

# PRIVATE GOLF COURSE PLANNING STUDY

Town of Oyster Bay

April 2022

Prepared for:

Town of Oyster Bay Planning & Development

Prepared by:



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# TOWN OF OYSTER BAY PRIVATE GOLF COURSE PLANNING STUDY

NPV No. 21169

**Prepared for:**

Town of Oyster Bay  
Department of Planning & Development  
Oyster Bay Town Hall  
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Oyster Bay, NY 11771

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**April 2022**

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## TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Overview.....	1
1.2	Recent Trends .....	5
1.3	Study Components .....	6
2.0	INVENTORY.....	8
2.1	Inventory Methodology .....	8
2.2	Relevant Plans.....	9
2.2.1	Town of Oyster Bay Zoning Code – Zoning Districts .....	9
2.2.2	Other Applicable Provisions of the Zoning Code .....	14
2.2.3	Other Applicable Provisions of the Town Code.....	16
2.2.4	Town of Oyster Bay Plans and Studies .....	18
2.2.5	New York State Plans .....	21
2.2.6	Regional Plans and Studies.....	23
2.2.7	Other Municipal Plans and Studies.....	25
2.3	Inventory of Golf Courses.....	27
2.3.1	North Shore Country Club (NSCC).....	28
2.3.2	Engineers Country Club (ECC).....	32
2.3.3	Glen Head Country Club (GHCC).....	35
2.3.4	Nassau Country Club (NCC).....	38
2.3.5	Pine Hollow Country Club (PHCC).....	42
2.3.6	Meadow Brook Club (MBC) .....	44
2.3.7	Public Golf Courses .....	47
3.0	ANALYSIS.....	49
3.1	Analysis Methodology .....	49
3.2	Analysis of Golf Courses .....	50
3.2.1	North Shore Country Club (NSCC).....	50
3.2.2	Engineers Country Club (ECC) .....	53
3.2.3	Glen Head Country Club (GHCC).....	55
3.2.4	Nassau Country Club (NCC) .....	57
3.2.5	Pine Hollow Country Club (PHCC) .....	59
3.2.6	Meadow Brook Club (MBC) .....	60
3.2.7	Public Golf Courses.....	61
4.0	IMPLEMENTATION STRATEGIES.....	63
4.1	Residential Rezoning (Larger Minimum Lot Area).....	63

4.2	Recreation (REC) Zoning.....	64
4.3	Planned Development District (PDD) .....	65
4.4	Cluster/Conservation Subdivision .....	65
4.5	Overlay Zoning .....	66
4.6	Incentive Zoning .....	67
4.7	Yield Deductions for Sensitive Environmental Features.....	67
4.8	Transfer of Development Rights.....	69
4.9	Transfer of Density Flow Rights .....	69
4.10	Negotiated Purchase.....	69
4.11	Eminent Domain .....	69
4.12	Purchase of Development Rights.....	70
4.13	Voluntary Conservation Easement.....	70
4.14	Voluntary Open Space Dedication.....	70
5.0	RECOMMENDATIONS .....	71
5.1	General Recommendations .....	71
5.2	Site-Specific Recommendations .....	74
5.2.1	North Shore Country Club (NSCC).....	74
5.2.2	Engineers Country Club (ECC) .....	76
5.2.3	Glen Head Country Club (GHCC).....	77
5.2.4	Nassau Country Club (NCC) .....	78
5.2.5	Pine Hollow Country Club (PHCC) .....	79
5.2.6	Meadow Brook Club (MBC) .....	79
5.2.7	Public Golf Courses.....	80
5.3	Summary Tables.....	80



**FIGURES:**

1	Location Map	4
2	Special Groundwater Protection Area Map	19

Note: Figures for the individual golf courses are in the appendices

**TABLES:**

1	North Shore Country Club: Summary of Existing and Recommended Conditions	82
2	Engineers Country Club: Summary of Existing and Recommended Conditions	83
3	Glen Head Country Club: Summary of Existing and Recommended Conditions	84
4	Nassau Country Club: Summary of Existing and Recommended Conditions	85
5	Pine Hollow Country Club: Summary of Existing and Recommended Conditions	86
6	Meadow Brook Club: Summary of Existing and Recommended Conditions	87

**APPENDICES:**

Appendix Key Map

- A North Shore Country Club
  - Figures
    - Figure NSCC-1 – Aerial Photograph
    - Figure NSCC-2 – Zoning
    - Figure NSCC-3 – Land Use
    - Figure NSCC-4 – Flood Zones
    - Figure NSCC-5 – Wetlands
    - Figure NSCC-6 – Soils
    - Figure NSCC-7 – Steep Slopes
    - Figure NSCC-8 – Woodlands
    - Figure NSCC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs
  
- B Engineers Country Club
  - Figures
    - Figure ECC-1 – Aerial Photograph
    - Figure ECC-2 – Zoning
    - Figure ECC-3 – Land Use
    - Figure ECC-6 – Soils
    - Figure ECC-7 – Steep Slopes
    - Figure ECC-8 – Woodlands
    - Figure ECC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs
  
- C Glen Head Country Club
  - Figures
    - Figure GHCC-1 – Aerial Photograph
    - Figure GHCC-2 – Zoning
    - Figure GHCC-3 – Land Use
    - Figure GHCC-5 – Wetlands
    - Figure GHCC-6 – Soils
    - Figure GHCC-7 – Steep Slopes
    - Figure GHCC-8 – Woodlands
    - Figure GHCC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs

- D Nassau Country Club
  - Figures
    - Figure NCC-1 – Aerial Photograph
    - Figure NCC-2 – Zoning
    - Figure NCC-3 – Land Use
    - Figure NCC-5 – Wetlands
    - Figure NCC-6 – Soils
    - Figure NCC-7 – Steep Slopes
    - Figure NCC-8 – Woodlands
    - Figure NCC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs
  
- E Pine Hollow Country Club
  - Figures
    - Figure PHCC-1 – Aerial Photograph
    - Figure PHCC-2 – Zoning
    - Figure PHCC-3 – Land Use
    - Figure PHCC-5 – Wetlands
    - Figure PHCC-6 – Soils
    - Figure PHCC-7 – Steep Slopes
    - Figure PHCC-8 – Woodlands
    - Figure PHCC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs
  
- F Meadow Brook Club
  - Figures
    - Figure MBC-1 – Aerial Photograph
    - Figure MBC-2 – Zoning
    - Figure MBC-3 – Land Use
    - Figure MBC-5 – Wetlands
    - Figure MBC-6 – Soils
    - Figure MBC-7 – Steep Slopes
    - Figure MBC-8 – Woodlands
    - Figure MBC-9 – Cultural Resources
  - Natural Heritage Program Information
  - Site Photographs

- G Town of Oyster Bay Golf Course
  - Figures
    - Figure TOBGC-1 – Aerial Photograph
    - Figure TOBGC-3 – Land Use
    - Figure TOBGC-5 – Wetlands
    - Figure TOBGC-7 – Steep Slopes
    - Figure TOBGC-8 – Woodlands
  
- H Cantiague County Park Golf Course
  - Figures
    - Figure CCPGC-1 – Aerial Photograph
    - Figure CCPGC-3 – Land Use
    - Figure CCPGC-8 – Woodlands
  
- I Bethpage State Park Golf Courses
  - Figures
    - Figure BSPGC-1 – Aerial Photograph
    - Figure BSPGC-3 – Land Use
    - Figure BSPGC-7 – Steep Slopes
    - Figure BSPGC-8 – Woodlands

## 1.0 INTRODUCTION

### 1.1 Overview

The Town of Oyster Bay (also, the “Town”) is among the most desirable places to live in the United States. This distinction derives from a variety of factors, including a wholesome suburban atmosphere that is greatly enriched by the Town’s natural resources. Open spaces and recreational lands are important elements of these natural resources and make a major contribution to the character of the communities in the Town. In addition to public lands, including a vast inventory of Town-owned parklands, as well as those under the jurisdiction of Nassau County and New York State, numerous large, private tracts comprise essential recreational/open space resources, particularly, but not exclusively, in the northern portion of the Town. These large private parcels are an important asset, providing visual and aesthetic variation to the area’s predominant single-family residential setting. Key among the private recreational/open space lands in the Town are golf courses and country clubs.

Seven private golf courses are located fully or partially within the unincorporated area of the Town (i.e., not including properties situated entirely within the Town’s incorporated villages). Four of these properties are situated entirely within the Town’s unincorporated hamlets, as follows:

- Glen Head Country Club (Glen Head) – 174.6± acres<sup>1</sup>, located at 240 Glen Cove Road, on the west side of Glen Cove Road (New York State [NYS] Route 107), south of Sea Cliff Avenue, east of the Oyster Bay Line of the Long Island Rail Road (LIRR) and north of Hill Drive and Glen Cove Drive.
- Meadow Brook Club (Jericho) – 267.3± acres, located at 500 Cedar Swamp Road, on the west side of Cedar Swamp Road (NYS Route 107), north of Jericho Turnpike (NYS Route 25) and south of the access road for the State University of New York (SUNY) at Old Westbury
- Pine Hollow Country Club (East Norwich) – 135.2± acres, located at 6601 Northern Boulevard (NYS Route 25A), on the north side of Northern Boulevard, east of Sugar Toms Lane, west of Grace Lane and south of Highwood Road
- Peninsula Golf Club (Massapequa) – 50.0± acres, located at 50 Nassau Road, on the south side of Nassau Road, east of Sunset Road, north of Peconic Drive, south of Highland Street East, and on the east and west sides of Cedar Drive. The Town is actively pursuing the acquisition of this property for addition to the recreational resources available to Town residents. A separate, site-specific assessment has been completed to examine the public purpose and need for this proposed acquisition; and, at the time of this report, the Town Board was deliberating on how best to proceed. Therefore, Peninsula Golf Club is not included in the Town-wide planning analysis of the private golf courses within its

<sup>1</sup> Unless otherwise indicated, golf course acreages are based on information available on the Nassau County Land Record web site, at <https://lrv.nassaucountyny.gov>.

jurisdiction, although some discussion of this site is provided in this report where appropriate to the overall investigation.

Three private golf courses are located partially in the unincorporated area of the Town, extending into neighboring municipalities, as follows:

- North Shore Country Club (Glenwood Landing and Village of Sea Cliff) – 157.7± acres, located at 500 Shore Road in Glen Head, on the east side of Shore Road, south of Littleworth Lane and Downing Avenue, north of Kissam Lane and east of Glen Cove Avenue, with 83.4± acres in the Town and 74.3± acres in the Village
- Nassau Country Club (Locust Valley and City of Glen Cove) – 147.3± acres, located at 30 St. Andrews Lane, Glen Cove, on the east side of St. Andrews Lane, south of Forest Avenue, west of South Sixth Street and north of the Oyster Bay Line of the LIRR, with 55.6± acres in the Town and 91.7± acres in the City
- Engineers Country Club (Glen Head and Village of Roslyn Harbor) – 139.9± acres, located at 55 Glenwood Road in Roslyn Harbor, on the east side of Glenwood Road, south of Scudders Lane and Roosevelt Avenue, west of Glen Cove Avenue, north of Bryant Avenue, and on the east and west sides of Motts Cove Road North, with 4.3± acres in the Town and 135.6± acres in the Village.

As discussed more fully in **Section 2.3** of this report, the private golf course properties in the Town possess significant natural resource value for the communities in which they are located, as well as the Town as a whole. These important aspects of the golf courses include, but are not limited to, surface waters and wetlands, rolling terrain with steep slopes, woodlands and other ecological resources, scenic vistas and related aesthetic characteristics, and recreational and open space features. Therefore, as a general matter, it is in the interest of the Town and its populace to preserve and protect the contributing qualities of the golf courses in order to reserve for future generations the associated benefits that are currently enjoyed. Once these qualities have been eliminated or substantially diminished by development that does not give due consideration to their importance, the associated community benefits are lost forever.

Beyond an underlying appreciation of the benefits engendered by the presence of golf courses in the midst of a community and the goal of continuing to realize these benefits, it is important to recognize the occurrence of an active development trend which poses a real and present threat to accomplishing this goal. More specifically, private golf courses have been, and continue to be, targets for residential development of varying intensity. This trend has been driven, in large part, by declining memberships and financial challenges faced by private golf courses, which often turns owners toward consideration of alternative uses. As most golf courses are zoned for single-family residential use, the alternative use scenarios typically involve housing. In some cases, the golf course uses are continued and residential development is retrofitted into the recreational site layout, while other projects involve elimination of the golf courses and their replacement with housing. In either case, there is a potential for significant impacts to the inherent natural resources of the golf course properties and consequent adverse effects on the community resulting from the permanent alteration of their physical setting. Further discussion of the trend in the development and redevelopment of private golf courses is presented in **Section 1.2**.

As indicated above, two important factors are at play, involving the presence of resources on private golf courses that are important to the community, combined with the ongoing trend for development/redevelopment of these properties that threatens to eliminate, diminish or impair these resources. The conjunction of these two factors has appropriately raised concerns in the Town regarding the future fate of the golf course properties and the potential for impacts to the surrounding communities and the Town as a whole that would result if the essential resources inherent to these properties are not properly protected and preserved. This concern has prompted the present study to more specifically characterize the resources present on the Town's private golf courses that merit conservation and to identify the best means of safeguarding these resources.

