are presented in **Appendix G-2.** Also refer to **Section 2.2.2** below for additional information regarding the potential impacts of the proposed project and information on the project nitrogen load and mitigation.

2.2.2 Anticipated Impacts

Hydrogeology

The depth to water ranges from 6 to 240 feet bgs. Regionally groundwater is observed to flow in a southeasterly direction. The subject site has adequate depth to groundwater to ensure that leaching of wastewater and stormwater recharge will occur efficiently. Recharge quality must be considered in order to determine water quality impacts. Related to recharge characteristics of the developed site is the density of development, sewage handling and other land use practices which are described in **Section 1.6.4** and assessed below under water quality and nitrogen budget subsections.

No change in water elevation or direction of groundwater flow is anticipated following development of the proposed project due to the following factors: vertical and hydraulic conductivity of underlying soils; distance between the water table, ground surface and leaching structures proposed for the project; the dispersed nature of recharge components; limited establishment of new impervious surface relative to the size of the site; and; no individual large point source discharges. In addition, **Appendix A-12** includes the report entitled; "Groundwater Monitoring Analysis of Nitrogen Capture" which modeled high volume pumping of 20 MGD in the area of the south irrigation well and groundwater contours were not substantially changed as a result of the pumpage. The well does cause upgradient and cross gradient water to flow toward the withdrawal location, which is a beneficial feature as this water is being withdrawn to remove existing high concentrations of nitrogen in groundwater to be used for fertilizer with maximum uptake by golf course turf. These factors indicate that site hydrology will not substantially change as a result of the proposed project.

The project site is located in Groundwater Management Zone III as defined by the SCDHS. Based on the requirements of SCSC Article 6, allowable sanitary flow on a site that is subject to subdivision is based on the 40,000 SF yield map, with the number of lots multiplied by 300 gpd per unit. In lieu of a 40,000 SF yield map, SCDHS provides a formula for determining allowable flow. For the proposed project, the allowable sanitary flow is based on the calculation:

(Site acres - wetland acres) x 0.75 x [(43,560 SF/acre)/(40,000 SF/unit)] = allowed units,

Thus, the final calculation is as follows:

(591.00 - 1.40) x 0.75 x 1.089 = 481 units

As each unit is allocated a flow of 300 gpd, the total allowed sanitary flow for the project site is obtained from: 481 units x 300 gpd/unit = 144,300 gpd.

The design flow is based on the sanitary wastewater generated by the proposed use. It is noted that the proposed project involves a golf course. Under "*General Guidance Memorandum #17, Agricultural and Golf Course Density,*" fertilized areas of golf course use contribute to nitrogen load and are accounted for in terms of wastewater flow by a factor of 300 gpd per fertilized acre. In this case however, the area of fertilizer dependent vegetation is limited to 15% of the overall site and as a result, the golf use does not increase the area of fertilizer dependent vegetation. The site design conforms to this limit on fertilizer dependent vegetation including the golf course and residential portions of the site. In other words, the proposed project will not increase fertilized area over that of a residential use with no golf course. As a result, the factor related to golf course fertilized areas would not apply. Nevertheless, the design flow calculation has been prepared based on the wastewater flow alone, as well as the combined wastewater flow and additional flow allocated to golf course use. In both cases, the proposed project is significantly below the allowable flow provided for under SCSC Article 6. In addition, the residential portion will not be fully occupied 365 days per year due to the second (and greater) home nature of this seasonal residential use that is typical of DLC resorts.

Based on the uses and yields proposed and the SCDHS design standards for wastewater system design (and per SCSC Article 6), the project would generate 41,814 gpd of sanitary wastewater if it were occupied on a full-time, year-round basis.

This is substantially less than the design flow of 144,300 gpd, and therefore conforms to Article 6 of the SCSC. In fact, this seasonal residential community will be used primarily during summer months and is expected to seldom, if ever, operate at full occupancy; the expected occupancy is on the order of 60 days per year per unit based on the demographic and supporting information provided in **Appendix A-5** and previously referenced in **Section 1.3.3**. In addition, C&Rs and other appropriate restrictions will be filed to ensure that no children from the project will enter the East Quogue UFSD; these C&R's will specify that no unit may be occupied more than 183 days/year, although, as noted above, the expected occupancy is less. The community is expected to be intermittently utilized during the off-season, i.e., fall, winter and spring. As a result, it is expected that the actual flow from the project will be significantly less than the estimated total sanitary wastewater generation. Specifically, the adjusted sanitary discharge rate for expected occupancy is 20,964 gpd accounting for 183 days of occupancy per unit per year a based on the C&R's provided in **Appendix A-6**.

If the fertilized area of the golf course is added to the project's wastewater flow, this factor would add 23,400 gpd (78.00 fertilized acres x 300 gpd/acre). As a result, the total design flow would be 65,214 gpd, which is 79,086 gpd less than the allowable flow under Article 6 and would also conform to the density limitations under Article 6 of the SCSC.

Based on the SCDHS sanitary wastewater design rates for the golf course and 118 units, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6 based on wastewater flow, or the combined design flow based on wastewater based on the fertilized golf portions of the site under Memorandum #17. Therefore, the Applicant may utilize individual septic systems in compliance with SCSC Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos. However, as discussed below, it is the Applicant's intention to use septic systems as an interim

solution for wastewater treatment, until such time that the Applicant can and will install enhanced wastewater treatment for the project.

It is noted that the MUPDD application document that was submitted to the Town Planning Board in January 2015 stated that the proposed project would provide an enhanced treatment system for its sanitary wastewater, as one of the public benefits of the project, to demonstrate the applicant's commitment to provide enhanced wastewater treatment for the project. The Applicant reiterates this commitment; however, the SCDHS (which has jurisdiction over the type of sanitary system that could be allowed) has not completed its review of such enhanced systems. The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing an innovative, alternative wastewater treatment method (and close the septic systems noted above) if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow. It should be noted that the actual water use and wastewater flow values of the proposed project will be substantially less than the total wastewater generation projections in **Table 1-14**, as the residences and clubhouse will not be occupied year-round. This also means that the concentration of nitrogen in recharge resulting from sanitary wastewater recharge of the project will be less than the as-of-right development (see **Section 5.2**) and/or year-round occupancy.

Ultimately, the choice of sanitary system will be made in consultation with the SCDHS and the Town, as part of the site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be protected and improved.

It is also noted that projections of nitrogen in recharge and nitrogen loading indicate that the proposed project will reduce nitrogen load from current conditions and will have an extremely low concentration of nitrogen in recharge (i.e., less than 1 mg/l, where the CPB CLUP requires less than 2.5 mg/l). When considering nitrogen "load" there is a net negative load due to the use of elevated nitrogen in the existing aquifer for irrigation water at the site. This removes nitrogen in the existing aquifer that would otherwise travel toward and discharge to Weesuck Creek and western Shinnecock Bay (see **Table 2-8**). As a result, no impact from the use of conventional systems is anticipated. Furthermore, the Applicant is committed to funding of advanced wastewater treatment to benefit the aquifer and the bay. The Applicant has committed $1 million dollars to facilitate off-site wastewater treatment and will continue to contribute funding to subsidize septic system upgrades for East Quogue residents (see **Table 1-7**). This ensures that in addition to the net negative nitrogen load that will result from the proposed project, additional watershed nitrogen reductions occur that will ultimately reduce nitrogen load to the western Shinnecock Bay.

In any event, ultimately all wastewater generated will be treated and recharged to groundwater through facilities conforming to SCDHS design, installation and operational requirements. Appropriate County approvals and permits will be obtained as required under Article 6 of the SCSC.

Groundwater Quality

Groundwater impacts which may occur during construction activities could potentially result from building materials and equipment stored on-site. Building materials stored on-site are anticipated to be inert and therefore are not expected to have an adverse impact on the site. Equipment stored on-site which will be utilized during clearing and construction activities will be properly maintained and reputable contractors will be used for all site work.

The proposed project will consist of seasonal housing as well as a golf course along with associated amenities. The residential component of the project is not expected to result in the use, generation or disposal of toxic substances which may be discharged to the subsurface. The only discharges to groundwater generated by individual homes will be the disposal of sanitary effluent through the use of individual septic systems for the 108 detached single-family units, and a single septic system to serve the clubhouse and the remaining 10 club condos. The proposed project density allows the use conventional sanitary systems; however, the applicant is committed to use of advanced wastewater systems when such systems are approved by SCDHS for use at the site. Further examination is warranted since SCDHS is currently in the process of studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is presently evaluating a number of such innovative, alternative wastewater treatment methods, and is committed to ultimately utilize sanitary systems that optimally balance performance, cost, and likelihood of approval by SCDHS, given the intermittent seasonal project flow (see **Appendix A-12**). The choice of sanitary systems will be made in consultation with the Town and SCDHS, as part of the Town's site plan review process subsequent to the change of zone. Ultimately, design, review, approval and construction of the septic systems will be subject to oversight by the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources down gradient of the subject site, particularly Weesuck Creek) will be properly protected due to the low density of use associated with 5 acre zoning and fertilizer dependent vegetation limitations. Further information on nitrogen budget and water balance is provided in a separate subsection below.

The Hills at Southampton golf course will utilize management practice controls to severely restrict the use of agricultural chemicals associated with turf maintenance. **Appendix J** provides a limited list of pesticides for use on turf at the project site, and outlines the application and control measures that would apply to ensure mitigated use of such chemicals. The golf course will be state-of-the-art, and will employ the most advanced controls available. Such controls will consist of a liner system installed beneath areas under the more actively managed areas of the course as well as rain gardens and turf management practices which will provide the stringent golf course management standards that the Town of Southampton is familiar with from Golf at the Bridge and Sebonack Golf Club. It is also noted that residential and common areas will be subject to the same turf management controls and will be managed by the same personnel as the golf course.

As discussed in **Section 1.6.2**, a green liner system will be employed in order to intercept water recharged through the greens to limit the potential for leaching of nitrogen from the most actively managed portions of the golf course. The use of a green liner system will be consistent with the overall environmental conservation approach applied throughout the project.

The liner will prevent the leaching of some of the nitrogen and other turf care products that may be used on the greens when necessary. As the greens are typically the most intensively managed areas of the course, this approach will enhance the water quality protection efforts for the overall project. The greens will be lined with impermeable materials consisting of a 40 mil HDPE liner material and excess drainage intercepted beneath the greens will be collected, contained, and if there is excess volume, this will be conveyed to rain gardens placed in strategic areas of the course, that will ensure the biological uptake and treatment of this water.

The Hills at Southampton golf course (as well as residential and common areas) will also utilize advanced turf management practices as outlined in the ITHMP (**Appendix J**) in order to comply with Town of Southampton requirements and golf course management standards established by Suffolk County to meet or exceed the Best Management Practices for New York State Golf Courses (NYSBMP). The implementation of the ITHMP will be assisted through several elements related to golf course design and maintenance techniques which will include:

- Utilization of appropriate turf grass species as well as native vegetation to limit the need for supplemental pest and turf management techniques.
- Initiate a soil monitoring and management plan which will include regular testing to assess soil conditions.
- Initiation of a scouting and monitoring program to identify and eliminate problem areas.
- Establish threshold limits for disease and pest problems as well as turf health to identify the point at which supplemental maintenance techniques may be necessary.
- Anticipate response actions that may be necessary for potential action related to pest infestation, disease or turf stress.
- Use environmentally friendly management techniques to eliminate pests, address disease and/or improve turf health when necessary in lieu of commercial products.
- Pesticides will only be used as a last resort and when needed, the least toxic pesticide available should be used. If pesticides are necessary they will be applied in spot treatments only where the pest is found.

Any use of pesticides will be severely restricted in terms of continuous monitoring to identify pest control needs early, followed by spot/minimal application of controls, and the use chemicals from a highly restricted list of approved substances that will be reviewed and approved by the Town and updated annually in coordination with the golf course operator, the Town and the Town's expert consultant. The ITHMP should be consulted for detailed information regarding the state-of-the-art management practices that will be implemented in connection with The Hills golf course.

A groundwater monitoring plan will be implemented to assess the effectiveness of the ITHMP and modify application rates of fertilizers and turf management compounds should this be necessary. The monitoring program will utilize a network of monitoring wells and lysimeters that will be installed at critical locations throughout the property and this monitoring system will be sampled for baseline conditions and placed on a routine monitoring schedule. The results of any data generated from the program will be reported to the Town, assessed by the Town and golf course management and used to provide early detection of environmental concerns so that modified management practices can be instituted. A network of seven monitoring wells will be

installed within and along the periphery of the Hills at Southampton golf course. Two monitoring wells be installed hydraulically upgradient of the Hills at Southampton golf course, along the western property line, and will monitor groundwater quality migrating onto the site. The results from these wells will provide essential information on the quality of groundwater being contributed to groundwater underlying the Hills at Southampton golf course. The effect that management practices have on groundwater quality will be assessed through the installation of one monitoring well within the central portion of the Hills at Southampton golf course as well as four monitoring wells which will be installed downgradient and along the eastern boundary of the Hills at Southampton golf course. In order to provide an early warning detection of any nitrogen and other turf care products which may leach through the root zone, eight suction lysimeters will be installed in the unsaturated zone at a depth of 6 feet bgs. These lysimeters will intercept stormwater and irrigation water migrating through the soil horizon so that it may be collected for analysis before it reaches the underlying groundwater table. The lysimeters will be installed directly within managed turf areas, specifically in the tee box areas of holes 1, 2, 4, 6, 8, 11, 14 and 16 which is anticipated to provide a representative profile across the entire Hills at Southampton golf course. A Sampling and Analysis Plan (SAP) has been developed to outline the methods, procedure and schedule for groundwater monitoring at the Hills at Southampton golf course. Sampling will include the collection of samples from the underlying water table as well as storm and irrigation water percolating through the unsaturated zone and the pond prior to the initiation of the golf course maintenance program then followed annually on a quarterly basis for a period of five (5) years. Following the initial sampling period the schedule will be evaluated following a review of the historical analytical data results. Based on this review, alterations to the monitoring program including the reduction of sampling parameters and frequency or sampling may be considered for future events. Sampling analytical parameters will include a chemical list of pesticides proposed to be used, when necessary, in accordance with USEPA analytical method protocols. In addition, samples will also be analyzed for nitrogen series compounds (i.e., total nitrogen, TKN, nitrate, nitrite and ammonia) to assess potential impacts related to fertilizer application. Pesticide use may be required to address issues related to turf health and conditions. In order to manage the application of these compounds so that impacts can be minimized, resampling and management thresholds have been established compare field results which may warrant further action in terms of modified management practices for maximum protection. Management thresholds are based on measurable concentrations above laboratory detection limits for specific substances. These thresholds are established as background level reference points in consideration of background monitoring, which are then used to compared to ongoing monitoring during golf course operations.

For further details please refer to **Appendix K** which contains a copy of the GMP established for the golf course. Appendix 13 of the ITHMP (see **Appendix J**) contains a Comprehensive Risk Assessment of the risks to the public from use and application of both pesticides and nitrogen in the project's landscape practices. Section 4.7 of that document presents a portion of the Executive Summary of the assessment, which concludes:

X. CONCLUSIONS AND RECOMMENDATIONS

This very conservative risk assessment process began with an initial list of 61 pesticides. Twelve were deleted due to regulatory restrictions and/or duplication of function. Ten of the 49 pesticides are designated by the US EPA as "reduced risk" pesticides; five are 'natural' and/or 'organic' and/or biochemicals. An extensive amount of environmental fate, mammalian/human toxicology, and

aquatic toxicology data were collected for the remaining 44 conventional pesticides. They were then modeled using PRZM-GW. Three pesticides were deleted, and the remaining 41 pesticides were modeled for drift potential using AgDRIFT, and Cornell's field EIQ scores were tabulated. Our recommendations based on this intensive, conservative, lengthy process are as follows:

- Do not include the following pesticides in the Integrated Turf Health Management Plan: chloroneb, ethazole, fenarimol, fludioxonil, fluxapyroxad, thiophanate methyl, vinclozolin, dithiopyr, MCPP/mecoprop, foramsulfuron, glufosinate, siduron, and chlorantraniliprole.
- Restrict the use of the following pesticides to lined greens and, occasionally as needed, tees: bensulide, carbaryl, chlorpyrifos, flutolanil, chlorothalonil, etridiazole, and iprodione.
- Either commit to using a tractor boom spray shroud or restrict the use of the insecticides chlorpyrifos and lambda cyhalothrin.

  The superintendent should maintain a field notebook that contains section VII(E) with its risk ranked pesticide lists in Tables 14a, b, and c, as well as the nitrogen limit listed in the second paragraph in section VIII(C). These excerpts from the report should also be incorporated into the final version of the Integrated Turf Health Management Plan.

As discussed in **Section 1.6.2**, stormwater runoff from The Hills development areas will be retained and recharged on-site. Retention areas, as presently proposed, will consist of DRAs, leaching pools, and ponds, with stormwater conveyed to these retention areas by means of:

- Overland flow
- Curb and gutter
- Vegetated swales
- Inlets and piping

The golf course design incorporates a number of DRAs in strategic locations to capture runoff from the course and adjacent areas to be developed with housing. These DRAs are designed as shallow vegetated depressions that are normally dry and blend into the fairway areas or non-vegetated hazard areas, of the course, both as playable features. DRAs are the dominant retention method to be utilized because of the ability to blend them seamlessly into the surrounding terrain. DRAs will have leaching pools with elevated inlets such that the areas around the leaching pool will be established as rain gardens. These rain gardens will be used to provide biological uptake of pollutants during the first flush precipitation event.

Roadways within the site will contain drainage inlets within gutter areas to capture runoff from roads and adjacent vegetated lot areas and either piped to DRAs or captured directly in leaching catch basins for storage and infiltration. Runoff from on-lot structures and driveways will be captured in leaching pools within the lot area. Several areas will be served exclusively with leaching pools, principally the clubhouse maintenance area, and the southerly section of the entrance road.

Two lined golf course-related ponds near the center of the developed area will be a central feature of the project and will also serve as an irrigation pond, using captured stormwater runoff that will then be blended and/or pumped through the golf course irrigation system. For areas tributary to this pond, a five-inch design storm will be utilized. For the DRAs, a 2-inch design storm will be utilized. In addition to golf play and drainage functions, the two ponds will

provide an aesthetic and functional role for visual interest in proximity to the clubhouse and the residential units. The ponds will be lined to maintain a minimum depth of five feet and aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. During rain events, the normal pond elevation is designed to rise by up to two feet for the design storm event and then subside back to the normal pond elevation by recharge. Overall, the ponds will be designed and maintained for multiple functions of aesthetic quality, utilitarian function and habitat diversity. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC environmental input will be sought and incorporated into pond management as appropriate. Complete details of the proposed drainage system are provided in **Section 1.6.2**.

The southerly part of the project site is traversed by two swales (normally dry) that have a combined off-site tributary area of about 600 acres to the limit of property. Runoff from off-site to these swales will be passed through the project site, whereas development runoff towards the swales will be retained and recharged on-site.

Based on information presented in the NURP Study, the drainage measures proposed are an appropriate means of handling stormwater and as a result, such recharge is not anticipated to contain significant concentrations of pollutants. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system and no significant adverse impacts are expected.

Water Balance and Nitrogen

Utilizing the same mass balance model described in **Section 2.2.1**, the water balance and concentration of nitrogen in recharge was calculated for the proposed project. **Tables 1-8a and 1-8b** provide tabulations of existing and proposed site conditions, respectively. These coverage quantities were used in the SONIR model to obtain the results described herein.

The SONIR computer model results for the proposed project (**Appendix G-3**) indicate that a total of 474.27 MG/yr of water will be recharged on the site. This represents a 9.63% increase in recharge generated on the property, as compared with the existing recharge volume. This anticipated recharge volume represents 29.55 inches of water distributed annually over the 591 acre site.

The concentration of nitrates (as nitrogen) in this recharge is anticipated to be slightly increased by the proposed project, due primarily to golf course maintenance activities. Specifically, it is anticipated that the overall nitrogen concentration will be 0.66 mg/l in on-site recharge. However, the proposed integration of mitigative features in golf course design such as lined greens and rain gardens are expected to reduce post development nitrogen concentrations in on-site recharge to 0.59 mg/l representing an 11.11% decrease over non-mitigated conditions. Both of these concentrations are significantly less than the 10 mg/l nitrogen standard drinking water, the 2-3 mg/l concentration recommended in the report "Land Use and Groundwater Quality in the Pine Barrens of Southampton **(Hughes & Porter, 1983)** and the CPB CLUP Guideline

(5.3.3.1.3) of 2.5 mg/l.[3] It is noted that advanced waste treatment would reduce the concentration of nitrogen in recharge to 0.41 mg/l, which is further reduced to 0.34 mg/l in consideration of mitigation in the form of green liners and rain gardens.

The concentration of nitrogen in recharge outlined above is based on the mass-balance analysis of nitrogen and recharge and does not account for additional nitrogen removal as a result of well pumping and re-use of intercepted groundwater with elevated nitrogen due to upgradient farming activities. This is determined in pounds of loading of nitrogen which is an important factor in determining water quality impacts, mitigation and for tracking improvements to water quality within the Weesuck Creek watershed that contributes to western Shinnecock Bay. Annual pounds of nitrogen is a factor that is derived from the SONIR model and is provided in **Appendix G-2** for the proposed project. The site currently has 872.53 pounds (lbs) of nitrogen loading per year of which 315.85 lbs/year are due to farming (anthropogenic[4]) and the balance is precipitation nitrogen which is an existing condition related to atmospheric deposition **(Appendix G-2)**. The proposed project is expected to result in a nitrogen load of 2,626.14 lbs/year (consisting of 2,265.00 lbs from anthropogenic sources, specifically, 1,596.57 lbs from wastewater, 13.33 lbs from pet waste, 655.10 lbs from fertilizer; and, 361.14 from precipitation). This is further decreased to -446.36 lbs/year by mitigation including reductions of 2,503.78 lbs/year for reuse of irrigation water; 199.72 lbs/year for lined greens; and, 7.86 lbs/year for rain gardens. Advanced waste treatment would further decrease the nitrogen load from wastewater to 606.70 lbs/year with a resultant load of 1,636.27 lbs/year which is reduced through mitigation to -1,436.23 lbs/year. For comparison, the use of the site under existing zoning has a nitrogen load of 4,344.95 lbs/year (consisting of 4,041.53 lbs from anthropogenic sources, specifically, 2,695.94 lbs from wastewater, 13.33 lbs from pet waste, 1,332.25 lbs from fertilizer, and 303.42 lbs from precipitation). This and other alternatives are analyzed in **Section 5.0**.

A summary of the nitrogen impact assessment results is provided in **Table 2-8** below. This analysis indicates that the proposed project will have a substantial beneficial impact with respect to nitrogen in water quality, particularly when compared with use under existing zoning. The project will intercept groundwater which has elevated nitrogen concentrations due to current and historic upgradient farming activity. This water will be used for irrigation of the golf course which will uptake nutrients and reduce leaching to groundwater as a function of proper turf management which is accounted for in the SONIR model. The groundwater with elevated nitrogen concentrations that is used for irrigation of the golf course would otherwise have migrated toward Weesuck Creek and western Shinnecock Bay and would be discharged as subsurface outflow to these water bodies. Based on groundwater velocities and SCDHS groundwater contributing area maps (time of travel) it is estimated that if farming in the Lewis Road area of East Quogue ceased, it would take at least 30 years for nitrogen in groundwater to migrate and discharge to the bay. It is unlikely that farming will cease, and certainly there is no indication of such in the near future, consequently, the proposed project will provide a long term improvement through nitrogen removal. In summary, the proposed project will not have an

[3] 5.3.3.1.3 Nitrate-nitrogen goal; A more protective goal of two and one half (2.5) ppm may be achieved for new projects through an average residential density of one (1) unit per two (2) acres (or its commercial or industrial equivalent), through clustering, or through other mechanisms to protect surface water quality for projects in the vicinity of ponds and wetlands.

[4] Anthropogenic nitrogen load includes: sanitary waste, pet waste and fertilization caused by the Proposed Project.

adverse impact with respect to nitrogen in recharge and nitrogen load, will comply with all applicable guidelines nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise have entered the bay.

Table 2-8
NITROGEN IMPACT ASSESSMENT RESULTS

Scenario	Existing Conditions	Proposed Project	Proposed Project with Advanced Treatment[3]	Alternative 2 CR-200 PRD[4]
Nitrogen Concentration (mg/l) [1]	0.24	0.59	0.34	1.07
Anthropogenic Nitrogen Load (lbs)[2]	872.53	-446.36	-1,436.23	4,344.95

Notes:
1 Mitigation includes green liners and rain gardens which are proposed as part of the project, but does not include removal from high nitrogen water irrigation well; see Anthropogenic Nitrogen Load.
2 Anthropogenic Nitrogen Load is based on all project related nitrogen sources other than precipitation nitrogen; Mitigation includes reuse of high nitrogen water for irrigation purposes.
3 Advanced treatment assumes an alternative wastewater system approved by SCDHS that would function for the subject site/use.
4 Alternatives 2a & 2b are Existing Zoning Planned Residential Development (PRD), which is use of site under existing CR-200 zoning.

A supplemental nitrogen budget analysis by a separate consulting team member (P.W. Grosser Consulting, Inc.) with expertise in nitrogen budget modeling is provided in **Appendix L-5**. The results of this analysis support the findings of the NP&V analysis, specifically, that both existing conditions and use under existing zoning result in a greater nitrogen load and concentration in recharge than the proposed project, and that the nitrogen load associated with the proposed project is negative due to removal of elevated concentrations of nitrogen in groundwater for use as irrigation and as a fertilizer supplement. Further the analyses included in **Appendix L-5** support the finding that the predicted concentration of nitrogen in recharge is less than 1.0 mg/l and well below the CPB CLUP guideline of 2.5 mg/l. Any differences in these analyses are minor and due to analysis methods, assumptions and variables that are documented in **Appendix G-1** (SONIR User's Manual) and **L-5** (BURBS Nitrogen Mass Balance Prediction).

Water Supply

Public water supply will only be necessary for residential potable use. Irrigation water will be provided by on-site wells designated specifically for this purpose. Since the proposed project will result in the construction of 118 residential units with clubhouse amenities which will be utilized on a seasonal basis it is expected that the SCWA will have sufficient water supply capacity to accommodate development. In addition, as part of the development four acres of the subject property is proposed to be dedicated to the SCWA for a new wellfield. The project abuts SCWA Distribution Area 20. All water used by the project for domestic (i.e., no-irrigation) purposes will be provided from the public water supply system of the SCWA. It is expected that

either or both the existing Spinney Road Wellfield and the proposed new SCWA wellfield on-site will be used. There is a 12-inch supply line beneath Spinney Road to which the project could connect, or the SCWA may choose to install a new line connecting the new wellfield, if and when installed. This determination will be made as part of the Town's site plan review process.

In addition to the use of retained stormwater for golf course irrigation, the project will install an irrigation well system to provide water supply for golf course irrigation. An isolated portion within the area of the large pond will be used to blend water from source wells including the well that intercepts high nitrogen containing water that will be placed at the south end of the site. As shown in **Table 1-8b**, it is expected that a total of 51.46 MGY gpd will be used for all landscape irrigation, as 45.24 MGY for the golf course and 6.22 MGY gpd for non-golf purposes. It is expected that these volumes will not adversely affect the ability of the SCWA to serve the site and area, and would not significantly tax the groundwater storage system. Any such well installations will be subject to NYSDEC well permits.

With regard to the proposed projects impact on water supply review of the SWAP maps for well fields in the area of the proposed project finds that only the Spinney Road well field and the Malloy Drive well field have capture zones that encroach onto the subject property. Specifically, two residential lots in the western portion of the proposed development fall within the five year capture zone of the Spinney Road well field and a small portion of the golf course falls within the 50 year capture zone of the Malloy Drive well field. Due to the long residence times which would allow for the filtration of nitrogen or other compounds introduced to groundwater from the proposed project no impacts to water supply resources are expected.

Appendix A-17 contains a letter prepared by the Deputy Chief Executive officer (CEO) for Operations of the SCWA that responds to the Town's request for the SCWA's review of the project's scoping document. With respect to the adequacy of the Scope, the letter states *"The Scoping document as provided, specifically with regard to the section on Water Resources, appears to adequately address all potential impacts to the resources from the proposed project."*

The SCWA letter goes on to state the following with respect to its analysis of the project's potential for impact to the groundwater resources that the SCWA supplies to its customers in the area, as well as the potential impacts to its distribution system:

> Currently, the SCWA does not anticipate any water quality impacts due to the proposed project. The nearest well field is Spinney Road, located approximately ½ mile south of the subject property. The SCWA has a total of four wells at this site, 2 Glacial (Nos. 1 and 2) and 2 Magothy (Nos. 3 and 4). Well no. 4 is under construction and will be operational by the spring of 2016.
>
> While the water quality from Magothy well nos. 3 and 4 is essentially pristine, the water quality in well nos. 1 and 2 is already impacted by elevated nitrates from current agricultural land uses within their capture zones, which lie to the northwest of the wells. Well no. 1 must be run simultaneously with well no. 3 so that the blended water meets the drinking water standard for nitrates.
>
> In order to serve this project, the SCWA has developed a preliminary plan for water system improvements that when completed, will improve the overall reliability of the water system in the area. SCWA anticipates that once constructed, the proposed well(s) on this parcel would produce

high quality water for the foreseeable future and would reinforce SCWA's capacity to serve the proposed project and surrounding area.

Surface Water

There is no direct surface connection from the subject property to Weesuck Creek. The subject property and Weesuck Creek are separated by the LIRR and Old Country Road and no culvert system is present that would direct stormwater runoff from the subject property to the headwaters of Weesuck Creek. The nearest wetlands associated with Weesuck Creek are located approximately 1,500 feet southeast of The Hills property.

The proposed drainage system is described in **Section 1.6.2**. Drainage is designed to accommodate the required stormwater from a 100-year storm. The Preliminary SWPPP (see plans at end of document) indicates that the post-development conditions can easily be designed to provide a reduction in the peak flow of a 100-year storm event. This ensures that no impact will occur to off-site surface water particularly in view of the nearest wetlands being located 1,500 southeast of The Hills property and the nearest surface water located even farther to the southeast of the subject site.

The proposed project will result in the creation of two lined golf course-related ponds that will be located near the center of the developed area and will also serve as irrigation ponds, using captured stormwater runoff that will then be mixed and/or pumped through the golf course irrigation system.

The ponds will be lined to maintain a minimum depth of five feet and aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. The larger pond will be excavated to a depth of 8-10 feet and will be lined to retain water to the design depth. The smaller pond will have a minimum depth of 5-6 feet and will also be lined to retain water.

Above the minimum pond elevation, the ponds will have a slope of 1:5 in an area that will provide "freeboard" for side wall leaching of stormwater to recharge groundwater when pond elevation rises due to stormwater. In addition to side wall leaching, the ponds will have positive overflow to inter-connected portions of the overall drainage system.

Overall, the ponds will be designed and maintained for multiple functions of aesthetic quality, utilitarian function and habitat diversity. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Pond design will incorporate Town and NYSDEC input and will consider the Suffolk County Planning Commission artificial pond guidelines.

The southerly part of the project site is traversed by two swales (normally dry) that have a combined off-site tributary area of about 600 acres to the limit of property. These swales may carry runoff when the infiltration capacity of soils within the contributing area is exceeded. This is a source of drainage and flooding issues at the low points along Spinney Road. Under post-development conditions, the site will allow off-site stormwater to pass through the on-site swales; however, runoff generated by changed conditions on the site will be retained and recharge as part of the site drainage system, thus reducing the on-site contribution of runoff that leaves the subject property.

Stormwater and Drainage

The developed area will be served by a comprehensive stormwater drainage system comprised of roadside catch basins, subsurface leaching pools, drainage reserve areas (DRAs) and two artificial ponds to gather, store and recharge all runoff generated on the site within the site. The stormwater system is described in **Section 1.6.2** and the Groundwater Quality subsection above.

Ponds will be managed in a manner that will add to the ecological qualities of the site. Areas adjoining golf play will consist of turf and a narrow vegetated strip of native grasses (1 to 2 feet) adjoining the pond in order to discourage waterfowl activity between the golf course and ponds. Areas adjoining portions of the ponds that are not used for golf play (e.g., residential use and/or open space), will be vegetated with minimum ten-foot buffers of native grasses and shrubs in order to promote habitat, filter stormwater and discourage wildfowl activity. The ponds "freeboard" areas on areas not adjoining golf play will be vegetated with native freshwater wetland species (e.g., cattails; sedge and rush species) to promote biological uptake and natural filtration of pond water to promote water quality and provide habitat diversity. Ponds will be of sufficient depth to support overwintering of fish populations and will be "stocked" with appropriate species to promote mosquito larvae control and improve the ecological diversity and natural system qualities of the ponds. Typical fish stocking species include a bass-bluegill assemblage; however, the NYSDEC will be consulted and any necessary authorizations will be obtained in connection with the stocking programs.

Overall, the ponds will be designed and maintained for multiple functions of aesthetic quality, utilitarian function and habitat diversity. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC environmental input will be sought and incorporated into pond management as appropriate.

All of the greens on the golf course will be lined with an impervious 40 mil HDPE liner, to capture and contain recharge from these surfaces; overflow, if present will be directed to on-site rain gardens for biological uptake to remove nitrogen. **Figures 1-8** provide schematic drawings of this system.

Groundwater Protection Plans

Land Use and Groundwater Quality in the Pine Barrens of Southampton (Cornell Study, 1983) – The 1983 Cornell Report established a valuable framework for understanding and informing management of Pine Barrens critical recharge areas. In the 30^{+} years since the report was released impact mitigation measures have steadily improved, and hence, enable The Hills at Southampton to surpass the protections advanced by Hughes and Porter, who did not foresee the highly effective and innovative techniques that are feasible today. In contrast to the basic controls suggested by the Cornell Study, the proposed development incorporates cutting edge and hyper-sensitive environmental protections, such as:

1. The residential density at The Hills is based on 1 unit/5 acres. In addition, the seasonal-type use population will not occupy the site on a year-round basis; expected occupancy is 60 days annually, with C&Rs to ensure that occupancy is no more than 183 days per year.

2. Fertilizer dependent vegetation is limited to less than 15% of the site for the golf as well as residential components, ensuring that fertilizer-nitrogen is not contributed to groundwater or

surface water.

3. The Hills golf course is designed to protect native species, wildlife and area waters, through the use of lined greens, sophisticated irrigation systems and water recycling techniques, use of organic materials, professional management and native and protective plantings. The Hills will utilize rain gardens to treat stormwater throughout the site and will ensure water quality protection through design elements consistent with current and innovative technologies.

4. The project will be designed with stormwater and irrigation systems that contain and recycle stormwater and existing contaminated groundwater for irrigation, and will provide strategic stormwater bio-retention areas for effective pollutant removal and recharge where appropriate such that net nitrogen recharge on the site will be negative. More specifically, the project will remove elevated nitrogen in groundwater from the aquifer that would otherwise migrate to Shinnecock Bay, and use it for irrigation to ensure vegetative uptake and reduce the quantity of fertilizer that would be used on the golf course. The on-site stormwater design provides the highest level of stormwater containment, re-use, treatment, and recharge for water quality protection.

5. The Hills at Southampton will result in the highest level of environmental protection for on-site development with specific reductions in potential impacts on water quality as compared to what would occur under existing zoning. If the site were developed based in conformity with existing zoning, 118 large homes with potential year-round occupancy would be constructed. As an MUPDD, The Hills at Southampton reduces nitrogen contribution, improves stormwater management, and reduces fertilizer applications. It is a much more environmentally protective project that is consistent with the recommendations of the East Quogue LUP and achieves the water quality protections and other environmental benefits which an MUPDD provides.

6. The proposed project density allows the use conventional sanitary systems; however, the applicant is committed to use of advanced wastewater systems when such systems are approved by SCDHS for the site. The low density, low occupancy and commitment to advanced treatment will ensure that sanitary system groundwater impacts will be minimized to the greatest extent feasible.

7. It is anticipated that the overall nitrogen concentration will be 0.59 mg/l in on-site recharge in consideration of the proposed integration of lined greens and rain gardens to reduce post development nitrogen concentrations. With advanced wastewater treatment the concentration is reduced to 0.34 mg/l. Both of these concentrations are significantly less than the 2-3 mg/l concentration recommended in the Cornell Study and conform with the CPB LUP and best groundwater management practice.

8. The Hills at Southampton includes an Integrated Turf Health Management Plan that ensures BMPs for limited, spot application of the least harmful pesticides (determined through root zone model analyses). The proposed project will implement the ITHMP, as well as Groundwater Monitoring Protocols intended to provide early detection of potential water quality issues. These BMPs are in keeping with other Southampton Town golf courses including Golf at the Bridge and Sebonack.

9. Existing golf courses in the Town built on the foundation provided in the Cornell Study to ensure that golf course operations would not cause groundwater or surface water quality impacts. The Hills at Southampton applies all innovative technologies available, and through use existing high

nitrogen containing groundwater for irrigation, will result in a project that is net negative in terms of nitrogen load to the aquifer and downgradient surface waters.

The full text of this report is included in **Appendix A-16** for reference and useful background with respect to water quality planning analysis of nitrogen in recharge as well as BMPs for pesticide and organic chemical management.

Town Aquifer Protection Overlay District - A discussion of the project's impact related to the Town Aquifer Protection Overlay District is provided in **Section 3.2.2**.

Town Central Pine Barrens Overlay District - A discussion of the project's impact related to the Town Central Pine Barrens Overlay District is provided in **Section 3.2.2**.

The Long Island Comprehensive Waste Treatment Management Plan (208 Study) – The project is in conformance with the recommendations of the 208 Study which would have projects that exceed 1 unit per acre provide for wastewater treatment. The proposed project is far below this density. The proposed project will conform to SCSC Article 6, 7 and Article 12 requirements, as well as implementation of an ITHM plan and groundwater monitoring plan, which will minimize potential adverse impacts to groundwater quality. In addition, since the project is primarily residential in nature, few potentially toxic or hazardous substances would be present or used on the site and any such materials will be in limited quantities per Article 7 and stored in conformance with Article 12. Any materials used for the maintenance of the golf course will be limited as part of the ITHM plan and routine groundwater monitoring results will be used to modify application rates as necessary.

The developed area will be served by a comprehensive stormwater drainage system comprised of roadside catch basins, subsurface leaching pools, drainage reserve areas (DRAs) and two lined ponds to gather, store and recharge all runoff generated on the site within the site. As noted, greens will be lined to contain and manage recharge from these areas.

Further discussion of the projects impact related to the 208 Study as it relates to wastewater discharge in Groundwater Management Zone III was provided previously in the Hydrogeology portion of **Section 2.2.2**.

Suffolk County Comprehensive Water Resource Management Plan, 2015 - The following lists the Goals of the updated SCCWRMP, along with brief discussions as to the project's conformance to each.

<u>Groundwater Resource Management Goals</u>
GOAL 1: All groundwater shall be in compliance with the stricter of New York State Ambient Groundwater standards and guidance values or Maximum Contaminant Level Goals (MCLGs) to the greatest extent feasible and practical. Water quality that is better than the existing standards should be preserved, to the greatest extent feasible and practical.
This Goal is addressed to regulating agencies and public water suppliers. However, the proposed project will support this Goal to the extent that it will conform to SCSC Article 6 and Article 12 requirements as well as implementation of an ITHM plan and groundwater monitoring plan, which will minimize potential adverse impacts to groundwater quality.

GOAL 2: Nitrogen loading should be reduced to the greatest feasible and practical for the protecting of current and future drinking water supplies and to restore/maintain ecological functions of streams, lakes, estuaries and marine waters. Arrest and reverse the trend of increasing nitrogen concentrations in ground and surface waters to the greatest extent feasible and practical by decreasing the nitrogen loading from septic systems and fertilizers.
Nitrogen loading is reduced to the greatest extent practical and in fact results in a negative net nitrogen load to the aquifer. This will reverse the trend of increasing nitrogen and the project will remove an existing source of nitrogen in the watershed through cessation of farming on parts of the site, thus decreasing use of fertilizers. Fertilizer use is limited to 15% of the site, and proper turf management as described in the ITHM will ensure maximum uptake of nutrients by turf grass. Community benefit funding of water quality improvements, sanitary system upgrades, bay restoration and related water quality support will further ensure that surface water quality is improved as a result of the PDD.

GOAL 3: Concentrations of other regulated and unregulated contaminants in groundwater should be minimized to the greatest extent feasible and practical, to protect current and future drinking water supplies and to restore/maintain ecological functions of streams, lakes, estuaries and marine waters. Reduce the discharge of volatile organic compounds and other regulated and unregulated contaminants to groundwater.
The proposed project will support this Goal to the extent that it will conform to SCSC Article 6 and Article 12 requirements, as well as implementation of an ITHM plan and groundwater monitoring plan, which will minimize potential adverse impacts to groundwater quality. In addition, since the project is primarily residential in nature, few potentially toxic or hazardous substances would be present or used on the site. Any materials used for the maintenance of the golf course will be limited as part of the ITHM plan and routine groundwater monitoring results will be used to modify application rates as necessary.

GOAL 4: Land use patterns should be consistent with the protection of the County's groundwater and surface water resources, including the protection of existing and future drinking water supplies.
The proposed project will provide a land use pattern that is in keeping with protection of groundwater and surface water resources. The project will retain natural vegetation, limit fertilizer dependent vegetation, and will result in a net decrease in nitrogen through interception of existing high nitrogen containing groundwater to be reused for irrigation of the golf course and landscaped areas. The proposed project is to be developed at a low density of 0.2 units/acre (118 units/591.00 acres), which would conform to the rural character of the area. The proposed septic systems would not lie in close proximity to either the water table or surface water bodies, so that the project will conform to the SCCWRMP with respect to minimizing nitrogen impacts originating in unsewered areas. The land use pattern will also result in the dedication of a 4-acre well site for SCWA for future water supply. The project will therefore provide measures for protection of existing and future drinking water supplies.

GOAL 5: Groundwater quality and quantity should be maintained to protect and preserve the County's drinking water supply and natural resources.
There is no impact to drinking water supply as indicated by SCWA in correspondence to the applicant. Public water will be used for domestic supply and the project will result in the dedication of a 4-acre well site for SCWA. Natural resources are retained through preservation of 424 acres of existing natural vegetation on the 591 acres, with natural restoration of additional land to natural conditions.

GOAL 6: Groundwater levels should be maintained to protect and preserve the long term sustainability and ecological functions of existing surface water resources.
The proposed project is not expected to change groundwater levels as a result of proper well installation and pumping in conformance with NYSDEC well permits issued for any irrigation wells to be installed on the site. Site use is dispersed such that recharge will be distributed around the site and thus is not expected to impact groundwater elevations.

GOAL 7: Existing programs to monitor, prevent contamination of, and manage Suffolk County groundwater resources should be enhanced and improved to provide the data and programs necessary to protect the groundwater resource that provides the County's drinking water supplies, and to provide the information necessary to develop a long term approach to mitigate expected impacts of sea level rise upon existing infrastructure.
This Goal is addressed to regulating agencies and public water suppliers. The project will contribute to water quality protection and enhancement through community benefit funding of water quality improvements, sanitary system upgrades, bay restoration and related water quality support to further ensure that surface water quality is improved as a result of the PDD.

Drinking Water Supply Goals

GOAL 1: All County residents should have access to safe potable water that is in compliance with drinking water MCLs, USEPA health advisories and New York State guidance levels.
This Goal is addressed to regulating agencies and public water suppliers; however, the project will provide a 4-acre well field site to SCWA for future water supply. In addition, the project will contribute to water quality protection and enhancement through community benefit funding of water quality improvements, sanitary system upgrades, bay restoration and related water quality support, and will decrease the nitrogen in the aquifer through use for elevated nitrogen in groundwater for golf course irrigation.

GOAL 2: A community public water supply should be available to all Suffolk County residents.
This Goal is addressed to regulating agencies and public water suppliers. It is noted that the proposed project will connect to the public water supply network of the SCWA for drinking water purposes, and will provide necessary connections to that network. In addition, the applicant will dedicate a portion of the property to the SCWA to be used for the placement of an additional water supply well field.

GOAL 3: Residential and commercial irrigation should be managed to reduce peak demands on water supply infrastructure.
The irrigation well system will be subject to NYSDEC well permits. The well system will feed an irrigation pond which will be used for storage and blending of irrigation water and thus will enable the operator to regulate pumping to reduce peak demands on water supply infrastructure. The irrigation well system will be independent of the SCWA system and therefore will not affect peak demands of the SCWA for drinking water supply.

Surface Water Resource Management Goals

The five Surface Water Resource Management Goals are addressed to regulating agencies. Additionally, there are no surface water bodies on the portion of the subject property scheduled for development or in proximity to the subject site.

Wastewater Management Goals

GOAL 1: Improve groundwater quality to maintain a potable water supply to serve existing and future populations by reducing effluent nitrogen loads from existing and future onsite sewage disposal systems and sewage treatment plants.

Nitrogen loads are decreased as a result of low density use, limited seasonal occupancy of the residents, fertilizer dependent limitations, and proper turf management. In addition, the project will result in a net decrease in nitrogen through interception of existing high nitrogen containing groundwater to be reused for irrigation of the golf course and landscaped areas. The applicant will utilize advanced wastewater treatment based on approved alternative systems that would be suitable for the site use and approvable by SCDHS.

GOAL 2: Improve surface water quality to increase coastal resiliency and rehabilitate and maintain a vibrant coastal ecosystem by improving dissolved oxygen levels, reducing harmful algal blooms, and controlling nutrient levels through the reduction of effluent wastewater nitrogen loads from existing and future onsite sewage disposal systems and sewage treatment plants.

There are no surface water bodies on the portion of the property proposed for development or within the drainage area of the subject site. Nitrogen loads are decreased as a result of low density use, limited seasonal occupancy of the residents, fertilizer dependent limitations, and proper turf management. In addition, the project will result in a net decrease in nitrogen through interception of existing high nitrogen containing groundwater to be reused for irrigation of the golf course and landscaped areas. The applicant will utilize advanced wastewater treatment based on approved alternative systems that would be suitable for the site use and approvable by SCDHS.

GOAL 3: Reduce and/or eliminate the impacts of pharmaceuticals and personal care products from wastewater effluent for increased public health and marine life protection.

This Goal is addressed to regulating agencies and public water suppliers. The proposed project is not of a type that would increase use of pharmaceuticals and personal care products any more than the existing zoning, and the reduced seasonal occupancy would tend to reduce all forms of wastewater flow as compared to existing zoning.

GOAL 4: Provide development opportunities for continued economic growth to support future population growth while limiting wastewater nitrogen discharge.

The proposed project is consistent with the East Quogue Land Use Plan and GEIS and is therefore an appropriate development that is intended to provide economic growth and benefit. The project will reduce school aged children and increase tax revenue to taxing jurisdictions including the school district. The project will provide consumers for local business and will increase employment opportunities providing a significant economic benefit from construction, operation and beneficial ripple effect on the economy. The project limits wastewater discharge through low density, seasonal occupancy and will employ approvable advanced wastewater recognized by SCDHS.

GOAL 5: Improve operations and maintenance of onsite sewage disposal systems and sewage treatment plants to maintain compliance with effluent nitrogen limit and achieve more stringent goals where feasible and appropriate to protect ground/surface waters.

It is noted that one of the public benefits of the project is the applicant's commitment to provide enhanced wastewater treatment where feasible for the project. Further examination is warranted since SCDHS is currently in the process of studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is presently evaluating a number of such innovative, alternative wastewater treatment methods, and is committed to ultimately select the system that optimally balances performance, cost, and likelihood of approval by SCDHS.

GOAL 6: Provide funding sources to the residents of Suffolk County to permit affordable upgrades to existing onsite sewage disposal systems or connection to community sewers.
This Goal is addressed to regulating agencies; however, the proposed project will provide substantial initial funding as well as perpetual funding for sanitary system upgrades in the area of western Shinnecock Bay. This is unprecedented for a private development project and will result in a reduction of nitrogen in groundwater that would otherwise be contributed to the bay.

GOAL 7: Promote the reuse of effluent wastewater for irrigation and grey water uses to preserve the volume of potable groundwater water supply to serve anticipated future population growth.
The project will utilize gray water recycling for maintenance facility washdown areas.

Town of Southampton Coastal Resources and Water Protection Plan (CRWPP; April, 2016) – The proposed project appears to be outside of the CRWPP boundary. Nevertheless, recommendations contained in that plan are pertinent to groundwater and surface water protection in the Town of Southampton. The recommendations as outlined in **Section 2.1.2** outline BMPs to improve water quality. The Hills at Southampton is consistent with these recommendations as noted in the following points:

The proposed project does not involve cumulative impacts with other projects in the area; the existing area includes existing compromised water quality due to upgradient farms, and no other projects are pending in the area.

The Hills at Southampton will utilize advanced wastewater treatment that would be approved by SCDHS; the density of the project is such that groundwater nitrogen concentration are very low, and the nitrogen load of the project is reduced to a net negative due to use of existing high nitrogen concentration groundwater for irrigation of the golf course, allowing bio-uptake and minimized leaching to reduce nitrogen. This will benefit downgradient surface waters by removing nitrogen that would otherwise migrate to Weesuck Creek and Western Shinnecock Bay.

Fertilized area is reduced to no more than 15% of the site in conformance with the CPB CLUP; nitrogen use is minimized to the maximum extent and through proper turf management is less than what would occur for an as-of-right use.

Overall, the proposed project is in conformance with the CRWPP and in fact advances many of the goals of this plan through innovative water protection measures and BMPs that are inherent in the project.

The assessment of the projects conformance with the above goals indicates that the proposed project is consistent with the SCCWRMP update and other important groundwater quality protection plans for the area.

2.2.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- Based on sanitary wastewater design rates for the golf course and residences, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6. Therefore, the Applicant may and will utilize individual septic systems in compliance with SCSC Article 6 for the 108

detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos.

- The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow. Ultimately the choice of sanitary system will be made in consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected.
- The golf course will utilize management practices and controls to severely restrict the use of chemicals associated with turf maintenance. The golf course will be a state-of-the-art facility, and will employ the most advanced controls available. Such controls will consist of a liner system installed beneath areas under the more actively managed areas of the course as well as rain gardens and turf management practices which will provide the stringent golf course management standards that the Town of Southampton is familiar with from Golf at the Bridge and Sebonack Golf Club.
- Any use of pesticides will be severely restricted as a result of continuous monitoring to identify pest control needs early, followed by spot/minimal application of controls, and the use chemicals from a highly-restricted list of approved substances that will be reviewed and approved by the Town and updated annually in coordination with the golf course operator, the Town and the Town's expert consultant. The ITHMP should be consulted for detailed information regarding the state-of-the-art management practices that will be implemented in connection with golf course.
- The GMP will assess the effectiveness of the ITHMP, and will guide any modifications to application rates of fertilizers and turf management compounds should this be necessary. The results of any data generated from the program will be reported to the Town, assessed by the Town and golf course management and used to provide early detection of environmental concerns so that modified management practices can be instituted.
- Stormwater runoff from development areas will be retained and recharged on-site. Retention areas, as presently proposed, will consist of DRAs, leaching pools, and ponds, with stormwater conveyed to these retention areas. The golf course DRAs are designed as shallow vegetated depressions that are normally dry and blend into the fairway areas or non-vegetated hazard areas, of the course, both as playable features. DRAs will have leaching pools with elevated inlets such that the areas around the leaching pool will be established as rain gardens. These rain gardens will be used to provide biological uptake of pollutants during the first flush precipitation event. Two lined golf course-related ponds near the center of the developed area will be a central feature of the project and will also serve as an irrigation pond, using captured stormwater runoff that will then be blended and/or pumped through the golf course irrigation system. In addition to golf play and drainage functions, the two ponds will provide an aesthetic and functional role for visual interest in proximity to the clubhouse and the residential units. The ponds will maintain a minimum depth of five feet and will be aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC environmental input will be sought and incorporated into pond management as appropriate.
- Based on information presented in the NURP Study, the drainage measures proposed are an appropriate means of handling stormwater and as a result, such recharge is not anticipated to contain significant concentrations of pollutants. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system and no significant adverse impacts are expected.

- The proposed project will not have an adverse impact with respect to nitrogen in recharge and nitrogen load, will comply with all applicable guidelines nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise have entered Shinnecock Bay.
- Public water supply will only be necessary for residential potable use; irrigation water will be provided by on-site wells designated specifically for this purpose. An isolated portion within the area of the large pond will be used to blend water from source wells including the well that intercepts high nitrogen containing water that will be placed at the south end of the site. It is expected that a total of 51.46 MGY will be used for all landscape irrigation, as 45.24 MGY for the golf course and 6.22 MGY gpd for non-golf purposes. It is expected that these volumes will not adversely affect the ability of the SCWA to serve the site and area, and would not significantly tax the groundwater storage system. Any such well installations will be subject to NYSDEC well permits.
- As part of the project, four acres of the subject property are proposed to be dedicated to the SCWA for a new wellfield.
- A letter prepared by the Deputy Chief Executive officer for Operations of the SCWA states: *"…the SCWA does not anticipate any water quality impacts due to the proposed project."*
- Two lots in the western portion of the site fall within the five year capture zone of the Spinney Road well field, and a small portion of the golf course falls within the 50 year capture zone of the Malloy Drive well field. Due to the greater than 5 year (and as much as 50 year) residence times, which would allow for the filtration of nitrogen or other compounds introduced to groundwater from the proposed project, the low density and seasonal use within these contributing zones and conformance to all applicable water supply protection requirements, no impacts to water supply resources are expected.
- There is no direct surface connection from the subject property to Weesuck Creek. The subject property and Weesuck Creek are separated by the LIRR and Old Country Road and no culvert system is present that would direct stormwater runoff from the subject property to the headwaters of Weesuck Creek. The nearest wetlands associated with Weesuck Creek are located approximately 1,500 feet southeast of The Hills property.
- The project conforms to the recommendations of the 208 Study, which would have projects that exceed 1 unit per acre provide for wastewater treatment. The proposed project is far below this density. The proposed project will conform to SCSC Article 6, 7 and Article 12 requirements, as well as implementation of an ITHMP and GMP, which will minimize potential adverse impacts to groundwater quality.
- A detailed analysis indicates that the project conforms to the groundwater, drinking water supply, and wastewater management goals of the SCCWRMP update.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to water resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

2.3 Ecological Resources

2.3.1 Existing Conditions

<u>Ecological Overview</u>

The majority of the existing natural vegetation of the Hills, the Parlato and the Kracke Properties is characterized as pitch pine-oak forest. Pitch pine is the dominant canopy species, with white

and scarlet oak occurring in lesser densities. The understory is comprised primarily of huckleberry, with other species common to the pine barrens (e.g., bayberry and sweet fern) occurring on the edges of the habitat. Similar forest exists on public and private lands surrounding the site, particularly to the north and east. To the west of the site is a sand and gravel mine, and farm and residential uses occur toward the southwest and south.

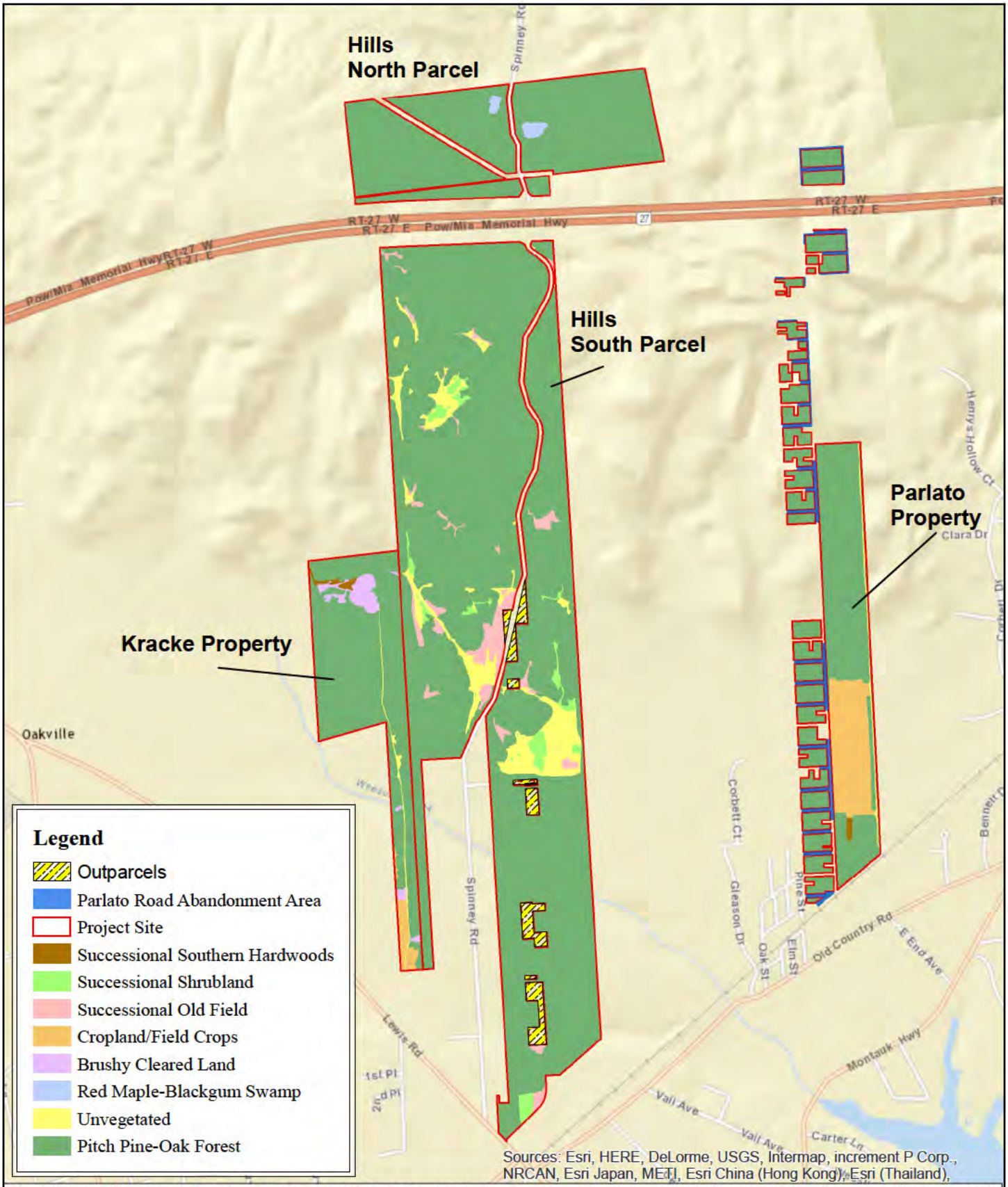
Disturbed areas of the three parcels are comprised of a variety of habitats, including agriculture, successional southern hardwood forest, brushy cleared land, successional shrubland and successional old field (see **Figure 2-12**). Agricultural uses include both field crops and nursery stock. Invasive species dominate the areas of brushy cleared land on the Kracke Property. The remainder of the habitats on-site are in various stages of succession, and are primarily comprised of species common to pine barrens successional habitats.

Figure 2-7 indicates that there are no NYSDEC-regulated freshwater wetlands on the subject site. However, there are two Town-regulated freshwater wetlands on the Hills North Parcel (see **Figure 2-12**). Wetlands have not been identified on the remainder of the three sites.

For discussion purposes, the remainder of this section will discuss the three sites as follows: Kracke Property and Hills South Parcel (the area of development), Hills North Parcel, and Parlato Property.

Vegetation

The three properties are generally located within the Long Island Pine Barrens ecosystem. Pine barrens habitats occur in dry areas where a high degree of disturbance and nutrient poor soils exist. This habitat is generally characterized by pitch pine, oaks and other vegetation that are tolerant of dry, acidic conditions. The extensive pine barrens of Long Island are a result of the interacting effects of fire, drought and soil character. Fire naturally "sets back" the vegetation to an earlier phase of succession, and the pine barrens habitats appear to be a series of successional stages that follow fires or other disturbance, although soil conditions may also affect the species composition at some sites. The habitat types delineated for each site were defined according to a classification system developed by the NYSDEC **(Edinger et al., 2014).** Habitats present on the sites include: pitch-pine oak forest, successional shrubland, successional old field, red maple-blackgum swamp, brushy cleared land, cropland/field crops, and unvegetated area. **Table 2-9** identifies the acreage of each habitat on the subject sites. The limit of each habitat was determined by a combination of aerial photography and field inspections by NP&V. The methodology and data gathered during each inspection was provided to and approved by the Town. A copy of the memo detailing this information is provided in **Appendix M-1**. Site inspections were performed by qualified biologists/ecologists, whose qualifications are provided in **Appendix M-2**.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-12
HABITAT MAP

Source: NP&V Site Inspections; NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,500 feet

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The Hills at Southampton

Draft EIS

Table 2-9
HABITAT QUANTITIES
Existing Conditions

Habitat Type	Kracke Property & Hills South Parcel		Hills North Parcel		Parlato Property		Total Project Site	
	Acres	%	Acres	%	Acres	%	Acres	%
Pitch Pine Oak	357.32	88.85	85.52	98.39	84.62	83.03	527.46	89.25
Successional Southern Hardwood	0.72	0.18			0.36	0.35	1.08	0.18
Successional Shrubland	6.22	1.55					6.22	1.05
Successional Old Field	10.78	2.67					10.78	1.82
Crops	2.64	0.66			15.78	15.48	18.42	3.12
Brushy Cleared Land	3.66	0.91					3.66	0.62
Unvegetated	20.83	5.18			1.15	1.13	21.98	3.72
Red Maple-Blackgum Swamp			1.40	1.61			1.40	0.24
TOTALS	**402.17**	**100.0**	**86.92**	**100.0**	**101.91**	**100.0**	**591.00**	**100.0**

Wetlands

The NYSDEC Freshwater Wetlands Map and National Wetland Inventory Map were reviewed (see **Figures 2-7** and **2-8**) to determine the presence of wetlands on or in the immediate vicinity of the subject site. No State listed wetlands were identified within the sites, nor were wetlands listed on the National Wetland Inventory. The nearest NYSDEC freshwater wetland is identified as number Q-10 and is located approximately 1,500 feet to the east of the southern portion of the Hills South Parcel. NYSDEC wetland MT-70 is located approximately 1,800 feet to the northeast of the northeast corner of the Hills North Parcel. It is noted that two wetland areas exist on the Hills North Parcel, which would be regulated by the Town.

Wetlands associated with Weesuck Creek and Shinnecock Bay are comprised of both freshwater and tidal wetlands. Freshwater wetlands associated with Weesuck Creek include NYSDEC Wetlands Q-10, Q-20 and Q-2 (**Figure 2-7**). Wetlands Q-10 and Q-20 are identified as Class 2 wetlands by the NYSDEC, indicating that they are of moderately high quality. Wetland Q-2 is categorized as a Class 1 wetland, which indicates it is a wetland of the highest quality. A description of the NYS wetland classification codes is provided in **Appendix L-1**. The National Wetlands Inventory classifies wetland Q-10 as "PFO1R" (Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded-Tidal) and "PUBV" (Palustrine, Unconsolidated Bottom, Permanently Flooded-Tidal). Wetland Q-20 is also classified as "PFO1R," while wetland Q-2 is classified as an Estuarine (i.e., tidally influenced) system, which has the following descriptors:

- "E2EM1Pd" – Estuarine, Intertidal, Emergent, Persistent, Irregularly Flooded, Partly Drained/Ditched
- "E2EM5Pd" - Estuarine, Intertidal, Emergent, *Phragmites australis*, Irregularly Flooded, Partly Drained/Ditched
- "E2SS1P" – Estuarine, Intertidal, Scrub-Shrub, Broad-Leaved Deciduous, Irregularly Flooded

The National Wetlands Inventory descriptions suggest areas of impacted wetlands exist (E2EM5Pd) but that other areas of vegetated wetlands may be of higher quality. The descriptions also suggest that freshwater wetlands in proximity to the shoreline are somewhat tidally influenced, as areas are "Irregularly Flooded."

The southern portion of Weesuck Creek and the portion of Shinnecock Bay in proximity to the creek are comprised of tidal wetlands. The NYSDEC classifies the wetland areas into five categories: LZ – Littoral Zone, SM – Shoals, Bars and Mudflats, HM – High Marsh, IM – Intertidal Marsh and DS – Dredge Spoil. Definitions of these wetland categories are provided in **Appendix L-2**. As illustrated in **Figure 2-9**, the majority of the central portion of Weesuck Creek and Shinnecock Bay are areas of Littoral Zone with no vegetated tidal wetlands. Vegetated tidal wetlands are located in proximity to the shoreline, with large areas of vegetated wetlands located south of Canvas Back Lane and west of Foster Path. Smaller fringes of vegetated tidal wetlands are located along the remainder of the shoreline.

The National Wetlands Inventory classifies the tidal portions of Weesuck Creek and Shinnecock Bay into the following categories:

- "E2EM5P" - Estuarine, Intertidal, Emergent, *Phragmites australis*, Irregularly Flooded
- "E2EM1P" – Estuarine, Intertidal, Emergent, Persistent, Irregularly Flooded
- "E2EM1Pd" – Estuarine, Intertidal, Emergent, Persistent, Irregularly Flooded, Partly Drained/Ditched
- "E2SS1P" – Estuarine, Intertidal, Scrub-Shrub, Broad-Leaved Deciduous, Irregularly Flooded
- "E1ABL" – Estuarine, Subtidal, Aquatic Bed, Subtidal
- "E1AB3L" – Estuarine, Subtidal, Aquatic Bed, Rooted Vascular, Subtidal
- "E1UBL" – Estuarine, Subtidal, Unconsolidated Bottom, Subtidal

The National Wetland Inventory descriptors suggest that areas of vegetated tidal wetlands, both disturbed and undisturbed, existing in proximity to the shoreline. Additionally, areas of submerged eelgrass exist within Shinnecock Bay (E1AB3L) which are key habitats for shellfish. The remainder of the tidal areas consist of deeper, open waters.

<u>Upland Habitats</u>
Pitch Pine-Oak forest has the lowest fire frequency of the pine barrens habitats defined by **Edinger *et al.* (2014)** and typically burns only once in several decades. The majority of each of the three areas consists of Pitch-Pine Oak forest, which is defined by **Edinger** (**2014**) as:

> *"… a mixed forest that typically occurs on well-drained, sandy soils of glacial outwash plains or moraines; it also occurs on thin, rocky soils of ridgetops. The dominant trees are pitch pine (Pinus rigida) mixed with one or more of the following oaks: scarlet oak (Quercus coccinea), white oak (Q. alba), red oak (Q. rubra), or black oak (Q. velutina). The relative proportions of pines and oaks are quite variable within this community type. Examples can range from having widely spaced pines that are often emergent above the oak canopy to a nearly pure stand of pines with only a few widely spaced oak trees. The shrub layer is well-developed with scattered clumps of scrub oak (Quercus ilicifolia) and a nearly continuous cover of low heath shrubs such as lowbush blueberries (Vaccinium pallidum, V. angustifolium) and black huckleberry (Gaylussacia baccata). The herbaceous layer is relatively sparse; characteristic species are bracken fern (Pteridium aquilinum var. latiusculum), wintergreen (Gaultheria procumbens), and Pennsylvania sedge (Carex pensylvanica). Characteristic*

birds with varying abundance include eastern towhee (Pipilo erythrophthalmus), common yellowthroat (Geothlypis trichas), field sparrow (Spizella pusilla), prairie warbler (Dendroica discolor), pine warbler (Dendroica pinus), and blue jay (Cyanocitta cristata). More data on characteristic fauna are needed."

There is an infestation of the Southern Pine Beetle on properties within East Quogue that is being monitored by the NYSDEC and CPBJPPC. This infestation has resulted in the loss of pitch pine trees on the subject property and in the area. Any lands impacted by this infestation remain natural; however, habitat is modified as a result of the loss of pitch pine trees, while other unaffected species remain. DLC has provided agency access for monitoring of the conditions and pro-actively supports control methods that may be sought by NYSDEC/CPBJPPC. The infestation is a pseudo-natural condition that is not caused by the development or any action by the landowner. DLC will continue to maintain contact with the agencies involved in this situation and will seek to assist as control measures are devised.

The pitch pine-oak forest encountered in each area is of excellent quality, with the exception of habitat edges that abut highly disturbed habitat types (such as brushy` cleared land, crops, and unvegetated areas). Much of this habitat is dominated by mature pitch pines, with a smaller percentage of mature scarlet oak and white oak. Scrub oak exists within this habitat in limited quantities. The understory is dominated by black huckleberry, with smaller quantities of wintergreen. Species present along the edges that require more light include bayberry, sweet fern, sheep laurel, and a variety of forbs/herbs. Striped wintergreen is encountered in small quantities in the interior of the forest. This habitat occupies the majority of each area, as it occupies 88.85 percent of the Hills South Parcel and Kracke Property, 98.39 percent of the Hills North Parcel and 83.03 percent of the Parlato Property.

Successional old field is the initial stage in the process of succession, which is the reversion of disturbed habitats to climax forest. The habitat generally supports a wide variety of weedy species that colonize readily, such as goldenrods, grasses, timothy, ragweed and asters. **Edinger et al. (2014)** defines an old field as "*a meadow dominated by forbs and grasses that occurs on sites that have been cleared or plowed (for farming or development), and then abandoned"*. Woody species may be present, but coverage by trees and shrubs is less than 50 percent as defined by **Edinger et al. (2014)**. Successional old field is encountered on the Hills South Parcel and Kracke Property. Species encountered in this habitat include bearberry, little bluestem, stiff aster, common yarrow, Pennsylvania sedge, and other forbs/herbs. Some shrubs exist within these areas, however, the coverage of shrubs occupies less than 50% of the habitat. Shrubs present include red cedar, pitch pine saplings, and bayberry. This habitat occupies 2.67 percent of the Hills South Parcel and Kracke Property.

Successional shrubland follows old field vegetation in the process of succession. The two habitats are similar in species composition; however, within the shrubland, woody species dominate rather than forbs and grasses. As defined by **Edinger et al.** (**2014**) a successional shrubland is "…a shrubland that occurs on sites that have been cleared (for farming, logging, development, etc.) or otherwise disturbed. This community has at least 50% cover of shrubs." Trees may be present, but occupy less than 40 percent of the canopy. The typical woody species in early successional habitats on Long Island are poison ivy, dogwood, red cedar, brambles, cherry, sumac and multiflora rose. Herbaceous species found in old field habitats are also likely

to be present. This habitat is encountered on the Kracke Property and Hills South Parcel. Species encountered in this habitat include red cedar, pitch pine saplings, bayberry, huckleberry, sweet fern, and Pennsylvania sedge. This habitat occupies 1.55 percent of the area, and is not encountered on the Parlato Property or Hills North Parcel.

Successional Southern Hardwood is classified as "*a hardwood or mixed forest that occurs on sites that have been cleared or otherwise disturbed. Characteristic trees and shrubs include any of the following: American elm (Ulmus americana), slippery elm (Ulmus rubra), white ash (Fraxinus americana), red maple*[s] *(Acer rubrum), box elder (Acer negundo), silver maple (Acer saccharinum), sassafras (Sassafras albidum), gray birch (Betula populifolia), hawthorns (Crataegus spp.), eastern red cedar (Juniperus virginiana), and choke-cherry (Prunus virginiana). Certain introduced species are commonly found in successional forests, including black locust (Robinia pseudo-acacia), tree-of-heaven (Ailanthus altissima), and buckthorn (Rhamnus cathartica). Any of these may be dominant or codominant in a successional southern hardwood forest. This is a broadly defined community and several seral and regional variants are known.* (**Edinger, 2014**)." This habitat is encountered on both the Hills South Parcel and Kracke Property, and Parlato Property. Species encountered in this habitat include black cherry, red cedar, black locust, sassafras and briars. While this habitat represents a mature woodland, it is generally of lower quality than that of pine-oak forests as the presence of invasive species is higher due to the previous disturbance that resulted in the formation of the habitat. 0.18 percent of Kracke Property and Hills South Parcel is occupied by this habitat, while only 0.35 percent of this habitat occupies the Parlato Property.

The final natural habitat present within the project area is defined as Red Maple-Blackgum Swamp. This habitat associated with the wetlands located on the Hills North Parcel. **Edinger, et al.** (**2014**) defines that habitat as follows:

> "*a maritime, coastal, or inland hardwood swamp that occurs in poorly drained depressions, sometimes in a narrow band between a stream and upland. Coastal plain examples have a shallow layer of acidic, well decomposed peat over saturated sandy loam or loamy sand. Inland examples usually occur on an acidic silt loam. Hummock-hollow microtopography is evident.*
>
> *Red maple (Acer rubrum) and blackgum (Nyssa sylvatica) are often codominant, or blackgum (Nyssa sylvatica) may be the dominant tree. Pitch pine (Pinus rigida) may occur on drier hummock islands in pine barrens settings. Yellow birch (Betula alleghaniensis) may be codominant in inland examples. The shrub layer is usually well developed.*
>
> *Characteristic shrubs are sweet pepperbush (Clethra alnifolia), highbush blueberry (Vaccinium corymbosum), swamp azalea (Rhododendron viscosum), fetterbush (Leucothoe racemosa), dangleberry (Gaylussacia frondosa), and on the coastal plain, inkberry (Ilex glabra). Vines such as common greenbrier (Smilax rotundifolia), sawbrier (Smilax glauca), Virginia creeper (Parthenocissus quinquefolia), and poison ivy (Toxicodendron radicans) are present in the understory.*
>
> *The herbaceous layer is not particularly diverse, characterized by cinnamon fern (Osmunda cinnamomea), skunk cabbage (Symplocarpus foetidus), and on the coastal plain by netted chain fern (Woodwardia areolata). The nonvascular layer may or may not be well developed.*

Characteristic nonvascular species are peat mosses (Sphagnum spp.) with S. girgensohnii occurring in more inland examples. More data may support the future recognition of inland and coastal plain variants of this community. Data on characteristic fauna are needed."

The wetland encountered on the Hills North Parcel is of excellent quality and are most likely vernal features. Species encountered in this habitat include red maple, black gum, highbush blueberry, greenbriar and sphagnum moss. No egg masses or larvae were observed in either feature during inspection. The wetland is relatively undisturbed, with the exception of use by wildlife. This habitat occupies 1.61 percent of the Hills North Parcel.

The remaining habitats present within the project area include Brushy Cleared Land, Crops associated with nursery stock and Unvegetated areas. Brushy Cleared Land is encountered on the Kracke Property and occupies 0.91 percent of the Kracke Property and Hills South Parcel. This habitat is defined as "*a former forest, woodland, or shrubland that has been clearcut or cleared by brush-hog. The cut stumps of trees and shrubs are evident and usually common. There may be a lot of woody debris such as branches and slashings from trees that were logged. Vegetation is patchy, with scattered herbs, shrubs, and tree saplings. The amount of vegetative cover probably depends on soil fertility and the length of time since the land was cleared.*" This area is highly disturbed and is comprised of vegetative debris, including mulch, woodchips and stumps and is primarily covered by Japanese knotweed and mile-a-minute vine, both highly invasive species. Tree of heaven (also invasive) is present along the edges of the habitat. Little to no native vegetation is present in this disturbed area. Unvegetated areas are comprised of sandy parent soils which have been exposed and remain exposed due to ATV use throughout the property. No unique or critical habitats or stands of vegetation were identified on site.

Table 2-10 presents a list of vegetation observed or expected on site given the habitats present. Site inspections of various parts of the sites were conducted on the following dates: May 4 & 5, 2005, December 2, 2008, February 25, 2009, March 24 & 25, 2009, October 15, 2009, May 30, 2014, June 24, 2014, July 22, 2014, September 26, 2014, and April 15, 2015. Care was taken to identify the presence/absence of rare, threatened or endangered species in the appropriate habitat settings. Inspections were performed by Charles Voorhis, Lara Urbat, Sara Quintal, and Colin Greenwood. Qualifications of NP&V staff that inspected the subject parcel are included in **Appendix M-2**.

Table 2-10
VEGETATIVE SPECIES

Trees

Site		**Common Name**	**Scientific Name**
HN	*	red maple	*Acer rubrum*
K	*	tree of heaven	*Ailanthus altissima [i]*
HS	*	American holly	*Ilex opaca*
K, HS, HN, P	*	eastern red cedar	*Juniperus virginiana*
HS	*	crabapple	*Malus spp.*
HS	*	wax myrtle	*Morella cerifera*
HN	*	blackgum	*Nyssa sylvatica*
K, HS, HN, P	*	pitch pine	*Pinus rigida*
K	*	sycamore	*Platanus occidentalis*

K, HS, P	*	black cherry	*Prunus serotina*
K, HS, HN, P	*	white oak	*Quercus alba*
K, HS, HN, P	*	scarlet oak	*Quercus coccinea*
HS	*	scrub (bear) oak	*Quercus ilicifolia*
K, HS, HN, P	*	blackjack oak	*Quercus marilandica*
HS	*	pin oak	*Quercus palustris*
K, HS, HN, P	*	northern red oak	*Quercus rubra*
HS, P	*	black oak	*Quercus velutina*
K, P	*	black locust	*Robinia pseudoacacia [i]*
K, HS	*	sassafras	*Sassafras albidum*

Shrubs and Vines

K	*	porcelain berry	*Ampelopsis brevipedunculata [i]*
HS	*	Japanese barberry	*Berberis thunbergii [i]*
K, HS, P	*	Oriental bittersweet	*Celastrus orbiculatus*
HN	*	sweet pepperbush	*Clethra alnifolia*
HS, HN	*	Sweet fern	*Comptonia peregrina*
P	*	autumn olive	*Elaeagnus umbellate [i]*
K, HS	*	black huckleberry	*Gaylussica baccata*
HS	*	wooly hudsonia	*Hudsonia tomentosa*
HS	*	inkberry	*Ilex glabra*
HS, HN	*	sheep laurel	*Kalmia angustifolia [p]*
K, HS, P	*	Japanese honeysuckle	*Lonicera japonica [i]*
HS	*	Morrow's honeysuckle	*Lonicera morrowii [i]*
HS, HN, P	*	northern bayberry	*Myrica pensylvanica [p]*
HS	*	Virginia creeper	*Parthenocissus quinquefolia*
K	*	mile-a-minute vine	*Persicaria perfoliata [i]*
HS	*	staghorn sumac	*Rhus typhina*
HS, P	*	multiflora rose	*Rosa multiflora [i]*
K, HS, HN, P	*	common greenbriar	*Smilax rotundifolia*
K, P	*	poison ivy	*Toxicodendron radicans*
HN	*	high bush blueberry	*Vaccinium corymbosum*
K, HS, HN, P	*	low bush blueberry	*Vaccinium angustifolium*
K	*	viburnum	*Viburnum dentatum*
K	*	grape	*Vitis sp.*
K	*	Japanese wisteria	*Wisteria floribunda*

Herbs and Ground Covers

HS	*	common yarrow	*Achillea millefolium*
K	*	tickle grass	*Agrostis hyemalis*
HS	*	garlic mustard	*Alliaria petiolata [i]*
K, HS	*	ragweed	*Ambrosia artemisiifolia*
K, HS	*	little bluestem	*Andropogon scoparius*
HN, P	*	broom sedge	*Andropogon virginicus*
K, HS	*	bearberry	*Arctostaphylos uva-ursi*
K, HS, P	*	mugwort	*Artemisia vulgaris [i]*
HS, P	*	common milkweed	*Asclepias syriaca*
K	*	butterfly weed	*Asclepias tuberosa*
HS	*	stiff aster	*Aster linarifolius*
K, HS, P	*	wild indigo	*Baptisia tinctoria*
K, HS, HN	*	Pennsylvania sedge	*Carex pennsylvanica*
HS	*	striped wintergreen	*Chimaphila maculate [p]*
HS	*	Maryland golden aster	*Chrysopsis mariana*
K, HN	*	British soldiers lichen	*Cladonia cristatella*
HS, HN, P	*	reindeer moss	*Cladonia rangiferina*

P	*	yellow nut sedge	*Cyperus esculentus*
HS	*	Jimson weed	*Datura stramonium*
K, HS	*	Queen Anne's Lace	*Daucus carota*
K	*	deer tongue grass	*Dichanthelium clandestinum*
K, P	*	hyssop leaved boneset	*Eupatorium hyssopifolium*
K, HS, P	*	cypress spurge	*Euphorbia cyparissias [i]*
K	*	Japanese knotweed	*Fallopia japonica [i]*
HS, HN	*	wintergreen	*Gaultheria procumbens [p]*
P	*	path rush	*Juncus tenuis*
P	*	round headed bush clover	*Lespedeza capitata*
P	*	yellow wood sorrel	*Oxalis stricta*
HS, P	*	blue toadflax	*Nuttallanthus canadensis*
HS	*	switchgrass	*Panicum virgatum*
K	*	pokeweed	*Phytolacca americana*
HS	*	lance-leaved plantain	*Plantago lanceolata*
HS	*	racemed milkwort	*Polygala polygama*
HS	*	common cinquefoil	*Potentilla simplex*
K, HS, HN	*	bracken fern	*Pteridium aquilinum*
HS, P	*	common dewberry	*Rubus flagellaris*
K	*	wineberry	*Rubus phoenicolasius [i]*
HS, P	*	field sorrel	*Rumex acetosella*
HS	*	crown vetch	*Securigera varia*
K, P	*	green foxtail	*Setaria viridis*
HS	*	goldenrod	*Solidago sp.*
HS	*	rough stemmed goldenrod	*Solidago rugosa*
K, P	*	slender leaved goldenrod	*Solidago tenuifolia*
HN	*	sphagnum	*Sphagnum spp.*
HS	*	Lamb's ear	*Stachys byzantine*
K, HS, P	*	heath aster	*Symphyotrichum ericoides*
K	*	purple top	*Tridens flavus*
P	*	rabbit foot clover	*Trifolium arvense*
P	*	yellow hop clover	*Trifolium aureum*
K	*	common mullein	*Verbascum thapsus*
HS	*	vetch spp.	*Vicia spp.*

Site species identified on: K – Kracke, HN – Hills North, HS – Hills South, P - Parlato
* Species identified on site during field visits by NPV Staff.
[i] NYS invasive species
[p] NYS protected plant

Wildlife

Relatively few wildlife species were observed on site, although it is expected that the property should support a number of wildlife species common to forested and successional habitats. Species that avoid humans, and/or those that are sensitive to development may also be present on undisturbed portion of the three areas, and in disturbed areas (such as the agricultural uses on the Kracke and Parlato properties) though in lesser numbers. It is noted that the disturbance that has occurred within the open areas, including ATV use, dirt bikes and hunting activities, may currently have an impact on wildlife that would otherwise utilize these areas. Further detail regarding potential wildlife on site and adaptability to a change in habitat is provided in **Appendix M-3**.