As noted above, this investigation examines the private golf courses in the Town to characterize their significant resources and formulate a strategy for ensuring the protection of these resources. Previous studies conducted by the Town that extended to the golf course properties had a different impetus than the goal of this study which is focused on a single land use. In particular, the Town completed studies in 2002-2003 of: the Glenwood Landing Waterfront, which led to the rezoning of North Shore Country Club, along with wider rezonings in that study area; and the portion of the Special Groundwater Protection Area (SGPA) within its boundaries, which led to the rezoning of the four private golf courses in the SGPA (i.e., Glen Head Country Club, Nassau Country Club, Meadow Brook Club, and Pine Hollow Country Club), along with adoption of the Recreation and Aquifer Protection Overlay Districts – see further discussion in **Section 2.2.4**. Thus, the present study is the first by the Town which recognizes certain commonalities among the private golf courses, and is directed at completing a comprehensive analysis of these properties to determine whether further zoning actions are appropriate at this time, including both broad measures applying universally and site-specific measures using consistent planning principles which account for the individual characteristics of each parcel.

This study also examines the three publicly-owned golf course properties in the Town: the Town Golf Course on South Woods Road in Woodbury; the golf course at Cantiague County Park on West John Street in Hicksville; and the golf courses at Bethpage State Park in Bethpage, Old Bethpage and Farmingdale (and also extending eastward into Suffolk County). Since these three properties are designated parkland in public ownership, they are not of concern with respect to potential future development/redevelopment as pertains to the private golf courses. Accordingly, the three public golf course properties in the Town have not been submitted to the same level of detailed analysis that was applied in this study to the private golf courses, but are included for completeness and were examined for potential regulatory revisions as applicable. See **Figure 1**, below, for the location of the six private golf courses and three public golf courses that were investigated in this study.





**FIGURE 1**  
**GOLF COURSES LOCATION MAP**

Sources: ESRI Basemap; NYS GIS  
 Scale: 1 inch equals 9,000 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay



## 1.2 Recent Trends

As noted in **Section 1.1**, private golf courses generally are being subjected to operational and financial pressures, which often prompts owners to consider alternative uses, usually involving residential development. A persistent trend in declining membership and revenues through the beginning of 2020 was impacted by the Covid-19 pandemic, which caused a widespread shutdown early in that same year and has had lingering social and economic consequences, the ultimate long-term effects of which remain to be determined. This trend has had a wide geographic reach, spanning across the United States and abroad, as well as regionally and in Nassau County.

A 2020 survey of private golf club members in the United States and Canada conducted by GGC partners, an international consulting firm specializing in golf courses, private clubs, resorts and residential communities, indicated that survey respondents were not optimistic about their club's financial position, with 71 percent saying they expect a decline in the financial health of their club. Fifty percent of the respondents cited current economic conditions and 42 percent said a drop in member spending would lead to the decline, which 20 percent predicted would be "significant."<sup>2</sup>

A 2019 article in *City Journal* reports that the recession of the late 2000s had a significant negative impact on the fortunes of country clubs, with the number of golf courses and country clubs declining by 5 percent between 2005 and 2015. This trend is expected to be intensified by a generational shift, whereby Americans born between 1981 and 1996 are financially outmatched by every generation since the Great Depression. The article goes on to state that, "Despite higher levels of education, millennials have less wealth, less property, lower marriage rates, and fewer children. Annual country club dues, which run in the thousands of dollars, put membership beyond practical reach for many. Leisure for today's younger adults more often involves streaming TV shows in a high-rent city bedroom, not playing 18 holes on a suburban green."<sup>3</sup>

A 2019 article in *Business Insider* notes that country club memberships dropped by 20 percent between 1990 and 2014. The number of country clubs has also diminished, with more than 5,000 member-owned full-service golf and country clubs in the United States in the mid-to-late 1990s falling to about 3,900 by 2017. More recently, country clubs have had difficulty attracting millennials, for reasons that include a high debt burden and a lower affinity toward golf and the country club atmosphere than characterized prior generations.<sup>4</sup>

Some noteworthy local examples illustrating the real estate trend involving the conversion of private golf courses to residential development can also be pointed to. Pending applications include:

- Applications have been submitted for residential subdivisions in accordance with the existing single-family zoning for the Woodmere Club ("Willow View Estates" in the Town of Hempstead, which spans between the unincorporated area of that Town and the

<sup>2</sup> <https://www.golfcourseindustry.com/article/gga-partners-private-club-survey-golf-pandemic/>, dated August 11, 2020; accessed November 2021.

<sup>3</sup> <https://www.city-journal.org/country-clubs>, dated June 7, 2019; accessed November 2021.

<sup>4</sup> <https://www.businessinsider.com/millennials-dont-like-country-clubs-membership-dues-evolution-2019-10>, dated October 14, 2019; accessed November 2021.

Villages of Lawrence and Woodsburgh) and Tam O'Shanter Country Club (entirely within the Village of Brookville in the Town of Oyster Bay)

- An application recently was submitted to the Village of Roslyn Harbor for a clustered, multi-family residential development on a portion of Engineers Country Club within that municipality, which would retain the 18-hole golf course use in conjunction with the proposed residential project. Although, as noted above, a portion of Engineers Country Club lies in the unincorporated area of the Town of Oyster Bay, the pending proposal for development on this property does not involve an application to the Town
- A proposal for a senior housing community which would retain a nine-hole golf course on the property currently containing the 18-hole Heatherwood Golf Club in Centereach received the necessary zoning approval from the Town of Brookhaven in 2014. However, this application has been stalled recently by the failure of the project sponsor to procure requested tax breaks from the Town Industrial Development Agency, and the site has been closed since 2020 and has fallen into disrepair.<sup>5</sup>

In the foregoing cases, the applications for residential development were preceded by the sale of the involved properties. Thus, although not necessarily always the case, the sale of a private golf course in the current marketplace often portends a development proposal. This magnifies the level of concern when the pending sale of a golf course property is publicly acknowledged, or even when there are rumors of a sale or uncertainty about the long-term stability of current ownership interests. In any event, proper planning calls for municipalities to exercise constant vigilance regarding land use conditions and trends, and to adjust their regulations accordingly. In the present situation, the Town has recognized a number of factors pointing to a shift away from the status quo for the private golf courses within its boundaries, in which these properties may be vulnerable to increasing development pressure. On this basis, the Town has decided to undertake an investigation (i.e., this study) to characterize the golf course properties, review the efficacy of the existing regulatory setting, and formulate a recommended program of regulatory revisions as necessary to enhance the protection and preservation of important resources inherent to the golf courses.

### 1.3 Study Components

Below is an outline of the remaining sections of this report, which comprise the elements of the Town's study of private golf courses within its boundaries:

- **Section 2.1** – Methodologies used to compile an inventory of the golf courses in the study
- **Section 2.2** – Existing land use plans relevant to the golf courses in the study, including the Town of Oyster Bay Zoning Code (Chapter 246, the "Zoning Code"), other pertinent sections of the Town Code, area-wide and community planning studies by the Town, relevant New York State plans, regional plans, and plans prepared by other municipalities pertaining to the golf courses addressed in this study (i.e., plans by neighboring

<sup>5</sup> <https://www.golfonlongisland.com/teebox/2021/04/heatherwood-golf-club-closed-amid-real-estate-development-fight.html>; accessed November 2021.

municipalities which include private golf courses that extend into the unincorporated area of the Town)

- **Section 2.3** – Inventory of the resource value of the golf courses in the study
- **Section 3.1** – Methodologies used to analyze the golf courses in the study
- **Section 3.2** – Analysis of the inventory information in **Section 2.3**
- **Section 4.0** – Available strategies for protecting and preserving golf courses
- **Section 5.1** – General recommendations for Town actions to optimize the protection of golf courses, based on the analysis in **Section 3.2** and the available strategies in **Section 4.0**
- **Section 5.2** – Site-specific recommendations for Town actions to optimize the protection of individual privately-owned golf courses, also based on the analysis in **Section 3.2** and the available strategies in **Section 4.0**

## 2.0 INVENTORY

### 2.1 Inventory Methodology

An inventory of available information relevant to the golf courses in the study has been compiled for this investigation. **Section 2.2** presents a synopsis of the applicable contents of existing plans completed by the Town (including the Zoning Code and other pertinent sections of the Town Code), as well as area-wide studies by the Town (i.e., separate studies for the portion of the Town in the Special Groundwater Protection Area and the area of the Town outside the SGPA), community studies by the Town (i.e., for the Glenwood Landing Waterfront), relevant New York State plans, regional plans (e.g., coastal management plans), and other municipal plans pertaining to the golf courses addressed in the study. **Section 2.3** discusses the inventory information compiled for each individual golf course property.

The inventory parameters examined for the golf courses in the study include:

- General description of each property, including location (illustrated on an overall aerial location map), municipalities, acreage (with breakdown in each municipality, as applicable)
- Existing land use – to a distance of one-half mile from the portion of the site in the unincorporated area of the Town, illustrated on a map for each golf course
- Existing zoning – to a distance of one-half mile from the portion of the site in the unincorporated area of the Town, including areas in neighboring municipalities, illustrated on a map for each golf course
- Wetlands – New York State of Environmental Conservation (NYSDEC) and National Wetland Inventory (NWI)-regulated wetlands, illustrated on a map for each golf course if applicable
- Flood zones – based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), illustrated on a map for each golf course if applicable
- Steep slopes (greater than 25% gradient, as defined in the Zoning Code) – based on New York State Orthophotography and National Oceanic and Atmospheric Administration LiDAR mapping; illustrated on a map for each golf course
- Soils – distribution of mapped soil units from Nassau GIS/Web Soil Survey, illustrated on a map for each golf course; soil unit descriptions from the *Soil Survey of Nassau County* (the “Nassau County Soil Survey” or the “Soil Survey,” U.S. Department of Agriculture, Natural Resources Conservation Service, 1987)
- Extent of woodlands – estimated based on recent aerial photography, illustrated on a map for each golf course <sup>6</sup>

<sup>6</sup> Recent aerial photographs and site inspections show that in addition to “woodlands” (i.e., patches or swaths of land with contiguous tree cover), the golf courses in the study also contain numerous individual trees. These individual trees, although serving an important and beneficial purpose as key elements of the landscape and local ecology and serving other resource value, were not counted as “woodlands.”

- Groundwater – illustrated with a map showing the location of the golf courses with respect to the Special Groundwater Protection Area (SGPA)
- State Historic Preservation Office (SHPO) resources – using SHPO’s Cultural Resources Information System (CRIS) for archeologically sensitive areas and historic properties
- Other important ecological resources, particularly including threatened/endorsed species, identified through consultation with the New York Natural Heritage Program (NHP), a partnership between NYSDEC and the State University of New York College of Environmental Science and Forestry, which is directed at facilitating the conservation of rare animals, rare plants, and natural ecosystems, and the reduction of the threat of invasive species to native ecosystems <sup>7</sup>
- Visual/aesthetic resources – based on the aerial photograph and “windshield survey” visual inspection from public roadways around each golf course, as available; documented with ground-level photographs

## 2.2 Relevant Plans

This section of the report examines the Town of Oyster Bay Zoning Code (Chapter 246), as applicable to the golf courses in the study, including the zoning districts in which these golf courses are located, providing pertinent details for each applicable district (see **Section 2.2.1**). Other provisions of the Zoning Code (see **Section 2.2.2**) and other sections of the Town Code (see **Section 2.2.3**) that are relevant to the future potential development of the golf courses are also discussed. In addition, prior Town planning studies are reviewed to determine pertinence to current conditions and recommendations that are relevant to the golf courses in the study (see **Section 2.2.4**), as are New York State plans relating to recreation and open space (see **Section 2.2.5**), regional plans (see **Section 2.2.6**), and studies prepared by other municipalities covering golf courses within their jurisdiction that extend into the unincorporated area of the Town (see **Section 2.2.7**).

### 2.2.1 Town of Oyster Bay Zoning Code – Zoning Districts

#### Overview

The Town Zoning Code (Chapter 246 of the Town Code) serves as the primary component of the Town’s comprehensive plan. The Zoning Code delineates discrete districts on a Zoning Map into which each property in the Town is placed. The written portion of the Zoning Code establishes dimensional requirements (e.g., minimum required lot size, maximum building coverage, minimum setbacks, maximum building height, etc.) and other standards to govern permissible development in each individual district.

<sup>7</sup> Web site – <https://www.dec.ny.gov/animals/29338.html>.

The Zoning Code defines 17 residential districts, 12 non-residential districts (including three recently created Hicksville Downtown sub-districts to replace the prior Central Business District), and two overlay districts. Five residential districts, two non-residential districts and one overlay district apply to the six private golf courses and three public golf course properties examined in this study, as follows:

- R1-7 One-Family Residence District – Engineers Country Club
- R1-20 One-Family Residence District – North Shore Country Club
- R1-1A One-Family Residence District – Nassau Country Club and Bethpage State Park<sup>8</sup>
- R1-2A One-Family Residence District – Glen Head Country Club
- R1-5A One-Family Residence District – Meadow Brook Club and Pine Hollow Country Club
- Light Industrial (LI) District – Cantiague Park Golf Course
- Recreation (REC) District – Town Golf Course
- Aquifer Protection Overlay (APO) District – Glen Head Country Club, Nassau Country Club, Meadow Brook Club, Pine Hollow Country Club, and Town of Oyster Bay Golf Course.

### Residence Districts

As noted above, the private golf courses in this study are situated primarily in various single-family residence zoning districts. The most important dimensional standard pertaining to these districts is minimum lot area, which is the primary factor in determining subdivision development yield; although various other parameters (e.g., minimum lot width, yard setbacks, public roadway frontage, and contiguous buildable area) may also influence the maximum number of conforming lots that can be achieved for any given parcel.

The nomenclature of the Town’s single-family districts indicates the required minimum lot area, in square feet or acres, as follows:

- R1-7 – 7,000 square feet
- R1-10 – 10,000 square feet
- R1-20 – 20,000 square feet
- R1-1A – 1 acre
- R1-2A – 2 acres
- R1-5A – 5 acres

The Zoning Code, at §246-5.1.1, establishes the following specific purposes for residence districts, within which most of the golf courses in the study are located, as noted above:

<sup>8</sup> There are also two small parcels in the northern portion of Bethpage State Park in the Town’s R1-10 One-Family Residence District, on the east side of Winding Road and on the west side of Round Swamp Road.

- To promote and encourage a suitable environment for family life where safe streets, wide yards and quiet neighborhoods are of paramount importance.
- To achieve a balanced array of housing types, sizes and densities meeting the needs of households of varying ages and income levels, consistent with the character of existing neighborhoods, the need for protection of the natural environment, and the provision of adequate open space, sunlight and air.
- To avoid, insofar as possible, commercial and through traffic in residential neighborhoods.

### Light Industrial (LI) District

The LI District is the most permissive zoning district in the Town, allowing for a range of relatively intense commercial and industrial uses, including:

- as-of-right uses – fitness centers under 1,500 square feet, colleges/universities and private schools, hospitals and nursing homes, museums, technical and trade schools, animal hospitals, banks, business services, commercial greenhouses, dance halls and night clubs, landscape nurseries and garden centers, public markets, fast-food restaurants in multiple-use buildings, offices, self-storage facilities, undertaking establishments, veterinary offices, motor vehicle dealerships, storage of registered commercial vehicles, taxi or limousine services, light manufacturing uses, lumber yards, research and development uses, warehouse/distribution/storage uses, and electric substations)
- uses requiring a special permit to provide for increased discretion in approval decisions – assisted-living facilities, active recreation uses, fitness centers over 1,500 square feet, theaters, animal boarding facilities, bars, catering services, fast-food restaurants in free-standing buildings, lodging places, restaurants, retail stores, motor vehicle fueling and service facilities, auto body shops, tow car operations, car washes, motor vehicle rental facilities, outdoor motor vehicle sales, helipads, radio and television broadcast stations, and solid waste management facilities.

The Zoning Code, at §246-5.1.2.8, establishes the following specific purpose for the LI District, within which only the golf course within Cantiague County Park is located: “to provide the opportunity and encouragement for the development of manufacturing, assembly, warehousing, research and development, *office* and other compatible types of job-creating commercial activities in established industrial areas in accordance with modern development standards.”

### Recreation (REC) District

The Zoning Code, at §246-5.1.2.1, establishes the following specific purpose for the REC District, within which the Town Golf Course is located: “to help assure the preservation and continuation of existing recreational/*open space* uses so as to protect the quality and quantity of groundwater *recharge*, preserve *open space* and scenic beauty, reduce flooding, meet important recreational and *open space* needs of present and future Town residents and minimize potential adverse environmental impacts, including groundwater impacts, which might be associated with the redevelopment of such recreational/*open space* properties for more intensive use.”



The legislative intent of the REC District is further defined in §246-5.7.1 of the Zoning Code as follows:

- To protect the quality and quantity of groundwater *recharge* into the sole source aquifers which provide drinking water for all present and future residents, businesses and other uses in the Town of Oyster Bay and in Nassau and Suffolk Counties.
- To help assure the preservation and protection of the limited remaining quantities of existing *open space* amidst the Town’s pattern of primarily suburban development in such a way as to maintain the scenic beauty and visual appeal of the Town of Oyster Bay.
- To prevent or reduce flooding through the preservation of *wetlands* and drainageways, and by the minimization of impervious surface coverage.
- To protect visually and environmentally important natural features of the land, including, but not limited to, trees, ridgelines, *steep slopes*, rock outcroppings, *wetlands*, waterbodies, streams and habitat for rare, unique, threatened, endangered or protected species of plants or animals, as defined by state or federal law, consistent with the other purposes of this district.
- To encourage the establishment of new, and the continuation of existing, facilities which serve the recreational needs of Town residents, employees and visitors.
- For those REC Districts, or portions thereof, located within the Special Groundwater Protection Area, to further the specific purposes of the laws establishing the SGPA.

The REC district allows a limited range of permitted principal uses (i.e., public parks, Town of Oyster Bay municipal uses, and other governmental uses), permitted accessory uses (including tennis courts and swimming pools), and special permit uses (i.e., private membership clubs, country clubs, antennas and wireless communications facilities, and legal pre-existing business uses).

#### Aquifer Protection Overlay (APO) District

The Zoning Code, at §246-5.1.3.1, establishes the following specific purpose for the APO District, within which Glen Head Country Club, Nassau Country Club, Meadow Brook Club, Pine Hollow Country Club, and the Town of Oyster Bay Golf Course are located: “to establish special standards and procedures regulating the use and development of land within the Oyster Bay Special Groundwater Protection Area, as designated by the Nassau County Public Health Ordinance (Article X) and by the New York State Environmental Conservation Law (Article 55), with the intent of protecting both the quality and quantity of groundwater, and which regulations are to be in addition to all other requirements and limitations of the underlying zoning district.” Of the six private golf courses included in the present planning study, two (North Shore Country Club and Engineers Country Club) are not located in the APO.

The legislative intent of the APO District is further defined in §246-5.4.7.1 of the Zoning Code as follows:



“to promote the public health, safety and general welfare by protecting both the quality and quantity of groundwater *recharge* into the sole source aquifers which provide drinking water for all residents, businesses and other uses in the Town of Oyster Bay and in Nassau County, through the establishment of special regulatory standards and procedures designed to control land use and development within the Oyster Bay Special Groundwater Protection Area, as designated by the Nassau County Public Health Code (Article X) and by the New York State Environmental Conservation Law (Article 55). For the purpose of so doing, the Aquifer Protection Overlay District is hereby established with standards and regulations which are in addition to those provided by the underlying zoning district and to those provided by other applicable federal, state, county and Town laws, regulations and statutes.”

Standards governing development in the APO District are established in §246-5.4.7.3, which include:

- Limits on the disturbance of natural vegetation, based on the size of the development parcel
- Maximum lot coverage, based on the size of the development parcel
- Restrictions on the disposal, storage, creation, manufacturing or treatment of hazardous materials
- Requirement for new plantings to minimize water use and the need for fertilizers, pesticides and herbicides
- Requirement for the implementation of a range of specific best management practices designed to minimize water use and the potential for impacting groundwater quality, including:
  - Use of rain gauges and/or drip irrigation, or other irrigation systems designed to minimize water consumption
  - Recycling of water where feasible (e.g., as stormwater collected into detention ponds)
  - Use of permeable paved surfaces to the extent practicable
  - Use of native landscape plantings that are water-efficient and drought-tolerant, or are adapted to minimal irrigation and are resistant to diseases and pest infestations
  - Enhancement of soil structure to increase the water-holding capacity of the soil
  - Use of drainage reserve areas in lieu of sumps
  - Use of Integrated Pest Management techniques to the degree practicable
  - Use of slow-release fertilizers whenever practicable
  - Proper disposal of animal waste
  - On-site mulching to reduce fertilizer use
  - Proper sealing of solid waste collection and storage facilities to prevent leakage

- Minimization of the use of pavement de-icing materials
  - Pretreatment of stormwater runoff before discharge to infiltration structures
  - Suitable measures to control waterfowl populations in projects that include the creation of man-made water bodies.
- Mandatory conservation (cluster) subdivision on parcels that are 20 acres or larger (see further discussion in **Section 2.2.2**, below).

## 2.2.2 Other Applicable Provisions of the Zoning Code

### Conservation Subdivision (§246-4.1)

Approval of subdivisions in the unincorporated area of the Town of Oyster Bay is under the jurisdiction of the Nassau County Planning Commission (NCPC). However, the NCPC's review of any subdivision application in the Town is governed by the standards set forth in the Zoning Code including, for example, the dimensional requirements of the zoning district in which the given parcel proposed for subdivision is located. Additionally, §246-4.1 of the Zoning Code establishes a mechanism for the creation of conservation subdivisions in the Town, which provides for the "preservation and protection of groundwater and surface water resources, natural landforms, existing vegetation and wildlife habitats will benefit the general health, safety and welfare of present and future residents..."

The Conservation Subdivision provision in the Zoning Code allows important natural resources to be protected by reconfiguring the lot layout in a manner that minimizes development in areas containing these resources and concentrating development in portions of the site that are less environmentally sensitive. The resulting cluster subdivision plan does not alter the permissible, site-wide development yield that can be achieved by a standard subdivision. The natural resources identified for protection in the undeveloped area of a conservation subdivision may include: slopes exceeding 15 percent; areas with severe soil erosion potential, as defined by the Nassau County Soil Survey; lands within deep recharge areas of the groundwater aquifer or within the SGPA; flood hazard areas; areas of shallow groundwater depth; wetlands; lands within the State-designated coastal zone; mature woodlands; special topographic features, such as glacial kettles, kames and high points; scenic views, corridors and open space; habitat for rare, unique, threatened, endangered or protected species of plants and animals; land adjacent to federal, state or county lands, state parkways, state and county highways, railroads, and Town parks; officially designated local, state or federal historic landmarks; and any other characteristics which the Town Board and the NCPC find a conservation subdivision would serve to protect.

A conservation subdivision must be considered, but is not required, for any residential subdivision application in the Town of five acres or more. Within the APO District, the Town Board "...may permit or require applicants for subdivision approval in the Town's One-Family Residence Districts, to apply for conservation (cluster) development subdivision approval, except that in the case of properties which are 20 acres or larger and located in an APO District, conservation development shall be mandatory."

Site Design Standards (§246-7)

This section of the Zoning Code establishes standards for the layout of site developments, including landscaping, buffer screening, exterior lighting, pedestrian circulation, design and layout of off-street parking and loading, refuse and recyclables storage, outdoor storage, hours of operation, pavement, and property maintenance. The implementation of these standards helps to minimize the impacts of new development on neighboring uses in the surrounding area.

Minimum Contiguous Buildable Area (§246-2.4)

The “Definitions” section of the Zoning Code contains a provision whereby this term is defined as follows <sup>9</sup>:

“For *lots* created after the effective date of this amendment, a contiguous area which excludes *wetlands* and *steep slopes*, both as defined herein, and whose minimum dimension in all directions is at least equal to ½, of the minimum required *lot width* in the zoning district in which it is located.”

Wetlands are defined in the Zoning Code as:

“A horizontal geographic area of at least 1,000 square feet which is under water, including water bodies and *watercourses*, or is covered with shallow and sometimes temporary or intermittent waters commonly referred to as ‘swamps,’ ‘marshes,’ ‘bogs,’ or ‘vernal pools,’ including all areas of hydric soils and all areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and which under normal circumstances do support, a prevalence of hydrophytic vegetation, all as defined by the Federal Manual For Identifying and Delineating Jurisdictional Wetlands (1989), as such may, from time to time, be amended.”

A steep slope is defined in the Zoning Code as:

“A geographic area, whether natural or man-made and whether on one or more *lots*, which has a ratio of vertical distance to horizontal distance of 25% or more over a horizontal area measuring at least 25 feet in all directions, based on two-foot contour intervals...”

The Zoning Code, at §246-4.3.6, further establishes the minimum contiguous buildable area for each single-family district as follows <sup>10</sup>.

District	Minimum Lot Size in District (square feet)	Minimum Contiguous Buildable Area	
		With On-Lot Sewage Disposal (square feet)	With Central Sewer Service (square feet)
R1-7	7,000	7,000	6,000

<sup>9</sup> This provision, along with the associated definitions of wetland and steep slope, were added to the Zoning Code in 2008.

<sup>10</sup> Zoning districts that do not pertain to the golf courses in the study have been omitted from this table (R1-6, R1-10/OHG, and R1-15)

District	Minimum Lot Size in District (square feet)	Minimum Contiguous Buildable Area	
		With On-Lot Sewage Disposal (square feet)	With Central Sewer Service (square feet)
R1-10	10,000	10,000	8,000
R1-20	20,000	16,000	12,000
R1-1A	43,560	21,000	15,000
R1-2A	87,120	26,000	18,000
R1-5A	217,800	34,000	24,000

### 2.2.3 Other Applicable Provisions of the Town Code

#### Environmental Quality Review (Chapter 110)

This chapter of the Town Code implements the requirements of the New York State Environmental Quality Review Act (SEQRA) for actions that are proposed by Town agencies. Actions include construction projects undertaken directly by the Town, approvals issued by the Town for private development projects and other activities, and decisions involving the expenditure of Town funding. SEQR is intended to ensure that the potential environmental impacts of actions proposed by public agencies in New York State are given due consideration in the decisions by these agencies. An action can proceed if it is determined not to pose the potential for significant impacts, whether because it is on the list of specified “Type II Actions” which are pre-determined not to entail such impacts or because the action has undergone review pursuant to SEQR which leads to a conclusion of no significant impacts; in some cases, proposed actions are modified before approval to meet the discretionary threshold of no significant impact. For proposed actions that are determined to pose the potential for significant impacts, an Environmental Impact Statement (EIS) is required, and often such actions are modified to provide additional mitigation to further reduce anticipated impacts before a decision can be made supporting approval of the action.

#### Landmarks Preservation (Chapter 143)

This chapter of the Town Code provides a mechanism for designating and regulating local historic landmarks. This includes: the establishment of a local landmarks preservation commission; a mechanism for the designation of local landmarks through this commission; a tax abatement program to encourage owners voluntarily to seek local landmark designation for eligible buildings, structures and sites; standards and procedures governing the moving, exterior construction, alteration, repair, subdivision, landscaping and demolition of designated local

landmarks to ensure their continuing historical value; standards for the maintenance of designated local landmarks; and enforcement provisions.

### Stormwater Management and Erosion Control (Chapter 204)

This chapter of the Town Code implements Federal and State requirements for stormwater management governing localities, like the Town of Oyster Bay, that own and manage Municipal Separate Storm Sewer Systems (MS4s – i.e., stormwater drainage systems). This includes provisions for ensuring the continuing compliance of the Town’s stormwater drainage system with applicable reporting and maintenance requirements to protect the quality of receiving waters. Chapter 204 also regulates new development that contributes stormwater discharges to the Town’s system.