Avian species which might be expected on the property include a variety of woodpeckers, wrens, titmice, nuthatches, creepers, flycatchers, swallows, warblers, corvids, orioles and blackbirds,

doves, starling, grosbeaks, finches, towhees, juncos, and sparrows. During the warmer months, a variety of warblers may also migrate into the area. A limited number of game birds such as the ring-necked pheasant, ruffed grouse and bobwhite may also be present, and owls and raptors may use the site for hunting and may breed in the surrounding areas. Data from the 2005 Breeding Bird Survey for the census block which contains the site was obtained from the New York State Department of Environmental Conservation (**Appendix M-4)**. This study surveyed the entire State by 25 km² census blocks over a five year period (2000 to 2004) to determine the bird species which breed within the State. Most of the species listed by the DEC breeding bird survey are likely to be found on site, with the exception of species common to habitats not found on site. Additionally, the Christmas Bird Count data was reviewed for the Quogue-Watermill survey area, a copy of which is provided in **Appendix M-5**. Several of the species listed in the Christmas Bird count would be anticipated to occur on site and may utilize the site as wintering habitat, with the exception of species common to habitats not present on the site. **Table 2-11** is a list of the bird species observed or expected on site given the habitats present and is also based upon field investigations conducted by NP&V.

Table 2-11
BIRD SPECIES LIST

Site		Common Name	Scientific Name
HS	*	Cooper's Hawk	*Accipiter cooperii [s]*
		Northern Goshawk	*Accipiter gentilis [w]*
		Sharp-shinned Hawk	*Accipter striatus*
		Red-winged Blackbird	*Agelaius phoeniceus*
		Grasshopper Sparrow	*Ammodramus savannarum [s]*
		Ruby-throated Hummingbird	*Archilochus colubris*
HS	*	Tufted Titmouse	*Baeolophus bicolor*
		Upland Sandpiper	*Bartramia longicauda [t]*
		Cedar Waxwing	*Bombycilla cedrorum*
		Great Horned Owl	*Bubo virginianus*
HS	*	Red-tailed Hawk	*Buteo jamaicensis*
		Broad-winged Hawk	*Buteo platypterus*
		Green Heron	*Butorides virescens*
		Chuck-will's-widow	*Caprimulgus carolinensis*
		Whip-poor-will	*Caprimulgus vociferous [s]*
HS	*	Northern Cardinal	*Cardinalis cardinalis*
		House Finch	*Carpodacus mexicanus*
		Veery	*Catharus fuscescens*
		Hermit Thrush	*Catharus guttatus*
		Brown Creeper	*Certhia americana*
		Chimney Swift	*Chaetura pelagica*
		Killdeer	*Charadrius vociferus*
		Northern Harrier	*Circus cyaneus [t]*
		Yellow-billed Cuckoo	*Coccyzus americanus*
		Black-billed Cuckoo	*Coccyzus erythropthalmus*
		Northern Flicker	*Colaptes auratus*
		Northern Bobwhite	*Colinus virginianus*
		Rock Pigeon	*Columba livia*
		Eastern Wood-Pewee	*Contopus virens*
K, HS, HN, P	*	American Crow	*Corvus brachyrhynchos*
K, HS	*	Blue Jay	*Cyanocitta cristata*
		Yellow-rumped warbler	*Dendroica coronate [w]*

		Prairie Warbler	*Dendroica discolor*
		Yellow-throated Warbler	*Dendroica dominica*
		Chestnut-sided Warbler	*Dendroica pensylvanica*
		Yellow Warbler	*Dendroica petechia*
HN	*	Pine Warbler	*Dendroica pinus*
		Gray Catbird	*Dumetella carolinensis*
		Willow Flycatcher	*Empidonax traillii*
		Acadian Flycatcher	*Empidonax virescens*
		American Kestrel	*Falco columbarius*
		Common Yellowthroat	*Geothlypis trichas*
		Purple Finch	*Haemorhous purpureus*
		Worm-eating Warbler	*Helmitheros vermivorum*
		Barn Swallow	*Hirundo rustica*
		Wood Thrush	*Hylocichla mustelina*
		Baltimore Oriole	*Icterus galbula*
		Orchard Oriole	*Icterus spurius*
		Lapland Longspur	*Calcarius lapponicus [w]*
		Eastern Screech-Owl	*Megascops asio*
		Red-bellied Woodpecker	*Melanerpes carolinus*
HS, HN	*	Wild Turkey	*Meleagris gallopavo*
		Song Sparrow	*Melospiza melodia*
P	*	Northern Mockingbird	*Mimus polyglottos*
		Black-and-white Warbler	*Mniotilta varia*
HS	*	Brown-headed Cowbird	*Molothrus ater*
		Great Crested Flycatcher	*Myiarchus crinitus*
		Yellow-crowned Night-Heron	*Nyctanassa violacea*
		Black-crowned Night-Heron	*Nycticorax nycticorax*
		Northern Parula	*Parula americana*
		House Sparrow	*Passer domesticus*
		Indigo Bunting	*Passerina cyanea*
		Ring-necked Pheasant	*Phasianus colchicus*
		Rose-breasted Grosbeak	*Pheucticus ludovicianus*
		Downy Woodpecker	*Picoides pubescens*
		Hairy Woodpecker	*Picoides villosus*
HS	*	Eastern Towhee	*Pipilo erythrophthalmus*
		Scarlet Tanager	*Piranga olivacea*
		Summer Tanager	*Piranga rubra*
HS, HN, P	*	Black-capped Chickadee	*Poecile atricapillus*
HS	*	Blue-gray Gnatcatcher	*Polioptila caerulea*
		Purple Martin	*Progne subis*
		Prothonotary Warbler	*Protonotaria citrea*
HS	*	Common Grackle	*Quiscalus quiscula*
		Ruby-crowned Kinglet	*Regulus calendula*
		Golden-crowned Kinglet	*Regulus satrapa*
		American Woodcock	*Scolopax minor*
		Ovenbird	*Seiurus aurocapilla*
		American Redstart	*Setophaga ruticilla*
P	*	Eastern bluebird	*Sialia sialis*
		Red-breasted Nuthatch	*Sitta canadensis*
		White-breasted Nuthatch	*Sitta carolinensis*
		Pine Siskin	*Spinus pinus [w]*
		American Goldfinch	*Spinus tristis*
		American Tree Sparrow	*Spizella arborea [w]*
HS, P	*	Chipping Sparrow	*Spizella passerina*
		Field Sparrow	*Spizella pusilla*

HN	*	Yellow-bellied sapsucker	*Sphyrapicus varius*
		European Starling	*Sturnus vulgaris*
		Tree Swallow	*Tachycineta bicolor*
		Carolina Wren	*Thryothorus ludovicianus*
		Brown Thrasher	*Toxostoma rufum*
		House Wren	*Troglodytes aedon*
		Winter Wren	*Troglodytes hiemalis [w]*
HS, HN	*	American Robin	*Turdus migratorius*
P	*	Eastern Kingbird	*Tyrannus tyrannus*
		Barn Owl	*Tyto alba*
		Blue-winged Warbler	*Vermivora pinus*
		Yellow-throated Vireo	*Vireo flavifrons*
		White-eyed Vireo	*Vireo griseus*
		Red-eyed Vireo	*Vireo olivaceus*
		Canada Warbler	*Wilsonia canadensis*
		Hooded Warbler	*Wilsonia citrina*
HS	*	Mourning Dove	*Zenaida macroura*
		White-throated Sparrow	*Zonotrichia albicollis [w]*
		White-crowned Sparrow	*Zonotrichia leucophrys [w]*

Site species identified on: K – Kracke, HN – Hills North, HS – Hills South, P - Parlato
[s] NYS Special concern species
[t] NYS Threatened species
[w] Species that may utilize the site as wintering habitat only
* Species identified on site during field visits by NP&V Staff.

A variety of small mammals would also be expected and include the eastern chipmunk, house mouse, white-footed mouse, Norway rat, eastern mole, short-tailed shrew, masked shrew, and meadow vole (see **Table 2-12**). Of the larger mammals, the Virginia opossum, fox and raccoon and white-tailed deer would also be expected to utilize the property, although in somewhat lesser numbers than smaller mammals. Several bat species may also be present on site and in the general area. A white tailed deer was observed on the Hills North and Hills South Parcels during NP&V site visits.

The areas exhibit a wide variety of terrestrial habitats, and the Hills North Parcel contains freshwater wetlands, and as a result, it is expected that the site should support a variety of terrestrial species and the Hills North Parcel will also support aquatic species (see **Table 2-13**). The spadefoot toad is expected, as it is found in upland habitats, and the Fowler's toad might also be present. The red-backed salamander is the most common salamander on Long Island, and is highly terrestrial. It prefers a dry woodland habitat with plenty of leaf litter and fallen logs to forage for insects **(Bishop, 1943)**, and generally lays its eggs in clumps on damp logs or moss (**Conant and Collins, 1991**). The most likely reptiles to be present on site are the colubrid snakes, including the eastern garter snake, eastern hognose snake, and eastern milk snake. The only turtle species common to terrestrial habitats on Long Island is the eastern box turtle, which requires very little water **(Obst, undated)**. Painted turtles may utilize the wetland area found on the Hills North Parcel. No reptile or amphibian species were observed during NP&V site visits, nor were egg masses observed in the freshwater wetlands on the Hills North Parcel.

Table 2-12
MAMMAL SPECIES LIST

Site		Common Name	Scientific Name
		short-tailed shrew	*Blarina breuicauda*
		star-nosed mole	*Condylura cristata*
		least shrew	*Cryptotis parva*
		Virginia opossum	*Didelphis virginiana*
		big-brown bat	*Eptesicus fuscus*
		southern-flying squirrel	*Glaucimys volans*
		silver-haired bat	*Lasionycteris noctivagans*
		hoary bat	*Lasiurus cinereus*
		red bat	*Lasiurus borealis*
		woodchuck	*Marmota monax*
		striped skunk	*Mephitis mephitis*
		meadow vole	*Microtus pennsylvanicus*
		pine vole	*Microtus pinetorum*
		house mouse	*Mus musculus*
		long-tailed weasel	*Mustela frenata*
		mink	*Mustela vison*
		Keen's bat	*Myotis keenii*
		little-brown bat	*Myotis lucifugus*
		northern long-eared bat	*Myotis septentrionalis [t]*
HS, HN	*	white-tailed deer	*Odocoileus virginianus*
		muskrat	*Ondarta zibethicus*
		white-footed mouse	*Peromyscus leucopus*
		Eastern pipistrelle	*Pipistrellus subflavus*
		racoon	*Procyon lotor*
		Norway rat	*Rattus norvegicus*
		black rat	*Rattus rattus*
		Eastern mole	*Scalopus aquaticus*
		Eastern gray squirrel	*Sciurus carolinensis*
		masked shrew	*Sorex cinereus*
		Eastern cottontail	*Sylvilagus floridanus*
		Eastern chipmunk	*Tamis striatus*
		red fox	*Vulpes vulpes*
		meadow-jumping mouse	*Zapus hudsonicus*

Site species identified on: K – Kracke, HN – Hills North, HS – Hills South, P - Parlato
[t] Federally threatened species
*species observed by NP&V staff

Table 2-13
AMPHIBIAN & REPTILE SPECIES

Site		Common Name	Scientific Name
Amphibians			
		spotted salamander	*Ambystoma maculatum*
		marbled salamander	*Ambystoma opacum[s]*
		Fowler's toad	*Bufo woodhousei fowleri*
		spring peeper	*Hyla crucifer*
		common gray treefrog	*Hyla versicolor*
		red-spotted newt	*Notophthalmus viridescens*
		red-backed salamander	*Plethodon cinerus cinerus*
		bull frog	*Rana catesbeiana*
		green frog	*Rana clamitans*
		wood frog	*Rana sylvatica*
		Eastern spadefoot toad	*Scaphiopus holbrooki [s]*
Reptiles			
		painted turtle	*Chrysemys picta*
		Northern ringneck snake	*Diadophis punctatus*
		eastern hognose snake	*Heterodon platyrhinos [s]*
		eastern milk snake	*Lampropettis d. triangulum*
		Northern water snake	*Natrix sipedon sipedon*
		Northern brown snake	*Storeria dekayi*
HS	*	Eastern box turtle	*Terrepene carolina [s]*
		Eastern ribbon snake	*Thamnophis s. sauritus*
		Eastern garter snake	*Thamnophis sirtalis*

Site species identified on: K – Kracke, HN – Hills North, HS – Hills South, P - Parlato
[s] NYS special concern species
* Species identified on site during field visits by NPV Staff

Rare, Threatened and Endangered Species/Unique Habitat Potential

The New York Natural Heritage Program (NHP) was contacted to determine whether any records of rare, threatened or endangered species or communities are known to exist on or in the vicinity of the subject site. Correspondence from the NHP (see **Appendix M-6**) indicated the presence of one special concern moth, one threatened dragonfly/damselfly, three rare dragonflies/damselflies, two uncommon communities, two rare communities, one endangered plant and one threatened plant in the vicinity of the subject site. Two historical records of threatened plants were also noted within the vicinity of the site. The majority of the records listed by the NHP require wetland areas with open water, which are not present on the subject sites. Of the species identified, the moth, one rare community and one historical plant are upland species. Additionally, it is noted that the northern long-eared bat was recently federally listed as a threatened species. Inspections for these species were conducted in accordance with the Town approved methodology provided in **Appendix M-1**. Species details were reviewed prior to field visits, and a conscious effort was made during each field visit to look for listed species during the random transects conducted across the property. Habitat requirements and site suitability of the species is described below.

Plants - Collins' Sedge (*Carex collinsii*) is an endangered forb/herb identified at Sears Pond in 1990. This species requires sphagnum swamps for survival and propagation, and is most often

identified in association with Atlantic white cedar. While some sphagnum does exist within the Hills North Parcel wetlands, no Atlantic white cedar was identified within the wetland habitat. As a result, the likelihood of occurrence of this species is reduced for the Hills North Parcel. This species was not observed during any of the site visits, nor is it expected due to the presence of only marginally suitable habitat on the Hills North Parcel.

Atlantic White Cedar (*Chamaecyparis thyoides*) is a threatened tree identified at Sears Pond in 1997. This species requires swamps and ponds, and particularly favors areas with a high water table and deep organic soils. Although some suitable habitat exits on the Hills North Parcel, this species was not identified in association with the wetland and is not expected to occur on the remainder of the project site.

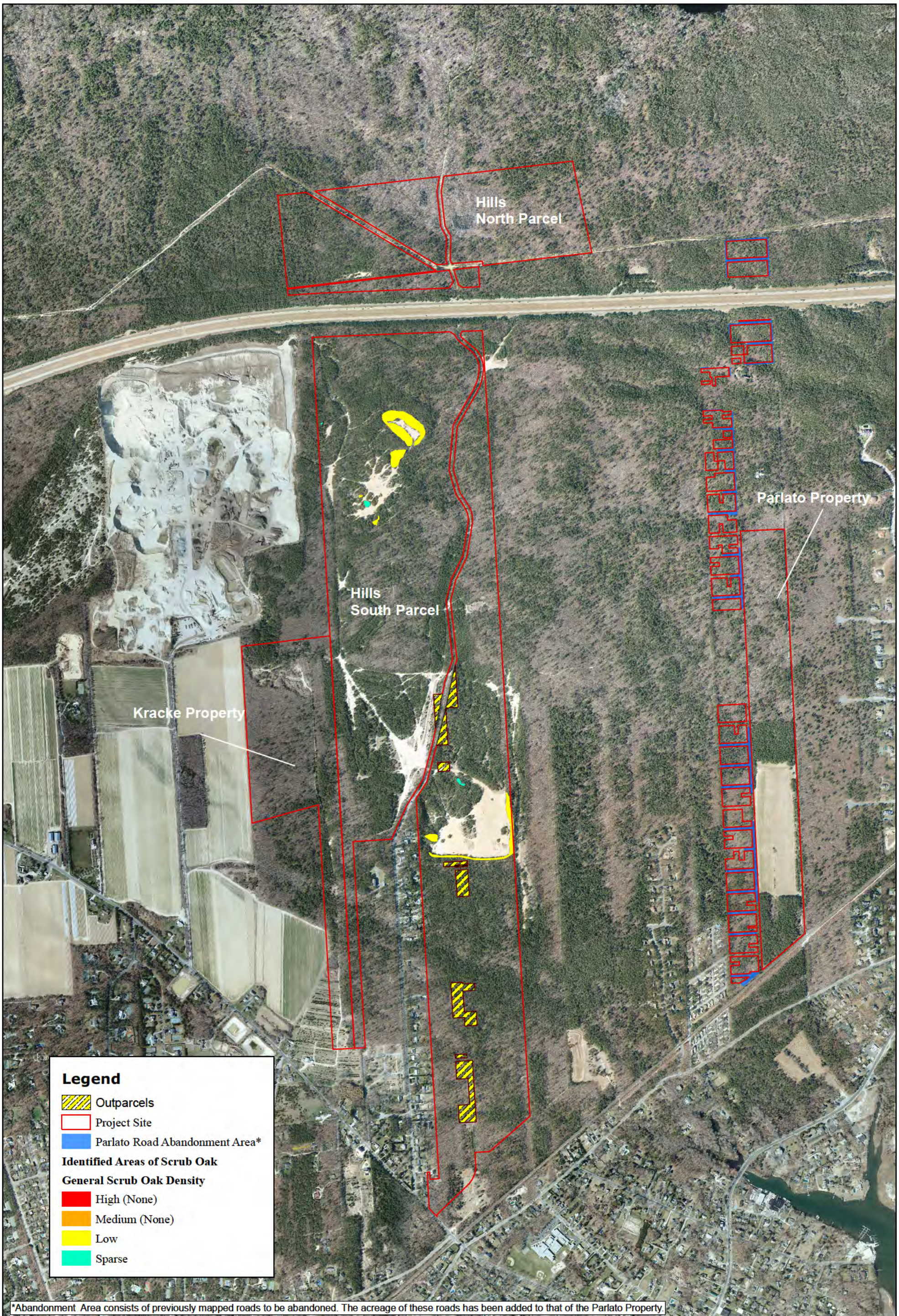
Rough Hedge-nettle (*Stachys hyssopifolia*) is a threatened forb/herb of wetlands with historical records from the NHP in the vicinity of the subject site. Suitable habitat (coastal plain ponds and open wet sandy areas) does not exist on the subject site and as a result is not expected on the subject site due to its historical nature, nor was it identified during site visits.

Great Plains Flatsedge (*Cyperus lupulinus ssp. luplinus*) is a terrestrial forb/herb with historical records from the NHP in the vicinity of the subject site. Although suitable habitat for this species exists on site (open, sandy areas) this species is not expected on the subject site due to its historical nature, nor was it identified during site visits.

Moths, Dragonflies and Damselflies - The Coastal Barrens Buckmoth (*Hemileuca maia ssp. 5*) is a terrestrial species identified by the NHP. The buck moth has been used as an indicator species for pine barrens communities, and is a "Species of Special Concern" in New York State. The NHP lists the buck moth as present in the vicinity of the project area as recently as 1984.

The buck moth (*Hemileuca maia*) is a diurnal moth found exclusively in pine barrens habitat, and prefers areas of open Pine Barrens which have burned within the past 20 years **(Cryan, 1985)**. Important host plants to the developing caterpillars include the scrub oak (*Quercus ilicifolia*) and dwarf chestnut oak (*Quercus prinoides*). The moth prefers areas where these trees are less than 10 feet in height for both food and reproduction **(Dirig and Cryan, 1977)**. Scrub oaks of up to 10 feet in height are present on this site, but there are only limited areas where the species is found in small clusters. Investigations to determine the presence and density of scrub oak on the Hills South Parcel was performed in 2008. A map detailing the findings of this report is included as **Figure 2-13**. As illustrated, few areas of scrub oak were identified, and densities present within the site were considered “sparse” or “low,” which is generally not suitable for buck moth. Nonetheless, site inspections were conducted in 2008, 2009 and 2014 to identify the presence/absence of the species. No significant occurrences of scrub oak were identified on the Kracke Property.

Buck moths can be identified in the field in one of three ways: by the detection of larval caterpillars in May and June during which time they feed on the unfolding leaves of their host plant; by detection of adults in flight during autumn; and by detection of egg masses deposited on the twigs of their host plants. Unlike most moths, the buck moth mates in the fall and overwinters in the egg stage rather than as a pupa. The eggs are laid in a tight spiral on the twigs of scrub oaks, and are identifiable during the winter months. No egg masses were observed on



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 2-13
SCRUB OAK MAP

Source: NYS Orthoimagery, 2013 ; NP&V

Scale: 1 inch = 1,000 feet

N

The Hills at Southampton

Draft EIS

the oaks at the project site during the 2008 and 2014 site visits. Site visits were conducted in 2009 by a recognized expert in moths and other lepidoptera, whose report is attached (**Appendix M-7**). As indicated in the report, the site was investigated and compared to a site with known buck moth activity. No evidence of the buck moth was observed during the field investigations of the site, nor did any buck moth appear when lured by pheromone emitting females. As a result of the findings in the report, the field visits, and the general lack of suitable habitat for this species, this species is not expected to utilize the Hills South Parcel.

Scarlet bluets (*Enallagma pictum*) is a threatened damselfly identified within a half mile of the project site. This species requires ponds with water lilies (**NYNHP, 2013**). While wetlands with ponded areas are present on the Hills North Parcel, water lilies were not present within this habitat and as such, no suitable habitat for this species is present within the project area. As habitat is not present for this species, impacts to this species as a result of the proposed project will not occur.

New England bluets (*Enallagma laterale*) is an unlisted, rare damselfly identified at Sears Pond in 2006, which is located north east of the project area. This species requires ponds with emergent vegetation or boggy edges (**NYNHP, 2013**). While wetlands with ponded areas are present on the Hills North Parcel, emergent vegetation or bogs were not present within this habitat and as such, no suitable habitat for this species is present within the project area. As habitat is not present for this species, impacts to this species as a result of the proposed project will not occur.

Mantled basekettail (*Epitheca semiaquea*) is an unlisted, rare dragonfly identified at Sears Bellows wetlands in 2008, which is located north east of the project area. This species requires lakes and ponds with clear water (**NYNHP, 2013**). While wetlands with ponded areas are present on the Hills North Parcel, significant areas of clear water were not present within this habitat and as such, no suitable habitat for this species is present within the project area. As habitat is not present for this species, impacts to this species as a result of the proposed project will not occur.

Golden-winged skimmer (*Libellula auripennis*) is an unlisted, rare dragonfly identified at Sears Pond in 2006, which is located north east of the project area. This species requires coastal plain ponds (NYNHP, 2013). While wetlands with ponded areas are present on the Hills North Parcel, a coastal plain pond was not present within this habitat and as such, no suitable habitat for this species is present within the project area. As habitat is not present for this species, impacts to this species as a result of the proposed project will not occur.

Mammals - The northern long-eared bat was recently listed by the US Fish and Wildlife Service (USFWS) as a threatened species. This species requires woodland habitat for foraging with open areas between either the shrub layer or sub canopy layer and the canopy. Roosting habitat requires trees with peeling bark or snags, and will more rarely utilize structures for roosting. Locally, habitat for hibernation includes structures that provide some insulation from the winter temperatures. Habitat for roosting and foraging is present on the subject site, however, habitat for hibernation is not present on the site as no structures exist on the site. As a result, there is potential for this species to utilize the site for maternity roosting and foraging activities.

Significant Natural Communities - Pine Barrens Shrub Swamp habitat associated with Sears Bellows wetlands are a high quality occurrence of an uncommon community type as identified by the NYNHP. This community is characterized by shrub dominated wetlands which often represents a transition zone between a coastal plain pond and an upland community. While high bush blueberry is present in the wetlands on the Hills North Parcel, it is not the predominant species within the habitat. This community is not present within the project area, and as such will not be impacted by the proposed project.

Highbush Blueberry Bog-thicket is a peatland dominated by deciduous shrubs and peat mosses, with highbush blueberry as the dominant shrub. This community was associated with wetlands at Sears Bellows and is considered a high quality occurrence of an uncommon community type by the NYNHP. While high bush blueberry is present in the wetlands on the Hills North parcel, it is not the predominant species within the habitat and the areas occupied by blueberry are not peatlands. This community is not present within the project area, and as such will not be impacted by the proposed project.

Coastal Plain Pond Shore is a habitat identified by the NYNHP at Sears Pond as a high quality occurrence of a rare community type associated with Sears Pond. This habitat is comprised of the gently sloping shore of a coastal plain pond with fluctuating water levels. As a coastal plain pond is not present on the site, this community cannot be present on the site and as such will not be impacted by the proposed project.

Pitch Pine Oak-Heath Woodland (the terrestrial community identified by the NHP) is a rare community characterized by pitch pines and oaks with an understory of primarily scrub oaks and a few heath plants, such as blueberries and huckleberry. This community was not present on any of the subject sites as the understory is dominated by huckleberry. While scrub oak is present, it represents a minor component of the understory.

2.3.2 Anticipated Impacts

<u>Vegetation</u>
The impacts to the ecological resources of a project site are generally a direct result of clearing of natural vegetation, increase in human activity and associated wildlife stressors, and the resulting loss and fragmentation of wildlife habitat. The changes in habitat quantities are listed in **Tables 2-14a, 2-14b** and **2-14c**. **Table 2-14d** provides a summary of habitat changes across the entirety of the project site.

Table 2-14a
HABITAT QUANTITIES
Existing Conditions vs. Proposed Project – Kracke Property and Hills South Parcel

Coverage Type	Existing Conditions		Proposed Project		Change
	acres	% of site	acres	% of site	(acres)
Pitch Pine Oak	357.32	88.85%	241.67	60.09%	-115.65
Successional Southern Hardwood	0.72	0.18%	0.72	0.18%	0
Successional Shrubland	6.22	1.55%	3.41	0.85%	-2.81
Successional Old Field	10.78	2.67%	6.43	1.60%	-4.35
Crops	2.64	0.66%	0	0.00%	-2.64
Brushy Cleared Land	3.66	0.91%	0	0.00%	-3.66
Unvegetated	20.83	5.18%	2.3	0.57%	-18.53
Buildings/Impervious	0	0	24.57	6.11%	24.57
Landscaped (Fertilized)	0	0	10.53	2.62%	10.53
Landscaped (Unfertilized)	0	0	22.18	5.52%	22.18
Golf Course	0	0	78	19.39%	78
Revegetation Areas	0	0	7.84	1.95%	7.84
Ponds	0	0	4.52	1.12%	4.52
TOTALS	**402.17**	**100.00%**	**402.17**	**100.00%**	---

Table 2-14b
HABITAT QUANTITIES
Existing Conditions vs. Proposed Project – Hills North Parcel

Coverage Type	Existing Conditions		Proposed Project		Change
	acres	% of site	acres	% of site	(acres)
Pitch Pine Oak	85.52	98.39%	85.52	98.39%	0
Red Maple-Blackgum Swamp	1.40	1.61%	1.40	1.61%	0
TOTALS	**86.92**	**100.00%**	**86.92**	**100.00%**	---

Table 2-14c
HABITAT QUANTITIES
Existing Conditions vs. Proposed Project – Parlato Property

Coverage Type	Existing Conditions		Proposed Project		Change
	acres	% of site	acres	% of site	(acres)
Pitch Pine Oak	84.62	83.03%	84.62	83.03%	0
Successional Southern Hardwood	0.36	0.35%	0.36	0.35%	0
Crops	15.78	15.48%	0	0%	-15.78
Unvegetated	1.15	1.13%	1.15	1.13%	0
Successional Field/Restoration	0	0	15.78	15.48%	+15.78
TOTALS	**101.91**	**100.00%**	**101.91**	**100.00%**	---

Table 2-14d
HABITAT QUANTITIES
Existing Conditions vs. Proposed Project – Project Site

Total Project Area	Existing Coverage	Percent	Proposed Coverage	Percent	Change
Pitch Pine Oak	527.46	89.25%	411.81	69.68%	-115.65
Successional Southern Hardwood	1.08	0.18%	1.08	0.18%	0.00
Successional Shrubland	6.22	1.05%	3.41	0.58%	-2.81
Successional Old Field	10.78	1.82%	6.43	1.09%	-4.35
Crops	18.42	3.12%	0	0.00%	-18.42
Brushy Cleared Land	3.66	0.62%	0	0.00%	-3.66
Unvegetated	21.98	3.72%	3.45	0.58%	-18.53
Red Maple Blackgum Swamp	1.40	0.24%	1.4	0.24%	0.00
Buildings/Impervious	0.00	0.00%	24.57	4.16%	24.57
Landscaped (Fertilized)	0.00	0.00%	10.53	1.78%	10.53
Landscaped (Unfertilized)	0.00	0.00%	22.18	3.75%	22.18
Golf Course	0.00	0.00%	78	13.20%	78.00
Revegetation	0.00	0.00%	23.62	4.00%	23.62
Pond	0.00	0.00%	4.52	0.76%	4.52
TOTAL	**591.00**	**100.00%**	**591.00**	**100.00%**	

Based on the above table and as noted in **Section 1.6**, a total of 142.10 acres of the overall property (24.04%) will be cleared in addition to the existing cleared areas which total 44.06 acres. Conversely, 424.14 acres of the overall property (71.77% of the site) will remain undisturbed. The overall area to remain as open space is comprised of the following habitats:

Pitch Pine-Oak Forest	411.82 acres
Successional Southern Hardwood Forest	1.08 acres
Successional Shrubland	3.41 acres
Successional Old Field	6.43 acres
Red Maple-Blackgum Swamp	1.40
TOTAL	**424.14 acres**

In addition, 24.77 acres of currently disturbed area is proposed to be revegetated to natural conditions, further enhancing the open space area.

Although the majority of the habitats identified on site are considered high quality, much of the development area has been situated within existing disturbed areas an in proximity to existing disturbed areas where habitat values of lesser than that of the surrounding forest. In total, 411.82 acres of the Pitch-Pine Oak forest will be preserved, and is situated to preserve the less disturbed, higher quality areas of the community type.

As illustrated in the **Master Plan**, the proposed open space area to remain is contiguous with other existing open space habitats. As illustrated, the proposed open space will connect to the County parks to the north via the Hills North Parcel and a portion of the Parlato Property, and to

the east of the Hills South Parcel to Town and County owned land. Preservation of the Parlato Property will also connect to small areas of existing County owned land, further proving connected open space. In general, the layout of the proposed open space will provide connections to existing open space areas and therefore will provide contiguous areas of open space. Additionally, the preservation of the parcels will ensure that future open space remains unfragmented as these parcels will not be developable. It is noted that the site design looks to provide corridors for connectivity through the development area to further reduce fragmentation of the open space to be preserved.

Wetlands

The only wetlands located on the subject property are situated on the Hills North Parcel. As this area is slated for preservation, no impacts on these wetlands are anticipated. The project is 1,500 feet from the nearest freshwater wetlands located at the headwaters of Weesuck Creek, southeast of the site. Due to the planned on-site drainage practices, including drainage reserve areas, leaching pools, rain gardens, and the retention of two inches of stormwater on site, excess nutrients are not anticipated to leave the site which would thereby exacerbate harmful algal blooms and have an indirect impact on vegetation and fisheries. The proposed Grading and Drainage Plans (see Hydrology Report, **Appendix A-10**) demonstrate that stormwater will be retained on site based on Town and SWPPP design storm parameters, and no off-site wetlands or surface water impacts are expected. Due to the project's distance from the tidal portion of Weesuck Creek, direct impacts on vegetation and fisheries within the creek are not anticipated. In general, impacts to wetlands are not anticipated as a result of the proposed project.

Upland Habitats

Restoration of areas not proposed for development will occur in order to maximize natural habitat on the project site. These areas include areas previously cleared for agricultural related activities and as well as areas cleared as a result of ATV use on the Hills Property. As the agricultural related activity areas on both the Kracke and Parlato properties consist of larger, contiguous blocks of modified habitat, the approach to revegetation of these areas will differ from that of revegetation of areas on the Hills Property, which are more narrow and isolated in nature.

Revegetation of the cleared areas on the Kracke and Parlato properties will include a strategy that both restores native vegetation to the area and enhances habitat for grassland species. Restoration of grassland in these areas is ecologically beneficial for several reasons:

1. Restoration with a grassland community follows the natural stage of secondary succession following disturbance, which is establishment by grasses, forbs and herbs;
2. Grassland communities are on the decline in the United States, and a particular lack of this community type is present on Long Island. Creation of this community would provide habitat for species that depend upon open grassland areas for breeding and foraging;
3. It is more feasible to establish a viable grassland community on a shorter time scale than it is to establish a forested community type in a large area. Untended native grasslands will eventually succeed to shrubland and subsequently woodland.

Native, warm season grasses and appropriate forbs and herbs will be utilized in the restoration process. Grassland will be established with appropriate revegetation measures, including the use

of no-till drill seeding during the appropriate season (between May 15th and June 30th), an appropriate mowing regime, and a minimum of 5 years of maintenance and monitoring to ensure the establishment of a healthy grassland. As the project is located within the Central Pine Barrens, use of herbicides for control of invasive species would not be feasible and as such, only mechanical methods (physical removal) for invasive species control will be utilized.

In contrast to the large open areas on the Kracke and Parlato properties, cleared areas on the Hills Property that are not proposed for utilization by the development are smaller and more linear in nature. As some of these areas are currently experiencing succession and are surrounded by mature woodland, it is appropriate to aid succession such that a mature woodland will establish more quickly and complement the existing woodland surrounding the areas. This will be accomplished through the use of a mix of saplings, shrubs, and grasses. In particular, pitch pine will be planted in the openings in addition to shrubs such as bayberry and sweet fern. Pitch pine saplings obtained from NYSDEC's nursery will be utilized, and it is anticipated that a minimum of a #3 container will be utilized for bayberry and a #1 container will be utilized for sweet fern. Planting should occur in the fall or early spring to maximize the chance of revegetation success. If sufficient shade is available, scrub oak, white oak, scarlet oak, black oak, or red oak and shrubs such as low bush blueberry or huckleberry will be planted to increase diversity. It is anticipated that 2"–3" caliper oaks will be utilized, and a minimum of #3 containers for blueberry and huckleberry will be utilized. In order to prevent the establishment of invasive species in between the saplings and shrubs, a combination of mulch and seeding will be utilized to provide sufficient cover of exposed areas. **Appendix M-8** contains a conceptual revegetation plan which includes species size, spacing, and planting specifications. This restoration will serve to remove edge habitat and create contiguous blocks of woodland. As with the Kracke and Parlato properties, only mechanical methods will be utilized to control invasive species.

Wildlife

The proposed project limits clearing of existing natural vegetation to the maximum extent practicable and situates development within existing cleared areas wherever possible. Some clearing is needed in order to provide the proposed development program; however, clearing will conform to applicable clearing limitations under the Town of Southampton Central Pine Barrens Overlay District and the CPB CLUP, and large blocks of contiguous open space will remain. Proposed development and revegetation areas provide an opportunity for enhancement of site suitability for certain wildlife species.

While some displacement of wildlife due to the proposed development is unavoidable, several mitigation measures are proposed which will serve both to minimize impacts and mitigate the limited loss of habitat associated with the proposed project. Features inherent in the design of the project include limiting clearing for roadways to the minimum necessary to establish the roadway bed, and retaining trees and canopy adjacent to the roadway. This will serve to provide only a minor break in the habitat type and will continue to provide canopy habitat for wildlife. A variety of mitigation measures will be utilized for both avian species and bats. Grassland creation in disturbed areas on the Parlato and Kracke properties will provide essential habitat for a variety of avian species, and revegetation of other disturbed areas will reduce edge habitat and create contiguous woodland for interior species. Nest boxes for cavity nesting species will be installed in a variety of locations throughout the development. Of the species that may occur on

site, black capped chickadees, northern flickers, white breasted nuthatches, yellow bellied sapsuckers, European starling, red bellied woodpeckers, house wrens, tufted titmice, downy woodpeckers, hairy woodpeckers, purple martins, prothonotary warblers and Carolina wrens are all cavity nesting species that may utilized nest boxes. Northern bobwhite's, Eastern kingbird's, brown headed cowbird's, grasshopper sparrow's, northern harrier's and upland sandpiper's are species that may occur on the site that depend on grasslands, and therefore will benefit from grassland creation. It is recognized that the loss of 115.64 acres of existing woodland will result in a loss of habitat for migratory birds that may utilize the forest interior. It is anticipated that such species will continue to utilize the existing vacant and preserved woodland surrounding the site and as a result, impacts to migration patterns are anticipated to be minimal.

The majority of the site contains pitch pine, which is suitable habitat for the Southern Pine Beetle (*Dendroctonus frontalis*). The beetles burrow through the tree in various stages of its life cycle, by burrowing into the cambium (i.e., the living layer that produces phloem and xylem for nutrient and water transport) and interrupting the life and growth of the tree (**Clarke and Nowak, 2009**). The beetles also spread a fungus to the tree which blocks water flow through the tree (**Clarke and Nowak, 2009**). As a result, rapid tree death occurs once the pine beetle attacks a tree. While prevention of this species on site is impossible due to the large quantity of pitch pine on the subject site, proactive management may be feasible in coordination with the NYSDEC and CPBJPPC. The property owner has provided access for monitoring of the conditions and pro-actively supports control measures that may be sought by the NYSDEC/CPBJPPC. The infestation is a pseudo-natural condition that is not caused by the development or any action by the landowner. DLC will continue to maintain contact with the agencies involved in this situation and will seek to assist as control measures are devised.

Bats require locations for both summer roosting and winter hibernation. As caves are not present on Long Island, a variety of other habitat types are utilized by bats, including dead or dying trees and roofs of buildings. A variety of types of bat boxes will be installed throughout the property to act as roosts and hibernacula. Additionally, select trees that are cleared for development will be saved and placed in existing woodland areas to create snags that will serve as bat habitat for both roosting and foraging. Low lighting or directed lighting will be utilized where practicable so as to not impact foraging areas. Of the bats expected on site, the Eastern pipistrelle, little brown bat, Keen's bat, and big brown bat prefer to roost in structures and would be expected to utilize the bat boxes. The hoary bat, northern long-eared bat and the red bat prefer to roost in trees and as a result, these species would be expected to utilize the snags created in the natural woodland areas. **Appendix M-8** contains sample diagrams of bat boxes and associated installation and placement specifications.

<u>Rare and Endangered Species/Unique Habitat Potential</u>
As previously stated, the NHP identified the presence of one special concern moth, one threatened dragonfly/damselfly, three rare dragonflies/damselflies, two uncommon communities, two rare communities, one endangered plant and one threatened plant in the vicinity of the project area. None of these species were identified on the subject site. Additionally, habitat is present for the northern long-eared bat, which was recently listed as a federally threatened species.

Of the rare, threatened and endangered plants identified by the NYNHP, the wetland species have the greatest potential for occurring on the Hills North parcel. As such, no impacts are associated with the proposed development as the existing wetlands will be preserved and therefore will retain the habitat which these species would utilize, if present. The remaining vegetative species identified by the NYNHP have low potential for occurrence due to their historical nature, and as such, impacts associated with these species are not anticipated as a result of the proposed project.

Potential exists for the northern long-eared bat to utilize the site. Guidance from the USF&WS (**USF&WS, 2015**) and communication with the NYSDEC were utilized to determine potential impacts from the proposed project on the species. Generally, the guidance indicates the following:

- If known hibernacula are present, do not clear cut trees within ¼ mile of the hibernacula.
- If roost trees are identified, do not cut the roost tree during the bat maternity season, between June 1 and July 31.
- If roost trees are identified, do not clear cut within ¼ mile of the roost tree during the maternity season, between June 1 and July 31.

As no hibernacula are present on site, this condition does not apply. Due to the size of the site, identification of individual roost trees may be difficult and as a result, cutting of trees will not occur during the maternity season (June 1 to July 31) to ensure that pups are not impacted by construction activities. Additionally, 411.82 acres of existing natural woodland will be retained and will continue to provide suitable habitat for the species. As a result, impacts to this species as a result of the proposed development are mitigated through the use of the above described measures.

There are no other known rare or endangered wildlife species expected on the site given the habitats present, and analyses contained herein address anticipated impacts to expected species. As illustrated on the **Master Plan**, ±424.14 acres of existing natural habitat will be retained in order to continue to provide habitat for wildlife on site. In addition, buckmoth is not expected to utilize the property due to the lack of density of scrub oak of appropriate height preferred by buckmoth for breeding. As such, no impacts are anticipated with regards to rare, threatened or endangered wildlife species.

Exploitably vulnerable species are protected primarily because they are indiscriminately collected, rather than due to rarity within the State. Exploitably vulnerable plants identified on site include northern bayberry, sheep laurel and striped wintergreen. The presence of these plants would not preclude development of the site, as a property owner is permitted to remove exploitably vulnerable plant species from a site. Mitigation is inherent in the proposed project design through retention of large areas of contiguous natural open space in conformance with Pine Barrens clearing restrictions.

The Cooper's Hawk, whip-poor-will, eastern spadefoot toad, eastern hognose snake, marbled salamander, and eastern box turtle are the only species potentially expected on site that are listed as special concern species. Although there is documented concern about their welfare in New

York State, these species receive no additional legal protection under ECL 11-0535. This category is presented primarily to enhance public awareness of these species, which bear additional attention (**NYSDEC, 2007**). This DEIS provides an opportunity to understand the habitat needs and potential impacts to these species. Retention of significant areas of natural vegetation on the site will assist in diminishing potential impacts to these species.

Regulatory Requirements

As vegetated freshwater wetlands are not located within the development area, permits from the Town will not be required for project development. The NYSDEC has previously issued a non-jurisdiction determination for the swale that crosses the property that formerly served as the headwaters for Weesuck Creek, a copy of which is provided in **Appendix M-9**. As a result, an Article 24 Freshwater Wetlands permit is not required from the NYSDEC for site development. It is noted that since suitable summer roosting and maternity habitat is present for the federally threatened northern long-eared bat, Section 7 consultation with the USF&WS and consultation with the NYSDEC may be required prior to the commencement of site development. If it is determined that such consultations are required, these will be initiated prior to site development; it is anticipated that the mitigation measures identified above will result in compliance with regulations for the protection of the species.

2.3.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- Native plant species that provide food and shelter to wildlife will be utilized in the landscaped areas.
- The loss of 122.80 acres of Pitch Pine-Oak forest, Successional Shrubland and Successional Old Field habitat on the property will be partially mitigated by the preservation of approximately 424.14 acres of the existing natural habitats as demonstrated by the **Master Plan**.
- 24.77 acres of existing cleared and unvegetated area will be revegetated to native forest or native grassland.
- Clearing activities will not occur between June 1 and July 31 in order to avoid potential impacts to the northern long eared bat during the maternity season.
- Disturbance will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing and to provide continuous canopy habitat where feasible.
- Nest boxes for cavity nesting birds and bat boxes for roosting and hibernating nesting bats will be installed throughout the property to continue to provide habitat for these species.
- No known invasive plant species will be utilized, including those species specifically those species listed in Suffolk County Local Law 27-2009 and 6 NYCRR Part 575.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to ecological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

SECTION 3.0

HUMAN ENVIRONMENTAL RESOURCES

3.0 HUMAN ENVIRONMENTAL RESOURCES

3.1 Transportation Resources

3.1.1 Existing Conditions

Existing Local Roadway and Intersection Operating Characteristics

Appendix H contains the Traffic Impact Study (TIS) prepared for the project, by Nelson & Pope, LLP, of Melville. The following description and discussion of the existing roadway and traffic conditions in the area have been taken from that document.

Roadway Conditions

Lewis Road in the vicinity of the site is a minor arterial with a general northwest/southeast orientation extending from Quogue Riverhead Road/CR 104 to Montauk Highway. For analysis purposes, Lewis Road is considered an east/west roadway at all of the study intersections. This orientation maintains consistency throughout the project and eliminates potential confusion when interpreting lane designations at different study locations. In the vicinity of the site, Lewis Road the travel lanes are approximately 11 feet in width and are delineated by a full yellow double barrier line and white edge lines. The land uses along Lewis Road are predominantly residential. The posted speed limit along Lewis Road is 40 miles per hour north of Spinney Road and 30 miles per hour south of Spinney Road. The Annual Average daily Traffic (AADT) for Lewis Road in the vicinity of the proposed project access is 6,648 vehicles per day (automated traffic recorder data collected by Nelson & Pope from June 12 to June 19, 2016). posted speed limit is 35 miles per hour in the vicinity of the site. There are no posted parking restrictions along Quogue Riverhead Road. There are no posted parking restrictions along Lewis Road.

Old Country Road is a minor arterial with a general northeast/southwest orientation, however, for analysis purposes; Old Country Road is considered a north/south roadway. Old Country Road provides one lane per travel direction in the vicinity of the intersection with Lewis Road. On the southern portion of Old Country Road, the southbound travel lane is approximately 11.5 feet in width and the northbound travel lane is approximately 10 feet in width and are delineated by a full yellow double barrier line and white edge lines. On the northern portion of Old Country Road, the northbound and southbound travel lanes are approximately 10.5 feet in width and are delineated by a full yellow barrier line and white edge lines. The horizontal alignment is slightly curving and the vertical alignment is rolling. The land uses along Old Country Road are predominantly residential. The posted speed limit in the vicinity of the site is 30 miles per hour. There are no posted parking restrictions along Old Country Road.

Quogue Riverhead Road/CR 104 is a minor arterial under the jurisdiction of Suffolk County with a general north/south orientation. Quogue Riverhead Road extends from Montauk Highway to NYS Route 24 in Downtown Riverhead. It provides one lane per travel direction in the vicinity of the intersection with Lewis Road. The travel lanes are approximately 12 feet in width and are delineated by a full yellow double barrier line and white edge lines. The horizontal alignment is straight and the vertical alignment is flat. The land uses along Quogue Riverhead Road are predominantly residential. The AADT for Quogue Road (CR 104) between Old Country Road and NYS Route 27 is 10,990 vehicles per day. The posted speed limit is 35 miles per hour. There are no posted parking restrictions along Quogue Riverhead Road.

Spinney Road is a local roadway under the jurisdiction of the Town of Southampton with a north/south orientation. Spinney Road provides one lane per travel direction. There are no pavement markings present on Spinney Road. The pavement is approximately 30 feet in width. Spinney Road terminates east of Lewis Road. It provides access to a number of single family homes and consists of one lane per travel direction. The horizontal alignment is straight and the vertical alignment is flat. The land uses along Spinney Road are predominantly residential. The posted speed limit is 30 miles per hour. There are no posted parking restrictions along Spinney Road.

Box Tree Road is a local roadway with a general northeast/southwest orientation however, for analysis purposes; Box Tree Road is considered a north/south roadway. Box Tree Road extends from Lewis Road to Montauk Highway. Box Tree Road provides one lane per travel direction. The travel lanes are approximately 16 feet in width and are delineated by a full yellow double barrier line. The horizontal alignment is curving and the vertical alignment is flat. The land uses along Box Tree Road are predominantly residential. The posted speed limit is 30 miles per hour. There are no posted parking restrictions along Box Tree Road.

Table 3-1 summarizes the lane configurations and traffic controls at the study intersections.

Table 3-1
INTERSECTION GEOMETRY*

Intersection	Approach	Lane Designation*	Traffic Control
Lewis Road (E/W) at Quogue Riverhead Road (N/S)	WB	L-R	Stop Control - Westbound Lewis Road
	NB	TR	
	SB	L-T	
Lewis Road (N/S) at Spinney Road (E/W)	WB	LR	Stop Control - Southbound Spinney Road
	NB	TR	
	SB	TL	
Lewis Road (N/S) at Old Country Road (E/W)	EB	LR	Stop Control - Northbound Old Country Road
	NB	LT	
	SB	TR	
Lewis Road (N/S) at Old Country Road/Box Tree Road (E/W)	EB	LTR	Stop Control - Southbound Old Country Road and Northbound Box Tree Road
	WB	LTR	
	NB	LTR	
	SB	LTR	

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn

Accident History

Accident data for the study intersections were obtained from the NYSDOT. The most recent data available was from January 1, 2011 through December 31, 2013 (3 year period). The data was reviewed and summarized in **Tables 3-2a and 3-2b.**

Table 3-2a indicates a total of 13 accidents occurred on study roadways and intersections during the 3-year analysis period. The majority of accidents, 77%, involved only property damage; none of the accidents involved a fatality. The greatest number of accidents (4 accidents) occurred at the intersection of Lewis Road and Box Tree Road/Old Country Road.

A review of **Table 3-2b** indicates that a plurality of the accidents (31%) involved right angle collisions and other/unknown types of collisions. Due to the fact that there were only 4 right angle accidents, only two of which occurred at the same intersections, this pattern would not be considered significant.

Table 3-2a
ACCIDENT SUMMARY
by Severity

Location	Accident Severity			
	Fatality	Injury	Property Damage	**TOTAL**
Lewis Rd at Quogue Riverhead Rd (CR 104)			2	**2**
Lewis Rd between Quogue Riverhead Rd (CR 104) and Fox Hollow Dr		1		**1**
Lewis Rd at Fox Hollow Dr				**0**
Lewis Rd between Fox Hollow Dr and Damascus Rd		1		**1**
Lewis Rd at Damascus Rd			1	**1**
Lewis Rd between Damascus Rd and Williams St				**0**
Lewis Rd at Williams St				**0**
Lewis Rd between Williams Street and Cemetery Rd			1	**1**
Lewis Rd at Cemetery Rd				**0**
Lewis Rd between Cemetery Rd and Spinney Rd			1	**1**
Lewis Rd at Spinney Rd			1	**1**
Lewis Rd between Spinney Rd and Old Country Rd (North)				**0**
Lewis Rd at Old Country Rd (North)		1		**1**
Lewis Rd between Old Country Rd (North) and Box Tree Rd/Old Country Rd				**0**
Lewis Rd at Box Tree Rd/Old Country Rd			4	**4**
TOTAL	**0**	**3**	**10**	**13**

Table 3-2b
ACCIDENT SUMMARY
by Type of Collision

Location	Accident Type											
	Right Angle	Rear End	Head On	Left Turn	Right Turn	Fixed Object	Ped/ Bicycle	Side-Swipe	Over-Taking	Parked	Other/ Unknown	Total
Lewis Rd at Quogue Riverhead Rd (CR 104)	1	-	-	-	-	-	-	-	-	-	1	2
Lewis Rd between Quogue Riverhead Rd (CR 104) and Fox Hollow Dr	-	-	1	-	-	-	-	-	-	-	-	1
Lewis Rd at Fox Hollow Dr	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd between Fox Hollow Dr and Damascus Rd	-	-	-	-	-	1	-	-	-	-	-	1
Lewis Rd at Damascus Rd	-	-	-	-	-	-	-	-	-	-	1	1
Lewis Rd between Damascus Rd and Williams St	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd at Williams St	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd between Williams Street and Cemetery Rd	-	-	-	-	-	-	-	-	-	-	1	1
Lewis Rd at Cemetery Rd	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd between Cemetery Rd and Spinney Rd	-	-	-	-	-	1	-	-	-	-	-	1
Lewis Rd at Spinney Rd	-	-	-	-	-	-	-	-	-	1	-	1
Lewis Rd between Spinney Rd and Old Country RD (North)	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd at Old Country Rd (North)	1	-	-	-	-	-	-	-	-	-	-	1
Lewis Rd between Old Country Rd (North) and Box Tree Rd/Old Country Rd	-	-	-	-	-	-	-	-	-	-	-	0
Lewis Rd at Box Tree Rd/Old Country Rd	2	-	-	1	-	-	-	-	-	-	1	4
Total	4 *31%*	0 *0%*	1 *8%*	1 *8%*	0 *0%*	2 *14%*	0 *0%*	0 *0%*	0 *0%*	1 *8%*	4 *31%*	13 *100%*

Level of Service (LOS) Description

While traffic volumes provide an important measure of activity on the adjacent roadway network, evaluating how well that network accommodates those volumes is also important. Therefore, a comparison of peak hour traffic volumes with available roadway capacity is prepared. Capacity, by definition, represents the maximum number of vehicles that can be accommodated given the constraints of roadway geometry, traffic characteristics and controls. Intersections primarily control capacity in roadway networks, since conflicts exist at these points between through, crossing and turning traffic. Because of these conflicts, congestion is most likely to occur at intersections. Therefore, intersections are studied most often when determining the quality of traffic flow.

In order to identify the operational characteristics of the study intersections, Level of service (LOS) and capacity analyses for the signalized study intersections were performed using Highway Capacity Software (HCS2010) Release 5.6, prepared by the Federal Highway Administration. HCS2010 is a

series of computer programs strictly adhering to the guidelines set forth in the Highway Capacity Manual 2010 (HCM2010). The HCM2010 contains procedures and methodologies for estimating capacity and determining level of service for many transportation facilities and modes including signalized and unsignalized intersections.

An intersection's LOS (LOS) describes its quality of traffic flow. It ranges in grade from LOS "A" (relatively congestion-free) to LOS "F" (very congested). The LOS definition, as well as the threshold values for each level, varies according to whether the intersection is controlled by a signal or a stop sign. A brief description is given here and a more detailed definition is found in Appendix D [of **Appendix H**].

The flow at a two-way stop-controlled (TWSC) intersection is gauged in terms of LOS and capacity. The capacity of a stop-controlled leg is based on the distribution of gaps in the major street traffic, driver judgment in selecting a gap, and the follow-up time required by each driver in a queue. The LOS for a TWSC intersection is determined by the control-delay, and is defined for each movement rather than for the overall intersection. As with signalized intersections, HCS quantifies only the average control-delay, which is a function of the approach and the degree of saturation for any particular minor movement.

Existing Condition Analysis

The summer and fall peak hour traffic volumes were used to determine the existing capacity and LOS of the study intersections. **Tables 3-3a and 3-3b** contain the LOS summary for the Existing Condition calculated through the HCS software described previously. The detailed analysis worksheets are in Appendix E [of **Appendix H**].

Table 3-3a
LOS SUMMARY, Summer
Existing Conditions, Unsignalized Intersections*

Location	Approach	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	SB	L	A	8.3	A	8.8	A	8.8
	WB	L	D	26.9	D	25.1	D	26.4
	WB	R	B	10.4	B	14.7	B	11.8
Spinney Road at Lewis Rd	EB	LT	A	7.7	A	7.9	A	7.8
	SB	LR	B	11.0	B	12.4	B	12.6
Old Country Rd at Lewis Rd	WB	LT	A	8.0	A	8.1	A	8.1
	NB	LR	B	10.7	B	11.0	B	11.0
Old Country Rd/Box Tree Rd at Lewis Rd	EB	LTR	A	7.8	A	7.8	A	7.8
	WB	LTR	A	7.4	A	7.5	A	7.5
	NB	LTR	C	19.8	D	28.8	D	25.8
	SB	LTR	B	10.3	B	12.6	B	11.8

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Table 3-3b
LOS SUMMARY, Fall
Existing Conditions, Unsignalized Intersections*

Location	Approach	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	SB	L	A	8.2	A	8.5	A	8.3
	WB	L	C	23.2	C	21.7	C	18.7
	WB	R	B	10.6	B	12.8	B	11.5
Spinney Road at Lewis Rd	EB	LT	A	7.8	A	7.8	A	7.9
	SB	LR	B	11.7	B	11.6	B	13.0
Old Country Rd at Lewis Rd	WB	LT	A	8.0	A	8.1	A	8.0
	NB	LR	B	11.0	B	11.7	B	11.5
Old Country Rd/Box Tree Rd at Lewis Rd	EB	LTR	A	7.8	A	7.8	A	8.1
	WB	LTR	A	7.4	A	7.4	A	7.5
	NB	LTR	C	21.1	D	27.1	D	28.5
	SB	LTR	B	10.8	B	10.7	B	12.2

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Quogue Riverhead Road/CR 104 and Lewis Road - Lewis Road intersects Quogue Riverhead Road to form the stop-controlled leg of a T-intersection. Currently the westbound Lewis Road left-turn movement operates at LOS D or better during the AM, PM and Saturday peak periods. The westbound Lewis Road right-turn movement operates at LOS B during the AM, PM and Saturday peak periods. The southbound Quogue Riverhead Road left-turn movement operates at LOS A during the AM, PM and Saturday peak periods.

Spinney Road and Lewis Road - Spinney Road intersects Lewis Road to form the stop-controlled leg of a T-intersection. Currently the eastbound Lewis Road left-turn movement operates at LOS A during the AM, PM and Saturday peak periods. The southbound Spinney Road approach operates at LOS B during the AM, PM and Saturday peak periods.

Old Country Road and Lewis Road - The Old Country Road eastbound leg intersects Lewis Road to form the stop-controlled leg of a T-intersection. Currently the westbound Lewis Road left-turn movement operates at LOS A during the AM, PM and Saturday peak periods. The northbound Old Country Road approach operates at LOS B during the AM, PM and Saturday peak periods.

Old Country Road/Box Tree Road and Lewis Road - Old Country Road/Box Tree Road intersects Lewis Road to form a four leg intersection with the northbound Box Tree Road and southbound Old Country Road approaches being stop-controlled. The eastbound and westbound Lewis Road approaches operate at LOS A during the AM, PM and Saturday peak periods. The northbound Box Tree Road approach operates at LOS C during the AM peak periods and at LOS D during the PM and Saturday peak periods. The southbound Old Country Road approach operates at LOS B during the AM, PM and Saturday peak periods.

Sight Distance at Proposed Site Vehicle Access

For a posted speed limit of 40 mph, the American Association of State Highway and Transportation Officials (AASHTO) recommends a minimum safe sight distance of 385 feet for vehicles making a right turn from a stopped position, and 445 feet for a left turn from a stopped position. It is noted that, at the location of the proposed vehicle access on Lewis Road, views of this road surface to both the north and the south are unobstructed; Lewis Road does not vary significantly in height here, so that no dips in the road surface exist to hide vehicles traveling this roadway (see **Figure 3-1)**. Field inspection at this location conducted in July 2015 indicate that sight distances of about 1,240 feet exist to the right (north) and 760 feet to the left (south).

Parking

As the subject site is presently undeveloped and wooded, there are no activities present to necessitate parking on any of the component parcels, and no parking is present.

Local Pedestrian Resources

As noted above, **Figure 3-2** shows the locations of sidewalks and marked crosswalks in the vicinity of the subject property. As can be seen, there are only a limited amount of pedestrian accommodations in the vicinity, and a limited level of connectivity of these resources. Sidewalks exist southward along Lewis Road and southward along Central Avenue south of Old Country Road, and easterly along Old Country Road from Central Avenue. There are three marked crosswalks on Central Avenue, at Old Country Road and at two locations opposite the East Quogue Elementary School.

Public Transportation

Figure 3-3 shows that there is one Suffolk County Transit bus route that serves the project site. It is Route 90, and operates between Moriches (on Montauk Highway) and downtown Riverhead. Near the project site, it operates along Lewis Road and passes the main vehicle access for the project. The nearest LIRR stations are Westhampton (approximately 3.5 miles west of the property) and Hampton Bays (approximately 4.3 miles east of the property).

Gabreski Airport

The Federal Aviation Act of 1958, as amended (recodified at 49 United States Code [USC] 40101 *et seq.*), delegates responsibilities to the Federal Aviation Administration (FAA) that include controlling the use of the nation's navigable airspace and regulating civil and military aircraft operations in that airspace in the interest of the safety and efficiency of all operations. To assist in fulfilling this FAA mandate, the National Airspace System (NAS) was established.

Within the NAS, the FAA manages aircraft takeoffs and landings and the flow of aircraft between airports through a system of infrastructure (such as air traffic control facilities), people (such as air traffic controllers, maintenance and support personnel), and technology (sensors such as radar or communications equipment). The system is governed by rules and regulations to ensure safe and efficient use of navigable airspace.

The subject site is located approximately 1 mile from Francis S. Gabreski Airport (hereafter referred to as the "Airport" or "FOK"). FOK is a Suffolk County owned, joint civil-military airport located approximately 80 miles east of New York City. The following provides an overview of the Airport:

* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

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FIGURE 3-1
SIGHT LINE ANALYSIS, LEWIS ROAD

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 500 feet

N

The Hills at Southampton

Draft EIS

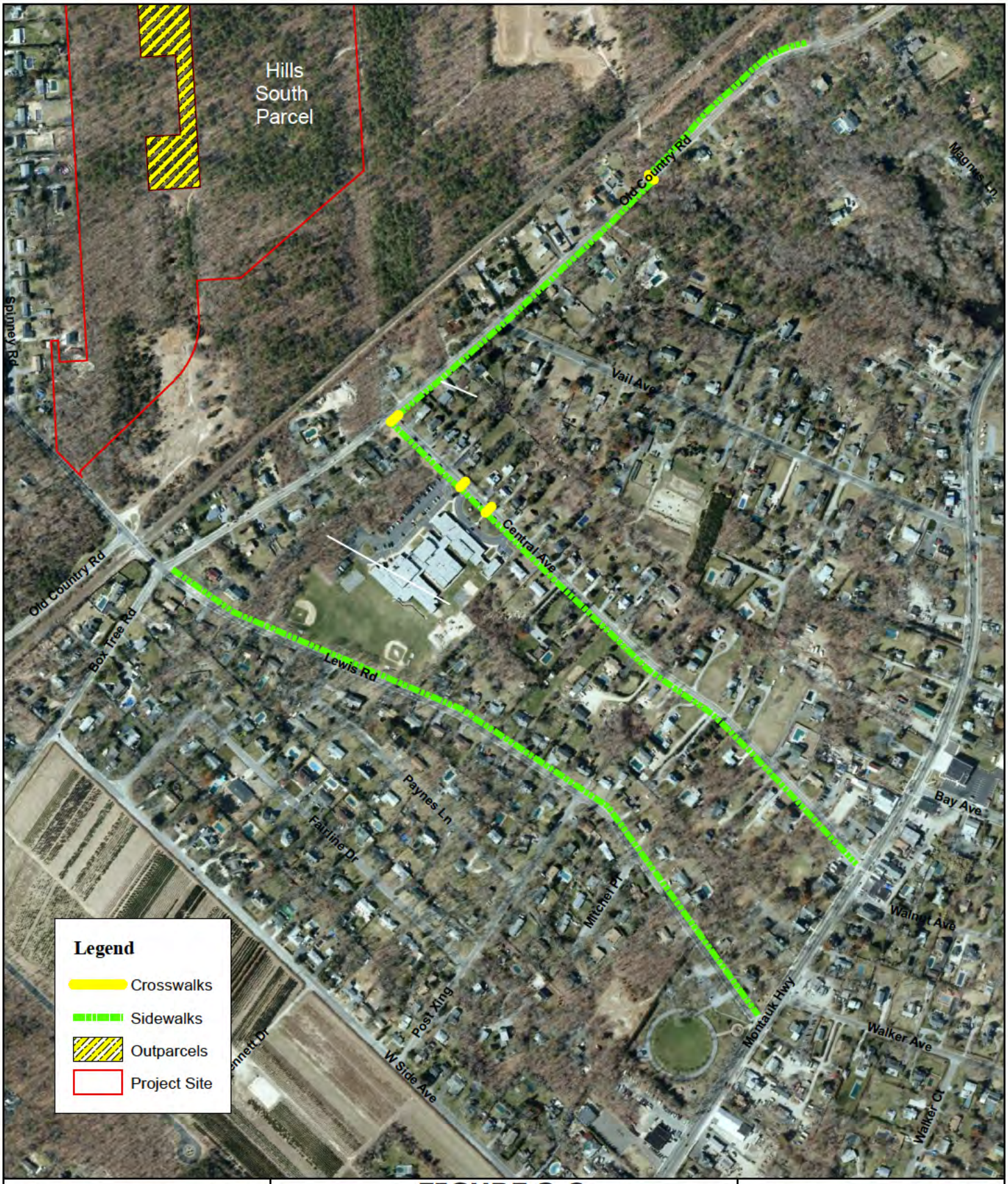

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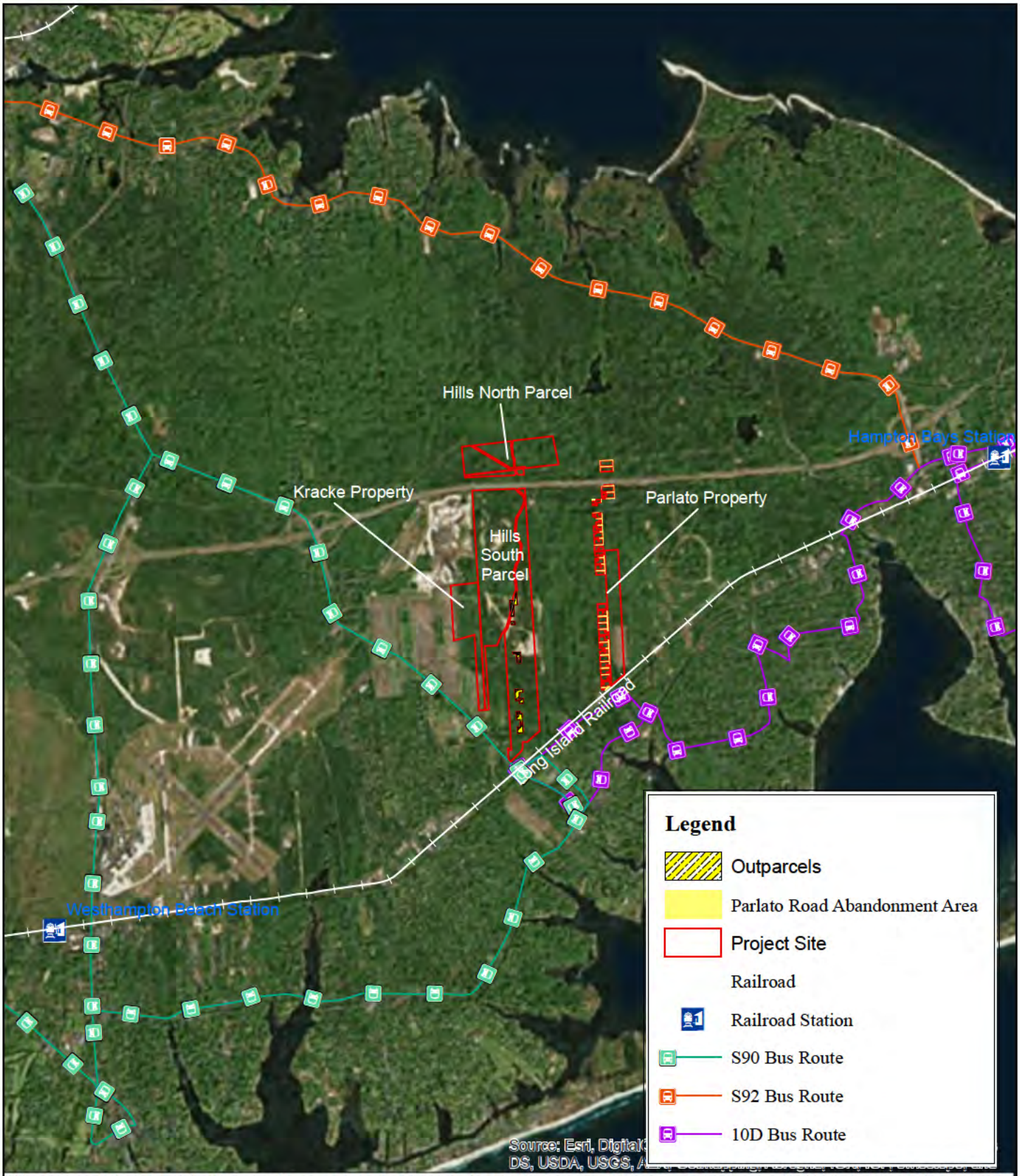
FIGURE 3-2
COMMUNITY SERVICES MAP, SIDEWALKS AND CROSSWALKS

Source: ESRI WMS, NYSGIS Clearinghouse
Scale: 1 inch = 500 feet

N

The Hills at Southampton

Draft EIS



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-3
COMMUNITY SERVICES MAP, PUBLIC TRANSIT

Source: ESRI WMS, NYSGIS Clearinghouse
Scale: 1 inch = 5,000 feet

N

The Hills at Southampton

Draft EIS

- FOK averages approximately 100,000 aircraft operations each year. The airport is home to about 100 based aircraft and the 106th Rescue Wing of the New York National Guard, but has no commercial air carriers.
- Airport access is regulated under 14 CFR 161 the FAA. Almost every activity at FOK is dictated overwhelmingly by safety considerations and adherence to Federal law.
- FOK has a voluntary Noise Abatement Program. The noise abatement program includes a Voluntary Flight Curfew between 11 p.m. and 7 a.m. daily, which provides recommended departure and arrival procedures. FOK is prohibited by Federal law from levying fines, or restricting access to the airport (or the routes by which aircraft access the airport) to aid the noise abatement program.
- A comprehensive noise report data base is maintained, and FOK has an aggressive educational program aimed at informing and reminding FOK tenants about noise abatement efforts and procedures. Additionally, FOK efforts coupled with technological advances in the aviation industry are making a significant reduction in terms of aircraft related noise.
- FOK does not attempt to meet any numerical quota when dealing with air traffic control issues. The judgment of the air traffic controller (during Control Tower hours of operation), the wind, other weather factors, surrounding air traffic, the capabilities of the aircraft, and the judgment and capabilities of the pilot, all impact on the decision as to which runway to use for arrivals and departures, or which course to take. There is no attempt to use each runway an equal number of times within any given time period, or to fly over a particular neighborhood at any given interval. Safety is always our primary concern.
- The Airport is home for the Hampton Business and Technology Park. The Park promotes economic growth for the local community by coordinated and creative development of the site, suitable for multiple uses.

Aviation affects the environment in many ways: people living near airports are exposed to noise from aircraft and aircraft engines emit pollutants to the atmosphere. The FAA works with stakeholders to address these issues. In July 2012, the FAA published the document "Aviation Environmental and Energy Policy Statement"[1] which identifies and reaffirms FAA's commitment to environmental protection that allows sustained aviation growth. The Policy Statement lists the guiding principles of: 1) limiting and reducing future aviation environmental impacts to levels that protect public health and welfare and 2) ensuring energy availability and sustainability.

The FAA has made significant progress addressing environmental concerns through the strategy and programs it has created under the Five Pillar Environmental Approach. New engine designs and technologies are improving fuel efficiency, while simultaneously reducing noise, NOx and PM emissions.

The FAA's Next Generation Air Transportation System (NextGen) will establish the programs, systems, and policies needed for safer, responsive, and more efficient air transport. The FAA's Office of Environment and Energy (OEE) is working to develop new technologies, operations, systems, and fuels to ensure aviation can meet the goals of NextGen while minimizing aviation's impact on the environment. OEE has established a strategic framework to guide research programs for mitigating the environmental impacts of aviation. The framework calls for working

[1] http://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_-guidance/policy/media/FAA_EE_Policy_Statement.pdf

with the Environmental Protection Agency (EPA), the National Aeronautics and Space Administration (NASA), and other federal agencies as well as industry stakeholders and academia to ensure aviation emissions do not pose health concerns for U.S. citizens or degrade the global climate." [2]

3.1.2 Anticipated Impacts

Trip Generation

The following discussions of the project's anticipated trip generation characteristics (for both the construction and the operational phases) have been taken from the TIS.

Construction Trip Generation Analysis

The construction of the proposed project is anticipated to result in truck trips primarily associated with earth moving, delivery of equipment and materials and vehicles trips associated with construction employees. Delivery trucks trips may vary depending on the stage of construction, number of homes being constructed and overlapping construction activities, availability of material and other factors. Because the construction of this project will result in construction related trips, we have prepared a trip generation estimate to account for this traffic. This estimate was prepared by distributing trips associated with construction employees and delivery of construction material to the adjacent street network. In order to prepare a conservative construction trip estimate, we accounted for the possibility of all four components (golf course, road construction, clubhouse and residential construction) of the project to occur simultaneously. Based on the Applicant's anticipated construction/development schedule shown in **Table 1-16**, the maximum number of anticipated construction personnel is 255 workers. This relates to the period July-September, 2020 in **Table 1-16**; since it is a maximum, all other time periods will have a lesser number of trips related to construction workers and therefore less impact.

Since some workers will carpool to/from the site in personal vehicles or arrive/depart via large groups in commercial vehicles, it is reasonable to assume vehicle occupancy of more than one (1) worker per vehicle. The applicant will encourage, promote and facilitate car-pooling through construction contracts and construction management during this phase of the project. Since actual vehicle occupancy information is not available, two vehicle occupancy scenarios were analyzed:

- Vehicles occupancy of 1 worker per vehicle was utilized; this equates to approximately 255 vehicles per day (510 trips per day).
- Vehicles occupancy of 1.5 workers per vehicle was utilized; this equates to approximately 170 vehicles per day (340 trips per day).

Table 1-18 is a summary of the estimate on construction delivery truck loads.

Based on the above, it is estimated that on average approximately 94 truck trips may occur daily as a result of construction equipment and material deliveries. These truck trips would generally travel along Lewis Road, to and from Sunrise Highway.

A small segment of Lewis Road may experience up to 286 truck trips per day during intermittent periods of construction when all four (4) components of the project are occurring simultaneously (i.e.,

[2] Aviation Emissions, Impacts & Mitigation, A Primer, FAA Office of Environment and Energy, January 2015

golf course, road construction, clubhouse and residential construction) involving soil transport. The 192 soil transport truck trips would only occur on a small segment of Lewis Road if an internal haul road is not provided. Other truck trips would likely occur more intermittently with more some days and less on others, and likely would be less as not all components of the project will be active simultaneously over the period of construction. However, to perform conservative analyses, a total of 286 construction delivery truck trips was utilized. The truck trips were converted to passenger car trips by applying a passenger car equivalent (PCE) of 1.5 to the truck trips (Source Highway Capacity Manual 2010). The 286 daily trucks trips are equivalent to 429 daily passenger car trips. The construction employee and construction truck trips were then distributed hourly and the trips during the peak hours identified. The anticipated maximum number of construction generated trips are summarized in **Table 3-4a** below.

Table 3-4a
TRIP GENERATION, Construction Phase
Proposed Project

Time Period	Distribution	Construction Trucks	Construction Employees (1)	Construction Employees (12	Total (1)	Total (2)
Weekday AM Peak Hour	Enter	13	20	14	33	27
	Exit	13	0	0	13	13
	Total	26	20	14	46	40
Weekday PM Peak Hour	Enter	15	0	0	15	15
	Exit	15	77	51	92	66
	Total	30	77	51	107	81
Saturday Peak Hour	Enter	22	0	0	22	22
	Exit	22	13	9	35	31
	Total	44	13	9	57	53

1 - Occupancy of 1 worker per vehicle
2 - Occupancy of 1.5 workers per vehicle

As shown in **Table 3-4a** above, the construction phase of the project may generate between 39 and 48 trips during the AM peak hour, between 81 and 107 trips during the PM peak hour and between 52 and 57 trips during the Saturday Midday peak hour (42 entering, 45 exiting). A detailed project construction trip generation calculation for an entire weekday and Saturday conducted to justify the trip generation characteristics of the construction traffic are contained in Appendix C of [**Appendix H**].

Operational Trip Generation
In order to identify the operational impacts the proposed mixed use development will have on the adjacent street system, it is necessary to estimate the magnitude of traffic volume to be generated during the peak hour periods and to estimate the directional distribution of that site traffic when entering and leaving the subject property.

The following represents what is proposed in this mixed use development:

- The residential component comprised of 118 residential units that will be second, third and fourth homes used exclusively for vacations and "getaways" by the owners. This site will provide several amenities like a fitness area, yoga studio, spa, dining room, private dining room, snack bar, wine room, kid's activity room, bowling, basketball court, squash court etc. to the owners.

This use is a low traffic generator with peak traffic periods generally not coinciding with roadway peak traffic periods. From the review of the Land Uses contained in Institute of Transportation Engineers Trip Generation Manual, 9th Edition, Recreational Homes will be the land use that closely fit with the proposed residential development. Therefore the trip generation estimates for the residential portion of the development were prepared utilizing data found under Land Use Code 260-Recreation Homes within the Institute of Transportation Engineers' publication, Trip Generation, Ninth Edition. This publication sets forth trip generation data obtained by traffic counts conducted at research sites throughout the country. The residential portion of the project is anticipated to generate 19 trips (13 entering, 6 existing) during the weekday AM peak hour, 31 trips (13 entering, 18 exiting) during the weekday PM peak hour and 42 trip (20 entering, 22 exiting) during the Saturday midday peak hour.

- The project will also comprise of a private 18-hole golf course and clubhouse to be used as an on-site recreational amenity for the residents; it will not be open to the general public. In addition to the project's residents, the golf course will provide approximately 132 additional memberships to golfers that chose to join but do not live in The Hills community. The golf course will also be made available for five (5) charitable events per year and one (1) "resident's day" per year, when community members will have access to play golf at The Hills golf course for a reduced rate. A total of 105 employees will be travelling to and from the site on a daily basis during two work shifts. It should be noted that all employees to these facility arrive at the site before 7AM and leave at 3PM for the first shift and arrive at 3 PM and leave at 10 PM. These time periods are outside the roadway peak periods in the study area and hence will not significantly impact traffic flow in the study area and therefore not included in the trip generation analyses.
- In order to estimate trip generation for the golf course, data found under Land Use Code 430-Golf Course within the Institute of Transportation Engineers'(ITE) publication, Trip Generation, Ninth Edition and trip data generated from the anticipated membership was reviewed and utilized.
    - The five charity outings will comprise of 72 players. Five hours of golf with midday shotgun start, one hour of lunch before start and one hour of drinks after the games is anticipated. These events typically occur during weekdays and from the anticipated schedule, traffic from these events will not occur during the weekday AM and PM peak periods.
    - The one public outing will comprise of 120 players starting 8 AM going out as foursomes at 8 minutes intervals (8 minutes between foursomes) in groups of four (foursomes). With 8 minutes intervals, a maximum of 8 groups can tee off in an hour resulting in a total of 32 golfers per hour. Assuming these 32 golfers arrived within the hour before their scheduled tee time in separate vehicles, a total of 32 vehicles could arrive at the golf course within the peak hour.
    - Membership to the Golf Club is open to owners of the 118 recreation homes and also provides membership to 132 outside members. Each member has the ability to bring three (3) guests to an outing. Tee times are anticipated to occur from 7AM to 2PM at 8 minute intervals. With 8 minutes intervals, a maximum of 8 groups can tee off in an hour resulting in a total of 32 golfers per hour. Assuming these 32 golfers arrived within the hour before their scheduled tee time in separate vehicles, a total of 32 vehicles could arrive at the golf course within the peak hour. Since no golf game is anticipated to end during the morning peak periods, little or no golf traffic is expected to leave the golf course during the morning peak periods. However, to perform conservative analyses it is assumed that 8 vehicles will exit the golf course during the weekday morning peak period. Furthermore, to account for the possibility that some golfers may arrive earlier than one hour from their scheduled tee times, the peak hour trips were increase from 32 to 36. Based on these analyses, the golf course is anticipated to generate 44 trips during the AM peak hour (36 entering, 8 exiting), 72 trips during the weekday PM peak hour (36

entering, 36 exiting) and 72 trips during the Saturday midday peak hour (36 entering, 36 exiting).