With regard to stormwater discharges from new development, which has the greatest relevance to the analysis of the golf course properties examined in this study, Chapter 204 primarily regulates construction activity (e.g., clearing, grading, excavating, soil disturbance, placement of fill, etc.) that results in land disturbance equal to or greater than one acre, or activities disturbing less than one acre of total land area that is part of a larger common plan of development or sale. Any such activity must obtain coverage under State Pollution Discharge Elimination System (SPDES) general permit #GP-0-20-001, which pertains to stormwater discharges from construction sites. Additionally, for any site that meets the aforementioned acreage threshold, the preparation of a Storm Water Pollution Prevention Plan (SWPPP) is required to provide for the site-specific management of stormwater generated during construction, as well as continuing stormwater management during project operation upon the completion of construction.

Chapter 204 of the Town Code, which is based on a model ordinance prepared by New York State to facilitate local implementation, establishes specific and detailed requirements for the content, review and approval of SWPPPs. The SWPPP provides detailed information on measures and practices to be installed on the site to control soil erosion and sediment transport, construction phasing, scheduling, maintenance, inspection, repair, performance guarantees (e.g., construction bond, cash escrow, irrevocable letter of credit, etc.), certification, recordkeeping, reporting, long-term operation, enforcement, and penalties for violations. Maintenance easements and maintenance agreements are required to be executed as necessary to ensure the proper functioning of permanent stormwater management facilities over the long-term. The stormwater control measures/practices incorporated into the SWPPP are required to be designed in accordance with the official guides and specifications for stormwater management promulgated by NYSDEC, which include the *New York State Stormwater Management Design Manual* and the *New York State Standards and Specifications for Erosion and Sediment Control*.

### Trees (Chapter 225)

This chapter of the Town Code is directed at protecting and preserving trees due to the benefits they render in terms of providing shade, impeding soil erosion, aiding in water absorption and retention, inhibiting excess runoff and flooding, enhancing air quality by absorbing carbon dioxide and releasing oxygen, mitigating noise, providing a natural habitat for wildlife, providing screening, conserving energy, enhancing property values and adding to the aesthetic quality and character of the community. Chapter 225 establishes a permitting program for tree removal

from private properties, which includes an application and review process. Lists of acceptable shade tree species are provided for parking lots and utility strips along roadways, as well as for general planting purposes.

## 2.2.4 Town of Oyster Bay Plans and Studies

### Glenwood Landing Redevelopment and Revitalization Plan

This investigation was one of several hamlet studies undertaken by the Town to evaluate local issues and opportunities, and formulate recommendations to enhance local communities. The *Final Recommendations Glenwood Landing Redevelopment & Revitalization Plan* was completed by Cashin Associates in a report dated June 2002. Among the key recommendations emerging from this study was the creation of new waterfront zoning districts for the majority of the land in the study area, as well as a zoning change for the portion of North Shore Country Club within the unincorporated area of the Town, from R1-10 to R1-20, thereby matching the existing zoning density of the portion of this property in the Village of Sea Cliff.<sup>11</sup> These recommended zoning revisions were adopted by the Town Board in January 2004. It is also important to note that the *Glenwood Landing Redevelopment & Revitalization Plan* highlighted the presence of important natural features on North Shore Country Club – including steep slopes, surface water features, mature trees, groundwater resources, aesthetic and visual resources, and recreational opportunities – which merited protection, and which were cited as a primary reason for the recommended rezoning of this property.

### Special Groundwater Protection Area Study

This study, titled *Zoning for the Protection of Groundwater in the Oyster Bay Special Groundwater Protection Area* (Frederick P. Clark Associates, November 2003), focused on the portion of the SGPA within the unincorporated area of the Town– see **Figure 2**, below. The recommendations of this report included the adoption of the APO and REC Districts, as well as a series of zoning amendments for individual properties, with all four private golf courses in the SGPA (Glen Head Country Club, Nassau Country Club, Meadow Brook Club, and Pine Hollow Country Club) being recommended for rezoning to the new REC District. Of the six private golf courses included in the present planning study, two (North Shore Country Club and Engineers Country Club) are not located in the SGPA and were not addressed in the Town’s 2003 study.

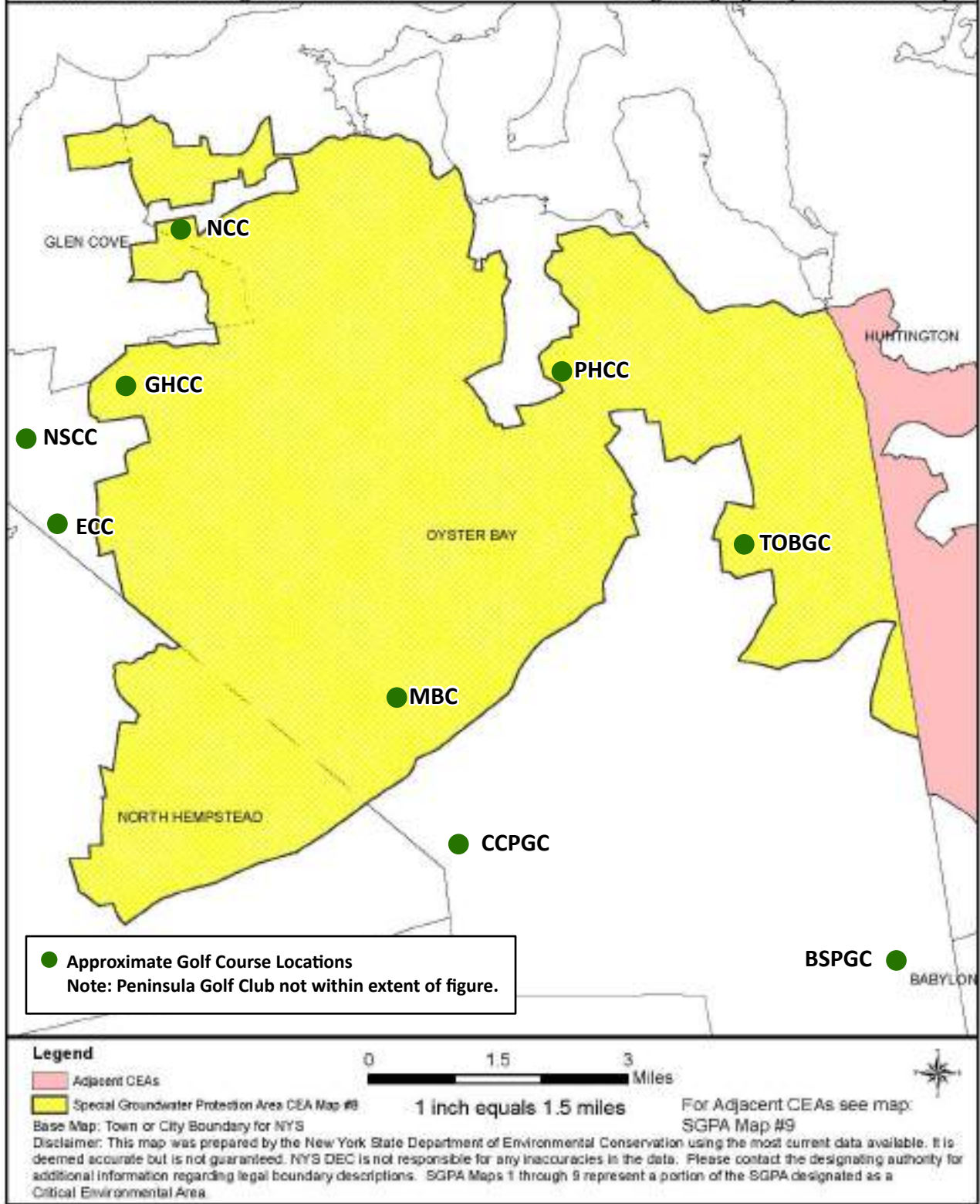
<sup>11</sup> The *Final Recommendations* report also suggested that consideration could be given to recreational zoning for NSCC, but indicated that a more detailed land use and demographic study should be completed before such action proceeds in order to demonstrate the need for the preservation of existing open space and recreational lands, and to determine whether other properties in the Town should also be considered for such rezoning.



**Special Groundwater Protection Area  
(Oyster Bay) Critical Environmental Area (CEA) Map #8**

Effective Date of Designation: 2-10-88

Designating Agency: Suffolk County



**FIGURE 2**

**SPECIAL GROUNDWATER PROTECTION AREA**

Source: NYS DEC SGPA Map  
Scale: 1 inch equals 10,000 feet

Golf Course  
Planning Study

Town of Oyster Bay



Ultimately, although the Town Board proceeded in adopting the APO and REC Districts in September 2004, a decision was made to limit the new REC zoning to public parklands (including the Town Golf Course); and the four private golf courses in the SGPA were instead rezoned as follows<sup>12</sup>:

- Glen Head Country Club – R1-1A to R1-2A
- Nassau Country Club – R1-10 to R1-1A, thereby matching the zoning density of the portion of this property in the City of Glen Cove <sup>13</sup>
- Meadow Brook Club – R1-2A to R1-5A
- Pine Hollow Country Club – R1-2A to R1-5A

### Study of the Area Outside the Special Groundwater Protection Area

In follow up to the study that was completed in 2003 for the portion of the Town located within the SGPA discussed above, the Town undertook a companion analysis of the area outside the SGPA. This latter study, the *Final Groundwater and Open Space Protection Plan (FG&OSPP)*, was completed by Cashin Associates in November 2006. The recommendations included a wide range of best management practices directed at enhancing the protection of water resources, both groundwater and surface waters, throughout the Town. Key parcels were identified for site-specific analysis, including all three private golf courses in the area of the Town outside the SGPA. The discussion presented for each of these properties is summarized below:

- North Shore Country Club (NSCC) – The FG&OSPP noted that the portion of this property in the unincorporated area of the Town previously had been rezoned from R1-10 to R1-20 in accordance with the recommendations of the prior *Glenwood Landing Redevelopment & Revitalization Plan*, thereby making the zoning on the Town portion of NSCC consistent with the portion of the site in the Village of Sea Cliff. The FG&OSPP also reiterated the importance of the natural resources on the NSCC property, which were still vulnerable to potential single-family development even with the recent rezoning. Potential REC zoning and acquisition were identified as potential further actions the Town could consider, but it was noted that such an undertaking would have to consider that about one-half of the overall property is located in the Village of Sea Cliff. Cluster development, conservation easements and open space dedication were also identified as potential strategies to preserve important resources.
- Engineers Country Club (ECC) – The FG&OSPP noted that about 6.3± acres of ECC were located in the unincorporated area of the Town, approximately one-half of which was wooded. The report further indicated that a residential subdivision was pending at that time<sup>14</sup>, which included a 2.0±-acre parcel in the Town proposed for five residential lots, leaving the current 4.3±-acre parcel in the Town remaining as part of ECC. A 1.5±-acre

<sup>12</sup> Other public lands, including school properties, also were rezoned at that time to lower density single-family zoning districts.

<sup>13</sup> The zoning in the City portion of Nassau County Club, the R1 District, requires a minimum residential lot area of 40,000 square feet, rather than a full acre (43,560 square feet); 40,000 square feet is termed a “builder’s acre” and is equivalent to a 200-foot by 200-foot square lot.

<sup>14</sup> Country Club Developers Subdivision.



portion of ECC in the Village of Roslyn Harbor was included in the same subdivision application, which was proposed for a single residential lot. The Nassau County Land & Tax Map shows the 2.0±-acre parcel in the Town and 1.5±-acre parcel in the Village as discrete tax lots (Section 20, Block F, Lots 1076A and 1076B, respectively) but does not show the Town parcel further subdivided into individual residential lots. Development of these parcels remains pending.

The FG&OSPP discusses the need for coordinated review between the Town, Village and NCPC for current and future development of ECC. The plan further notes, as with other sites identified as having significant environmental qualities and development potential, the protection of open space and natural resources is of paramount importance; and recommends, to the extent practicable, that future reviews consider the preservation of native or relatively undisturbed areas and important environmental features, restrictions on unnecessary clearing and grading, provisions for appropriate stormwater management and recharge, limitations on the proportion of impervious ground cover, and preservation of undisturbed areas on the site, among other measures.

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## 2.2.5 New York State Plans

### New York State Comprehensive Outdoor Recreation Plan

In 2019, the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) completed an updated *Statewide Comprehensive Outdoor Recreation Plan: 2020-2025* (the “NYS Recreation Plan”). Among the elements of the NYS Recreation Plan that are relevant to the present study of private golf courses in the Town of Oyster Bay are the results of a survey that was undertaken to assess recreational needs. This survey, which was similar to surveys conducted by OPRHP for prior versions of the NYS Recreation Plan (dated 2003 and 2008), were distributed to park managers throughout the State, with responses representing 78 percent of the counties in the State. The survey was directed at obtaining input regarding the recreational needs in the respondents’ communities and attitudes on important recreational and environmental issues. Notably, the responses to this survey indicated a low need for golf courses.

As part of the NYS Recreation Plan, OPRHP also conducted a recreational demand survey of resident adults. The results showed a relatively low level of participation in golf, at approximately 5.2 percent of all respondents (totaling more than 10,000 State-wide), exceeding only downhill winter sports (2.8± percent), equestrian activities (3.7± percent), hunting (3.7± percent) and snowmobiling (2.5± percent). The most popular activities identified in the survey included walking for enjoyment (68.5± percent), passive enjoyment of parks (30.8± percent), swimming (18.2± percent), bicycling (15.5± percent), field sports (10.4± percent), and court games (10.4± percent). The results did not indicate a significant unmet need for golfing facilities in Nassau County. The plan further notes that although participation in golfing activity appears to increase with age, this trend is offset by a lower rate of participation among younger individuals than occurred with previous generations.

Although the surveys conducted by OPRHP for the NYS Recreation Plan were developed for the purposes of State Park planning, the results provide useful insight into wider trends and attitudes regarding recreational needs and preferences. Overall, these data support the general concept that golfing is experiencing participation challenges, which in turn serves to further validate concerns about the future fate of properties that currently are devoted to this activity.

It should be noted that the OPRHP surveys discussed above were conducted prior to the onset of the Covid-19 pandemic, the ultimate long-term effects of which remain to be determined. It is noted that information from the Town Parks Department indicates a recent increase in golfing activity at the Town of Oyster Bay Golf Course in Woodbury. In large measure, this trend has been attributed to significant investments at the golf course that have been made by the Town since 2017, in combination with a new groundskeeper and other operational upgrades. This has paid off with a steady increase in the number of rounds played over recent years, from 20,680 in 2018, to 26,980 in 2019 and 35,368 in 2020, even with the impacts of the COVID-19 pandemic starting early in 2020 and carrying through to the current year, for which a further increase to 38,197 annual rounds has been projected, almost doubling the volume of play in four short years.

#### New York State Open Space Conservation Plan

The most recent version of the *New York State Open Space Conservation Plan* (the “NYS Open Space Plan”) was completed in 2016 (updating the prior, 2006 version), as a collaborative undertaking by a range of State agencies (i.e., NYSDEC and OPRHP as lead agencies, with participation by the Departments of State, Transportation, and Agriculture and Markets). Although there are no analyses or recommendations that are specific to golf courses, many of the goals set forth in the NYS Open Space Plan are consistent with the underlying goal of the present study to protect and preserve the golf courses in the Town, including:

- To protect water quality, including surface and underground drinking water supplies, lakes, streams, and coastal and estuarine waters needed to sustain human life and aquatic ecosystems
- To provide accessible, quality, outdoor recreation and open space to all New Yorkers
- To protect habitat for the diversity of plant and animal species to ensure the protection of healthy, viable and sustainable ecosystems
- To address global climate change by sustainable stewardship of our forests for climate mitigation and adaptation
- To address climate change by protecting our coastlines, broad riparian corridors and wetlands
- To protect and enhance scenic, historic and cultural resources considered to be valued parts of the common heritage of our citizens.

Other relevant aspects of the NYS Open Space Plan include:

- As indicated in the plan goals listed above, heavy emphasis is placed on addressing climate change. This predominant theme is encapsulated in the statement that, “Protection of

open space, in as many ways as possible, is perhaps the most important investment we can make to counter the effects of climate change.”

- Trees, forests and open space are highlighted as providing significant health benefits to people who have access to such resources.
- “Smart growth” is an overriding principle which provides significant community benefits by directing new development to areas of existing development and away from areas containing important natural resources, such as forests and habitats.
- Tools that can be implemented on a local level which can serve to advance the goals of the NYS Open Space Plan include “town-wide comprehensive planning... local land use planning... and practical changes in zoning.”

## 2.2.6 Regional Plans and Studies

### Harbor Management Plan (HMP) for Hempstead Harbor

This plan was completed in 2004 by the Hempstead Harbor Protection Committee (HHPC). The HHPC was established in 1995 to coordinate efforts among the municipalities around the harbor for the original mission of protecting and improving the harbor’s water quality, but this mission has subsequently expanded to address a range of related environmental issues. North Shore Country Club is the only study property that is located in the HMP boundary; Engineers Country Club is located just outside the HMP boundary.

An HMP is a water-side planning document which is essentially equivalent to a comprehensive land use plan for upland areas. The HMP for Hempstead Harbor indicates that the public outreach process for the plan revealed an interest in reduced residential density on large tracts of open space land in the study area (i.e., the North Shore Country Club property). The HMP further points out that rezoning of NSCC from R1-10 to R1-20 essentially halves the development yield and, thereby, effects a commensurate reduction in the potential for water quality impacts related to sanitary waste disposal in this area which is not served by municipal sewage collection and treatment facilities. The HMP also recommends pursuit of local laws for the protection of steep slopes, stormwater management, and erosion and sediment control. Wastewater disposal in areas not served by municipal sewage collection and treatment systems is identified as a primary concern, with a general recommendation for further investigation to determine the magnitude of the water quality impact in the harbor caused by the discharge of effluent from subsurface sewage disposal systems and for the HHPC municipalities to work cooperatively to formulate a joint plan of action to provide effective mitigation.

### Water Quality Improvement Plan for Hempstead Harbor (WQIP)

As indicated above, the HHPC’s original mission was to protect and improve the water quality of Hempstead Harbor. To this end, the WQIP, completed for HHPC by Coastal Environmental Services in 1998, identified issues and developed strategies for water quality enhancement

through a comprehensive watershed approach.<sup>15</sup> A key element of the study was the quantification of existing, annual non-point source (NPS) pollutant loadings within each major sub-watershed contributing contaminant inputs to the harbor.<sup>16</sup> Once the pollutant loadings were quantified, a modeling analysis was performed to compute the annual influx of NPS pollutants (i.e., phosphorus, nitrogen, sediment, heavy metals, and petroleum hydrocarbons) discharged to the harbor from each major sub-watershed. The sub-watersheds were then ranked with respect to their NPS loadings to the harbor. North Shore Country Club is located in the Sea Cliff sub-watershed, which is identified as contributing the highest NPS loadings from the harbor's 12 sub-watersheds; while Engineers Country Club is located in the Roslyn East sub-watershed, which has the third highest magnitude of NPS loadings.

The WQIP presents a series of recommendations for advancing the goal of water quality improvement in Hempstead Harbor, focusing on public education and the implementation of best management practices (BMPs), with the latter category including minimization of fertilizer and pesticide use on golf courses and other intensely managed grassed areas, as well as septic management in terms of mandatory scheduled inspections and pumpout of existing on-lot wastewater disposal systems. A series of stormwater management improvements, largely focused on roadway drainage systems, is also identified to mitigate contaminant loadings from this key component of the overall NPS contribution to the harbor.

The WQIP further emphasizes the importance of large-lot residential zoning for minimizing the intensity of future development and the associated magnitude of NPS contaminant loadings to the harbor. It is also recommended that construction activities should be avoided in areas of environmental sensitivity, including steep slopes, wetlands and mature vegetated cover; and it is specified that zoning regulations should exclude environmentally sensitive areas (e.g., steep slopes, wetland buffers, etc.) from the calculated "buildable" envelope of lots. Additionally, the use of cluster development to preserve open space is highlighted.

### Long Island Sound Comprehensive Conservation and Management Plan (LISCMP)

This plan, prepared by the New York State Department of State, supersedes the State-wide Coastal Management Program with specific policies and recommendations for the Long Island Sound region. Among the recommendations that are pertinent to North Shore Country Club, which is the only golf course in the study in the LISCMP area<sup>17</sup>, is that: "Continued use of public and private recreational land should be encouraged... These lands, including golf courses, should be valued for not only recreational use but for open space and aesthetic benefits. In addition, these lands, depending upon the intensity of use, offer some natural resource benefits, such as

<sup>15</sup> A watershed is the entire upland area that drains into a given water body. The WQIP studied the land uses and associated activities within the watershed that contribute pollutants to Hempstead Harbor. A sub-watershed is a discrete land area that drains into a portion of the overall water body, such as a stream that flows into the water body, or the upland area adjacent to a bay or reach that is part of the water body.

<sup>16</sup> NPS pollutants are drawn from wide areas, including land use activities such as farming, land clearing, landscape management, and road de-icing. Sources can be as diverse as septic system leachate, road runoff, rooftop drainage, and pet wastes. Unlike point source pollution, which can be traced back to an easily recognized source, such as an outfall from an industrial facility or sewage treatment plant, NPS pollutants are much more ubiquitous and dispersed.

<sup>17</sup> The portion of Engineers Country Club in the unincorporated area of the Town lies just to the east of the LISCMP boundary. The westerly portion ECC in the Village of Roslyn Harbor, to the west of Motts Cove Road, is located within the LISCMP area.

wildlife habitat. If conversion of private recreational land occurs, the preference would be that other open space uses be developed or that low density or clustered development occur which retains the bulk of the site in open space.” Additionally, one of the policies in the LISCOMP is to: “Maintain natural, recreational, and open space values including those associated with large estates, golf courses, and beach clubs.”

### Long Island Nitrogen Action Plan (LINAP)

In 2015, New York State targeted \$5 million for NYSDEC and the Long Island Regional Planning Council to develop the LINAP in conjunction with Nassau and Suffolk Counties, with input from numerous other partners and stakeholders. The LINAP focuses on how best to reduce nitrogen loading to groundwater and surface waters through technical, management, and regulatory/policy actions. Nitrogen has been identified as the leading cause of water quality deterioration in Long Island's estuaries. Excess nitrogen can cause algal blooms that lead to low oxygen conditions, fish kills, and degraded wetlands and marine habitats. Nitrogen also contaminates the groundwater aquifer, which is the sole source of Long Island's drinking water.

The LINAP's primary goals are to:

- Assess nitrogen pollution in Long Island waters
- Identify sources of nitrogen to surface waters and groundwater
- Establish nitrogen reduction endpoints (i.e., desirable conditions in surface waters)
- Develop an implementation plan to achieve reductions.

Sub-watersheds have been delineated in both counties and project partners have prepared Nitrogen Load Models (NLM) for each county. The NLMs identify the magnitude and sources (wastewater, fertilizer, atmospheric deposition, stormwater) of nitrogen loads and prioritize the sub-watersheds in terms of load reductions. A comprehensive nitrogen reduction strategy will be followed with management and policy actions and technological advances to restore and protect groundwater and surface waters. Measures will be implemented to reduce fertilizer use, among other actions.

#### 2.2.7 Other Municipal Plans and Studies

As noted previously, three of the private golf courses in the Town of Oyster Bay extend into adjacent municipalities, all of which have completed recent land use plans, as follows:

- North Shore Country Club (NSCC) extends into the Village of Sea Cliff, which completed a *Buildout Analysis* (Cashin Associates, November 2009)
- Nassau Country Club (NCC) extends into the City of Glen Cove, which completed a Master Plan (Phillips Preiss Shapiro Associates and Turner Miller Group, May 2009)
- Engineers Country Club (ECC) extends into the Village of Roslyn Harbor, which completed a *Planning Analysis* (Frederick P. Clark Associates, June 2019)

Elements of these three plans that are relevant to the present analysis of the private golf courses in the Town of Oyster Bay are discussed below.

### Village of Sea Cliff Buildout Analysis

This study examined the potential build-out of vacant and subdividable land in the Village, as well as the portion of NSCC in the unincorporated area of the Town of Oyster Bay. The analysis found that an estimated 156 new single-family homes could be developed in the Village under the Village's existing Zoning Code<sup>18</sup>, of which 97 homes were calculated for NSCC, in addition to 139 homes on the portion of NSCC in the Town. Both the Village and Town portions of NSCC are zoned for minimum 20,000-square foot single-family residential lots, in the Residence D District in the Village (the largest residential lot size standard currently specified in the Village Code) and in the R1-20 District in the Town.

Based on the range of anticipated impacts (e.g., potable water consumption, sewage generation, school enrollment, traffic, effect on environmental and ecological resources, potential erosion and sediment transport, etc.), the Buildout Analysis identified a range of actions that could be considered by the Village, including the adoption of a residential zoning district that requires a larger minimum lot area than the 20,000-square foot maximum currently specified in the Village Zoning Code. Larger-lot residential zoning districts in adjacent municipalities were highlighted, specifically for the Town of Oyster Bay (i.e., R1-1A requiring minimum one-acre lots, R1-2A requiring minimum two-acre lots, and R1-5A requiring minimum five-acre lots) and the City of Glen Cove (i.e., R1 requiring minimum 40,000-square foot lots and R1-1A requiring minimum 80,000-square foot lots). In considering potential future development of NSCC and the importance of its significant environmental, ecological, scenic, open space and community character attributes, the study also pointed to the Town's REC District for the Village's consideration in cooperation with the Town, as well as potential clearing limits, subdivision clustering, parkland dedication, enhanced protection of wetlands and trees, and steep slope disturbance standards (based on a 15 percent gradient threshold).

### City of Glen Cove Master Plan

The City's Master Plan identifies Nassau Country Club as open space. The plan further points to "subdivisions of large lots long viewed as open space" as an issue, but highlights former estates as being of primary concern in this regard, and does not present any specific goals, objectives or recommendations pertaining to Nassau Country Club (NCC). Minimization of disturbance of steep slopes during site development is presented as a general recommendation.

### Village of Roslyn Harbor Planning Analysis

This study is an update to a planning analysis that the Village completed in 1999. The updated (2019) Planning Analysis is identified as having two purposes: (a) to establish the nature and location(s) of potential development in the Village of Roslyn Harbor under the current zoning and land use regulations; and (b) to determine whether the current zoning and land use regulations continue to be adequate to ensure that all such future potential development will be in keeping

<sup>18</sup> The Buildout Study also estimated that 2,600 square feet of new commercial space could be developed.



with the established character of the Village and will be developed in accordance with sound environmental planning and engineering principles and standards, and protect the public safety, health and welfare. The updated Planning Analysis expresses concern about potential future development of Engineers Country Club, and the effect that this would have on community character and open space vistas, as well as the cumulative traffic impact that would result from the combined effect of ongoing and planned development, particularly to the north in the City of Glen Cove.

The updated planning analysis concludes that the Village's current Zoning Ordinance and Subdivision Regulations appear to be up-to-date and satisfactory. However, the study suggests that the Village may wish to consider adopting additional statutes pertaining to the regulation of lands that are environmentally constrained and/or where the impacts of development have the potential to cause adverse environmental consequences. These include regulations pertaining to steep slope protection, wetland protection, flood plain protection, design standards, the possible creation of an architectural review board, and subdivision clustering.