- Based on golf course data found under Land Use Code 430-Golf Course within the Institute of Transportation Engineers' publication, Trip Generation, Ninth Edition, it is estimated that an 18-hole golf course will generate 37 trips during the weekday AM peak hour (29 entering, 8 exiting), 53 trips during the weekday PM peak hour (27 entering, 26 exiting) and 83 trips during the Saturday midday peak hour (41 entering, 42 exiting). From the review of this trip generation analyses, it can be seen that the estimated trips from anticipated club membership is comparable to the estimated trips from the ITE for an 18-hole golf course.

- In order to perform a conservative analysis, the trip generation estimate for the Golf Course portion of the project was based on trips estimated from the golf membership for the weekday AM and PM peak periods since the numbers are higher that the ITE estimate and from the ITE trip generation for the Saturday midday peak hour since ITE is higher than the estimate from the golf membership. The Golf Course portion of the project is projected to generate 44 trips during the AM peak hour (36 entering, 8 exiting), 72 trips during the PM peak hour (36 entering, 36 exiting) and 83 trips during the Saturday Midday peak hour (41 entering, 42 exiting).
- As previously mentioned, all employees to these facilities arrive at the site before 7AM and leave at 3PM for the first shift and arrive at 3 PM and leave at 10PM. These time periods are outside the roadway peak periods in the study area and hence will not significantly impact traffic flow in the study area and therefore not included in the trip generation analyses.

Based on the results of the trip generation analyses, it is therefore anticipated that the proposed mixed use development (residential and golf course) will generate 63 trips during the AM peak hour (49 entering, 14 exiting), 103 trips during the PM peak hour (49 entering, 54 exiting) and 125 trips during the Saturday Midday peak hour (61 entering, 64 exiting) as shown in **Table 3-4b** below and in Appendix C [of **Appendix H**] as well.

Table 3-4b
TRIP GENERATION, Operational Phase
Proposed Project (1, 2)

Time Period	Distribution	118 Recreation Homes*	18-Hole Golf Course	Totals
Weekday AM Peak Hour	Enter	13	36	49
	Exit	6	8	14
	Total	19	44	63
Weekday PM Peak Hour	Enter	13	36	49
	Exit	18	36	54
	Total	31	72	103
Saturday Peak Hour	Enter	20	41	61
	Exit	22	42	64
	Total	42	83	125

(1) Assuming ITE Land Use Code 260.
(2) Other project elements such as Clubhouse not assumed to generate peak hour trips.

The trip generation estimates for the construction phase were compared to the trips anticipated once the project is fully constructed and operational to determine which phase will likely have the most traffic impacts. Based on the review of the numbers on **Tables 3-4a and 3-4b**, it can be seen that the operational trips are anticipated to be higher than or comparable to the construction related trips.

Since the construction traffic is lower than the operational traffic, capacity analyses at the study intersections will be performed only for the project operational phase.

Anticipated Local Roadway and Intersection Operating Characteristics

The following description and discussion of the project's anticipated impacts on the traffic conditions in the area has been taken from the TIS.

No Build Condition

The No Build Condition represents traffic conditions expected at the study intersections in the future year 2017 without the construction of the proposed project. The No Build Condition traffic volumes are estimated based on the following factors:

- Increases in traffic due to general population growth and developments outside of the immediate project area. This traffic increase is referred to as ambient growth.
- Other planned projects located near the project site that may affect traffic levels and patterns at the study intersections in this report.
- Planned roadway improvements for study intersection and/or roadways.

Traffic Growth

A 1.9% annual growth factor was obtained from the New York State Department of Transportation (NYSDOT) Long Island Transportation Plan 2000 study (LITP2000) for the Town of Southampton. The summer and fall traffic volumes were increased by this factor for a period of 3years and 2 years respectively to project volumes to the year 2017.

Other Planned Projects

Planned projects that will be constructed prior to the proposed project and will significantly influence the traffic flow through the study intersections would be considered as part of the No Build analysis. The Town of Southampton and Suffolk County Department of Public Works were contacted to obtain information on any planned projects that will significantly influence traffic flow in the vicinity of the site. At the time this study was conducted there were no planned projects in the vicinity of the study area and no roadway improvements are proposed for the study intersections or roadways in the vicinity of the project site. The summer No Build Condition volumes are illustrated in Figures 6, 7 and 8 [of **Appendix H**].

Traffic Impact Analysis for Proposed Project

As stated previously, the intersection capacity and level-of-service (LOS) analyses were based on the procedures and guidelines presented in the *HCM2010*, published by the *Transportation Research Board*. The FHWA *HCS2010* was used to analyze the study intersections and provide a LOS measurement of the intersection operations.

Tables 3-5a and 3-5b illustrate the summer and fall LOS summaries for the study intersections, respectively.

Table 3-5a
LOS SUMMARY, Summer
Proposed Project, Unsignalized Intersections*

Location	Condition		Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	No Build	SB-L	A	8.4	A	9.0	A	9.0
		WB-L	D	30.2	D	27.8	D	28.7
		WB-R	B	10.6	C	15.8	B	12.3
	Build	SB-L	A	8.5	A	9.1	A	9.2
		WB-L	D	28.1	D	31.5	D	33.5
		WB-R	B	10.7	C	17.4	B	13.0
Spinney Road at Lewis Rd	No Build	EB-L	A	7.8	A	8.0	A	7.9
		SB-LR	B	11.2	B	12.8	B	13.0
	Build	EB-L	A	8.2	A	8.1	A	8.0
		SB-LR	B	11.4	B	13.1	B	13.4
Old Country Rd at Lewis Rd	No Build	WB-LT	A	8.0	A	8.1	A	8.1
		NB-LR	B	11.0	B	11.3	B	11.3
	Build	WB-LT	A	8.1	A	8.2	A	8.3
		NB-LR	B	11.5	B	12.1	B	12.3
Old Country Rd/Box Tree Rd at Lewis Rd	No Build	EB-LTR	A	7.8	A	7.9	A	7.9
		WB-LTR	A	7.4	A	7.5	A	7.6
		NB-LTR	C	21.4	D	32.8	D	29.2
		SB-LTR	B	10.6	B	13.6	B	12.3
	Build	EB-LTR	A	7.9	A	7.9	A	7.9
		WB-LTR	A	7.4	A	7.5	A	7.6
		NB-LTR	C	22.5	E	36.6	D	32.1
		SB-LTR	B	10.7	B	13.7	B	12.5
Site Driveway and Lewis Rd	Build	EB-LT	A	7.9	A	8.1	A	8.1
		SB-LR	B	10.9	B	12.4	B	12.5

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Table 3-5b
LOS SUMMARY, Fall
Proposed Project, Unsignalized Intersections*

Location	Condition		Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
			LOS	Delay	LOS	Delay	LOS	Delay
Quogue Riverhead Rd at Lewis Rd	No Build	SB-L	A	8.2	A	8.6	A	8.4
		WB-L	C	24.7	C	23.2	C	19.8
		WB-R	B	10.8	B	13.2	B	11.7
	Build	SB-L	A	8.4	A	8.7	A	8.6
		WB-L	D	28.4	D	26.3	C	22.6
		WB-R	B	10.9	B	14.1	B	12.3
Spinney Road at Lewis Rd	No Build	EB-L	A	7.8	A	7.8	A	7.9
		SB-LR	B	11.9	B	11.7	B	13.2
	Build	EB-L	A	7.9	A	7.9	A	8.0
		SB-LR	B	12.1	B	12.0	B	13.7
Old Country Rd at Lewis Rd	No Build	WB-LT	A	8.0	A	8.2	A	8.0
		NB-LR	B	11.3	B	11.9	B	11.8
	Build	WB-LT	A	8.1	A	8.3	A	8.1
		NB-LR	B	11.8	B	12.7	B	12.6
Old Country Rd/Box Tree Rd at Lewis Rd	No Build	EB-LTR	A	7.8	A	7.8	A	8.2
		WB-LTR	A	7.4	A	7.4	A	7.5
		NB-LTR	C	22.4	D	29.5	D	31.3
		SB-LTR	B	11.1	B	11.1	B	12.7
	Build	EB-LTR	A	7.8	A	7.9	A	8.2
		WB-LTR	A	7.4	AS	7.4	A	7.5
		NB-LTR	C	23.5	D	33.0	E	35.5
		SB-LTR	B	11.1	B	11.2	B	12.9
Site Driveway and Lewis Rd	Build	EB-LT	A	8.0	A	7.9	A	8.1
		SB-LR	B	10.9	B	11.7	B	12.7

* WB-westbound; NB-northbound; SB-southbound; EB-eastbound; L -Left turn; T-through; R-Right turn
** Delay is quantified in seconds per vehicle.

Quogue Riverhead Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Quogue Riverhead Road and Lewis Road will continue to operate at No Build levels of service for all peak periods except for the westbound left-turn movement. The left-turn movement of the stop-controlled westbound approach of Lewis Road will experience a change in LOS during the AM and PM peak hour during the Fall analysis period, from LOS C to LOS D. There will be an increase in delay of 3.7 seconds and 3.1 seconds during the AM and PM peak hours, respectively. This is a minor increase in delay for a turning movement that has minimal traffic volume (maximum of 20 vehicles during the AM peak hour). Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Spinney Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Spinney Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Old Country Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Old Country Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. . Vehicle queues and safety at the at-grade railroad crossing at this intersection was reviewed. From the review of the capacity analyses results, during the worst peak period the 95% queue length on both Lewis Road approaches are less than one vehicle and the available storage exceed one vehicle length on both approaches. The accident data did not indicate any accidents related to the railroad crossing occurred on Lewis Road. It should also be noted that less than 8 trains cross Lewis Road at this at-grade crossing daily. Hence no queueing and safety issues are expected at this location. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Old Country Road/Box Tree Road and Lewis Road - After the completion of the project, the stop-controlled intersection of Old Country Road/Box Tree Road and Lewis Road will continue to operate at No Build levels of service for all peak periods, except for the northbound approach. The stop-controlled northbound approach of Box Tree Road will experience a change in LOS during the Summer PM peak hour and during the Fall Saturday peak hour, from LOS D to E. There will be an increase in delay of 3.8 seconds and 4.2 seconds during the PM and Saturday peak hours, respectively. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

Site Driveway and Lewis Road - After the completion of the project, the southbound Site Driveway approach is anticipated to operate at LOS B during all peak periods. The eastbound Site Driveway approach is anticipated to operate at LOS A during all peak periods.

The TIS concluded as follows:

> Based on our Traffic Impact Study as detailed in the body of the [TIS] report, the construction of the proposed mixed-use development will not create a significant adverse traffic impact on the adjacent street network.

Regulatory Approvals

As stated in the TIS:

> The proposed project will involve the construction of site access driveway on Lewis Road and an emergency access curb cut on Spinney Road. These driveways will be on Town roads and will require Road Access permits from the Town Highway Department. The applicant will go through the necessary approval process to obtain the Road Access Permits from the Town Highway Department for the construction period and road installation for the proposed project.

Vehicle Access, Internal Road System and Internal Circulation

The main vehicle access point to the project is proposed from Lewis Road, at the southwestern corner of the property in line with an existing mapped subdivision road associated with the "Kijowski Family Farm" subdivision. Within the site, the proposed access roadway divides into two branches near the southwestern corner of the developed area. From this point, the westerly branch accesses 14 homes, while the easterly branch accesses the golf course maintenance area, the golf course, the clubhouse and the remaining 104 residences.

The Hills Property has street frontage on Lewis Road near the LIRR intersection and on Spinney Road. Due to potential traffic impacts at these access points, the Town Board in its resolution

electing to consider the MUPDD, dated January 14, 2014, expressly requested that the *"Applicant must explore alternative connections to Lewis Road, specifically a connection with the Noble Farms subdivision, immediately west of the Hills property, as an alternative means of access to Lewis Road, as promoted in the findings of the GEIS."* These recommendations originated from the Planning Board's review and approval of the Subdivision Map of Kijowski Family Farm and the Subdivision Pre-Application Reports for the subdivisions of The Hills and Noble Farms (the Kracke Property). The Planning Board envisioned and planned for a single subdivision road accessing onto Lewis Road, with such road originating on the Kijowski Family Farm property. The Kijowski Family Farm property abuts and provides street frontage and access to the development of Noble Farms or Kracke Property, which abuts and can provide access to the development of The Hills Property.

The intersection of Old Field Road and Lewis Road would be controlled by a Stop sign at Lewis Road for exiting traffic. A manned gatehouse will be established on the access roadway within the panhandle portion of the Kracke Property, in order to minimize the appearance of development for potential observers on Lewis Road. Old Field Road will be provided with appropriate curbing, striping, signage, lighting and drainage facilities, subject to the Town as determined during the site plan application review process.

It is expected that a second vehicle access will be provided, but will be strictly limited to emergency vehicles, and would be used only in cases where access through the main access point is not optimal. This emergency vehicle access will be provided at the end of Spinney Road, and would connect to the project's internal road system at a point just southeast of the clubhouse. This access point would be provided with an emergency "activated gate," which would remain closed unless and until an emergency vehicle with the necessary pass card to open the activated gate approaches, for emergency purposes only.

<u>Sight Distance at Proposed Site Vehicle Access</u>
As noted in **Section 3.1.1**, field inspection at the location of the project's vehicle access on Lewis Road indicates that about 1,240 feet of sight distance exist to the north, and 760 feet are available to the south (see **Figure 3-1**). These distances substantially exceed the 385 and 445-foot minima for a posted 40 mph roadway, respectively, for this portion of Lewis Road. Based on the values presented above, the available sight distance from the proposed driveway will exceed the minimum values provided by AASHTO; tables outlining minimum recommended sight distance for the design of intersections are contained in Appendix F (of **Appendix H)**. Thus, conforming sight distances will be provided, and no adverse impact on traffic safety from exiting turning movements are expected.

<u>Parking</u>
As detailed in **Section 1.6.3**, it is expected that the proposed project will provide a sufficient number of parking spaces to address the needs of the 95 individual residences, the club cottages, and as well as the golf course and clubhouse components. All parking on the project site will be in designated parking areas, or on individual residential lots; no on-street parking will be provided.

Each of the Woodland Estate, Village Estate, and Village residences will have an attached two-car garage; the driveways for these units are expected to be large enough to park an additional two or, for the Woodland Estate lots, three cars. Each of the club cottages and each of the club condos will have two reserved parking spaces, in the parking levels beneath the clubhouse. There will be a total of 170 parking spaces in the two below-grade parking levels; 26 spaces will be set aside for the club cottages and 20 spaces for the club condos, leaving 124 spaces for patrons, clubhouse employees and visitors. There will be an additional 25 employee parking spaces at the Maintenance Area. Thus, total parking capacity on the property, not counting driveway spaces, is 385 spaces. If the driveway spaces are included, there will be space for a total of 601 cars on the site (see **Table 1-13**).

Based on the uses and numbers proposed, the Town Code would require a total of at least 560 parking spaces on the site. Thus, if only the parking in the garages of the 95 residential lots, the clubhouse garage, and the Maintenance Area parking lot were considered, the project would not meet this Town parking requirement. However, considering the additional spaces gained from use of driveways for parking, the project will exceed the Town Code requirement for parking.

It is expected that, based on the nature of the proposed PDD project and its associated residential occupancy and golf course and clubhouse usage patterns, the number of parking spaces proposed will be more than sufficient to address all potential parking needs. It must be noted that Town parking requirements are based on full-time, year-round occupancy of the residences, and public access to the golf course and clubhouse. Neither of these assumptions apply to the proposed project, so that the number of parking spaces necessary to properly serve the site should be and will be less than the number which would otherwise be required by the Town standards. For example, it would not be expected that the occupants of the 95 residences or the club cottages would drive from their homes the short distance to the clubhouse garage to park when playing golf or using the amenities of the clubhouse; they would walk or use a privately-owned golf cart to do so. This would tend to reduce parking demand in the clubhouse garage. Generally, it is expected that there will be a sufficient number of unused spaces in the clubhouse garage to accommodate any excess, limited parking demand associated with the 13 club cottages. Such a conclusion is supported by the PDD requested, under which the project has been designed.

Incorporating the PDD concept into the Zoning Code indicates the Town Board's intention to enable development of innovative mixed-use projects designed in an internally-cohesive manner, so that the older, more rigid design standards based on single uses (as reflected in the parking standards of Sections 330-94 and 330-95) would not apply, and flexibility in such requirements can be applied based on the nature of the proposed use. Based on the specific uses proposed and the nature of those uses, the Hills at Southampton is appropriately designed based on a parking standard unique to itself.

<u>Local Pedestrian Resources</u>
The proposed project will not provide additional sidewalks or other pedestrian facilities at locations outside the subject property. It will provide sidewalks within the developed portion of the property, for the use and convenience of its inhabitants, visitors and employees.

Due to the nature of the project, it is not expected that a significant number of its residents would choose to walk from the site to the East Quogue hamlet center, so no significant increase in the amount of pedestrian activity in the area is expected to occur as a result of the project. In such a case, there would be no increase in the current level of need of pedestrian-related accommodations in the area.

It is conceivable that some site residents would opt to bicycle from the project to the hamlet center or to other local destinations. In such a case, there would be a small uptick in the level of cycling in the region, to be distributed onto the local road network. However, considering the relatively low traffic flows on these roads (even after the project is constructed and occupied), there would be sufficient capacity on these roadways to accommodate cyclists without adversely impacting traffic flow or compromising cyclist safety.

Public Transportation

Development of the proposed project would increase the potential ridership of Suffolk County Transit Route 90 and the LIRR by people employed at the project site. However, there are expected to be only about 150 employees, and the majority of employees would typically use their own vehicles, so that the potential increase in ridership by employees for either or both of these resources would be limited. Considering their socio-economic resources and limited duration of time occupying their homes, it is not expected that the residents would utilize public buses to a significant degree. Residents may utilize the LIRR, assuming they generally reside elsewhere in the region (e.g., New York City) and commute to the project site. In such cases, these residents would use local taxi services to access their homes from the Westhampton or Hampton Bays stations.

Generally, due to the low numbers of potential users (both employees and residents), it is not expected that any significant impacts on either form of public transportation will occur.

Gabreski Airport

The operations of airports in the United States are regulated under 14 CFR 161 by the Federal Aviation Administration (FAA). The FAA has been given authority to promulgate regulations for the safe use and designation of air transport facilities. As a federal agency, they are bound by the requirements of the National Environmental Policy Act (NEPA) to enact regulations that consider environmental impacts. In addition, State and local governments have the power to enact zoning regulations that apply directly to airport operations. Recently, the Town of East Hampton enacted laws restricting operations at the East Hampton Airport due to noise complaints (effective July 2, 2015). The law closes the East Hampton Airport from 11 PM to 7 AM and prohibits takeoffs or landings by aircraft that fall into a “noisy" category, which includes most helicopters, from 8 PM to 9 AM. These restrictions were based upon some of the most extensive analysis of citizen's complaints and aircraft traffic in the area.[3] These analyses included consideration of FOK and other nearby airports and the impacts that may result from aircraft diverting to other nearby airports (FOK, Montauk Airport and Southampton Heliport) during the times when landing at East Hampton would be restricted. The studies concluded that the restriction would not be sufficient to create a significant impact on traffic at or near any of

[3] http://www.ehamptonny.gov/HtmlPages/AirportInterimNoiseAnalysis.html

the alternative airports. Air emissions from aircraft or support equipment on the ground were not identified as an issue at any of the studied airports. This is not surprising since *"Generally, about 10 percent of aircraft pollutant emissions are emitted close to the surface of the earth (less than 3000 feet above ground level). The remaining 90 percent of aircraft emissions are emitted at altitudes above 3000 feet".*[4]

The proposed action is not expected to affect operations at FOK that would result in a significant increase in aircraft traffic and associated noise and air emission impacts. As indicated above, operational procedures for the control of aircraft departures and arrivals at airports are regulated by the FAA. In turn, these controls can effectively complement the reduction of aircraft source emissions. For example, operational controls that apply reduced thrust settings near the ground augment the noise reduction levels. In addition, approach paths are designed to avoid residential neighborhoods. At some airports, steep climbs are used on takeoff over water areas so that aircraft will be higher than they would be otherwise when they reach inhabited areas. Where aircraft must climb over residential areas, they often do so with reduced power in order to minimize excessive noise from greater engine thrust. The minor increase in seasonal air traffic and associated impacts that may result from the proposed project is not likely to be a significant when considering all the mitigating programs that are in place. Further, on a local level, such impacts would be constrained by FOK's 11:00 PM to 7:00 AM voluntary curfew.

3.1.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- The operational phase analyses indicate no significant traffic impacts. Since construction phase traffic is less than that of the operational phase, no significant traffic impacts are anticipated. Traffic flow and temporary/short-term construction impacts can be further improved during the construction phase by incorporating traffic control and construction management measures which the applicant will examine and implement in cooperation with the Town as necessary during the construction phase. Such measures will include: providing adequate signage to direct workers and deliveries to a dedicated construction access location; use of flaggers to direct construction related vehicles to the site during periods of higher volume of arrivals and/or truck deliveries; encouraging and facilitating contractors and trades to conduct construction worker car-pooling; pursuing an internal haul road or other means of reducing soil hauling truck trips on Lewis Road; and fully conforming with Chapter 235 of the Town Code which regulates noise generation.
- At the completion of construction, any and all damage to local roads and/or roadway improvements that may have been caused by construction activities related to the project will be repaired or replaced by the Applicant, at the Applicant's expense, as directed by the Town Highway Department. Work for such repairs will be bonded at an appropriate level, to be determined by the Town as part of the site plan application review.
- After the completion of the project, the stop-controlled intersection of Quogue Riverhead Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

[4] Based on mass balance analysis using emission factors from the ICAO Aircraft Engine Emissions Databank for representative aircraft engines http://easa.europa.eu/document-library/icao-aircraft-engine-emissions-databank

- After the completion of the project, the stop-controlled intersection of Spinney Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. From the review of the capacity analyses results, during the worst peak period the 95% queue length on both Lewis Road approaches are less than one vehicle and the available storage exceed one vehicle length on both approaches. The accident data did not indicate any accidents related to the railroad crossing occurred on Lewis Road. It should also be noted that less than 8 trains cross Lewis Road at this at-grade crossing daily. Hence no queueing and safety issues are expected at this location. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road/Box Tree Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the southbound Site Driveway approach is anticipated to operate at LOS B during all peak periods. The eastbound Site Driveway approach is anticipated to operate at LOS A during all peak periods.
- As the project will exceed the minimum sight distance required at the site vehicle access, no adverse impact in this regard is expected, and no mitigation is necessary or proposed.
- Based on the specific uses proposed and the nature of those uses, the Hills at Southampton PDD is appropriately designed based on a parking standard unique to itself. The numbers of parking spaces proposed will be adequate to serve the parking needs of the proposed project. Thus, no impacts with regard to parking are expected, so that no mitigation is necessary or proposed.
- Since the proposed project is not expected to generate significant increases in the numbers of potential bus or LIRR passengers, no significant impacts on either form of public transportation will occur. As such, no mitigation is necessary or proposed.
- The proposed project is not anticipated to cause a significant increase in seasonal air traffic and/or associated impacts in consideration of all the mitigating programs that are in place. Further, on a local level, such impacts would be constrained by FOK's 11:00 PM to 7:00 AM voluntary curfew.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to transportation resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

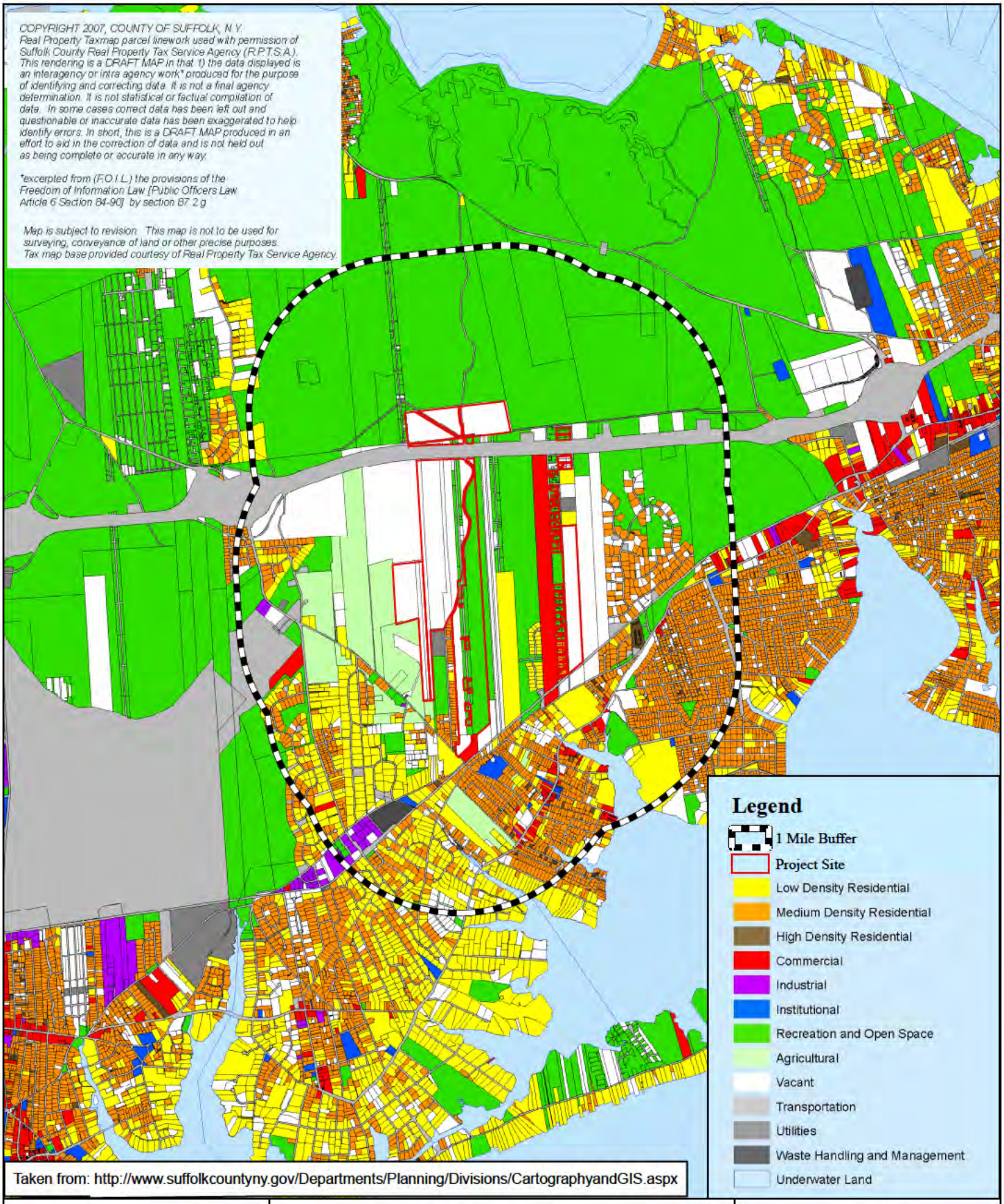
3.2 Land Use, Zoning and Plans

3.2.1 Existing Conditions

<u>Land Use</u>

Current land use at the subject property and within an approximate 1,000-foot radius surrounding the site is described based on review of aerial photographs and visual observations (see **Figure 3-4**).

The subject property consists primarily of wooded land and cleared areas and pathways and has no authorized uses. Land uses in the surrounding areas are comprised of residential uses, vacant



Taken from: http://www.suffolkcountyny.gov/Departments/Planning/Divisions/CartographyandGIS.aspx

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FIGURE 3-4
LAND USE MAP

Source: "2007 Existing Land Use"Suffolk County Department of Planning, Cartography and GIS
Scale: 1 inch = 4,500 feet

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land, agricultural land, industrial uses and utilities. Specific uses adjoining the site are summarized as follows:

North: Vacant land and Birch Creek Pond County Park/open space.
East: Vacant land, single-family residences and a trailer park
South: Single-family residences, vacant land, LIRR right-of-way, and a public school toward the southeast beyond the above noted uses
West: Single-family residences, vacant land, SCWA well field, cemetery, parkland/open space, farmland, and sand mine

Review of **Figure 3-4** indicates the presence of the following land uses within an approximate 1,000-foot radius of the project site:

North: Vacant and wooded (abutting); vacant and wooded (more distant)
East: Public open space (Town-owned), vacant and wooded (abutting); vacant and wooded; public open space; multi-family residence (mobile home park); residential; utility (antenna) (more distant)
South: Agricultural; vacant and wooded (abutting); transportation (LIRR); residential; institutional; agricultural preserve; agriculture; vacant; neighborhood business (more distant)
West: Agriculture and agricultural preserve (Noble farms); industrial (sand mine); residential (along Spinney Road); utility (SCWA wellfield); cemetery; vacant and wooded (abutting); agriculture and agricultural preserve; residential; public open spaces (Town and NYSDEC); institutional; utility (more distant)

The land use pattern in the vicinity is characterized by mixed uses. Specifically, residential uses are located immediately to the west and farther to the south and east and farmland is located to the west. Vacant land abuts the site to the north and east. SCWA property, public parkland/open space, an industrial use and a cemetery abuts the western property boundary. A parcel defined as agricultural use by the Southampton General Land Use Map is located immediately south of the subject property. Residential use in the area of the subject property is defined by single-family development.

Zoning

Zoning History of the Project Site - Prior to 2008, the area between Sunrise Highway and the LIRR tracks (including the subject site) was generally zoned for low-density residential uses, including Country Residence (CR) 200, CR 120 and CR 80. The pattern was characterized by smaller zoning yield lot sizes from north to south: the northern portion of the property was zoned CR 200, the central portion was zoned CR 120 and the southern portion was zoned CR 80. An exception to this pattern was the Links property, which was zoned for TDR. The component sites of the subject property were zoned as follows (see **Figure 3-5**):

Hills North Parcel - CR 200
Hills South Parcel - CR 200 in the north, CR 120 in the central portion, and CR 80 in the south
Kracke Property - CR 120 in the north and central portions, CR 80 in the southern “panhandle” area
Parlato Property - CR 200 in the northern half, CR 120 in the southern half

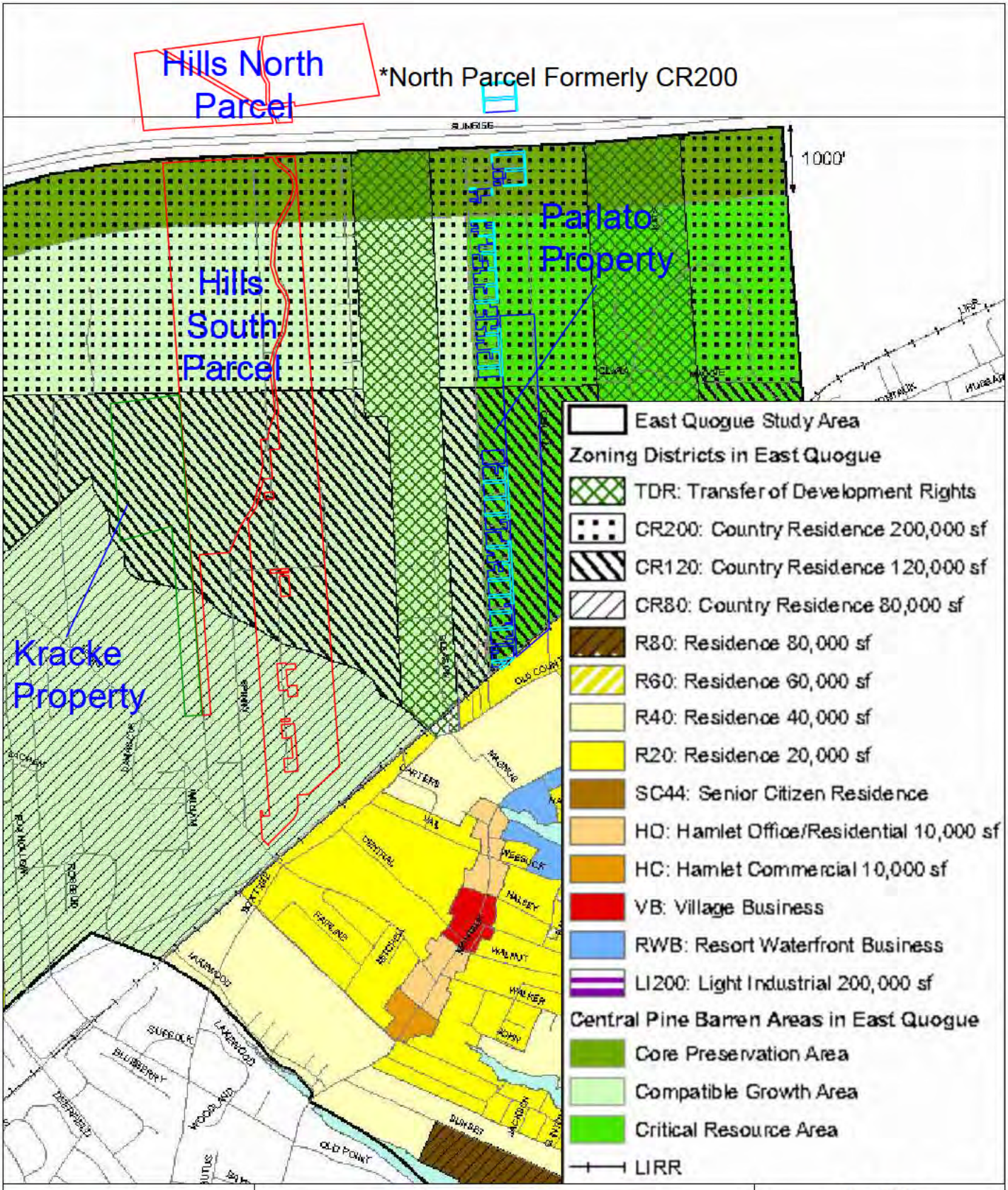

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FIGURE 3-5
PRIOR ZONING MAP

Source: Town of Southampton Zoning, 2006
Scale: 1" = 2000'

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This zoning was in effect at the time of adoption of the Central Pine Barrens Comprehensive Land Use Plan in 1995. However, the zoning of the area was significantly altered in response to the adoption of the East Quogue GEIS (see below).

Current Zoning of the Project Site - The Town of Southampton Zoning Map illustrating zoning for the area of the subject property is provided as **Figure 3-6**. The subject property and area are characterized by CR (Country Residence) 200 zoning. Surrounding areas are zoned CR 200, CR 120, CR 80, Residential (R) 20, R 40, TDR (Transfer of Development Rights) and Open Space.

More specifically, the pattern of zoning within an estimated 1,000-foot radius is as follows:

North: CR 200 and TDR
East: CR 200, CR 120, CR 80, TDR and HB (Highway Business)
South: CR 80, R 20, R 40
West: CR 200, CR 120, CR 80 and R 20

The pattern of zoning in the area reflects the pattern of land uses, in that more intensive development is located to the south of the LIRR tracks and in the hamlet center, transitioning to lower intensity uses (and zones) to the north.

The CR 200 district provides for low-density use in the form of detached single-family homes on lots of at least 200,000 SF in size. However, other as-of-right uses are also permitted in this district, and include: planned residential development; park or playground; fire station, municipal office or other governmental building of a similar nature; public or private elementary and/or high school; and agriculture (excluding animal husbandry). A number of other uses are allowed, with a special exception approval of the Town Planning Board; these uses include: conversion of a one-family home in to a two-family home; camping ground; church; nursery school; library or museum; school for the mentally retarded; a number of types of community facilities; and several agricultural-related uses.

In addition to the 200,000 SF-minimum lot size requirement, the dimensional regulations of the Town Zoning Code allow a maximum building coverage of 5%, a lot width of at least 200 feet, a maximum building height of two stories (32 feet), and substantial yard depths (100 feet in front, 50 feet for each side yard, and 1200 feet in the rear yard).

Town Aquifer Protection Overlay District - The subject site lies in an area designated for special aquifer protection with limitations as to the type and amount of land use activity that may take place within the District (see **Figure 3-6**). Numerous studies have identified geographic areas in the Town where the quality of water recharged to the underlying aquifers is of critical concern. These areas have been designated as Aquifer Protection Overlay District (APOD) areas for the purpose of planning and zoning decisions.

Due to the fact that the sole source of drinking water for the Town of Southampton lies in its underground aquifers, the Federal government has given sole source aquifer designation to this area. Thus, the type and amount of land use in the water catchment regions must be compatible

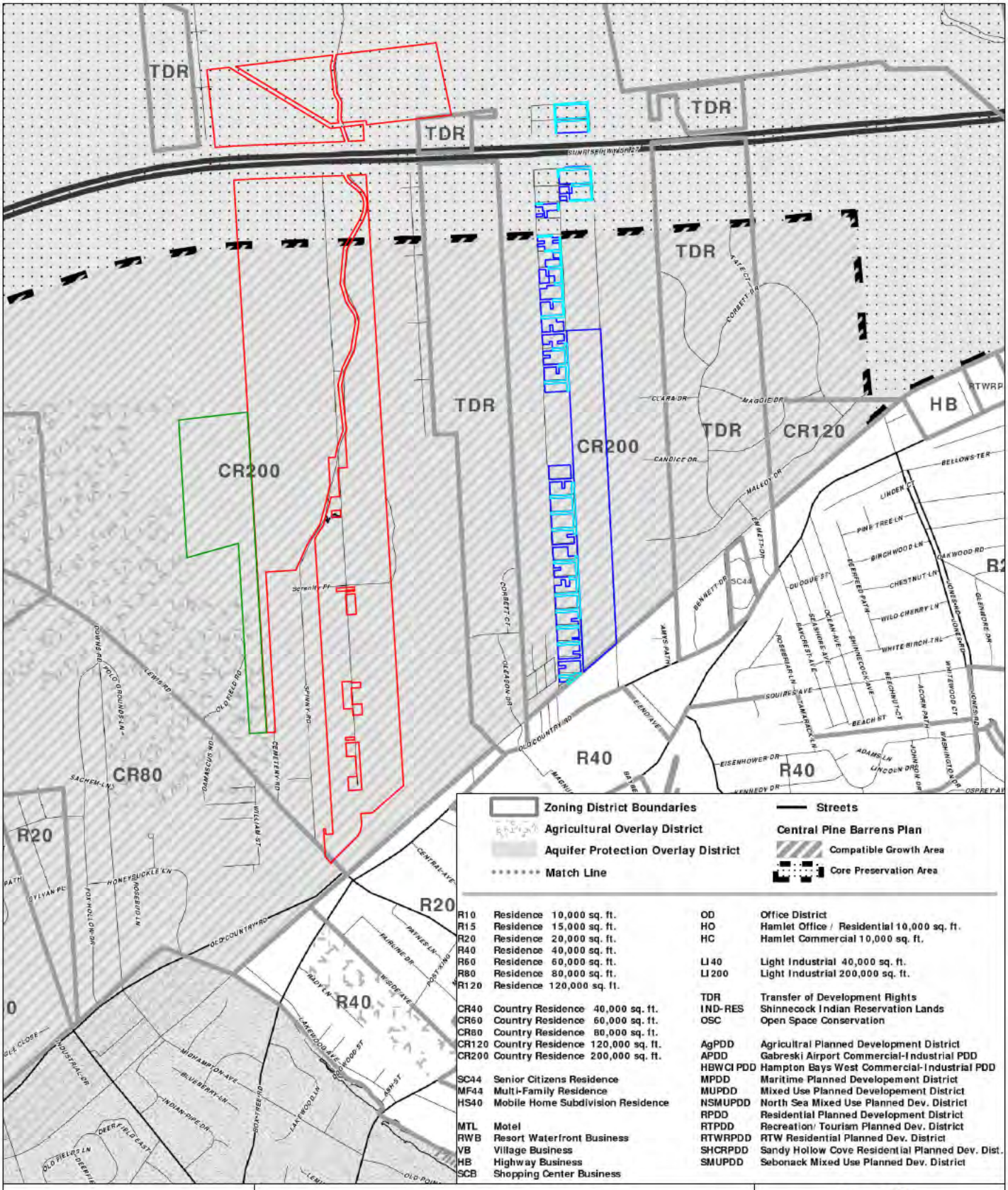

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FIGURE 3-6
EXISTING ZONING MAP

Source: Town of Southampton Zoning, 2008
Scale: 1" = 2000'

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with the function of water recharge to ensure the overall goal of protecting the supply of drinking water.

Briefly, the restrictive land uses apply to protecting the existing natural vegetation to the maximum extent possible; restricting the amount of fertilized vegetation on a site; frequent monitoring and inspection of construction related to any building permits granted; and restricting septic or waste disposal in the overlay district. The specific APOD development regulations are provided in **Section 3.2.2**, followed by a conformance assessment of the proposed project.

Town Central Pine Barrens Overlay District - The site lies within the CPA and the CGA of the Central Pine Barrens Zone (see **Figure 3-7**). The Town of Southampton adopted the standards of the Pine Barrens Plan into the Town Code and established an Overlay District under Article XXIV to implement the standards in the Central Pine Barrens CLUP. Development within the CPA and the CGA must adhere to land use restrictions as set forth in Sections 330-219 and 330-220 of the Town Code. The specific development regulations from Section 330-219 and 330-220 are provided in **Section 3.2.2**, followed by a conformance assessment of the proposed project.

MUPDD Zoning Requirements - Section 330-240E of the Town Zoning Code lists the standards by which a proposed MUPDD is to be analyzed, to determine whether it would achieve the Town Board's long-term goals. The standards by which the project's conformance to the MUPDD requirements will be reviewed are listed in **Section 1.4.1**; the project's conformance to each is discussed in **Section 3.2.2**.

<u>Land Use Plans</u>
Southampton Tomorrow, Comprehensive Plan Update (1999) - In 1994, the Town initiated a Comprehensive Plan Update, which built upon the previous 1970 Master Plan. The updated plan stated the long-term planning objectives of the Town, established the general plan to guide both public and private development, and addressed critical community planning issues, including protection of natural resources, provision of affordable housing, forecasting the need for improved or additional municipal facilities, sustaining the local economy, and improving transportation management. This Comprehensive Plan Update was completed and adopted by the Town Board on March 12, 1999.

As declared in Section 330-3 of the Town Zoning Code, the Town lists, in the public interest, the utilization of land for the purposes for which it is most appropriate, and the elimination of nonconforming uses as specific objectives of the Town of Southampton. The Town Comprehensive Plan includes the Town's zoning law and the zoning map, the zoning and planning decisions of the Town and plans and studies that provide guidance for development within Southampton.

As recognized by the 1999 Comprehensive Plan Update, the Town recognizes the need to protect natural resources as a means to ensure economic stability and preserve the unique quality of life. The Town seeks to protect the Pine Barrens areas within the Town, protect deep aquifer recharge areas, protect, preserve and restore habitat and wetlands and preserve open space through land acquisition. The plan identifies a critical resource area immediately adjacent to the east of the

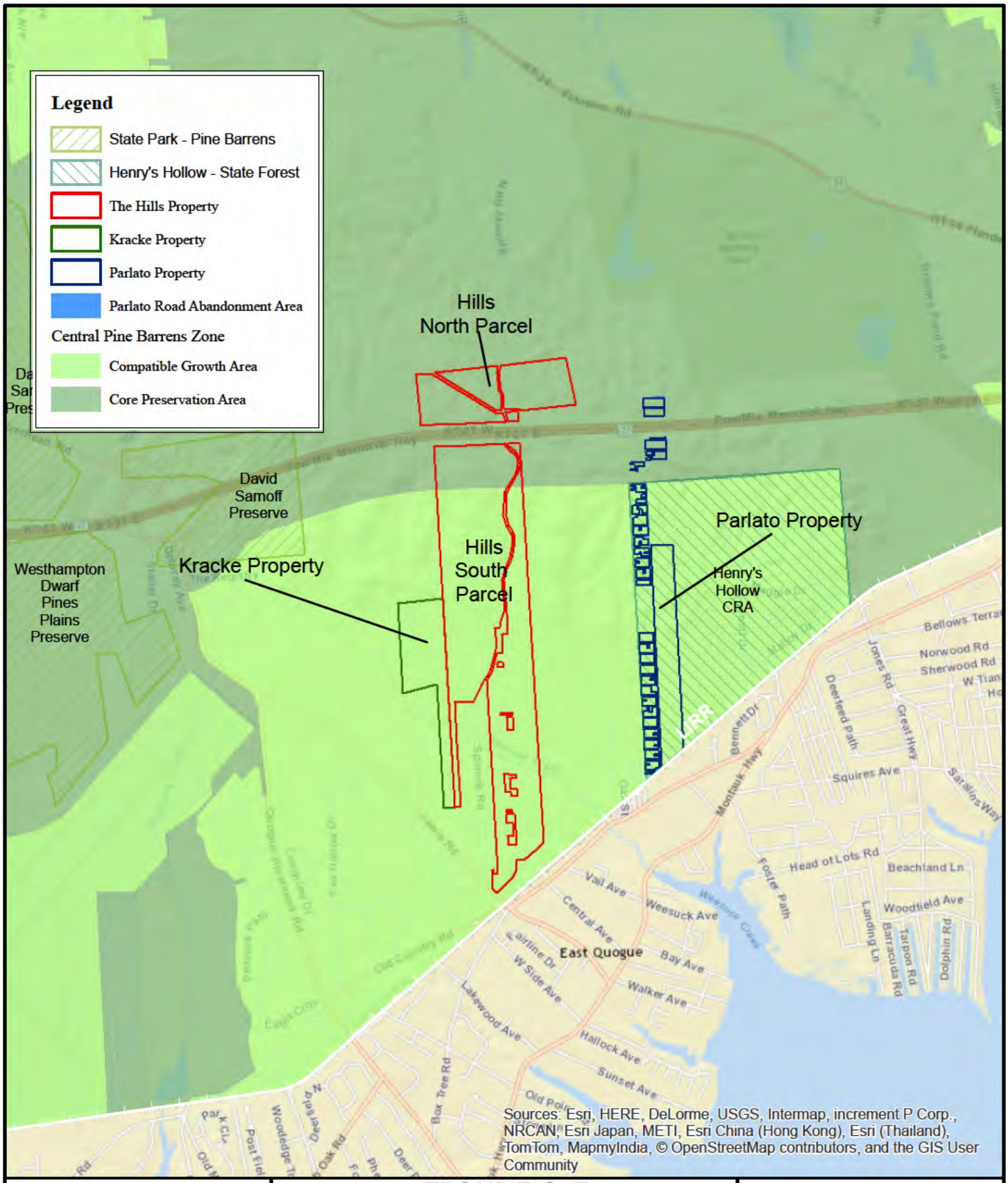

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FIGURE 3-7
TOWN CENTRAL PINE BARRENS OVERLAY ZONE MAP

Source: ESRI WMS, NYS DEC location map
Scale: 1 inch = 3,000 feet

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subject property. Additionally, the plan identifies the preservation of scenic views as important to preserving quality of life. The area around Sunrise Highway (NYS Route 27) was identified as a significant scenic corridor. The Plan Update made no recommendation specific to the project site.

Western Town GEIS (1993) - The following description/discussion of the Western Town GEIS has been taken from the Town's Eastport/Speonk/Remsenburg/Westhampton Area Study (September 2004), prepared by Saccardi & Schiff, Inc.

> The draft Western GEIS was initially undertaken in 1989 as "A Comprehensive Plan Initiative for Groundwater and Pine Barrens Forest Preservation." The Western GEIS examined the area lying within the Town's Aquifer Protection Overlay District on the Town of Southampton Zoning Map encompassing the Central Pine Barrens area lying within the western portion of the Town.
>
> The Western GEIS was an in-depth environmental study of the Town's Pine Barrens Preserve Plan which examined the cumulative impacts of dispersed growth patterns and future build-out on the pine barrens ecosystem and the community's ability to sustain and provide for efficient and less costly infrastructure and services. According to the purpose statement in the document, "the Town desired to take a hard look at the natural resources of the region and search for improved ways to deal with the inevitable development that would take place in decades to come." A land use strategy advocated by the Western GEIS was utilization of the transfer of development rights (TDR) process, whereby areas deemed critical to protect are preserved by having their rights transferred to an area more suitable for higher density development.
>
> The overall objective of the Western GEIS was to equitably meet the economic and environmental needs of the present and future generations, and achieve sustainable development.
>
> Specific plan objectives included, among others:
>
> - Maintain and preserve the Central Pine Barrens ecosystem.
> - Protect and enhance native forest resources.
> - Implement a tentative preserve plan to manage conservation lands and provide areas suitable for recreation, education, and research
> - Address landowners' rights and equity by providing for public purchase of private lands and transference of development rights to achieve goals of pine barrens preservation and ecological restoration
> - Facilitate economic incentives for recreation and ecotourism and resort development
> - Provide a holistic approach to development by developing a comprehensive plan for shifting private development rights from the pine barrens forest preserve concentration (core preserve) to outer ring locations (acceptable receiving areas) and to locations outside of the Central Suffolk Special Groundwater Protection Area (SGPA) where access to existing infrastructure and efficiencies of development would be realized
> - Address social and economic dimensions by breaking the vicious cycle of development sprawl and environmental destruction by working towards economic growth solutions that promote pine barrens protection and sustainable livelihoods
> - Ensure legal mechanisms through enactment of effective environmental legislation consistent with the environmental standards, management objectives, and priorities reflected in the Town's Pine Barrens Preserve Plan.

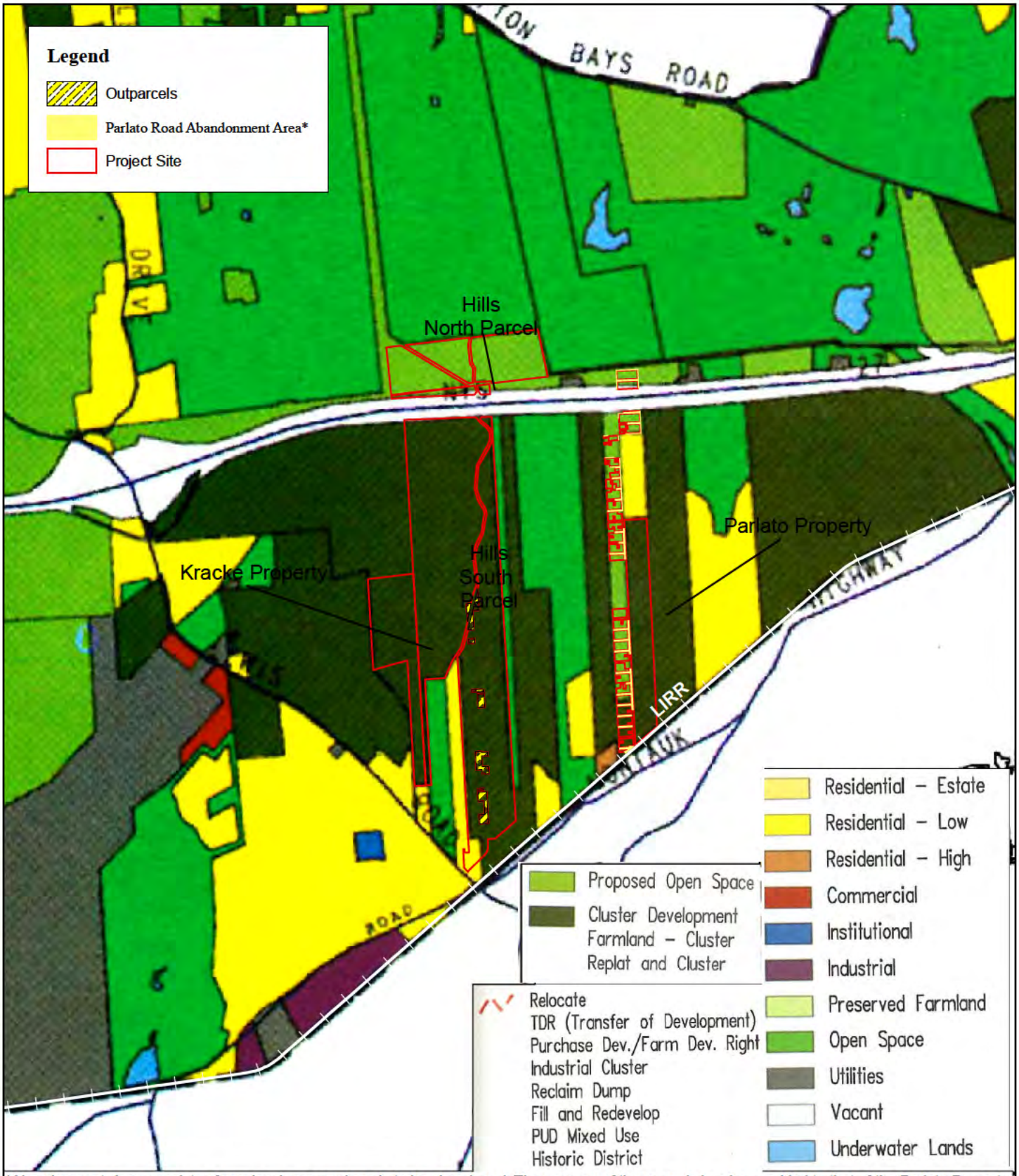
Although used as a reference material by Town Officials and planning staff, the draft Western GEIS was not adopted in a final form by the Town of Southampton, due to the advent of other regional planning efforts and required ratification of the New York State Central Pine Barrens Plan. Most of its recommendations for natural resource protection and viable receiving sites to facilitate transfers of development rights were transcribed into the New York State Central Pine Barrens Comprehensive Land Use Plan.

East Quogue GEIS - The Town of Southampton prepared a GEIS in 2008 to evaluate various potential development scenarios of a large area of land located in the East Quogue area of the Town that includes the subject site. The document looked at various land use alternatives which culminated in a recommended land use plan for the area which sought to maintain East Quogue's quaintness and natural resources while encouraging appropriate growth. Specifically, the recommended land use plan aimed to encourage tax generating uses, reduce generation of school-aged children, reduce the burden on community services, direct development away from environmentally sensitive areas and towards fragmented, disturbed or previously developed sites, encourage preservation of natural features and recreational opportunities, provide an active recreation/resort/residential destination, provide economic growth while minimizing fiscal impacts and maintain the attractiveness of the East Quogue area. Specific recommendations were made for various parcels including the parcels that comprise the Hills at Southampton (see **Figure 1-5**). The recommendations for the subject property included: use of a PDD to achieve a compatible growth development; consideration that a portion of the property or an adjacent property be allocated to the SCWA for a well field; consideration of donating an acre of land to the East Quogue Fire Department for a new facility; that a private golf course development including open space north of Sunrise Highway, banquet, conference, spa and health and wellness facilities be considered; and, a clustered residential development and other recreation activities be considered for the site. The plan also recommended that the golf development include some of the adjacent Town-owned property to the east for green, tees, fairways, trails, paths, open space and buffer areas.

Special Groundwater Protection Area (SGPA) Plan - The project site is located within the Central Suffolk Special Groundwater Protection Area (Southeast Sector, Southampton Portion); specifically, the subject property is located along the southern border of the Central Suffolk SGPA, which is bounded on the south by the LIRR tracks in the area of the site.

As defined under NYS law (Article 55 of the NYS ECL) (see **Figure 3-8**), a "Special Groundwater Protection Area" is defined as:

> "A recharge watershed area within a designated sole source aquifer area contained within counties having a population of one million or more which is particularly important for the maintenance of large volumes of high quality groundwater for long periods of time. For the purposes of this article, each "special groundwater protection area" shall be classified as a critical area of environmental concern as used under article eight of this chapter (Section 55-0107 ECL Article 55). The Long Island SGPA Plan was prepared by the Long Island Regional Planning Board in 1992 in order to study land use and groundwater quality within the several SGPAs on Long Island.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-8
RECOMMENDED LAND USE, SGPA PLAN

Source: Long Island Regional Planning Board, 1991
Scale: 1 inch = 3,000 feet

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The SGPA Plan makes specific recommendations for development within each SGPA, as well as general recommendations which are applicable to all of the identified SGPAs. Where restrictions of the Central Pine Barrens Comprehensive Land Use Plan duplicate those of the SGPA Plan, the former supersede those of the latter. The following text will briefly discuss the recommendations of the SGPA Plan.

Chapter 2 of the SGPA Plan provides general recommendations that pertain to all SGPAs on Long Island. The chapter provides a regional overview of groundwater resources on Long Island and discusses opportunities for protection and enhancement of groundwater quality. The plan then outlines general policy considerations, watershed rules and regulations, and best management practices (BMP). The primary focus of the plan is the use of existing local land use regulations and sanitary codes to manage development, and to reduce residential densities to a level which is environmentally acceptable. Protection of open space through clustering, rezoning and outright acquisition is also identified as an important means of protecting the quality of groundwater recharge. The plan also discusses the use of existing regulations to control the discharge of hazardous materials from industrial and commercial development.

The Policy Considerations section of the chapter sets a goal of non-degradation of the aquifer, recognizing that some tradeoffs will be necessary based on economics or other social considerations. The plan also discusses the regulation of STPs within the SGPA, BMPs for limiting fertilizer and pesticide use in landscaped areas, and preservation of open space and other land use considerations. The two primary groundwater concerns associated with development on Long Island are nitrogen loading due to on-site disposal of sanitary waste effluent, and lawn fertilization. As the project site does not have access to an off-site sewage disposal system, and development densities allowed under zoning are much less than density limitations of Article 6 which if exceeded would require wastewater treatment, the discussion of STPs is not relevant to the proposed project, however, the need to restrict fertilizer use is important to maintain both groundwater and surface water quality. BMPs discussed include limitations on clearing, fertilization, irrigation and the reduction in the overall use of landscaped areas. Specific management practices which can be employed on the subject site will be discussed in the impacts section of this document and it is noted that the Central Pine Barrens Overlay District and the Aquifer Protection Overlay District of the Town Code restrict clearing and fertilization.

Chapter 3 of the SGPA Plan inventories the characteristics of each individual SGPA, and provides recommendations based on issues, problems and opportunities which are specific to each SGPA. With respect to the Southeast Sector, Southampton Portion of the SGPA, the Plan indicated the following:

> **Opportunities**
> The Southeastern part of the Central Suffolk SGPA continues the large expanse of the green space in central Brookhaven and extends all the way to Hampton Bays. Eventually three fourths of all the land located in the portion of this sector between Route 24 on the north and Sunrise Highway on the south will be in some type of public ownership. Extensive County holdings around the County center at Bald Hill, near the Community College, at Maple Swamp, and at Hubbard and Sears-Bellows County Parks account for the largest share of the open space. The State Department of Environmental Conservation holdings account for another 2,000 acres. There are other County lands south of Sunrise Highway at the airport and in the dwarf pines area. Most of the additional open land

in the Southeast sector is being preserved by means of major watershed acquisitions; however, there are opportunities to set aside some open space through clustering. Clustering of new residential developments could secure dedicated acreage adjacent to Peconic River properties, preserve an open pine barrens corridor along the Long Island Expressway and could add to some of the holdings in the eastern portion of Manorville. It could also provide pockets of open space in the more developed portions of Manorville and some key pieces along the old railroad right-of-way that might one day serve as a hiking trail, connecting Old Country Road in Eastport with the lands near the Peconic River. Clustering could also preserve some wetlands adjacent to the State property. In fact, the Town of Southampton has already utilized mandatory clustering to create a continuous corridor from the County holdings to Squires Pond in the eastern part of the SGPA.

Owners of two of the golf courses in this sector have already given up the development rights to the properties, which will therefore remain as open space. Two other courses, Swan Pond and Long Island Country Club are not permanently protected. The former, which is located south of the Navy owned airport used by Grumman, will be completely surrounded by public lands. There is an opportunity to assure the continued availability of the two golf courses for recreation and water shed protection through negotiation and implementation of some type of non-development agreement or through County or Town purchase and lease back.

There are a series of old filed map subdivisions near the remaining farmland in Manorville and in Southampton. Acquisition, replatting and cluster development at an appropriate density, thus avoiding piece-meal development on substandard lots. Acquisition and retention as conservation land could preclude intrusive development in the ecologically significant dwarf pines area in Southampton.

Recommendations

- Suffolk County should establish a Dwarf Pines Preserve to the north and west of the Suffolk County Airport. Such a preserve, incorporating existing County holdings in the area, would constitute part of an open corridor along the south side of Sunrise Highway and would complement the public lands on the north side. The County and the Nature Conservancy should continue to acquire the remaining old filed map lots in the dwarf pines area and should add them to the Dwarf Pines Preserve.
- The County or the Town of Brookhaven should acquire, and replat the remaining old file map subdivisions or undeveloped portions thereof for clustered housing and open space. The Towns of Brookhaven and Southampton should attempt to acquire the development rights or otherwise preserve the Swan Pond and the Long Island golf clubs.
- The County or the Town of Southampton should acquire the development rights to the small pockets of farmland at Lewis Road and along Riverhead – East Moriches Road.
- The Towns of Brookhaven and Southampton should facilitate the conversion of obsolete or inappropriately located extractive and industrial properties, such as the sand mine on South Street and the industry along Nugent Drive, to residential use. In the case of the Nugent Drive properties, homes could be connected to the STP that serves a nearby condominium, thus protecting the groundwater and the nearby Peconic River.
- The Town of Southampton should permit new industrial development only in those areas where such uses already exist. These areas include the Suffolk County Airport and the adjacent properties that have not been rezoned for residential use, the areas around the County Bomarc facility and along Speonk Road and a small, partially developed industrial area in the Village of Quogue.

The Plan analyzed the existing land use patterns and zoning within each SGPA, and predicted the saturation density which would be permitted under the existing Town codes. Soils, vegetation, hydrogeologic patterns and other existing conditions were also inventoried. This information was then utilized to develop a proposed land use plan map for the sector which depicts areas within the SGPA according to the intentions and goals of the Plan.

The project site is shown on the SGPA Plan (see **Figure 3-8**) as recommended for:

- Hills North Parcel: Open Space
- Hills South Parcel: Cluster Development
- Kracke Property: Cluster Development
- Parlato Property: Open Space and Cluster Development

NYS Coastal Zone - As shown in **Figure 3-9**, the project site lies north of (outside) the established boundary of the NYS Coastal Zone. As a result, the recommendations of that plan do not apply to the project site or to the proposed project, and need not be discussed further.

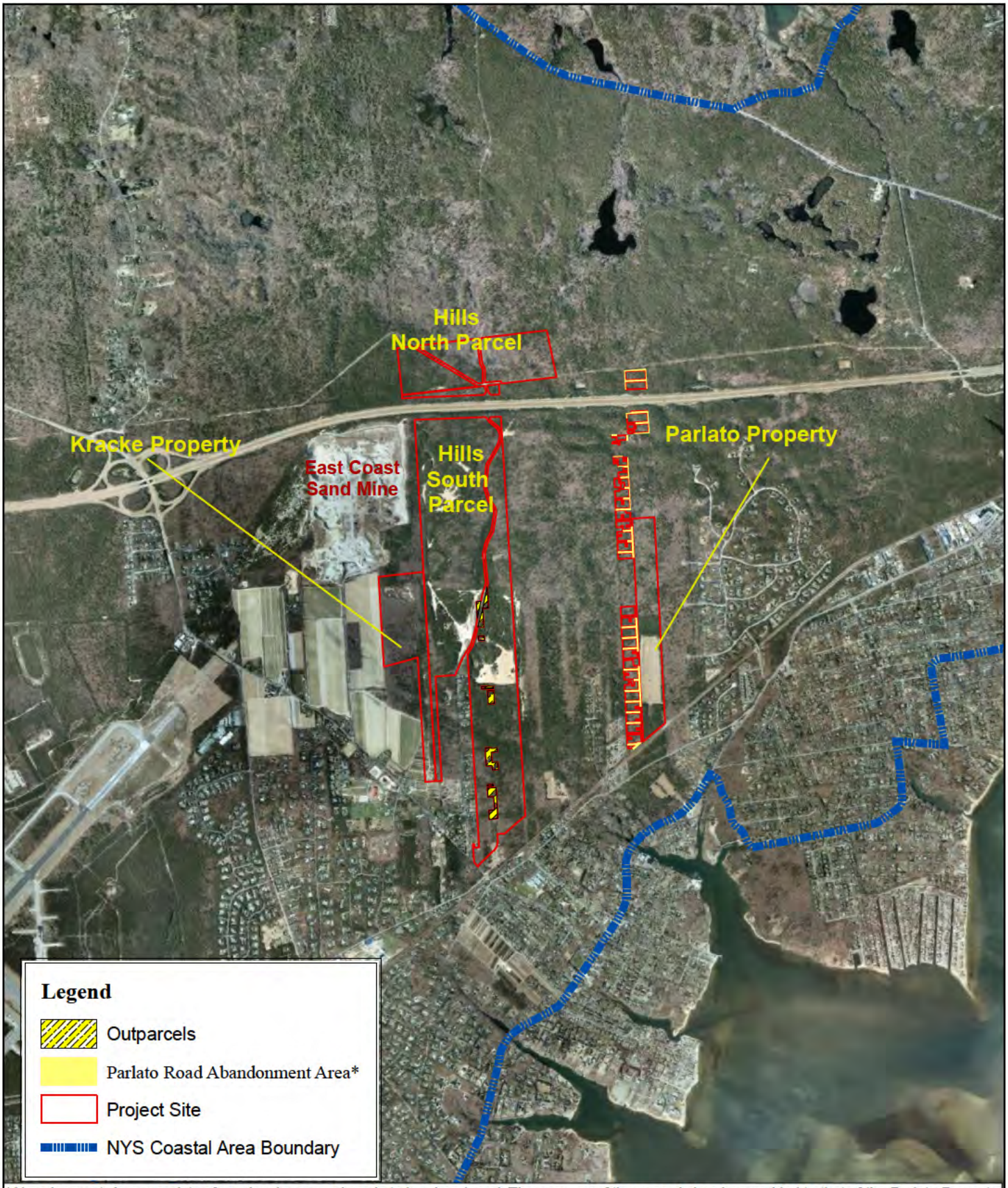
Central Pine Barrens Comprehensive Land Use Plan - The Long Island Pine Barrens Act of 1993 divided the Long Island Pine Barrens into two geographic areas, the entire CPB of about 100,000 acres, and within this larger area is the smaller 52,500 acre CPA. Areas not contained within the CPA are referred to as the CGA and comprise approximately 47,500 aces. As shown in **Figure 3-7**, the entire Hills North Parcel is within the CPA; the majority of the Hills South Parcel and the Parlato Property are within the CGA, though the northern portions of each lie in the CPA to a distance of 1,000 feet south of Sunrise Highway. The entire Kracke Property is within the CGA. The acreages of each component property are tabulated in **Table 1-3**. Note that, though the majority of the Parlato Property is within the CGA, this acreage is also within the Henry's Hollow Region CRA as designated by the CPB CLUP. As a result, under ECL 57-0123(2)(a) and Section 4.5.4 of the CPB CLUP, the CPBJPPC has jurisdiction over the proposed project, for which compliance with the CPB CLUP must be demonstrated.

It is noteworthy that the proposed project does not include any development (as defined by the CPB CLUP) within the CPA or within the Henry's Hollow Region CRA. All development will occur within the CGA; all project lands within the CPA and/or the Henry's Hollow Region CRA will be dedicated to the Town of Southampton as public open space.

Section 3.2.2 below presents the standards and guidelines of the CLUP for development within the CGA, with brief descriptions/discussions of the project's conformance to each.

3.2.2 Anticipated Impacts

<u>Land Use</u>
As supported in the discussions in **Section 1.2**, the proposed project was designed to complement the area's rural character. The project includes a mix of resort residential dwellings a golf course and a clubhouse and is designed to complement the architectural character of the area and maximize retention and regard for natural resources. The project does not propose any more



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-9
NYS COASTAL
AREA BOUNDARY MAP

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 3,000 feet

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residences than could be built on those properties under their existing CR 200 zoning and the dwellings will be occupied on a seasonal basis and not year-round. In this way (among others), the project would conform to the type of land use that would be built under its existing zoning, at a yield that would have been built under the existing zoning. Additionally, it is expected that the homes proposed are substantially smaller than those that could be built if the subject site were developed at its existing CR 200 zoning. The proposed project does include a golf course, which is not permitted in the CR 200 zone, but is allowed in the MUPDD zone (see Town Zoning Code Section 330-246.B.3.e*)*; this has prompted the Applicant to seek the MUPDD zoning district. The golf course and residential use of the Mixed-Use PDD will fit within the allowable clearing restrictions of the CPB CLUP and Overlay District, as well as the 15% limit on fertilizer dependent vegetation. The effect of the proposed project is to develop the overall density on the interior of the Hills South Parcel/Kracke Property and retain substantial surrounding open space such that large areas of natural vegetated lands would be retained to align with interior and off-site open space and also present a natural setting from outside observation.

Additionally, the project's land use type conforms to those of its surroundings. Specifically, the project is low-density residential, which is a complementary type of land use compatible with the mix of vacant/wooded, open space and agricultural uses that characterize the immediate area.

Catastrophic Disasters and Preparedness

Consideration has been given to the potential for catastrophic events and appropriate response with respect to The Hills at Southampton MUPDD and its occupants. Catastrophic events could potentially include hurricane force storms, extensive flooding, forest fire, earthquake, or other major event. Overall, the nature of the proposed project is common to Long Island and would not be particularly susceptible to loss of life, property or damage as a result of a catastrophic event. The project is consistent with residential use in the area, which is at comparable or lower elevations and therefore similarly susceptible to flooding. From a forest fire standpoint, the residential component is not unlike the Southampton Pines residential use east of the site and similarly situated with respect to fire susceptibility. The proposed project has the added benefit of having a limited crew of full-time, year-round staff on-site that would assist in early warning and response to such an event. In addition, the individual units are not occupied year-round by its residents, who are expected to use individual units on average for 60 or less days per year. This decreases the human risk, and makes evacuation easier due to a smaller population than other types of residential use. Significant earthquake events are uncommon on Long Island; however, tremors originating in the region do occur, but do not typically result in conditions that involve significant damage, dangerous conditions, need for response, or evacuation. Information exchange is critical during times of catastrophe, and The Hills is expected to have an advantage in this regard due to modern construction, smart technology, underground utility, and a central office associated with the clubhouse. The overall project would be constructed to current New York State and Town Building and Fire Code requirements. The golf course component does not increase the susceptibility of the project to catastrophic event, and the clubhouse provides a central location for information exchange, gathering, protection and evacuation should this be necessary. Considering the nature, the design, and the facilities of the proposed project, there should be little concern on the part of the Town, the site owners/occupants or the neighborhood that the Hills at Southampton would represent a potential source of a catastrophic event, or a risk to a catastrophic event, however defined.

More minor potential catastrophic or sub-catastrophic events are further considered herein. The project is residential in nature with a substantial on-site recreational amenity for its inhabitants; as such, the activities on the site (and any associated health or safety risks) would be typical of such a use. The project does not include any potential uses or loci of that would or could pose a potential danger to the neighborhood, such as a dam or impoundment, an industrial operation that would emit toxic or hazardous substances, or any increased risk of fire. The site is outside the 100-year flood hazard zone, so its risk of flooding from rainfall or hurricane storm surge would be minimal. The site is and will remain heavily forested, so its greatest risk of catastrophe would most likely be from fire; however, as discussed above, the project is potentially less susceptible to such an event due to year-round staffing, a central office and low occupancy. Such risks would be addressed by observation of the site by its employees and residents providing timely warning, so that the fire would be smallest when first detected and acted upon, and by fire-prevention and suppression actions undertaken by local fire departments. It is acknowledged that there will be fuel storage tanks and lawn maintenance chemical storage, as well as applications of lawn chemicals. However, any perceived risks associated with such facilities and/or activities are commonly encountered and addressed in any residential development of comparable size or complexity. The site may be vulnerable to sub-catastrophic events arising from high winds, a severe snowfall, or an extended severe cold weather, to name a few. Risk from high winds is reduced through installation of underground utilities and code conforming construction measures, as well as the consideration of low occupancy and on-site management. Severe snowfall and/or extended cold temperatures are also a relatively minor risk as the site will be maintained privately with road plowing, central management response if needed, and a very low to non-existent winter occupancy.

Site management will assist in monitoring conditions and will be aware of regional and governmental catastrophe response plans for such events, which would in part be managed by public entities such as the Town, the County, the State and/or the federal government, and would depend upon the nature, size and duration of catastrophe being planned for. As such, the project's required conformance to applicable Town, County and/or State regulations regarding the above-named potential hazards would more than adequately satisfy concerns regarding potential catastrophes.

<u>Zoning</u>

Proposed Zoning of the Project Site - The proposed project will change the zoning classification of the site from CR 200 to PDD, to allow a mixed use development that is consistent with the East Quogue Land Use Plan and GEIS.

The land uses to be established on the site are compatible with those in the vicinity; low-density residential exists throughout the area, and the golf course amenity is complementary to the low-intensity, open space uses that are also present. These two uses also conform to uses recommended for the site in the East Quogue LUP and GEIS.

Town Aquifer Protection Overlay District - As noted in **Section 1.4.1**, the subject site is within the Town-designated APOD (see **Figure 3-6**). Town Zoning Code Article XIII, Sections 330-67A(4)(a) and 330-67B contain the regulations associated with this law and applicable to the

proposed MUPDD. The following presents the applicable standards, with a brief discussion of the project's conformance to each.

Section 330-67A Protection of natural vegetation.
To ensure maximum water recharge and to minimize the potential for fertilized vegetation, natural vegetation located on a tract or a lot shall be preserved to the maximum extent possible, consistent with the following parameters:

(4) Residential lots and tracts.

(a) For residential lots, the amount of disturbance of natural vegetation shall not exceed the following percentages except on flagpole lots, where the area of the pole shall be exempt from the total lot area and the total amount of clearing permitted:

Lot Size (square feet)	***Percentage of Site***
1 to 15,000	*75%*
15,001 to 30,000	*60%*
30,001 to 60,000	*50%*
60,001 to 90,000	*35%*
90,001 to 140,000	*25%*
149,001 to 200,000	*20%*
200,001 or greater	*15%*

This standard is more directed toward subdivision of land for a cluster development and less applicable to a PDD with common lands, varying lot sizes and maximized public space with minimized private space. As a result, the above APOD clearing standards are not easily applied to the proposed MUPDD, but can be evaluated in terms of overall clearing and relation to the Vegetation Clearance Limits of the CPB LUP (see below). The **Master Plan** shows that an estimated 166.86 acres of the subject property (28.23% of the project site) will be cleared to develop the proposed project, of which 122.80 acres will be undisturbed natural vegetation. This conforms to the more stringent CPB CLUP as well as the Town CPB Overlay District.

As a point of comparison, **Table 3-6a** has been prepared to indicate the amount of clearing that would be allowed on the project site if it were to be developed as a clustered-lot subdivision under APOD requirements. As can be seen, up to 166.85 acres (28.23%) of the site could be cleared, leaving a minimum of 424.15 acres (71.77%) of the site as undisturbed open space.

Table 3-6a
CLEARED/RETAINED OPEN SPACE, by Lot Size
As-of-Right Development, under APOD*

Lot Number	**Lot Size** (SF)	**Clearing on Lot** (SF)	**Retained on Lot** (SF)
Hills & Kracke Properties			
1 (1)	59,926	29,963	29,963
2 (1)	58,926	29,463	29,463
3(1)	57,926	28,963	28,963
4 (1)	58,326	29,163	29,163
5 (1)	58,926	29,463	29,463
6 (1)	58,926	29,463	29,463
7 (1)	58,926	29,463	29,463

8 (1)	58,926	29,463	29,463
9 (1)	58,926	29,463	29,463
10 (1)	58,926	29,463	29,463
11 (1)	59,926	29,963	29,463
12 (1)	59,426	29,173	29,173
13 (1)	58,726	29,363	29,363
14 (1)	58,626	29,313	29,313
15 (1)	58,926	29,463	29,463
16 (1)	58,926	29,463	29.463
17 (1)	58,926	29,463	29,463
18 (1)	58,526	29,263	29,263
19 (2)	30,000	18,000	12,000
20 (2)	30,000	18,000	12,000
21 (2)	30,000	18,000	12,000
22 (2)	30,000	18,000	12,000
23 (2)	30,000	18,000	12,000
24 (2)	30,000	18,000	12,000
25 (2)	30,000	18,000	12,000
26 (2)	30,000	18,000	12,000
27 (2)	30,000	18,000	12,000
28 (2)	30,000	18,000	12,000
29 (2)	30,000	18,000	12,000
30 (2)	30,000	18,000	12,000
31 (2)	30,000	18,000	12,000
32 (2)	30,000	18,000	12,000
33 (2)	30,000	18,000	12,000
34 (2)	30,000	18,000	12,000
35 (2)	30,000	18,000	12,000
36 (2)	30,000	18,000	12,000
37 (2)	30,000	18,000	12,000
38 (2)	30,000	18,000	12,000
39 (2)	30,000	18,000	12,000
40 (2)	30,000	18,000	12,000
41 (2)	30,000	18,000	12,000
42 (2)	30,000	18,000	12,000
43 (2)	30,000	18,000	12,000
44 (2)	30,000	18,000	12,000
45 (2)	30,000	18,000	12,000
46 (2)	30,000	18,000	12,000
47 (2)	30,000	18,000	12,000
48 (2)	30,000	18,000	12,000
49 (2)	30,000	18,000	12,000
50 (2)	30,000	18,000	12,000
51 (2)	30,000	18,000	12,000
52 (2)	30,000	18,000	12,000
53 (2)	30,000	18,000	12,000
54 (2)	30,000	18,000	12,000
55 (2)	30,000	18,000	12,000
56 (2)	30,000	18,000	12,000
57 (2)	30,000	18,000	12,000
58 (2)	30,000	18,000	12,000
59 (2)	30,000	18,000	12,000

60 (2)	30,000	18,000	12,000
61 (2)	30,000	18,000	12,000
62 (2)	30,000	18,000	12,000
63 (2)	30,000	18,000	12,000
64 (2)	30,000	18,000	12,000
65 (2)	30,000	18,000	12,000
66 (2)	30,000	18,000	12,000
67 (2)	30,000	18,000	12,000
68 (2)	30,000	18,000	12,000
69 (2)	30,000	18,000	12,000
70 (2)	30,000	18,000	12,000
71 (2)	30,000	18,000	12,000
72 (2)	30,000	18,000	12,000
73 (2)	30,000	18,000	12,000
74 (2)	30,000	18,000	12,000
75 (2)	30,000	18,000	12,000
76 (2)	30,000	18,000	12,000
77 (2)	30,000	18,000	12,000
78 (2)	30,000	18,000	12,000
79 (2)	30,000	18,000	12,000
80 (2)	30,000	18,000	12,000
61 (2)	30,000	18,000	12,000
82 (2)	30,000	18,000	12,000
82 (2)	30,000	18,000	12,000
84 (2)	30,000	18,000	12,000
85 (2)	30,000	18,000	12,000
86 (2)	30,000	18,000	12,000
87 (2)	30,000	18,000	12,000
88 (2)	30,000	18,000	12,000
89 (2)	30,000	18,000	12,000
90 (2)	30,000	18,000	12,000
91 (2)	30,000	18,000	12,000
92 (2)	30,000	18,000	12,000
93 (2)	30,000	18,000	12,000
94 (2)	30,000	18,000	12,000
Subtotals	***3,340,668*** *(76.69 acres)*	***1,898,334*** *(43.57 acres)*	***1,442,334*** *(33.11 acres)*
Parlato Property			
1 (2)	30,000	18,000	12,000
2 (2)	30,000	18,000	12,000
3 (2)	30,000	18,000	12,000
4 (2)	30,000	18,000	12,000
5 (2)	30,000	18,000	12,000
6 (2)	30,000	18,000	12,000
7 (2)	30,000	18,000	12,000
8 (2)	30,000	18,000	12,000
9 (2)	30,000	18,000	12,000
10 (1)	49,009	24,505	24,505
11 (2)	30,000	18,000	12,000
12 (2)	30,000	18,000	12,000
13 (2)	30,000	18,000	12,000
14 (2)	30,000	18,000	12,000
15 (2)	30,000	18,000	12,000

16 (2)	30,000	18,000	12,000
17 (2)	30,000	18,000	12,000
18 (2)	30,000	18,000	12,000
19 (2)	30,000	18,000	12,000
20 (2)	30,000	18,000	12,000
21 (2)	30,000	18,000	12,000
22 (2)	30,000	18,000	12,000
23 (2)	30,000	18,000	12,000
24 (2)	30,000	18,000	12,000
Subtotals	***739,009*** *(16.96 acres)*	***438,505*** *(10.07 acres)*	***300,505*** *(6.90 acres)*
TOTAL SITE	**4,079,677** *(93.65 acres)*	**2,336,839** *(53.64 acres)*	**1,742,839** *(40.01 acres)*

* Assuming Hills South Parcel and Kracke Property developed as a unit; see Alternative 2b, **Section 5.2.3**.
(1) Maximum clearing allowed is 50% of lot.
(2) Maximum clearing allowed is 60% of lot.