### 2.3 Inventory of Golf Courses

The subsections below provide a detailed description of the relevant environmental parameters pertaining to the golf courses in the study. Supporting graphics are provided separately in an appendix for each site, including the following figures:

1. Aerial photograph
2. Zoning
3. Land use
4. Flood zones
5. Wetlands
6. Soils
7. Steep slopes (greater than 25 percent gradient)
8. Woodlands
9. Cultural Resources

Figures 4 and/or 5 are not provided for any private golf course that does not contain flood zones and/or wetlands, respectively. The appendix for each of these sites also provides information from the New York State Natural Heritage Program regarding important ecological resources, including threatened/endangered species, as well as representative ground-level photographs to illustrate aesthetic/visual conditions from publicly accessible locations around the perimeter of the property.

The three public golf courses in the Town are discussed at the end of this section, after the private golf courses; and relevant figures are provided in the appendix for these sites.

### 2.3.1 North Shore Country Club (NSCC)

#### Background and Overview

NSCC is a total of 157.7± acres in area, with 83.4± acres located in the unincorporated portion of the Town and 74.3± acres in the Incorporated Village of Sea Cliff (see aerial photograph of site in **Figure NSCC-1** in **Appendix A**). NSCC lies within about 300 feet of Hempstead Harbor, separated from the harbor by Tappen Beach (a Town of Oyster Bay Park) and Shore Road. The entire acreage of NSCC, in both municipalities, is situated within the New York State Coastal Zone Management boundary.

NSCC currently is zoned R1-20 in the unincorporated area of the Town, which allows single-family residential development on minimum 20,000-square foot lots. Zoning within the Village portion of NSCC lies within the analogous zoning district, Residence D, in which the minimum lot size also is 20,000 square feet. The portion of NSCC in the Town previously was zoned R1-10, with a 10,000-square foot minimum lot size, but a change of zone was adopted in 2004 in accordance with the Final Recommendations of the *Glenwood Landing Redevelopment & Revitalization Plan* (Cashin Associates, P.C., June 2002), consistent with the Residence D zoning that was already in place within the Village portion of the property. The Village of Sea Cliff completed a *Buildout Analysis* (Cashin Associates, P.C., November 2009) to determine the potential for additional residential development on vacant and subdividable land within the Village, and to identify strategies to minimize or mitigate the potential impacts of such development including the potential for rezoning to require larger lot sizes. However, no subsequent action has been taken regarding the zoning of NSCC.

#### Zoning

As noted above, the portion of NSCC within the Town lies within the R1-20 District, which requires a minimum lot area of 20,000 square feet. This site is not located within the Town's APO District. The zoning surrounding the portion of NSCC in the Town of Oyster Bay is as follows (see **Figure NSCC-2** in **Appendix A**):

- North – the portion of NSCC in the Village of Sea Cliff lies within the Residence D District, which also requires a minimum lot size of 20,000 square feet; the area further to the north, adjoining the portion of NSCC in the Village, lies within the Residence C District, which requires a minimum lot size of 15,000 square feet; beyond that, extending northward from Dowling Avenue and Littleworth Lane, is Residence B zoning, which requires a minimum lot size of 10,000 square feet; and Business B zoning is located at the eastern edge of the Village, along the west side of Glen Cove Avenue
- East – the adjoining North Shore Middle School property lies within the Town's R1-10 Residence District (minimum 10,000-square foot lot size), with mostly R1-7 zoning (minimum 7,000-square foot lot size) beyond that, as well as a mix of non-residential zoning districts along Glen Head Road and Glen Cove Avenue to the southeast (i.e., Neighborhood Business, General Business and Light Industrial)
- South – a mix of zoning districts (i.e., R1-20, R1-10 and R1-7 Residence, Neighborhood Business, General Business, and Light Industrial) is located to the south of the western



portion of NSCC; while the area to the south of the eastern portion of NSCC lies entirely within residential zoning districts (i.e., the Town's R1-7 and R1-6 Residence Districts; and the Village of Roslyn Harbor's R-B District, which requires a minimum lot size of one-half acre, and the Village's R-C District, which requires a minimum lot size of 8,000 square feet)

- West – the area on the opposite side of Shore Road to the west lies within the Town's Waterfront A and Waterfront-B zoning Districts.

### Land Use

The land uses surrounding the portion of NSCC in the unincorporated area of the Town are as follows (see **Figure NSCC-3** in **Appendix A**):

- North – the portion of NSCC in the Village of Sea Cliff; a residential treatment center, church, single-family residential and wooded areas beyond that (all within the Village)
- East – North Shore Middle School and High School, as well as single-family residential, with commercial uses along Glen Cove Avenue
- South – primarily industrial uses and utilities adjacent to the western portion of the site (along the east shore of Hempstead Harbor) and single-family residential adjacent to the eastern portion of the site; and mostly single-family residential uses, with other scattered uses, beyond that
- West – Tappen Beach (Town of Oyster Bay Park), with Hempstead Harbor beyond.

### Water Resources

An area in the northwest corner of NSCC (within the Village of Sea Cliff) is located within a FEMA-designated Flood Zone (Zone AE, with base flood elevation of 13 feet, which is subject to stillwater flooding during the 100-year storm, having a one percent probability of occurring in any given year) and contains Scudders Pond, which is surrounded by freshwater wetland vegetation. This area of NSCC is regulated by NYSDEC under Article 24 of the Environmental Conservation Law (Freshwater Wetlands). The portion of NSCC within the Town is situated outside the 100-year floodplain, but contains a small pond that is identified on the National Wetland Inventory (NWI). See **Appendix A, Figure NSCC-4** for the location of flood zones and **Figure NSCC-5** for the location of wetlands on the NSCC property.

NSCC is not located within the SGPA and or deep recharge areas for the groundwater aquifer. However, as noted previously, the property is situated within the New York State Coastal Management Zone, in proximity to Hempstead Harbor.

The section of Hempstead Harbor adjacent to NSCC is closed to shellfish harvesting due to high levels of pathogens and other contaminants derived primarily from upland uses (i.e., stormwater runoff and groundwater underflow). However, in 2011, NYSDEC certified approximately 2,500 acres of State-owned underwater lands in the outer harbor after more than 40 years of closure, citing significant improvements to water quality due to persistent efforts by the harbor

communities to reduce contaminant loadings, representing a noteworthy success in the face of generally deteriorating water quality conditions in regional coastal waters.<sup>19</sup>

As noted above, the portion of NSCC in the Town contains a small pond identified on the National Wetlands Inventory (NWI), which is approximately one-third of an acre in area. The Village portion of NSCC contains a larger area of wetlands, designated as Freshwater Wetlands by NYSDEC, including Scudders Pond and adjacent areas, totaling approximately 8.0 acres.

NSCC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site – including the clubhouse and residential cottages according to the Village’s Buildout Analysis (Cashin Associates, November 2009) – as would be expected for potential future uses.

### Soils and Slopes

The portion of NSCC in the unincorporated area of the Town contains several soil types, as illustrated in **Figure NSCC-6** in **Appendix A**. Many of these soils have significant limitations for potential future development, particularly the following:<sup>20</sup>

- Montauk silt loam, 3-8% slopes (MkB) – This soil has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields (i.e., on-site, subsurface sanitary waste disposal) due to wetness and slow percolation
- Riverhead sandy loam, 3-8% slopes (RdB) – This soil has slight limitations for dwellings with and without basements; moderate limitations for local roads and streets due to frost action; and severe limitations for effluent absorption fields due to poor filtration
- Riverhead sandy loam, 8-15% slopes (RdC) – This soil has moderate limitations for dwellings with and without basements due to slopes; moderate limitations for local roads and streets due to slopes and frost action; and severe limitations for effluent absorption fields due to poor filtration
- Riverhead sandy loam, 15-25% slopes (RdD) – This soil has severe limitations for dwellings with and without basements due to slopes; severe limitations for local roads and streets due to slopes; and severe limitations for effluent absorption fields due to poor filtration and slopes.

As indicated, RdD soil has the highest degree of limitations, rated as severe for all activities associated with residential development; this soil type comprises 25.9± percent of the area of NSCC in the Town. RdC and MkB soils – which, respectively, comprise 25.3± percent and 2.6± percent of the area of NSCC in the Town – entail lesser degrees of limitations for the construction

<sup>19</sup> <https://longislandsoundstudy.net/2011/07/dec-to-reopen-2500-acres-of-shellfish-areas/>, Long Island Sound Study web site, accessed August 30, 2021.

<sup>20</sup> The limitations are considered severe if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. The limitations are considered moderate if soil properties or site features are not favorable for the indicated use and special planning, design or maintenance is needed to overcome or minimize the limitations.

of dwellings and associated roadways; however, similar to RdD, both of these soil types have severe limitations for effluent absorption fields. RdB soil, which comprises 43.5± percent of the area of NSCC in the Town, has slight limitations for the construction of dwellings and associated roadways, but like the other three soil types discussed above, has severe limitations for effluent absorption fields. Together, these four soil types account for approximately 97 percent of the area of NSCC in the Town, all of which, as noted, are identified as having severe limitations for effluent absorption fields.

The NSCC parcel in the Town also contains a small area of wetland soils, which is not classified in the Soil Survey, but is considered undevelopable due to severe soil limitations.

NSCC contains fairly extensive areas of steep slopes (i.e., greater than 25 percent gradient) in both municipalities, mostly along the property's southern and eastern margins, and the western end, as well as scattered areas associated with sand traps and other features within the interior. Overall, steep slopes comprise 18.8± acres on NSCC, with 9.7± acres in the Town and 9.1± acres in the Village, and generally aligns with the area discussed above containing RdD soils. See **Figure NSCC-7** in **Appendix A** for the distribution of steep slopes on the NSCC property.

### Visual Resources

As discussed previously, the area of Glenwood Landing in which NSCC is located contains a wide range of land uses and other features which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on small lots are the dominant land use within the half-mile-radius study area (see **Figure NSCC-3** in **Appendix A**). However, there are much more intense (i.e., industrial) uses to the immediate southwest and, of course, the less intense recreational/open space use of NSCC as a dominating feature within this landscape.

NSCC provides visual relief from the predominating grid of single-family lots and subdivision roadways, and nearby industrial uses. The field survey revealed that views of the portion of NSCC in the Town are available to the public from adjoining roadways, especially along Kissam Lane to the south, but also including Shore Road to the west. Additionally, because of the surrounding topography, more distant vistas of NSCC are available from intersecting roadways on northward approaches to Kissam Lane, including as Woodmere Lane, Cody Avenue, Maplewood Street and Waverly Street. Thus, the important visual/aesthetic contribution that NSCC makes to community character extends beyond the immediately surrounding area. See the photographs in **Appendix A**.

### Other Resources

NSCC contains significant tracts of woodlands totaling an estimated 27.6± acres in both municipalities, based on review of recent aerial photographs. Within the Town, it is estimated that 8.0± acres are woodlands, primarily in swaths along the southern edge and at the western end; and within the Village, it is estimated that 19.6± acres of NSCC are woodlands, in scattered locations throughout most of the parcel. See **Figure NSCC-8** in **Appendix A** for the approximate distribution of woodlands on the NSCC property.

Consultation with the Natural Heritage Program (NHP) indicates that documented nesting by the State-endangered peregrine falcon (*Falco peregrinus*) is located within one-quarter mile of NSCC and that documented nesting by the State-threatened bald eagle (*Haliaeetus leucocephalus*) is located within one mile of NSCC – see **Appendix A**.

As shown in **Figure NSCC-9** in **Appendix A**, SHPO's CRIS database indicates that there are no State or federal-designated historic resources on NSCC (within both municipalities); two listed buildings and two listed sites (one of which includes one of the listed buildings) are located to the north, along or in the vicinity of the westerly end of Littleworth Lane, in the Village. Additionally, the majority of the area within NSCC, except for the easternmost end in both municipalities, is considered to be archaeologically sensitive.

### 2.3.2 Engineers Country Club (ECC)

#### Background and Overview

The majority (i.e., 135.6± acres) of the 139.9±-acre ECC is situated in the Village of Roslyn Harbor, and the remaining 4.3± acres lie in the unincorporated area of the Town of Oyster Bay (see aerial photograph of site in **Figure ECC-1** in **Appendix B**). The area within the Town is zoned R1-7, which requires a minimum of 7,000 square feet for residential lots. The area within the Village is mostly zoned Residence AA, which requires a minimum lot area of two acres; there is also a small area zoned Residence A, which requires a minimum lot area of one acre. ECC is not located within the APO District.

The owner of NSCC has submitted an application to the Village of Roslyn Harbor for development of a portion of ECC. The proposal is for a clustered residential development consisting of 92 multi-family units on 18.5± acres, with all units located entirely within the Village of Roslyn Harbor. This proposal would retain the 18-hole golf course on the site, with some reconfiguration. The pending application with the Village does not affect the 4.3-acre portion of the property in the Town.

The FG&OSPP previously prepared by the Town highlights the importance of open space and natural resources at ECC and stresses that the protection of these resources is of paramount importance; and also discusses the need for coordinated review between the Town, Village and NCPC, which would apply to the pending development proposal.

#### Zoning

As noted above, the portion of ECC within the Town lies within the R1-7 District, which requires a minimum lot area of 7,000 square feet. This site is not located within the Town's APO District.