Table 3-6b
COMPARISON OF CLEARED/RETAINED OPEN SPACE
As-of-Right Development, under APOD & Proposed Project, under MUPDD

Clearing Analysis, As-of-Right Development, APOD*		
Total Site:	---	---
In Lots	93.65 acres	---
Outside of Lots	497.35 acres	---
In Lots:	---	---
Cleared	53.64 acres	---
Retained	40.01 acres	---
Outside of Lots:	---	---
Cleared	113.20 acres	---
Retained	384.15 acres	65.00%
Open Space Retained	424.16 acres	71.77%
Open Space Cleared	166.84 acres	28.23%
Clearing Analysis, Proposed Project, MUPDD**		
Open Space Retained	424.14 acres	71.77%
Open Space Cleared	166.86 acres	28.23%

* See Alternative 2b, **Section 5.2.3**.
** See **Figure 1-2**.

Section 330-67A(5) indicates that the Town Planning Board has the authority to allow clearing in excess of a percentage calculated under 330-67A(4), but only for a PDD, and only if no more than 25% of the site's natural vegetation *(emphasis added)* will be cleared. The proposed project meets both of these tests. Based on the coverage and clearing values given in **Table 3-7**, the proposed project will not clear more than 25% of the site's existing natural vegetation; there are 546.94 acres of Natural Vegetation and Wetlands presently on the site, and there will be 424.14 acres of these surfaces after the project is built. This means that only 122.80 acres of these surfaces will be cleared, or 22.45%, which meets the applicable APOD clearing limit.

Regardless of the applicability of Section 330-67A(5), review of Town Zoning Code Section 330-67B indicates that that section of the APOD regulations would apply with respect to the allowable clearing within the APOD:35

B. Notwithstanding the provisions of the aforementioned subsections, lots or tracts upon which authorization is received from the Planning Board for a special exception use or authorization is received from the Town Board for the establishment of a PDD pursuant to Article XXVI of this chapter may be allowed to disturb a greater amount of the natural vegetation, provided that said use is consistent with the intent and policies of the Aquifer Protection Overlay District and that a revegetation program which protects the aquifer is incorporated into the project design.

Table 3-6b indicates that the proposed PDD would have nearly the same clearing (0.01 acres more) to what would be expected if the site were developed as a clustered-lot subdivision under APOD regulations. However, under Section 330-67B, this may be allowed by the Town Planning Board, provided that the use (i.e., the PDD) is consistent with the intent and policies of the APOD, and that a revegetation program will be applied that protects the aquifer. These two requirements will easily be met, as the proposed project has been conceptualized specifically to conform to the APOD (as well as to the East Quogue LUP), and incorporates substantial measures to protect the quality of groundwater in the aquifers beneath the site and area, including revegetation of disturbed areas to a natural condition.

Table 3-7
ANTICIPATED CLEARING & GRADING
Hills South Parcel/Kracke Property

Coverage Type	Existing Coverage (acres)	Subject to Clearing (acres)
Natural Area:	---	---
Freshwater Wetland	1.40	0
Natural Vegetation	545.54	122.80
Total Natural Area	*546.94*	*122.80*
Previously-Cleared Area:	---	---
Unvegetated	21.98	21.98 (1)
Agriculture	18.42	18.42 (2)
Brushy Cleared Land	3.66	3.66 (1)
Total Previously-Cleared Land	*44.06*	*44.06*
Totals	***591.00***	***166.86***

(1) 17.39 acres on the Hills South Parcel/Kracke Property to be Revegetated and 4.59 acres to be developed.
(2) 15.78 acres on the Parlato Property to be Revegetated and 2.64 acres on the Hills South Parcel/Kracke Property to be developed.

Section 330-67 Restriction of fertilized vegetation.
To minimize the potential for groundwater contamination from fertilizers, pesticides, herbicides and other substances, fertilized vegetation shall not exceed 15% of the area of a lot within the overlay district. Fertilized vegetation on a tract shall not exceed 20,000 square feet, except if said fertilized vegetation is in accordance with a landscape plan approved by the Planning Board. Said landscape plan shall clearly indicate the proposed landscaping, as well as the anticipated amount (in pounds per square foot) of fertilizer which shall be applied. Lands currently utilized or utilized within the past 20 years of the effective date of this chapter for the production of crops shall be excluded from the requirements of this provision.

This regulation appears to apply to an individual lot, and not for an overall property. Nevertheless, in order to conform to the Town's goal as expressed by the APOD law, the proposed project assumes that the overall amount of fertilized landscaping would not exceed 15% of the site, or 88.65 acres.

Town Central Pine Barrens Overlay District - The Town's CPB Overlay District was adopted pursuant to Article 57 of the NYS ECL and consistent with the CPB CLUP. The District is contained within Chapter 330 Zoning; Article XXIV; Sections 330-215 to 221. Standards for development within the CGA would apply to The Hills at Southampton PDD. The relevant standards and project compliance are outlined below:

Sections 330-220 Development within compatible growth area.
A. To ensure consistency with the Central Pine Barrens Comprehensive Land Use Plan, all development in the compatible growth area shall comply with the following standards:

(1) All development subject to Article 6 of the Suffolk County Sanitary Code shall meet the applicable requirements of the Suffolk County Department of Health Services.

All wastewater generated will be treated and recharged to groundwater through facilities conforming to SCSC Article 6 requirements. Appropriate County approvals and permits will be obtained. The proposed project will not exceed SCSC Article 6 allowable flow and will in fact be much less than the allowable flow. The applicant also commits to exploring other wastewater treatment methods to reduce nitrogen load.

(2) Where deemed practical by the county or state, sewage treatment plant discharge shall be outside and downgradient of the Central Pine Barrens.

The proposed project will conform to SCSC Article 6 requirements, so that no STP will be necessary.

(3) To protect the water quality in the vicinity of surface waters or wetlands, projects within 200 feet of such features should be designed to minimize nitrate-nitrogen loading to the groundwater with the goal of achieving less than 2.5 parts per million nitrate-nitrogen.

The development portions of the site are not within 200 feet of surface waters or wetlands. Nevertheless, the proposed project will have a nitrogen in recharge concentration of less than 1 mg/l and therefore is well below the 2.5 mg/l standards noted above.

(4) All development shall comply with the provisions of Articles 7 and 12 of the Suffolk County Sanitary Code.

These regulations concern water pollution control and storage of hazardous or toxic materials. The proposed project is consistent with SCSC Article 7 in that it will not involve an industrial process, or store or use hazardous or toxic materials in excess of the quantities allowed under Article 7 of the SCSC. SCSC Article 12 (which regulates toxic and/or hazardous materials storage and handling facilities) is not expected to be applicable. Should any storage of such substances occur, it will conform to Articles 7 and 12.

(5) All development involving significant discharges to groundwater in close proximity to public water supply wells shall include adequate mitigation measures to protect the water quality as required under Article 17 of the New York State Environmental Conservation Law.

This standard restricts activities that could degrade the public water supply within a 200-foot radius of a public supply well. However, the location of the existing Spinney Road Wellfield, as well as the location of the proposed new wellfield, is well beyond 200 feet of any such activity, and the proposed

project will not have a "significant discharge" such that it would have the potential to impact public water supply. The SCWA was contacted with respect to the proposed project plan and expressed that the project is not expected to result in any impact to well fields in the area of the subject site.
(6) All development involving significant discharges to groundwater in close proximity to private water supply wells shall comply to the Suffolk County Department of Health Services guidelines for wellhead protection.

The proposed project is in accordance with SCSC Articles 6 and 7, and no "significant discharge" is proposed. The existing Spinney Road Wellfield is located south of the majority of the project's proposed development area, and the proposed new SCWA wellfield is located to the northwest of the developed area. Groundwater flow is toward the southeast, therefore, recharge from developed areas of the site would flow in a direction away from these wellfields. SCWA was contacted with respect to the proposed project plan and expressed that the project is not expected to result in any impact to well fields in the area of the subject site.

(7) Development proposals for sites containing or abutting wetlands shall be separated by a nondisturbance buffer area which shall be no less than that required under Chapter 325 of the Town Code and applicable state laws. Distances shall be measured horizontally from the wetland edge as defined in the applicable laws. Such buffer areas shall be delineated on the development plans, and adequate conditions shall be imposed to assure their preservation. Said conditions shall be set forth in a declaration of covenants, conservation easement or similar instrument.

As shown in **Figure 2-12**, there are two areas of freshwater wetlands on The Hills North Parcel that total about 1.40 acres and no wetlands within 200 feet of the The Hills south parcel or the Kracke parcel where development is proposed. However, because this parcel will not be disturbed or developed for the proposed project (this parcel will be dedicated for public open space preservation), no impacts to wetlands resources are expected.

(8) All stormwater runoff originating from development on the property shall be retained on-site, unless surplus capacity exists in an off-site drainage system. Where practical, natural recharge areas and/or drainage systems that cause minimal disturbance of native vegetation may be required. Ponds may be created if they are designed to accommodate stormwater runoff and not solely for aesthetic purposes. Where practical, drainage designs shall incorporate the use of natural swales and depressions, rather than excavated recharge basins. Adequate measures shall be taken to control soil erosion and stormwater runoff during construction.

This standard requires that adequate drainage capacity be provided for retention and recharge of stormwater runoff generated on-site. All stormwater runoff generated on developed project surfaces will be retained on-site and recharged to groundwater in a drainage system designed in conformance with Town requirements. Preliminary drainage design is such that this system will utilize a combination of DRAs, bioswales and rain gardens, leaching catch basins and pond area to retain, treat and recharge stormwater. No runoff from developed surfaces will be allowed to exit the site, based on the stringent retention and design requirements of the Town. The project's drainage system will be subject to the review and approval of the Town engineering and planning staff and the project will comply with SPDES GP 0-15-002 for stormwater project notification and preparation of a SWPPP. The proposed stormwater design conforms to the intent of this standard.

The proposed project has been designed to minimize clearing of previously-undisturbed natural vegetation, including clearing for the proposed drainage system that has been accounted for within the

overall allowable clearing for the site. As a result, the project will retain a total of 424.14 acres of existing natural vegetation on the site.

As described above, DRAs, bioswales/rain gardens, leaching catch basins and pond are anticipated as components of the project's drainage system, to provide stormwater retention and aesthetic enhancement. The ponds are located primarily in existing cleared areas and will be lined, to serve drainage, aesthetic and habitat functions. The proposed project conforms to the intent of this standard.

The areas proposed for the majority of development on the site are already disturbed. No natural topographic low points or swales are available to be utilized for stormwater runoff detention or recharge. The proposed project does not include the use of recharge basins. As a result, the proposed stormwater design conforms to the intent of this standard.

(9) Disturbance of natural vegetation shall comply with the minimum standards set forth under Article XIII, Aquifer Protection Overlay District, of this chapter. Development plans shall contain calculations for the amount of disturbance of natural vegetation and indicate the limits thereof. For the purposes of this section, the percentages of disturbance of the natural vegetation set forth in Article XIII shall include all areas previously disturbed.

As shown in **Table 1-12**, the subject parcels were zoned in a mix of districts in 1995, when the CPB CLUP (on which the Town's CPB Overlay District is modeled) was adopted. Figure 5-2 of the Pine Barrens Plan indicates that the overall maximum allowed site clearance established by these for the acreages shown is 28.25% (conversely, a minimum of 71.75% of the site would have to be preserved as natural). The proposed project will preferentially occupy the previously-cleared areas so that only 166.86 acres of development would occupy existing cleared areas with some removal of natural vegetation (122.80 acres). As a result, 424.14 acres (71.77%) of natural vegetation would remain on the site, and the project will conform to this standard (see **Master Plan**).

It is noted that a portion of the Parlato Property lies within the Henry's Hollow Region CRA, as designated by the CPB CLUP (see **Figure 3-7**). While not so designated by the Town regulations, it is noteworthy that the proposed project will not adversely impact any portion of the Parlato Property (whether within or outside of the Henry's Hollow CRA). To the contrary, the project will revegetate the estimated 15.78 acres of agricultural land on the Parlato Property to a natural condition, followed by public dedication to the Town.

(10) Where applicable, subdivision and site design shall support preservation of natural vegetation in large unbroken blocks that allow contiguous open spaces to be established when adjacent parcels are developed. Where applicable, subdivision and site design shall be configured in such a way as to prioritize the preservation of native pine barrens vegetation.

This standard concerns preservation of natural vegetation in large unbroken blocks to establish open spaces contiguous to on-site and, if possible, off-site property. The entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres) will be retained in a natural state and dedicated. These total 188.83 acres, or 31.95% of the site. Additionally, as the highest-quality undisturbed natural vegetation that remains on the Hills South Parcel is primarily found in the north part of the property, which will be preserved as well. Significant natural open space will be retained throughout the subject property, such that minimum 100 foot corridors and large blocks of contiguous open space that aligns with off-site open space will be retained. It is noted that the Protection of Natural Vegetation Standard, as well as the Vegetation Clearance Limits in the CPB CLUP favor the

placement of development in existing cleared areas in order to retain natural vegetation. This design intent is effectively used for The Hills plan. Given the restricted nature of allowable clearing on the site such that only 28.25% of the site may be cleared (including existing cleared areas), the design seeks to use existing cleared areas to the maximum extent possible while still retaining large unbroken blocks of contiguous open space to align with adjacent parcels as required. As a result, substantial areas of natural contiguous habitat will be retained; these areas will be contiguous to naturally-vegetated spaces adjacent to the north, east and west, thus forming an open space continuum as intended by this standard.

(11) Development projects shall place no more than 15% of the entire site in fertilized vegetation. The use of nonnative plant species shall be limited to the maximum extent practicable and development designs shall consider the nonnative and native planting suggestions contained in Figure 5-2 of the plan.

No more than 15% of a project site shall be established in fertilizer-dependent vegetation. For the subject site, this would be a maximum of about 88.65 acres. However, based on the **Master Plan**, a total of only 88.53 acres of landscaped areas will be subject to fertilizer usage, as residential yards, common areas and the golf course. This represents 14.98% of the site, which ensures compliance with this standard. Final site plans will ensure that <15% of the site is established in fertilizer-dependent vegetation.

Landscape species consistent with the species list in Figure 5-2 (Planting Recommendations) of the Pine Barrens Plan will be used as part of the final site plan landscape design plans. Typical landscape trees that are native to the area will be used for streetscapes and natural vegetation will be retained wherever possible as per the **Master Plan**.

(12) Where a development application may have a significant negative impact upon a habitat essential to those species identified on the New York State maintained lists as rare, threatened or of special concern, or upon the communities classified by the New York State Natural Heritage Program as G1, G2, G3 or S1, S2 or S3 or on any federally listed endangered or threatened species, appropriate mitigation measures shall be taken to protect these species.

The NYNHP was contacted to determine any known records of rare, threatened or endangered species or communities on or in the vicinity of the subject site. Correspondence from the NYNHP indicated the presence of one special concern moth, one threatened dragonfly/damselfly, three rare dragonflies/damselflies, two uncommon communities, two rare communities, one endangered plant and one threatened plant in the vicinity of the subject site. Two historical records of threatened plants were also noted within the vicinity of the site. The majority of the records listed by the NYNHP require wetland areas with open water, which are not present on the subject sites. Of the species identified, the moth, one rare community and one historical plant are upland species. The project is not expected to impact these species, as outlined in **Section 2.3.2**. In addition, prior field inspections and investigations conducted subsequent to receipt of this letter (dated December 28, 2007, May 11, 2009, September 8, 2009 and July 13, 2010) did not reveal the presence of any of these resources. Therefore, no endangered or threatened species are expected to be present in areas that would be disturbed on the subject site. As a result, no impacts are expected with respect to special species and/or ecological communities and the project conforms to this standard.

(13) Development projects shall minimize disturbance of the grade and/or natural vegetation where slopes exceed 10%. Construction in areas where slopes exceed 10% may be approved if the design incorporates adequate soil stabilization and erosion control measures so as to mitigate negative

environmental impacts. Where applicable, clearing envelopes and/or nondisturbance buffers shall be placed on those portions of the development site where slopes exceed 10%. Development applications shall include a slope analysis depicting slopes in the ranges 0% to 10%, 11% to 15% and 15% and greater. Erosion and sediment control plans and, where applicable, details of retaining walls and erosion control structures shall be required for construction in areas where slopes exceed 15% and for roads and driveways traversing slopes of 10%.

The project will minimize grading of natural slopes that are in excess of 10% to the maximum extent practicable. As discussed earlier in this document, the majority of the development areas previously disturbed and are now subject to ongoing unauthorized use by off-road vehicles. The design seeks to utilize existing cleared and disturbed areas to the maximum extent, so that the project will be developed on these surfaces, allowing the remaining natural steep slopes to be preserved.

An **Erosion & Sediment Control Plan**, a **Drainage & Water Distribution** plan, and a Hydrology Report (**Appendix A-10**; containing Preliminary Pre- and Post-Development Drainage Plans, and a Preliminary Network Diagram and Hydrograph Comparison) have been prepared for this Draft EIS. Erosion prevention measures to be taken during construction may include: groundcovers (vegetative or artificial), drainage diversions, soil traps, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements. Soil removed during grading and excavation will be used as backfill (if it displays acceptable bearing capacity and leaching characteristics) to produce acceptable slopes for construction. The proposed stormwater design conforms to the intent of this standard.

Erosion control measures such as staked hay bales, silt fences, groundcovers (vegetative or artificial), drainage diversions, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements, will be utilized to minimize loss of soil during construction, particularly in locations where erosion and sedimentation could adversely impact adjoining properties and streets. Applicable Town of Southampton standards and construction practices specified by the appropriate Town agencies will be followed. Conformance to the Town Code and to the requirements of NYSDEC SPDES review of stormwater control measures is necessary, to be consistent with Phase II stormwater permitting requirements for construction sites in excess of 1-acre (the SPDES GP-0-15-002 permit; hereafter, the General Permit). Under this program, a site-specific SWPPP must be prepared and submitted to the Town for review and approval prior to final site plan approval. Once the SWPPP has been prepared and approved by the Town, the Applicant will need to file a Notice of Intent with the NYSDEC to obtain coverage under the General Permit. Additionally, the General Permit requires that inspections of the construction site be performed under the supervision of a qualified professional to ensure that erosion controls are properly maintained during the construction period. As long as erosion is controlled during grading and construction, the potential for sediment transport will be minimal, and no significant loss of soils is expected and the project conforms to this standard. The Hydrology Report (**Appendix A-10**; containing Preliminary Pre- and Post-Development Drainage Plans and a Preliminary Network Diagram and Hydrograph Comparison**)** were prepared to ensure that SWPPP requirements will be met as part of final design subsequent to the change of zone phase.

A map has been prepared depicting slope intervals of 0-10%, 10-15% and greater than 15%. As shown in the Slope Analysis (see **Figure 2-3b**), there are 70.11 acres of steep slopes (defined as >15%) on the subject site. It should be noted that 88.14% of the site has slopes of less than 15%. **Table 2-2** provides a slope analysis of all of the parcels that are part of the site. Natural steep slopes are found in the central and northern parts of the site. For the proposed project, regrading of this area is not expected to produce slopes in excess of 1:3.

The potential for erosion to occur during construction or after construction is completed will be controlled by implementing the SWPPP, which will include engineered Erosion Control Plans to be reviewed and approved during Site Plan review.

The proposed project has been designed such that the majority of new and replaced development will occupy previously graded areas, so that no naturally-steep slopes will be impacted and little if any need for cut or fill for roadways is expected.

In consideration of the preliminary nature of the **Master Plan,** the need for retaining walls cannot be determined at this time. Short sections of retaining walls may be needed along the internal access roadway and/or within the golf course area.

(14) Applications for development projects proposing open space and/or similar reserve areas shall specify the conditions of ownership and use of such lands, and such conditions shall be set forth in the deed of dedication, declaration of covenants, conservation/open space easement or similar instrument.

The Applicant anticipates that the entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres), totaling 188.83 acres, will be offered to the Town of Southampton. The additional 235.31 acres of open space within the Hills South Parcel/Kracke Property outside of the residential lots and golf course play area and common spaces will remain privately-owned, protected from disturbance by binding covenant.

The Applicant will participate in the preparation of covenants to permanently protect the open spaces dedicated to the Town as well as privately maintained open space.

(15) Where applicable, the use of a planned residential development or clustering pursuant to the provisions of Article I of Chapter 247 of the Town Code shall be encouraged to preserve open spaces. Where applicable, the use of a planned industrial park pursuant to the provisions of Section 330-36 of this chapter shall be encouraged to preserve open spaces.

Clustering of the proposed development areas is a central tenet of the proposed project, to allow for retention of substantial buffers of natural vegetation around the entire developed area. This principle also enables the Applicant to locate the developed area preferentially on previously-cleared areas, which mitigates the loss of valuable natural vegetation.

(16) Where applicable, any new activity or any change or expansion to an activity involving agriculture or horticulture shall incorporate "best management practices" as set forth in Controlling Agricultural Nonpoint Source Water Pollution in New York State, Bureau of Technical Services and Research, Division of Water, New York State Department of Environmental Conservation 1991, as same may be amended from time to time.

The project is residential in nature, and no new or expanded agricultural or horticultural uses are included. The project will close the existing farming activity on the Parlato Property (15.78 acres) and the Kracke Property (2.64 acres), which would eliminate any use of agricultural chemicals, and thus would tend to improve groundwater quality as related to these sources.

(17) Where applicable, development plans shall indicate established recreational and educational trails and trail corridors; active recreation sites; scenic corridors, including the Sunrise Highway; sites of historical or cultural significance; and sensitive archaeological areas, within 500 feet of the

project site, and shall provide adequate measures to protect such cultural resources. The use of existing natural buffers or the restoration of degraded buffer areas, the use of signs or other man-made structures, consistent in style and scale with the community character, or other similar measures shall be taken to protect roadside areas and scenic and recreational resources.

There are no authorized public recreational trails or corridors on the subject site. The existing trails are the result of past unauthorized ATV usage; these trails will be revegetated as part of the project. The project includes open space that will be dedicated to the Town for public use. Scenic corridors are associated with the northern part of The Hills South Parcel, specifically the CPA that extends 1,000 feet south of Sunrise Highway. Substantial natural or landscaped buffers separate the historic district from proposed use areas on the subject site such that these resources are not impacted. Specifically, a vegetated buffer (landscaped and/or natural) will be provided along the site perimeter to ensure that the neighboring uses will not be impacted. There are no cultural resources on the subject site that could be impacted by the proposed project, based on on-site archaeological studies. As shown in **Figure 3-10** and discussed in the Cultural Resources Assessment (see **Appendix N**), there are no sites of cultural significance on the Hills South Parcel/Kracke Property, so there would be no impacts to cultural resources. This will be confirmed by the NY State Historic Preservation Office (SHPO) for the Draft EIS.

As described above, project design will retain substantial natural vegetation buffers along the Hills South Parcel/Kracke Property boundaries, public open spaces and the homes located on Spinney Road. This buffer may be supplemented with plantings of appropriate landscape species to protect and enhance the natural aesthetics of this corridor. The project's buildings and amenities will employ an attractive architectural style and complementary landscape design that would be consistent with the aesthetics of the area and congruent with the surrounding land uses, while remaining at an intensity below any impact threshold.

(18) All commercial or industrial development shall comply with the applicable provisions of the Suffolk County Sanitary Code and all other applicable federal, state or local laws.

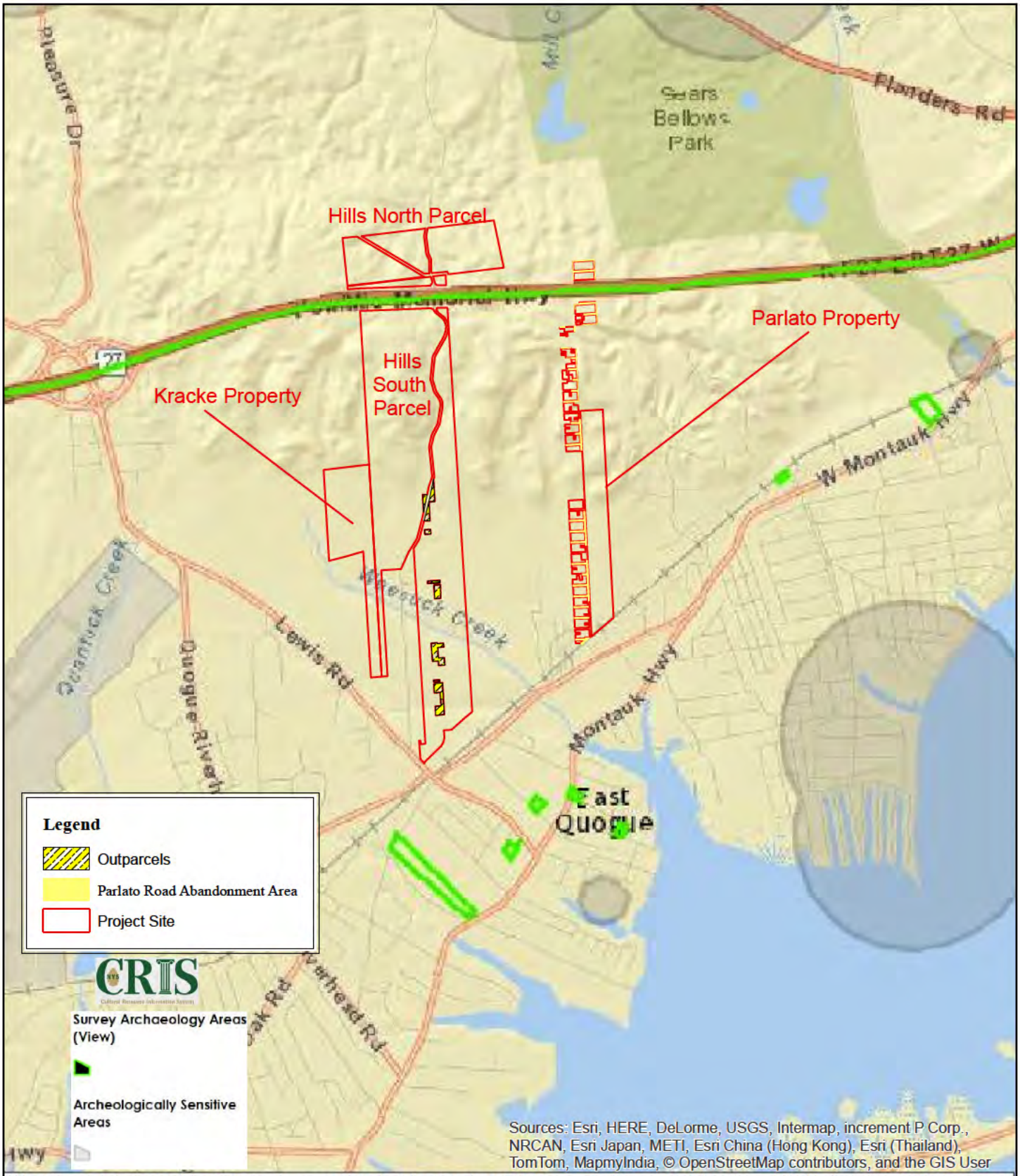
N/A; the proposed project is residential in nature.

MUPDD Zoning Requirements - The following is a detailed analysis of the project's conformance to each standard applicable to the MUPDD, as listed in Section 330-240 E.

(1) Preservation and conservation of open space, natural resources, diverse ecological communities, species diversity, and groundwater quality and quantity.

The proposed project will retain a total of 424.14 acres of the 591.00 acre site (71.77%) as naturally-vegetated open space, which will provide for a significant amount of habitat area to continue to support a diversity of species, both flora and fauna. The proposed project will consume far less water than as-of-right development, a situation that will mitigate the potential for adverse impacts on water quantity, and will easily conform to SCSC Article 6 requirements, which would provide additional assurance that impacts to groundwater quality are minimized. The project will provide a model development for nitrogen load reduction as a result of golf course management and BMPs as well as limited, seasonal occupancy of the residential component.

(2) Connection of open space systems and maximization of open space corridors and to establish and maintain open space and open space corridors for active and passive uses.



*Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-10
CULTURAL RESOURCES SENSITIVITY MAP

Source: ESRI WMS, NYS Historic Preservation Office GIS
Scale: 1 inch = 3,000 feet

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The Hills at Southampton

Draft EIS

The substantial amount of retained natural vegetation is configured in large blocks of area that are contiguous to other open space lands on adjacent and adjoining properties. The retention and dedication of the CPA lands and full preservation of the Hills North Parcel and Parlato Property ensure permanent preservation and retirement of PBCs associated with these parcels. The Hills at Southampton development is configured to align contiguous open space with adjoining lands overall, and has been designed to provide open space corridors for active and passive use within the developed areas, while configuring development to coincide with existing cleared areas to the maximum extent practicable.

(3) Preservation of agricultural lands and uses.

The majority of land is natural and undisturbed; only an estimated 18.42 acres of farmed land is present. Any minor/limited agricultural use on the Kracke and/or Parlato Properties will cease and these areas (which are in the CGA) will be revegetated to revert to natural pine barrens successional lands, which is particularly important in this watershed area that contributes groundwater outflow to Weesuck Creek and Western Shinnecock Bay.

(4) Increase consideration of and coordination with school districts, utilities and governmental services.

In consideration of the applicant's proposed covenant regarding the seasonal-only occupancy of the residences (see **Appendix A-5**), the proposed project is not expected to contribute to any enrollment increase for the local school district, so that no adverse impacts to this community resource are anticipated. This goal is consistent with the East Quogue LUP and GEIS. With respect to the pertinent utility and governmental services such as roadway maintenance, the project will provide its own maintenance and upkeep services for these private features that are within the subject site, which would minimize any additional burden on these public services. The project also provides recreational amenities which will tend to reduce the burden on public recreational facilities. With respect to water supply, the project will utilize the SCWA for domestic water use, and will pay for all public water consumed. It is expected that several irrigation wells will be installed for golf course irrigation. The site will be privately maintained, and therefore will not burden Town highway or public works services. It should be noted that the project is expected to generate a significant amount of property taxes paid by the site and then allocated to the various public services. Thus, the budgets of these services would be increased (particularly so for the East Quogue UFSD), with minimal anticipated increases in costs of service provision; this represents a significant community benefit. The MUPDD also facilitates extensive benefits to the East Quogue UFSD as listed and discussed in **Section 1.4.6**.

(5) Encourage the most efficient and purposeful use of all remaining vacant land.

The entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres), totaling 188.83 acres, 31.95% of the project site, will be offered for dedication and therefore available for public purposes. The remaining natural lands within The Hills South Parcel and Kracke Property (235.31 acres) will be managed as passive open space and will be accessible to all forms of wildlife native to the CPB.

(6) Preservation and improvement of existing smaller communities.

With the input of the Town and community, the proposed project has been designed so that it would minimize the potential for impact on the character of the East Quogue community,

primarily by minimizing the visibility of the project's components to outside observation. Nevertheless, as illustrated in **Appendix B-3**, the project's anticipated traditional architectural treatments are intended to conform to the historic vernacular of East Quogue. Retention of the majority of the site's natural vegetation, which characterizes the site and community at present, would minimize the potential for adverse impact to community character. The project is of a nature that would not negatively impact the local school district or any of the pertinent community services, but would, rather prove to be significant fiscal benefit.

Additionally, the proposed project will provide substantial Community Benefits, including: donation of 3 acres of land to the East Quogue UFSD, parking within the East Quogue downtown, and environmental improvements such as assistance with planning for watershed management of the Weesuck Creek and Western Shinnecock Bay watershed.

(7) Preservation of a sense of place in communities and the creation and reestablishment of small hamlet communities and atmosphere which foster the sharing of amenities and the utilization of local services.

The design of the project itself fosters a sense of place within the community, and the outward appearance will be rural and natural. The owners of The Hills at Southampton will utilize local services and will integrate with the community. The Hills at Southampton golf course and country club component will be offered for periodic use by the community for community activities.

(8) Creation of planned residential communities providing an array of housing meeting the social and economic needs of the residents of the hamlets, the Town and the region.

The Hills at Southampton will provide resort housing that is in demand in the area of East Quogue. Social needs are met by conforming to the goals of the East Quogue LUP providing tax revenue and establishing a resort community. Economic needs are met through job creation, tax benefits and patronage of local goods and services.

(9) Reduction in the effective cost of governmental and other public services.

The proposed project would not increase enrollments in the East Quogue UFSD, and so would not adversely impact the district from associated expenditure increases. In addition, the project will fund and perform necessary on-site maintenance functions, which would likewise avoid adverse impacts to the pertinent local community services. To the contrary, it should be noted that the project is expected to generate a significant amount of property taxes paid by the site and then allocated to the various public services. Thus, the revenues that support these services would be increased (particularly so for the East Quogue UFSD), with minimal anticipated increases in costs of service provision. This aspect of the proposed project would materially improve the fiscal conditions for governmental and utility services.

(10) Elimination of excessive and inefficient infrastructure and the minimization of infrastructure development and maintenance costs and maximization of efficiency and coordination of existing and planned transportation facilities and networks.

As the subject site is presently undeveloped, there is no infrastructure that could be eliminated or have its efficiency maximized. The project will provide sustainable features and is expected to incorporate green design elements. In addition, the proposed project will include necessary

and appropriate infrastructure, including a separate septic system for the clubhouse, drainage systems, internal water and electrical distribution systems, internal roadways and telephone/cable networks. All of these features will be owned and maintained by the owner's association, so that no increased cost or maintenance burden is placed on public services. Finally, the Applicant is proposing the donation of 4± acres of land for a new SCWA public water supply well field.

(11) *Prevention of inappropriate development on stale previously filed subdivision maps encompassing wetlands, high-water-table areas, steep slopes and other impractical or unsuitable terrain and topography.*

The proposed project site involves an underlying old filed map; however, the parcels are merged into an assemblage of land which constitutes the Hills South Parcel/Kracke Property and will not be developed inappropriately under the old filed map. The site includes Town-regulated wetlands totaling an estimated 1.40 acres on the Hills North Parcel, which is north of Sunrise Highway, within the CPA and will be preserved in total. The site includes areas with sloping topography; however, this has been considered in the design of the placement of structures and alignment of golf holes in order to minimize topographic disturbance as much as possible. Likewise, two limited areas of the site coinciding with swales on the south part of the Hills South Parcel may have depth to groundwater in the range of 12 feet; however, this has been considered in the design as well and will not result in constraints or impacts associated with the limited use planned in this area. The proposed project has been conceived with environmentally-sensitive design as a goal, and the SEQRA process will provide a basis for analysis of potential impacts to site resources.

(12) *Development of communities wherein, collectively, the mix of uses, aesthetically, physically, socially and economically encourages the creation and/or preservation of a sense of place, pride and values.*

The Hills at Southampton PDD has been conceived and designed so that its occupants and its visitors would benefit from a positive and relaxing atmosphere experienced in an attractive, natural setting. There is a mix of residential uses centered around on-site amenities including a clubhouse and golf, and within a community that offers off-site activities that will benefit from patronage. This would tend to foster the development of a sense of place sought by this Town goal.

(13) *Provide flexible but definitive standards to facilitate innovative and creative land use planning and development techniques not possible under conventional zoning ordinances.*
The proposed project conforms to this goal, in that its layout and design utilize the flexibility that characterizes the PDD concept to develop a single site with several complementary uses in an attractive setting that minimizes land disturbance and maximizes the retention of the natural resources of the property, while conforming to local and Town goals. Such a combination of achievements would not have been attainable under the site's existing zoning.

(14) *Encourage the development, rehabilitation and improvement of identifiable and unique historic and architecturally significant areas and communities, "main streets" and centers of residential, commercial and industrial activities.*

The project site is undeveloped and so contains no identified or unique historic or architectural resources, main streets or center of activity at present.[5] The proposed use will assist in supporting the Main Street setting of East Quogue by assisting with access to public parking and a hamlet beautification project; the applicant has already installed three (3) "Welcome to East Quogue" signs.

(15) Encourage comprehensive and innovative planning and design of the highest quality, utilizing and incorporating a variety of land uses.

The proposed Hills at Southampton PDD has been designed to utilize the innovative practices of the PDD concept in its design and mix of land uses to establish a beneficial development that will benefit the Applicant, community and Town.

(16) Provide reasonable incentives and standards to encourage private participation in and compliance with the comprehensive goals of this article.

Under the PDD, the proposed project would provide for private development that utilizes the flexibility inherent in the PDD concept, with the incentives associated with it, and simultaneously establishes a pattern of growth that effectively satisfies Town and community goals for development as outlined in the East Quogue LUP.

(17) Assure that lands set aside for receiving or sending areas are consistent and harmonious with the Town's comprehensive land use objectives and locate areas permitted to be developed in such a manner as to maximize the continuity and connection of open spaces, preserves and wildlife corridors.

The proposed project effectively transfers density from the CPA (sending parcel) to the CGA (receiving parcel) within the overall project boundaries (CPA is present on the Hills North Parcel, the Hills South Parcel, and the Parlato Property). These are appropriate sending/receiving areas as outlined in the Towns CPB Overlay District and the CPB CLUP for the pine barrens. The overall project has been designed to maximize retention of open space and will align contiguous open space providing an open space continuum for wildlife use and corridors as well as aesthetic enjoyment, passive recreation and groundwater recharge.

The above analysis provides substantial justification to conclude that the proposed project represents a suitable land use in the context of the surrounding community while providing substantial Community Benefits, and thereby fulfill the Town Board's goal in its use of the PDD concept.

Finally, as discussed in **Section 1.4.6**, the proposed project does not seek any increase in yield over the yield that would be realized under its existing CR 200 zoning; no incentive zoning is involved. As no yield increase is involved, there is no need to obtain PBCs from any off-site location, no incentive zoning is involved, and so there is no requirement under Town Zoning Code Section 330-240D to provide Community Benefits to offset any increased yield. Note that, as discussed in **Section 1.3.5**, the project will permanently preserve all 140.35 acres of land within the CPA; the estimated 22 units that could have been developed on this acreage will be

[5] The site is subject to unauthorized uses, including dirt bikes and ATVs, dumping, paintball, paintball village construction, bonfires, etc.

constructed as part of the project's 118 units, in the CGA. In this way, the density allowed on these CPA acreages will effectively be transferred to the CGA through the proposed MUPDD development, and the potential PBCs associated with these CPA acreages will be extinguished through use of the PDD mechanism. Note that the applicant will voluntarily provide substantial Community Benefits (see **Section 1.4.6**). The proposed project will generate substantial fiscal and economic benefits to the East Quogue community; these are detailed in **Appendix F**.

Land Use Plans

Southampton Tomorrow, Comprehensive Plan Update (1999) - The following presents the individual Visions of the Plan Update, with brief discussions of whether and how the proposed project will conform to each.

I. The Town will protect its valuable natural historic and scenic resources.

1. *The wealth of natural resources in Southampton Town today, from the Pine Barrens and its pristine aquifer, to the estuaries, wetlands, beaches, parks and open spaces, are integral to Southampton's unique quality of life enjoyed by both seasonal and year-round residents. As such, the ecological integrity of Southampton's natural resources must be maintained and protected.*

   The proposed project will preserve and protect the natural resources that are present on the project parcels. The majority (424.14 acres or 71.77%) of the site will be retained in its naturally-vegetated conditions, to be permanently protected by land use restrictions and/or dedication to the Town of Southampton. This maximizes the retention of habitat area for wildlife, and simultaneously minimizes the impact to habitat area, while ensuring that this resource will be permanently protected in this function. An additional 25.06 acres of land will be revegetated back to a natural condition by the proposed project, and all of the areas impacted by past debris dumping will be investigated and remediated, as necessary. The character of the area will be protected by concentrating all development into the central and southern portions of the Hills South Parcel/Kracke Property, and by retained deep, dense buffers of natural vegetation completely surrounding this area. The quality of groundwater will be protected by the project's conformance to SCSC Article 6. Finally, the low-density residential use proposed will conform to the land use type of the surrounding neighborhood.

2. *As with natural resources, the historic and cultural past of Southampton is integral to its sense of place, sense of community, and its attraction as a visitor destination and second home market. In order for these resources to be adequately protected, this historic identity must be recognized, preserved, and interwoven into the fabric of the Town.*

   The proposed Hills at Southampton PDD will conform to and support this Vision, as it will retain a significant acreage of the type of naturally-vegetated land that contributes to the bucolic character of East Quogue while minimizing the potential for its developed area to be discerned by observers on nearby properties. Specifically, 188.83 of the overall 591.00-acre site will be offered to the Town for dedication as public open space (31.95%), another 235.31 acres will remain privately-owned, naturally-vegetated and undisturbed open spaces within the Hills South Parcel/Kracke Property. Overall, a total of 424.14 acres will be natural open space, and only 166.86 acres will be developed. The materials in **Appendices B** depict the types of building treatments in the East Quogue area that the Applicant proposes to use for the proposed project to support the traditional, historic character of the community. Through

these measures, the project is expected to have the effect of reducing the potential for significant changes in the character of the community.

3. *Southampton's unique scenic quality and sense of place is derived from the interrelationship between rural farmlands, areas of undeveloped open space, water frontage (bay and ocean), and the hamlet centers. This rural character, graced with significant natural and historical resources is the quality that maintains its vitality as a resort, second home and visitor attraction, and an attractive place to live and work.*

   The proposed project has been conceptualized to conform to and support the prevailing rural and open space character of this portion of East Quogue. This is evidenced by its design that minimizes the potential for adverse impacts on these characteristics: retention of the majority (71.77%) of the site in its natural state, and by concentrating its developed area into the central and southern portions of the Hills South Parcel/Kracke Property behind deep, dense buffers of natural area. In this way, the potential for adverse impacts to the neighbors are minimized.

II. The Town will enhance the community through a variety of public facilities and programs designed to ensure that Southampton can meet the fullest range of needs for its entire community today and tomorrow.

1. *Establish a network of interconnected greenways which will in turn safeguard the visual and rural qualities of Southampton Town, provide both passive and active recreational opportunities, and provide opportunities for alternative modes of transportation within the Town.*

   The proposed project will offer to dedicate a significant acreage of naturally-vegetated open space to the Town, in two (2) separate large blocks of land totaling 188.83 acres. This dedication would create the greenway for the use of wildlife sought by this Vision and, for those parts of the greenway owned by the public, enable the Town to establish the recreational opportunities mentioned for public passive use and enjoyment. However, public access to any walking trails the Town may install on the public lands in this greenway would not be available through the privately-owned northern portion of the Hills South Parcel/Kracke Property, as no public parking would be provided, the property owner would not provide liability insurance for access, and the golf course could not readily be reconfigured to provide access.

   Overall, 188.83 acres of the 591.00-acre site will be offered to the Town for dedication as public open space, and another 235.31 acres will remain privately-owned, naturally-vegetated and undisturbed open spaces within the Hills South Parcel/Kracke Property. Thus, a total of 424.14 acres will be permanently preserved as natural open space.

2. *Southampton should pursue regulatory and financial incentives that promote affordable housing. Although Southampton offers a high quality of life for its residents, it lacks housing opportunities that are affordable for many first-time buyers, young and seasonal workers, and many senior citizens and others who are hard-pressed to maintain their homes.*

   The nature and economics of the proposed Hills at Southampton PDD precludes the provision of an affordable housing component. Nevertheless, the proposed project will conform to the

requirements of Section 216-9 of the Long Island Workforce Housing Act as implemented by the Town of Southampton.

3. *Community facilities should be expanded to meet evolving needs, yet should seek out collaborative and multiple uses so as to achieve economic and service delivery efficiencies. Facilities should be ideally sited in or near hamlet centers, both to be convenient and to contribute to each hamlet's sense of community.*

   The project includes the dedication of 4 acres to the SCWA for a desired wellfield, as well as a 3-acre dedication to the East Quogue UFSD for a fire station. The nature of the proposed project is such that siting it within a hamlet center would defeat the purpose of the project, as well as negate its ability to dedicate a large acreage of open space. The proposed project and its location conform to the recommendations of the East Quogue LUP and GEIS. The second-home nature of the project would eliminate the potential for its school-age occupants to attend local schools, which would eliminate potential adverse enrollment and expenditure costs to the East Quogue UFSD. In this way, the impacts on community services are reduced.

III. The Town will maintain the existing nature of the local economy, while working to enhance the diversity of the economy for the future, particularly in the areas of tourism and the second home industry, by protecting the Town's character and quality of place.

1. *Southampton should emphasize those types of economic development that capitalize upon but do not erode the Town's outstanding resource qualities. Indeed, as long as the second-home resident and visitor sectors remain a driving force in the local economy, the Town and others should seek to enhance the amenities and other qualities that give Southampton its unique, regional advantage. These include the Town's rural and historic scenery, beach and recreational amenities, and cultural and specialty retail amenities.*

   The proposed project specifically conforms to this Vision, as it is based on only second-home units, takes advantage of and sustains the rural character of East Quogue, and matches the as-of-right residential yield of the component parcels.

2. *The traditional resource-based economic sector of farming must be preserved and protected to ensure that the scenic, historic, cultural and economic identities of the Town are protected.*

   The proposed project will complement the surrounding agricultural uses in the area, by permanently retaining the majority of its acreage in its existing naturally-vegetated state. This preservation would foreclose the possibility of future development (particularly residential development) on large acreages of vacant land, which would help protect the existing agricultural uses from economic pressure for re-development if such a re-development trend were to be established. Further, this protection of agricultural character would reinforce the rural character of the area, which helps attract tourism to the region and hereby promotes continued agricultural use, in a positive feedback relationship.

3. *As both a traditional economic sector and a mainstay of the visitor and second-home industry, fisheries must be preserved and protected from the pressure for growth and development throughout the Town.*

The site of the proposed project is well inland and does not involve a maritime use. The project will however provide second-homes and will result in patrons for the recreational fishing industry in the Town which is exactly what is contemplated in this Town planning goal. Conformance to SCSC Article 6 requirements would tend to minimize the impacts of any increased amount of nitrogen reaching the marine environment through groundwater outflow, to minimize the potential for adverse impact to the surface water resources of Weesuck Creek and, through it, to the quality of marine waters. This protection would thereby tend to protect the quality of the Shinnecock Bay fisheries and, through it, of the local fishery industry. Note that the proposed project is anticipated to reduce the amount of nitrogen reaching Shinnecock Bay in groundwater through outflow as compared to the existing condition. Additionally, the SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method (and close the septic systems noted above) if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow. This would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected and improved.

Finally, the project's Community Benefits include restoration of impacted eelgrass, seeding of bivalves, and installation of clam racks and upwellers. No adverse impacts to fisheries or fishing are expected other than to meet this goal.

4. *Promote business centers that not only meet consumer needs, but also enable small business retention and attraction, and bolster the hamlet and village centers that are essential to Southampton's economy, "town and country" image and quality of life.*

   The Hills at Southampton PDD is a resort residential community that will seek to integrate the owners within the development with the surrounding community as patrons and consumers for local businesses. This synergy will strengthen the hamlet and support downtown East Quogue.

Western Town GEIS (1993) - While the Western Town GEIS was never adopted by the Town of Southampton, the proposed project nevertheless conforms to plan objectives, as follows:

- *Maintain and preserve the Central Pine Barrens ecosystem.*
- *Protect and enhance native forest resources.*
- *Implement a tentative preserve plan to manage conservation lands and provide areas suitable for recreation, education, and research*

  The proposed project will maintain and preserve the Central Pine Barrens ecosystem, by dedicating 188.83 acres of natural land to the Town for public open space and, overall will preserve 424.14 acres (71.77%) of the site in its natural condition. An additional 34.57 acres of now-disturbed land will be revegetated to a natural condition.

- *Address landowners' rights and equity by providing for public purchase of private lands and transference of development rights to achieve goals of pine barrens preservation and ecological restoration*

The proposed project will not require that any of the land to be transferred to the public be purchased; rather, the Applicant will dedicate the 188.83 acres of natural land to the Town of Southampton.

- *Facilitate economic incentives for recreation and ecotourism and resort development*

  The proposed project is a recreation/resort development and therefore is in keeping with this plan objective.

- *Provide a holistic approach to development by developing a comprehensive plan for shifting private development rights from the pine barrens forest preserve concentration (core preserve) to outer ring locations (acceptable receiving areas) and to locations outside of the Central Suffolk Special Groundwater Protection Area (SGPA) where access to existing infrastructure and efficiencies of development would be realized*

  The proposed project takes a holistic approach to its conceptualization and design, in that it will transfer the yields from two of its component properties (the Parlato Property and the Hills North Parcel) to the Hills South Parcel/Kracke Property, to enable the former to be dedicated as natural open spaces to the Town. It is acknowledged that the latter site, which will be developed, is within the SGPA, but it is also noteworthy that the proposed use conforms to the use recommended in the SGPA Plan.

- *Address social and economic dimensions by breaking the vicious cycle of development sprawl and environmental destruction by working towards economic growth solutions that promote pine barrens protection and sustainable livelihoods*

  The proposed project does not promote sprawl; rather, it concentrates its overall development potential onto only 166.86 acres of land (28.23%), in conformance with the CPB CLUP, and retains the majority of the site (424.14 acres, 71.77%) as preserved natural space (an additional 34.57 acres within the developed area will be revegetated back to a natural condition). The project will also generate an estimated 101.8 FTE jobs, to support the local economy.

- *Ensure legal mechanisms through enactment of effective environmental legislation consistent with the environmental standards, management objectives, and priorities reflected in the Town's Pine Barrens Preserve Plan.*

  As the proposed project seeks a change of zone to MUPDD, Town Board approval of that zoning district will require the preparation of specific land development standards and controls, to ensure that the project conform to the Town Plan, the Town CPB Overlay District, and the CPB CLUP.

East Quogue GEIS - The following Recommendations of the East Quogue GEIS apply to the project site; the project's conformance to each is discussed immediately after each.

- *Recommendation Areas 5, 6 and 7 would be developed as part of a PDD. These areas would be upzoned from a mix of CR-80, CR-120 and CR-200 to all CR-200. These recommendation areas (5, 6 and 7) are consistent with the objectives of the Central Pine Barrens Comprehensive Land Use Plan (CLUP) in that they promote community benefits (including providing high quality drinking water, protecting natural habitats and providing open space and public recreation and trails) while preserving contiguous open space, providing a recreation/resort use, utilizing previously cleared areas for active recreations/resort use, and accommodating Pine Barrens*

Credits from within the study area as well as lands north of the study area under common ownership. The Town recognizes the benefits of providing the resort/recreational properties within the study area and intends to take a regional approach in ensuring compliance with the CLUP clearing and fertilizer dependent vegetation requirements to achieve the overall goals for the study area. Therefore, similar to transfer of development rights between parcels within the study area, flexibility in the clearing standards can be allocated for individual parcels meeting the resort/recreational goals of the Recommended Plan. However, conformance to the CLUP requirements should be balanced over the entirety of the study area.

The proposed project is precisely the type of development that is sought by this Recommendation: it is a PDD, it conforms to the CPB CLUP, it promotes numerous public and Community Benefits, protects drinking water (it enhances the public water supply system and conforms to SCSC Article 6), protects natural habitats, provides open space, is a recreational/resort-style use, utilizes previously-cleared areas, and does not seek any increase in residential yield.

An analysis of the project's conformance to the requirements of the CPB CLUP and the Town's CPB Overlay District, are provided in other parts of this section. The analysis shows that Town's upzoning to CR 200 reduced the potential yield from an estimated 129 units to 118 units, so that this number of units (with the sensitive design of the golf course), would not result in any adverse impacts to the natural environment. In this way, the project is required to conform to a higher (i.e., more restrictive) set of thresholds than would have applied if the Town did not upzone the site. This assures that the proposed PDD is in full compliance with the goals of the East Quogue GEIS.

The recommended upzoning has occurred; the project parcels are currently zoned CR 200. It should be noted that the recommendation to upzone was meant specifically to reduce impacts to groundwater quality, by establishing a more stringent standard of maximum allowed nitrogen concentration in recharge of 2-3 milligrams per liter (mg/l), as recommended in the Cornell University Study *"Land Use and Ground-Water Quality in the Pine Barrens of Southampton."* It is noted that the proposed project is expected to generate recharge having a maximum overall nitrogen concentration in recharge of 0.28 mg/l and less if advanced wastewater systems are used. This study also recommended that, land devoted to turf shall be limited to a maximum of 18% of the site. It is noted that the proposed project would limit the acreage of fertilized landscaping (both golf course related and residential) to 88.53 acres, or 14.98% of the overall property.

- *Recommendation Area 5 [see **Figure 1-5**]: Approximately 4 acres of land would be allocated to the Suffolk County Water Authority (SCWA). SCWA would utilize the area to install a new well field that would provide high quality drinking water from the Pine Barrens and meet the future water demands of the area. As shown on the plan, the proposed well field would be located on the Hills property (however, this site could also be located on the Links property). This would be a new SCWA well field in addition to the existing Spinney Road well field in the study area.*

  The proposed project seeks to conform to this recommendation. The Applicant has met with SCWA and will offer to transfer 4 acres of land within the Hills South Parcel/Kracke Property for the SCWA to install a new wellfield to support growth in the area. The concept plan identifies a core area for the well field and surrounding lands can be incorporated into the dedication area through coordination with SCWA.

- *Recommendation Area 6: To potentially create a more diverse tax base and mix of uses in the hamlet, a portion of the Hills of Southampton property (about 10-15 acres) could be dedicated to resort/recreational uses that would provide additional ratables with little or no demand on local municipal services. This "Resort/Recreation" zone would be flexible in both its size and location on the Hills property (see Recommendation Area 7A). Planning for this "flex" zone would be accommodated through a PDD process. The proposed uses may include, but not be limited to, the following: conference center, banquet facility, health and wellness facility, spa, equestrian center, or other recreational and sport-related activities and uses.*

  The proposed project addresses this goal of providing "resort/recreational" uses. The proposed private community, recreational golf course and clubhouse facilities are consistent with the use elements outlined in this recommendation. The project's preliminary fiscal analysis demonstrates that the significant increase in the assessed value of the property will increase taxes generated by the project site, so that the goal of this recommendation is achieved, without compromise to the community's peace and tranquility by the inclusion of a public resort/recreational use.

  The amenities associated with the clubhouse include below-grade parking, a kid's activity room, a winetasting room, a mezzanine, golf bag storage, a snack bar, basketball court, a bowling alley, theater, and a squash court (an equestrian center is not proposed).

- *Recommendation Subarea 7A: This recommendation assumes the Hills of Southampton property could accommodate a mix of uses in a PDD as follows: a clustered residential use comprised of a mix of housing types built around a theme of resort/recreational uses (for the purposes of this plan and the GEIS impact evaluation, 85 to 90 units were assumed for Recommendation Area 7 as a whole with a housing type that would have a mix of traditional seasonal and year-round housing consistent with the current housing profile for the area); a private golf club and golf course that would be constructed on approximately 200 acres of land that is situated on both the Hills property and a portion of the Town land without disturbing any of the Central Pine Barrens Core Preservation Area. It is estimated that up to approximately 100 acres of the private golf course could be dedicated to managed turf with the remainder of the land that is associated with golf, devoted to course edges, transition areas, buffers and general out-of-play open space that will be preserved as part of the low-impact design of the course. It is noted that a substantial portion of Subarea 7A represents disturbed areas that could be integrated to the recommended development program. For this reason, as well as the site's overall size and dimension, the Hills property is compatible for private golf development. Because this recommendation area is located north of the LIRR track, it would also be upzoned to CR-200. The private golf course would provide the opportunity of staging a limited amount of public events and charitable functions during the year as a public benefit. An additional public benefit to the plan is the development of a trail system that provides public access for walking, jogging or cross-counter skiing, for example.*

  As noted above, the proposed project represents the type of development sought by this Recommendation: it is a PDD, it conforms to the CPB CLUP, it promotes numerous public and Community Benefits, it protects drinking water, it protects natural habitats, it provides open space, it is a recreational/resort-style use, and it preferentially utilizes previously-cleared areas. With respect to PBCs, as no yield increase is involved, there is no need to obtain PBCs from any off-site location, and so there is no need to provide Community Benefits to offset any increased yield. Contrary to the 200-acre estimate for a golf course in the Recommendation, the proposed project's golf course would occupy only 80.30 acres, not counting undisturbed areas along and between fairways and "playover" areas. Finally, the project does not provide a public trail

system, but it does dedicate a substantial acreage of naturally-vegetated land as public open space, on which the Town may establish a trail system. It is noted that the greatest cost of such an amenity would be land acquisition, which the project will provide.

The proposed project provides a mix of residential types centered on a substantial, albeit private, recreational amenity. Specifically, the project will be a cluster configuration, having a yield that meets the existing yields of the project's component parcels. No disturbance of the CPA will occur, as recommended. In regard to potential impacts on groundwater quality from golf course turf management practices, the proposed project will comply with Town requirements that seek to keep overall nitrate levels in recharge to less than 2-3 mg/l.

SGPA Plan - The proposed project conforms to all of the general policy goals of the SGPA Plan, with the exception of the use of an STP for wastewater treatment. It is noted that, as discussed in **Section 1.6.4**, the nature of the project and its associated pattern of occupancy would preclude the use of an on-site STP, and a connection to the nearest off-site STP (at Gabreski Airport) would first require a facility expansion program (because this STP currently does not have excess capacity available for the proposed project), followed by a significant and costly amount of construction for the project to connect to the STP. The proposed project conforms to SCSC Article 6, so that the groundwater and surface water resources of the area will be protected, and there is no compelling need for use of an STP to treat and recharge the project's wastewater.

With respect to conformance to the other general policy goals of the SGPA Plan, the proposed project will:

- conform to the applicable Town, County and NYS land use regulations and sanitary codes, which manage development, and reduce residential densities to a level which is environmentally acceptable;
- protect open space through clustering of the overall yield onto a portion of the Hills South Parcel/Kracke Property, outright dedication of a substantial amount of natural open spaces (not acquisition, so that no expenditure of public monies is necessary), rezone to MUPDD (to require the substantial Community Benefits of the project), and protect the quality of groundwater (by a combination of conformance to SCSC Article 6 and imposition of BMPs on the landscape maintenance procedures of the golf course);
- satisfy the Town limit on fertilized landscape acreage, by providing a total of 88.53 acres of such surfaces (including the golf course, the residential lots, and common areas, or 14.98% of the property), where up to 15% coverage (88.65 acres is allowed); and
- conform to the requirements of SCSC Article 12 in the storage, use and disposal use of any toxic or hazardous chemicals needed for its maintenance procedures, and thereby minimize the impacts of any potential accidental discharge of these materials.

With respect to the characteristics and recommendations specific to that portion of the Central Suffolk SGPA where the subject site is located, the proposed project will:

- Retain a substantial acreage of naturally-vegetated land as public open space, so that, with other such properties, the existing natural wooded character of this area will be preserved permanently. This increase in natural land will come at no public expense, but is a feature of the proposed project. Additional such lands will be retained on the subject site, in private ownership, to contribute to the retention of such lands in the vicinity. The physical configurations of all these

preservations will be such that connected, contiguous corridors of natural public open spaces will be created, for the use and enjoyment of the public; and

- The use of clustering, a strategy encouraged by the PDD concept and explicitly implemented as a basic design concept underlying the proposed project, enables the retention of natural land within the Hills South Parcel/Kracke Property.

Finally, the SGPA Plan recommends Cluster Development on the entire Hills South Parcel and Kracke Property, and Cluster Development on the southern portion of the Parlato Property; the Plan recommends that the entire Hills North Parcel and northern part of the Parlato Property be Open Space. The proposed project will not only meet these recommendations, but will exceed them, by refraining from the cluster development that would otherwise occur on the Parlato Property, and move it onto the Hills South Parcel/Kracke Property. In this way, all of the Parlato Property will become Open Space, and all of the cluster development will occur in one location, where the SGPA Plan recommends it.

In summary, the proposed project conforms to all of the applicable general policy goals of the SGPA Plan, to the recommendations of the Central Suffolk SGPA, and to the site-specific recommendations of the SGPA Plan.

Central Pine Barrens Comprehensive Land Use Plan - **Table 3-8** presents each of standards and guidelines of the CPB CLUP for development within the CGA, with accompanying descriptions/discussions of whether and how the proposed project conforms to each. The table demonstrates that the proposed project is in conformance with and consistent with the Standards and Guidelines of the CPB CLUP.

3.2.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- In response to community concerns, the Applicant designed the project to minimize its potential to adversely impact the area's rural character. Specifically, the project is a seasonal-occupancy resort community of a low-density residential character, which is a complementary type of land use compatible with the mix of vacant/wooded, open space and agricultural uses that characterize the immediate area. In addition, retention of natural buffers will minimize the potential for adverse impacts on the of land uses in the vicinity.
- The proposed project will change the zoning classification of the site from CR 200 to a Mixed-Use PDD of the type that is envisioned in the East Quogue Land Use Plan. The proposed land uses are commensurate with those in the vicinity; low-density residential exists throughout the area, and the golf course amenity is complementary to the low-intensity, open space uses that are also present.
- With respect to the project's conformance to the Town's zoning standards for the MUPDD district, analysis provides substantial justification to conclude that the proposed project represents a suitable land use in the context of the surrounding community while providing substantial Community Benefits, and thereby fulfill the Town Board's goal in its use of the PDD concept.
- Analyses of the project's conformance to the Town Aquifer Protection Overlay District and the Town Central Pine Barrens Overlay District indicate that the project conforms to the applicable zoning standards. As such, no adverse impacts are expected, so that no mitigation is necessary or proposed.

Table 3-8
CONFORMANCE TO CPB CLUP STANDARDS AND GUIDELINES FOR LAND USE

Standard (S)/Guideline (G)			Explanation and Document Page Reference *(Attach additional sheets if necessary)*
5.3.3.1 Nitrate-nitrogen			
S 5.3.3.1.1	Suffolk County Sanitary Code Article 6 compliance	All development proposals subject to Article 6 of the Suffolk County Sanitary Code shall meet all applicable requirements of the Suffolk County Department of Health Services. Projects which require variances from the provisions of Article 6 shall meet all requirements of the Suffolk County Department of Health Service's Board of Review in order to be deemed to have met the requirements of this standard.	Article 6 would allow a yield based on 1 unit per 40,000 SF. The proposed project will be well below SCSC Article 6 requirements for the treatment, handling and disposal of its sanitary wastewater. All wastewater generated will be treated and recharged to groundwater through facilities conforming to SCDHS design, installation and operational requirements. Appropriate County approvals and permits will be obtained. The project density involves residential units based on 1 unit per 5 acres, as well as a clubhouse, and through a PDD provides a golf course as an amenity. The occupancy of the units is such that sanitary flow will be substantially reduced given the actual utilization of units on the order of 60 days per year. The applicant also commits to exploring and implementing alternative wastewater treatment methods and/or technologies to reduce nitrogen load to groundwater, based on SCDHS approvable systems. Nitrogen load due to sanitary wastewater will be reduced to the maximum extent.
S 5.3.3.1.2	Sewage treatment plant discharge	Where deemed practical by the County or State, sewage treatment plant discharge shall be outside and downgradient of the Central Pine Barrens. Denitrification systems that are approved by the New York State Department of Environmental Conservation or the Suffolk County Department of Health Services may be used in lieu of a sewage treatment plant.	The proposed project will conform to SCSC Article 6 requirements; based on its standards, septic systems would be allowed for the proposed project, so that no STP is required. If advanced wastewater systems are available and approvable, they will be employed to further reduce nitrogen load. No wastewater discharge that would increase yield above Article 6 density limits is proposed with an STP discharge within the Central Pine Barrens. The project will operate under the jurisdiction of the SCDHS and in conformance with SCSC Article 6 and applicable design, installation and operational requirements.
G 5.3.3.1.3	Nitrate-nitrogen goal	A more protective goal of two and one half (2.5) ppm may be achieved for new projects through an average residential density of one (1) unit per two (2) acres (or its commercial or industrial equivalent), through clustering, or through other mechanisms to protect surface water quality for projects in the vicinity of ponds and wetlands.	The development portions of the site are not within 200 feet of surface waters or wetlands. Nevertheless, based on the measures incorporated into the project that would tend to minimize potential nitrogen impacts to groundwater and surface water features (i.e., conformance to SCSC Article 6, minimization of fertilization for the golf course, and use of groundwater impacted by agricultural practices from locales in the upgradient direction for the project's irrigation), the project is expected to generate an overall nitrogen concentration in recharge of less than 1 mg/l and therefore is well below the 2.5 mg/l standard. Existing elevated groundwater nitrogen will be removed from the aquifer and reused for golf course irrigation such that the project will have a net negative nitrogen load, and nitrogen laden groundwater that would otherwise flow to Weesuck Creek and western Shinnecock Bay will be removed.
5.3.3.2 Other chemical contaminants of concern			
S 5.3.3.2.1	Suffolk County Sanitary Code Articles 7 & 12 compliance	All development projects must comply with the provisions of Articles 7 and 12 of the Suffolk County Sanitary Code, including any provisions for variances or waivers if needed, and all applicable state laws and regulations in order to ensure that all necessary water resource and wastewater management infrastructure shall be in place prior to, or as part of, the commencement of construction.	These regulations concern water pollution control (Article 7) and storage of hazardous or toxic materials associated with industrial use (Article 12). The proposed project is consistent with SCSC Article 7 in that it does not involve an industrial process, will not store or use hazardous or toxic materials in excess of the quantities allowed. As the proposed project is not an industrial operation, SCSC Article 12 would only apply to tank storage, and any such storage, if proposed would conform to Article 12. It is acknowledged that the proposed golf course operation will include the use, storage and handling of various landscape chemicals (e.g., fertilizers, pesticides, etc.). However, the project will provide for proper storage and handling facilities for these substances, as well as procedures for their application by trained and certified personnel, as well as procedures for cleanup and disposal, in conformance with Articles 7 and 12 and pertinent County and State regulations and professional standards.
5.3.3.3 Wellhead protection			
S 5.3.3.3.1	Significant discharges and public supply well locations	The location of nearby public supply wells shall be considered in all applications involving significant discharges to groundwater, as required under the New York State Environmental Conservation Law Article 17.	This standard restricts activities that could degrade the public water supply within a 200-foot radius of a public supply well. However, the location of the existing Spinney Road Wellfield, as well as the location of the potential new wellfield in the northern portion of the site, is well beyond 200 feet of any such activity, and the proposed project will not have a "significant discharge" such that it would have the potential to impact public water supply. The SCWA was contacted with respect to the proposed project plan and expressed that the project is not expected to result in any impact to well fields in the area of the subject site.
G 5.3.3.3.2	Private well protection	The Suffolk County Department of Health Services' guidelines for private wells should be used for wellhead protection.	The proposed project conforms to SCSC Articles 6 and 7. The existing Spinney Road Wellfield is located south of the majority of the project's development area, and the land to be provided to SCWA for a future wellfield would be located in the north part of the site in an open space area with high quality groundwater. SCWA was contacted with respect to the proposed project plan and expressed that the project is not expected to result in any impact to wellfields in the area of the subject site and further expressed that the proposed 4-acre well field dedication area serves their future needs.

5.3.3.4 Wetlands and surface waters			
S 5.3.3.4.1	Nondisturbance buffers	Development proposals for sites containing or abutting freshwater or tidal wetlands or surface waters must be separated by a nondisturbance buffer area which shall be no less than that required by the New York State Tidal Wetland, Freshwater Wetland, or Wild, Scenic and Recreational Rivers Act or local ordinance. Distances shall be measured horizontally from the wetland edge as mapped by the New York State Department of Environmental Conservation, field delineation or local ordinance. Projects which require variances or exceptions from these state laws, local ordinances and associated regulations, shall meet all requirements imposed in a permit by the New York State Department of Environmental Conservation or a municipality in order to be deemed to have met the requirements of this standard.	There are two areas of Town-regulated freshwater wetlands on The Hills North Parcel that total about 1.40 acres. However, because this parcel will not be disturbed or developed for the proposed project (this parcel will be dedicated in its entirety for public open space preservation), no impacts to this resource are expected. There are no wetlands within 200 feet of the Hills South Parcel or the Kracke Property where development is proposed and in fact, the nearest wetlands are approximately 1,500 feet southeast of the south part of the project site.
S 5.3.3.4.2	Buffer delineations, covenants and conservation easements	Buffer areas shall be delineated on the site plan, and covenants and/or conservation easements, pursuant to the New York State Environmental Conservation Law and local ordinances, shall be imposed to protect these areas as deemed necessary.	N/A; no encroachment on the estimated 1.40 acres of suspected Town-regulated freshwater wetlands on the Hills North Parcel are proposed, so that no buffers are necessary or proposed. The entire 86.92-acre Hills North Parcel will be offered to the Town of Southampton for public open space preservation.
S 5.3.3.4.3	Wild, Scenic & Recreational Rivers Act compliance	Development shall conform to the provisions of the New York State Wild, Scenic and Recreational Rivers Act, where applicable. Projects which require variances or exceptions under the New York State Wild, Scenic and Recreational Rivers Act shall meet all requirements imposed by the New York State Department of Environmental Conservation in order to be deemed to have met the requirements of this standard.	N/A; the project site is not located within or adjacent to any WSRR boundary.
G 5.3.3.4.4	Additional nondisturbance buffers	Stricter nondisturbance buffer areas may be established for wetlands as appropriate.	N/A; no encroachment on the estimated 1.40 acres of suspected Town-regulated freshwater wetlands on the Hills North Parcel are proposed, so that no buffers are necessary or proposed.
5.3.3.5 Stormwater runoff			
S 5.3.3.5.1	Stormwater recharge	Development projects must provide that all stormwater runoff originating from development on the property is recharged on-site unless surplus capacity exists in an off-site drainage system.	This standard requires that adequate drainage capacity be provided for retention and recharge of stormwater runoff generated on-site. All stormwater runoff generated on developed project surfaces will be retained on-site and recharged to groundwater in a drainage system designed in conformance with Town requirements. Preliminary drainage design is such that this system will utilize a combination of Drainage Reserve Areas, bioswales and rain gardens, leaching catch basins and pond area to retain, treat, reuse and recharge stormwater. No runoff from developed surfaces will be allowed to exit the site, based on the stringent retention and design requirements of the Town. The project's drainage system will be subject to the review and approval of the Town engineering and planning staff and the project will comply with SPDES GP 0-15-002 for stormwater project notification and preparation of a SWPPP. The proposed stormwater design conforms to the intent of this standard.
G 5.3.3.5.2	Natural recharge and drainage	Natural recharge areas and/or drainage system designs that cause minimal disturbance of native vegetation should be employed, where practical, in lieu of recharge basins or ponds that would require removal of significant areas of native vegetation.	The proposed project has been designed to minimize clearing of previously-undisturbed natural vegetation, including clearing for the proposed drainage system that has been accounted for within the overall allowable clearing for the site. As a result, the project will retain a total of 424.14 acres of existing natural vegetation on the site. There are no natural recharge areas on or proximate to the proposed development area that could be used as part of the project's drainage system. In lieu of such features, the proposed project will utilize DRAs, rain gardens, leaching catch basins and a 0.64-acre pond as components of the project's drainage system, to provide stormwater retention and recharge. In addition to these functions, the rain gardens and pond will also provide aesthetic enhancement.
G 5.3.3.5.3	Ponds	Ponds should only be created if they are to accommodate stormwater runoff, not solely for aesthetic purposes.	The project's drainage pond is located primarily in an existing cleared area in the central portion of the proposed development area; it will also provide aesthetic relief and habitat functions. One pond is designed to accommodate stormwater and is not solely designed for aesthetic purposes. A second pond is also designed to be used for blending of well water for reuse as irrigation on the golf course, a practice that will result in a net nitrogen reduction through removal of nitrogen-laden groundwater for irrigation.
G 5.3.3.5.4	Natural topography in lieu of recharge basins	The use of natural swales and depressions should be permitted and encouraged instead of excavated recharge basins, whenever feasible	The project does not include any recharge basins. There are no natural topographic low areas proximate to the areas to be developed (the areas proposed for the majority of development on the site are already disturbed), and the low areas that do exist are distant from the developed areas and so are proposed to remain undisturbed, within areas to be retained. No natural

			topographic low points or swales are available to be utilized for stormwater runoff detention or recharge. The drainage system will utilize a combination of Drainage Reserve Areas, bioswales and rain gardens, leaching catch basins and pond area to retain, treat, reuse and recharge stormwater. As a result, the proposed stormwater design conforms to the intent of this standard.
G 5.3.3.5.5	Soil erosion and stormwater runoff control during construction	During construction, the standards and guidelines promulgated by the New York State Department of Environmental Conservation pursuant to state law, which are designed to prevent soil erosion and control stormwater runoff, should be adhered to.	A Preliminary SWPPP has been prepared to demonstrate that the post development condition will generate less stormwater than the pre-development condition. A final SWPPP and erosion control plans will be part of the site plan review process and employed during construction to ensure that impacts from soil erosion during and/or after the construction period do not occur. Additionally, a SPDES GP 0-15-002 permit will be obtained prior to the onset of construction of the proposed project, and the project will comply with its requirements.
5.3.3.6 Natural vegetation and plant habitat			
S 5.3.3.6.1	Vegetation Clearance Limits	The clearance of natural vegetation shall be strictly limited. Site plans, surveys and subdivision maps shall delineate the existing naturally vegetated areas and calculate those portions of the site that are already cleared due to previous activities. Areas of the site proposed to be cleared combined with previously cleared areas shall not exceed the percentages in Figure 5-1 [of the Plan]. These percentages shall be taken over the total site and shall include, but not be limited to, roads, building sites and drainage structures. The clearance standard that would be applied to a project site if developed under the existing residential zoning category may be applied if the proposal involves multi-family units, attached housing, clustering or modified lot designs. Site plans, surveys and subdivision maps shall be delineated with a clearing limit line and calculations for clearing to demonstrate compliance with this standard. To the extent that a portion of a site includes Core property, & for the purpose of calculating the clearance limits, the site shall be construed to be the combined Core & CGA portions. However, the Core portion may not be cleared except in accordance with Section 5.2 of the Plan.	The subject parcels were zoned in a mix of districts in 1995, when the CPB CLUP was adopted. In conformance with the policy of the CLUP, the individual acreages of the site, by zoning at that time, are to be combined to render an overall value for allowed clearing. In conformance with the allowable site clearance standards listed in Figure 5-1 of the CLUP, the overall maximum allowed site clearance for the subject site is 28.25%,or 166.96 acres (conversely, a minimum of 71.75% of the site, or 424.04 acres, would have to be preserved as natural). The proposed project will preferentially occupy the previously-cleared areas so that the 166.86 acres of development (28.23% of the site) would occupy existing cleared areas, with removal of 122.80 acres of existing natural vegetation. As a result, 424.14 acres of natural vegetation (71.77% of the property) would remain on the site, and the project will conform to this standard. It is noted that the entire Hills North Parcel, and portions of the Hills South Parcel and the Parlato Property, are within the CPA. These areas will not be disturbed as a result of the proposed project. It is noted that a portion of the Parlato Property lies within the Henry's Hollow Region CRA, as designated by the CPB CLUP. While not so designated by the Town regulations, it is noteworthy that the proposed project will not adversely impact any portion of the Parlato Property (whether within or outside of the Henry's Hollow CRA). To the contrary, the project will revegetate the estimated 15.78 acres of agricultural land on the Parlato Property to a natural condition, followed by an offer of public dedication of this land to the Town.
S 5.3.3.6.2	Unfragmented open space	Subdivision and site design shall support preservation of natural vegetation in large unbroken blocks that allow contiguous open spaces to be established when adjacent parcels are developed. Subdivision and site designs should also be configured in such a way so as to prioritize the preservation of native pine barrens vegetation to the maximum extent practicable. For the purpose of this paragraph, native pine barrens vegetation shall include pitch pines and various species of oak trees, understory and ground cover plants such as blueberry, wintergreen, bearberry and bracken fern, grasses and sedges such as little bluestem, Pennsylvania sedge and indian grass as well as those ecological communities listed in sections 5.6 and 5.7 in Chapter 5, Volume 2 of the Plan. It is recognized that the preservation of nonnative but ecologically important habitats may be consistent with the intent and goals of the plan when such action would result in the creation of large contiguous natural open space areas and or the protection of rare, threatened or endangered species or their habitat.	This standard concerns preservation of natural vegetation in large unbroken blocks to establish open spaces contiguous to on-site and, if possible, off-site property. The entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres) will be retained in a natural state and dedicated. These properties total 188.83 acres, or 31.95% of the site. Both of these properties abut vacant, wooded lands, so that these dedications would extend the amount of and contiguity of open spaces in the area. Additionally, the highest-quality undisturbed natural vegetation that remains on the Hills South Parcel is primarily found in the north part of the property, which will be preserved. Significant natural open space will be retained throughout the subject property, such that minimum 100 foot corridors and large blocks of contiguous open space that aligns with off-site open space will be retained. It is noted that the Protection of Natural Vegetation Standard, as well as the Vegetation Clearance Limits in the CPB CLUP favor the placement of development in existing cleared areas in order to retain natural vegetation. This design intent is effectively used for The Hills plan. Given the restricted nature of allowable clearing on the site such that only 28.25% of the site may be cleared (including existing cleared areas), the design seeks to use existing cleared areas to the maximum extent possible while still retaining large unbroken blocks of contiguous open space to align with adjacent parcels as required. As a result, substantial areas of natural contiguous habitat will be retained; these areas will be contiguous to naturally-vegetated spaces adjacent to the north, east and west, thus forming an open space continuum as intended by this standard.
S 5.3.3.6.3	Fertilizer dependent vegetation limit	No more than 15% of an entire development project site shall be established in fertilizer-dependant vegetation including formalized turf areas. Generally, nonnative species require fertilization; therefore, planting of such nonnative species shall be limited to the maximum extent practicable. The use of the	No more than 15% of a project site shall be established in fertilizer-dependent vegetation. As the project site is a total of 591.00 acres in size (in three component properties), up to 88.65 acres of landscaping that requires fertilization may be planted on this site. Based on the **Master Plan**, a total of 88.53 acres of landscaping will be subject to fertilizer usage, as private lawns, common areas and the golf course. This represents 14.98% of the site, which ensures compliance with this

		nonnative plants in Figure 5-2 [of the Plan] is specifically not recommended.	standard. Final site plans will ensure that less than 15% of the site is established in fertilizer-dependent vegetation. None of the non-native species listed in Figure 5-2 of the CLUP will be used as part of the project's final site plan landscape design plans. Landscape species consistent with the species list in Figure 5-2 (Planting Recommendations) of the Pine Barrens Plan will be used as part of the final site plan landscape design plans. Typical landscape trees that are native to the area will be used for streetscapes and natural vegetation will be retained wherever possible as per the **Master Plan**.
S 5.3.3.6.4	Native Plantings	Development designs shall consider the native planting suggestions contained in Figure 5-2 [of the Plan].	Where pine barrens species are used in a landscape function, species listed in Figure 5-1 of the CPB CLUP will be used.
5.3.3.7 Species and communities of special concern			
S 5.3.3.7.1	Special Species and Ecological Communities	Where a significant negative impact upon a habitat essential to those species identified on the New York State maintained lists as rare, threatened, endangered or of special concern, or upon natural communities classified by the New York State Natural Heritage Program as G1, G2, G3 or S1, S2 or S3, or on any federally listed endangered or threatened species is proposed, appropriate mitigation measures as determined by the appropriate state, county or local government agency shall be taken to protect these species.	The NYNHP was contacted to determine any known records of rare, threatened or endangered species or communities on or in the vicinity of the subject site. Correspondence from the NYNHP indicated the presence of one special concern moth, one threatened dragonfly/damselfly, three rare dragonflies/damselflies, two uncommon communities, two rare communities, one endangered plant and one threatened plant in the vicinity of the subject site. Two historical records of threatened plants were also noted within the vicinity of the site. The majority of the records listed by the NYNHP require wetland areas with open water, which are not present on the subject sites. Of the species identified, the moth, one rare community and one historical plant are upland species. The project is not expected to impact these species. In addition, prior field inspections and investigations conducted subsequent to receipt of the NYNHP letter (dated December 28, 2007, May 11, 2009, September 8, 2009 and July 13, 2010) did not reveal the presence of any of these resources. Therefore, no endangered or threatened species are expected to be present in areas that would be disturbed on the subject site. As a result, no impacts are expected with respect to special species and/or ecological communities and the project conforms to this standard.
5.3.3.8 Soils			
G 5.3.3.8.1	Clearing envelopes	Clearing envelopes should be placed upon lots within a subdivision so as to maximize the placement of those envelopes on slopes less than ten percent (10%).	The project will minimize grading of natural slopes that are in excess of 10% to the maximum extent practicable. The majority of the development areas are previously disturbed have been subject to ongoing unauthorized use by off-road vehicles. The design seeks to utilize existing cleared and disturbed areas to the maximum extent, so that the project will be developed on these surfaces, allowing the remaining natural steep slopes to be preserved.
G 5.3.3.8.2	Stabilization and erosion control	Construction of homes, roadways and private driveways on slopes greater than ten percent (10%) may be approved if technical review shows that sufficient care has been taken in the design of stabilization measures, erosion control practices and structures so as to mitigate negative environmental impacts.	An Erosion & Sediment Control Plan and Preliminary SWPPP have been prepared for the Draft EIS. Erosion prevention measures to be taken during construction may include: groundcovers (vegetative or artificial), drainage diversions, soil traps, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements. Soil removed during grading and excavation will be used as backfill (if it displays acceptable bearing capacity and leaching characteristics) to produce acceptable slopes for construction. The proposed stormwater design conforms to the intent of this standard. Erosion control measures such as staked hay bales, silt fences, groundcovers (vegetative or artificial), drainage diversions, minimizing the area of soil exposed to erosive elements at one time, and minimizing the time span that soil is exposed to erosive elements, will be utilized to minimize loss of soil during construction, particularly in locations where erosion and sedimentation could adversely impact adjoining properties and streets. Applicable Town of Southampton standards and construction practices specified by the appropriate Town agencies will be followed. Conformance to the Town Code and to the requirements of NYSDEC SPDES review of stormwater control measures is necessary, to be consistent with Phase II stormwater permitting requirements for construction sites in excess of 1-acre (the SPDES GP-0-15-002 permit; hereafter, the General Permit). Under this program, a site-specific SWPPP must be prepared and submitted to the Town for review and approval prior to final site plan approval. Once the SWPPP has been prepared and approved by the Town, the Applicant will need to file a Notice of Intent with the NYSDEC to obtain coverage under the General Permit. Additionally, the General Permit requires that inspections of the construction site be performed under the supervision of a qualified professional to ensure that erosion controls are properly maintained during the construction period. As long as erosion is controlled during grading and construction, the potential for sediment transport will be minimal, and no significant loss of soils is expected and the project conforms to this standard.
G 5.3.3.8.3	Slope analysis	Project review is facilitated if submissions contain a slope analysis showing slopes in the ranges 0-10%, 11-15% and 15% and greater. In areas with steep slopes, slope analysis maps should be required. This can be satisfied	A map has been prepared depicting slope intervals of 0-10%, 10-15% and greater than 15%. As shown in the Slope Analysis (see DEIS **Figure 2-3b**), there are 70.11 acres of steep slopes (defined as >15%) on the subject site. It should be noted that 88.14% of the site has slopes of less than 15%. **Table 2-2** provides a slope analysis of all of the parcels that are

		with cross hatching or shading on the site plan for the appropriate areas.	part of the site. Natural steep slopes are found in the central and northern parts of the site. For the proposed project, regrading of this area will not result in any slopes in excess of 1:3.
G 5.3.3.8.4	Erosion and sediment control plans	Erosion and sediment control plans should be required in areas of fifteen percent (15%) or greater slopes.	The entire site will be addressed in erosion and sediment control plans and the SWPPP, and preliminary plans have been prepared and included in the DEIS. The potential for erosion to occur during construction or after construction is completed will be controlled by implementing a SWPPP, which will include engineered Erosion Control Plans as part of Site Plan review and controls will be implemented during construction as noted above under G 5.3.3.8.2.
G 5.3.3.8.5	Placement of roadways	Roads and driveways should be designed to minimize the traversing of slopes greater than ten percent (10%) and to minimize cuts and fills.	The proposed project has been designed to maximize its development on previously-cleared areas, so that the least amount of natural steep slopes would be impacted. As a consequence of this design policy, any need for cut or fill for the project's internal roadways is minimized.
G 5.3.3.8.6	Retaining walls and control structures	Details of retaining walls and erosion control structures should be provided for roads and driveways which traverse slopes greater than ten percent (10%).	It is acknowledged that short sections of retaining walls may be needed along the internal access roadways and/or within the golf course area. However, in consideration of the preliminary nature of the **Master Plan** and the overall project design policy to minimize the amount of development on natural steep slopes, more detailed information on the need for and extent of retaining walls cannot be determined at this time. It is noteworthy that the need for and details of such walls will be determined as part of the site plan application process, for which time detailed engineering review would be conducted by the Town.
5.3.3.9 Coordinated design for open space management			
S 5.3.3.9.1	Receiving entity for open space dedications	Applications must specify the entity to which dedicated open space will be transferred.	The Applicant anticipates that the entire Hills North Parcel (86.92 acres) and the entire Parlato Property (101.91 acres), totaling 188.83 acres, will be offered to the Town of Southampton for dedication as public open space. It is expected that the details and process whereby this transfer would occur will be specified in the SEQRA Findings Statement, to be prepared by the Town Board. An additional 235.31 acres of open space within the Hills South Parcel/Kracke Property outside of the residential lots and golf course play area and common spaces will remain privately-owned, protected from disturbance by binding covenant.
G 5.3.3.9.2	Clustering	Municipalities are strongly urged to maximize the use of the clustering technique where its usage would enhance adjacent open space or provide contiguous open space connections with adjacent open space parcels.	Clustering of the proposed development areas is a central tenet of the proposed project, to allow for retention of substantial buffers of natural vegetation around the entire developed area. This principle also enables the Applicant to locate the developed area preferentially on previously-cleared areas, which mitigates the loss of valuable natural vegetation.
G 5.3.3.9.3	Protection of dedicated open space	Proposed open space should be protected with covenants, conservation easements or dedications that specify proper restrictions on its use and contingencies for its future management.	The Applicant will participate in the preparation of covenants to permanently protect the naturally-vegetated open spaces to remain under private ownership on the Hills South Parcel/Kracke Property. The Applicant proposes to offer the entirety of the Hills North Parcel and the Parlato Property to the Town for dedication.
5.3.3.10 Agriculture and horticulture			
G 5.3.3.10.1	Best Management Practices	Any existing, expanded, or new activity involving agriculture or horticulture in the Compatible Growth Area should comply with best management practices as defined herein and relevant requirements including local law. Best management practices are, for purposes of this Plan, the same practices stated in the most recent version of *Controlling Agricultural Nonpoint Source Water Pollution in New York State* (Bureau of Technical Services and Research, Division of Water, New York State Department of Environmental Conservation, 1991 and as later amended).	The project is residential in nature, and no new or expanded agricultural or horticultural uses are included. The project will result in the cessation of existing farming activity on the Parlato Property (15.78 acres) and the Kracke Property (2.64 acres), which would eliminate any use of agricultural chemicals, and thus would tend to improve groundwater quality as related to these sources.
5.3.3.11 Scenic, historic and cultural resources			
G 5.3.3.11.1	Cultural resource consideration	Development proposals should account for, review, and provide protection measures for: 1. Established recreational and educational trails and trail corridors, including but not limited to those trail corridors inventoried elsewhere in this Plan. 2. Active recreation sites, including existing sites and those proposed as part of a development. 3. Scenic corridors, roads, vistas and viewpoints located in Critical Resource Areas, and along the Long Island Expressway, Sunrise Highway, County Road 111 and William Floyd Parkway. 4. Sites of historical or cultural significance, including historic districts, sites on the State or National Registers of Historic Places, and historic	Extensive site inspections have not revealed the existence of any authorized recreational or educational trails or trail corridors, or active recreation sites, on any of the project properties. The existing trails are the result of past unauthorized ATV usage; these trails will be revegetated as part of the project. A portion of the Parlato Property is within the Henry's Hollow Region CRA, but this area will be undisturbed by the project, to be offered to the Town for dedication as a public open space. As such, its existing use and appearance will not be altered by the proposed project. The project includes open space that will be dedicated to the Town for public use. Scenic corridors are associated with the northern part of The Hills South Parcel, specifically the CPA that extends 1,000 feet south of Sunrise Highway. Substantial natural or landscaped buffers separate the historic district from proposed use areas on the subject site such that these resources are not impacted. Specifically, a vegetated buffer (landscaped and/or natural) will be provided along the site perimeter to ensure that the neighboring uses will not be impacted. There are no cultural resources on the subject site that could be impacted by the proposed project, based on on-site archaeological studies. As shown in **Figure 3-10** and discussed

		structures listed on the State or National Registers of Historic Places, or recognized by local municipal law or statute. 5. Sensitive archaeological areas as identified by the New York State Historic Preservation Office or the New York State Museum.	in the Archaeological Investigation (see **Appendix N**), there are no sites of cultural significance on the Hills South Parcel/Kracke Property, so there would be no impacts to cultural resources. This will be confirmed by the NY State Historic Preservation Office (SHPO) for the Draft EIS.
G 5.3.3.11.2	Inclusion of cultural resources in application	Development proposals should note established recreation and educational trails and trail corridors; active recreation sites; scenic corridors, roads, vistas and viewpoints located in Critical Resource Areas and undisturbed portions of the roadsides of the Long Island Expressway, Sunrise Highway, County Road 111 and William Floyd Parkway; sites on the State or National Register of Historic Places, and historic structures and landmarks recognized by municipal law or statute, or listed on the State or National Registers of Historic Places; and sensitive archaeological areas as identified by the New York State Historic Preservation Office or the New York State Museum within a five hundred (500) foot radius of the outside perimeter of the project site, including any project parcels which are physically separate from the bulk of the proposed development area. A development proposal may be disapproved or altered if the local municipality determines that the development proposal, in its current form, may have a significant negative impact on any of the above resources.	N/A; the Archaeological Investigation prepared for the project site's developed area does not indicate the presence of any cultural resources.
G 5.3.3.11.3	Protection of scenic and recreational resources	Protection measures for scenic and recreational resources should include, but not be limited to, retention of visually shielding natural buffers, replacement of degraded or removed natural visual buffers using native species, use of signs which are in keeping in both style and scale with the community character, and similar measures.	Project design will retain substantial natural vegetation buffers along the Hills South Parcel/Kracke Property boundaries, buffering views of the site from abutting public open spaces and the homes located on Spinney Road. This buffer may be supplemented with plantings of appropriate landscape species to protect and enhance the natural aesthetics of this corridor. The project's buildings and amenities will employ an attractive architectural treatment and complementary landscape design that would be consistent with the aesthetics of the area and congruent with the surrounding land uses, while remaining at an intensity below any impact threshold.
G 5.3.3.11.4	Roadside design and management	Undisturbed portions of the roadside should be maintained in a manner that protects the scenic features of these areas. Clearing (including that for aisles, driveways, access and parking) is not precluded within these roadside areas, provided that appropriate buffers are maintained, and that manmade structures meet standards consistent with the character of the area.	The developed portion of project has been preferentially located within the interior of the Hills South Parcel/Kracke Property, in order to maximize the buffering effect of the natural vegetation that will remain along the site's periphery. These deep belts of naturally-vegetated land will buffer views of the site from the abutting public open spaces and the homes located on Spinney Road. These buffers may be supplemented with plantings of appropriate landscape species to further protect and enhance the natural aesthetics of this corridor. Finally, extensive plantings of landscape species within the developed area will add to the buffering effect of natural vegetation, rendering the clubhouse and homes less likely to be visible to outside observation.
5.3.3.12 Commercial and industrial development			
S 5.3.3.12.1	Commercial and industrial compliance with Suffolk County Sanitary Code	All commercial and industrial development applications shall comply with the provisions of the Suffolk County Sanitary Code as applied by the Suffolk County Department of Health Services, and all other applicable federal, state or local laws. Projects which require variances from the provisions of the Suffolk County Sanitary Code shall meet all requirements of the Department of Health Service's Board of Review in order to be deemed to have met the requirements of this standard.	N/A; the proposed project is residential in nature.

- The proposed project will generate substantial fiscal (i.e., tax) and economic benefits to the East Quogue community It is expected that these increases in public and private revenues would the result in enhanced quality of life for the East Quogue community.
- Analyses of the land use plans pertinent to the site (the Town Comprehensive Plan Update, the Town's East Quogue GEIS), the CPB CLUP, and the SGPA Plan, indicate that the project generally conforms to the applicable recommendations.
- The entire Parlato Property will be dedicated to the Town as a public open space, after completion of a revegetation program of its existing 15.98 acres of agricultural use. Thus, that portion of the Parlato Property within the Henry's Hollow CRA, (as designated by the CPB CLUP and not by the Town), will not be impacted. Such preservation would comply with this aspect of the CPB CLUP.
- The site is not expected to present a danger or risk to on or off-site residents as a result of a catastrophic event due to current code conforming construction, year-round site management, low year round occupancy with very low to non-existent winter occupancy, underground utility installation, central office and monitoring of local events and regional governmental response to catastrophic situations.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to land use, zoning or land use plans, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

3.3 Community Facilities and Services

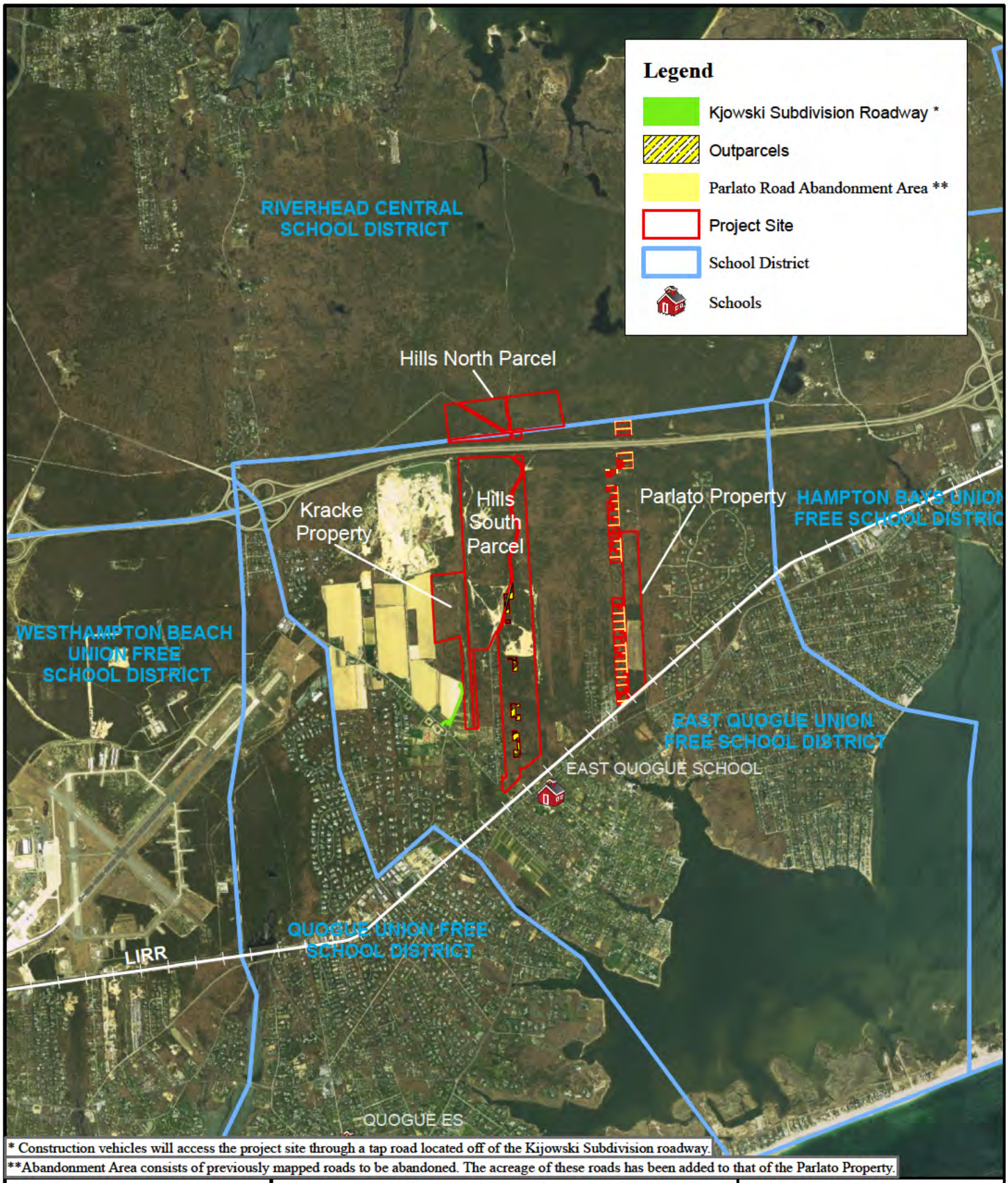
3.3.1 Existing Conditions

As noted in **Section 1.4.1**, the project parcels are within the service areas of the following community services providers:

- East Quogue UFSD (Hills South Parcel/Kracke Property and Parlato Property)
- Riverhead CSD (Hills North Parcel)
- Southampton Town Police Department
- East Quogue Fire Department
- SCWA, Distribution Area 20
- Town Department of Municipal Works
- PSE&G (electricity)
- National Grid (natural gas)

Figure 3-3 shows the presence and local route of the public transportation services in the area, **Figure 3-11** shows the locations of the public schools in the neighborhood, **Figure 3-2** is a map of the existing sidewalk locations and pedestrian resources in the area between the site and the hamlet center, **Figure 3-12** is a map depicting the location of public safety-related services, **Figure 3-13** depicts water supply services in the area, and **Figures 1-9 and 3-14** show the locations of nearby Town, county, state and federal open spaces.

For this application, letters were sent to the community service providers, soliciting information on services available and currently provided, as well as provider input regarding concerns that



* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-11
COMMUNITY SERVICES MAP, PUBLIC SCHOOLS

Source: ESRI WMS, NYSGIS Clearing House
Scale: 1 inch = 4,000 feet

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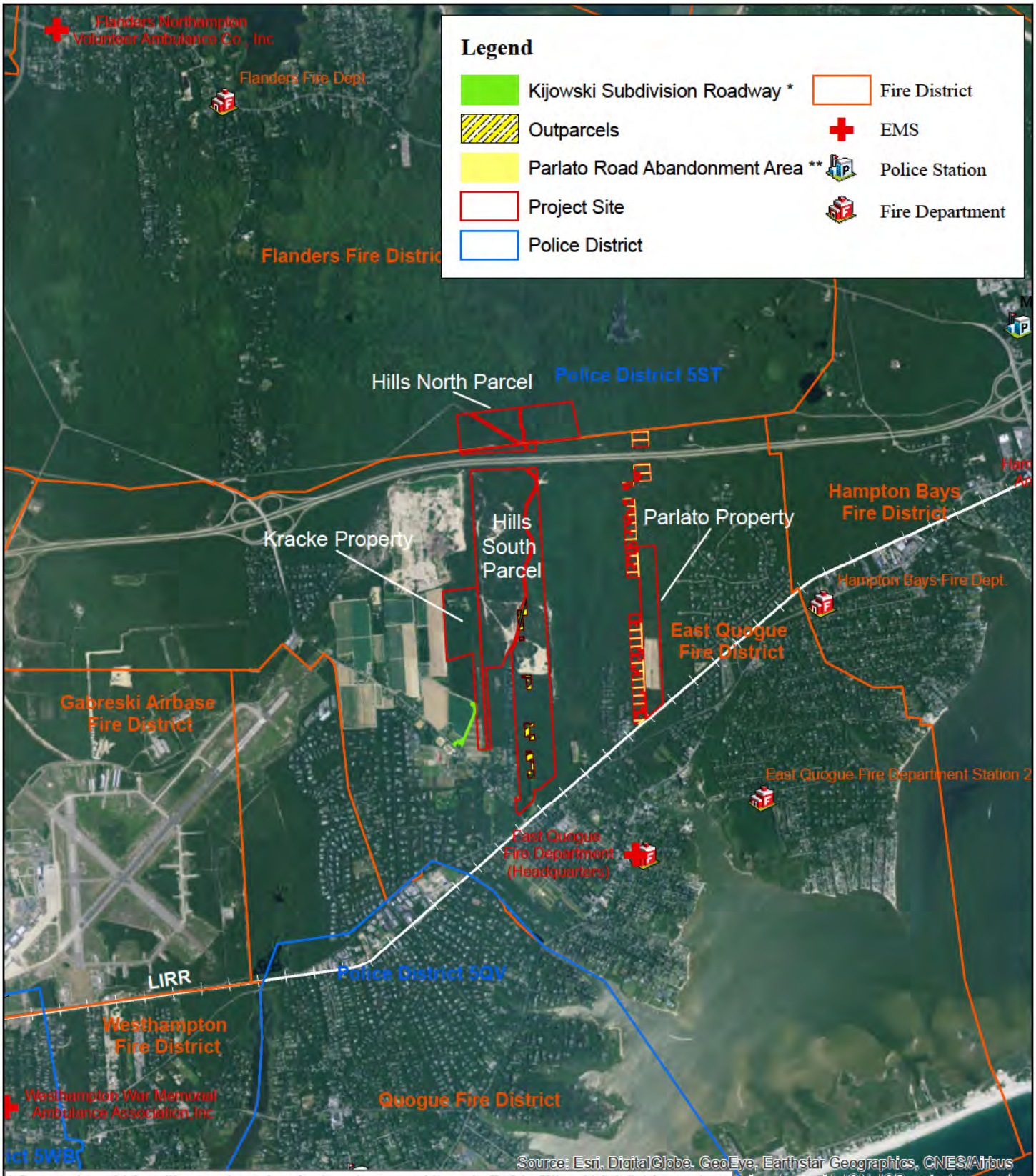
The Hills at Southampton

Draft EIS



* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-12
COMMUNITY SERVICES MAP, PUBLIC HEALTH AND SAFETY

Source: ESRI WMS, NYSGIS Clearinghouse
Scale: 1 inch = 4,000 feet

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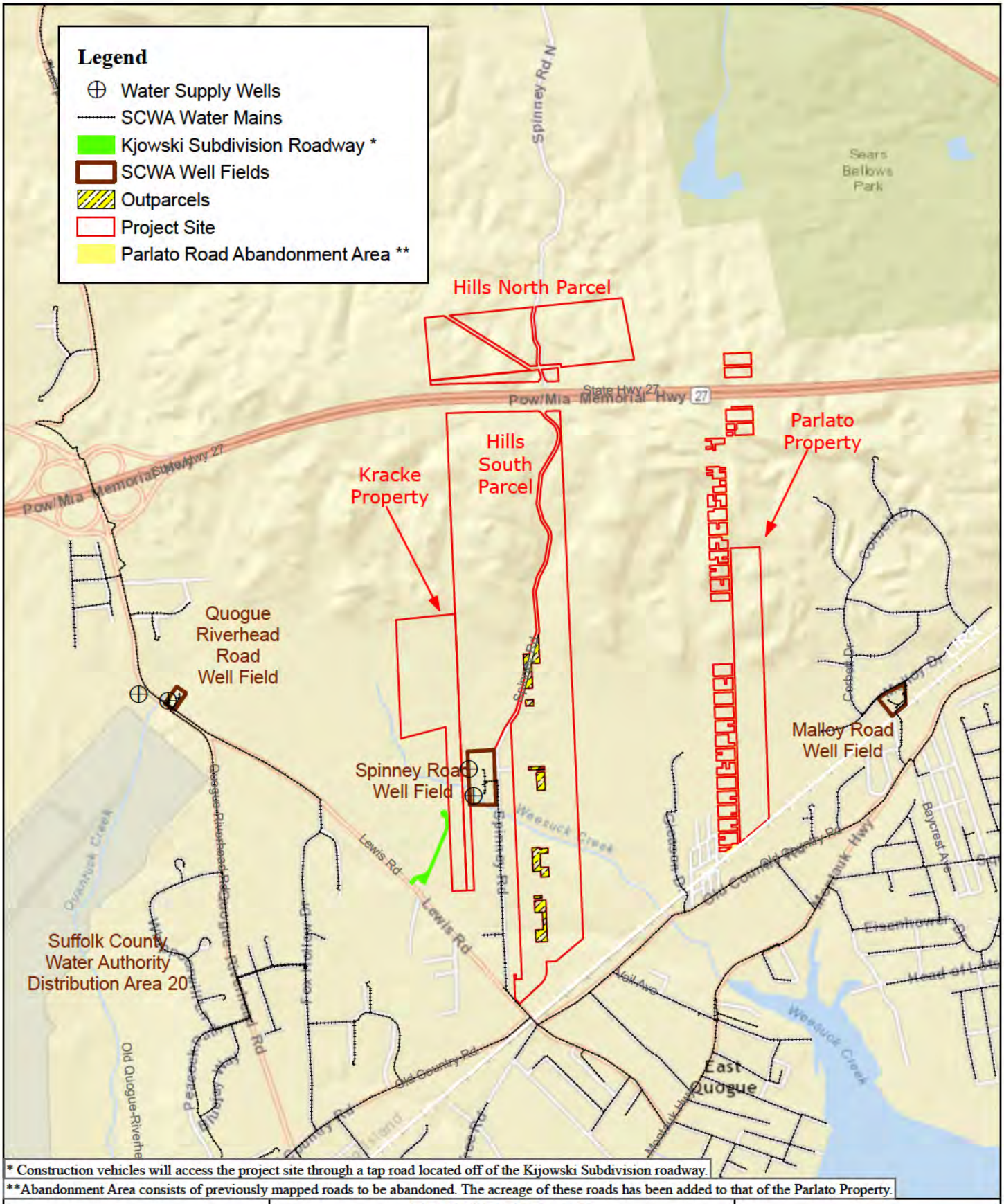
The Hills at Southampton

Draft EIS



* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 3-13
COMMUNITY SERVICES MAP, PUBLIC WATER SUPPLY

Source: NYS Orthophotos, 2013; USGS SIM 3270, 2010 data, Suffolk County Water Authority
Scale: 1 inch = 3,000 feet

The Hills at Southampton

Draft EIS

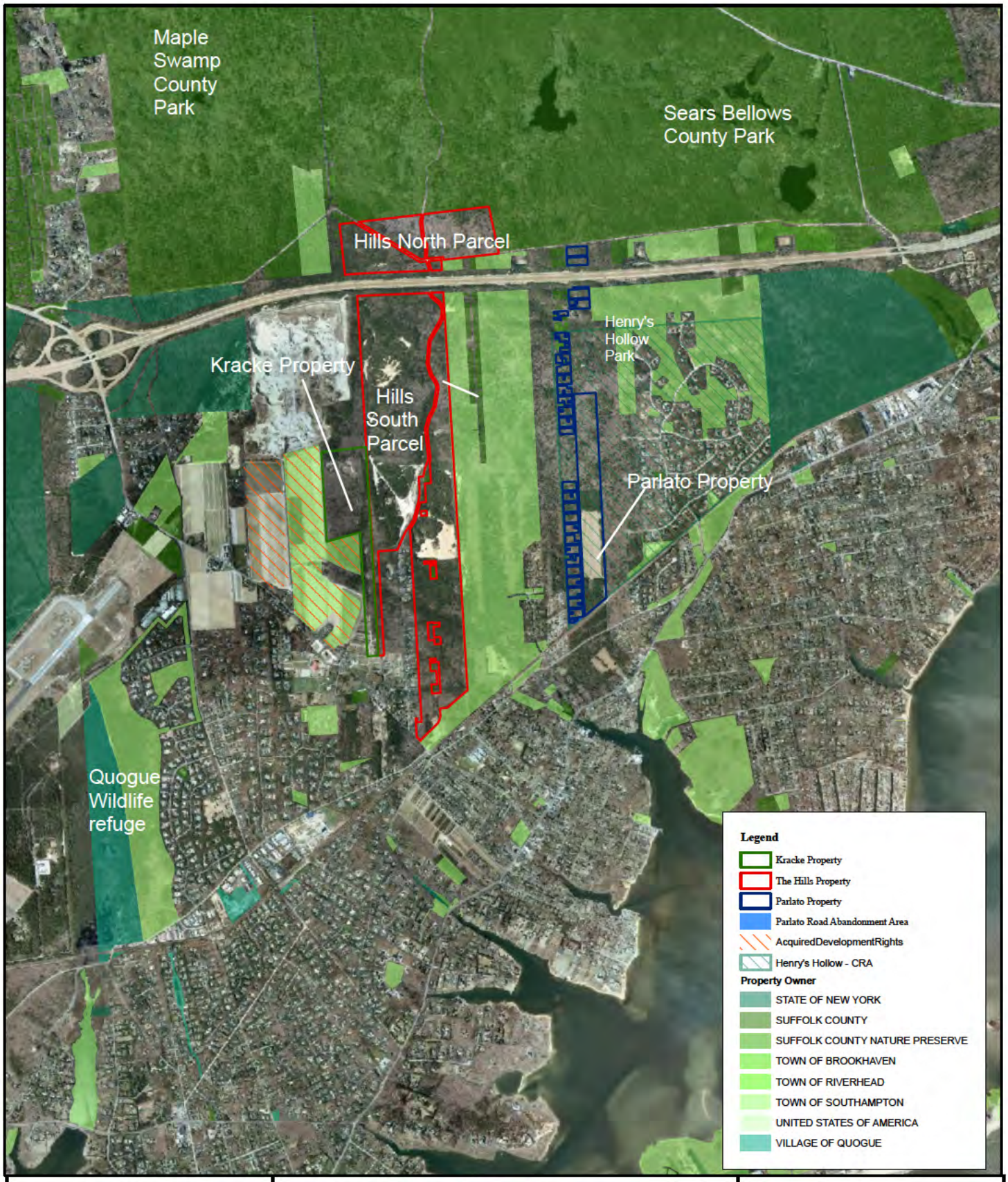

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FIGURE 3-14
COMMUNITY SERVICES MAP
PARK AND RECREATION SITES

Source: NYS Orthophotography, 2013; suffolk property records
Scale: 1 inch = 3,000 feet

N

The Hills at Southampton

Draft EIS

the proposed project may adversely affect each service provider's ability to provide services, whether extensions of services would be necessary to provide services, and whether the ability to maintain existing service levels would be impaired. **Appendix I** contains these letters, with the service provider response letters, if received.

Taxes and Fiscal Conditions

The following discussion of the existing tax conditions of the subject site has been taken from the report contained in **Appendix F**.

> …the majority of the Town's revenues are levied through property tax generation, which is based upon a rate per $1,000 of assessed valuation for a given parcel. As indicated in **Table [3-9]**, property owners within this part of the Town of Southampton are currently[6] taxed at a rate of $14.5910 per $1,000 of assessed valuation. These tax rates account for property taxes paid to East Quogue UFSD, Library District, Suffolk County, various Town funds, Metropolitan Transportation Authority, East Quogue Fire District, East Quogue Lighting District and other local taxing jurisdictions.[7]

Table 3-9
TAX GENERATION AND ALLOCATION
Existing Conditions

Taxing Jurisdiction*	**Current Tax Rate** ($/$1,000 Assessed)	**Current Tax Revenue**[8]	**Percent of Total Tax Revenue**
School Taxes	**12.0340**	**$225,147**	**82.5%**
East Quogue UFSD	11.6830	$218,580	80.1%
East Quogue Library	0.3510	$6,567	2.4%
County Taxes	**0.2090**	**$3,910**	**1.4%**
Town Taxes	**1.4330**	**$26,810**	**9.8%**
Southampton Town - General	0.3770	$7,053	2.6%
Highway	0.3740	$6,997	2.6%
Police	0.5670	$10,608	3.9%
Emergency Dispatching - e911	0.0500	$935	0.3%
Part-Town Outside of Villages	0.0600	$1,123	0.4%
Out of County Tuition	0.0050	$94	0.0%
Other Taxes	**0.9150**	**$17,119**	**6.3%**
NYS Real Property Tax Law	0.1440	$2,694	1.0%
NYS MTA Tax	0.0060	$112	0.0%
East Quogue Fire District	0.7190	$13,452	4.9%
East Quogue Lighting District	0.0460	$861	0.3%
TOTALS	**14.5910**	**$272,986**	**100.0%**

Source: Town of Southampton Receiver of Taxes; Analysis by Nelson, Pope & Voorhis, LLC.

[6] The Town of Southampton's fiscal year is between December 1, 2014 and November 31, 2015.

[7] It is important to note that several properties within the northern part of the project site generate taxes to the Riverhead Central School District/Library District, the Flanders Fire District, Flanders Lighting District, Flanders Water District and/or the Northampton Ambulance District.

[8] It is important to note that the current tax revenue distribution is an estimate, based upon the existing distribution of a sampling of tax bills specific to the subject site.

The tax parcels that comprise the study area currently generate a total of $272,986 in property tax revenues. Of this, approximately $218,580 or 80.1% of the total taxes generated by the site are distributed to the East Quogue UFSD, and $6,567 or 2.4% of the taxes are allocated to the Library District. An additional $3,910 or 1.4% of the total tax revenues are distributed to Suffolk County. Approximately 9.8% of the total tax generation is levied to the Town of Southampton, providing $26,810 in revenues. The East Quogue Fire District levies approximately $13,452, or 4.9% of the total tax revenue generated by the subject property. The balance of the current property tax revenues are apportioned to various other local taxing jurisdictions, as seen in **Table [3-9]**.

Public Schools

Riverhead CSD (Hills North Parcel) - The Hills North Parcel is the only portion of the subject site that is located in the Riverhead CSD. As this site is presently undeveloped, it does not utilize any school district services.

Because the project will not increase enrollment for the Riverhead CSD, it will not necessitate any increased expenditures for the district. However, the Hills North Parcel will be dedicated as open space, so that it will be removed from the public tax rolls and will therefore no longer generate property tax revenues for the district. This incremental decrease in tax revenue would have a minor impact on Riverhead CSD fiscal conditions.

East Quogue UFSD (Hills South Parcel/Kracke Property and Parlato Property) - The Hills South Parcel/Kracke Property and the Parlato Property are located in the East Quogue UFSD. According to the district, there is one school that serves the East Quogue UFSD: the East Quogue School. This facility provides Kindergarten through Grade 6 classes, and currently has an enrollment of 430 students. Middle School and High School services are provided cooperatively at neighboring Westhampton Beach School District facilities, for 420 East Quogue students.

The district's enrollment has fluctuated over the past ten years between 2003-04 and 2012-13, with a ten-year peak occurring in 2005-06 with 467 students, and a low occurring in 2010-11 with 407 students. Nevertheless, the enrollment has remained relatively unchanged over the ten-year period, decreasing by only 1.9% or eight (8) students in that time period.

According to the New York State School Report Card, Fiscal Accountability Supplement for the East Quogue UFSD, expenditures averaged $16,580 per general education student and $149,396 per special education student during the 2011-12 academic year. During this year, 33 students, or 3.9% of the students within East Quogue UFSD, were enrolled in the special education program.

The East Quogue UFSD passed a balanced budget for the 2014-15 academic year, with revenues and expenditures totaling $22.8 million. Similar to municipal budgets, school district budgets are projected to be balanced. A closer examination of the audited and reported 2013 East Quogue UFSD financial data reveals that the district generated approximately $21.3 million. Of this, over $18.7 million was levied through property taxes and assessments, and over $1.1 million from state aid. In 2013, expenditures nearly equaled revenues, at approximately $22.5 million. This included over $18.3 million for education expenses and over $2.1 million for

employee benefits. The school district witnessed a $1.2 million deficit in 2013, contributing to the total indebtedness of $2.8 million.

The superintendent's response letter indicates a concern regarding the district's fund balance, which *"… has been dramatically reduced in order to stay below the 2% property tax cap. There is potential jeopardy to staff and programs in future years."*

Police Protection

Based on a response letter received from the Police Department, the Chief of Police (Robert Pearce) confirms that the site and area are served by the Town of Southampton Police Department, whose headquarters is located at 110 Old Riverhead Road, in Hampton Bays. The subject parcels are located in Sector A22. The response letter contained no information on potential impacts of the project on Town police department services.

Fire Protection

The subject site is located in the East Quogue Fire District, which is served by two facilities: the Headquarters is located at 465 Montauk Highway, approximately 1.4 road-miles south of the subject site, and Station II, which is at 29 Head of Lots Road, approximately 2.7 road-miles to the southeast. The department currently has 69 active volunteer members, and one paid ALS provider (from 6 AM to 7 PM). Twenty members are assigned to Station II, and 49 members are assigned to the headquarters. All members respond to all alarms.

Information on ambulance-related facilities and services of the East Quogue Fire Department was requested. The department's response letter indicates that it has two ALS-equipped ambulances, both stationed at Headquarters facility (465 Montauk Highway, East Quogue). The department currently employs one full-time paramedic and several per diem paramedics; their service hours are 6 AM to 7 PM. Additionally, the department has one paramedic in training, two Critical-Care EMTs, and 15 Basic EMTs; 3 additional department members are awaiting their EMT qualification test results.

Neither of the department's response letters indicated concerns regarding potential impacts on fire department services. It is noted that the project will substantially increase property tax allocations to the department, which would help to offset at least a portion of any increased costs to provide emergency/safety services to the project site.

Water Supply

The SCWA maintains water supply services in the vicinity; the subject site is within Distribution Area 20. The Spinney Road Wellfield is the nearest supply facility and is located on the west side of Spinney Road just south of its terminus. This facility has three supply wells installed: Wells 1 and 2 are screened in the Upper Glacial Aquifer, and Well 3 is screened in the Magothy Aquifer. This wellfield is connected to a 12-inch supply line beneath Spinney Road that runs southward and connects to a 12-inch line beneath Lewis Road.

As the subject site is not developed, no water is supplied to or consumed on it.

Wastewater Treatment

The subject site is not located within any existing public or private sanitary sewer district. As there is no development on any of the project's component properties, no sanitary wastewater systems or sewer connections exist on the site, and no sanitary wastewater is generated.

Solid Waste Handling and Disposal

As the site is presently undeveloped and vacant, no solid wastes are generated on the property. The photographs in **Appendices D-1 and D-2** show typical views of debris dumped on the Hills South Parcel/Kracke Property and on the Parlato Property, respectively. The various ESAs undertaken for these sites (see **Appendices E-1 through E-4**) evaluated this debris and recommended that the debris be removed and soil beneath be investigated to determine if any action is required due to release.

The Town response letter indicates that there are four Town-operated Transfer Stations at which solid wastes can be disposed of; the Westhampton Transfer Station is the closest to the project site, at 66 Old Country Road. The Town does not provide curbside solid waste pick-up services. Town residents can take their wastes to any of the four transfer stations, using Pay As You Throw (PAYT) bags purchased at local supermarkets and hardware stores. However, the applicant expects that the solid wastes generated on-site, including wastes from the golf course, residences and the clubhouse, will be taken by private carters (operating under contract with the HOA/COA for the site) to one or more of these Town Transfer Stations for disposal or further processing.

The department's response letter did not indicate that it has any concerns regarding potential impacts from the project's solid wastes on transfer station operations. It is expected that these Town facilities have adequate capacity to accept and process the project's wastes, and that the incremental increases in wastes provided would not significantly impact the operations at any of these facilities.

Energy

PSE&G (electricity) - PSE&G provides electricity in the area, via individual connections from pole-mounted transmission lines. As none of the component parcels constituting the project site are developed, no electricity is supplied to or consumed on any of these properties. PSE&G has confirmed that electrical services can and will be provided to the proposed project *"…in accordance with our filed tariff and schedules in effect at the time service is required."* (see **Appendix I**).

National Grid (natural gas) - National Grid provides natural gas in the area, via individual connections from its subsurface distribution system. The area is served via connections to National Grid's high pressure (124 pounds per square inch [psi]) 8-inch diameter main beneath Lewis Road. As none of the component parcels constituting the project site are developed, no natural gas is provided to or consumed on any of these properties. National Grid has confirmed that natural gas can and will be provided to the proposed project, though (see **Appendix I**):

> Please be advised that National Grid will require gas load information to determine the feasibility of supplying the project as well as any applicable connection fees associated with the installation of

natural gas to the site in accordance with the New York State tariffs and schedules in effect at the time service is requested.

Parks and Recreation

There are a number of public parklands and publicly-owned open spaces in the vicinity of the project site. These resources include the Quogue Wildlife Refuge, and two Suffolk County parklands: Maple Swamp and Sears Bellows. **Figures 1-9 and 3-14** also show substantial state and village-owned parklands in the area.

As the subject site is not developed, no residents are generated, and no attendance impact on any of these public recreational resources is attributable to the project site.

3.3.2 Anticipated Impacts

Taxes and Fiscal Conditions

The following discussion of the anticipated tax conditions of the subject site after implementation of the proposed project has been taken from the report contained in **Appendix F**. It is important to note that while **Appendix F** details the fiscal impacts that are anticipated to result from the proposed project, the appendix also depicts the economic impacts – on output, employment and labor income – during both the construction period and annually, upon a stabilized year of operations of the proposed project.

Many of the Town and County's community services and facilities are supported in large part by the revenues generated through property taxes. The Town of Southampton and Suffolk County, as well as other local taxing jurisdictions will greatly benefit from an increase in such property tax revenues, resulting from the development and operation of the proposed project.

For the purpose of this analysis, it is necessary to determine the assessed valuation for the proposed project. This was prepared in coordination with the Southampton Town Assessor, which confirmed their methodology for determining assessed valuation for both the residential component of the proposed project as well as the golf-course and related components. For the single-family residential component of the project, the assessed valuation was based on the estimated selling price of each unit, which should in essence, equal market value at the time of sale. For the condominium, golf-course and related components of the proposed project, the assessed valuation was actually prepared by the Southampton Town Assessor, and based on the income-approach, which examines the revenues anticipated to be generated by this component of the project.[9]

Given the above-mentioned assumptions, and when applied to the Town of Southampton's current equalization rate of 100.0%, the estimated market valuation of the proposed project for taxing purposes is approximately $372.4 million.

Current tax and equalization rates can be applied to the assessed valuation in order to project the impact that the proposed project will have on the local tax base. **Table [3-10]** shows the current tax rates and revenues that are projected to be levied from full build-out of the proposed project. The

[9] Correspondence pertaining to the derivation of the assessed valuation from the Southampton Town Assessor can be found in **Appendix F, Attachment B**.

information provided in the table was derived from the current assessment factors and tax rates provided by the Town of Southampton Receiver of Taxes and Assessor's Office, as well as the total projected assessed valuation for the proposed project upon full build-out. It is important to note that all analyses are based on current tax dollars, and the revenue allotted among taxing jurisdictions will vary from year to year, depending on the annual tax rates, assessed valuation and equalization rates. Further, the final assessment and levy will be determined by the sole assessor at the time of occupancy. Projections included herein are as accurate as possible using fiscal impact methodologies, for the purpose of the planning and land use approval process.

Table 3-10
TAX GENERATION AND ALLOCATION
Existing Conditions & Proposed Project

Taxing Jurisdiction	Current Tax Revenue[10]	Projected Tax Revenue	Increase in Tax Revenue	Percent of Total Tax Revenue
School Taxes	**$225,147**	**$3,561,740**	**$3,336,594**	**78.9%**
East Quogue School	$218,580	$3,431,031	$3,212,451	76.0%
East Quogue Library	$6,567	$130,709	$124,143	2.9%
County Taxes	**$3,910**	**$77,830**	**$73,920**	**1.7%**
Town Taxes	**$26,810**	**$533,637**	**$506,827**	**11.8%**
Southampton Town - General	$7,053	$140,392	$133,338	3.1%
Highway	$6,997	$139,274	$132,277	3.1%
Police	$10,608	$211,146	$200,538	4.7%
Emergency Dispatching - e911	$935	$18,620	$17,684	0.4%
Part-Town Outside of Villages	$1,123	$22,344	$21,221	0.5%
Out of County Tuition	$94	$1,862	$1,768	0.0%
Other Taxes	**$17,119**	**$340,738**	**$323,619**	**7.5%**
New York State Real Property Tax Law	$2,694	$53,624	$50,930	1.2%
New York State MTA Tax	$112	$2,234	$2,122	0.0%
East Quogue Fire District	$13,452	$267,750	$254,298	5.9%
East Quogue Lighting District	$861	$17,130	$16,269	0.4%
TOTAL: ALL TAXING JURISDICTIONS	**$272,986**	**$4,513,946**	**$4,240,960**	**100.0%**

Source: Town of Southampton Receiver of Taxes; Town of Southampton Assessor; Analysis by Nelson, Pope & Voorhis, LLC.

The proposed project will significantly increase taxes generated by the site, resulting in a substantial increase in revenues distributed to each taxing jurisdiction. Upon the completed sale of all housing units, full build-out of the golf course and a stabilized year of operations, the proposed project is estimated to contribute over $4.5 million in annual tax revenue. Of this, over $4.3 million, or 80.1% of the total taxes projected to be generated by the site, would be distributed to the East Quogue UFSD. However, it is important to note that the school district is limited (the lesser of 2% or the rate of inflation) in the amount of taxes that they can request

[10] It is important to note that the current tax revenue distribution is an estimate, based upon the existing distribution of a sampling of tax bills specific to the subject site.

from year to year, due to the tax levy 2% cap. As such, the school district will not actually receive the full $4.3 million in property tax revenue.

While tax projection illustrates how the proposed project will impact the local taxing jurisdictions, it is important to examine how such increased revenues will impact taxpayers in the school district. In order to depict a realistic impact to the school district, the Town Tax Receiver was consulted. According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor, and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. If The Hills at Southampton was on the tax roll, the school tax rate would drop to $9.2135 per $1,000 valuation. When applying the assessed valuation of the proposed project to this tax rate, this results in a generation of approximately $3.4 million in taxes to the school district from the proposed project. It is important to note that this tax generation is not additional revenue to the school district; rather, these taxes will be realized in the form of a shift from other property owners in the community, and would lessen the burden on other taxpayers in the school district. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and according to the Town Tax Receiver, such a change in the school tax rate would translate into a savings of approximately $919 for the average homeowner residing within the district.[11] A savings would also occur on the library and fire tax rates. Correspondence pertaining to the derivation of these figures from the Southampton Town Tax Receiver can be found in **Appendix F, Attachment C**.

Given these assumptions, the proposed project is estimated to contribute over $4.5 million[12] in annual tax revenue, which includes the $4.3 million to the school district. In addition, over $130,000, or 2.9% of the taxes, would be allocated to the Library District. Over $77,000, or 1.7% of the total tax revenues, are projected to be distributed to Suffolk County. Approximately 11.8% of the tax revenue is projected to be levied to the Town of Southampton, which includes the Southampton Town General Fund, Highway Fund, Police Fund, Emergency Dispatching Fund, Part-Town Outside of Villages Fund, and the Out of County Tuition Fund. These six (6) line items combine to total $533,637 in projected tax revenues. The East Quogue Fire District is projected to levy over $267,000, or 5.9% of the total tax revenue generated by the proposed project. The balance of the current property tax revenues are projected to be apportioned to various other local taxing jurisdictions including New York State Real Property Tax Law, New York State MTA Tax, and the East Quogue Lighting District.

[11] For the purpose of this analysis, the average homeowner is assumed to have a home valued at $500,000.

[12] It is important to note that there will be an incremental tax increase that would be realized by the Town until all of the improvements are fully taxed. It is anticipated that the proposed project will be built in phases, with the completion of the proposed project to occur in 2022. Upon completion of the residential component of construction, and the sale of all housing units, it is projected that $4.1 million in total tax revenue will be generated. Likewise, upon full build-out of the golf course phase of construction, it is projected that $325,967 in tax revenue will be generated. In total, this results in $4.5 million in total tax revenue generated from the proposed project.

Public Schools

It is projected that a maximum potential of 130 school-aged children will reside seasonally at the proposed project. However, it is important to note that the residential component of the proposed project involves second homes used primarily for vacations and "getaways" by owners. The applicant's experience with the type of second- or third-home occupancy for similar projects nationwide indicates that any school-age children that may be present would reside on the site only temporarily and/or during periods when schools are not in session. This will be ensured through a covenant provided by the applicant (see **Appendix A-6**) that would limit occupancy of the units to seasonal use, preventing the residences from being the primary residences of their owners, so that no school-age children from the proposed project will attend the local public schools of the East Quogue UFSD. Thus, the proposed project will not contribute children to the school district or require the same service demand as fully occupied primary residences.

As a result of the proposed project, the school district will generate property taxes in the amount of approximately $3.4 million from the proposed project, without incurring the expenditures associated with educating additional students in the district. This net revenue benefit could ease the district's need to tap into additional fund balances, reduce their financial burden, and could also help alleviate an increased burden on other taxpayers throughout the district. These revenues are most crucial during a time of fiscal and economic hardships throughout the East Quogue UFSD, as well as throughout Long Island, New York State and the nation.

As the proposed project will not generate any additional enrollment for the East Quogue UFSD, but will substantially increase the amount of property tax allocations to the district, the proposed project would represent a significant fiscal benefit to the East Quogue UFSD.

While tax projection illustrates how the proposed project will impact the local taxing jurisdictions, it is important to examine how such increased revenues will impact taxpayers in the school district. In order to depict a realistic impact to the school district, the Town Tax Receiver was consulted. According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor, and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. However, it is important to note that the school district is limited (the lesser of 2% or the rate of inflation) in the amount of taxes that they can request from year to year, due to the tax levy 2% cap. As such, the school district will not actually receive the full property tax revenue since the school tax rate must be evaluated in consideration of the cap. If The Hills at Southampton was on the tax roll, the school tax rate would drop to $9.2135 per $1,000 valuation. It is important to note that the $3.4 million in tax generation is not additional revenue to the school district; rather, these taxes will be realized in the form of a shift from other property owners in the community, and would lessen the burden on other taxpayers in the school district. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and according to the Town Tax

Receiver[13], such a change in the school tax rate would translate into a savings of approximately $919 for the average homeowner residing within the district.[14]

Police Protection

The proposed project will be serviced by the Town of Southampton Police Department. A letter was sent regarding the existing services available and/or provided to the subject site and the ability of the Department to accommodate the increased patrol responsibilities represented by the proposed project. By letter dated December 8, 2014, the Department provided a response letter that did not indicate any concerns associated with the project.

It is expected that the project will result in some additional call activity due to the increased development and human presence on the property. However, this increased potential for need of Department services would be at least partially offset by the anticipated increase of approximately $200,538 in annual tax revenues as compared to the existing allocation. In addition, the project will curtail existing unauthorized vandalism on the property, this decreasing police coverage needs for this impact.

Fire Protection

The project will be provided with fire and ambulance services by the East Quogue Fire Department. Letters were sent regarding existing fire and ambulance services available to the subject site, and the ability of the Department to accommodate the increased potential for use of these services for the proposed project. Neither response letter indicated any concerns associated with the project.

It is expected that the project will result in an increased potential for need of the emergency services of the East Quogue Fire Department. However, this increased potential for need of emergency fire and ambulance services would be at least partially offset by the anticipated increases of approximately $254,298 in annual tax revenues as compared to the existing allocation. In addition, the project will curtail existing unauthorized vandalism on the property, this decreasing fire coverage needs for this impact.

The proposed project includes a commitment by the applicant to donate land to the EQFD, to be used by the Department to construct a new fire station. As a result, the EQFD would be better positioned to respond to future fire protective needs of the community, and at a lower cost than if the EQFD were forced to purchase such a site on its own.

Water Supply

The project will utilize public water for domestic (i.e., cooking, drinking, washing & sanitary) purposes, to be supplied by the SCWA from the Spinney Road Wellfield via extensions of its existing distribution network. As discussed in **Section 1.6.4**, the project is expected to consume approximately 41,814 gpd for domestic purposes (irrigation demand will be addressed by new on-site irrigation wells and use of stormwater; see below).

[13] Correspondence pertaining to the derivation of these figures from the Southampton Town Tax Receiver can be **found in Appendix F, Attachment C.**

[14] For the purpose of this analysis, the average homeowner is assumed to have a home valued at $500,000.

Based on the SCWA response letter, a number of improvements will be necessary to serve the project:

1) An approximately 5,500 foot extension of the existing 12-inch water main easterly on Lewis Road to the proposed project access and into the Spinney Road well field property
2) An upgrade of the pumping capacity at the Quogue-Riverhead Road booster station
3) Construction of an additional booster at the Spinney Road Wellfield

The project's design will be subject to detailed engineering review by the SCWA as part of the Town's site plan review process, at which time final arrangements for infrastructure improvements will be made.

With the provision of the above improvements, the proposed project is not anticipated to impact the ability of the SCWA to serve the subject site and existing customers.

The project also includes the donation of about 4 acres of land in the northern portion of the development area to the SCWA, for its use in establishing a new wellfield.

With respect to water used for landscape irrigation, as discussed in **Section 1.6.5**, the proposed project will minimize the use of groundwater by retaining stormwater for golf course irrigation in two new man-made ponds, but will install two new irrigation wells to supplement irrigation water. As shown in **Table 1-8b**, it is expected that a total of 34,731,862 gpy will be used for all landscape irrigation, broken down as follows: 30,050,978 gpy for the golf course and 4,680,704 gpy for the golf clubhouse area, residential areas and other non-golf areas. The on-site irrigation wells will be subject to NYSDEC well permits, therefore, there is no impact to public water supply and hydraulic considerations will be addressed to ensure that there is no impact on groundwater storage or water table elevations.

<u>Wastewater Treatment</u>
There are no public sanitary sewer facilities within feasible distance to which to the project could connect, so there will be no impact to such public utility resources.

Based on the SCDHS sanitary wastewater design rates for the golf course and 118 units, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6 based on wastewater flow, or the combined design flow based on wastewater based on the fertilized golf portions of the site under Memorandum #17. Therefore, the Applicant may utilize individual septic systems in compliance with SCSC Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos. However, as discussed below, it is the Applicant's intention to use septic systems as an interim solution for wastewater treatment as approved by the SCDHS for this type of use, until such time that the Applicant can and will install enhanced wastewater treatment for the project.

It is noted that the MUPDD application document that was submitted to the Town Planning Board in January 2015 stated that the proposed project would provide an enhanced treatment system for its sanitary wastewater, as one of the public benefits of the project, to demonstrate the applicant's commitment to provide enhanced wastewater treatment for the project. The

Applicant reiterates this commitment; however, the SCDHS (which has jurisdiction over the type of sanitary system that could be allowed) has not completed its review of such enhanced systems. The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing an innovative, alternative wastewater treatment method (and close the septic systems noted above) if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow.

Ultimately, the choice of sanitary system will be made in consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected and improved.

Solid Waste Handling and Disposal

It is anticipated that the residential and clubhouse facilities of the proposed project would generate a total of 3,200 lbs/day of solid waste, as follows:

Generator	Solid Waste Generation Rate	Quantity	Waste Generated (lbs/day)
Residents	3.5 lbs/day/resident*	444 residents	1,554
Clubhouse	3.12 lbs/day/100 SF**	52,760 SF	1,646
Total	---	---	**3,200*** **

* Per **Nemerow (2009)**.
** Per http://www.calrecycle.ca.gov/WasteChar/WasteGenRates/Service.htm.
*** Assuming year-round occupancy; actual solid waste generation would be less.

This value is conservative, in that it assumes year-round residency in the 118 units as well as year-round golf course use and activities in the clubhouse. In actual practice, it would be expected that the actual year-round solid waste generation will be far lower than this estimate.

Based on the uses proposed, this volume is not anticipated to contain significant amounts of potentially toxic or hazardous materials, other than empty household and commercial cleaner containers. These wastes (including food wastes from the clubhouse and the residences) will be removed by a certified carter operating under a contract with the owner of the project and disposed of at an approved facility.

Solid wastes generated by golf course maintenance practices will be handled, stored (in a dedicated dumpster in the maintenance area) and disposed of separately from those of the residential and clubhouse components. These wastes will be removed by a certified carter operating under contract with the owner of the project and disposed of at an approved facility.

Energy

PSE&G and National Grid have confirmed that the project site can and will be served with electrical and natural gas services, respectively. Generally, PSE&G and National Grid provide services per their filed tariff and schedules in effect at the time service is required. As the Hills

South Parcel/Kracke Property is not presently served by electricity or natural gas, service main extensions to the site would be necessary, as well as a connection to that service main. Connections will be made to each utility through the creation of an internal distribution network. It is anticipated that both of these energy supply companies maintain adequate resources to supply the proposed project without impact to its ability to serve its other customers in the area.

Parks and Recreation

The proposed project will not physically encroach into, preclude the conversion of privately-held land into public parkland, or otherwise adversely impact any of the existing park or recreational facilities in the vicinity. In fact, the proposed project will increase public parkland in the vicinity, by dedicating 188.83 acre of the Hills North Parcel (86.92 acres) and the Parlato Property (101.91 acres) to the Town for public use and enjoyment as public open space.

The residents of the proposed project would not be expected to adversely impact the use of any of the existing parks or recreation areas in the area, in consideration of the following:

- The number of site residents that could patronize the park/recreational facilities would be limited. Though a maximum of about 444 persons could occupy the units, the second-home nature of the project is such that this number of occupants may not be present on the site at the same time.
- The number of days that the units are occupied is limited due to the 2nd and 3rd or more home type community and the seasonal, resort type nature of its use and occupancy.
- The project is designed with a world-class golf course and clubhouse facility, which would tend to keep the site's residents on-site and conversely minimize the attractiveness to patronize off-site, local parks and recreational sites (though not local off-site commercial facilities).
- For those cases where site occupants choose to patronize off-site public recreational resources, there are a substantial number of such facilities to choose from. This would tend to distribute these visits broadly and conversely reduce the number of these visits (and their associated impacts) at any one park/recreational site.
- Finally, the number of site residents is small in comparison to the number of East Quogue and regional residents, so that any increase in park/recreational site patronization attributed to the proposed project would be small as well.

3.3.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- It is expected that the proposed project will increase the need for and usage of those community facilities and services pertinent to seasonal residential use, and, hence the costs that such services will expend. However, the expected substantial increase in taxes generated by the project will help to offset at least portions of the increased needs for and costs of community services.
- For the East Quogue UFSD, no increase in enrollment is expected, as the nature of the project does not generate potential for such an impact. That is, any school-age children that may reside in the seasonal homes on the site will do so on a temporary basis, and so will not attend the local public school system. This will be enforced by a binding covenant filed with the county.
- The project will not require the East Quogue UFSD to increase its expenditures for educational purposes, as the project will not increase its enrollment.
- The East Quogue UFSD will benefit from approximately $3.4 million in annual school tax revenue as compared to the existing amount of school taxes generated by the component parcels. These

increased revenues will assist in easing the increased burden of rising school district costs on other taxpayers throughout the district. Full details on the school tax levy are provided in **Appendix F**.

- According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor (as seen in **Appendix F, Attachments B and C**), and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. If The Hills at Southampton was on the tax roll, the tax rate would drop to $9.2135 per $1,000 valuation. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and would therefore lessen the burden on other taxpayers in the school district. According to the Town Tax Receiver, such a change in the school tax rate would translate into a savings of approximately $919 for the average homeowner residing within the district. A savings would also occur on the library and fire tax rates.
- Pertinent input from the EQFD will be solicited throughout the site plan application process to ensure that the site layout and the buildings in particular are designed to provide adequate provisions for emergency vehicle access and adequate hydrant and standpipe locations.
- While the proposed project will increase the potential need for emergency services of the EQFD, it will donate land to the EQFD, to be used by the Department to construct a new fire station. This would enable the EQFD to respond to future fire protective needs of the community, and at a lower cost than if the EQFD were forced to purchase such a site on its own.
- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The proposed project will increase the potential need for emergency security services of the Town Police Department. However, to mitigate this potential increase in calls, the site and proposed buildings and parking structures will be equipped with security lighting, security cameras and emergency call notification boxes.
- The project will increase the consumption of water on-site. In compensation for this increase in demand, water-conserving plumbing fixtures and mechanical systems will be utilized in construction, which will further minimize the volume of water required from the public water supply.
- The proposed project will increase the amount of both residential and golf course-related solid wastes generated on the site, as well as on the workload at the local solid waste handling facilities. The residential component is not expected to be a large amount of wastes, nor would it contain toxic or hazardous substances, so that residential wastes are not expected to significantly impact these facilities. It is expected that golf course landscape maintenance practices would generate some potentially toxic and/or hazardous wastes (in the form of emptied chemical containers). However, these wastes would be stored, removed and disposed under separate procedures professionally developed for this type of process.
- While the project will increase the consumption of energy resources, it is anticipated that sustainable energy-conserving measures, including energy-saving wall insulations, triple-glazed windows and energy efficient mechanical systems will be utilized, thereby mitigating the anticipated increase in energy consumption.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to community facilities and services, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

3.4 Community Character

The Proposed Project is evaluated in other sections of this document with respect to land use and land use compatibility and related aspects of community character. As a result, this section will address community character in consideration of the aesthetic (i.e., visual appearance), lighting, and noise characteristics for each of the holdings (the combined Hills North Parcel/Hills South Parcel/Kracke Property, and the Parlato Property), as outlined in **Section 1.6.5**.

3.4.1 Existing Conditions

Aesthetics

The visual character of the subject properties and immediately surrounding area is typical of an agricultural area with light residential properties in eastern Long Island. Existing conditions are presented based on a photographic portfolio, with key elements of the visual character of the subject properties and surrounding area described and referenced to photographic examples. The following provides a description of the visual character of the parcels which make up the project site, other related properties, and the surrounding area.

The project site is north of Lewis Road, east and west of Spinney Road, and south of NYS Route 27 (aka Sunrise Highway). The general topography of the area surrounding the project site is mainly level, so views from the general public into the project site from the surrounding areas are limited to those where public roads border the site.

Hills South Parcel/Kracke Property - The majority of the Hills South Parcel (see **Appendix D-3**) is undeveloped pitch pine-scrub oak forest with open sandy areas present in several areas of the parcel but mainly in the central portion. Many dirt trails used by ATVs and off-road motorcycles are located throughout the parcel. The parcel, located north, east and west of Spinney Road and south of Sunrise Highway, does not have public access therefore it can only be viewed from Spinney Road and Sunrise Highway. The northern boundary of the parcel abuts the southern side of the Sunrise Highway, and similar to the Hills North Parcel, roadside embankments would limit any views into the property to passing vehicles (see Photographs 1-3). The eastern portion of the parcel abuts privately owned, wooded undeveloped land; therefore no views into that portion of the property are present. The closest residential areas to the east of the parcel, are along Malloy Drive and Gleason Drive, which are over 1,400 feet east of the parcel boundary and views from those areas are of undeveloped woodland (see Photographs 4-5). The southern portion of the parcel is also bordered by wooded undeveloped land, with the Long Island Railroad greater than 300 feet south of the southern boundary of the parcel. Located further south are residential properties along Old Country Road between approximately 375 to 500 feet south of the parcel boundary (see Photographs 6-7). The intersection of Lewis Road and Old Country Road is located to the southwest of the parcel and the area around the intersection mainly consists of residential properties and a Long Island Railroad crossing (see Photographs 8-11). Due to the residential properties and the Long Island Railroad embankments, no views are present into the parcel from Old Country Road. The intersection of Lewis Road and Spinney Road, which is located to the west of the southeastern boundary of the parcel, is mainly comprised of residential properties and undeveloped woodland (see Photographs 12-14). Also

located near the intersection of Lewis Road and Old Country Road is the Oakwood Cemetery. The cemetery is accessed off the north side of Lewis Road and is located to the south of the southeast and west of the Hills South Parcel and southeast of the Kracke Parcel. Views from the cemetery towards the parcels include undeveloped woodland (see Photographs 27 and 28).

As mentioned above, Spinney Road, which runs in a north-south orientation, is present to the north, east, and west of the Hills South Parcel. A small side road with a cul-de-sac, Pheasant Lane, is located off the western side of Spinney Road, and consists mainly of single-story residential properties (see Photographs 15-16). The area north of Pheasant Lane along Spinney Road mainly consists of single-story residential properties and undeveloped woodland along the eastern portion of the road and undeveloped woodland to the west (see Photographs 17-19). An SCWA pumping station is located along the western side of Spinney Road and abuts the western portion of the parcel (see Photograph 21). Another small residential side road, Serenity Place, is located off the eastern side of Spinney Road. Views easterly from the terminus of Serenity Place include a dirt road which leads into the eastern portion of the parcel (see Photograph 26). Along the northern portion of Spinney Road the project area borders the road to the east, west, and north. Views into the parcel from Spinney Road would include undeveloped wooded land and open sandy areas (see Photographs 22-25).

The Kracke Parcel is located northeast of Lewis Road and south of Sunrise Highway and the Kracke Property shares its eastern border with the western border of the Hills South Property. The Kracke property mainly consists of undeveloped woodland, a north-south oriented farm road, and agricultural land in the southwestern portion of the property. The Lewis Road area south of the property consists of agricultural land, barns and other structures related to agriculture, stormwater basins, residential properties, and a few local side roads (see Photographs 31-34). Views north from Lewis Road towards the property consist of agricultural land and wooded land beyond. The proposed project entrance is located off the northern side of Lewis Road in an area of fallow farm land north of the intersection of Damascus Road and Lewis Road (see Photographs 31-33).

Hills North Parcel - The Hills North Parcel is undeveloped and predominantly comprised of pitch pine-scrub oak forest with dirt trails, bisecting the property in both east/west and north/south directions. The parcel cannot be accessed by the public and would only be viewed along the Sunrise Highway, where road embankments limit the view into the property. Since no development is proposed in the Hills North Parcel and it will be dedicated to the Town as public open space, the character of the property need not be discussed further; no photographs were taken of this property.

Kracke Property - In addition to the several photographs of the Kracke Property contained in **Appendix D-3, Appendix D-1** contains a series of photographs taken at numerous locations within the Kracke Property in March 2016 that depict the general character of this property. As can be seen, this parcel is generally wooded, with notable amounts of human activity present (in the forms of trails, clearing and debris dumping).

Parlato Property - **Appendix D-2** contains a series of photographs taken at numerous locations within the Parlato Property in March 2016 that depict its general aesthetic character. Like the

Kracke Property, this parcel is generally wooded, with evidence of prior uses and activities including clearing for roads and trails, with significant amounts of random dumping of debris in various locations.

Photographs #1 and #2 in **Appendix D-4** were taken at ground level from vantage points on Dune Road and directed toward the project site. These locations were chosen to represent typical vistas of the project site that are presently available to the community from publicly-accessible locations. Additional photographs were not taken because other locations that would provide comparable panoramic, long-distance views of the project site in the context of adjacent lands were not available, due to lower land elevations and/or the presence of dense intervening vegetation.

As can be seen, these two views toward the project site are typical of the wooded land that characterizes the higher and the lower elevations of the undeveloped lands in the vicinity.

Lighting

As none of the project sites are currently developed, and currently consist mainly of undeveloped woodland, agricultural land, or sandy open areas, no outdoor lights exist on any of these sites, and no lighting presently occurs here.

Noise

The environmental impact of noise can have various effects on human beings ranging from annoyance to hearing loss. A noise problem is said to exist when noise interferes with human activities (**Rau and Wooten, 1980**). Various noise scales have been developed to describe the response of an average human ear to sound. The most common unit utilized to characterize noise levels is the A-weighted decibel (dBA), which weighs the various components of noise according to the response of the human ear. Because the human ear perceives the middle range of frequencies better than the high or low frequencies, the dBA scale assigns the middle range a much larger “loudness” value than higher and lower frequencies. For the purpose of this report, sound levels are reported in L_{eq} and range (minimum/maximum). L_{eq} refers to the energy-average sound level for a specific time period and relates sound intensity level to time as the "equivalent sound level" scale expressed in dBA. L_{eq} is commonly utilized as a statistical average sound level in noise impact prediction.

Physical measurements of noise may be measured in dBA using a sound level meter. The meter collects frequency values, which are automatically interpreted as a function of human hearing frequency response (according to the weighted decibel scale). The weighted scale thus provides a measure of noise that is meaningful for assessing ambient noise environments and potential noise impacts as heard by human beings. On average, a change of 3 dBA is required for the average person to detect a difference in the level of noise, whereas a change between 2 and 3 dBA is the level associated with the threshold of detection and a change in the range of 5 dBA is noticeable and is considered to be an impact (see **Table 3-11**).

Sound levels decrease with distance from the source as a result of dispersion which is predicted using the "inverse square law", which applies a reduction of 3 dBA for each doubling of distance from a line source (such as a roadway) and 6 dBA reduction for a point source (a stationary

source). This reduction effect is due to natural dispersion only and is not a function of the presence of barriers or other objects (**USDOT, 1980-1**), which may result in additional attenuation of noise. Also, because the decibel scale is logarithmic, the laws for addition of logarithms must be utilized for addition of decibels. The addition of two similar noise levels will result in an increase of 3 dBA. For example, a noise level of 50 dBA added to an existing noise level of 50 dBA would result in an end noise level of 53 dBA, an increase that is considered to be the threshold for human detection.

Table 3-11
AVERAGE ABILITY TO PERCEIVE CHANGES IN NOISE LEVELS

Change (dBA)	**Human Perception of Change in Sound Levels**
2-3	Barely perceptible, threshold of detection
5	Readily noticeable
10	Doubling or halving of the loudness of sound
20	Dramatic change
40	Difference between a faintly audible sound and very loud sound

Source: Fundamentals and Abatement of Highway Traffic, Report No. PB-222-703, FHWA, June 1973.

As a point of reference and comparison, an increase of 3 dBA equates to a doubling of the sound energy. This phenomenon is related to the logarithmic nature of the decibel scale, which will be explained below. In the same respect, a decrease of 3 dBA appears to the listener as a halving of noise. **Table 3-12** relates changes in dBA to a receiver as compared to a base reference of 60 dBA.

In addition to measurable and detectable increases in dBA, public reaction to noise is also a function of location (urban, suburban, rural), time of day, fluctuation of noise levels, duration, and individual judgment of the listener.

In addition to attenuation by distance from the source, vegetation and noise barriers also result in attenuation of noise levels. Densely wooded areas are expected to have an attenuation rate of 5 dBA for every 100-foot depth of woods (up to a maximum attenuation of 10 dBA). For low-density vegetation, a nominal amount of attenuation of 2 to 3 dBA per 100 feet of woods may be expected to occur. The attenuation of noise due to barriers (walls and buildings) is a function of the height and composition of the barrier. A barrier capable of reducing sound energy transmission through the structure which interrupts the line of sight between a source and a receptor, will generally provide a minimum sound reduction of 5 dBA.

By utilizing this information, it is possible to use the background noise, source noise and attenuating factors to predict noise levels resulting from a particular source. The adjusted level is the noise level associated with the source after it is attenuated by distance and other attenuating factors such as structures interrupting the line of sight between the source and receptor, noise barriers, and thick vegetation. The adjusted level is combined with the ambient level using the concepts of decibel addition described previously.

Table 3-12
COMMON NOISE LEVELS AND REACTIONS

Sound Source	Noise Level (dBA)	Apparent Loudness	Typical Human Reaction
Military jet Air raid siren	130	128X as loud	Limit of amplified speech
Amplified rock music	110	32X as loud	Maximum vocal effort
Jet takeoff at 500 meters Train horn at 30 meters	100	16X as loud	
Freight train at 15 meters	95		
Heavy truck at 15 meters Busy city street Loud shout	90	8X as loud	Very annoying Hearing damage (8+ hours)
Busy traffic intersection	80	4X as loud	Annoying
Highway traffic at 15 meters Train horn at 500 meters Noisy restaurant	70	2X as loud	Telephone use difficult
Predominantly industrial areas Light car traffic at 15 meters City or commercial areas Residential areas close to industry Noisy office	60	Base reference	Intrusive
Quiet office Suburban areas with medium-density transportation	50	1/2 as loud	Speech interference
Public library	40	1/4 as loud	Quiet
Soft whisper at 5 meters	30	1/8 as loud	Very quiet
	10	1/32 as loud	Just audible
Threshold of hearing	0	1/64 as loud	

Note: The minimum difference in noise level noticeable to the human listener is 3 dBA. A 10 dBA increase in level appears to double the loudness, while a 10 dBA decrease halves the apparent loudness.
Source: (NYSDOT, 1980 and White, 1975)

Noise regulations are contained in Chapter 235 of the Southampton Town Code, which states: *"No person shall create or cause to be emitted any noise which, when measured at or beyond any lot line of the property on which such noise is being generated in a commercial or industrial district, exceeds the following standards:*

From 7:00 AM to 7:00 PM:

- Airborne noise in excess of 70 dBA; or
- Airborne sound which has an octave band sound pressure level in decibels which exceeds the values listed below in one or more bands:

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	85
63	80
125	74
250	67
500	62
1,000	58
2,000	53
4,000	50
8,000	47

From 7:00 PM to 7:00 AM:

- Airborne noise in excess of 65 dBA; or
- Airborne sound which has an octave band sound pressure level in decibels which exceeds the values listed below in one or more bands:

Octave Band Center Frequency (Hz)	Octave Band Sound Pressure Level (dB)
31.5	78
63	73
125	67
250	60
500	55
1,000	51
2,000	46
4,000	43
8,000	40

It is noted that noise from construction activities is exempt from the maximum sound levels if performed between 7:00 AM through 7:00 PM, provided that such activities and such equipment and their use comply with other noise provisions. Noise impacts associated with construction activities are discussed in **Section 4.1.2**.

In order to assess potential noise impacts of the project, several factors must be considered including the location of potential sensitive noise receptors with respect to the noise source, the existing background environment and sources of noise, potential noise generated by the project and attenuation factors.

As the subject sites are not presently developed or occupied, no noise is generated, and no adverse impacts to the area are attributable to the project site.

The area proposed for development is entirely within the Hills South Parcel/Kracke Property, located along the north side of Lewis Road, where vehicular traffic is the major source of background noise in the area. Other sources of noise in the area relate to vehicular traffic on other area roadways, mainly Spinney Road, which is located to the east and west of the proposed development area. NP&V inspected the property to characterize the typical noise environment in late 2014. Several locations were selected to first, identify the sources contributing to the existing noise environment at the nearest sensitive receptors (i.e., along Lewis Road where a construction and development entrance is proposed and along residential areas on Spinney Road near proposed land clearing and construction activities) and second, to determine whether an

appropriate sound level for outdoor use at the site for future use. Station locations are shown in **Figure 3-15**. These locations were determined by the presence and proximity of "sensitive receptors" which are loci of human presence and/or activity that could or would be adversely impacted by noise generated on the project site.

The sound level measurements were collected on December 5, 2014 beginning at 10:20 AM using a SPER Scientific Model 8400029 Digital Sound Level Meter. The meter was calibrated both before and after every period of readings. One hundred noise readings were taken at 10-second intervals at Stations 1, 3, and 4. Station 2 was reduced to fifty measurements due to the constant hum of a landscaping company's leaf blower during the first approximately 50 readings, which is not a typical background condition. Noise level data for the sampling stations are included in **Appendix D-5**. **Table 3-13** below summarizes this noise data.

Table 3-13
SUMMARY OF NOISE SURVEY RESULTS
Hills South Parcel/Kracke Property
December 5, 2014

Station	Average L_{eq}	Maximum L_{eq}	Minimum L_{eq}
1	72.1	84.8	54.5
2	57.0	63.4	53.1
3	58.9	71.8	54.4
4	62.8	67.1	53.2

Comparison of these results with the examples listed in **Table 3-13** indicates that these average continuous sound levels (L_{eq}) are in levels characteristic of areas ranging from suburban areas with medium-density transportation, to residential areas close to industry with light car traffic, to highway traffic at 15 meters. The L_{eq} levels for Station 1 were higher due to the traffic along Lewis Road, which generates major sources of ambient noise. The L_{eq} for Station 1, with measurements taken approximately five feet off the northeast side of Lewis Road, was 72.1 dBA which is characteristic of highway traffic. Lewis Road can be considered somewhat of an arterial road between the Long Island Expressway (LIE) and the Village of East Quogue, therefore there is intermittent traffic. In addition, the numerous farms and other agricultural operations in the area necessitate tractor trailer truck deliveries and exports of products and machinery, in which these larger trucks generate higher dBA readings at a close distance. At Stations 2 and 3, spikes in the levels can be attributed to residential landscaping operations and a municipal pumping station respectively. Other sources of background noise noted during the survey consisted mainly of vehicle traffic and natural sources such as birds and rustling leaves.

No noise readings were taken at either the Hills North Parcel or the Parlato Property, as no sensitive receptors are located on or proximate to these properties, and no development associated with the proposed project is planned on either property.

* Construction Vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acerage of these roads has been added to that of the Paarlato Property.

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FIGURE 3-15
NOISE STUDY
SAMPLING LOCATIONS MAP

Source: NYS Orthoimagery Program, 2013
Scale: 1 inch = 1,000 feet

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3.4.2 Anticipated Impacts

Aesthetics

The project is intended to develop 118 clustered seasonal residences of different types and sizes, an 18-hole golf course, clubhouse, and other related structures. The project will be clustered on 166.86 acres on the central and southern portions of the Hills South Parcel and the Kracke Property.

The proposed Hills at Southampton PDD has been designed specifically to balance the capabilities of the Applicant with the goals of the Town and community for the site, as well as with the pattern of land uses in the vicinity, in order to provide high-quality development on a site where the probability of economic and aesthetic success is high. The proposed project is designed to be consistent with the existing character of the community, and would remain so into the future with the use of recorded C&Rs. For example, the project's vehicle access has been relocated from Lewis Road near Old Country Road and the LIRR to a more suitable location farther west along Lewis Road coinciding with an existing mapped subdivision road already established for access to an existing subdivision. This will ensure that the existing rural character along Lewis Road is maintained. In addition, the project is developed preferentially on already-cleared areas of the Hills South Parcel/Kracke Property, which reduces the amount of natural vegetation that must be removed for the project. The illustrations in **Appendices B** exemplify the types of architectural building treatments that the Applicant will utilize to support the traditional, historic character of the East Quogue community. Through these measures, the project is expected to have the effect of reducing the potential for significant changes in the character of the community.

Concerns were expressed by the community with respect to potential impacts from views of the project from neighboring properties, particularly for the residences along the east side of Spinney Road. As shown in the **Landscape Concept Plan and Figure 3-16**, naturally-vegetated buffers will be retained along the entire perimeter of the project site to screen the developed portion of the Hills South Parcel/Kracke Property from outside observation. Note that the only residential properties that abut the project site are located along the eastern side of Spinney Road; for the remainder of the site, abutting land is undeveloped or not used residentially. Along the rear yards of the homes along Spinney Road, a buffer of natural vegetation of between 100 and 615 feet in depth will be retained within the project site. Shallower buffers will exist along the eastern and western portions of the developed property, but these areas will abut undeveloped wooded land, so that no visual impacts to the public in these areas would be expected. Finally, all of the Parlato Property and all of the Hills North Parcel will be dedicated undisturbed to the Town, so that no changes in the aesthetic characters of these sites will occur. In this way, the existing character of the community would be preserved.