The zoning surrounding the portion of ECC in the Town of Oyster Bay is as follows (see **Figure ECC-2** in **Appendix B**):

- North – an additional area in the Town's R1-7 District extends north and northeast to the limits of the half-mile study area

- East – the portion of ECC in the Village of Roslyn Harbor’s R-AA District (two-acre lots) extends to the east and southeast to the limits of the half-mile study area; and further to the east are areas in the Town’s R1-7 and Neighborhood Business Districts
- South – R-A (one-acre lots) zoning in the Village of Roslyn Harbor extends to the limits of the half-mile study area
- West – the portion of ECC in the Village of Roslyn Harbor’s R-AA District lies to the immediate west; with additional areas in this R-AA District beyond that extending to Hempstead Harbor; and a mix of zoning districts in the Town of North Hempstead portion of Glenwood Landing hamlet (including single-family residence on 6,000-square foot minimum lots, multi-family residences, business and industrial) in the area near the half-mile limit of the study area.

### Land Use

The land uses surrounding the portion of ECC in the unincorporated area of the Town are as follows (see **Figure ECC-3** in **Appendix B**):

- North – exclusively single-family residential in the immediate vicinity, and including scattered commercial, public services and community services out to the half-mile study area limit (including a large parcel containing a public elementary school)
- East – the portion of ECC in the Village of Roslyn Harbor to the immediate east and southeast; with single family residential the primary use further to the east, but also including commercial uses along Glen Cove Avenue
- South – vacant land and single-family residential in the immediate vicinity; with single-family residential predominating beyond that, and also including some public lands
- West – the portion of ECC in the Village of Roslyn Harbor to the immediate west and southwest; with single family residential the primary use further to the west, but also including a cluster of non-residential (primarily commercial) uses on the Motts Cove portion of the Hempstead Harbor shoreline.

### Water Resources

ECC does not contain designated (NYSDEC or NWI) wetlands or FEMA-designated flood zones. ECC is not located within the SGPA and or deep recharge areas for the groundwater aquifer. The portion of the property in the Town is situated just outside the New York State Coastal Management Program boundary (which runs immediately to the west, along Motts Cove Road); the portion of the site in the Village of Roslyn Harbor to the west of Motts Cove Road does lie within this boundary. The entire site is located within the drainage basin of Hempstead Harbor, and contributes stormwater runoff and groundwater underflow to the harbor.

As discussed previously with respect to NSCC (see **Section 2.3.1**), although the central portion of Hempstead Harbor in proximity to ECC is closed to shellfish harvesting, the harbor has seen overall improvements to its water quality over recent decades due to inter-municipal harbor management efforts, which has included the reopening of the outer harbor for shellfish harvesting.

ECC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site. The method of sewage disposal for the pending residential development application for an 18.5±-acre portion of ECC has not been determined at this time.

### Soils and Slopes

The portion of ECC in the unincorporated area of the Town contains three soil types, as illustrated in **Figure ECC-6** in **Appendix B**. These soils have significant limitations for potential future development, as follows:

- Plymouth-Riverhead Complex, 15-35% slopes (PrD) – This soil has severe limitations for dwellings with and without basements, and local roads and streets due to slopes; and severe limitations for effluent absorption fields due to slopes and poor filtration
- Montauk silt loam, 3-8% slopes (MkB) – This soil has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Scio silt loam, till substratum, 0-3% slopes (SdA) – This soil has moderate limitations for dwellings without basements and severe limitations for dwellings with basements due to wetness; severe limitations for local roads and streets due to frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation.

As indicated, PrD soil has the highest degree of limitations, rated as severe for all activities associated with residential development; this soil type comprises 26.6± percent of the area of ECC in the Town. SdA soil, which comprises 42.0± percent of the area of ECC in the Town, entails a lesser degree of limitations for the construction of dwellings without basements; however, similar to PrD, this soil type has severe limitations for dwellings with basements, roadways and effluent absorption fields. MkB soil, which comprises 31.4± percent of the area of ECC in the Town, entails a lesser degree of limitations for the construction of dwellings and associated roadways; however, similar to PrD and SdA, this soil type has severe limitations for effluent absorption fields. Together, these three soil types account for the entire area of ECC in the Town, all of which, as noted, is identified as having severe limitations for effluent absorption fields.

The portion of ECC in the Town contains an area of steep slopes (i.e., greater than 25 percent gradient), is concentrated in the southwest corner of the parcel; the Village portion of the property has more extensive slopelands, at scattered locations. Overall, steep slopes are present on 10.6± acre at ECC, with 0.4± acre in the Town and 10.2± acres in the Village, and generally aligns with the area discussed above containing PrD soils. See **Figure ECC-7** in **Appendix B** for the distribution of steep slopes on the ECC property.

### Visual Resources

As discussed previously, the area in which ECC is located contains a wide range of land uses and other features, which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on lots of various sizes are the dominant land use within the half-mile-radius study area (see **Figure ECC-3** in **Appendix B**). However, there are more

intense (i.e., commercial) uses to the near limits of the half-mile study area to the east and west and, of course, the less intense recreational/open space use of ECC is a dominating feature within this landscape.

ECC provides visual relief from the predominating grid of single-family lots and subdivision roadways, and nearby commercial uses. The field survey revealed that views of the portion of ECC in the Town are available to the public from adjoining roadways, particularly Motts Cove Road to the west. See the photographs in **Appendix B**.

### Other Resources

ECC contains tracts of woodlands totaling an estimated 15.4± acres of the overall property, with 0.7± acre in the Town and 14.7± acre in the Village, based on review of recent aerial photographs. See **Figure ECC-8** in **Appendix B** for the approximate distribution of woodlands on the ECC property.

Consultation with the NHP indicates that documented nesting by the State-threatened bald eagle (*Haliaeetus leucocephalus*) is located within 250 yards of ECC and that documented nesting by the State-endangered peregrine falcon (*Falco peregrinus*) is located within one-quarter mile of ECC and – see **Appendix B**.

As shown in **Figure ECC-9** in **Appendix B**, SHPO's CRIS database indicates that there are no State or federal-designated historic resources on or near the portion of ECC within the Town; there is one listed building and two listed sites (which includes the listed building) located to the southeast of the area of the site in the Village, on Bryant Avenue. Additionally, the entire area within ECC in both municipalities is considered to be archaeologically sensitive.

### 2.3.3 Glen Head Country Club (GHCC)

#### Background and Overview

GHCC is located entirely in the unincorporated area of the Town of Oyster Bay, comprising 174.6± acres in the R1-2A District and the APO District (see aerial photograph of site in **Figure GHCC-1** in **Appendix C**). A minimum lot area of 2 acres is required for residential lots in this zoning district.

GHCC was included in the Town's 2003 study of the SGPA. Based on the recommendations of that study, the Town rezoned GHCC from R1-1A to R1-2A in 2004.

#### Zoning

As noted above, GHCC lies entirely within the Town's R1-1A District, which requires a minimum lot area of one acre. This site is also located within the Town's APO District. The zoning surrounding GHCC is as follows (see **Figure GHCC-2** in **Appendix C**):

- North – to the immediate north are small areas in the Town's light industrial and business districts; a mix of zoning districts in the City of Glen Cove is located further to the north, which primarily includes various residential districts (i.e., requiring minimum lot areas of



6,500 square feet, 7,500 square feet, and one-quarter acre), but also with a large area of light industrial zoning extending from GHCC to the northerly limit of the half-mile study area between the LIRR and NYS Route 107, as well as business districts to the east and west of this light industrial district

- East – adjoining GHCC are areas in the Town’s R1-1A and RMF-6 (multi-family/6 units per acre) districts, with areas of two-acre and three-acre single-family residential zoning in the Village of Old Brookville beyond that
- South – the Town’s R1-7 District extends southward from GHCC and is the primary zoning in this area; an additional area in the Town’s RMF-6 District adjoins GHCC to the southwest; further to the south is a mix of the Town’s light industrial and business zoning districts, as well as a small area of the Village of Old Brookville’s two-acre residential district and business districts
- West – the Town’s R1-7, R1-10 and R1-20 Districts adjoin GHCC and extend almost to the edge of the half-mile study area limit, with a small area in the Town’s Neighborhood Business District along Glen Cove Avenue; and a narrow swath of mixed residential and business zoning in the Village of Sea Cliff are located beyond that.

### Land Use

The land uses surrounding GHCC are as follows (see **Figure GHCC-3** in **Appendix C**):

- North – the land use in this area closely matches the zoning described above, with a mix of industrial and commercial uses through the central portion of this area, and residential uses primarily occupying the areas to the northeast and northwest of the site
- East – single-family residential uses dominate this area, with scattered commercial and community service uses
- South – this area has a complex mix of uses, including a large area of residential use, but also containing a significant commercial component, as well as scattered open space, recreational, community service, industrial and public service uses
- West – the LIRR Oyster Bay Line adjoins GHCC; beyond the LIRR, residential is the predominant use, with a commercial corridor along Glen Cove Avenue near the edge of the half-mile study area.

### Water Resources

GHCC does not contain FEMA-designated flood zones. NYSDEC/NWI wetlands are located along the easterly edge of the site, and two additional NWI ponds are located in the south-central portion of the site. These wetlands total 3.0± acre in area. See **Figure GHCC-5** in **Appendix C** for the location of wetlands on the GHCC property.

GHCC is located at the westerly edge of the SGPA and deep recharge areas for the groundwater aquifer and, accordingly, has been included in the Town’s APO District. The property is not situated in proximity to coastal waters.

GHCC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site, as would be expected for potential future uses.

### Soils and Slopes

GHCC is predominantly occupied by the following soil types, as illustrated in **Figure GHCC-6 in Appendix C**, many of which have significant limitations for potential future development:

- Montauk silt loam, 3-8% slopes (MkB) – This soil, which comprises 24.5± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Montauk silt loam, 8-15% slopes (MkC) – This soil, which comprises 24.5± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness and slopes; moderate limitations for local roads and streets due to wetness, slopes and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Montauk silt loam, 15-25% slopes (MkD) – This soil, which comprises 4.9± percent of the site area, has severe limitations for dwellings with and without basements due to slopes; severe limitations for local roads and streets due to slopes; and severe limitations for effluent absorption fields due to slopes, wetness and slow percolation
- Riverhead sandy loam, 3-8% slopes (RdB) – This soil, which comprises 4.5± percent of the site area, has slight limitations for dwellings with and without basements; moderate limitations for local roads and streets due to frost action; and severe limitations for effluent absorption fields due to poor filtration
- Riverhead sandy loam, 8-15% slopes (RdC) – This soil, which comprises 8.3± percent of the site area, has moderate limitations for dwellings with and without basements due to slopes; moderate limitations for local roads and streets due to slopes and frost action; and severe limitations for effluent absorption fields due to poor filtration.

As indicated, all of these soils have severe limitations for effluent disposal fields; and one soil type (i.e., MkD) also has severe limitations for homesites and roadways. All of these soil types have at least moderate limitations for residential homesites and/or roadways.

GHCC contains areas of steep slopes (i.e., greater than 25 percent gradient) comprising 11.7± acres, primarily in the northerly portion of the site – see **Figure GHCC-7 in Appendix C**.

### Visual Resources

As discussed previously, the area in which GHCC is located contains a wide range of land uses and other features, which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on lots of various sizes, primarily with denser development to the west and less dense development to the east, are the dominant land use within the half-mile-radius study area (see **Figure GHCC-3 in Appendix C**). However, there are

substantial areas of more intense uses, particularly industrial and commercial, throughout the half-mile-radius study area.

The field survey revealed that limited views of GHCC are available to the public from adjoining roadways, primarily from the residential area to the south (i.e., Hill Drive) and NYS Route 107 to the east. See the photographs in **Appendix C**.

### Other Resources

GHCC contains tracts of woodlands totaling an estimated 19.0± percent of the parcel area, based on review of recent aerial photographs. See **Figure GHCC-8 in Appendix C** for the approximate distribution of woodlands on the GHCC property, which includes substantial buffers along the east and west edges of the site, as well as significant patches within the golf course (between parallel adjoining holes) and at the north and south edges of the site.

Consultation with the NHP did not identify records of rare or state-listed animals or plants, or significant natural communities at GHCC or in its immediate vicinity – see **Appendix C**.<sup>21</sup>

As shown in **Figure GHCC-9 in Appendix C**, SHPO's CRIS database indicates that there are no State or federal-designated historic resources on or near GHCC. It is further noted GHCC is not located in an area that is considered to be archaeologically sensitive.

### 2.3.4 Nassau Country Club (NCC)

#### Background and Overview

NCC comprises a total of 148.8± acres, with 55.7± acres in the unincorporated area of the Town of Oyster Bay and 92.9± acres in the City of Glen Cove (see aerial photograph of site in **Figure NCC-1 in Appendix D**). The portion of the site in the Town lies within the R1-1A District, which requires a minimum of one acre for residential lots; this area also is located within the APO District. The portion of the site within the City of Glen Cove lies within the R-1 District, a residential district which also requires a minimum lot area of one acre.

NCC was included in the Town's 2003 study of the SGPA. Based on the recommendations of that study, the Town rezoned NCC from R1-10 to R1-1A in 2004, thereby matching the zoning density of the portion of this property in the City of Glen Cove.

<sup>21</sup> The NHP response further notes, as is the case whenever their records do not identify the presence of significant ecological resources (which also applies to Nassau County Club):

*The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.*

*This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits...*

## Zoning

As noted above, the portion of NCC within the Town lies within the R1-1A District, which requires a minimum lot area of one acre. This site is also located within the Town's APO District. The zoning surrounding the portion of NCC in the Town of Oyster Bay is as follows (see **Figure NCC-2** in **Appendix D**):

- North – to the immediate north, across Forest Avenue, is a strip in the Town's Neighborhood Business District, followed by an R1-6 District in the Town (minimum 6,000-square foot lots); further to the north, in the Village of Lattintown, is a mix of single-family residential districts (requiring minimum lot sizes of 15,000 square feet, one acre, two acres, and four acres)
- East – a mix of zoning districts in the Town, including R1-7, General Business, Neighborhood Business, REC, and Light Industrial; with single-family residential zoning in the Village of Matinecock (requiring a two-acre minimum lot size) to the southeast
- South – a mix of single-family residential districts in the City of Glen Cove (requiring minimum lot sizes of one-half acre and one acre)
- West – the portion of NCC in the City of Glen Cove, with one-acre single-family residential zoning, is located to the immediate southwest; a mix of single-family residential uses in the City of Glen Cove is located to the west and northwest (requiring minimum lot sizes of 6,500 square feet, 7,500 square feet, one-quarter area, and one-half acre), as well as business zoning along Forest Avenue.