For observers within the developed area, the proposed clubhouse and residential structures have been designed with architectural and landscape treatments that will conform to the rural character of the surroundings. As shown in **Appendix B-3**, it is not expected that the three-story clubhouse building will be higher than the treeline in the perimeter buffer (which will vary in depth between about 115 and 600 feet along the rear yards of the homes on the east side of Spinney Road, the nearest neighbors to the clubhouse), so that observers would experience these

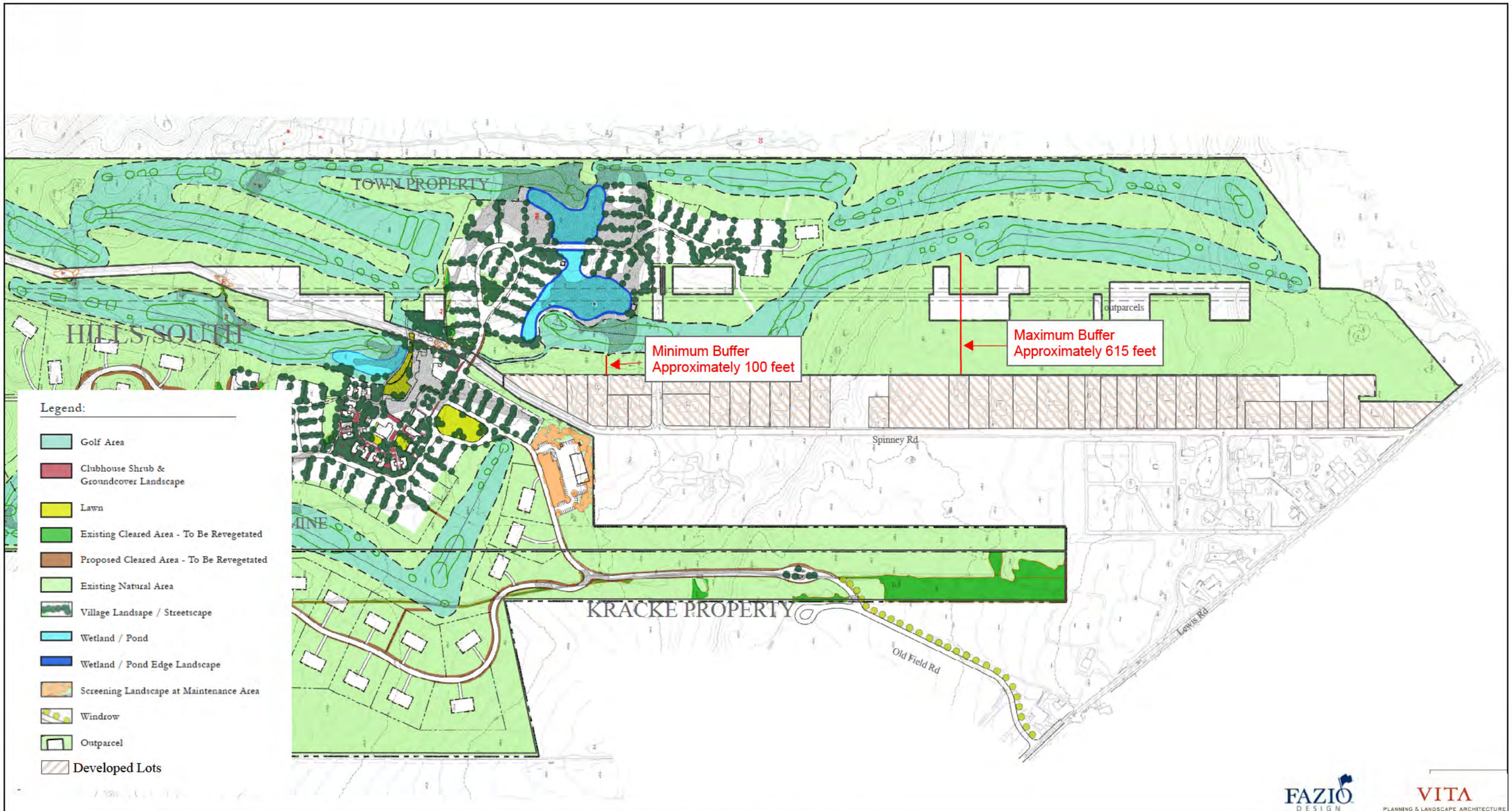

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FIGURE 3-16
DEPTH OF PERIMETER BUFFER

Source: Base from SC tax maps; Design Plans from Vita Landscape Architects
Scale: 1 inch = 500 feet

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The Hills at Southampton

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structures through and within their vegetated surroundings and not overpowering their surroundings.

In order to demonstrate the potential impact of the project on aesthetic resources, the applicant prepared simulated views of the site with the project superimposed on the two photographs (described earlier) that depict the site in its existing condition and context. These simulated views are presented in **Appendix D-4.** The red boxes indicate the location of the project's 3-story clubhouse (the tallest proposed structure and, therefore, the project component most likely to be seen from a distance). However, the two simulations demonstrate that this feature would not be visible from these vantage points. This is due to the project's retention of deep, dense natural vegetation (including tall trees) between the developed area and the project's borders, and the low building heights proposed.

Lighting

Section 1.5.5 contains a description of the anticipated characteristics of the project's lighting system, as well as a discussion of the project's compliance to the Town Exterior Lighting Code Section 330-345 and 330-346 standards and requirements including dark sky requirements. By conforming to these requirements and design standards, the Town's goals in regard to lighting and its potential impacts on the community's character will be achieved, and the potential for adverse impacts will be minimized. Lighting will only be used to the extent needed for security and safety, all illumination will remain well within the boundaries of the property, and all lighting will comply with dark sky requirements. As a result, no significant adverse impact is expected with regard to lighting.

Noise

Noise can have various effects on human beings ranging from annoyance to hearing loss. A noise problem is said to exist when noise interferes with human activities **(Rau and Wooten, 1980)**. Various noise scales have been developed to describe the response of an average human ear to sound. The most common unit utilized to characterize noise levels is the A-weighted decibel (dBA), which weighs the various components of noise according to the response of the human ear. Because the human ear perceives the middle range of frequencies better than the high or low frequencies, the dBA scale assigns the middle range a much larger "loudness" value than higher and lower frequencies.

Physical measurements of noise may be measured in dBA using a sound meter. The meter collects frequency values, which are automatically interpreted as a function of human hearing frequency response (according to the A-weighted decibel scale). The weighted scale thus provides a measure of noise which is meaningful for assessing ambient noise environments and potential noise impacts as heard by human beings. On average, a change of 3 dBA is required for the average person to detect a difference in the level of noise, and a change in the range of 5-6 dBA is noticeable and is considered to be an impact as referenced below:

Change in dBA	Human Perception of Sound
2-3	Barely perceptible, threshold of detection
5-6	Readily noticeable
10	Doubling or halving of the loudness of sound
20	Dramatic change
40	Difference between a faintly audible sound and very loud sound

Source: (USDOT, 1980)

The decibel scale is logarithmic; therefore, sound levels vary with the source and with the listener's distance from the source. Sound level decreases as a result of dispersion and is predicted by the "inverse square law", which predicts a reduction of 4.5 dBA for each doubling of distance from a line source (such as a roadway) and 6 dBA from a point source. This effect is due to natural dispersion only and is not a function of the presence of barriers or other objects **(USDOT, 1980-1)**.

To provide a baseline and characterize the ambient noise environment, sound level measurements were collected by NP&V on three separate occasions at the four locations illustrated on **Figure 3-15**. The measurements were collected during late morning on December 5, 2014, midday on April 15, 2015 and most recently in the early morning on June 24, 2016. Based upon these measurements and observations made during the fieldwork, it is concluded that the ambient noise environment reflects the surrounding land uses which include natural sounds (including birds and rustling leaves) associated with wooded areas and low density residential use, landscaping operations associated with residential use, truck noise associated with intermittent mining operations to the west/northwest, operations and audible hum generated by the SCWA pump house (at the northern Spinney Road monitoring station) and traffic noise related to nearby roadways. In addition, the ambient noise environment is affected by intermittent aircraft.

Sound levels fluctuate and it is common to provide an average of sound levels over a period of time to describe the "equivalent continuous noise level" or L_{eq}. Sound level data sheets providing all measurements taken at 10 second intervals for each of the locations and dates are provided in **Appendix D-5** and a summary of the L_{eq} results is provided in **Table 3-14**. The following provides a description of the station locations:

- Station 1 is located on the east side of Lewis Road near Damascus Road near the proposed construction road entrance.
- Station 2 is located at the intersection of Spinney Road and Pleasant Lane, near an area with proposed construction.
- Station 3 is located on Spinney Road (between number 93 and number 103) a.
- Station 4 is located at the northern end of Spinney Road.

Table 3-14
SUMMARY OF SOUND LEVEL DATA (L_{EQ})

Station/Date	L_{eq} (dBA)		
	December 5, 2014 Late morning	April 15, 2015 Early afternoon	June 24, 2016 Early morning
Station 1	72.1	65.7	67.4
Station 2	57.0	47.7	58.9
Station 3	58.9	51.4	44.9
Station 4	62.8	47.1	44.0

As is illustrated by the data from monitoring sessions, the sound levels are highest at Station 1, being located on a collector roadway with frequent local traffic. The lowest sound levels were generally along Spinney Road, with the exception of at Station 4 during the December 2014 measurements when the sounds from the pump station were fairly high. As these levels were not reproduced in the subsequent monitoring events, it is presumed that the pump was not functioning normally - or generates more noise in colder temperatures.

The potential for elevated noise levels related to the proposed action are expected to occur in the short term during construction and in the long term from day to day operations related to the future use of the property. Construction related impacts are discussed in **Section 4.1**. The closest receptors include residential properties along Lewis Road and Spinney Road. It is expected that noise from vehicles on the both Lewis Road and Spinney Road will continue to be the dominant source of noise at these locations following construction. In addition, there is the potential for periodic noise impacts related to intermittent site activities following the development of the site as a seasonal housing community and golf course. The most notable sources of intermittent noise generating activities will be related to operation of the irrigation pumps, maintenance activities on the golf course during the growing season, and occasional fundraising events held at the community's clubhouse. These are analyzed in the paragraphs below. A noise attenuation worksheet, which provides the values and calculations utilized for each source, is provided in **Appendix D-5**.

- Pump Station: As proposed, the pump station will house 3 variable frequency drive pumps and motors to irrigate the golf course. The applicant proposes the use of Flowserve® pumps, which, based upon manufacturer's specifications, generate a sound level of 65 dBA at a distance of 3 meters. When adding sound levels from more than one source, logarithmic mathematics must be used (identical sound sources operated simultaneously is calculated as the sound from one of the sources plus 10 x log(n), where n is the number of identical sources). Thus, three Flowserve units running simultaneously with a ventilation fan (75 dBA) will generate a combined sound level of approximately 76.1 dBA. The pump house building will be designed to attenuate sound level by at least 15 dBA. With attenuation achieved by distance (calculated by applying the inverse square law for a point source) and attenuation associated with 100 feet of vegetation, the adjusted source level is reduced to 30.12 dBA. When this adjusted source is combined with the lowest ambient sound level for this area (44.0 dBA in early morning at Station 4) there is expected to be a net increase of 0.2 dBA which is not discernible to the human ear.

- Greens Maintenance: On a golf course, maintenance of the greens and fairways is performed frequently to maintain quality play surfaces. For those greens and fairways located nearest to residential property lines, the applicant has committed to use of the quietest options for equipment. For greens mowers, one of the quietest options available is an electric mower manufactured by Toro (Greensmaster® eFlex 2100). The selection of an electric mower for maintenance of greens allows the mowing to occur early in the morning without impacting neighboring residents. These units are powered with a lithium ion battery which will permit the maintenance of several greens on one charge. The applicant has also committed to the use of electric vehicles to transport the greens mowers from the maintenance garage to the greens. Although the unit generates virtually no engine noise, dependent upon the setting of the blades, these mowers can have a source level of up to 68 dBA for the operator. The nearest green is located 150 feet to a residential property line. Attenuation of sound level is provided with distance, predicted by application of the inverse square law and the 100 feet of woods between the course and property line. When adjusted source level is combined with the lowest ambient level for early morning at Station 4, results in an increase of 2.5 dBA which is barely perceptible increase - and within the permitted sound levels for any time of the day under the Town Code.

- Fairways Maintenance: The nearest fairway which requires regular mowing will require the use of ride-on mowers (which are not available in electric power at this time). The applicant has committed to using hybrid mowers for those fairways nearest to residential properties. The Toro Reelmaster® 5010H Hybrid has a source level of 67 dBA at a distance of 25 feet. The minimum distance between a residential property line and fairway is 130 feet. Attenuation is provided with distance, and the presence of the 100 feet of woods to remain. At the property line, the sound level is reduced to 47.68 dBA, which when combined with the ambient sound level for early morning hours, results in a combined sound level of 49.23 dBA, a level that is below the Town Code threshold of 50 dBA permitted before 7 AM.

- Rough Maintenance: The nearest rough area, which requires less frequent mowing, is located 100' from the nearest property line. The choice for these areas requires a diesel powered ride-on mower, which has a higher sound level associated with operation. The quietest option is the Toro Groundsmaster® 5910 which has a sound level of 82 dBA at the operator's ear. Toro is currently evaluating all of its products for sound levels at a distance of 25 feet; however, data for this unit is not available at this time. Because the properties of the inverse square law do not generally apply within a radius of 15 feet of the source, the sound attenuation analysis assumes the level of 82 dBA at 15 feet to provide a conservative analysis. With attenuation for distance and vegetation, the combined results for early morning are 60.62 dBA, which exceeds the permitted sound level at a residential property line prior to 7 AM. Based on this assessment, mowing of rough areas which are less than 388 feet from the residential property lines (for holes #8 and #9) would exceed the 50 dBA restriction of the Town Code for morning and evening hours, and thus will need to be mown after 7 AM and before 7 PM to comply with Town Code.

  It is noted that the actual sound levels of the equipment may be different than analyzed and the site manager will be responsible for conformance with the Town's noise code.

- The clubhouse could also be a potential source of noise during fund raising events which during seasonable weather could include outdoor dining and amplified music. The rear of the clubhouse is located a minimum of 420 feet from the closest residential property line outside of the development. Generally, the volume of music at fund raising events is at a level that allows for normal speech to occur (approximately 70 dBA). However, to be conservative, a higher level that is associated with a live band was utilized in the analysis. Based upon a source level of up 85

dBA, with attenuation for distance based upon the inverse square law, and a solid barrier (the clubhouse), the resulting combined sound level at the nearest residential property line would be 49.9 dBA, just under the permitted sound level permissible after 7 PM by Town Code. Therefore, management of the events will need to ensure that sound levels generated by outdoor activities exceed 85 dBA to comply with Code.

The only regularly occurring source of noise which may be audible to nearby residents related to the long term use of the property is expected to be associated with vehicular ingress and egress from the development. This traffic will proceed at low speeds and will not cause a perceptible increase above ambient noise, particularly due to the vehicle traffic consisting mainly of passenger cars. Other than maintenance operations, golf course use and related activities are typically quiet in their operations, and any occurrence of loud sounds would be random and intermittent, and would cease between dusk and dawn (with the daily closure of golf course activities).

Based on the above analysis and lack of necessity to implement noise mitigation proposed, no noise-related impacts are expected.

3.4.3 Proposed Mitigation

Impact Avoidance and Compliance with Standards

- Deep buffers of retained natural vegetation will be retained along all boundaries of the Hills South Parcel/Kracke Property, to assure that the developed area will not be readily visible to outside observers. The buffer will be approximately 100 feet deep between the rear yards of the homes on the east side of Spinney Road and the golf course area. Shallower buffers will exist along other portions of the developed area, but these areas will abut undeveloped wooded land, so that no visual impacts to the public in these areas would be expected.
- Landscape species will be planted throughout the developed portions of the Hills South Parcel/Kracke Property, to provide vegetative accents to the development's architectural theme.
- The entireties of the Hills North Parcel and the Parlato Property will be left undisturbed, so that no change in the appearances of these parcels, or of their current aesthetic characters, will occur.
- In consideration of the site layout and building design features pertinent to the character of the properties and community (i.e., the land use of the properties and in the vicinity, the prevailing land use pattern, and the visual appearances of the properties and properties in the area), mitigation is primarily related to the design of the project and future, more detailed landscape and architectural design and review.
- Conformance to the requirements of the Town's Exterior Lighting ordinance would ensure that the potential for adverse impacts will be minimized. Lighting will only be used to the extent needed for security and safety, all illumination will remain well within the boundaries of the property, and all lighting will comply with dark sky requirements.
- Conformance to Chapter 235 of the Town of Southampton Code (Noise) which restricts sound levels generated in a residential district which exceeds 50 dBA from 7 PM to 7 AM, and 65 dBA from 7 AM to 7 PM. In order to conform to Chapter 235, the applicant will commit to the use of the quietest available maintenance equipment for those portions of the golf course that are closest to the residential properties on Spinney Road. This includes quiet options for maintenance of the greens, fairways and rough associated with holes #8 and #9. For these greens, an electric powered mower (the Toro Greensmaster® eFlex 2100) will be utilized and for the fairways, a hybrid engine mower

(the Toro Reelmaster® 5010-H) will be utilized and both will conform to Town Code Chapter 235 in early morning hours. The rough areas within 400 feet of the nearest property lines will require periodic mowing using a diesel or gas powered mower (Groundsmaster® 5910) which will exceed the 50 dBA sound level permitted between 7 PM and 7 AM, but will achieve the sound level of less than 65 dBA for the daytime hours between 7 AM and 7 PM. Therefore, these portions of the golf course will only be maintained during daytime hours to conform to Town Code.

- Outdoor events at the clubhouse are to be monitored for conformance with Town Code to generally limit sources of noise to a maximum of 85 dBA at a distance of 20 feet in order to conform to Town Code limit at the nearest residential property line.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to aesthetics, lighting or noise, mitigation sufficient measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

3.5 Cultural Resources

3.5.1 Existing Conditions

Reference to the New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) website indicates that the portion of the subject site to be developed (i.e., the Hills South Parcel/Kracke property) is not in an area of known or suspected historic or prehistoric cultural resources, nor is it within ½-mile of such a site (see **Figure 3-10**).

Nevertheless, in order to be certain that there are no unknown significant cultural resources on that portion to be developed, the applicant has voluntarily undertaken preparation of a full, NYS-standard Phase I Archaeological Investigation. Such a study was prepared by Tracker Archaeology, Inc., of Monroe, New York, and is comprised of two sub-phases: Phase IA is a documentary search to indicate likely locations of cultural resources, and Phase IB is a limited program of test hole excavations in the areas indicated in Phase IA. The entire Archaeological Investigation is presented in **Appendix N**; field work was supervised by the owner of Tracker, Alfred G. Cammisa, MA.

The following description of the study and its results is taken from the Archaeological Investigation:

> Between January 10 and July 20, 2015, TRACKER Archaeology, Inc. conducted a Phase IA documentary study and a Phase IB archaeological survey for the proposed Hills at Southampton at East Quogue, Southampton Township, Suffolk County, New York.
>
> The purpose of the documentary study was to determine the prehistoric and historic potential of the property for the recovery of archaeological remains. This Phase IA research was implemented by a review of the original and current environmental data, archaeological site files, other archival literature, maps, documents, and interviews.

The prehistoric and historic site file search was conducted utilizing the resources of the New York State Historic Preservation Office-Field Services Bureau in Waterford, New York. Various historic web sites were visited to review any pertinent site information.

The purpose of the Phase IB field survey was to determine the presence or absence of archaeological sites on the property. This was accomplished through subsurface testing and ground surface reconnaissance.

PREHISTORIC POTENTIAL

A prehistoric site file search was conducted at the New York State Historic Preservation Office (NYSHPO). The search included a 1 mile radius around the study area. The following sites were recorded:

NYSM Sites	NYSHPO Sites	Distance from APE* ft (m)	Site Description
	A10309.000052	4,972 (1,516)	Orchard Point: cache of graphite

* APE - area of potential effect

An Indian trail was recorded very close to present day Montauk Highway (NYS Route 27A) which tended to connect the various tidal creeks in this area. Other trails traversed north from Tiana and Quantuck Bay along south flowing streams. Although the trails were recorded for the Contact Period, they most likely existed during the prior prehistoric period.

Assessing the known environmental and prehistoric data, the following points can be summarized:

- Weesuck Creek flows south through the project area into Shinnecock Bay.
- The parcel is situated on level to steeply sloping terrain with well drained soils and some cut and fill soils as well as gravel pits.
- A prehistoric site is located in the vicinity of the project area, near a tidal inlet.
- Indian trails passed nearby the study area.

In our opinion, the study area has a higher than average potential for the recovery of prehistoric sties. The type of site encountered could be a procurement site from the Woodland or Archaic periods.

HISTORIC POTENTIAL

Contact Period (Seventeenth Century)

At the time of European contact and settlement, the study area and surrounding territory appeared to be occupied by the Quogue or the Achabachawesuck people which were probably a sub-tribe or village of the large Shinnecock tribe. An Indian trail was recorded very close to present day Montauk Highway (NYS Route 27A) near the project area.

The native inhabitants were seasonally migratory maritime hunter/gatherers. There were probably 400 to 500 Shinnecocks by the early part of the century. They generally lived in small villages of about 50 people. Population density at the time of European contact was higher than most hunter/gather societies and more typical of maritime hunter/gatherers. Summer villages were usually located along the south shore where fish and shellfish were exploited along the ocean, bays and inlets. Shore whaling was also an important part of the local economy. Winter camps were usually located along the more protected fresh water streams which drained into the bays. Hunting deer and other forest dwelling games was important during this season.

Although the Native Americans of Long Island grew corn, horticulture did not appear to be as important to the economy as non-island (upstate) groups. Corn was likely grown as part of an extended gathering at landfall sites for water travelers along coastal areas.

Eighteenth Century

The Shinnecocks dissatisfaction with being dispossessed and fenced out of their hunting and gathering territory, led to the Shinnecock Hills being leased back to the Indians in 1703 for a thousand years. This 3,600 acre tract was the original "reservation".

Wigwams were recorded in Quogue and East Quogue, along the inlets and aforementioned Indian trails. They were still in existence during the 18th century by Reverend Horton in the 1740's. The "wigwam" designation may indicate 1 or more (a possible village/hamlet).

Quogue Neck was originally called Assupi Neck. Expansive salt water marshes were the original attraction for the early settlers. The first settlement in Quogue was in 1748 when William Jones sold Johnathon Cook 60 acres. Quogue Neck was divided into four tracts owned by (starting with the easternmost tract), Deacon Thomas Cooper, Thomas Jessup, Captain Thomas Stephens, and Josiah Howell.

Between 1700 and 1750 offshore whaling was a fast growing industry. Seven companies were engaged in this work in Southampton. They had try works along the beaches in Sagaponack, Mecox, Wickapogue, Southampton, Shinnecock Point, Quogue, and Ketheponack (West Hampton). Indians had taught the European-Americans and often worked along with them. By the second half of the century, the whalers were traveling further out from shore to catch their whales.

The Southampton Patent Town map shows present day the project vicinity north of Montauk Highway within the Quogue Purchase between Tiana Bay and Quantuck Bay (Figure 3 [of **Appendix N**]).

Nineteenth Century

The 1836 Colton map shows what appears to be settlement along Montauk Highway. Lewis Avenue does not appear structures are depicted nearby on Main Street/Montauk Highway to the south (Figure 4 [of **Appendix N**]).

The 1858 Chace map shows Lewis road with a structures on Old Country Road close by (Figure 5 [of **Appendix N**]).

In 1859, the original 3,600 acre Indian reservation was reduced to the 800 acre Shinnecock Reservation of today. This appeared to be associated with plans for the Long Island Railroad to purchase the right-of-way through Shinnecock Hills.

The 1873 Beers map shows Lewis Road with structures near the project property. The maps road alignment actually shows Lewis Road closer to the project area on its west side than it actually is (Figure 6 [of **Appendix N**]).

About this time, Quogue was a small, compact village of approximately 150 people. However, during the months of July and August, the population increased four to five times as much due to vacationers, largely from New York City.

The 1896 Hyde map shows much the same as the previous map, with structures near the project area along Lewis (Figure 7 [of **Appendix N**]).

Quogue was composed mostly of farmers; however, hunting, fishing and fowling were also conducted. These businessmen were in addition to the area being a resort community.

Twentieth Century

The 1904 U.S.G.S. depicts Lewis Road orientation more accurately. No nearby structures are on or adjacent to the project area either on Lewis Avenue or Old Country Road. Spinney Road now appears on the project area as a dirt road (Figure 8 [of **Appendix N**]).

An historic site file search was conducted at the New York State Historic Preservation Office. The site file search included a 1 mile radius around the study area. The following historic sites were recorded:

- No sites recorded.

Assessing the known environmental and historic data, we can summarize the following:

- Weesuck Creek flows south through the project area into Shinnecock Bay.
- The parcel is situated on level to steeply sloping terrain with well drained soils and some cut and fill soils as well as gravel pits.
- Indian trails passed nearby the study area.
- No MDSs [map-documented structures] are on or adjacent to the project area, although they are nearby.
- No historic sites are nearby.

In our opinion the project parcel has a moderate potential for the recovery of historic Native American sites and Euro-American sites. The type of site found may be associated with Native Americans traveling along the nearby foot trail or associated with then nearby wigwam/village or nearby Euro-American buildings.

FIELD METHODS

Walkover

Covered ground terrain was reconnoitered at 15 meter intervals to observe for any above ground features, such as berms, rock configurations, or depressions, which might be evidenced for a prehistoric or historic site. Photographs were taken of the project area.

Shovel Testing

Shovel tests (STs) were excavated at 15 meter intervals across most of the project area including most stripped areas. Certain sections of the stripped areas (former sand mines) were shovel probed at 100 foot intervals to search for topsoil although none was found in any of these areas.

Each shovel test measured about 30 to 40 centimeters in diameter and was dug into the underlying subsoil (B horizon) 10 to 20 centimeters, when possible. All soils were screened through ¼ inch wire mesh and observed for artifacts. All STs were mapped on the project area map at this time.
Soils stratigraphy was recorded according to texture and color. Soil color was matched against the Munsell color charts for soils. Notes on ST stratigraphy and other information were transcribed in on a field form and in a notebook.

FIELD RESULTS

Field testing of the project area included the excavation of 2,456 STs across the project area. No prehistoric artifacts or features were encountered.

The following was prepared by Tracker Archaeology, Inc. in regard to an assessment of the potential for ground disturbance to potential cultural resources:

> Twentieth century disturbance relating to archaeological resources is not normally part of an "historic" evaluation in a Phase IA, unless [the site is] in an urban (potentially heavily filled) environment. In addition, this "recent" (to an archaeologist) disturbance is difficult to ascertain by research and is normally evaluated during the Phase IB field testing. Aerials are almost useless within a high canopy forest, and even if you can find a possible disturbance, trying to establish its position vertically would be impossible. Any gross disturbance, such as visible mining operations (with open gravel pits) would have been known by the developer and removed from the Phase IB survey (re-filled mining pits do not count). This is why the normal procedure is to determine disturbance during the field work. This is not only more accurate but less expensive.

The following was prepared by Tracker Archaeology, Inc. in regard to an assessment of the depth of archaeological sensitivity:

> No assessment of possible depth for archaeological deposits was made [for the Archaeological Investigation] because [the soil horizons typically encountered, including those on the subject site] consist of an O, an A, & a B horizon, and that prehistoric remains are found normally within the first 2 and upper levels of the B in this region. Normal stratigraphy does not include (again) urban, heavily filled topographies or marshes where the usual soil horizons are not found. On Long Island, most prehistoric sites are located within the A horizon or upper 10-20 cm of subsoil and soil horizons tend to be thin. Soil horizons with a Pine-Oak Barrens (the project area) are especially thin due to the sandier nature of the soils (in an already sandy region). The result is a faster trickle down effect on both soil organics (found in A & O horizons) and smaller, lighter artifacts. The Paleoindian phase is the earliest on Long Island. Of the known (to this author) 14 fluted points with vertical provenience, all have been found either on the surface, within topsoil, or the plow zone (topsoil and upper subsoil). This author has also excavated an un-fluted Paleo point from eastern Suffolk County found in situ with the A/B horizon interface.

3.5.2 Anticipated Impacts

CONCLUSIONS AND RECOMMENDATIONS

Based upon soil type, topography, distance to water, an Indian foot trail, and prehistoric sites, the property is seen as having an above average potential for the recovery of prehistoric archaeological sites.

Based upon similar environmental characteristics, and proximity to Indian trails and/or wigwams and historic MDSs the property is seen as having a moderate potential for the recovery historic archaeological sites.

During the Phase IB archaeological field survey 2,456 STs were excavated. No historic features or historic artifacts were encountered. No prehistoric features or prehistoric artifacts were encountered. Therefore, no further archaeological work is recommended.

3.5.3 Proposed Mitigation

- As no adverse impacts are anticipated with respect to cultural resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

SECTION 4.0

OTHER REQUIRED SECTIONS

4.0 OTHER REQUIRED SECTIONS

4.1 Construction-Related Impacts

4.1.1 Description of Construction Program

Section 1.7 presents information of the anticipated construction schedule and phasing, the construction process, excess soil removal, and erosion/sedimentation measures of the proposed project. **Table 4-1** presents the Applicant's anticipated construction/development schedule and milestones (including phasing and the components to be included in each phase). The Applicant anticipates the following general information on the schedule for construction:

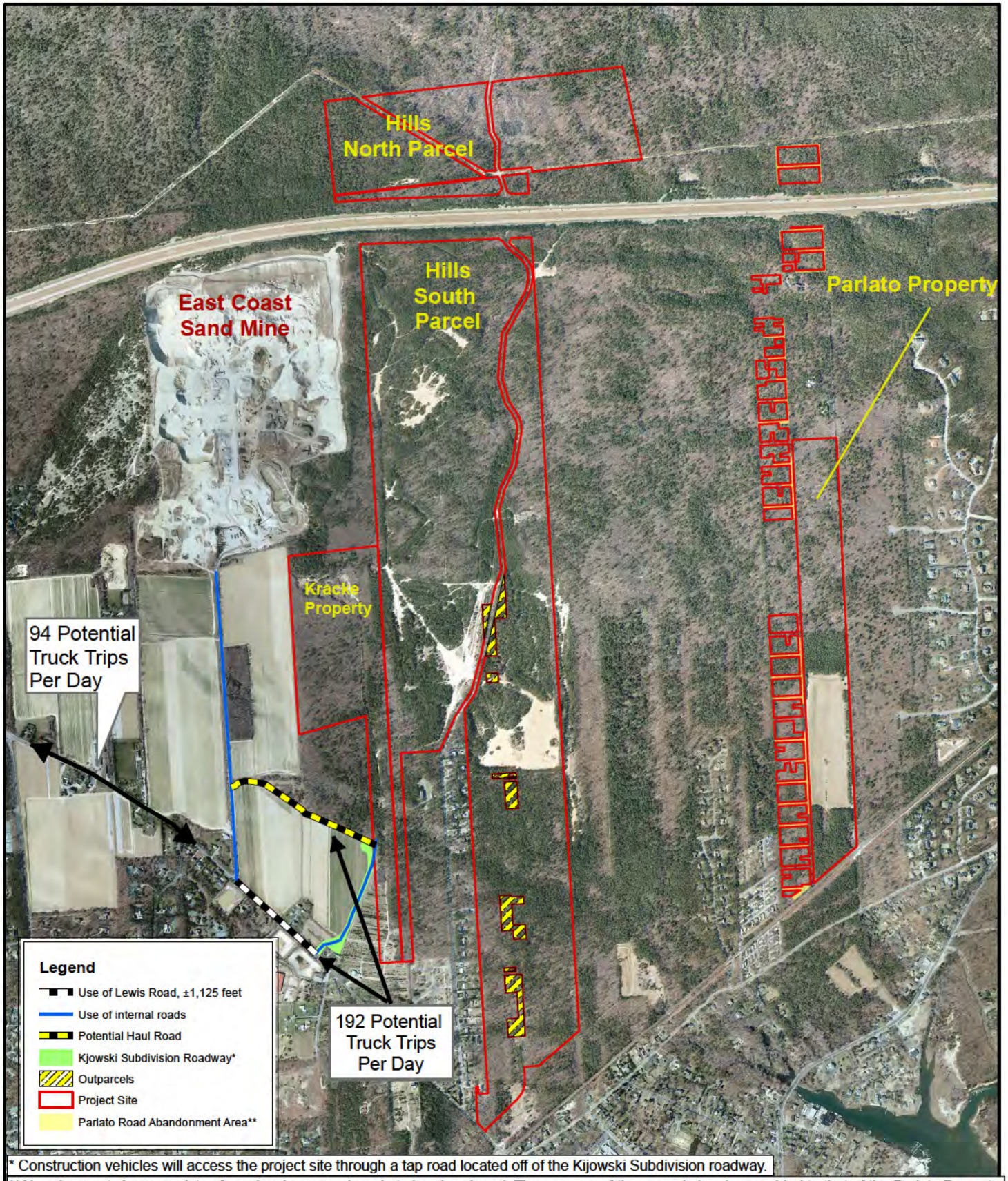
- Following a change of zone and site plan review period, the project is anticipated to break ground in the summer of 2017, and be completed over 5-1/2 years, with completion scheduled to occur at the end of 2022.
- The golf course construction is expected to take 3-1/2 years and start in the second half of 2017.
- The clubhouse construction phased over 3 years; initial phase starting in the first half of 2018.
- Residential construction phased with sales; planned to commence in the second half of 2017.

Based on the anticipated construction timeline, the entire construction phase would last a period of 5-1/2 years. Consequently, some level of construction activity would be expected for a similar length of time. The nature, intensity and scale of construction-related impacts would vary from quarter to quarter, and would be associated with the numbers of construction workers on-site as well as with the work tasks to be accomplished during each quarter.

The number of workers on the site during each quarter will increase from 35 (at the onset of construction), an increase to 165 in the spring of 2018 (associated with grading and drainage system development), followed by a slight decrease until the following spring, at which time the number of workers will again increase until the fall of 2019, at which time the work staff will decrease over the winter. In the spring of 2020, the number of workers will again increase and reach its peak in the summer of 2020, after which the number of workers will generally decrease until the construction phase ends.

Additionally, the timeline shows that there would be some overlapping of development schedules between the three phases of construction. Construction would start with the golf course and the residences; construction of the clubhouse would not begin for another nine months. The golf course and the clubhouse are scheduled to be completed during the same quarter; construction of the residences (the phase having the longest construction duration of the project) would take an additional 21 months to complete.

Construction related impacts are not permanent and are variable during the construction process such that lesser levels of construction activity will occur during the overall construction period. In terms of the permanent use and occupancy of The Hills at Southampton project site, construction is of limited duration and will be managed by the applicant to comply with Town Code requirements and proper construction management practice.



* Construction vehicles will access the project site through a tap road located off of the Kijowski Subdivision roadway.

**Abandonment Area consists of previously mapped roads to be abandoned. The acreage of these roads has been added to that of the Parlato Property.

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FIGURE 4-1
USE OF LEWIS ROAD BY TRUCKS FOR CONSTRUCTION ACTIVITIES

Source: NYSGIS Orthoimagery Program, 2013
Scale: 1 inch = 1,500 feet

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The Hills at Southampton

Draft EIS

Table 4-1
ANTICIPATED CONSTRUCTION TIMELINE

Year	Quarter	Total Workers	Golf Course Construction		Clubhouse Construction		Residence Construction	
			Workers	Duties	Workers	Duties	Workers	Duties
2017	Jan.-March	0	0	---	0	---	0	---
	April-June	0	0	---	0	---	0	---
	July-Sept.	80	35	Civil	0	---	45	Civil
	Oct.-Dec.	75	45	Temporary Roads	0	---	30	Excavation
2018	Jan.-March	85	45	Cut & Fill	0	---	40	Utilities
	April-June	130	65	Grading	15	Civil	50	Pad
	July-Sept.	165	90	Drainage	15	Excavation	60	Foundation
	Oct.-Dec.	135	65	Shaping	15	Utilities	55	Waterproofing
2019	Jan.-March	125	50	Sand Capping	15	Pad	60	Framing
	April-June	185	90	Fine Grading	20	Foundation	75	Windows, Doors
	July-Sept.	225	90	Grassing	35	Framing & Siding	100	Siding
	Oct.-Dec.	230	65	Irrigation	40	MEP*	125	Roofing
2020	Jan.-March	170	50	Landscaping	30	Roofing	90	Mechanical
	April-June	240	80	Hardscaping	35	Interiors	125	Plumbing
	July-Sept.	255	90	Water Features	40	Landscaping	125	Electrical
	Oct.-Dec.	215	75	Signage	40	F&B*	100	Insulation
2021	Jan.-March	180	50	Maintenance	40	FFE*	90	Drywall
	April-June	100	0	---	0	---	100	Cabinets, Millwork
	July-Sept.	125	0	---	0	---	125	Flooring
	Oct.-Dec.	100	0	---	0	---	100	Tile & Granite
2022	Jan.-March	90	0	---	0	---	90	Finish MEP
	April-June	90	0	---	0	---	90	FFE
	July-Sept.	90	0	---	0	---	90	Hardscaping
	Oct.-Dec.	75	0	---	0	---	75	Landscaping

* MEP - mechanical, electrical & plumbing; F&B - food & beverage; FFE - furniture, fixtures & equipment.

With respect to the hours of the workday during which construction activities will be conducted, Chapter 235 of the Town Code was referenced, as this ordinance regulates noise generation in the Town. For the hours 7 AM to 7 PM, noise from a residentially-zoned site may not exceed 65 dBA at the property line; however, construction-related activities are specifically exempted from this regulation. Nevertheless, the applicant expects to limit the hours of construction to within the period 7 AM to 7 PM, on weekdays and, should the construction schedule require it, Saturdays. Construction on Sundays or holidays is not expected.

Section 3.4.2 discusses noise impacts, including descriptions of the anticipated sources and types of noises generated by post-construction activities, and **Section 3.4.3** lists a number of mitigating measures with respect to noise associated with the post-construction period.

4.1.2 Noise

Construction-related impacts such as truck and/or equipment noise, dust, odors from truck and/or equipment exhausts, and erosion/sedimentation may occur during this phase; however, such

impacts are limited in both geographic extent and in time, and measures can be implemented to reduce these potential impacts. These construction activities are not expected to significantly impact neighboring residential sites because the areas affected are within the central portion of the project site and distant from potential off-site receptors. In particular, the clearing/grading operation, typically the noisiest and therefore most severe impact to the neighborhood, is generally completed over a short time span. It must be acknowledged that construction impacts are unavoidable regardless of the proposed use of the site; specifically, development in conformance with existing zoning would involve construction and could result in similar impacts. A construction entrance would be placed at the Lewis Road site entrance and the development area is large enough to allow staging and construction to occur within the site boundaries, thus reducing disruption along Lewis Road and minimizing impact to neighboring properties.

The construction phase of the project will include site grading and clearing, excavation and building activities that will result in elevated noise levels from vehicle engines, stationary equipment/generators, dump trucks, excavating equipment (e.g., bulldozers, excavators, front-end loaders and similar earth moving equipment). Noise levels will vary based on the construction phase, but typically heavy equipment utilized during the site preparation phase results in the highest levels of noise associated with development. Equipment-related construction noise is expected to be in the range of 76 to 88 dBA at a distance of 50 feet. The major excavation activities will not occur in close proximity to existing residential areas. The nearest residential use area located along the east side of Spinney Road is greater than 300 feet from the closest proposed structure and approximately 125 feet from the nearest proposed golf fairway. During and after construction, a native vegetation buffer will be preserved to attenuate noise generated on the project site.

Table 4-2 provides sound levels of typical construction equipment in use at a distance of 50 feet.

While it is typical for a number of pieces of equipment to be utilized during any time period, at a distance of 300 feet (the distance of the nearest residential receptor), sound levels attenuate greatly. By applying the inverse square law, the noise levels that may be expected at a distance of 300 feet can be calculated. The loudest of noise generating equipment would likely be an asphalt truck, which has an associated sound level of 88 dBA at 50 feet. The use of this equipment would be temporary; however, it would need to occur in short periods, since under continuous use this level is reduced to approximately 72.4 dBA at 300 feet, which is a level that is similar to sound levels generated by light traffic.

Construction noise is inevitable in the short term and may be audible to surrounding residents; however, this impact is unavoidable and will be mitigated by limiting construction during hours proscribed by the Town of Southampton Code. Town Code Chapter 235 regulates noise generation. From 7 AM to 7 PM, noise from a residentially-zoned site may not exceed 65 dBA at the property line; however, construction-related activities are exempt. Nevertheless, the applicant expects to limit the hours of construction to within the period 7 AM to 7 PM, on weekdays and, should the construction schedule require it, Saturdays. Construction on Sundays or holidays is not expected.

Based on the above analysis, no significant, long-term construction noise-related impacts are expected.

Table 4-2
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Item	Noise Level at 50 Feet (dBA)
Air Compressor	81
Asphalt Truck	88
Backhoe	85
Compactor	80
Concrete Mixer	85
Concrete Vibrator	76
Dozer	87
Dump Truck	88
Front End Loader	84
Generator	76
Hoist	76
Impact Wrench (steel bunting)	88
Motor Crane	83
Pick-Up Truck (light)	72
Pneumatic Tools	85
Pump	76
Roller	80
Scraper	88
Shovel	82
Truck (medium & heavy)	88

Only the Hills South Parcel/Kracke Property will be developed, so that only these properties will be subject to clearing, grading and development. As a result, construction related impacts are confined to these areas. The Hills North Parcel cannot be developed as it lies in the CPB CPA; however, the Parlato Property could be developed, which would spread construction impacts over a larger area and would result in activity near the mobile home park and the Southampton Pines subdivision. The proposed project offers The Hills North Parcel and Parlato Property for dedication and permanent preservation.

4.1.3 Air Quality, Dust, Erosion and Sediment Control

Possible impacts to local air quality that could occur during construction include the generation of dust (air-borne particulate matter) during clearing and grading of the property, from unvegetated areas and from material tracked off site and deposited on adjacent streets. The potential for impact during construction with respect to the generation of airborne dust (and specifically, fugitive dust that reaches neighboring properties) could result from activities related

to clearing, transfer of soil, and regrading; and following regrading the presence of bare soil which can become airborne in windy conditions. There are many variables that affect potential dust generation and the potential for impacts. Dust emissions can vary substantially from day to day, and depend upon the level of activity, type of activity, prevailing meteorological conditions, moisture content and silt content of the soil (i.e. particles smaller than 75 micrometers in diameter).

To mitigate potential for erosion and generation of fugitive dust, control measures are to be employed during construction. Water trucks are to be utilized for suppression of dust during land clearing and grading activities. Unvegetated areas are to be seeded or planted with other groundcovers as soon as is feasible following regrading, and will continue to be monitored and sprayed during dry periods to prevent dust generation. Grading activities that could potentially generate airborne emissions will not be conducted if winds are in excess of 15 mph. Finally, the use of rumble strips is the control method proposed to be employed at the construction exit to minimize the quantity of material that is tracked off site.

Much of the area of proposed disturbance in the areas nearest to residential properties consist of soil types (PlA, RdA, and CpC)[1] that contain Loamy Sand, Sandy Loam and Fine Sand to Course Sand respectively; soil types which contain relatively large-size particles and can be expected to settle within a short distance of disturbance areas. The potential for any fugitive dust generated by land clearing and grading operations to have an impact on neighboring residential use is low, given the mitigation measures noted above and considering that all of the neighboring residential properties will be separated from the areas of clearing by a wide buffer of vegetation which is to remain. Any airborne particulate matter not controlled by site development controls to manage dust generation will be trapped by this buffer of vegetation, though mitigation is expected to be effective in controlling fugitive dust.

Erosion and associated dust control measures are described in **Sections 1.6.2** and **1.7**, and will conform to applicable Town requirements; these mitigation measures are expected to include, but not be limited to, the use of groundcovers and seeding, drainage diversions, soil traps, water sprays and minimization of the time span that bare soil is exposed to elements, to minimize the potential for impacts to sensitive on- or off-site natural or developed areas. The applicant has successfully applied control measures such as “rumble strips” (which cause truck tires to shed any mud trapped within the tire treads) at another project in the Town of Southampton, and will install same at the construction entrance to reduce soil on truck tires from being tracked onto adjacent roadways, thereby reducing the potential for dust to be raised in order to mitigate this potential construction related impact. Overall, development of the subject properties is not anticipated to result in significant erosion/sedimentation or stormwater impacts due to the use of proper site grading procedures, implementing erosion controls and, for the long-term, use of properly-designed drainage systems, and particularly to conformance to the Town-required measures specified in the SWPPP and Erosion Control Plans and subject to the oversight of the Town Building Department.

[1] See **Section 2.1.1** Soils/Existing Conditions

4.1.4 Trip Generation, Access, Parking, and Loading/Unloading & Staging Area Locations

Section 1.7.2 indicates that only one construction access onto a public road (Lewis Road) is expected, on the same alignment as the project's final vehicle access point. It is expected that trucks will use that portion of Lewis Road north of the site's access point, to Exit 64 of NYS Route 27 (Sunrise Highway), since fast and efficient movement eastward and westward would be available on this roadway. As for locations of construction worker parking, truck loading/unloading areas, and material storage/staging areas, it is expected that these will be located near the middle of the proposed developed area, at the end of the construction access roadway off Lewis Road in the vicinity of the proposed golf maintenance building. In this way, the distances that construction-related vehicles will travel within the site would be minimized and limited to the length of the construction access roadway (off Lewis Road). This configuration would balance the need to provide for construction access and needed facilities with the need to minimize the potential to impact the neighbors, particularly those along Spinney Road (by maximizing separation distances and minimizing potential to raise dust).

As discussed in **Section 1.7.3**, truck traffic associated with various stages of construction activities are expected, particularly with road construction, clubhouse construction and construction of the residences. These trips are primarily associated with delivery of equipment and building materials, and may vary depending on the stage of construction, the number of homes being constructed and overlapping construction activities, availability of materials and other factors. Truck trips may also involve many deliveries in one day, followed by an extended period during which no deliveries are made. An example would be delivery of forms for concrete setup, which could involve multiple deliveries in a day, and then no deliveries until concrete is ready to be poured or forms are ready to be removed. Over the course of a day, if the worst case scenario involves simultaneous construction of roads, clubhouse and residential units (which could occur at times during the construction schedule), estimates can be provided of the average number of trucks per day for construction of various components of the project. Based on **Table 4-3**, it is estimated that on average approximately 94 truck trips may occur daily as a result of construction equipment and material deliveries. These truck trips would generally travel along Lewis Road, to and from Sunrise Highway.

Table 4-3
CONSTRUCTION TRUCKLOADS[1]
Other Than Soil Removal

Parameter	Number of truckloads daily	Number of truck trips daily
Road Construction	3	6
Clubhouse Construction	4	8
Residential Construction [2]	2 x 20 = 40	80
Total	47	94

Notes: 1 Estimating assistance provided by RLW4 Builders, LLC; RLW4 Builders, LLC is involved with DLC in the construction of another project in Westhampton Beach.
2 Assumes construction of 20 homes at one time.

A short segment of Lewis Road may experience up to 286 truck trips per day during intermittent periods, when all four components are under construction simultaneously (i.e., golf course, internal roads, clubhouse and residences), and soil removal trucks use Lewis Road. The estimated 192 soil transport truck trips (see **Table 4-4**) would only occur on a segment of Lewis Road, and only if an internal haul road is not provided (see **Figure 4-1**). Other truck trips would likely occur more intermittently with more some days and less on others, and likely would be less as not all components of the project will be active simultaneously over the period of construction.

Table 4-4
RANGE IN NUMBER OF TRUCKLOADS
Removal of Excess Soil from Site

Number of Loading Stations	For 200,000 CY of Excess Soil			For 350,000 CY of Excess Soil		
	Number of truckloads daily	Number of truck trips daily	Duration of removal process	Number of truckloads daily	Number of truck trips daily	Duration of removal process
1	32	64	157 days	32	64	274 days
2	64	128	79 days	64	128	137 days
3	96	192	53 days	96	192	92 days
4	128	256	39 days	128	256	69 days
5	160	320	32 days	160	320	55 days

However, to perform conservative analyses, a total of 286 construction delivery truck trips was utilized. The truck trips were converted to passenger car trips by applying a Per Car Equivalent (PCE) of 1.5 to the truck trips as referenced in the Traffic Impact Study. The 286 daily trucks trips are equivalent to 429 daily passenger car trips. The construction employee and construction truck trips were then distributed hourly and the trips during the peak hours identified. The anticipated maximum number of construction generated trips are summarized in **Table 4-5**.

Table 4-5
TRIP GENERATION, Construction Phase
Proposed Project

Time Period	Distribution	Construction Trucks	Construction Employees (1)	Construction Employees (12	Total (1)	Total (2)
Weekday AM Peak Hour	Enter	13	20	14	33	27
	Exit	13	0	0	13	13
	Total	26	20	14	46	40
Weekday PM Peak Hour	Enter	15	0	0	15	15
	Exit	15	77	51	92	66
	Total	30	77	51	107	81
Saturday Peak Hour	Enter	22	0	0	22	22
	Exit	22	13	9	35	31
	Total	44	13	9	57	53

1 - Occupancy of 1 worker per vehicle
2 - Occupancy of 1.5 workers per vehicle

As shown in the table, the construction phase of the project may generate between 39 and 48 trips during the weekday AM peak hour, between 81 and 107 trips during the weekday PM peak hour, and between 52 and 57 trips during the Saturday Midday peak hour (42 entering, 45 exiting). The full analysis is included in **Appendix H**.

The following discussion of the anticipated trip generation characteristics during the construction period has been taken from the TIS.

> The construction of the proposed project is anticipated to result in truck trips primarily associated with earth moving, delivery of equipment and materials and vehicles trips associated with construction employees. Delivery trucks trips may vary depending on the stage of construction, number of homes being constructed and overlapping construction activities, availability of material and other factors. Because the construction of this project will result in construction related trips, we have prepared a trip generation estimate to account for this traffic. This estimate was prepared by distributing trips associated with construction employees and delivery of construction material to the adjacent street network. In order to prepare a conservative construction trip estimate, we accounted for the possibility of all four components (golf course, road construction, clubhouse and residential construction) of the project to occur simultaneously. Based on the Applicant's anticipated construction/development schedule shown in **Table [4-1]**, the maximum number of anticipated construction personnel is 255 workers. This relates to the period July-September, 2020 in **Table [4-1]**; since it is a maximum, all other time periods will have a lesser number of trips related to construction workers and therefore less impact.
>
> Since some workers will carpool to/from the site in personal vehicles or arrive/depart via large groups in commercial vehicles, it is reasonable to assume vehicle occupancy of more than one (1) worker per vehicle. The applicant will encourage, promote and facilitate car-pooling through construction contracts and construction management during this phase of the project. Since actual vehicle occupancy information is not available, two vehicle occupancy scenarios were analyzed:
>
> - Vehicles occupancy of 1 worker per vehicle was utilized; this equates to approximately 255 vehicles per day (510 trips per day).
> - Vehicles occupancy of 1.5 workers per vehicle was utilized; this equates to approximately 170 vehicles per day (340 trips per day).
>
> **Table [4-3]** is a summary of the estimate on construction delivery truck loads.
>
> Based on the above, it is estimated that on average approximately 94 truck trips may occur daily as a result of construction equipment and material deliveries. These truck trips would generally travel along Lewis Road, to and from Sunrise Highway.
>
> A small segment of Lewis Road may experience up to 286 truck trips per day during intermittent periods of construction when all four (4) components of the project are occurring simultaneously (i.e., golf course, road construction, clubhouse and residential construction) involving soil transport. The 192 soil transport truck trips would only occur on a small segment of Lewis Road if an internal haul road is not provided. Other truck trips would likely occur more intermittently with more some days and less on others, and likely would be less as not all components of the project will be active simultaneously over the period of construction. However, to perform conservative analyses, a total of 286 construction delivery truck trips was utilized. The truck trips were converted to passenger car trips by applying a passenger car equivalent (PCE) of 1.5 to the truck trips (Source Highway Capacity

Manual 2010). The 286 daily trucks trips are equivalent to 429 daily passenger car trips. The construction employee and construction truck trips were then distributed hourly and the trips during the peak hours identified. The anticipated maximum number of construction generated trips are summarized in **Table [4-5]**.

As shown in **Table [4-5]** above, the construction phase of the project may generate between 39 and 48 trips during the AM peak hour, between 81 and 107 trips during the PM peak hour and between 52 and 57 trips during the Saturday Midday peak hour (42 entering, 45 exiting). A detailed project construction trip generation calculation for an entire weekday and Saturday conducted to justify the trip generation characteristics of the construction traffic are contained in Appendix C of [**Appendix H**].

4.1.5 Excess Soil Removal and Disposition

As noted in **Section 1.6.2** and based on a preliminary analysis, it is expected that between 200,000 and 350,000 CY of excess soil would be generated during cut/fill operations. Generally, it is common practice to reuse as much of this material on-site as practicable, to minimize the volume of material to be removed from the site (and the number of truck trips necessary to remove it, and thereby the potential impacts to the community). Assuming that trucks having a capacity of 40 CY are used to remove this material, between 5,000 and 8,750 truckloads of soil would be required, or between 10,000 and 17,500 truck trips would come to and depart from the site. No additional truck activity is expected as a result of land clearing as wood material will be processed and used on site to the maximum extent practicable. Some additional truck activity will result from import of engineered soil for greens. As noted in **Section 1.6.2**, approximately 6,227 CY of material is expected to be imported. This equates to 230 truck trips; however, since soil removed from the site is expected to be transported to East Coast Mines, trucks returning to The Hills site can be loaded with engineered soil product for the return trip and thus additional truck traffic would not occur as a result of this import of material.

As noted in **Section 1.6.2**, the applicant is currently negotiating an innovative method by which the excess soil will be removed, but without impact to local road conditions and reduced potential adverse impacts to the neighborhood. The excess soil will be taken by truck to the adjacent East Coast Sand Mine property via an internal route, so that Lewis Road will not be impacted (see **Figure 4-1**). All efforts will be made to obtain the necessary approvals and secure an easement between the subject site and the East Coast Sand Mine access road to provide a means of soil transport between these two (2) sites. It is noted that this route, if found to be feasible, would not involve the use of any public roadways (particularly Lewis Road), so that this operation would not cause any impact to local traffic flow.

With respect to potential impacts from the soil removal process (such as dust and truck and equipment noises), these impacts will be temporary in duration, would be limited to the project site, the adjacent East Coast Sand Mine site and the non-residential properties abutting these areas, would be limited to weekday hours, and would conform to any and all Town requirements for specific hours of operation.

If East Coast Sand Mine is used to dispose of the excess soil, but an internal haul road is not feasible, a small segment of Lewis Road would be used by the trucks to access the East Coast Sand Mine access road approximately 1,400 feet west of the proposed project site entrance. This road segment has one home on the north side (Kracke) and three homes on the south side of Lewis Road and is primarily flanked by farmed land (north) and recharge basins (to the south). East Coast Sand Mine is an active, ongoing operation that mines, receives, processes and sells sand and gravel product. As a result, there is a high level of trucking activity in the area which would potentially experience an incremental increase (depending on the status of operation at the mine), or would displace existing trucking activity at the mine. In any case, impacts would be limited in duration and geographic scope and would not be expected to be significant given the existing mining operation.

4.1.6 Potential Disruption to School Bus Movements

The potential disruption of school bus movement in relation to construction activity has been considered. School bus transport along Lewis Road is not expected to be disrupted and no adverse safety conditions to school bus operations from construction phase truck traffic are expected, for the following reasons:

- school bus activities occur during early morning and early afternoon hours, when only a limited number of trucks would also be present on the local roads;
- bus drivers as well as truck drivers are trained and specially licensed to operate their vehicles in a safe manner, observing appropriate traffic laws;
- the safe and efficient site access will be established so that trucks can enter the site without causing delays on Lewis Road; and
- this road is not extensively used by pedestrians, as no sidewalks are present.

As a result, short-term construction truck impacts may cause some temporary inconvenience on school bus operations in the vicinity, but proper site construction management and normal vehicle precautions as well as the intermittent and temporary nature of the work to be completed will minimize these potential impacts.

4.2 Cumulative Impacts

Cumulative impacts are the potential impacts of a proposed action taken in conjunction with other active or anticipated nearby development projects, where the sum may potentially result in cumulative impacts that are greater than the individual impacts from each project. An analysis of cumulative impacts is generally required within a Draft EIS when it is expected that multiple projects within the same area may result in a greater cumulative impact than is suggested by impact analyses of the individual actions.

As described in The SEQR Handbook (**NYSDEC, 2010**), cumulative impacts are:

> Cumulative impacts occur when multiple actions affect the same resource(s). These impacts can occur when the incremental or increased impacts of an action, or actions, added to other past, present

> and reasonably foreseeable future actions. Cumulative impacts can result from a single action or from a number of individually minor but collectively significant actions taking place over a period of time. Cumulative impacts do not have to all be associated with one project sponsor or applicant. They may include indirect or secondary impacts, long-term impacts and synergistic effects.

Cumulative impacts are analyzed in this section, in fulfillment of SEQRA requirements. The analysis includes the following components. First, reasonably foreseeable pending projects are identified that could collectively result in cumulative impacts. Second, the various land use plans and studies that pertain to these projects are outlined in order to determine what land use controls would be expected in connection with planned development. Third, each impact category is discussed with respect to potential impacts and how these impacts could potentially be escalated as a result of some combined set of actions, or if no such cumulative impact is expected, this is so noted. The combination of these analyses provides a complete cumulative impact assessment in fulfillment of SEQRA.

4.2.1 Other Pending Projects

As part of the background information required for the TIS, the Town was contacted with respect to other active or reasonably foreseeable future actions on sites in the vicinity of the project site. That inquiry revealed that there are no such applications pending before the Town. Therefore, a cumulative impact analysis based on the proposed project and other pending or foreseeable applications in the area cannot be performed.

The proposed project will install a new roadway (Old Field Road) through the approved alignment for the Kijowski Family Farm subdivision roadway. There is some limited potential for the proposed project to induce the use of these 5 existing lots. However, there would be no significant added or cumulative impact on traffic or other resources from this design measure, as the Kijowski Family Farm subdivision is for only 5 lots (so that any impacts from this small a number of units would not be substantial). It is noted that the Kijowski Family Farm subdivision was created in conformance with zoning, and could be constructed at any time, absent of The Hills project. Further, the Kijowski Family Farm is not presently contemplated for development and, even if it were under active consideration for development, the proposed project's roadway design would not impair the Kijowski property development. The roadway will be designed in the same way under either Hills at Southampton or Kijowski Family Farm development; the only difference is that there would be a driveway from Old Field Road into the Hills at Southampton development under the proposed project, whereas there would not if only the Kijowski Family Farm were developed. Since Old Field Road would end in a cul de sac shortly north of the point where the Hills at Southampton access onto it is located, it would not attract any traffic other than trips destined for the proposed project or the 5 Kijowski Family Farm homes; no thru-traffic would be generated, as thru-access would be created. Finally, Old Field Road would not provide access to any other undeveloped properties that do not already have frontage on Lewis Road, so that installing this roadway would not change the existing potential for development of these other, undeveloped sites.

Further analysis of land use plans and regulations and resource related potential impacts that may occur if multiple projects are proposed are outlined in the following subsections.

4.2.2 Land Use Plans and Regulations

The potential for cumulative impacts in the vicinity of the subject properties is significantly reduced by the regional land use plans and resulting development restrictions, standards and guidelines that must be followed for development of sites in the area. As required under SEQRA, the reasonably foreseeable cumulative impacts of these land uses and development controls were analyzed prior to their approval and implementation. Therefore, the potential cumulative impacts of subsequent development of sites in the area, if taken place in conformance with the standards and restrictions of these controls, have already been analyzed and would not be expected to result in significant adverse cumulative impacts. A case-in-point is the East Quogue LUP, which was the subject of a Generic EIS (and therefore of a cumulative impact analysis) and resulted in land use recommendations and rezoning of land within the East Quogue LUP study area. A combination of proposed projects which conform to the recommendations and/or zoning associated with the East Quogue LUP and would logically then be in line with Town guidance for land use and development, so that the potential for cumulative impacts has been analyzed.

The regional plans and studies that provide parameters for land use and determine the pattern of development establish thresholds and limitations to ensure appropriate and environmentally-sensitive land use. The various plans and studies and regulatory review processes that would apply to the projects listed as pending projects are identified as follows:

<u>Town Jurisdiction</u>

- 1999 Town Comprehensive Plan Update - the Town prepared this Plan Update to document its intended blueprint for development. This plan presented a number of specific goals within five overarching categories of goals that pertain to housing, seasonal activity and economic drivers of the Town.
- Western GEIS - this plan was the predecessor of the CPB CLUP and was ultimately incorporated into the CLUP in 1995 as part of the Southampton sections dealing with pine barrens protection.
- East Quogue LUP and GEIS - the Town prepared this plan and GEIS to assess multiple projects and development pressure that was perceived in East Quogue in 2007-2008. The plan adopted by the Town in 2008 and resulted in rezonings which included many areas of 5-acre density zoning, as well as land use recommendations to further minimize potential and perceived impacts, such as the use of PDDs to provide alternative land use that would minimize impact to the school district and maximize tax ratables.
- Site Plan Review - is conducted by the Town under its regulations in order to provide for development that is safe, efficient and conducive to the public health and welfare.
- Town Code Chapter 157 (Environmental Quality Review) - regulates the process under which applications, plans and regulations subject to SEQRA review are conducted by the Town.
- Town Code Chapter 285 (Stormwater Management and Erosion and Sediment Control) - concerns the measures to be taken at sites under construction in order to reduce the occurrence of erosion and its associated adverse effects on those sites as well as on adjacent and downstream

sites; it also provides detailed procedures and documentation requirements for the necessary erosion control plan and study.

- Town Code Chapter 325 (Wetlands) - defines regulated wetlands, regulates development within a defined distance adjacent to them, and establishes procedures for that review process.
- Town Code Chapter 330 (Zoning) - regulates all development in the Town by establishing geographic limits within which specific land uses are allowed as-of-right, are allowed under specific conditions, and are prohibited altogether. Additionally, the Zoning Code provides specific regulations for development within each zoning district.

Suffolk County Jurisdiction

- SCSC Article 4 - regulates the supply of potable water in order to protect public health and to insure that county residents have a healthful and plentiful supply of water.
- SCSC Article 6 - regulates sanitary waste discharge with respect to density of development by limiting sanitary wastewater based on lot size. Ensures groundwater protection with respect to nitrogen in deep flow recharge areas for protection of long-term water supply aquifers. Requires sewage treatment where development densities exceed allowable flow on a parcel of land. Article 6 was an outgrowth of the 208 Study, which was a regional wastewater management plan, and as a result this legislation considers aquifer protection throughout Suffolk County.
- SCSC Article 7 - provides water pollution control by limiting the quantity of storage of regulated toxic and hazardous materials in deep flow recharge and water supply sensitive areas (which includes the Yaphank area).
- SCSC Article 12 - regulates the design, installation and operation of any systems that store toxic or hazardous materials to ensure proper containment of stored fluids and solids.
- SCDHS Sanitary System Review - regulates the design and construction of sanitary systems for development in the county.
- SCDPW STP & Roadwork Reviews - regulates the design and construction (and, for STPs required under Article 6, the operation) of these systems for development in the county.
- SCPC 239m Review - Under Section 239m of the NYS Town Law, this county planning entity is empowered to review certain types of development applications, to ensure conformance to engineering, health, safety and planning standards and requirements.

New York State Jurisdiction

- ECL Article 11 (endangered species) - regulates procedures and review requirements associated with development where potential impacts to wildlife, including designated protected species, may occur.
- ECL Article 24 (freshwater wetlands) - provides review procedures and reporting/analysis requirements in cases where development or planning proposals would occur in relation to designated freshwater wetlands.
- SPDES Permit Review - The NYSDEC has jurisdiction over the preparation, installation, operation and maintenance of erosion-control measures taken on qualified construction sites, as well as the contents and review of the accompanying erosion control plans and documents, and permitting.

These existing land use controls and review processes form a comprehensive means of ensuring regional environmental protection, by ensuring that individual projects conform to recommendations designed with regional resource protection in mind.

4.2.3 Resource Impact Assessment

Geological Resources

Soils and topography are site-specific characteristics having potential limitation that would be dealt with on a site-specific basis as each development application is reviewed by Town engineering staff. Each individual site should be subject to evaluation of its soils and topography to ensure that any constraints are addressed in project design. Town engineering staff will review and must approve grading, drainage and erosion control plans as part of its site plan review; the applicant will implement these controls and thereby ensure stabilization of erodible soils and minimization of potential impacts to soils and topography. A combination of pending projects does not represent a significant loss of unique or agricultural soils or topographic features, and therefore can be evaluated and protected as needed based on specific project designs.

Water Resources

Generally, the primary sources of impact to groundwater quality are by the recharge of nitrogen in sanitary wastewater, and by the recharge of stormwater. As described and analyzed in this document, the proposed project will be served by appropriate wastewater treatment systems conforming to SCSC Article 6. The SCDHS is currently studying small package sanitary systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow.

In general, all projects are subject to the review and approval of the SCDHS, ensuring that no impacts to groundwater quality would occur from any one proposal, and thereby minimizing the potential for adverse cumulative impacts to groundwater from nitrogen in wastewater. All stormwater generated on the site will be retained on-site, to be recharged through a comprehensive system of drainage facilities. The design and installation of these systems will be subject to the review of the Town, thereby ensuring that these systems will operate properly. In this way, the potential for adverse cumulative impacts to groundwater resources from stormwater will be minimized.

Surface water impacts of significance relate to contaminant discharge to groundwater that could flow toward surface water, and/or stormwater runoff that is improperly controlled and could impact surface water via surface flow. As discussed above, the project density is low and wastewater treatment systems will operate within applicable standards, so that its effluent would not carry within it an unacceptable level of nitrogen that could adversely impact surface water resources. In addition, all sanitary systems will be subject to the review and approval of the SCDHS, which would ensure that these treatment facilities would operate within applicable standards, and thereby minimize the potential for impact to surface water bodies. Additionally, Town engineering requirements prohibit a site design that would allow runoff from exiting a site, which is a secondary layer of protection for surface water resources. Thus, the features of the project itself, as well as its conformance to the County and Town regulations designed to protect this resource, will ensure that no adverse impacts to surface water resources would occur.

Ecological Resources

On a site-specific basis, each site must be subject to review of ecological resources, which would include field inspection, identification of sensitive species or habitats, contact with the Natural Heritage Program and other evaluations. Protection of these resources would therefore be ensured for each site.

Land Use, Zoning & Land Use Plans

All sites are subject to Town zoning regulations and review under applicable land use plans, including the Town Comprehensive Plan Update. In addition, each proposal is subject to environmental review under SEQRA. These reviews will ensure that the pending projects will be consistent with the Town's overall goals, such that no cumulative impacts would be expected.

Community Character

Multiple projects will change the appearance of their sites to some extent. Consequently, there will be a cumulative impact on the visual resources and character of the community. However, the uses to be established on these sites will have been subject to the review and approval of appropriate Town entities, ensuring that sufficient scrutiny has been paid to potential aesthetic impacts to the community. The context of these sites in the area is regulated under the Town Zoning Code, and site plans are subject to review by the Town Planning Board. In addition, the future projects will be required to conform to zoning (in terms of type of use proposed, building bulk and height, setbacks and retention of natural buffers, etc.) which relates to their locations and surroundings, which would tend to minimize the potential for adverse impacts on the character of the community. This is the case for the proposed project in relation to its neighbors along the east side of Spinney Road; the natural vegetation on the subject site that abuts the rear yards of these homes will be retained. As a result, adverse changes in community character are not expected.

Community Facilities & Services

The economic benefits resulting from proposed developments are projected to include increased tax revenues, the creation of employment opportunities in the form of construction jobs, mortgage recording taxes, and increased revenue streams throughout the community. Moreover, as spending increases, this creates additional jobs and further increases business and household income. Such beneficial economic impacts that would result from the development of the proposed project in combination with other pending projects, are most crucial during Long Island's current economic state, and present significant opportunities for the local economy, and the significant number of persons who are unemployed throughout the region.

It is noted that multiple projects may not be constructed at the same time, so that their short-term construction-related economic benefits would likewise not be felt at the same time. However, long-term fiscal benefits in the form of property tax revenues are anticipated to contribute to the local tax base.

While multiple/future applications would combine to incrementally increase the demand upon local community services (e.g., fire and police protection, utilities, and solid waste handling), these services will receive an increase in funds from the tax revenues generated from these

developments, which would enable these service providers to continue to fund sufficient capability to provide services.

Transportation Resources

Traffic associated with the proposed project is addressed through a full TIS that considers other identified pending projects; however, no other pending projects were identified by the Town. Site specific TIS documents are used to assess project impacts, and any future such reports would consider pending projects at that time, thus ensuring that potential traffic impacts are addressed through mitigation and improvements, if necessary. The Hills TIS is included in **Appendix H**. Any future projects will be subject to a separate review to determine potential traffic impacts, and so will build on the analysis provided herein with respect to their cumulative impacts. Site plan review and curb cut permits will provide forums for further consideration of traffic and appropriate mitigation. As a result, there is a framework for consideration of actions under site-specific review to ensure that cumulative environmental impacts would not occur.

Cultural Resources

Cultural resources are a site-specific resource that would be dealt with as part of individual project review. Projects in culturally sensitive areas would be subject to Cultural Resource Assessments that would identify and protect any identified resources. A combination of pending projects does not represent a combined loss of unique cultural resources provided there are no extant historic structures, historic district issues or known archaeological issues that the sites share in common.

Construction-Related Impacts

Construction impacts cause temporary increases in the potential for fugitive dust, and construction traffic and noise, but these impacts are limited in time to the construction period. These impacts will occur regardless of the type of land use of each proposal, and are not expected to occur simultaneously, as these projects will be constructed subject to individual schedules. Multiple sites would be subject to construction hour limitations and construction management oversight. The above-noted impacts are temporary and unavoidable; however, proper construction management will limit impacts to the maximum extent. Such measures may include silt fencing, storm drain inlet protection, hay bales, and good housekeeping procedures. Additional measures that could be considered include temporary construction fencing to provide screening for aesthetic impacts, specifying construction entrances and staging areas in the least obtrusive locations, utilizing stabilized construction entrances and washout areas to minimize the transport of sediment off-site, stabilizing soil stockpiles, using wind screens to minimize fugitive dust and sediment transport off-site.

4.2.4 Summary and Conclusion

In summary, based on the absence of any other pending projects in the vicinity, and the necessity to conform to the various land use plans and development regulations (applied at the Town, County and State levels), and the level of governmental scrutiny any future projects will undergo in order to receive approvals and permits, no cumulative impacts have been identified with

respect to the proposed project and no other projects are pending that would result in any cumulative impacts.

4.3 Adverse Impacts That Cannot Be Avoided

The site and project have been characterized, and the potential impacts to the existing properties have been assessed, and mitigation measures have been described. Some adverse impacts may still exist for which no mitigation is available. Adverse impacts have been quantified and discussed; for those adverse impacts that cannot be quantified, qualitative discussions have been provided in previous sections of this document. The adverse impacts of the proposed project will be minimized where possible, but this section acknowledges those adverse impacts that may still occur, as follows:

- Grading will alter the topography of a portion of the Hills South Parcel/Kracke Property.
- There will be temporary increase in local traffic and noise conditions during the construction period.
- Despite the planned mitigation measures (such as soil wetting, etc.), there may be some fugitive dust during the construction period.
- There will be an increase in vehicle trips generated on the site and on area roadways.
- The project will clear a total of 166.86 acres of the overall site, of which 122.80 acres would be undisturbed natural vegetation). This will reduce the amount of habitat available for wildlife.
- There will be an increased potential need for emergency services of Southampton Town Police Department and the East Quogue Fire Department (offset by concomitant increase in tax revenues).
- There will be increased demand on the energy services of PSE&G and National Grid (to be paid for according to rate tariffs).
- There will be increased demand for groundwater, to be supplied by SCWA for domestic purposes, as well as directly on the groundwater system for irrigation. It is noted that the SCWA has indicated (see **Appendix A-17**) that the increase for domestic use does not represent a significant adverse impact on groundwater quality this service.
- Construction activities will generate construction-related debris, which will require temporary on-site storage until it is removed for disposal.

4.4 Irreversible and Irretrievable Commitment of Resources

This subsection is intended to identify those natural and human resources listed in **Sections 2.0 and 3.0** that will be consumed, converted or made unavailable for future use as a result of the proposed project. Development of the proposed project will result in irreversible and irretrievable commitment of resources. The importance of this commitment of resources is not anticipated to be significant, due to the fact that these losses do not involve any resources that are in short supply, semi-precious or precious to the community or region, or are otherwise substantial.

It is difficult to quantify the exact commitment of resources; however, once the project is complete, the following losses of irreversible and irretrievable resources are expected:

- Building materials used for construction, including but not limited to: wood, asphalt, concrete, fiberglass, steel, aluminum, brick, etc.
- Energy and related resources used in the construction, operation and maintenance, including fossil fuels, electricity and water.
- 166.86 acres of clearing on the overall site, of which 122.80 acres would be undisturbed natural vegetation.

4.5 Effects on the Use and Conservation of Energy Resources

An increase in the consumption of energy resources would typically be expected from the intensification of land use on a site, particularly for sites which had been undeveloped or unused. The proposed development sites (indeed, none of the project properties) have not previously been developed, so that neither electricity nor natural gas are being consumed. Therefore, development of the project will increase the use of these two energy forms in the area. It is noteworthy that the seasonal occupancy of the residences will substantially reduce the consumption of energy resources compared to the consumptions would be if the project were intended for year-round occupancy. As evidenced by the correspondence received from the energy suppliers (see **Appendix I**), the project's demand on these energy sources are not expected to significantly strain the ability of either National Grid or PSE&G to supply the site and the area.

As noted in **Section 1.6.7,** the Applicant is not prepared at the present stage of the review process to commit to seek LEED® certification for the proposed project. However, the Applicant is committed to incorporating a number of sustainable features, designs, materials and systems typical of projects that do seek LEED® certification into the proposed project. **Section 1.6.7** presents a discussion of the sustainable features of the proposed project, which includes its energy-efficiency aspects. Use of new, energy-efficient building materials (e.g., insulations, windows, weather stripping, door seals, etc.) and mechanical systems, (e.g., air conditioners, heating systems, HVAC systems, water heaters, heat pumps, etc.) is anticipated, which would mitigate the usage of energy resources required. Incorporation of such energy-conserving measures is not only required by New York State and the Town of Southampton, but is a sensible business practice, particularly in light of the increasing cost of energy resources. The project will result in an overall development that includes sustainable design elements and Energy Star design/construction, in conformance with the applicable requirements of Chapter 123, Article V of the Town Code (see **Table 1-15**).

There will be a short-term increase in energy use during the construction phase of the proposed project. This impact is expected to be of short duration, and the long-term energy demand is expected to remain stable.

Water-saving plumbing fixtures will be specified for the proposed residences and clubhouse buildings in accordance with current building requirements and practice of the trade. Such measures will include installation of low-flow lavatories, sinks, fixtures and equipment, to reduce unnecessary water loss, which would translate into conservation of the energy resources required to heat water for domestic purposes.

The applicant has determined to include numerous advanced energy-related materials and systems in the construction of the project, and has committed to incorporating sustainable features in its design. In summary, it is not anticipated that the project will result in any significant adverse impacts on the use and conservation of energy resources.

4.6 Impact on Public Health

The anticipated impacts on public health associated with the construction process are discussed in **Section 4.1.1** above; the corresponding mitigation measures to be implemented during the construction process are discussed in **Section 4.8.9** below.

The Comprehensive Risk Assessment contained in Appendix 13 of the ITHMP (see **Appendix J)** was prepared to determine the potential risks to the public and aquatic life from the use and application of pesticides associated with the project's landscape maintenance practices being introduced into the environment. Potential risks that are assessed include pathways and receptors (surface water, groundwater, public wells and potential drift).

The assessment process began with an initial list of 61 pesticides; this list was reduced after completion of a screening process that considered Federal, State and local standards. A number of these remaining pesticides are "natural" and/or "organic," and/or biochemical, and additional pesticides of this remainder are classified by the USEPA as "reduced risk." The next stage of the assessment involved collection and review of an extensive amount of environmental fate, mammalian/human toxicology, and aquatic toxicology data for these remaining pesticides. Subsequent modeling using three computer models (PRZM-GW, AgDRIFT, and Cornell's EIQ) raised some potential risk and/or regulatory concerns.

Ultimately, the Assessment recommended the following:

- The use of a tractor boom spray shroud should be considered when applying two of the insecticides.
- Seven of the fungicides, five of the herbicides, and one insecticide were not recommended for inclusion in the ITHMP.
- Seven pesticides were recommended for use, to be restricted to the golf course greens and, occasionally and as-needed, to the golf course tees.

4.7 Growth-Inducing Aspects

Growth-inducing aspects of a proposed development are those project characteristics which would cause or promote further development in the vicinity, either due directly to the project, or indirectly as a result of a change in the population, markets or potential for development in that community. Direct impacts might include, for example, the creation of a major employment center or institutional facility, installation or extension of infrastructure improvements or the development of a large residential project having a large residential population, particularly if that project were designed for a specific age group. An indirect impact would cause an increase

in the potential for further development in an area, which in turn would result in direct impacts. In this sense, the proposed development projects would not cause growth in the vicinity**.**

The proposed project is complementary to the prevailing mix of low-density residential, open space and agricultural uses in the area, and so represents an evolutionary land use and not a major departure from the local land use pattern. The high-end seasonal occupancy nature of the project would not tend to encourage additional similar development to the area (particularly as few if any other large, undisturbed and contiguous tracts of land are available to be consolidated for similar development), and so would not induce similar growth in this locality.

The project is not expected to result in any significant demographic impact to the hamlet of East Quogue, primarily because the project is not designed for year-round occupation by its homeowners. While an estimated total of 444 persons would be resident in the homes, this number of occupants is not expected to be present at the same time, as the homes are for seasonal, temporary occupation. Also, the nature of the project is such that the residents, when present, would tend to remain on the property, to enjoy the wealth of amenities that draw the owners to the site, and less toward patronizing the services available off-site. Finally, the population of East Quogue was estimated at 4,757 in the 2010 US Census, so that the project, in the unlikely event of it being fully occupied, would represent only 8.5% of the population of East Quogue.

The proposed project is not expected to induce types of growth dissimilar or complementary to it in the area, in consideration of the following:

- The area is not zoned for types of development that would tend to damage the character of the area, so that the area is already properly protected from inappropriate development;
- The proposed project would not tend to induce development of uses designed to address needs generated by the project (e.g., commercial spaces to capitalize on the increased potential customers of the project, industrial spaces to provide employment for the new residents, new residential spaces for employees attracted by the jobs generated by the project, etc.);
- The proposed project is intended to be the only example of its type and quality in the region; it is meant to take advantage of the rural and bucolic character of the region to support the character of the project itself. Therefore, it would be contrary to the applicant's goals to encourage development of other sites in a way that tend to impair the existing character of the area.

It is anticipated that the project would contribute to an increase in activity for local businesses. The project will increase the number of potential shoppers in an area where commercial and service-oriented businesses are available by relatively short auto trips. These businesses, especially those serving the needs of family-oriented customers, would tend to experience increased activity due to the increase in their customer base; this is viewed as a benefit and does not require new facilities but supports existing ones.

Construction of the residences and its associated clubhouse and golf course amenity will create both short-term and long-term job opportunities. In the short-term, development will create construction jobs, and indirectly jobs may be created based on increased patronage of material suppliers. In the long-term, the proposed project will create a number of permanent operation

and maintenance-related jobs. These jobs may be filled first from within the local labor pool.

These job opportunities would not require relocation of specialized labor forces or influx of large businesses from outside the area to provide construction support. The number of construction jobs created, estimated at 310 FTE, is not expected to represent a growth inducing factor as these are temporary in duration; however, job creation is viewed as a substantial benefit to the local job market and local economy.

Development of the Hills South Parcel/Kracke Property will result in an incrementally increased usage of utilities. Electrical and natural gas services are generally available throughout Long Island (though not presently available on the subject properties), and a well field and water main distribution system is adjacent; therefore, any infrastructure improvements needed would be for the subject site only and would not result in expansions of utilities that would induce further growth. Because these facilities and services already exist and have the capacity to service the proposed project, no significant growth is expected to result. As the proposed project is being developed at a density well below its allowed density from a sanitary wastewater standpoint, no local or regional treatment facilities are needed that would induce growth. The proposed project may lead to the improvement of community services in the area as stimulated by the increased taxes generated by the project. In addition, the project is expected to support local businesses and provide local and regional jobs, two aspects which would not result in growth and are considered to be beneficial.

Potential growth related to construction of the road associated with the Kijowski Family Farm is discussed in **Section 4.2.1**. Based on that discussion, no significant growth-inducing aspects are expected as a result of the use of the road for access to The Hills at Southampton project.

4.8 Summary of Mitigation Measures

4.8.1 Geological Resources

Impact Avoidance and Compliance with Standards

- Erosion and sedimentation may occur, particularly during the construction phase of the project. The potential impacts with respect to erosion potential can be overcome by using proper grading techniques and implementing erosion control measures, installing proper drainage facilities and using suitably-adapted drought-tolerant indigenous vegetative species for landscaping as well as site stabilization and restoration.
- The significant acreages of new landscaping may erode and/or not grow-in properly and evenly, leading to areas of dead plantings and bare soil, which would tend to lead to erosion and sedimentation. Initiation of an ITHMP for the golf course will ensure not only the health and vitality of fairways and greens but also limit impacts from nutrient replenishment applications to groundwater and the environment.
- Landscaping practices common to sandy soil areas will be employed and implemented at the time of construction, following the site plan review and approval process which will include landscape plan preparation. This will ensure that potential impacts with respect to a sandy surface layer are adequately addressed and as a result, no long-term soil impacts are expected.

- Short-term soil impacts will be mitigated through erosion control measures which are detailed under a site-specific erosion control plan (see **Erosion Control Plans** *in pouches in Volume III*.
- Planned grading of strategic locations of the site will be necessary to provide appropriate and stable surface areas to allow development of the proposed project. In addition, construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Construction of the golf course will utilize existing topography to the greatest extent practicable to limit impacts related to slopes.
- Fill will be required in some areas of the property and it is expected that the material required can be obtained from on-site sources and redistributed as necessary.
- Profiles of the internal roadway system will be prepared to conform with Town road grade design specifications in order to provide a safe road system, and this will control overall site grading. In general, the site will continue to exhibit its regional topographic profile decreasing in elevation from north to south.
- All created soil slopes outside of the golf course area will be 1:3 or less and will be stabilized using ground cover material.
- The course will be designed to incorporate the site's existing rolling topography as much as practicable, thereby minimizing the acreage of land clearing and volume of soil affected by grading.
- Slopes within the golf course will be stabilized using appropriate turf species or other engineering means where necessary.
- Preliminary grading plans have been prepared to ensure that the site can be developed as proposed and grading can be minimized to ensure retention of 28.23% of the existing natural vegetation will remain. The grading plan is used for preliminary drainage design and the preliminary SWPPP. A detailed grading and drainage plan will be prepared for the site plan application, and will provide details of overall site grading and will require Town Division of Planning review and Planning Board approval prior to initiation of grading activities.
- An additional safeguard is achieved through the NYSDEC SPDES review of stormwater control measures consistent with Phase 2 stormwater permitting for construction sites in excess of 1-acre (SPDES GP-0-15-002).

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to geological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.2 Water Resources

Impact Avoidance and Compliance with Standards

- Based on sanitary wastewater design rates for the golf course and residences, the proposed project will not exceed the allowable sanitary flow allowed under SCSC Article 6. Therefore, the Applicant may and will utilize individual septic systems in compliance with SCSC Article 6 for the 108 detached single-family units, and install a single septic system to serve the clubhouse and the remaining 10 club condos.
- The SCDHS is currently studying small package systems and alternative treatment methods for single-family homes and communal systems. The applicant is willing to consider implementing such an innovative, alternative wastewater treatment method if, in the future, such a treatment system would optimally balance performance, cost, and likelihood of approval by SCDHS, given the project's intermittent seasonal project flow. Ultimately the choice of sanitary system will be made in

consultation with the Town, as part of the Town's site plan review process and recognizing that the design, review, approval and construction of the septic system is entirely under the jurisdiction of the SCDHS. This level of oversight would ensure not only conformance to all applicable design and operation requirements, but that groundwater quality (and associated surface water resources in the downflow direction, particularly Weesuck Creek) will be properly protected.

- The golf course will utilize management practices and controls to severely restrict the use of chemicals associated with turf maintenance. The golf course will be a state-of-the-art facility, and will employ the most advanced controls available. Such controls will consist of a liner system installed beneath areas under the more actively managed areas of the course as well as rain gardens and turf management practices which will provide the stringent golf course management standards that the Town of Southampton is familiar with from Golf at the Bridge and Sebonack Golf Club.
- Any use of pesticides will be severely restricted as a result of continuous monitoring to identify pest control needs early, followed by spot/minimal application of controls, and the use chemicals from a highly-restricted list of approved substances that will be reviewed and approved by the Town and updated annually in coordination with the golf course operator, the Town and the Town's expert consultant. The ITHMP should be consulted for detailed information regarding the state-of-the-art management practices that will be implemented in connection with golf course.
- The GMP will assess the effectiveness of the ITHMP, and will guide any modifications to application rates of fertilizers and turf management compounds should this be necessary. The results of any data generated from the program will be reported to the Town, assessed by the Town and golf course management and used to provide early detection of environmental concerns so that modified management practices can be instituted.
- Stormwater runoff from development areas will be retained and recharged on-site. Retention areas, as presently proposed, will consist of DRAs, leaching pools, and ponds, with stormwater conveyed to these retention areas. The golf course DRAs are designed as shallow vegetated depressions that are normally dry and blend into the fairway areas or non-vegetated hazard areas, of the course, both as playable features. DRAs will have leaching pools with elevated inlets such that the areas around the leaching pool will be established as rain gardens. These rain gardens will be used to provide biological uptake of pollutants during the first flush precipitation event. Two lined golf course-related ponds near the center of the developed area will be a central feature of the project and will also serve as an irrigation pond, using captured stormwater runoff that will then be blended and/or pumped through the golf course irrigation system. In addition to golf play and drainage functions, the two ponds will provide an aesthetic and functional role for visual interest in proximity to the clubhouse and the residential units. The ponds will maintain a minimum depth of five feet and will be aerated as necessary, with the runoff contribution supplemented by on-site make-up wells. All required approvals will be obtained at the time of site plan review subsequent to the change of zone. Town and NYSDEC environmental input will be sought and incorporated into pond management as appropriate.
- Based on information presented in the NURP Study, the drainage measures proposed are an appropriate means of handling stormwater and as a result, such recharge is not anticipated to contain significant concentrations of pollutants. Therefore, the proposed project is in conformance with the applicable recommendations of the NURP Study in regard to the proposed stormwater recharge system and no significant adverse impacts are expected.
- The proposed project will not have an adverse impact with respect to nitrogen in recharge and nitrogen load, will comply with all applicable guidelines nitrogen in recharge and reduced nitrogen load, and will in fact result in a net removal of nitrogen from the watershed that would otherwise have entered Shinnecock Bay.
- Public water supply will only be necessary for residential potable use; irrigation water will be provided by on-site wells designated specifically for this purpose. An isolated portion within the area of the large pond will be used to blend water from source wells including the well that intercepts high

nitrogen containing water that will be placed at the south end of the site. It is expected that a total of 51.46 MGY will be used for all landscape irrigation, as 45.24 MGY for the golf course and 6.22 MGY gpd for non-golf purposes. It is expected that these volumes will not adversely affect the ability of the SCWA to serve the site and area, and would not significantly tax the groundwater storage system. Any such well installations will be subject to NYSDEC well permits.

- As part of the project, four acres of the subject property are proposed to be dedicated to the SCWA for a new wellfield.
- A letter prepared by the Deputy Chief Executive officer for Operations of the SCWA states: *"…the SCWA does not anticipate any water quality impacts due to the proposed project."*
- Two lots in the western portion of the site fall within the five year capture zone of the Spinney Road well field, and a small portion of the golf course falls within the 50 year capture zone of the Malloy Drive well field. Due to the greater than 5 year (and as much as 50 year) residence times, which would allow for the filtration of nitrogen or other compounds introduced to groundwater from the proposed project, the low density and seasonal use within these contributing zones and conformance to all applicable water supply protection requirements, no impacts to water supply resources are expected.
- There is no direct surface connection from the subject property to Weesuck Creek. The subject property and Weesuck Creek are separated by the LIRR and Old Country Road and no culvert system is present that would direct stormwater runoff from the subject property to the headwaters of Weesuck Creek. The nearest wetlands associated with Weesuck Creek are located approximately 1,500 feet southeast of The Hills property.
- The project conforms to the recommendations of the 208 Study, which would have projects that exceed 1 unit per acre provide for wastewater treatment. The proposed project is far below this density. The proposed project will conform to SCSC Article 6, 7 and Article 12 requirements, as well as implementation of an ITHMP and GMP, which will minimize potential adverse impacts to groundwater quality.
- A detailed analysis indicates that the project conforms to the groundwater, drinking water supply, and wastewater management goals of the SCCWRMP update.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to water resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.3 Ecological Resources

Impact Avoidance and Compliance with Standards

- Native plant species that provide food and shelter to wildlife will be utilized in the landscaped areas.
- The loss of 122.80 acres of Pitch Pine-Oak forest, Successional Shrubland and Successional Old Field habitat on the property will be partially mitigated by the preservation of approximately 424.14 acres of the existing natural habitats as demonstrated by the **Master Plan**.
- 24.77 acres of existing cleared and unvegetated area will be revegetated to native forest or native grassland.
- Clearing activities will not occur between June 1 and July 31 in order to avoid potential impacts to the northern long eared bat during the maternity season.
- Disturbance will be minimized to the maximum extent practicable, including delineating tree-clearing limits at the site prior to construction in order to avoid inadvertent clearing and to provide continuous canopy habitat where feasible.

- Nest boxes for cavity nesting birds and bat boxes for roosting and hibernating nesting bats will be installed throughout the property to continue to provide habitat for these species.
- No known invasive plant species will be utilized, including those species specifically those species listed in Suffolk County Local Law 27-2009 and 6 NYCRR Part 575.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to ecological resources, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.4 Transportation Resources

Impact Avoidance and Compliance with Standards

- The operational phase analyses indicate no significant traffic impacts. Since construction phase traffic is less than that of the operational phase, no significant traffic impacts are anticipated. Traffic flow and temporary/short-term construction impacts can be further improved during the construction phase by incorporating traffic control and construction management measures which the applicant will examine and implement in cooperation with the Town as necessary during the construction phase. Such measures will include: providing adequate signage to direct workers and deliveries to a dedicated construction access location; use of flaggers to direct construction related vehicles to the site during periods of higher volume of arrivals and/or truck deliveries; encouraging and facilitating contractors and trades to conduct construction worker car-pooling; pursuing an internal haul road or other means of reducing soil hauling truck trips on Lewis Road; and fully conforming with Chapter 235 of the Town Code which regulates noise generation.
- At the completion of construction, any and all damage to local roads and/or roadway improvements that may have been caused by construction activities related to the project will be repaired or replaced by the Applicant, at the Applicant's expense, as directed by the Town Highway Department. Work for such repairs will be bonded at an appropriate level, to be determined by the Town as part of the site plan application review.
- After the completion of the project, the stop-controlled intersection of Quogue Riverhead Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Spinney Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road and Lewis Road will continue to operate at No Build levels of service for all peak periods. From the review of the capacity analyses results, during the worst peak period the 95% queue length on both Lewis Road approaches are less than one vehicle and the available storage exceed one vehicle length on both approaches. The accident data did not indicate any accidents related to the railroad crossing occurred on Lewis Road. It should also be noted that less than 8 trains cross Lewis Road at this at-grade crossing daily. Hence no queueing and safety issues are expected at this location. Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.
- After the completion of the project, the stop-controlled intersection of Old Country Road/Box Tree Road and Lewis Road will continue to operate at No Build levels of service for all peak periods.

Therefore, no significant impacts are created and no mitigation measures are proposed at this intersection.

- After the completion of the project, the southbound Site Driveway approach is anticipated to operate at LOS B during all peak periods. The eastbound Site Driveway approach is anticipated to operate at LOS A during all peak periods.
- As the project will exceed the minimum sight distance required at the site vehicle access, no adverse impact in this regard is expected, and no mitigation is necessary or proposed.
- Based on the specific uses proposed and the nature of those uses, the Hills at Southampton PDD is appropriately designed based on a parking standard unique to itself. The numbers of parking spaces proposed will be adequate to serve the parking needs of the proposed project. Thus, no impacts with regard to parking are expected, so that no mitigation is necessary or proposed.
- Since the proposed project is not expected to generate significant increases in the numbers of potential bus or LIRR passengers, no significant impacts on either form of public transportation will occur. As such, no mitigation is necessary or proposed.
- The proposed project is not anticipated to cause a significant increase in seasonal air traffic and/or associated impacts in consideration of all the mitigating programs that are in place. Further, on a local level, such impacts would be constrained by FOK's 11:00 PM to 7:00 AM voluntary curfew.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to transportation resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.5 Land Use, Zoning and Plans

Impact Avoidance and Compliance with Standards

- In response to community concerns, the Applicant designed the project to minimize its potential to adversely impact the area's rural character. Specifically, the project is a seasonal-occupancy resort community of a low-density residential character, which is a complementary type of land use compatible with the mix of vacant/wooded, open space and agricultural uses that characterize the immediate area. In addition, retention of natural buffers will minimize the potential for adverse impacts on the of land uses in the vicinity.
- The proposed project will change the zoning classification of the site from CR 200 to a Mixed-Use PDD of the type that is envisioned in the East Quogue Land Use Plan. The proposed land uses are commensurate with those in the vicinity; low-density residential exists throughout the area, and the golf course amenity is complementary to the low-intensity, open space uses that are also present.
- With respect to the project's conformance to the Town's zoning standards for the MUPDD district, analysis provides substantial justification to conclude that the proposed project represents a suitable land use in the context of the surrounding community while providing substantial Community Benefits, and thereby fulfill the Town Board's goal in its use of the PDD concept.
- Analyses of the project's conformance to the Town Aquifer Protection Overlay District and the Town Central Pine Barrens Overlay District indicate that the project conforms to the applicable zoning standards. As such, no adverse impacts are expected, so that no mitigation is necessary or proposed.
- The proposed project will generate substantial fiscal (i.e., tax) and economic benefits to the East Quogue community It is expected that these increases in public and private revenues would the result in enhanced quality of life for the East Quogue community.

- Analyses of the land use plans pertinent to the site (the Town Comprehensive Plan Update, the Town's East Quogue GEIS), the CPB CLUP, and the SGPA Plan, indicate that the project generally conforms to the applicable recommendations.
- The entire Parlato Property will be dedicated to the Town as a public open space, after completion of a revegetation program of its existing 15.98 acres of agricultural use. Thus, that portion of the Parlato Property within the Henry's Hollow CRA, (as designated by the CPB CLUP and not by the Town), will not be impacted. Such preservation would comply with this aspect of the CPB CLUP.
- The site is not expected to present a danger or risk to on or off-site residents as a result of a catastrophic event due to current code conforming construction, year-round site management, low year round occupancy with very low to non-existent winter occupancy, underground utility installation, central office and monitoring of local events and regional governmental response to catastrophic situations.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to land use, zoning or land use plans, sufficient mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.6 Community Facilities and Services

Impact Avoidance and Compliance with Standards

- It is expected that the proposed project will increase the need for and usage of those community facilities and services pertinent to seasonal residential use, and, hence the costs that such services will expend. However, the expected substantial increase in taxes generated by the project will help to offset at least portions of the increased needs for and costs of community services.
- For the East Quogue UFSD, no increase in enrollment is expected, as the nature of the project does not generate potential for such an impact. That is, any school-age children that may reside in the seasonal homes on the site will do so on a temporary basis, and so will not attend the local public school system. This will be enforced by a binding covenant filed with the county.
- The project will not require the East Quogue UFSD to increase its expenditures for educational purposes, as the project will not increase its enrollment.
- The East Quogue UFSD will benefit from a tax generation of approximately $3.4 million, as compared to the existing amount of school taxes generated by the component parcels. These increased revenues will assist in easing the increased burden of rising school district costs on other taxpayers throughout the district. Full details on the school tax levy are provided in **Appendix F**.
- According to correspondence received from the Town of Southampton Receiver of Taxes and the Town of Southampton Assessor (as seen in **Appendix F, Attachments B and C**), and assuming all other factors remain constant, an increase in the taxable value of the land within the Town will lower the tax rate. For example, the 2015-16 school tax rate was $11.755 per $1,000 valuation. The recent legislation awarding the East Quogue UFSD $1.2 million in additional PILOT revenue resulted in a reduction to this rate, to $11.0524 per $1,000 valuation. If The Hills at Southampton was on the tax roll, the tax rate would drop to $9.2135 per $1,000 valuation. This decrease in the school district tax rate amounts to a savings of approximately $1.8389 per $1,000 assessed valuation, and would therefore lessen the burden on other taxpayers in the school district. According to the Town Tax Receiver, such a change in the school tax rate would translate into a savings of approximately $919 for the average homeowner residing within the district. A savings would also occur on the library and fire tax rates.

- Pertinent input from the EQFD will be solicited throughout the site plan application process to ensure that the site layout and the buildings in particular are designed to provide adequate provisions for emergency vehicle access and adequate hydrant and standpipe locations.
- While the proposed project will increase the potential need for emergency services of the EQFD, it will donate land to the EQFD, to be used by the Department to construct a new fire station. This would enable the EQFD to respond to future fire protective needs of the community, and at a lower cost than if the EQFD were forced to purchase such a site on its own.
- Adherence to the NYS Fire and Building Codes will increase the level of safety from fires and minimize the potential for use of ambulance services. In addition, use of sprinklers and fire/smoke alarms will assist in minimizing the potential need for fire protective services.
- The proposed project will increase the potential need for emergency security services of the Town Police Department. However, to mitigate this potential increase in calls, the site and proposed buildings and parking structures will be equipped with security lighting, security cameras and emergency call notification boxes.
- The project will increase the consumption of water on-site. In compensation for this increase in demand, water-conserving plumbing fixtures and mechanical systems will be utilized in construction, which will further minimize the volume of water required from the public water supply.
- The proposed project will increase the amount of both residential and golf course-related solid wastes generated on the site, as well as on the workload at the local solid waste handling facilities. The residential component is not expected to be a large amount of wastes, nor would it contain toxic or hazardous substances, so that residential wastes are not expected to significantly impact these facilities. It is expected that golf course landscape maintenance practices would generate some potentially toxic and/or hazardous wastes (in the form of emptied chemical containers). However, these wastes would be stored, removed and disposed under separate procedures professionally developed for this type of process.
- While the project will increase the consumption of energy resources, it is anticipated that sustainable energy-conserving measures, including energy-saving wall insulations, triple-glazed windows and energy efficient mechanical systems will be utilized, thereby mitigating the anticipated increase in energy consumption.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to community facilities and services, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.7 Community Character

Impact Avoidance and Compliance with Standards

- Deep buffers of retained natural vegetation will be retained along all boundaries of the Hills South Parcel/Kracke Property, to assure that the developed area will not be readily visible to outside observers. The buffer will be approximately 100 feet deep between the rear yards of the homes on the east side of Spinney Road and the golf course area. Shallower buffers will exist along other portions of the developed area, but these areas will abut undeveloped wooded land, so that no visual impacts to the public in these areas would be expected.
- Landscape species will be planted throughout the developed portions of the Hills South Parcel/Kracke Property, to provide vegetative accents to the development's architectural theme.
- The entireties of the Hills North Parcel and the Parlato Property will be left undisturbed, so that no change in the appearances of these parcels, or of their current aesthetic characters, will occur.

- In consideration of the site layout and building design features pertinent to the character of the properties and community (i.e., the land use of the properties and in the vicinity, the prevailing land use pattern, and the visual appearances of the properties and properties in the area), mitigation is primarily related to the design of the project and future, more detailed landscape and architectural design and review.
- Conformance to the requirements of the Town's Exterior Lighting ordinance would ensure that the potential for adverse impacts will be minimized. Lighting will only be used to the extent needed for security and safety, all illumination will remain well within the boundaries of the property, and all lighting will comply with dark sky requirements.
- Conformance to Chapter 235 of the Town of Southampton Code (Noise) which restricts sound levels generated in a residential district which exceeds 50 dBA from 7 PM to 7 AM, and 65 dBA from 7 AM to 7 PM. In order to conform to Chapter 235, the applicant will commit to the use of the quietest available maintenance equipment for those portions of the golf course that are closest to the residential properties on Spinney Road. This includes quiet options for maintenance of the greens, fairways and rough associated with holes #8 and #9. For these greens, an electric powered mower (the Toro Greensmaster® eFlex 2100) will be utilized and for the fairways, a hybrid engine mower (the Toro Reelmaster® 5010-H) will be utilized and both will conform to Town Code Chapter 235 in early morning hours. The rough areas within 400 feet of the nearest property lines will require periodic mowing using a diesel or gas powered mower (Groundsmaster® 5910) which will exceed the 50 dBA sound level permitted between 7 PM and 7 AM, but will achieve the sound level of less than 65 dBA for the daytime hours between 7 AM and 7 PM. Therefore, these portions of the golf course will only be maintained during daytime hours to conform to Town Code.
- Outdoor events at the clubhouse are to be monitored for conformance with Town Code to generally limit sources of noise to a maximum of 85 dBA at a distance of 20 feet in order to conform to Town Code limit at the nearest residential property line.

Additional Mitigation Measures That Could Be Provided

- As no adverse impacts are anticipated with respect to aesthetics, lighting or noise, mitigation sufficient measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.8 Cultural Resources

- As no adverse impacts are anticipated with respect to cultural resources, mitigation measures with respect to these resources are inherent to the project, so that no additional mitigation measures are necessary or proposed.

4.8.9 Construction-Related Impacts

Impact Avoidance and Compliance with Standards

- At the completion of construction, any and all damage to local roads and/or roadway improvements that may have been caused by construction activities related to the project will be repaired or replaced by the Applicant, at the Applicant's expense, as directed by the Town Highway Department. Work for such repairs will be bonded at an appropriate level, to be determined by the Town as part of the site plan application review.
- Construction-related impacts such as dust raised by truck movements and odors from truck and/or equipment exhausts may occur; however, such impacts are limited geographically **(**only the central

portions of the Hills South Parcel/Kracke Property will be developed, and thereby distant from potential off-site receptors), and would be temporary in duration.

- Short term impacts may include dust, noise, truck activity on roads and disturbance in the area. Truck access will be only from the new site access on Lewis Road, and all equipment, materials and trucks will be stored and staged within the site.
- A water truck will be provided during construction to wet dry soils when necessary.
- Groundwater impacts which may occur during construction activities could potentially result from building materials and equipment stored on-site. Building materials stored on-site are anticipated to be inert and therefore are not expected to have an adverse impact on the site. Equipment stored on-site which will be utilized during clearing and construction activities will be properly maintained and reputable contractors will be used for all site work.
- Potential noise impacts associated with construction activities will be mitigated by ensuring that these activities comply with the Town of Southampton noise code Chapter 235, which specifies maximum permissible sound pressure levels. It is expected that construction will occur 5 days a week between 7 AM and 7 PM, though work on Saturdays may be necessary.
- Noise-dampening practices will be utilized during construction to minimize the impact on surrounding areas including keeping all mechanical construction equipment maintained in good working order to minimize noise levels.
- To avoid impacts to the residences along Spinney Road, a single construction entrance is expected, to be placed at the Lewis Road site entrance.
- The applicant is currently negotiating an innovative method by which the excess soil will be removed, but without impact to Lewis Road, by trucking the soil to the adjacent East Coast Sand Mine via an internal haul road.
- The construction process will conform to the SWPPP to be prepared for the project and reviewed and approved by the Town of Southampton.
- The erosion control measures to be implemented conform to applicable Town requirements and are expected to include, but not be limited to, use of groundcovers, drainage diversions, soil traps, water sprays and minimization of the time span that bare soil is exposed to erosive elements.
- Areas designated for construction worker parking, truck loading/unloading, and material storage/staging will be located within the project site in the vicinity of the proposed golf course maintenance area, and will thereby mitigate potential impacts to the Lewis Road corridor.

Additional Mitigation Measures That Could Be Provided

- It is acknowledged that adverse impacts will occur during the construction phase. However, it is expected that the significant and substantial mitigation measures inherent to the project and noted above will mitigate these impacts to the greatest degree practicable, so that no additional mitigation measures are necessary or proposed.

SECTION 5.0

ALTERNATIVES CONSIDERED

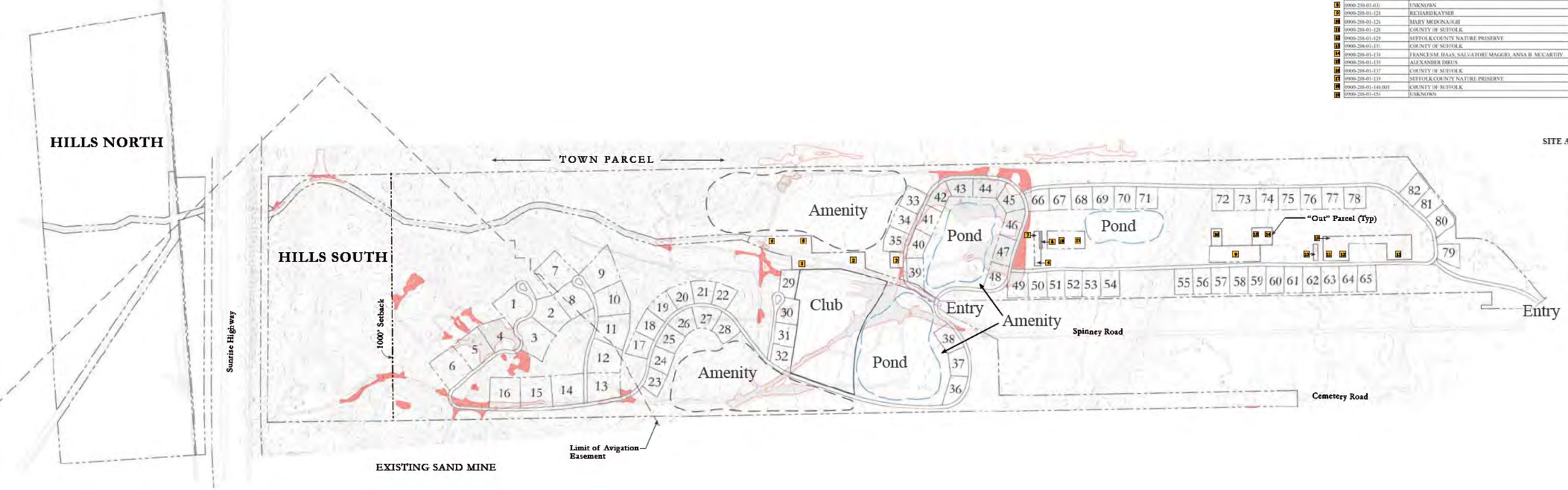
5.0 ALTERNATIVES CONSIDERED

SEQRA requires the consideration of alternatives to the proposed project. Alternatives should represent reasonable and feasible land use, technology and other options to the proposed project that would achieve the applicant's objectives and remain within the applicant's capabilities. The purpose of this analysis is to determine the merits of the proposed project as compared to those of other possible uses, sites and technologies that would also achieve the applicant's objectives and potentially reduce environmental impacts. The discussion and analysis of the alternatives should be conducted at a level of detail sufficient to allow for this informed comparison, to be conducted by the decision-making agencies. Alternative 1 is the "No Action" alternative, which is required by SEQRA and is intended to represent site conditions if the proposed project is not implemented. For the subject application, the following alternatives were specified in the Scope (*400-scale conceptual plans are included in pouches in **Volume III**, and smaller versions are in this section*):

- **Alternative 1: No Action** - assumes that the zoning of the sites remains the same; no municipal acquisition and no site development occur.
- **Alternative 2: Development per Current Zoning & Regulatory Controls** - assumes residential development of the project properties under their existing zonings and in conformance with the Town Pine Barrens Overlay District, the CPB CLUP, Groundwater Management Zone III, the Town APOD, and Town Open Space requirements. This alternative is divided into two subsections, based on two differing layouts of the component properties:
  - ***Alternative 2a*** assumes that each of the component properties is developed on an individual basis, independent of the other two. Conceptual plans for the Hills South Parcel, Kracke Property, and the Parlato Property are provided in **Figures 5-1a, 5-1b and 5-1c**, respectively.
  - ***Alternative 2b*** assumes that the Hills South Parcel and Kracke Property are developed as a single unit; a conceptual plan for the Hills South Parcel/Kracke Property is included in **Figure 5-1d**; the conceptual plan for the Parlato Property in **Figure 5-1c** (for Alternative 2a) would also apply to the Parlato Property in Alternative 2b.
- **Alternative 3: Development per the East Quogue LUP** - assumes development of the properties based on additional options and concepts contained in the referenced plan. A conceptual plan for the Hills South Parcel/Kracke Property is included in **Figure 5-2**; for the Parlato Property, the conceptual plan prepared for Alternatives 2a & 2b (**Figure 5-1c**) would apply.
- **Alternative 4: Reduced Density** - assumes development similar to that of the proposed project, but at a residential yield reduced to 94 units, by removal of the Parlato Property from the project. A conceptual plan for the Hills South Parcel/Kracke Property is included in **Figure 5-3**; as the Parlato Property would not be developed in this alternative, no conceptual plan for this site was prepared.
- **Alternative 5: Alternative Site Designs** - this scenario evaluates alternative site layouts undertaken to reduce potential impacts such as clearing and graded acreage, soil excavation, retain open space, and preserve the area's aesthetics that may have been considered for the subject site during the design phase of the proposed project. This alternative discusses the project designer's efforts in this regard, so that the proposed project represents a balance between protection of these resources and provision of the proposed project. Therefore, a conceptual plan was not prepared for this alternative.
- **Alternative 6: Alternative Technologies** - this scenario considers use of the following technologies in the proposed project: 1) use of natural organic turf management techniques for both the golf course and the residential landscape areas; 2) use of alternative wastewater treatment technologies; and 3) use of domestic wastewater for landscape irrigation. This alternative would not alter the site design of the proposed project, and therefore, no conceptual plan was prepared.

List of "Out" Parcels and Reputed Owners

		REPUTED OWNER	ACCESS DESCRIPTION
1	0900-250-03.007	EDITH GREEN & RENDY GRINBLAT	VIA SPINNEY ROAD
2	0900-250-03.008	EDITH GREEN & RENDY GRINBLAT	VIA SPINNEY ROAD
3	0900-250-03.018	DAVID J. BUTTERFLY, THOMAS G. BUTTERFLY, JR., SUSAN BUTTERFLY EBERT, JAMES DAVID MAYO, JOSEPH J. MAYO	VIA SPINNEY ROAD AND SMITH AVENUE
4	0900-250-03.012	ROANOKE SAND & GRAVEL CO INC	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
5	0900-250-03.013	COUNTY OF SUFFOLK	VIA SPINNEY ROAD
6	0900-250-03.016	EDITH GREEN & RENDY GRINBLAT	VIA SPINNEY ROAD
7	0900-250-03.029	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
8	0900-250-03.031	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
9	0900-288-01-121	RICHARD KAYSER	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
10	0900-288-01-126	MARY MCDONAUGH	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
11	0900-288-01-128	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
12	0900-288-01-129	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
13	0900-288-01-131	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
14	0900-288-01-134	FRANCES M. HAAS, SALVATORE MAGGIO, ANNA B. MCCARTHY	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
15	0900-288-01-135	ALEXANDER DRUS	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
16	0900-288-01-137	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
17	0900-288-01-139	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
18	0900-288-01-140.001	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
19	0900-288-01-151	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE



SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Alternative 2a

Parameter	Alternative 2a/PRD
Use	Residential
Yield	118 lots, private clubhouse & amenities
Occupancy	100% year-round
Coverages (acres):	---
Impervious	46.68
Unvegetated	1.18
Brushy/Cleared	0
Landscaped & Rain Gardens	81.66
Fertilized	*80.26*
Unfertilized	*0*
Agriculture	0
Wetlands	1.40
Water (ponds & pools)	28.45
Natural Vegetation	398.46
Revegetated	33.17
Clearing (acres):	---
Natural Vegetation	147.08
Total Cleared	166.84

Legend

- Existing Cleared Area - To Be Developed
- Existing Cleared Area - To Be Revegetated
- 1 Indicates Outparcel Number

Scale: 1" = 400'
North 0 100 200 400 600

FIGURE 5-1a

Conceptual Plan: Alternative 2a (Hills South Parcel)

Note: SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS are included in the Conceptual Plan: Alternative 2A (Hills South Parcel)

Legend

- Existing Cleared Area - To Be Developed
- Existing Cleared Area - To Be Revegetated

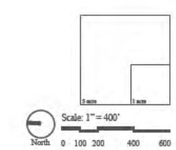


FIGURE 5-1b

Conceptual Plan: Alternative 2b (Kracke Property)

THE HILLS AT SOUTHAMPTON

EAST QUOGUE, NEW YORK

September 13, 2016

Discovery | NELSON & POPE ENGINEERS & SURVEYORS | NPV | FAZIO DESIGN | VITA PLANNING & LANDSCAPE ARCHITECTURE

Note: SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS are included in the Conceptual Plan: Alternative 2A (Hills South Parcel);
Conceptual Plan: Alternative 2B (Hills South Parcel/Kracke Property);
and Conceptual Plan: Alternative 3 (Hills South Parcel/Kracke Property).

Legend

Existing Cleared Area - To Be Developed

Existing Cleared Area - To Be Revegetated

Scale: 1" = 400'

North 0 100 200 400 600

FIGURE 5-1c

Conceptual Plan: Alternatives 2a, 2b & 3 (Parlato Property)

List of "Out" Parcels and Reputed Owners

		REPUTED OWNER	ACCESS DESCRIPTION
1	0900-250-03-007	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
2	0900-250-03-008	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
3	0900-250-03-013	DAVID J. BUTTERFLY, THOMAS G. BUTTERFLY, JR., SUSAN BUTTERFLY EBERT, JAMES DAVID MAYO, JOSEPH J. MAYO	VIA SPINNEY ROAD AND SMITH AVENUE
4	0900-250-03-012	ROANOKE SAND & GRAVEL CO INC	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
5	0900-250-03-011	COUNTY OF SUFFOLK	VIA SPINNEY ROAD
6	0900-250-03-016	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
7	0900-250-03-025	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
8	0900-250-03-031	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
9	0900-288-01-124	RICHARD KAYSER	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
10	0900-288-01-126	MARY MCDONAUGH	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
11	0900-288-01-128	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
12	0900-288-01-129	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
13	0900-288-01-131	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
14	0900-288-01-134	FRANCES M. HAAS, SALVATORE MAGRO, ANNA B. MCCARTHY	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
15	0900-288-01-135	ALEXANDER DIKUS	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
16	0900-288-01-137	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
17	0900-288-01-139	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
18	0900-288-01-140.001	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
19	0900-288-01-151	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE

SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Alternative 2b

Parameter	Alternative 2b/PRD
Use	Residential
Yield	118 lots, private clubhouse & amenities
Occupancy	100% year-round
Coverages (acres):	---
Impervious	37.20
Unvegetated	1.18
Brushy/Cleared	0
Landscaped & Rain Gardens	95.86
Fertilized	*88.65*
Unfertilized	*7.21*
Agriculture	0
Wetlands	1.40
Water (ponds & pools)	21.97
Natural Vegetation	400.22
Revegetated	33.17
Clearing (acres):	---
Natural Vegetation	145.32
Total Cleared	166.84

Legend

- Existing Cleared Area - To Be Developed
- Existing Cleared Area - To Be Revegetated
- 1 Indicated Outparcel Number

Scale: 1" = 400'
North 0 100 200 400 600

FIGURE 5-1d

Conceptual Plan: Alternative 2b (Hills South Parcel/Kracke Property)

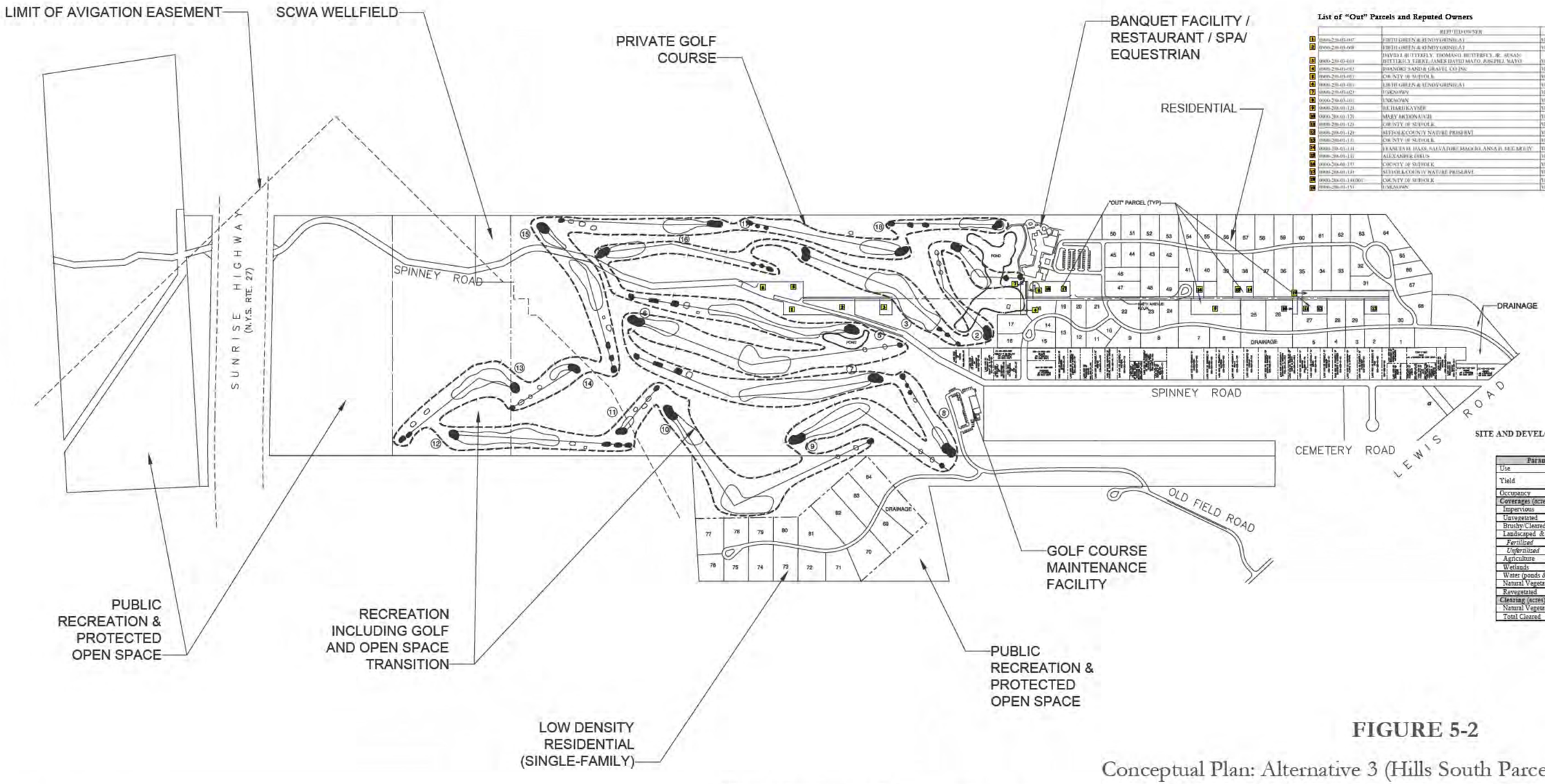
THE HILLS AT SOUTHAMPTON

EAST QUOGUE, NEW YORK

September 13, 2016

Discovery Land Company

NELSON & POPE ENGINEERS & SURVEYORS · NPV · FAZIO DESIGN · VITA PLANNING & LANDSCAPE ARCHITECTURE



List of "Out" Parcels and Reputed Owners

		REPUTED OWNER	ACCESS DESCRIPTION
1	0000-230-03-007	EBITO GREEN & SENDY GRINDLAY	VIA SPINNEY ROAD
2	0000-230-03-008	EBITO GREEN & SENDY GRINDLAY	VIA SPINNEY ROAD
3	0000-230-03-010	DAVIDLE (BUTTERFLY, THOMAS)/ BUTTERFLY, JR. SUSAN/ BUTTERFLY, FIRST, JAMES DATED MATO, JOSEPH J. MATO	VIA SPINNEY ROAD AND SMITH AVENUE
4	0000-230-03-012	BHANDRI SAND & GRAVEL CO INC	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
5	0000-230-03-013	COUNTY OF SUFFOLK	VIA SPINNEY ROAD
6	0000-230-03-011	EBITO GREEN & SENDY GRINDLAY	VIA SPINNEY ROAD
7	0000-230-03-023	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
8	0000-230-03-101	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
9	0000-230-01-123	M. HARE/KAYNER	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
10	0000-230-01-120	MARY ARCHONA/ARCH	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
11	0000-230-01-122	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
12	0000-230-01-124	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
13	0000-230-01-115	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
14	0000-230-01-114	FRANCESE HAAS, SALVATORE MAGGIO, ANNA B. SECARGIO	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
15	0000-230-01-113	ALEXANDER DIRUS	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
16	0000-230-01-131	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
17	0000-230-01-130	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
18	0000-230-01-140.001	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
19	0000-230-01-133	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE

SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Alternative 3

Parameter	Alternative 3/East Quogue LUP
Use	Residential & Commercial
Yield	108 lots, clubhouses, golf & banquet/restaurant/spa
Occupancy	10% year-round
Coverages (acres):	----
Impervious	23.30
Unvegetated	2.30
Brushy/Cleared	0
Landscaped & Rain Gardens	100.93
Fertilized	*88.53*
Unfertilized	*12.40*
Agriculture	0
Wetlands	1.40
Water (ponds & pools)	5.85
Natural Vegetation	424.05
Revegetated	33.17
Clearing (acres):	----
Natural Vegetation	121.49
Total Cleared	165.55

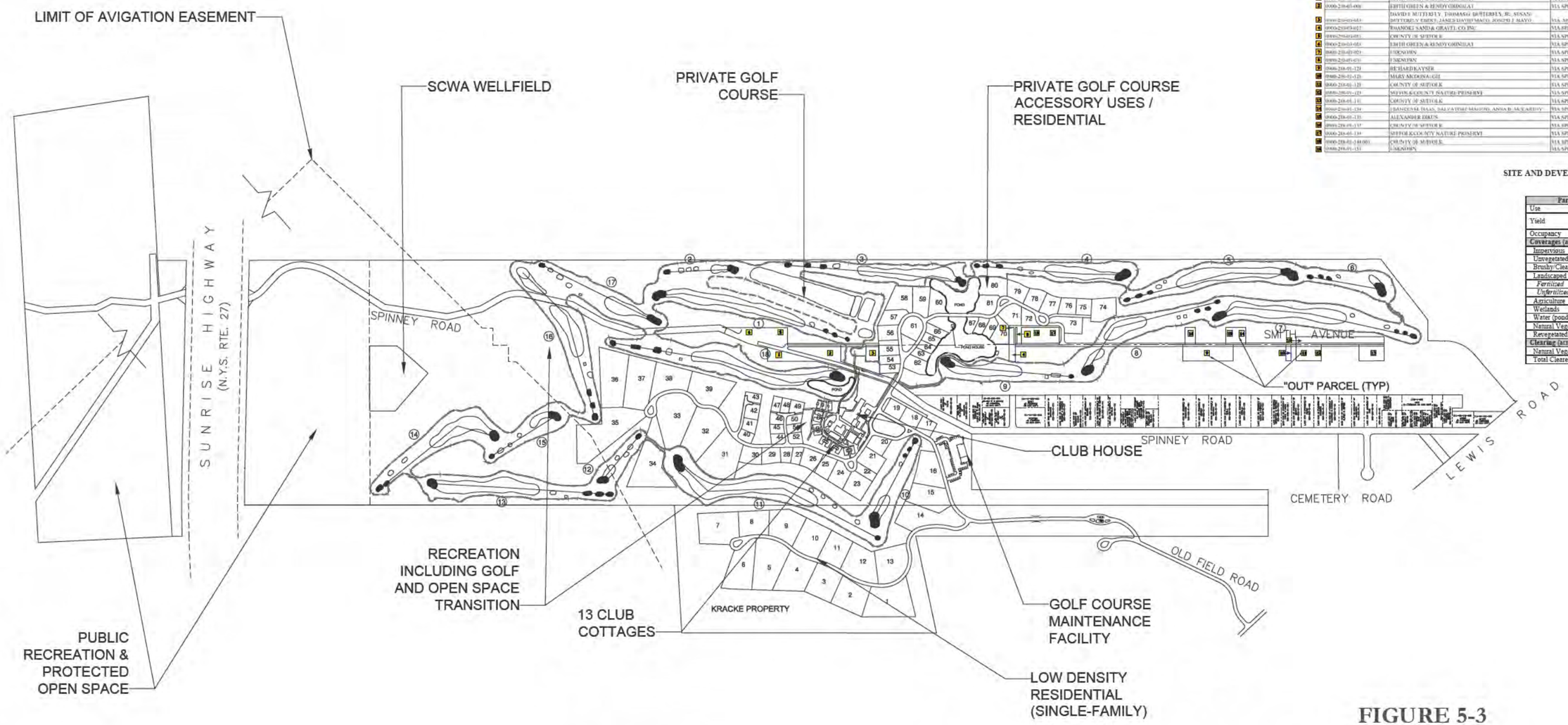
FIGURE 5-2

Conceptual Plan: Alternative 3 (Hills South Parcel/Kracke Property)

THE HILLS AT SOUTHAMPTON

EAST QUOGUE, NEW YORK

September 13, 2016



List of "Out" Parcels and Reputed Owners

		REPUTED OWNER	ACCESS DESCRIPTION
1	0900-230-05-007	EDITH GREEN & RUNDY ORINELA I	VIA SPINNEY ROAD
2	0900-230-05-008	EDITH GREEN & RUNDY ORINELA I	VIA SPINNEY ROAD
3	0900-230-05-013	DAVID F. BUTTERLY, THOMAS G. BUTTERLY, JR., SUSAN G. BUTTERLY, ERIC T. JAMES DAVID F. MACO, JOSEPH J. MAYO	VIA SPINNEY ROAD AND SMITH AVENUE
4	0900-230-05-017	ROANOKE SAND & GRAVEL CO INC	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
5	0900-230-05-101	COUNTY OF SUFFOLK	VIA SPINNEY ROAD
6	0900-230-03-015	EDITH GREEN & RUNDY ORINELA I	VIA SPINNEY ROAD
7	0900-230-03-102	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
8	0900-230-05-016	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
9	0900-208-01-123	RICHARD KAYSER	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
10	0900-230-01-125	MARY MCDONAUGH	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
11	0900-230-01-126	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
12	0900-208-01-129	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
13	0900-208-01-131	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
14	0900-230-01-132	GRANCESMA, HAAS, DALVATORE MASONS, ANNA B. MCCARTHY	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
15	0900-230-01-133	ALEXANDER HIRUS	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
16	0900-230-01-137	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
17	0900-208-01-139	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
18	0900-230-01-140.001	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
19	0900-208-01-151	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE

SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Alternative 4

Parameter	Alternative 4/Reduced Density
Use	MUPDD
Yield	94 units & private golf/clubhouse
Occupancy	Seasonal
Coverages (acres):	—
Impervious	22.27
Unvegetated	3.45
Brushy/Cleared	0
Landscaped & Rain Gardens	99.90
Fertilized	*88.53*
Unfertilized	*11.37*
Agriculture	0
Wetlands	1.40
Water (ponds & pools)	5.87
Natural Vegetation	425.14
Revegetated	33.17
Clearing (acres):	—
Natural Vegetation	120.40
Total Cleared	164.46

FIGURE 5-3

Conceptual Plan: Alternative 4 (Hills South Parcel/Kracke Property)

- **Alternative 7: Lesser Impact Alternative** - considers measures that would reduce potential impacts of the proposed project in three cases: 1) prohibiting septic systems, turf or clearing in the "area of influence" of public or private wells (**Figures 5-4a & 5-4b**); 2) omitting the golf course; or 3) locating the houses away from the habitat of endangered, threatened or species of special concern. Conceptual plans were not prepared for the latter two cases because omitting the golf course is the same as Alternatives 2a and 2b, and other alternative components considered in Alternative 7 are not design-related.

Table 5-1 compares the site and development characteristics and impacts of the proposed project and those of the four alternatives considered herein. **Table 5-2** provides qualitative comparisons of the anticipated impacts of each alternative relative to those of the proposed project. **Table 5-3** lists the Community Benefits anticipated for each alternative, with those of the proposed project.

5.1 Alternative 1: No Action

5.1.1 Description of Alternative 1

This alternative anticipates that the proposed project is not implemented, so that the zoning of each of the component sites remains CR-200, and the existing vacant, undeveloped and wooded nature of the sites would remain unchanged leaving the land available for future development in conformance with zoning and land use restrictions. The physical characteristics and impacts of this scenario are quantified in **Table 1-8a**. It should be noted that, under this scenario, the subject parcels would retain the potential for development (or, in the cases of the Hills North Parcel and those portions of the Parlato Property and Hills South Parcel in the CPA, the potential for transfer of PBCs), in accordance with their existing zoning (see **Sections 5.2.1 and 5.2.3**).

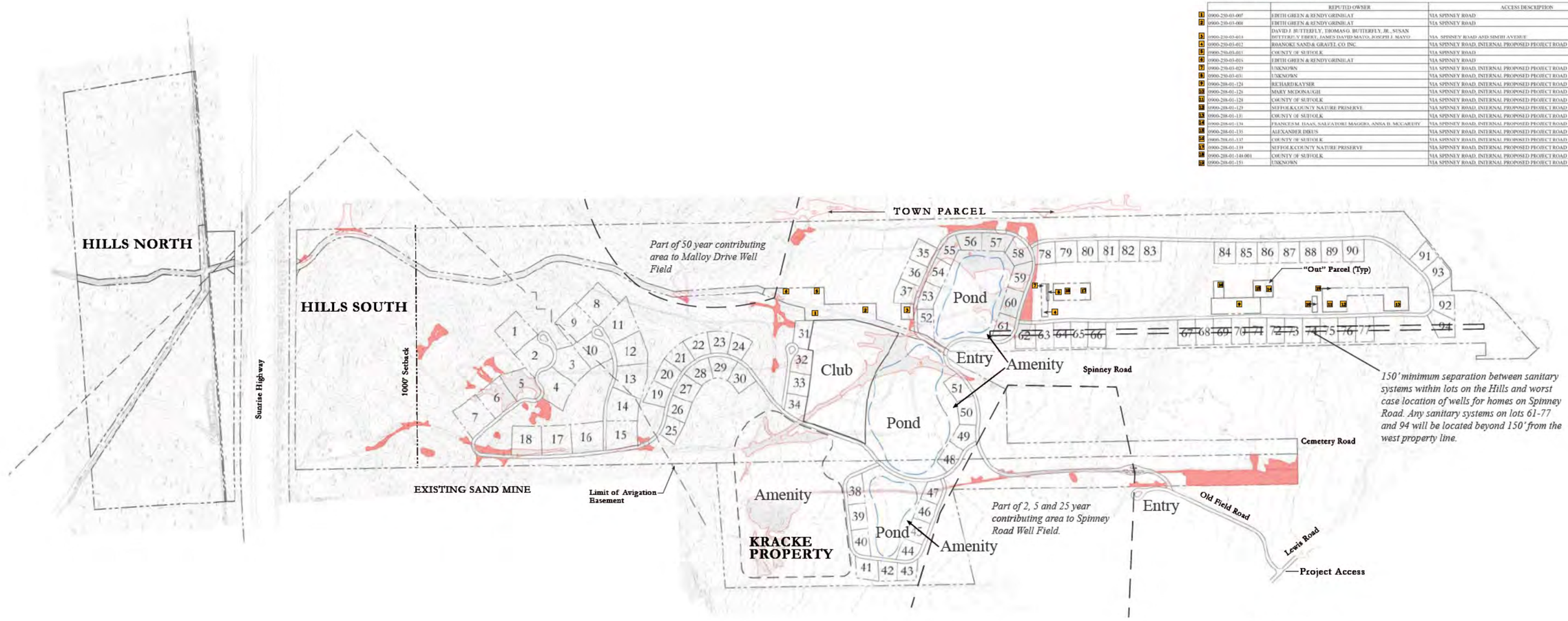
5.1.2 Comparison of Impacts vs. the Proposed Project, Alternative 1

<u>Geological Resources</u>
The No Action alternative would not change the acreages of the existing land cover types; no construction would occur, so no impacts to geological resources from excavations, clearing or grading would occur. This means that the areas of potential soil contamination associated with piles of dirt and areas of debris dumping noted in the ESAs for the component sites (see **Section 1.4.2**) would not be addressed, with continued potential for adverse impacts to soil quality (and hence, to groundwater quality). In addition, the unauthorized use of the site for ATV and dirt bike activity, hunting and shooting, fire pits and paintball and dumping would continue to cause disturbance and activity within the site and resultant slope and soil destabilization impacts.

<u>Water Resources</u>
The hydrology of the site would remain the same and the concentration and pounds per year of nitrogen and agricultural chemicals entering the groundwater regime would not change. However, the opportunity to address impacts related to farming of part of the Kracke and Parlato Properties and resultant impact to groundwater quality (and downgradient bay water quality) would be lost.

List of "Out" Parcels and Reputed Owners

		REPUTED OWNER	ACCESS DESCRIPTION
1	0900-250-03-007	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
2	0900-250-03-008	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
3	0900-250-03-013	DAVID J. BUTTERFLY, THOMAS G. BUTTERFLY, JR., SUSAN BUTTERFLY, FIBERT, JAMES DAVID MAYO, JOSEPH J. MAYO	VIA SPINNEY ROAD AND SMITH AVENUE
4	0900-250-03-012	ROANOKE SAND & GRAVEL CO INC	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
5	0900-250-03-011	COUNTY OF SUFFOLK	VIA SPINNEY ROAD
6	0900-250-03-016	EDITH GREEN & RENDYGRINBLAT	VIA SPINNEY ROAD
7	0900-250-03-025	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
8	0900-250-03-031	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
9	0900-288-01-124	RICHARD KAYSER	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
10	0900-288-01-126	MARY MCDONAUGH	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
11	0900-288-01-128	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
12	0900-288-01-129	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
13	0900-288-01-131	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
14	0900-288-01-134	FRANCES M. HAAS, SALVATORE MAGRO, ANNA B. MCCARTY	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
15	0900-288-01-135	ALEXANDER DIKUS	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
16	0900-288-01-137	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
17	0900-288-01-139	SUFFOLK COUNTY NATURE PRESERVE	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
18	0900-288-01-140.001	COUNTY OF SUFFOLK	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE
19	0900-288-01-151	UNKNOWN	VIA SPINNEY ROAD, INTERNAL PROPOSED PROJECT ROAD AND SMITH AVENUE



Legend

- Existing Cleared Area - To Be Developed
- Existing Cleared Area - To Be Revegetated
- 1 Indicates Outparcel Number

Scale: 1" = 400'

North 0 100 200 400 600

FIGURE 5-4a

Conceptual Plan: Alternative 7 (Hills South Parcel/Kracke Property)

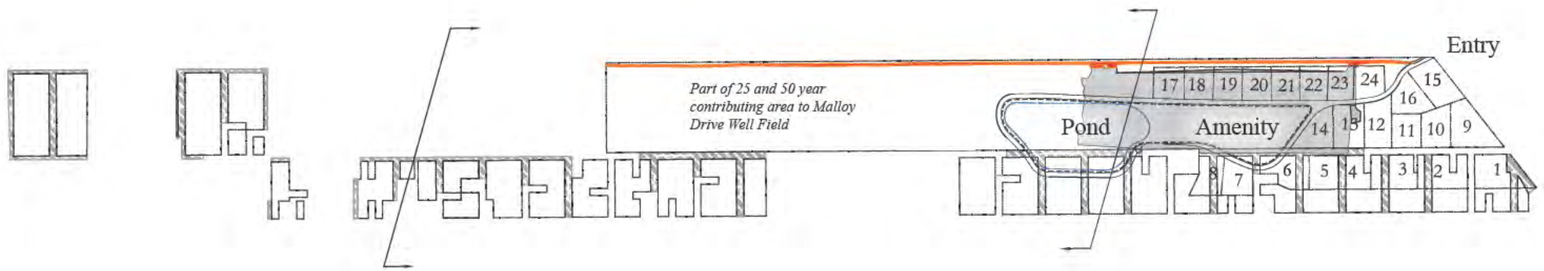
THE HILLS AT SOUTHAMPTON

EAST QUOGUE, NEW YORK

September 13, 2016

Discovery

NELSON & POPE ENGINEERS & SURVEYORS · NPGV · FAZIO DESIGN · VITA PLANNING & LANDSCAPE ARCHITECTURE



Legend

- Existing Cleared Area - To Be Developed
- Existing Cleared Area - To Be Revegetated

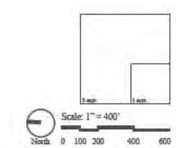


FIGURE 5-4b

Conceptual Plan: Alternative 7 (Parlato Property)

THE HILLS AT SOUTHAMPTON

EAST QUOGUE, NEW YORK

September 13, 2016

NELSON & POPE ENGINEERS & SURVEYORS · FAZIO DESIGN · VITA PLANNING & LANDSCAPE ARCHITECTURE

Table 5-1
QUANTITATIVE COMPARISON OF SITE AND DEVELOPMENT CHARACTERISTICS & IMPACTS
Proposed Project and Alternatives 1-4 [1]

Parameter	Proposed Project [2]	Alt. 1/No Action	Alt. 2a/PRD	Alt. 2b/PRD	Alt. 3/East Quogue LUP	Alt. 4/Reduced Density
Use	MUPDD	Vacant	Residential	Residential	Residential & Commercial	MUPDD
Yield	118 units & private golf/clubhouse	none	118 lots, private clubhouse & amenities		108 lots, clubhouses, golf & banquet/restaurant/spa	94 units & private golf/clubhouse
Occupancy	100% seasonal	none	100% year-round			
Coverages (acres):	---	---	---		---	---
Impervious	23.24	0	46.68	37.20	23.30	22.27
Unvegetated	3.45	21.98	1.18	1.18	2.30	3.45
Brushy/Cleared	0	3.66	0	0	0	0
Landscaped & Rain Gardens	101.15	0	81.66	95.86	100.93	99.90
Fertilized	*88.53*	*0*	*80.26*	*88.65*	*88.53*	*88.53*
Unfertilized	*12.62*	*0*	*0*	*7.21*	*12.40*	*11.37*
Agriculture	0	18.42	0	0	0	0
Wetlands	1.40	1.40	1.40	1.40	1.40	1.40
Water (ponds & pools)	5.85	0	28.45	21.97	5.85	5.67
Natural Vegetation	422.74	545.54	398.46	400.22	424.05	425.14
Revegetated	33.17	0	33.17	33.17	33.17	33.17
Clearing (acres):	---	---	---		---	---
Natural Vegetation	122.80	0	147.08	145.32	121.49	120.40
Total Cleared	166.86	0	166.84	166.84	165.55	164.46
Water Resources:	---	---	---		---	---
Domestic Water Use (gpd) [3]	41,814 (20,964)	0	35,400	35,400	38,814	34,614
Nitrogen Conc. (mg/l)	0.59/0.34 [2]	0.24	1.04	1.07	0.99	0.92
Nitrogen Load (lbs/year)	-446.36/-1,436.23 [3]	873.70	4,217.67	4.344.95	3,965.64	3,653.97
Recharge (MGY)	474.27	432.44	487.03	485.26	481.97	476.08
Taxes/Public Services:	---	---	---		---	---
Total Tax Revenue ($/yr)	4,513,946 [4]	272,986 [5]	3,351,000 [5]	3,351,000 [5]	3,277,249 [5]	4,553,749 [5]
School Tax Revenue ($/yr)	3,431,031	218,580	2,683,143	2,683,143	2,624,092	3,646,183
Potential Schoolchildren	0 [6]	0	130	130	137	0 [4]
School Expenditure ($/yr)	0	0	2,189,480	2,189,480	2,935,540	0
School Surplus/Deficit ($/yr)	+3,431,031	+218,580	-136,337	-136,337	-311,449	+3,646,183
Economics:	---	---	---		---	---
Construction Jobs (FTE)	310.0	0	654.0	654.0	550.0	251.0

Permanent Jobs (FTE)	101.8	0	53.55	53.55	164.8	101.8
Traffic (vehicle trips):	---	---	---		---	---
Weekday AM Peak Hour	63	0	92	92	196	76
Weekday PM Peak Hour	103	0	122	122	846	99
Saturday Peak Hour	125	0	114	114	1,170	92
Miscellaneous:	---	---	---		---	---
Building Floor Area (SF)	591,560	0	1,925,760	1,925,760	528,635	488,621
FAR	0.023	0	0.075	0.075	0.021	0.019
Residents	444	0	444	444	430	359

(1) Conceptual plans not prepared for Alternatives 5, 6 or 7; see text for explanation.
(2) Quantities derived from **Tables 1-8b and 1-8c**.
(3) Assumes advanced wastewater system.
(4) Includes effect of 2% Tax Cap, which reduces what otherwise would have been $5,433,567/year.
(5) Does NOT include effect of 2% Tax Cap; which is expected to substantially reduce Total Tax Revenue.
(6) School-age children in an MUPDD (130 for proposed project, 106 for Alt. 4) will not attend EQ UFSD, per restrictive covenant.

Table 5-2
QUALITATIVE COMPARISON OF POTENTIAL IMPACTS OF ALTERNATIVES

Anticipated Impact of the Proposed Project on:	**Would this Scenario Cause Greater,** Similar **or** ***Lesser*** **Impact than Proposed Project?**							
	Alt. 1*	**Alt. 2a**	**Alt. 2b**	**Alt. 3**	**Alt. 4****	**Alt. 5**	**Alt. 6**	**Alt. 7**
Geological Resources (see Section 2.1.2)								
Soils	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Topography		**Greater**	**Greater**	**Greater**	Similar			
Water Resources (see Section 2.2.2)								
Hydrogeology	(no impacts)	**Greater**	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar
Groundwater Quality		**Greater**	**Greater**	**Greater**	**Greater**			
Water Supply		**Greater**	**Greater**	**Greater**	***Lesser***			
Surface Water		Similar	Similar	Similar	Similar			
Stormwater and Drainage		**Greater**	**Greater**	**Greater**	Similar			
Groundwater Protection Plans		**Greater**	**Greater**	Similar	Similar			
Water Balance and Nitrogen		**Greater**	**Greater**	**Greater**	**Greater**			
Ecological Resources (see Section 2.3.2)								
Vegetation	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Wildlife		**Greater**	**Greater**	**Greater**	Similar			
Rare Species & Unique Habitats			none	none	none			
Land Use, Zoning & Plans (see Section 3.1.2)								
Land Use	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Zoning		***Lesser***	***Lesser***	Similar	Similar			
Plans		***Lesser***	***Lesser***	**Greater**	Similar			
Community Character (see Section 3.2.2)								
Aesthetics	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar
Lighting		**Greater**	**Greater**	**Greater**	Similar			
Noise		**Greater**	**Greater**	**Greater**	Similar			
Community Facilities and Services (see Section 3.3.2)								
Taxes & Fiscal Conditions	(no impacts)	**Greater**	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar
Public Schools		**Greater**	**Greater**	**Greater**	Similar			
Police Protection		**Greater**	**Greater**	**Greater**	Similar			
Fire Protection		**Greater**	**Greater**	**Greater**	Similar			
Water Supply		**Greater**	**Greater**	**Greater**	***Lesser***			
Wastewater Treatment		**Greater**	**Greater**	**Greater**	Similar			
Solid Waste Handling & Disposal		**Greater**	**Greater**	**Greater**	Similar			
Energy		**Greater**	**Greater**	**Greater**	***Lesser***			

Parks & Recreation		**Greater**	**Greater**	**Greater**	Similar			
Transportation Resources (see Section 3.4.2)								
Trip Generation	(no impacts)	**Greater**	**Greater**	**Greater**	***Lesser***	Similar	Similar	Similar
Road & Intersection Operations		**Greater**	**Greater**	**Greater**	***Lesser***			
Sight Distance at Access Point		Similar	Similar	Similar	Similar			
Parking		Similar	Similar	Similar	Similar			
Local Pedestrian Resources		**Greater**	**Greater**	**Greater**	Similar			
Public Transportation		**Greater**	**Greater**	**Greater**	Similar			
Gabreski Airport		***Lesser***	***Lesser***	***Lesser***	Similar			
Cultural Resources (see Section 3.5.2)								
Cultural Resources	(no impacts)	Similar	Similar	Similar	Similar	Similar	Similar	Similar
Construction (see Sections 1.6 & 4.1)								
Construction	(no impacts)	**Greater**	**Greater**	**Greater**	Similar	Similar	Similar	Similar

* Alternative 1: No Action represents the baseline of conditions against which each of the other development scenarios is compared, to determine impacts.

** Not assuming development/renewed agricultural use of Parlato Property; new/renewed use of Parlato Property would increase total impacts to levels Similar to or Greater than those of the proposed project.

Table 5-3
COMPARISON OF COMMUNITY BENEFITS ANTICIPATED (1)

Benefit	Would this Scenario Include the Community Benefit?								
	Proposed	Alt. 1	Alt. 2a	Alt. 2b	Alt. 3	Alt. 4 (2)	Alt. 5	Alt. 6	Alt. 7
East Quogue UFSD Benefits									
1. No enrollment impact for EQ UFSD, ensured by restrictive covenant.	Yes	Yes	No	No	No	Yes	No	No	No
2. Increased school district taxes from site.	Yes	No	Yes	Yes	Yes	Yes	No	No	No
3 Use of the site for EQ UFSD educational programs	Yes	No	No	No	No	Yes	No	No	No
4. Let Westhampton Beach High School golf teams to practice at golf course	Yes	No	No	No	No	Yes	No	No	No
5. Annual charity outing for the EQ UFSD	Yes	No	No	No	No	Yes	No	No	No
6. Fund two college scholarships for EQ UFSD grads, awarded for 10 years	Yes	No	No	No	No	Yes	No	No	No
7. EQ Elementary School improvements	Yes	No	No	No	No	Yes	No	No	No
Water Resources-Related Community Benefits									
1. Annual charity outing for water quality communal fund	Yes	No	No	No	No	Yes	No	No	No
2. Discovery Foundation fund-raiser for Shinnecock Bay Restoration (after 5 yrs.)	Yes	No	No	No	No	Yes	No	No	No
3. Facilitate off-site wastewater treatment and/or contribute to fund to subsidize septic system upgrades for EQ residents	Yes	No	No	No	No	No	No	No	No
4. Restoration of impacted eelgrass	Yes	No	No	No	No	No	No	No	No
5. Participate in funding restoration of Bay by seeding filter-feeding bivalves	Yes	No	No	No	No	No	No	No	No
6. Install clam racks & upwellers	Yes	No	No	No	No	No	No	No	No
7. Dedicate 4 acres to SCWA for a new wellfield	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
8. Participate in funding natural resources research and education	Yes	No	No	No	No	No	No	No	No
9. Participate in funding comprehensive nitrogen study of Shinnecock Bay	Yes	No	No	No	No	No	No	No	No
10. Contribute to funding clean-up of storm drains in East Quogue	Yes	No	No	No	No	No	No	No	No
11. Maintain database quantifying watershed nitrogen reduction due to project	Yes	No	No	No	No	No	No	No	No
General Community Benefits									
1. Charity outings (3/year, including EQFD)	Yes	No	No	No	No	Yes	No	No	No
2. Fund purchase of land for new EQFD facility	Yes	No	No	No	No	No	No	No	No
3. Provide additional parking for downtown EQ	Yes	No	No	No	No	No	No	No	No
4. Restore habitat on the Hills South Parcel and Kracke and Parlato Properties	Yes	No	Yes	Yes	Yes	Yes	No	No	No
5. Creates new permanent seasonal operational jobs in area, per Town Code	Yes	No	No	No	Yes	Yes	No	No	No
6. Donation to facilitate EQ Renaissance	Yes	No	No	No	No	No	No	No	No
7. East Quogue signage (installed in July 2015)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8. Annual event; one-day public access to golf course; max. of 120 players	Yes	No	No	No	No	Yes	No	No	No

(1) Note: No golf course would be constructed in Alternatives 1, 2a or 2b.
(2) Reduction in value of Community Benefits commensurate with reduction in yield.

Ecological Resources

In this scenario, no impacts to habitats would occur, so there would be no changes in the sizes or quality of the vegetation types or distributions on the component properties. The existing agricultural portions of the site would remain and this acreage would not be restored to a natural habitat that would add benefit to site ecology. In addition, the unauthorized use of the site for ATV and dirt biking, hunting and shooting, fire pits and paintball and dumping would continue to cause disturbance and activity within the site and resultant ecological disruption and impacts.

Transportation Resources

Based on trip generation rates published by the ITE, this scenario would generate no vehicle trips, so that none of the existing LOSs at local intersections would be changed, and no changes in the levels of usage on local roadways would occur. Any existing traffic flow problems in the vicinity would not be addressed. There would be impacts to either the pedestrian environment or to public transit resources.

Land Use, Zoning & Plans

As the existing land uses and zonings of the sites would not change in this scenario, the patterns of land use and zoning in the vicinity would not change. The sites' conformance to the recommendations of the various applicable land use plans would likewise not be affected, and the potential for development of the component properties would continue unchanged.

As this scenario assumes that the project site remains unchanged, few of the Community Benefits of the proposed project would be realized in Alternative 1. It is acknowledged that there would be no enrollment impact on the East Quogue UFSD in this scenario, but such a situation would not be guaranteed into the future, as there would remain the potential for residential development of the project site.

Community Facilities and Services

In regard to community services, the sites' conditions would continue to warrant oversight on the part of police and fire protection personnel. None of the properties would require services for education (no schoolchildren would be generated), solid waste handling, water supply and energy, and there would be no usage of park or recreational facilities. The unauthorized use of the site for ATV and dirt bike activity, hunting and shooting, fire pits and paintball and dumping would continue to cause disturbance and activity within the site and resultant demand for police and/or fire response related to vandalism and illegal activities.

Community Character

The character of the sites, as defined by their respective visual appearances and noise and lighting characteristics would remain unchanged. The unauthorized use of the site for ATV and dirt bike activity, hunting and shooting, fire pits and paintball and dumping would continue to cause disturbance and activity within the community.

Cultural Resources

As investigation has determined that none of the component properties has cultural (whether prehistoric or historic) resources, there would be no impact to this resource.

Construction-Related Impacts
As there would be no construction in this scenario, there would be no impacts associated with such activity.

5.2 Alternative 2: Development per Current Zoning & Regulatory Controls

5.2.1 Description of Alternative 2a

This alternative anticipates that the proposed project is not implemented, so that development of the three component properties would occur based on their existing CR-200 zonings, as well as in conformance with the following land use plans or development regulations:

- the Town Pine Barrens Overlay District,
- the CPB CLUP
- Groundwater Management Zone III (i.e., SCSC Article 6),
- the Town APOD, and
- Town Open Space requirements.

This scenario assumes that residential development on each of the three component parcels occurs separately (and would not necessarily occur at the same time), so that the three site layouts are not coordinated with each other, particularly between the adjoining Hills South Parcel and the Kracke Property. As a result, separate vehicle access points would be necessary for each of the three developed parcels: the Kracke Property would be accessed through the approved Kijowski Family Farm subdivision road off Lewis Road, the Hills South Parcel would be accessed two ways: directly off Lewis Road at the southern end of this site, as well as through an access at the northerly end of Spinney Road, and the Parlato Property would be accessed off Old Country Road and through the LIRR ROW via a crossing over the railroad track.

In conformance with the assumptions for this scenario, Alternative 2a would have the same overall yield of 118 lots as the proposed project, but distributed as 82 lots on the Hills South Parcel, 12 lots on the Kracke Property, and 24 lots on the southern and central portions of the Parlato Property. Like the proposed project, all of the Hills North Parcel would be retained as open space. A private clubhouse would be provided on the Hills South Parcel for use by the residents of that subdivision and may include such features as a pool, tennis courts, patio, and parking. This scenario's amenity areas would be provided around the clubhouse, and may include a family center, play fields, an organic/community garden, an orchard, and a small equestrian area with barn, paddocks and pastures. The Kracke Property and the Parlato Property would also feature amenities, which may include a pool/patio, tennis courts, and parking. Additionally, the Parlato Property amenities may include a small equestrian area, with a barn and associated paddocks and pastures. Note that an equestrian area on either the Hills South Parcel or the Parlato Property would require a special permit from the Town if more than four horses are kept on-site.

Table 5-1 indicates a 9.48-acre difference in Impervious Coverage between Alternative 2a and Alternative 2b. This difference reflects the design advantage gained by combining the layouts of the Hills South Parcel and the Kracke Property of Alternative 2a into the single, cohesive layout of

Alternative 2b. Specifically, about 4 acres of Impervious Coverage (as internal roads) in Alternative 2a were eliminated when the layouts were combined for Alternative 2b, and an estimated 5.5 more acres of Impervious Coverage were eliminated by combining the amenity areas of the two sites into one.

Alternative 2a would be required to limit clearing to approximately 28% of the site, and would not have more than 15% fertilizer dependent vegetation, both similar to the proposed project, and both in conformance with applicable CPB CLUP and Town APOD requirements. Clearing would use each site's existing cleared areas to the maximum extent, also similar to the proposed project, and fertilized areas would be established primarily in lawn areas of individual single-family homes rather than be dominated by a golf course and only secondarily in residential lawn areas, unlike the proposed project.

Similar to **Table 3-6a** (prepared for an APOD development of the site, which represents Alternative 2b), **Table 5-4a** has been prepared to indicate the amount of clearing that would be allowed on the project site if it were to be developed as a clustered-lot subdivision under APOD requirements, as Alternative 2a. As can be seen, up to 166.84 acres (28.23%) of the site could be cleared, leaving a minimum of 424.16 acres (71.77%) of the site as undisturbed open space.

Table 5-4a
CLEARED/RETAINED OPEN SPACE, by Lot Size
As-of-Right Development, under APOD (Alternative 2a)

Lot Number	Lot Size (SF)	Clearing on Lot (SF)	Retained on Lot (SF)
Hills South Parcel			
1 (1)	59,535	29,768	29,768
2 (1)	59,739	29,870	29,870
3 (1)	59,839	29,919	29,919
4 (1)	56,371	28,186	28,186
5 (1)	59,975	29,987	29,987
6 (1)	59,884	29,942	29,942
7 (1)	59,964	29,982	29,982
8 (1)	55,339	27,669	27,669
9 (1)	59494	29,747	29,747
10 (1)	59,736	29,868	29,868
11 (1)	57,766	28,883	28,883
12 (1)	59,583	29,791	29,791
13 (1)	56,852	28,426	28,426
14 (1)	59,546	29,773	29,773
15 (1)	57,980	28,990	28,990
16 (1)	57,799	28,900	28,900
17 (2)	30,000	18,000	12,000
18 (2)	30,000	18,000	12,000
19 (2)	30,000	18,000	12,000
20 (2)	30,000	18,000	12,000
21 (2)	30,000	18,000	12,000
22 (2)	30,000	18,000	12,000
23 (2)	30,000	18,000	12,000
24 (2)	30,000	18,000	12,000

25 (2)	30,000	18,000	12,000
26 (2)	30,000	18,000	12,000
27 (2)	30,000	18,000	12,000
28 (2)	30,000	18,000	12,000
29 (2)	30,000	18,000	12,000
30 (2)	30,000	18,000	12,000
31 (2)	30,000	18,000	12,000
32 (2)	30,000	18,000	12,000
33 (2)	30,000	18,000	12,000
34 (2)	30,000	18,000	12,000
35 (2)	30,000	18,000	12,000
36 (2)	30,000	18,000	12,000
37 (2)	30,000	18,000	12,000
38 (2)	30,000	18,000	12,000
39 (2)	30,000	18,000	12,000
40 (2)	30,000	18,000	12,000
41 (2)	30,000	18,000	12,000
42 (2)	30,000	18,000	12,000
43 (2)	30,000	18,000	12,000
44 (2)	30,000	18,000	12,000
45 (2)	30,000	18,000	12,000
46 (2)	30,000	18,000	12,000
47 (2)	30,000	18,000	12,000
48 (2)	30,000	18,000	12,000
49 (2)	30,000	18,000	12,000
50 (2)	30,000	18,000	12,000
51 (2)	30,000	18,000	12,000
52 (2)	30,000	18,000	12,000
53 (2)	30,000	18,000	12,000
54 (2)	30,000	18,000	12,000
55 (2)	30,000	18,000	12,000
56 (2)	30,000	18,000	12,000
57 (2)	30,000	18,000	12,000
58 (2)	30,000	18,000	12,000
59 (2)	30,000	18,000	12,000
60 (2)	30,000	18,000	12,000
61 (2)	30,000	18,000	12,000
62 (2)	30,000	18,000	12,000
63 (2)	30,000	18,000	12,000
64 (2)	30,000	18,000	12,000
65 (2)	30,000	18,000	12,000
66 (2)	30,000	18,000	12,000
67 (2)	30,000	18,000	12,000
68 (2)	30,000	18,000	12,000
69 (2)	30,000	18,000	12,000
70 (2)	30,000	18,000	12,000
71 (2)	30,000	18,000	12,000
72 (2)	30,000	18,000	12,000
73 (2)	30,000	18,000	12,000
74 (2)	30,000	18,000	12,000
75 (2)	30,000	18,000	12,000
76 (2)	30,000	18,000	12,000

77 (2)	30,000	18,000	12,000
78 (2)	30,000	18,000	12,000
79 (2)	30,000	18,000	12,000
80 (2)	30,000	18,000	12,000
81 (2)	30,000	18,000	12,000
82 (2)	30,000	18,000	12,000
Subtotals	***2,919,402*** *(67.02 acres)*	***1,657,701*** *(38.06 acres)*	***1,261701*** *(28.96 acres)*
Kracke Property			
1 (1)	48,538	24,269	24,269
2 (1)	48,338	24,169	24,169
3 (1)	48,438	24,219	24,219
4 (2)	30,000	18,000	12,000
5 (2)	30,000	18,000	12,000
6 (2)	30,000	18,000	12,000
7 (2)	30,000	18,000	12,000
8 (2)	30,000	18,000	12,000
9 (2)	30,000	18,000	12,000
10 (2)	30,000	18,000	12,000
11 (2)	30,000	18,000	12,000
12 (2)	30,000	18,000	12,000
Subtotals	***415,314*** *(9.53 acres)*	***234,657*** *(5.39 acres)*	***180,657*** *(4.14 acres)*
Parlato Property			
1 (2)	30,000	18,000	12,000
2 (2)	30,000	18,000	12,000
3 (2)	30,000	18,000	12,000
4 (2)	30,000	18,000	12,000
5 (2)	30,000	18,000	12,000
6 (2)	30,000	18,000	12,000
7 (2)	30,000	18,000	12,000
8 (2)	30,000	18,000	12,000
9 (2)	30,000	18,000	12,000
10 (1)	49,009	24,505	24,505
11 (2)	30,000	18,000	12,000
12 (2)	30,000	18,000	12,000
13 (2)	30,000	18,000	12,000
14 (2)	30,000	18,000	12,000
15 (2)	30,000	18,000	12,000
16 (2)	30,000	18,000	12,000
17 (2)	30,000	18,000	12,000
18 (2)	30,000	18,000	12,000
19 (2)	30,000	18,000	12,000
20 (2)	30,000	18,000	12,000
21 (2)	30,000	18,000	12,000
22 (2)	30,000	18,000	12,000
23 (2)	30,000	18,000	12,000
24 (2)	30,000	18,000	12,000
Subtotals	***739,009*** *(16.96 acres)*	***438,505*** *(10.07 acres)*	***300,505*** *(6.90 acres)*
TOTAL SITE	**4,073,725** *(93.52 acres)*	**2,330,863** *(53.51 acres)*	**1,742,863** *(40.01 acres)*

(1) Maximum clearing allowed is 50% of lot.
(2) Maximum clearing allowed is 60% of lot.

Table 5-4b
COMPARISON OF CLEARED/RETAINED OPEN SPACE
As-of-Right Development, under APOD (Alternative 2a) & Proposed Project, under MUPDD

Clearing Analysis, As-of-Right Development, APOD		
Total Site:	---	---
In Lots	93.52 acres	---
Outside of Lots	497.48 acres	---
In Lots:	---	---
Cleared	53.51 acres	---
Retained	40.01 acres	---
Outside of Lots:	---	---
Cleared	113.33 acres	---
Retained	384.15 acres	65.00%
Open Space Retained	424.16 acres	71.77%
Open Space Cleared	166.84 acres	28.23%
Clearing Analysis, Proposed Project, MUPDD*		
Open Space Retained	424.14 acres	71.77%
Open Space Cleared	166.86 acres	28.23%

* See **Figure 1-2**.

5.2.2 Comparison of Impacts vs. the Proposed Project, Alternative 2a

Generally, Alternative 2a involves development that would be similar to the proposed project, differing in two respects: 1) a golf course would not be provided; however, an alternative amenity allowable under zoning such as a private community recreation center (with an outdoor pool/patio area, putting green, bocci/shuffleboard court, gazebo, walking/fitness trails, playground, etc.) would replace the golf course; and, 2) Alternative 2a would locate some of the development on the Parlato Property, whereas the proposed project would place all of its development on the Hills South Parcel/Kracke Property, and leave the entire Parlato Property undisturbed. Thus, Alternative 2a would have similar overall impacts as the proposed project, but it would spread some of its development over a larger geographic area than the proposed project, thereby introducing those impacts that would not have experienced such impacts under the proposed project.

Geological Resources

It is expected that Alternative 2a would disturb a similar overall acreage of land for clearing/grading operations as the proposed project, except that the disturbance would be spread across both the Hills South Parcel and the Kracke Property, as well as on the Parlato Property. However, because of the need to produce building sites and internal roadways having acceptable (i.e., lower) slopes, it would be necessary for this alternative to grade more deeply into the steep slopes in the central portions of the Hills South Parcel and the Kracke Property (where the most sensitive topographic resources are located) than would be the case for the proposed project (the golf course is located on these steep slope areas, where steeper slopes are acceptable). This would result in an overall greater and adverse impact on the soil and topography of the site for Alternative 2b than for the proposed project.

It is expected that the deeper grading for this scenario would result in a greater volume of excess soil requiring removal and disposal off-site than for the proposed project. Unlike the proposed project, there would be no basis to formulate a haul road agreement with East Coast Sand Mine to receive this excess soil, as the sand mine would not be needed to generate soil mixes for golf course development. As a result, excess soil would be shipped off-site to market or disposal, resulting in a substantial number and duration of truck trips on local roads, particularly on Lewis Road.

As for the Parlato Property, soil disturbance and clearing/grading will be necessary, which would not occur under the proposed project, and any excess soil generated would have to be removed from the site and disposed of elsewhere. In such a case, there would be impacts to local roadways during this process. However, as the acreage to be disturbed here would be relatively limited (only 24 homes and associated roadways and drainage features would be constructed), and this scenario would develop only the southerly portion of the Parlato Property, where slopes are lower, the volume of excess soil generated (if any) would not be substantial.

Water Resources

Alternative 2a would have a smaller amount of fertilizer dependent vegetation as the proposed project, and therefore would require a smaller amount of irrigation. The CPB CLUP restricts fertilizer dependent vegetation to a maximum of 15% of the site, or 88.65 acres; Alternative 2a would fertilize only 80.26 acres, or 13.58%. Fertilized turf would be established around the 118 homes and some of the clubhouse and amenity areas. Based on referenced application rates, residential landscaping is fertilized at a rate in the range of 2.3 lbs/1000 SF, and the low leaching rate is in the range of 10% (see **Appendix G-4**). Other than the fertilized acreage limit, there would be no restrictions on fertilizer application, and no ITHMP would be established to regulate fertilizer and pesticide use, as would be the case with the proposed project. Therefore, there would be a potential for individual homeowners to increase fertilizer use and not use the same scientific methodology to ensure minimization of fertilizer application, as is the case with the proposed project. Irrigation would be applied based on residential water use patterns, and would be expected to average 1 inch per week during the season from May through October. Irrigation water would not be supplied by irrigation wells, but rather would use potable water from the SCWA distribution system, which would add to consumptive water use from this source.

Alternative 2a would utilize conventional sanitary systems for the 118 homes and a clubhouse. This scenario assumes that the homes would be occupied year-round. This wastewater would receive only secondary treatment, as conventional septic systems would conform to the requirements of SCSC Article 6.

Stormwater management systems for Alternative 2a would not involve the extent of surface detention measures and rain gardens of the proposed project. It is expected that a series of conventional catch basins, pickup and conveyance systems, recharge basins, drainage reserve areas, ponds and stormwater detention areas would be used.

On balance, Alternative 2a would have a higher concentration of nitrogen in its recharge, and a higher nitrogen load than the proposed project.

As there would be no golf course in Alternative 2a, this alternative would not include any measures to address the existing local groundwater contamination concerns expressed by the Town and community.

Ecological Resources

The amount of cleared acreage for Alternative 2a is similar to that of the proposed project due to limits on allowed clearing, though the amount of natural vegetation to be cleared is higher in Alternative 2a. Both Alternative 2a and the proposed project would retain the CPA areas of the site as well as open spaces in other areas of the site not used for development. Within the developed areas however, the configuration of development differs; Alternative 2a would develop 24 residences on the Parlato Property while the proposed project would leave this parcel undisturbed, so there would be impact on wildlife from habitat loss on the Parlato Property that would not occur under the proposed project. This ultimately results in greater fragmentation of habitat, given that the Parlato Property is in an area that has limited surrounding development and large expanses of surrounding open space. Alternative 2a would involve development within the Henry's Hollow Region CRA, which is allowed by the CPB CLUP, subject to its standards and guidelines. The proposed project would not impact the Henry's Hollow Region CRA, as it would not disturb the Parlato Property at all, and would preserve substantial areas of open space associated with The Hills North Parcel, and The Hills South Parcel/Kracke Property.

Transportation Resources

The total vehicle trip generation rates for Alternative 2a are expected to be similar to those of the proposed project due to similarity of occupancy and use patterns of the subdivisions as compared with the seasonal use of the MUPDD. However, the trip generation associated with Alternative 2a would extend over the full year, whereas those of the proposed project would not, due to its seasonal occupancy (and hence, seasonal trip generation) characteristic. In addition, the physical distribution of those trips is different for Alternative 2a, as this scenario assumes that the Parlato Property would be developed with 24 homes. Thus, there would be an increase in trips on the local roadways proximate to the Parlato Property, with associated minor changes in the LOS at these local intersections. Conversely, the impacts on Lewis Road from trips associated with the Hills South Parcel and the Kracke Property would be somewhat less for Alternative 2a than for the proposed project, as development here would be reduced by trips from 24 homes. However, overall vehicle trip generation would be comparable.

Based on the analysis prepared for the TIS for the proposed project, it is not anticipated that any of these impacts would be significant, due to the relatively low numbers of trips generated under either scenario.

It is noteworthy that Alternative 2a would include a vehicle access for the Hills South Parcel, to be located at the northerly end of the paved portion of Spinney Road. This roadway is presently a dead-end street that is used solely by the residents of the homes that line this roadway, as well as for access to the SCWA wellfield. This alternative would substantially increase the use of this roadway, by trucks and construction workers during the construction that occurs on the Hills South Parcel, as well as by cars associated with its operational phase.

Land Use, Zoning & Plans

Alternative 2a would result in development of The Hills South Parcel and the Kracke and the Parlato Properties. Like the proposed project, this scenario would change the land use classification of these parcels from "Vacant" to "Residential". Unlike the proposed project, Alternative 2a would change the land use type of the portion of the Parlato Property to be developed with 24 residences in this scenario, where the proposed project would just result in the cessation of farming activity. Thus, with respect to the Parlato Property, this alternative would have a greater impact on the pattern of local land use as compared to the proposed project. Residential use is represented in the area; however, open space is also a dominant use and the individual developments would be in contrast with open space from a land use perspective.

Unlike the proposed project, there would be no change in the zoning of any of the project's properties in Alternative 2a, so that the zoning pattern in the area would not be impacted. It is noted that this alternative would not create a PDD in East Quogue, so that the community would not benefit from the land use flexibility associated with this planning tool, and would realize only a few of the numerous Community Benefits that would have been provided by the proposed project. If so requested, the applicant would consider donation of land to the SCWA for a new wellfield on the site. A number of new jobs would be generated at the clubhouse and amenities, but far fewer jobs would result than the proposed project and since it is not a PDD, the job generation goals of Town Code Section 330-245I(2)(f) would not be applicable.

Similar to the proposed project, this scenario is specifically intended to conform to the recommendations of the East Quogue LUP and other applicable land use plans and development controls. Since both the proposed project and Alternative 2a would conform to these land use plans and development controls, there would be no difference in the impacts of either scenario.

Community Facilities and Services

While the types and amounts of development of Alternative 2a are less than those of the proposed project (Alternative 2a does not include a golf course), it is expected that Alternative 2a would use community services at a higher level than the proposed project, as the occupancy of the latter is seasonal in nature (and hence, its level of activity), where Alternative 2a would be occupied and active throughout the entire year. For example, Alternative 2a would potentially include roads that would be dedicated to the Town for maintenance, whereas those of the proposed project would remain in private ownership, to be maintained privately. With regard to usage of parks and recreation, the nature of this scenario is such that its residents would be more likely to use public recreational sites than those of the proposed project (which is designed around a high-quality, private recreational facility for the use of the site's residents).

The 118 residences in this scenario would generate an estimated 444 residents, of which about 130 would be school-age children, who would be expected to attend local schools. There would be no covenant/restriction on occupancy (as with the proposed project), and there would be a potential for the subdivisions to be fully occupied by year-round families. These would represent an adverse impact on enrollment of the East Quogue UFSD, as well as an adverse impact on the district's expenditures, as the school district taxes generated by the project may not fully offset the increased expenditures necessitated by these additional students.

Since Alternative 2a would locate some development on the Parlato Property (where the proposed project would not), it is expected that the location of some of the community service impacts would occur proximate to this property, which would not be the case for the proposed project. These impacts would include:

- there would be additional types of emergency for which the Southampton Town Police Department and/or the East Quogue Fire Department may be called to the new homes on the Parlato Property, with the continued responsibility to patrol the undeveloped portion of the site.
- service lines to serve the new homes on the Parlato Property would have to be installed by the SCWA, PSE&G, and National Grid.
- solid waste removal services would have to be extended by the Town Department of Municipal Services to serve the Parlato Property homes.

Community Character

In Alternative 2a, the character of the Hills South Parcel, the Kracke Property and the Parlato Property, as defined by their respective visual appearances and noise and lighting characteristics, would be changed from their existing conditions.

As Alternative 2a includes 82 lots but no golf course on the Hills South Parcel, and 12 lots on the Kracke Property, the anticipated impact on community character at these locations from Alternative 2a would be less than those of the proposed project.

With respect to the Parlato Property, however, Alternative 2a would develop 24 homes whereas the proposed project would not develop this property at all. Hence, with respect to the Parlato Property, Alternative 2a would have a greater impact on character of its local community than would be the case for the proposed project.

Cultural Resources

As the Archaeological Investigation prepared for the proposed project determined that there are no cultural resources on the portion of the Hills South Parcel/Kracke Property to be developed (which is larger than the area that would be developed on this site under Alternative 2a), there would also be no impact on this site from Alternative 2a. However, the potential for cultural resources has not been determined for the Parlato Property, as it is not proposed to be developed in the proposed project. Therefore, implementation of Alternative 2a would require that the portion of the Parlato Property that would be developed be first subject to an Archaeological Investigation to determine the presence and, if found to be present, the nature and extent of such resources.

Construction-Related Impacts

The impacts associated with construction on the Hills South Parcel and the Kracke Property would be less for Alternative 2a than for the proposed project, due to the absence of a golf course and the reduction on the number of lots (i.e., 94 vs. 118). However, since Alternative 2a would develop the Parlato Property (where the proposed project would not), there would be construction period impacts experienced in proximity to this property. Thus, the totality of impacts to the neighborhood and area from construction activities associated with Alternative 2a would be similar in type, magnitude and duration to those of the proposed project, though it is noteworthy that these impacts would occur over a larger geographic area than those of the proposed project.

It is also worth noting that an assumption underlying Alternative 2a is that the three parcels are not necessarily developed simultaneously. As a result, the intensity of impacts to the community associated with construction would be a function of the development schedule; if only one site is undergoing development at a time, the impacts experienced by the community would be significantly less than if all three sites were under construction.

Summary

The above general discussions indicate that some of the impacts anticipated from development conforming to the recommendations of the land use plans and regulations if implemented on each of the component properties separately would be similar to or less severe than those of the proposed project on the Hills South Parcel/Kracke Property, but would extend over a larger geographic area (e.g., onto the Parlato Property) than those of the proposed project. These impacts include vehicle trip generation, roadway use, intersection operations, aesthetics and construction-related impacts. Conversely, other impacts would be greater for Alternative 2a than for the proposed project, like clearing of natural vegetation, soil excavation and disposal, nitrogen concentration in recharge, nitrogen recharged, community services usage, and school enrollment and expenditures.

Most notably, Alternative 2a will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen-laden groundwater that would otherwise migrate to the western Shinnecock Bay, as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. Additionally, Alternative 2a will not provide the off-site water quality benefits that would be realized by the proposed project, including sanitary system upgrades and bay restoration improvements. This alternative will not provide the extensive public and community benefits that are associated with the proposed project including downtown parking assistance and funding of important community programs. Finally, this alternative will not provide the same level of tax revenue or job creation, and would generate a substantial number of schoolchildren that would reside in the development year-round, and require educational services from the East Quogue UFSD.

Alternative 2a is not in keeping with the goals and objectives of the Applicant, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, eliminates the potential to generate schoolchildren for the East Quogue UFSD, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site that will create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. Alternative 2a would not achieve the goals of the project sponsor, and as a result, the development parameters for this alternative vary, commensurate with the change in program as it deviates from the applicants' goals and objectives.

5.2.3 Description of Alternative 2b

This alternative anticipates that the proposed project is not implemented, so that development of the three component properties would occur based on their existing CR-200 zonings, as well as in conformance with the following land use plans or development regulations:

- the Town Pine Barrens Overlay District,
- the CPB CLUP
- Groundwater Management Zone III (i.e., SCSC Article 6),
- the Town APOD, and
- Town Open Space requirements.

Note that this scenario assumes coordinated residential development on the Hills South Parcel and the Kracke Property (assumed here to be accessed through the approved Kijowski Family Farm subdivision road off Lewis Road), and on the non-CPA portion of the Parlato Property for which a vehicle access would have to be provided off Old Country Road and through the LIRR ROW via a crossing over the railroad track.

In conformance with the restrictions assumed for this scenario, Alternative 2b would have a yield of 118 lots (94 lots on the Hills South Parcel/Kracke Property in a similar configuration as the proposed project, but without a golf course, and 24 lots on the southern and central portions of the Parlato Property), and would retain the entire Hills North Parcel as open space. A clubhouse would be provided on The Hills South Parcel/Kracke Property portion of the development, for use by the residents of the subdivision and may include such features as a pool, tennis courts, patio, and parking. This scenario's amenity areas would be provided around the clubhouse, and may include a family center, play fields, an organic/community garden, an orchard, and a small equestrian area with barn, paddocks and pastures. The Parlato Property would also feature a clubhouse in this scenario, but it would be smaller in size than the clubhouse on the Hills South Parcel/Kracke Property (to fit the lower number of units and population it would serve), and may include a pool/patio, tennis courts, and parking. Amenities for this property may also include a small equestrian area, with a barn and associated paddocks and pastures. Note that an equestrian area on either site would require a special permit from the Town if more than four (4) horses are kept on-site.

Access would be from Lewis Road across the mapped subdivision road for Kijowski Farms, much like the proposed project; however, potential access could also be provided from Spinney Road. Alternative 2b would be required to limit clearing to approximately 28% of the site, and would not have more than 15% fertilizer dependent vegetation, both similar to the proposed project, and both in conformance with applicable CPB CLUP and Town APOD requirements. Allowable clearing would use existing cleared areas to the maximum extent, similar to the proposed project, and fertilized areas would be established in lawn areas for individual single family homes rather than apportioned between an golf course and minimum residential lawn area as would be the case with the proposed project. These and other potential impacts of this alternative are discussed below, including comparison to the proposed project.

5.2.4 Comparison of Impacts vs. the Proposed Project, Alternative 2b

Generally, Alternative 2b involves development that would be similar to the proposed project, but differing in two ways: 1) a golf course would not be provided; however, an alternative amenity allowable under zoning such as a private community recreation center (with an outdoor pool/patio area, putting green, bocci/shuffleboard court, gazebo, walking/fitness trails, playground, etc.) would

replace the golf course; and, 2) Alternative 2b would locate some of the development on the Parlato Property, whereas the proposed project would place all of its development on the Hills South Parcel/Kracke Property, and leave the entire Parlato Property undisturbed. Thus, some of the impacts anticipated for this alternative would have similar overall impacts as the proposed project; it would spread some of its development over a larger geographic area than the proposed project, thereby introducing those impacts that would not have experienced such impacts under the proposed project.

Geological Resources

It is expected that this alternative would disturb a similar overall acreage of land for clearing/grading operations as the proposed project, except that the disturbance would be spread across both the Hills South Parcel/Kracke Property, and the Parlato Property (which would not occur in the proposed project). However, because of the need to produce building sites and internal roadways having acceptable (i.e., lower) slopes, it would be necessary for this alternative to grade more deeply into the steep slopes in the central portion of the Hills South Parcel/Kracke Property (where the most sensitive topographic resources are located) than would be the case for the proposed project (the golf course is located on these steep slope areas, where steeper slopes are acceptable). This would result in an overall greater and adverse impact on the soil and topography of the site for Alternative 2b than for the proposed project.

It is expected that grading and a net cut of soil would be needed in order to achieve road grades, drainage retention and installation of utilities, sanitary systems and foundations. This would likely result in a greater volume of excess soil requiring removal and disposal off-site for The Hills South Parcel/Kracke Property in this alternative than for the proposed project. Unlike the proposed project, there would be no basis to formulate a haul road agreement with East Coast Sand Mine to receive this excess soil, as the sand mine would not be needed to generate soil mixes for golf course development. As a result, excess soil would be shipped off-site to market or disposal, resulting in a substantial number and duration of truck trips on local roads, particularly on Lewis Road.

For the Parlato Property, soil disturbance and clearing/grading will be necessary, which would not occur under the proposed project, and any excess soil generated there would have to be removed from the site and disposed of elsewhere. It is expected that excess soil will be generated to achieve road grades, drainage retention and installation of utilities, sanitary systems and foundations. In such a case, there would be impacts to local roadways during this process. However, as the acreage to be disturbed here would be relatively limited (only 24 homes, roadways and drainage features would be constructed), and this scenario would develop only the southerly portion of the Parlato Property, where slopes are lower, the volume of excess soil generated (if any) would be less for the Parlato Property as well as the combined The Hills South Parcel/Kracke Property use.

Water Resources

This alternative would have a similar area of fertilizer dependent vegetation as the proposed project, and therefore would require a similar amount of irrigation. The CPB CLUP restricts fertilizer dependent vegetation to 15%, therefore, this would be the maximum area that would be fertilized (see **Section 3.2.1**). Fertilized turf would be established around the 118 homes and some of the clubhouse area. Based on referenced application rates, residential landscaping is fertilized at a rate in the range of 2.3 lbs/1000 SF, and the low leaching rate is in the range of 10% (see **Appendix G-**

4). There would be no restrictions on fertilizer application and no ITHMP to regulate fertilizer and pesticide use, as would be the case with the proposed project. Therefore, there would be a potential for individual homeowners to increase fertilizer use and not use the same scientific methodology to ensure minimization of fertilizer application, as is the case with the proposed project. Irrigation would be applied based on residential water use patterns, and would be expected to average 1 inch per week during the season from May through October. Irrigation water would not be supplied by irrigation wells, but rather would use potable water from the SCWA distribution system, which would add to consumptive water use from this source.

In terms of sanitary wastewater, this alternative would utilize conventional sanitary systems for 118 homes and a clubhouse. This scenario assumes that the homes would be occupied year-round. Sanitary wastewater would not be treated as the systems would be conventional and would conform to Article 6 of the SCSC.

Stormwater management would employ recharge basins (in addition to measures provided for the proposed project), and would not involve the extent of surface detention measures and rain gardens of the proposed project. It is expected that a series of catch basins, pickup and conveyance systems, recharge basins, drainage reserve areas, ponds and stormwater detention areas would be used.

On balance, this alternative would have a higher concentration of nitrogen in recharge, and a higher nitrogen load than The Hills MUPDD. **Appendix G-4** provides an analysis of the nitrogen budget based on the factors outlined above.

As there would be no golf course in Alternative 2b, this alternative would not include any measures to address the existing local groundwater contamination concerns expressed by the Town and community. The proposed project will employ an irrigation well to pump elevated nitrogen containing water from the aquifer, which will be used for irrigation on the golf course where maximum uptake and reduced leaching is achieved. This removes on the order of 20 million gallons per year of high nitrogen containing groundwater resulting in 2,504 lbs less nitrogen per year that would otherwise migrate to the bay (see **Section 2.2.2**).

<u>Ecological Resources</u>
The amount of cleared acreage for Alternative 2a is similar to that of the proposed project due to limits on allowed clearing due to the stringent limits on allowable clearing which would apply to either project, though the amount of natural vegetation to be cleared is higher in Alternative 2a. Alternative 2b (as well as the proposed project) would result in the retention of the CPA areas of the site as well as open space in other areas of the site not used for development. For the developed areas, configuration of development is different when comparing this alternative. Alternative 2b would develop 24 residences on the Parlato Property (while the proposed project would leave this parcel undisturbed), so there would be impact on wildlife from habitat loss on the Parlato Property, which would not occur under the proposed project. This ultimately results in greater fragmentation of habitat, given the location of the Parlato Property within an area that has limited surrounding development and large expanses of surrounding open space. This alternative would involve development within the Henry's Hollow Region CRA, which is allowed by the CPB CLUP, subject to its standards and guidelines. The proposed project would result in the complete preservation of

the Parlato Property along with substantial areas of open space associated with The Hills North Parcel, and The Hills South Parcel/Kracke Property.

Transportation Resources

The total vehicle trip generation rates for Alternative 2b are expected to be similar to that of the proposed project due to occupancy and use patterns of the subdivision as compared with the seasonal use of the MUPDD. However, the trip generation associated with Alternative 2b would extend over the full year, whereas those of the proposed project would not, due to its seasonal occupancy (and hence, seasonal trip generation) characteristic. In addition, the physical distribution of those trips is different for Alternative 2b, as this scenario assumes that the Parlato Property would be developed with 24 homes. Thus, there would be an increase in trips on the local roadways proximate to the Parlato Property, with associated minor changes in the LOS at these local intersections. Additionally, the impacts on Lewis Road from trips associated with the Hills South Parcel/Kracke Property would be somewhat less as development here would be reduced by trips from 24 homes. However, overall vehicle trip generation would be comparable. Based on the analysis prepared for the TIS for the proposed project, it is not anticipated that any of these impacts would be significant, due to the relatively low numbers of trips generated under either scenario.

Based on the analysis prepared for the TIS for the proposed project, it is not anticipated that any of these impacts would be significant, due to the relatively low numbers of trips generated under either scenario.

Land Use, Zoning & Plans

This alternative would result in development of The Hills South and Kracke, and the Parlato Property. Like the proposed project, this scenario would change the land use classification of the Hills North Parcel, the Hills South Parcel/Kracke Property, and a portion of the Parlato Property from “Vacant” to “Residential”. Unlike the proposed project, Alternative 2b would change the land use type of the portion of the Parlato Property to be developed with 24 residences in this scenario, where the proposed project would just result in the cessation of farming activity. Thus, with respect to the Parlato Property, this alternative would have a greater impact on the pattern of local land use as compared to the proposed project. Residential use is represented in the area; however, open space is also a dominant use and the individual developments would be in contrast with open space from a land use perspective.

Unlike the proposed project, there would be no change in the zoning of any of the project’s properties in Alternative 2b, so that the zoning pattern in the area would not be impacted. It is noted that this alternative would not create a PDD in East Quogue, so that the community would not benefit from the land use flexibility associated with this planning tool, and would realize only a few of the numerous Community Benefits that would have been provided by the proposed project. If so requested, the applicant would consider donation of land to the SCWA for a new wellfield on the site. A number of new jobs would be generated at the two new clubhouses, but far fewer jobs would result than the proposed project and since it is not a PDD, the employment generation goals of Town Code Section 330-245I(2)(f) would not apply.

Similar to the proposed project, this scenario is specifically intended to conform to the recommendations of the East Quogue LUP and other applicable land use plans and development

controls. Since both the proposed project and Alternative 2b would conform to these land use plans and development controls, there would be no difference in the impacts of either scenario.

Community Facilities and Services

While the types and amounts of development assumed for Alternative 2b are less than those of the proposed project (specifically, this scenario does not include a golf course), it is expected that Alternative 2b would generally have a greater level of usage of community services than the proposed project, as the occupancy of the latter is seasonal in nature (and hence, its level of activity), where Alternative 2b would be occupied and active throughout the entire year. For example, Alternative 2b would potentially include roads that would be dedicated to the Town for maintenance, whereas those of the proposed project would remain in private ownership, to be maintained privately. With regard to usage of parks and recreation, the nature of this scenario is such that its residents would be more likely to use public recreational sites than those of the proposed project (which is designed around a high-quality, private recreational facility for the use of the site's residents).

The 118 residences in this scenario would generate an estimated 444 residents, of which about 130 would be school-age children, who would be expected to attend local schools. There would be no covenant/restriction on occupancy (as with the proposed project), and there would be a potential for the subdivisions to be fully occupied by year-round families. These would represent an adverse impact on enrollment of the East Quogue UFSD, as well as an adverse impact on the district's expenditures, as the school district taxes generated by the project may not fully offset the increased expenditures necessitated by these additional students.

Since Alternative 2b would locate some development on the Parlato Property (where the proposed project would not), it is expected that the location of some of the community service impacts would occur proximate to this property, which would not be the case for the proposed project. These impacts would include:

- there would be additional types of emergency for which the Southampton Town Police Department and/or the East Quogue Fire Department may be called to the new homes on the Parlato Property, with the continued responsibility to patrol the undeveloped portion of the site.
- service lines to serve the new homes on the Parlato Property would have to be installed by the SCWA, PSE&G, and National Grid.
- solid waste removal services would have to be extended by the Town Department of Municipal Services to serve the Parlato Property homes.

Community Character

In Alternative 2b, the character of both the Hills South Parcel/Kracke Property and the Parlato Property, as defined by their respective visual appearances and noise and lighting characteristics, would be changed from their existing conditions.

As Alternative 2b includes 94 lots but does not include a golf course on the Hills South Parcel/Kracke Property, and the proposed project includes 118 units and a golf course on this property, the anticipated impact on community character at this location from Alternative 2b would be less than that of the proposed project.

With respect to the Parlato Property, however, Alternative 2b would develop 24 homes whereas the proposed project would not develop this property at all. Hence, with respect to the Parlato Property, Alternative 2b would have a greater impact on character of its local community than would be the case for the proposed project.

Cultural Resources

As the Archaeological Investigation prepared for the proposed project determined that there are no cultural resources on the portion of the Hills South Parcel/Kracke Property to be developed (which is larger than the area that would be developed on this site under Alternative 2b), there would also be no impact on this site from Alternative 2b. As for the portion of the Parlato Property that would be developed under Alternative 2b, this area would be subject to an Archaeological Investigation to determine the presence and, if found to be present, the nature and extent of such resources.

Construction-Related Impacts

The impacts associated with construction on the Hills South Parcel/Kracke Property would be less for Alternative 2b than for the proposed project, due to the absence of a golf course and the reduction on the number of lots (i.e., 94 vs. 118). However, since Alternative 2b would develop the Parlato Property (where the proposed project would not), there would be construction period impacts experienced in proximity to this property. Thus, the totality of impacts to the neighborhood and area from construction activities associated with Alternative 2b would be similar in type, magnitude and duration to those of the proposed project, though it is noteworthy that these impacts would occur over a larger geographic area than those of the proposed project.

Summary

The above brief discussions indicate that a number of the impacts anticipated from development conforming to the recommendations of the referenced land use plans or development regulations would be similar to or less severe than those of the proposed project on the Hills South Parcel/Kracke Property, but would extend over a larger geographic area (e.g., onto the Parlato Property) than those of the proposed project. These impacts include vehicle trip generation, roadway use, intersection operations, aesthetics and construction-related impacts. Conversely, other impacts would be greater for Alternative 2b than for the proposed project, like soil excavation and disposal, clearing of natural vegetation, nitrogen con centration in recharge, nitrogen recharged, community services usage, and school enrollment and expenditures.

This alternative will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen-laden groundwater that would otherwise migrate to the western Shinnecock Bay, as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. This alternative will not provide the off-site water quality benefits that would accrue as a result of the proposed project including sanitary system upgrades and bay restoration improvements. This alternative will not provide the extensive public and community benefits that are associated with the proposed project including downtown parking assistance and funding of important community programs. Finally, this alternative will not provide the same level of tax revenue or job creation, and would generate more school-aged children that would reside in the development and require educational services from the East Quogue UFSD.

This alternative is not in keeping with the goals and objectives of the project sponsor, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, reduces school aged children, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site what will reduce environmental impacts and create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. This alternative does not achieve the goals of the project sponsor, and as a result, the development parameters for this alternative vary, commensurate with the change in program as it deviates from the applicants' goals and objectives.

5.3 Alternative 3: Development per the East Quogue LUP

5.3.1 Description of Alternative 3

As noted in **Section 1.4.1** and shown in **Figure 1-5**, the East Quogue LUP recommended the following uses for the component properties:

Hills North Parcel
- Public Recreation and Protected Open Space *(entire property)*

Hills South Parcel
- Public Recreation and Protected Open Space *(northern portion, within CPA)*
- Recreation, including Golf & associated facilities and Open Space Transition *(abutting, to south of CPA area)*
- 4-acre dedication to SCWA
- Private Golf Course *(central 200 acres of site)*
- Resort/Recreation-Type Uses *(10-15 acres south of golf course for: small inn, B&B, community or similar-type facility, conference center, restaurant, banquet facility, health & wellness facility, spa, equestrian center, or other)*
- Low-Density Residential, 55-60 units *(to south of clubhouse/restaurant/banquet facility)*

Kracke Property
- Recreation, including Golf and Open Space Transition *(northeastern corner of property)*
- Low-Density Residential *(northwestern and central portions of property)*
- Public Recreation and Protected Open Space *(southwestern and panhandle portions of property)*

Parlato Property
- Public Recreation and Protected Open Space *(northern 65 acres of property)*
- Residential (19 units) or Preserved Open Space *(southern 35 acres of property)*

This scenario assumes that the project site is also developed insofar as practicable in accordance with the land uses specified in the East Quogue LUP (as is the proposed project). The East Quogue LUP was prepared to represent the goals of the community for the hamlet and, in particular, for the project properties via its recommended land uses. As the proposed project is designed and intended to

conform to the East Quogue LUP recommendations, it would be expected that this scenario would be similar in nature (and of impacts) to the proposed project, and that any differences in impacts would be associated with the public nature of the uses in Alternative 3.

Under Alternative 3, the entirety of the Hills North Parcel and portions of the Hills South Parcel, the Kracke Property and the Parlato Property would be preserved, similar to the proposed project. Two public recreational resources including a golf course and a resort/recreational area in the central and southern portions of the Hills South Parcel/Kracke Property (the latter facility in a structure assumed to be similar in size and use as the clubhouse in the proposed project, but commercial in nature) would also be provided. In comparison to Alternative 3, the proposed project would also dedicate all of the Hills North Parcel as well as all of the Parlato Property to the Town as public open spaces, and large portions of The Hills South/Kracke Property would also be preserved as private open spaces. Both scenarios would preserve the northern portion of the Hills South Parcel (within the CPA) by easement, but would retain this area under private ownership. The golf course and clubhouse in the proposed project would be entirely private in nature, whereas these facilities would be open to the public in Alternative 3. More specifically, the clubhouse building of the proposed project would be a commercial structure housing a banquet facility, a restaurant, and a spa in Alternative 3.

The East Quogue LUP also recommended an equestrian center for the site. However, analysis indicates that, after setting aside land for open space preservation, for the residential lots, for the golf course, for the multi-purpose commercial facility, and finally for the internal road system and parking, insufficient land would remain for an equestrian center. As a result, this scenario assumes 108 residential lots and a combined banquet facility/restaurant/spa facility in a single structure. Sanitary wastewater generated in this scenario would be treated in individual on-site septic systems, in conformance with SCSC Article 6. Like the proposed project, this scenario increases tax ratables.

<u>Hills South Parcel/Kracke Property, Residential and Resort/Recreation-Type Uses</u>
The East Quogue LUP calls for 55 to 60 lots on the Hills South Parcel, and an unspecified number of lots on the Kracke Property; a total of 84 lots were delineated on the combined Hills South Parcel/Kracke Property in the conceptual plan. The Parlato Property is specified in the East Quogue LUP for 19 lots, but this scenario assumes 24 lots here.[1] Thus, the total residential yield assumed for Alternative 3 is 108 units, on 108 separate, detached lots.

With respect to commercial spaces, the East Quogue LUP calls for a 10-15 acre area south of the golf course for a resort/recreational facility that may include a small inn, a bed & breakfast, a community or similar-type facility, a conference center, restaurant, banquet facility, health & wellness facility, spa, equestrian center, or other such use. This scenario assumes that the same clubhouse structure as that of the proposed project would be provided, and would provide some of the resort/recreational facilities noted above. It should be noted that the proposed project includes an area of about 4.25 acres for its golf course clubhouse, wherein some of the uses recommended in the East Quogue LUP (such as restaurant, banquet facility, and health & wellness spa) are provided. However, these uses are proposed as private in nature, and would not be available to the public.

[1] Though the East Quogue LUP indicates 19 lots on the Parlato Property, this is arbitrary and lower than the actual yield of 24 units that the Town has recognized in conjunction with this property. If actually developed, or transferred, it is expected that 24 lots would result.

It should be understood that Alternative 3 would include both public open spaces and public facilities. These latter uses would result in higher levels of usage and general activity on the subject site than those of the proposed project, and so would result in greater impacts to the character of the community from noise, traffic, general activity on the site, etc., on local roadway operations, on groundwater quality, and on community facilities and services.

Parlato Property

The East Quogue LUP recommends the development of 19 residences on about 35 acres in the southern portion of the Parlato Property. It is noted that the Town designated yield of this property is 24 lots, and so this yield is assumed herein. This alternative assumes that no clubhouse structure would be built on the Parlato Property, though an open area for a community amenity is provided on the conceptual plan.

The clustering of the lots in this scenario would result in several impacts on this property and its neighbors that would not occur under the proposed project: it would reduce the size of a potential public open space donation; it would increase general activity on this parcel, it would increase vehicle traffic on the site and on adjacent roadways, it would increase the recharge of nitrates on the property (from wastewater effluent recharge), it would involve grading of land for the new homes, as well as clearing of vegetation, thereby reducing natural habitat, it would impact the character of the community, and it would involve development within the Henry's Hollow Region CRA.

5.3.2 Comparison of Impacts vs. the Proposed Project, Alternative 3

Unlike Alternatives 2a & 2b, Alternative 3 involves development that would be similar in type and extent as the proposed project, though, like Alternatives 2a & 2b, Alternative 3 would locate some of this development (specifically, 24 homes) on the Parlato Property, whereas the proposed project would place all of its development on the Hills South Parcel/Kracke Property, and leave the entire Parlato Property undisturbed. Thus, this alternative would spread some of its development over a larger geographic area than the proposed project, which would tend to spread its impacts to the neighborhood as well.

Geological Resources

It is expected that this alternative would disturb a similar total acreage for clearing/grading operations as the proposed project on the Hills South Parcel/Kracke Property (as this scenario includes a golf course) though, the disturbance would include the Parlato Property (which would not occur in the proposed project, and increase the impact over a larger area than that of the proposed project). There would be no homesites developed in the steep slope areas of the Hills South Parcel/Kracke Property, but the golf course would be located in this area to a greater extent than for the proposed project, so that the volume of soil excavated in this area during grading for the golf course would be greater than that of the proposed project. Also, the southerly portion of the Hills South Parcel/Kracke Property would be developed residentially (where this area would be impacted less by grading for the golf course in the proposed project), so that a greater amount of grading (and associated soil excavation) would be required here than for the proposed project. Overall then, it is expected that soil and topography impacts would be greater for Alternative 3 than those of the proposed project.

It is expected that grading and a net cut of soil would be needed in order to achieve road grades, drainage retention and installation of utilities, sanitary systems and foundations. This would likely result in a greater volume of excess soil requiring removal and disposal off-site for The Hills South Parcel/Kracke Property in this alternative than for the proposed project. Similar to the proposed project, this alternative could utilize an agreement with the adjacent East Coast Sand Mine owner to accept this excess soil (from where a soil mix for the golf course would be generated in return), and truck it to the sand mine via an internal haul road. If no internal haul road is possible, then the removal operation to East Coast Sand Mine would utilize a small segment of Lewis Road), similar to as proposed in connection with the proposed project. Failing this agreement entirely, excess soil would be shipped off-site to market or disposal, resulting in a substantial number and duration of truck trips on local roads, particularly on Lewis Road.

As for the Parlato Property, soil disturbance and clearing/grading will be necessary, which would not occur under the proposed project, and any excess soil generated would have to be removed from the site and disposed of elsewhere. It is expected that excess soil will be generated to achieve road grades, drainage retention and installation of utilities, sanitary systems and foundations. In such a case, there would be impacts to local roadways during this process. However, as the acreage to be disturbed here would be relatively limited (only 24 homes and associated roadways and drainage features would be constructed), and this scenario would develop only the southerly portion of the Parlato Property, where slopes are lower, the volume of excess soil generated (if any) would be less for the Parlato Property as well as the combined The Hills South Parcel/Kracke Property use.

Water Resources

This scenario assumes a similar amount of development as the proposed project; however, longer residence occupancy and use would be expected, therefore, this alternative would consume more water for domestic purposes, which would leave the site in the form of wastewater. Thus, this scenario would generate a greater volume of groundwater recharge as the proposed project, having greater nitrogen load and concentration. This alternative would develop a portion of the Parlato Property, whereas the proposed project would not. As a result, the volume of water recharged and the concentration of nitrogen in that recharge would be increased on the Parlato Property, which would not occur under the proposed project.

This alternative would have a similar area of fertilizer dependent vegetation as the proposed project, and therefore would require a similar amount of irrigation. The CPB CLUP restricts fertilizer dependent vegetation to 15%, therefore, this would be the maximum area that would be fertilized (see **Section 3.2.1**). Fertilized turf would be established around the 108 homes and in the commercial area and the golf course, and it is expected that similar application and leaching rates to the proposed project would be used (see **Appendix G-5**). It is expected that there would be an ITHMP to regulate fertilizer and pesticide use, as would be the case with the proposed project. It is assumed that irrigation would be applied similar to the proposed project during the season from May through October. Irrigation water would likely be supplied by irrigation wells, but would not include the intent to remove elevated nitrogen in groundwater to reduce nitrogen load to the bay. Potable water from the SCWA distribution system would be used for domestic water use in the residences and commercial facilities.

In terms of sanitary wastewater, this alternative would utilize conventional sanitary systems for 108 homes and commercial facility. The homes would be occupied year-round, so that total water usage (and wastewater generation) would be greater. Sanitary wastewater would not be treated as the systems would be conventional and would conform to Article 6 of the SCSC. Stormwater management would be similar to that of the proposed project; however, rain gardens may not be employed in golf course design. It is expected that a series of catch basins, pickup and conveyance systems, drainage reserve areas, ponds and stormwater detention areas would be used, similar to the proposed project.

On balance, Alternative 3 would have a higher concentration of nitrogen in recharge, and a higher nitrogen load than the proposed project. **Appendix G-5** provides an analysis of the nitrogen budget based on the factors outlined above.

Ecological Resources

As the overall amounts of clearing and development in Alternative 3 are somewhat less than those of the proposed project, it is expected that the removal of natural vegetation (which acts as habitat for the wildlife species on the subject site) would likewise be somewhat less than that of the proposed project.

However, as this alternative would place some development (24 new homes) on the Parlato Property (while the proposed project would leave this parcel undisturbed), there would be some impact on wildlife from habitat loss on this property, which would not occur under the proposed project. This ultimately results in greater fragmentation of habitat, given the location of the Parlato Property within an area that has limited surrounding development and large expanses of surrounding open space. The proposed project would result in the complete preservation of the Parlato Property along with substantial areas of open space associated with the Hills North Parcel, and the Hills South Parcel/Kracke Property.

Transportation Resources

As the golf course in the proposed project will be a private amenity available only to the 118 homeowners, it is not counted as a separate trip generation source for these users; however, the TIS does include the trips (and associated impacts) of the outside golf course members of the project, as well as trips generated by outside charity events (see **Appendix H**). However, the golf course assumed for Alternative 3 would be a public amenity, for which a substantial number of vehicle trips would be generated. Thus, overall vehicle trip generation values, and, therefore, of potential traffic impacts, would be greater for Alternative 3 than for the proposed project, particularly during the weekday PM and Saturday peak hours. These trips would be distributed proximate to both the Hills South Parcel/Kracke Property and the Parlato Property, so the increased traffic impacts would occur proximate to these properties as well.

The magnitude of these impacts would be determined by site-specific TIS analyses, to be undertaken as part of the site plan application for these properties, and subject to Town review and approval as part of the Town's site plan review process.

The installation of sidewalks linking the subject site to pedestrian resources and/or a network of pedestrian resources on adjacent sites would be beneficial to the residents of Alternative 3

development, as well as to other residents on these adjacent sites, as such a network would be extended. If bus shelters were to be installed in association with Alternative 3, this would also represent a beneficial impact.

Land Use, Zoning & Plans

Like the proposed project, this scenario would change the land use classifications of the Hills North Parcel (from vacant to public open space), the Hills South Parcel/Kracke Property (from vacant to residential & commercial), and the Parlato Property (from vacantt in the north to public open space, and from vacant in the central and southern portions to residential). Thus, with the exception of the change to residential use on the Parlato Property, this alternative would have a similar impact on the pattern of local land use as the proposed project. As a portion of the Parlato Property would change its land use type in this alternative whereas the proposed project would not, there would be an impact on the pattern of land uses in the vicinity of this property. However, residential land use is already well-represented in the vicinity of the Parlato Property, so that no significant impact in this area is expected.

Unlike the proposed project, there would be no changes in the CR-200 zoning of any of the project's properties in Alternative 3, so that there would be no impact to the zoning pattern in the area. It is noted that this alternative would not set a precedent for a PDD in East Quogue, so that the community would not benefit from the land use flexibility and provision of Community Benefits associated with this planning tool; this scenario would realize only a few of the numerous Community Benefits that would have been provided by the proposed project. If so requested, the applicant would consider donation of land to the SCWA for a new wellfield on the site. A number of new jobs would be generated at the new clubhouse.

This scenario is specifically intended to and therefore would conform to the East Quogue LUP recommendations for the component sites. However, the proposed project is not only intended to conform to these recommendations, it seeks to exceed these recommendations, by prohibiting development of any part of the Parlato Property, and to provide the types development sought by the East Quogue LUP in a form that would not only minimize potential impacts on the neighbors and community (by providing development that would not increase activity and associated impacts on the neighborhood), but would do so in a way that would enable substantial Community Benefits including addressing the expressed concerns regarding groundwater quality.

Community Facilities and Services

While the amount of development assumed for Alternative 3 is similar to those of the proposed project, the type of that development is not; Alternative 3 includes a substantial year-round commercial use (whereas the proposed project is entirely seasonal residential in nature). As a result, Alternative 3 would have a greater impact on some community services than would occur for the proposed project. These service providers include schools, police and fire departments, energy supply, solid waste handling and disposal, and parks and recreational facilities. For this latter resource, the nature of this scenario is such that its residents would be more likely to use public recreational sites than those of the proposed project (which is designed around a high-quality, private, seasonal recreational facility reserved for the exclusive use of the site's residents).

The 108 permanent residences in this scenario would generate an estimated 430 residents in the community, including an assumed 137 school-age children. These children would represent an adverse impact on enrollment of the East Quogue UFSD, and would necessitate an increase in the district's expenditures, though the school district taxes generated by the project would more than fully offset the increased expenditures necessitated by these additional students.

Since Alternative 3 would locate some development on the Parlato Property (where the proposed project would not), it is expected that the location of some of the community service impacts would occur proximate to this property, which would not be the case for the proposed project. These impacts would include:

- additional types of emergency for which the Southampton Town Police Department and/or the East Quogue Fire Department may be called to the new homes on the Parlato Property, with the continued responsibility to patrol the undeveloped portion of the site.
- service lines to serve the new homes on the Parlato Property would have to be installed by the SCWA, PSE&G, and National Grid.
- solid waste removal services would have to be extended by the Town Department of Municipal Services to serve the Parlato Property homes.

Community Character

Like the proposed project, under Alternative 3, the character of the Hills South Parcel/Kracke Property and the Parlato Property, as defined by their respective visual appearances and noise and lighting characteristics, would be changed from their existing conditions. While Alternative 3 and the proposed project assume similar amounts and distributions of development on the Hills South Parcel/Kracke Property, the commercial use of Alternative 3 would result in much more activity on the site than the proposed project, so that the anticipated impacts on community character would be correspondingly greater for Alternative 3

With respect to the Parlato Property, Alternative 3 would develop 24 homes whereas the proposed project would not develop this property at all. Hence, with respect to the Parlato Property, Alternative 3 would have a greater impact on community character in the immediate area than would be the case for the proposed project.

Cultural Resources

As the Archaeological Investigation prepared for the proposed project determined that there are no cultural resources on the portion of the Hills South Parcel/Kracke Property to be developed (which is similar to the area that would be developed on this area under Alternative 3), there would also be no impact in this area from Alternative 3. As for the portion of the Parlato Property that would be developed under Alternative 3, this area would be subject to an Archaeological Investigation to determine the presence and, if found to be present, the nature and extent of such resources.

Construction-Related Impacts

The totality of impacts associated with construction on the Hills South Parcel/Kracke Property would be similar for the proposed project and Alternative 3. The Alternative 3 impacts would be somewhat reduced compared to those of the proposed project, as Alternative 3 would have fewer homes developed on the Hills South Parcel/Kracke Property. However, since Alternative 3 would

develop the Parlato Property (where the proposed project would not), there would be construction period impacts experienced in proximity to this property.

Summary

The above brief discussions indicate that the impacts anticipated from development conforming to the recommendations of the East Quogue LUP would be more severe than those of the proposed project, and would extend over a larger geographic area (e.g., onto the Parlato Property) than those of the proposed project. The increase in severity is associated with the public nature of the East Quogue LUP-recommended uses, whereas the proposed project would be available only to the owners of the site's homes.

This alternative will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen laden groundwater that would otherwise migrate to the western Shinnecock Bay as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. This alternative will not provide the off-site water quality benefits that would accrue as a result of the proposed project, including sanitary system upgrades and bay restoration improvements. This alternative will not provide the extensive public and community benefits that are associated with the proposed project including East Quogue beautification, downtown parking assistance and funding of important community programs. Finally, this alternative will not provide the same level of tax revenue or job creation, and would generate more school-aged children that would reside in the development and require educational services from the East Quogue UFSD.

This alternative is not in keeping with the goals and objectives of the project sponsor, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, reduces school-aged children, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site what will reduce environmental impacts and create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. This alternative does not achieve the goals of the project sponsor, and as a result, the development parameters for this alternative vary, commensurate with the change in program as it deviates from the applicants' goals and objectives. This alternative analysis provides a comparison of the proposed project to the alternative as outlined above.

5.4 Alternative 4: Reduced Density

5.4.1 Description of Alternative 4

This scenario assumes that development under an MUPDD similar in uses and seasonal occupancy to that of the proposed project occurs on the Hills South Parcel/Kracke Property, with the same golf course and clubhouse amenities, but with a residential yield reduced to 94 units, as 81 lots and 13 club cottages. The 81 lots proposed in this scenario are generally located in the same areas as those of the proposed project, but each lot would be larger in size than those of the proposed project. The 10 units in the clubhouse (and their 24,000 SF of floor space), would not be included. This

reduction in yield would be achieved by the applicant allowing his option on the Parlato Property to expire, so that this acreage is removed from the project as well as its associated 24-lot yield. In such a case however, the Parlato Property would be available for public purchase as an open space resource, for private development, or for renewed agricultural use.

It is expected that this alternative would include Community Benefits but, because of the reduced yield in this scenario, the roster of these would be reduced from those of the proposed project. Like the proposed project, sidewalks within the developed area would be provided, but would not extend these sidewalks to adjacent properties, nor would this scenario provide bus shelters.

5.4.2 Comparison of Impacts vs. the Proposed Project, Alternative 4

Geological Resources

It is expected that this alternative would disturb a similar total acreage for clearing/grading operations as the proposed project. Like the proposed project, all land disturbance would occur on the Hills South Parcel/Kracke Property, since, like the proposed project, this alternative would not disturb the Parlato Property. However, unlike the proposed project (where the Parlato Property would be included in the site and would be dedicated to the Town for open space), this alternative would remove Parlato from the site altogether. In such a case, the Parlato Property would be available for public purchase as open space, development, or renewed agricultural use. These latter two scenarios would result in impacts to soil and topographic resources from clearing and grading operations, which would cause a greater amount of clearing, grading and soil impact than those of the proposed project.

It is expected that a similar volume of excess soil requiring removal and disposal off-site would be generated on the Hills South Parcel/Kracke Property as that of the proposed project. Similar to the proposed project, this alternative could utilize an agreement with the adjacent sand mine owner to accept this excess soil, and truck it to the sand mine via an internal haul road. As the volume of excess soil generated by Alternative 4 would be similar to that of the proposed project (until future development of the Parlato Property would cause this impact to exceed that of the proposed project), it is expected that the extent of this soil removal operation would also be similar. If no such agreement occurs for this scenario, then the removal operation would utilize a small segment of Lewis Road), similar to the proposed project. Failing this agreement entirely, excess soil would be shipped off-site to market or disposal, resulting in a substantial number and duration of truck trips on local roads, particularly on Lewis Road. Overall then, it is expected that soil and topography impacts for Alternative 4 would be similar to those of the proposed project.

Water Resources

As this scenario assumes a lesser amount of development than the proposed project, it is expected that it would consume a lesser amount of water, which would leave the site in the form of wastewater. Thus, this scenario would generate a smaller volume of groundwater recharge as the proposed project, having a greater nitrogen concentration as the alternative would not necessarily be constructed as a seasonal resort community with installation of an irrigation to intercept and use existing groundwater with elevated nitrogen for the purpose of fertigation. It is however expected

that the golf course maintenance operations of this alternative would include an ITHMP to ensure proper maintenance of golf turf areas.

It is expected that the golf course maintenance operations of this alternative would include many if not all of the measures that are included in the proposed project. Such measures would act to mitigate the on-going groundwater contamination concerns identified by the Town and community.

This alternative assumes that the Parlato Property would not be developed (at least, as part of the proposed project, though it would remain available for development, unless purchased by the public for open space preservation). Therefore, its recharge characteristics would not be changed from its existing condition.

This alternative would have a similar area of fertilizer dependent vegetation as the proposed project, and therefore would require a similar amount of irrigation. Fertilized turf would be established around the 94 homes and in the clubhouse area. Like the proposed project, fertilizer applications would be regulated by the ownership entity, applying the ITHMP to regulate fertilizer and pesticide use. Irrigation would be applied at a rate which is similar to that of the proposed project, such that irrigation is a supplement to evapotranspiration and natural rainfall (see **Appendix G-6**). Irrigation water would be supplied by irrigation wells and not from the SCWA distribution system, which would not add to consumptive water use from this source. Potable water would be supplied by SCWA, similar to the proposed project.

In terms of sanitary wastewater, this alternative would utilize conventional sanitary systems for 94 homes and the clubhouse facility. As the homes in this alternative would not be occupied on a year-round basis, a reduction factor on sanitary flow is used to represent these seasonal considerations (see **Table 5-1** and **Appendix G-6**). Sanitary wastewater would not be tertiary-treated, as the systems would be conventional and would conform to Article 6 of the SCSC.

Overall, Alternative 4 would have a higher concentration of nitrogen in recharge, and a higher nitrogen load than the proposed project. **Appendix G-6** provides an analysis of the nitrogen budget based on the factors outlined above.

If and when the Parlato Property is developed or experiences renewed farming, a number of adverse impacts to water resources would occur here, which would increase the total such impacts (i.e., with those of the Hills South Parcel/Kracke Property) to levels greater than those of just the proposed project alone. Such impacts would include total water use, total mass of nitrogen recharged, and total volume of water recharged.

<u>Ecological Resources</u>
As the overall amounts of clearing and development in Alternative 4 are less than those of the proposed project, it is expected that the removal of natural vegetation (which acts as habitat for the wildlife species on the subject site) would be less than that of the proposed project. However, it is noted that the Parlato Property would be available for preservation through purchase or for future development. This alternative does not ensure preservation of the parcel within the Henry's Hollow Region CRA. The proposed project would result in the complete preservation of the Parlato

Property along with substantial areas of open space associated with The Hills North Parcel, and The Hills South Parcel/Kracke Property.

Use of the Parlato Property would result in a number of adverse impacts to its ecological and habitat resources from clearing and grading operations, which would increase the total such impacts (i.e., with those of the Hills South Parcel/Kracke Property) to levels greater than those of just the proposed project alone.

Transportation Resources

As the golf course in both the proposed project and Alternative 4 will be a private amenity available only to the site's homeowners, it is not counted as a separate trip generation source for these users; however, the TIS does include the trips (and associated impacts) of the outside golf course members of the project, as well as trips generated by outside charity events (see **Appendix H**). Thus, vehicle trip generation values, and, therefore, of potential traffic impacts, would be lower for Alternative 4 than for the proposed project, as Alternative 4 has 24 fewer residences.

As the TIS prepared for the proposed project did not reveal any significant traffic impacts or justify any off-site traffic mitigation, it is not expected that Alternative 4, which would generate fewer trips, would result in any significant traffic impacts.

Like the proposed project, this alternative would not include off-site sidewalks or other pedestrian resources, or public transit resources such as bus shelters. As a result, there would be no change in the existing pedestrian or public transit environments.

If and when the Parlato Property is developed or farming on it restarts, a number of adverse impacts to traffic and transportation resources would occur, so that overall impacts (i.e., with those of the Hills South Parcel/Kracke Property) would be increased to levels greater than those of just the proposed project alone. These impacts would include total vehicle trip generation, the conditions on local roadways, the operation of local road intersections, and the need for local roadway improvements.

Land Use, Zoning & Plans

Like the proposed project, this scenario would change the land use classification of the Hills North Parcel, and the Hills South Parcel/Kracke Property, so that this alternative would have the same impact on the pattern of local land use as the proposed project. Like the proposed project, this scenario would change the land use classifications of the Hills North Parcel (from vacant to public open space), and the Hills South Parcel/Kracke Property (from vacant to residential and golf amenity). Thus, this alternative would have a similar impact on the pattern of local land use as the proposed project. The Parlato Property would remain for acquisition or potential development.

Like the proposed project, the CR-200 zoning of the project's properties would be changed to MUPDD in Alternative 4, so that the zoning pattern in the area would be changed. It is noted that this alternative would utilize a PDD in East Quogue, so that the community would benefit from the land use flexibility and Community Benefits associated with this planning tool; this scenario would realize a number of the Community Benefits that would have been provided by the proposed project. Primarily, there would be no impact on the enrollment of the East Quogue UFSD in this scenario, as

any school-age children residing on the site would only be temporary visitors for recreational purposes. Like the proposed project, the golf course/clubhouse facility would be made available for local entities to use for educational and fund-raising purposes. If so requested, the applicant would consider donation of land to the SCWA for a new wellfield on the site. It is expected that restoration of impacted habitat on the Hills South, Kracke and Parlato sites would occur in this scenario, and a number of new jobs would be generated at the new clubhouse.

Similar to the proposed project, this scenario would conform to the recommendations of the various land use plans and development controls that are pertinent to the site. Like the proposed project, this scenario would conform to and exceed the East Quogue LUP recommendations for the component sites, by providing the types development sought by the East Quogue LUP in a form that would not only minimize potential impacts on the neighbors and community, but would do so in a way that would enable Community Benefits. Since both the proposed project and Alternative 4 would conform to the land use plans and development controls, there would be no difference in impacts.

Development or renewed farming on the Parlato Property would generate a number of adverse impacts with respect to land use, zoning or lands use plans, which would increase the total such impacts (i.e., with those of the Hills South Parcel/Kracke Property) to levels greater than those of just the proposed project alone. Such impacts would include changes to the land use and zoning designations of the site, changes to the patterns of land use and zoning in the vicinity, conformance to zoning requirements, and conformance to recommendations of pertinent land use plans.

Community Facilities and Services

As the types of development assumed for Alternative 4 are similar to those of the proposed project though with a lower yield, it is expected that lesser levels of usage of the various community services would occur for Alternative 4, so that lesser levels of impact to these service providers would result.

Using the same per-unit rates for occupancy as the proposed project, the 94 residences in this scenario would generate an estimated 359 residents, of which about 106 would be school-age children. However, like the proposed project, these school-age residents would not attend the East Quogue UFSD, as this scenario is assumed to be a seasonal, second-home project whose residences are occupied for only a limited time. Thus, there would be no adverse impact on enrolment of the East Quogue UFSD in this scenario, and there would be no need for the district to increase its expenditures.

If the Parlato Property is developed or undergoes renewed farming, a number of adverse impacts to the various community services for the site would occur, which would increase the total such impacts (i.e., with those of the Hills South Parcel/Kracke Property) to levels greater than those of just the proposed project alone. Such impacts would include taxes, school enrollment, police and fire safety services, water use and the associated distribution system, energy use and supply systems, sanitary wastewater treatment systems, and solid waste removal and disposal systems.

Community Character

Under Alternative 4, the character of the Hills South Parcel/Kracke Property, as defined by its visual appearance and noise and lighting characteristics, would be changed from its existing condition.

Alternative 4 and the proposed project assume similar types and distributions of development on the Hills South Parcel/Kracke Property though with a reduced residential yield, so that the anticipated impact on community character would be less under Alternative 4 than for the proposed project.

Activity on the Parlato Property for development or agriculture would result in a number of adverse impacts to the character of not only the site but to the vicinity as a whole, and to a degree that would be greater than that of the proposed project (which is limited to only the Hills South Parcel/Kracke Property). Such impacts would include visual resources, intensity of general activity in the neighborhood, and noise generation and its geographic extent.

Cultural Resources

As the Archaeological Investigation prepared for the proposed project determined that there are no cultural resources on the portion of the Hills South Parcel/Kracke Property to be developed (which is larger than the area that would be developed under Alternative 4), there would also be no impact from Alternative 4.

If and when the Parlato Property is to be developed or undergo renewed farming, it is expected that the Town would require preparation of a cultural resources assessment for the site (or at least that portion to be disturbed), to determine the presence and extent of such resources. If such resources are found, further study and analysis would be necessary, to determine an appropriate course of action.

Construction-Related Impacts

The totality of impacts associated with construction on the Hills South Parcel/Kracke Property would be similar for the proposed project and Alternative 4. The Alternative 4 impacts would be somewhat reduced compared to those of the proposed project, as Alternative 4 would have fewer homes developed on the Hills South Parcel/Kracke Property.

Construction activities on the Parlato Property, whether for development or limited to preparation for agricultural use, would increase the total of such impacts like truck traffic, construction worker traffic, soil removal truck traffic, noise, dust, roadway usage and intersection operations, to levels greater than those of construction impacts on just the proposed project alone.

Summary

The above brief discussions indicate that the impacts anticipated from Alternative 4 would be similar to or lesser than the corresponding impacts of the proposed project. The decreases in severity of impacts are associated with the reduced residential yield resulting from the removal of the Parlato Property from the applicant's holdings.

This alternative will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen laden groundwater that would otherwise migrate the western Shinnecock Bay as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. This alternative will not provide the off-site water quality benefits that would accrue as a result of the proposed project including sanitary system upgrades and bay restoration improvements. This alternative will not provide the extensive public and community benefits that are associated with the proposed project including East Quogue beautification, downtown parking

assistance and funding of important community programs. Finally, this alternative will not provide the same level of tax revenue or job creation.

This alternative is not in keeping with the goals and objectives of the project sponsor, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, reduces school aged children, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site what will reduce environmental impacts and create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. This alternative does not achieve the goals of the project sponsor, and as a result, the development parameters for this alternative vary, commensurate with the change in program as it deviates from the applicants' goals and objectives. This alternative analysis provides a comparison of the proposed project to the alternative as outlined above.

5.5 Alternative 5: Alternative Site Designs

5.5.1 Description of Alternative 5

This scenario is based on evaluations of alternative layouts of the proposed project that would mitigate potential impacts associated with landscape fertilization on groundwater quality, the amount of grading (in terms of acreage and/or volume of disturbed soil) and/or clearing of natural vegetation. Such layouts would contain the same uses and yields as the proposed project, but would be based on differing physical arrangements within the Hills South Parcel/Kracke Property, though always within roughly the same area to be developed as was ultimately chosen for the proposed project.

The following brief description of the process underlying the project's layout has been provided by the project's landscape architect, VITA:

> The design process for the Hills at Southampton Master Plan began in 2011 and has involved many plan iterations, creating a layout that has evolved along the way. The process began with careful analysis of the land, including topographic slope mapping so as to avoid areas too steep for development; existing vegetation surveying to aid in creating contiguous open spaces and utilizing existing cleared areas for new development; and thoughtful consideration of surrounding land uses to ensure side-by-side compatibility.
>
> Continuously throughout the design process, community feedback informed and shaped the plan. Golf holes were relocated to the south creating a wider contiguous open space corridor on the north portion of the Hills South Parcel. Residential areas have been focused more and more to the middle of the property further increasing large open space blocks and limiting site impacts by minimizing road lengths. Multiple locations for the entry road have been considered in the different plan options. The current entry road alignment shares access off Lewis Road with another property, minimizing impacts to neighbors.
>
> The exploration of alternative plan options has been an integral piece of the design process. In addition to the plan characteristics described above, the current layout also utilizes the existing cleared area for golf and residential development where possible and when the existing clearings are not located on areas too

steep or on the outer reaches of the property. The current plan concentrates development on the Hills South Parcel and Kracke Property, leaving the Parlato Property as undeveloped open space. Less desirable alternative plans could spread out development over all the project parcels, but this would leave less contiguous open space.

Thus, from the start of the planning process, the applicant's design directive to minimize clearing of natural vegetation (simultaneously minimizing graded area), retain the maximum amount of open space (for public dedication as well as to remain in private ownership), minimize potential impact to natural steep slopes (simultaneously minimizing the volume of excavated soil), and maximize consideration of the neighborhood's aesthetics, led to the site layout show by the proposed project. As such, the proposed project represents the site design that would provide the optimal balance between the MUPDD development and preservation/protection of those site characteristics and resources that give the property its value. As a result, no alternative design for the project that would increase retention of these resources could be or was prepared.

5.5.2 Comparison of Impacts vs. the Proposed Project, Alternative 5

The above brief discussion establishes that there were no alternative or "progress version" layouts of the proposed project that were given more than a minimal level of consideration; the layout shown in the **Master Plan** is the only site design seriously considered by the applicant after factoring in the site's physical and planning constraints, as well as both the applicant's and the community's goals and needs. As such, it would not be possible to analyze the potential impacts of this alternative with respect to those of the proposed project at any more than a generalized, qualitative level.

Alternatives 2a, 2b, 3 and 4 also look at potential alternative development scenarios on the site, and so these potential alternative designs are appropriately addressed in **Sections 5.2.1, 5.2.3, 5.3** and **5.4**, above, respectively.

5.6 Alternative 6: Alternative Technologies

5.6.1 Description of Alternative 6

This scenario assumes that development similar in yield and nature to that of the proposed project occurs on the Hills South Parcel/Kracke Property, but considers use of the following technologies: 1) using the same natural organic turf management techniques for both the golf course and the residential landscape areas; 2) use of alternative wastewater treatment systems; and 3) use of domestic wastewater for landscape irrigation.

<u>Using the Same Natural Organic Turf Management Techniques for Both the Golf Course and the Residential Landscape Areas</u>
"Natural organic" turf management techniques have not proven to be preferable to, more effective than, or more protective of groundwater resources than the types of modern golf course turf management practices planned for the proposed project (and described in the ITHMP, **Appendix J**). Further, the quality of "organic" materials has not proven to be sufficiently consistent to satisfy the

concerns and/or needs of landscaping maintenance managers. The residential portion of the proposed project will utilize similar landscape maintenance techniques as the golf course component, to the extent practicable. It is expected that the site operator and Town will establish a list of mutually-agreeable landscape products to minimize potential impacts to a greatest extent practicable.

Use of Alternative Wastewater Treatment Systems
Because of the intermittent occupancy of the residences, a constant effluent flow from these units cannot be assured, so that use of a community wastewater treatment facility is not practicable for the project (see **Appendix A-11**). It is noteworthy that the proposed project is required to and will conform to all applicable requirements for sanitary wastewater treatment under SCSC Article 6, as reviewed, approved and administered by the SCDHS. This would ensure that whatever treatment methodology the project employs, no adverse impacts to groundwater resources would occur. Further, the proposed project already commits to using advanced wastewater treatment systems that are approvable and functionally feasible, once such a system is identified by SCDHS.

Use of Domestic Wastewater for Landscape Irrigation
Re-use of wastewater for landscape irrigation would only be feasible on the project site if the wastewater was first treated in a common facility and then conveyed via a separate distribution system to the landscaped areas. However, preliminary engineering analysis indicates that, because a consistent flow of wastewater cannot be assured, re-use of this water as a substitute for or supplement to potable water for the project's landscape irrigation demand is not practicable.

5.6.2 Comparison of Impacts vs. the Proposed Project, Alternative 6

The above brief discussions indicate that implementing any of the alternative technologies into the proposed project would not be feasible. As such, the potential impacts of this alternative cannot be ascertained with respect to those of the proposed project.

5.7 Alternative 7: Lesser Impact Alternative

5.7.1 Description of Alternative 7

This scenario assumes that development similar in yield and nature to that of the proposed project occurs on the Hills South Parcel/Kracke Property, but considers the following measures to reduce potential impacts: 1) omitting the golf course; 2) prohibiting septic systems, turf or clearing in the "area of influence" of public (SCWA Spinney Road wellfield) or private (on lots along Spinney Road) wells; and 3) locating the houses away from the habitat of endangered, threatened or species of special concern. This alternative is most similar to Alternative 2b, the Existing Zoning PRD. Illustrations have been prepared for the conceptual design of this alternative.

Omitting the Golf Course
If the golf course is removed from the proposed project, this would be similar to the conditions assumed for Alternatives 2a & 2b, a purely residential development on portions of the Hills North Parcel/Kracke Property. It is noted that 118 residences would be assumed on this area for

Alternative 7, where Alternatives 2a & 2b assume 94 units for this area. Nevertheless, it is expected that the impact analyses presented in **Section 5.2.4** would apply to this alternative, but that the impacts of a purely residential use on the Hills South Parcel/Kracke Property would be greater for Alternative 7 than for Alternatives 2a & 2b, while Alternative 7 impacts would be less than those of the proposed project.

Prohibiting Septic Systems, Turf or Clearing in the "Area of Influence" of Public/Private Wells
At the present stage of site engineering, no locations for any of the proposed septic systems have been specified. However, when the requisite Site Plan application is made, these locations will be subject to review of not only the Town, but of the SCWA and SCDHS as well, ensuring that any public or private wells will be properly protected from impact from wastewater recharge. With respect to new turf (i.e., landscaping) plantings and clearing, these would be located only within the project site, whereas the "area of influence" of the SCWA's Spinney Road wellfield, and of any private wells along this roadway, are not expected to be large enough to extend onto the project site. There are no other private well sites nearby and in the downflow direction that would be exposed to potential impact from the proposed project. In order to provide consistency with the Final Scope, the Conceptual Plans identify the contributing areas to the Spinney Road and Malloy Drive well fields. These contributing areas were determined through the Source Water Assessment Program (SWAP) maps from the SCWA. There are no regulatory prohibitions to situating sanitary systems for single family residences within the contributing areas; however, the plan conceptually locates new residences outside of these areas in order to conform to the Final Scope. With respect to the residences on Spinney Road, it is expected that new sanitary systems within the south part of site would be located such that they would be more than 150 feet from any well associated with residences on Spinney Road. As a result, the plan considers the area of influence on private wells. In any case, Alternative 2b would not be expected to result in significant adverse impacts to public water supply wells or private wells. Nevertheless, this alternative has been conceptualized in conformance with the Final Scope.

Locating the Houses Away from the Habitat of Endangered, Threatened or Species of Special Concern
As detailed in **Section 2.3.1**, no Endangered, Threatened or Species of Special Concern have been identified on the subject site, so no specific areas of habitat necessary to support such species have been delineated.

5.7.2 Comparison of Impacts vs. the Proposed Project, Alternative 7

This alternative is most similar to Alternative 2b, and therefore, impacts would likewise be similar to those identified in **Section 5.2.4** above. The above discussions indicate that the impact-reducing concepts underlying this scenario are minor or not applicable. This alternative would omit the golf course, similar to Alternative 2b. The "areas of influence" to public wells does extend into the site; however, there are no regulatory requirements that would prohibit situating homes and/or sanitary systems in these areas. Potential setbacks from private wells are identified and would not alter the design from that of Alternative 2b. Also, there are no critical habitats to avoid based on review of the ecological assessment in **Section 2.3.1**. Therefore, this alternative would not reduce impacts as compared to Alternative 2b, since the design changes are not considered to be significant adverse

impacts. Consequently, there would be no compelling reason to select this alternative which is not in keeping with the goals and objectives of the project sponsor, and is not required by any applicable regulatory guidelines.

5.8 Summary and Conclusions

The following briefly summarizes the above analysis for each of the seven alternative scenarios reviewed:

- **Alternative 1: No Action** - as there would be no development in this scenario, there would be no changes on the project site, and no impacts would occur. However, there would also be no improvement in conditions on the site, no Community Benefits would be provided, and groundwater and surface water conditions in the area would not be improved.
- **Alternative 2: Development per Current Zoning & Regulatory Controls**
  - ***Alternative 2a*** - implementing this scenario would allow for private on-site recreational amenities for the each of the three sites' residents, but would not provide any public recreational amenities. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the potential donation of land for a new SCWA wellfield, an increase in tax revenues, a number of new jobs, and revegetation of previously-impacted land. The totality of some impacts in this scenario would be similar to those of the proposed project, though they would be distributed over a larger geographic area than the proposed project (impacts on the Hills South Parcel and Kracke Property would be somewhat reduced in this scenario as compared to the impacts on these parcels in the proposed project), as the Parlato Property would be developed. However, other impacts of Alternative 2a on the community would be greater than those of the proposed project, and include: more impervious coverage, less retained natural vegetation, more excavated soil, greater water use, higher nitrogen concentration in recharge, more nitrogen loading to groundwater, increased use of Spinney Road, less taxes generated, less school taxes generated, an increase in school enrollment, more school expenditures necessitated, a net negative impact on school district expenditures, greater usage of community services, fewer permanent jobs, and more overall floor space.
  - ***Alternative 2b*** - implementing this scenario would allow for private on-site recreational amenities for the site's residents, but would not provide any public recreational amenities. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the potential donation of land for a new SCWA wellfield, an increase in tax revenues, a number of new jobs, and revegetation of previously-impacted land. The impacts anticipated from this scenario would be similar to or more severe than those of the proposed project on the Hills South Parcel/Kracke Property and include: more impervious coverage, less retained natural vegetation, more excavated soil, greater water use, higher nitrogen concentration in recharge, more nitrogen loading to groundwater, less taxes generated, less school taxes generated, an increase in school enrollment, more school expenditures necessitated, a net negative impact on school district expenditures, fewer permanent jobs, and more overall floor space. Additionally, the development described in this scenario would extend over a larger geographic area (e.g., onto the Parlato Property) than that of the proposed project.
- **Alternative 3: Development per the East Quogue LUP** - implementing this scenario would provide development that would be available to the public. Some of the impacts anticipated from this scenario would be similar to or more severe than those of the proposed project on the Hills South Parcel/Kracke Property and include: similar impervious coverage, more excavated soil, greater water use, greater recharge volume, more permanent jobs generated, higher nitrogen concentration in

recharge, more nitrogen loading to groundwater, an increase in school enrollment, and more school expenditures necessitated. Conversely, some impacts of Alternative 3 would be less than those of the proposed project: less taxes generated, less school taxes generated, and less overall floor space. These impacts would extend over a larger geographic area (e.g., onto the Parlato Property) than those of the proposed project. The increase in severity is associated with the public nature of the East Quogue LUP-recommended uses, whereas the proposed project would be available only to the owners of the site's homes. Additionally, no Community Benefits would be required (as no PDD is involved); the only such benefits would be the donation of land for a new SCWA wellfield, restoration of habitat on the Hills South, Kracke and Parlato sites, and a number of new jobs.

- **Alternative 4: Reduced Density** - implementing this scenario would provide development that includes a recreational amenity not available to the public, and with most impacts anticipated to be similar to or less than those of the proposed project, primarily as a result of the removal of the yield of the Parlato Property, and its retention in an undisturbed and undeveloped condition. However, if the impacts associated with future development or renewed farming on the Parlato Property are considered with those of reduced-density development on the Hills South Parcel/Kracke Property, then the total impacts are greater than those of the proposed project. . This scenario would realize a number of the Community Benefits that would have been provided by the proposed project.
- **Alternative 5: Alternative Site Designs** - no alternative or "progress version" layouts of the proposed project were prepared during the planning process that were seriously considered, given the applicant's directive that the proposed project minimize natural vegetation clearing (and, consequently, the acreage of graded area), retain open space, minimize impact to natural steep slopes (and, consequently, minimize the volume of excavated soil), and maximize consideration of the neighborhood's aesthetics. Meeting these requirements led to the **Master Plan**; the only site design seriously considered by the applicant.
- **Alternative 6: Alternative Technologies** - analysis indicates that implementing any of the recommended alternative technologies into the proposed project would not be feasible.
- **Alternative 7: Lesser Impact Alternative** - analysis indicates that this is most similar to Alternatives 2a and 2b in eliminating the golf course. The impact-reducing concepts underlying this scenario do not reduce adverse impacts as compared with Alternatives 2a or 2b.

Table 5-2 provides additional qualitative information to compare potential impacts of the alternatives. In consideration of this comparison, it may be concluded that there is no compelling reason to prefer any of the alternatives to the proposed project. In fact, it is the proposed project that offers the greatest level of protection to the environment and the greatest set of benefits to the community.

In addition, the alternatives will not provide the important on-site groundwater mitigation associated with irrigation withdrawal and removal of existing nitrogen laden groundwater that would otherwise migrate to the western Shinnecock Bay as well as reduced sanitary flow and nitrogen load due to seasonal occupancy. The alternatives will not provide the off-site water quality benefits that would accrue as a result of the proposed project including sanitary system upgrades and bay restoration improvements. Further, these alternatives will not provide the extensive public and community benefits that are associated with the proposed project including East Quogue beautification, downtown parking assistance and funding of important community programs. Finally, the alternatives will not provide the same level of tax revenue or job creation, and would generate more school aged children that would reside in the development and require educational services from the East Quogue UFSD.

It is also noted that these alternatives are not in keeping with the goals and objectives of the project sponsor, which is to provide a seasonal resort community that provides community benefits, minimizes impact on the site and surrounding community, reduces school aged children, increases tax revenue, and conforms to all applicable land use plans (including the East Quogue LUP) and regulations while establishing a sound and sustainable environmental program for the site what will reduce environmental impacts and create environmental benefit, particularly with regard to water quality. The applicant has conducted extensive public outreach to identify community environmental goals and concerns to be addressed, and has established a list of community benefits that is responsive to community needs as expressed during public outreach. The alternatives do not achieve the goals of the project sponsor, and as a result, the development parameters for these alternatives vary, commensurate with the change in program as it deviates from the applicants' goals and objectives.

SECTION 6.0

REFERENCES

6.0 REFERENCES

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SECTION 7.0

LIST OF ACRONYMS AND ABBREVIATIONS

7.0 LIST OF ACRONYMS & ABBREVIATIONS

ºF - degrees Fahrenheit
6 NYCRR - Title 6, New York Code of Rules and Regulations
µg/l - micrograms per liter
µg/m³ - micrograms per cubic meter
AICP - American Institute of Certified Planners
AM - ante meridiem
ANSI - American National Standards Institute
AOR - as-of-right
APE - area of potential effect
APOD - aquifer protection overlay district
asl - above sea level
AST - aboveground storage tank
ASTM - American Society for Testing and Materials
ATV - all-terrain vehicle
AWQS - ambient water quality standards
bgs - below ground surface
BMP - best management practices
BNL - Brookhaven National Laboratory
BOH - Bureau of Habitat
bsl - below sea level
BZA - Board of Zoning Appeals
CE - conditionally exempt
CEA - critical environmental area
CEP - Certified Environmental Professional
CEQR - City Environmental Quality Review
CERCLA - Comprehensive Environmental Recovery and Clean-Up Liability Act
CERCLIS - Comprehensive Environmental Remediation, Compensation and Liability Information System
CF - cubic feet
CFR - Code of Federal Regulations
CGA - compatible growth area
CLUP - comprehensive land use plan
CO - carbon monoxide
COA - condominium owner's association
CPA - core preservation area
CPB - central pine barrens
CPBJPPC - Central Pine Barrens Joint Policy & Planning Commission
CR - county route
C&R - covenants and restrictions
CRA - critical resource area
CSD - central school district
CUPR - Center for Urban Policy Research
CY - cubic yards
dBA - decibels (A-weighted scale)
DEIS - draft environmental impact statement
DER - Division of Environmental Remediation
DLC - Discovery Land Company

DRA - drainage reserve area
EAF - environmental assessment form
EB - eastbound
ECL - Environmental Conservation Law
EDR - Environmental Data Resources
EIS - environmental impact statement
EMT - emergency medical technician
EQ - East Quogue
EQFD - East Quogue Fire Department
ESA - environmental site assessment
FAA - Federal Aviation Administration
FEIS - final environmental impact statement
FEMA - Federal Emergency Management Agency
FIFRA - Federal Insecticide, Fungicide and Rodenticide Act
FOIL - Freedom of Information Law
FOK - FAA designation for Francis S. Gabreski Airport
FTE - full time equivalent
GC - gustiness classification
GEIS - generic environmental impact statement
GMP - groundwater monitoring program
gpd - gallons per day
gpd/acre - gallons per day per acre
GPS - global positioning system
gpm - gallons per minute
HCM - Highway Capacity Manual
HDPE - high-density polyethylene
HOA - home owners association
HSWDS - Hazardous Substance Waste Disposal Site
HVAC - heating, ventilation and air conditioning
IHWDS - Inactive Hazardous Waste Disposal Site
ISI - Institute for Sustainable Infrastructure
ITE - Institute of Traffic Engineers
ITHMP - integrated turf health management plan
kg - kilograms
lbs - pounds
L - left(bound) turn
L_{eq} - equivalent sound level
LED - light emitting diode
LEED™ AP - Leadership in Energy and Environmental Design, Accredited Professional
LIPA - Long Island Power Authority
LIRPB - Long Island Regional Planning Board
LIRR - Long Island Rail Road
LISS - Long Island Sound Study
LOS - level of service
LUP - land use plan
MBTA - Migratory Bird Treaty Act
MCL - maximum contaminant limit
mg - milligrams
mg/kg - milligrams per kilogram
mg/l - milligrams per liter

mg/m^3 - milligrams per cubic meter
MGY - million gallons per year.
mph - miles per hour
MPN - most probable number
MSDS - material safety data sheet
msl - mean sea level
MUPDD - mixed-use planned development district
NAAQS - National Ambient Air Quality Standards
NAS - National Airspace System
NASA - National Aeronautics and Space Administration
NB - northbound
ND - not detected.
NGVD - National Geodetic Vertical Datum
NHP - Natural Heritage Program
NPL - National Priorities List
NP&V - Nelson, Pope and Voorhis, LLC
NRMC- Natural Resources Management Center
NTU - natural turbidity units
NURP - Nationwide Urban Runoff Program
NWI - National Wetlands Inventory
NYS - New York State
NYSDEC - New York State Department of Environmental Conservation
NYSDOH - New York State Department of Health
NYSDOT - New York State Department of Transportation
OSS - Office of Environment and Energy
OPRHP - Office of Parks, Recreation and Historic Preservation
PB - protected bird
PBC - pine barrens credit
PCB - poly-chlorinated biphenyl
PCE - tetrachloroethylene
pCi/l - picocuries per liter
PDD - planned development district
PEP - Peconic Estuary Program
PID - photo-ionization detector
PILOT - payment in lieu of taxes
PM - post meridiem, or particulate matter
$PM_{2.5}$ - particulate matter, less than 2.5 microns
ppb - parts per billion
PPE - personal protective equipment
ppm - parts per million.
PSE&G - Public Service Gas & Electric Company
psi - pounds per square inch
PWGC - Paul W Grosser Consulting, Inc.
R - right(bound) turn
REC - recognized environmental condition
ROW - right-of-way
SC - special concern
SCCWRMP - Suffolk County Comprehensive Water Resources Management Plan
SCDHS - Suffolk County Department of Health Services
SCDPW - Suffolk County Department of Public Works

SCPC - Suffolk County Planning Commission
SCPD - Suffolk County Police Department
SCSC - Suffolk County Sanitary Code
SCTM - Suffolk County Tax Map
SCWA - Suffolk County Water Authority
SEQRA - State Environmental Quality Review Act
SF - square feet
SGPA - Special Groundwater Protection Area
SHPO - State Historic Preservation Office
SIP - State Implementation Plan
SMP - soil management plan
SONIR - Simulation of Nitrogen in Recharge
sp. - species
SPDES - State Pollutant Discharge Elimination System
SQG - small quantity generator
SB - southbound
SSER - South Shore Estuary Reserve
ST - shovel test
STP - sewage treatment plant
SVOC - semi-volatile organic compound
SWPP - Southampton Water Protection Plan
SWPPP - Storm Water Pollution Prevention Plan
T - through(bound)
TAGM - Technical Assistance Guidance Manual
TOGS - Technical and Operational Guidance Series
TSD - treatment, storage and disposal
UFSD - union free school district
UIC - underground injection control
USC - United States Code
USCO - unrestricted soil cleanup objective
USDA - United States Department of Agriculture
USDOT - United States Department of Transportation
USEPA - United States Environmental Protection Agency
USGS - United States Geological Survey
UST - underground storage tank
VOC - volatile organic compound
vph - vehicles per hour
WB- westbound