## Land Use

The land uses surrounding the portion of NCC in the unincorporated area of the Town are as follows (see **Figure NCC-3** in **Appendix D**):

- North – mostly commercial, with intermingled residential use, along the north side of Forest Avenue across from NCC; and predominantly single-family residential use beyond that, with small-lot development in the Town immediately to the north and large-lot development in the Village of Lattintown beyond
- East – public service and single-family residential uses to the immediate east, with commercial uses continuing eastward along Forest Avenue and northward along Weir Lane, and mostly large-lot residential uses beyond that in the Village of Matinecock
- South – the LIRR Oyster Bay Line adjoins NCC to the south; beyond the LIRR, land uses are mostly residential, with scattered public service, community service and parkland uses
- West – the portion of NCC in the City of Glen Cove to the immediate southwest; and single-family residences as the primary use to the west and northwest, as well as commercial uses along Forest Avenue extending westward, and public service and community service uses.

## Water Resources

NCC does not contain FEMA-designated flood zones. Designated wetlands are limited to a pond in the southwest corner of the site (in the City of Glen Cove) identified on the NWI map, with an area of 1.0± acre. See **Figure NCC-5** in **Appendix D** for the location of the wetland on the NCC property.

NCC is located at the westerly edge of the SGPA and deep recharge areas for the groundwater aquifer and, accordingly, has been included in the Town's APO District. The property is not situated in proximity to coastal waters.

NCC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site, as would be expected for potential future uses.

## Soils and Slopes

The portion of NCC in the unincorporated area of the Town contains several soil types, as illustrated in **Figure NCC-6** in **Appendix D**. This parcel contains areas of soils that have significant limitations for potential future development, particularly the following:

- Montauk silt loam, 3-8% slopes (MkB) – This soil, which comprises 3.9± percent of the site area (i.e., within the Town portion of NCC), has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Montauk silt loam, 8-15% slopes (MkC) – This soil, which comprises 4.9± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness and slopes; moderate limitations for local roads and streets due to wetness, slopes and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Riverhead sandy loam, 8-15% slopes (RdC) – This soil, which comprises 2.7± percent of the site area, has moderate limitations for dwellings with and without basements due to slopes; moderate limitations for local roads and streets due to slopes and frost action; and severe limitations for effluent absorption fields due to poor filtration
- Urban land-Riverhead Complex, 3-8% slopes (UrB) – This soil, which comprises 2.6± percent of the site area, has slight limitations for dwellings with and without basements; moderate limitations for local roads and streets due to frost action; and severe limitations for effluent absorption fields due to poor filtration

The majority of the area of NCC in the Town is comprised of two soils in the Enfield series, for which the Soil Survey only provides general information regarding limitations. More specifically, Enfield Loam, 0-3% slopes (EnA) and Enfield Loam, 3-8% slopes (EnB), which together comprise 85.9± percent of the site area, are identified as having few limitations for dwellings with and without basements; however, in both cases, the Soil Survey specifies that “the permeability in the substratum makes the soil a poor filter in areas used for septic systems and causes a hazard

of pollution to the water table” and that frost action is a hazard for local streets and roads in areas with this soil type.

As indicated, the soils on the Town portion of NCC have significant limitations for effluent disposal fields, although the limitations with respect to other aspects of residential development appear to be somewhat less severe than for the other golf course properties that were examined in this study.

The portion of NCC in the unincorporated area of the Town contains few areas of steep slopes (i.e., greater than 25 percent gradient), which mostly appear to be limited to isolated golf course features (e.g., sand traps). Such slopes comprise 1.3± acres in the Town. An additional 2.8± acres of steep slopes are present in the City of Glen Cove portion of the site. See **Figure NCC-7** in **Appendix D** for the distribution of steep slopes on the NCC property.

### Visual Resources

As discussed previously, the area in which NCC is located contains a wide range of land uses and other features, which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on lots of various sizes are the dominant land use within the half-mile-radius study area (see **Figure NCC-3** in **Appendix D**). However, there are substantial areas of more intense uses, particularly commercial uses along Forest Avenue to the immediate north (and extending north from Forest Avenue along Weir Lane), spanning the entire east-to-west width of the half-mile-radius study area.

The field survey revealed that views of the portion of NCC in the Town are available to the public primarily along Forest Avenue. This long frontage establishes the less intense recreational/open space use of NCC as a dominating feature within this landscape. See the photographs in **Appendix D**.

### Other Resources

The woodland area of NCC in the unincorporated area of the Town is primarily situated along the Forest Avenue frontage which, as noted above, contributes to the open space quality of the parcel. An additional area of contiguous trees creates a screen around the internal maintenance building/area. Woodlands comprise an estimated 3.8± acres in the Town, as well as 3.7± acres in the City, based on review of recent aerial photographs. See **Figure NCC-8** in **Appendix D** for the approximate distribution of woodlands on the NCC property.

Consultation with the NHP did not identify records of rare or state-listed animals or plants, or significant natural communities at NCC or in its immediate vicinity – see **Appendix D** (and the footnote in **Section 2.3.3** with respect to Glen Head Country Club).

As shown in **Figure NCC-9** in **Appendix D**, SHPO’s CRIS database indicates that there are no State or federal-designated historic resources on or near the portion of NCC in the Town, although numerous eligible resources are identified in the area to the immediate west of the portion of NCC in the City of Glen Cove. It is further noted NCC is not located in an area that is considered to be archaeologically sensitive.

### 2.3.5 Pine Hollow Country Club (PHCC)

#### Background and Overview

PHCC is located entirely in the unincorporated area of the Town, in the hamlet of East Norwich, comprising 135.2± acres in the R1-5A District and the APO District (see aerial photograph of site in **Figure PHCC-1** in **Appendix E**). PHCC was included in the Town's 2003 study of the SGPA. Based on the recommendations of that study, the Town rezoned PHCC from R1-2A to R1-5A in 2004.

#### Zoning

As noted above, PHCC lies entirely within the Town's R1-5A District, which requires a minimum lot area of five acres. This site is also located within the Town's APO District.

The zoning surrounding PHCC is as follows (see **Figure PHCC-2** in **Appendix E**):

- North – to the immediate north are R1-10 and R1-20 districts in the Town, with R1-2A and R1-6 districts in the Town beyond that
- East – to the east, extending to the limits of the half-mile study area, is two-acre single-family residential zoning in the Village of Oyster Bay Cove
- South – to the immediate south is two-acre single-family residential zoning in the Village of Oyster Bay Cove, with R1-1A, R1-2A and REC districts in the Town to the south and two-acre and three-acre single-family residential zoning districts in the Village of Muttontown to the southwest beyond that
- West – to the immediate west is an R1-1A District in the Town, with R1-6, R1-7 and R-10 and business districts in the Town, and a two-acre single-family residential zoning district in the Village of Upper Brookville, beyond that.

#### Land Use

The land uses surrounding PHCC are as follows (see **Figure PHCC-3** in **Appendix E**):

- North – this area is primarily occupied by a mix of small-lot and large-lot single-family residential uses, with scattered public service, community service and parkland uses
- East – this area is almost entirely large-lot single-family residential uses, with some public service and community service uses
- South – this area is primarily occupied by large-lot single-family residential uses, with some public service, community service and parkland uses
- West – this area is primarily occupied by single-family residential uses of varying lot sizes, with scattered public service, community service and parkland uses, and a cluster of commercial uses along NYS Route 106 extending north of Northern Boulevard at the edge of the half-mile study area.



### Water Resources

PHCC does not contain FEMA-designated flood zones. Five NWI ponds are located on the site (i.e., individual ponds in the northeast and southeast corners, and a cluster of three ponds in the central portion of the property), which total 1.8± acre in area. See **Figure PHCC-5** in **Appendix E** for the location of the wetland on the PHCC property.

PHCC is located in the central portion of the SGPA and deep recharge areas for the groundwater aquifer and, accordingly, has been included in the Town's APO District. The property is not situated in proximity to coastal waters.

PHCC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site, as would be expected for potential future uses.

### Soils and Slopes

PHCC primarily contains the following soil types, as illustrated in **Figure PHCC-6** in **Appendix E**, which have significant limitations for potential future development, as indicated:

- Riverhead sandy loam, 3-8% slopes (RdB) – This soil, which comprises 34.0± percent of the site area, has slight limitations for dwellings with and without basements; moderate limitations for local roads and streets due to frost action; and severe limitations for effluent absorption fields due to poor filtration
- Montauk silt loam, 3-8% slopes (MkB) – This soil, which comprises 42.7± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Montauk silt loam, 8-15% slopes (MkC) – This soil, which comprises 10.2± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness and slopes; moderate limitations for local roads and streets due to wetness, slopes and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Riverhead sandy loam, 8-15% slopes (RdC) – This soil, which comprises 3.6± percent of the site area, has moderate limitations for dwellings with and without basements due to slopes; moderate limitations for local roads and streets due to slopes and frost action; and severe limitations for effluent absorption fields due to poor filtration
- Urban land-Riverhead Complex, 3-8 slopes (UnB) – This soil, which comprises 6.8± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation

As indicated, all of the above soils have severe limitations for effluent disposal fields; and most of these soils have moderate or severe limitations for homesites and roadways.

PHCC contains limited area of steep slopes (i.e., greater than 25 percent gradient) comprising 7.8± acres, primarily in the facility area in the northeast corner of the site, along the northern and southern edges of the property, and in areas of isolated golf course features (e.g., sand traps) – see **Figure PHCC-7** in **Appendix E**.

### Visual Resources

As discussed previously, the area in which PHCC is located contains a wide range of land uses and other features, which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on lots of various sizes, primarily with denser development to the west/northwest and less dense development in other directions, are the dominant land use within the half-mile-radius study area (see **Figure PHCC-3** in **Appendix E**). However, there are some areas of more intense uses, particularly commercial development to the west within the half-mile-radius study area.

The field survey revealed that public views of PHCC are available along the approximately 1,000 feet of frontage along Northern Boulevard and are limited in other directions. See the photographs in **Appendix E**.

### Other Resources

PHCC contains tracts of woodlands totaling an estimated 11.9± acres, based on review of recent aerial photographs. See **Figure PHCC-8** in **Appendix E** for the approximate distribution of woodlands on the PHCC property, which primarily include buffers along the northern, western and southern edges of the site, as well as significant patches within the golf course (between parallel adjoining holes), as well as within the facility area in the northeast corner of the site.

Consultation with the NHP indicates that the State-threatened northern long-eared bat (*Myotis septentrionalis*) has been documented within three-quarter mile of PHCC, noting that this species can travel 1.5 miles from documented locations – see **Appendix E**.

As shown in **Figure PHCC-9** in **Appendix E**, SHPO's CRIS database indicates that there are no State or federal-designated historic resources on or near PHCC. It is noted, however, that PHCC is located in an area that is considered to be archaeologically sensitive.

## 2.3.6 Meadow Brook Club (MBC)

### Background and Overview

MBC is located entirely in the unincorporated area of the Town, in the hamlet of Jericho, comprising 267.3± acres in the R1-5A District and the APO District (see aerial photograph of site in **Figure MBC-1** in **Appendix F**). MBC was included in the Town's 2003 study of the SGPA. Based on the recommendations of that study, the Town rezoned PHCC from R1-2A to R1-5A in 2004.

## Zoning

As noted above, MBC lies entirely within the Town's R1-5A District, which requires a minimum lot area of five acres. This site is also located within the Town's APO District. The zoning surrounding MBC is as follows (see **Figure MBC-2** in **Appendix F**):

- North – to the immediate north are R1-2A and R1-5A districts in the Town; with two-acre, three-acre and five-acre single-family residential zoning in the Village of Brookville beyond that
- East – REC, R1-2A, R1-1A and multi-family (RMF-6) Districts in the Town; with business districts in the Town in the vicinity of the NYS Route 25-106/107 interchange at the limit of the half-mile study area
- South – to the immediate south are Office Building, General Business and RMF-6 Districts in the Town; with a mix of business, light industrial, single-family and multi-family districts in the Town beyond that on the south side of NYS Route 25 (Jericho Turnpike)
- West – to the immediate west are RMF-6 and R1-5A Districts in the Town; with four-acre single-family residential zoning district in the Village of Old Westbury beyond that.

## Land Use

The land uses surrounding MBC are as follows (see **Figure MBC-3** in **Appendix F**):

- North – this area is occupied by large tracts of community service use (State University of New York at Old Westbury) and single-family residences, with a few public service uses
- East – this area has a complex mix of community service (Jericho High School and religious facilities), multi-family residential, single-family residential, commercial, recreational, and public service uses
- South – the area adjacent to the site contains large commercial (office) and multi-family residential uses; with a mix of uses (primarily commercial, industrial and residential) beyond that on the south side of Jericho Turnpike
- West – this area is primarily occupied by large tracts of community service use (SUNY at Old Westbury) and multi-family residences.

## Water Resources

MBC does not contain FEMA-designated flood zones. A few NWI ponds are located on the eastly side of the site, which total 2.7± acre in area. See **Figure MBC-5** in **Appendix F** for the location of the wetland on the MBC property.

MBC is located near the southern edge of the SGPA and deep recharge areas for the groundwater aquifer and, accordingly, has been included in the Town's APO District. The property is not situated in proximity to coastal waters.

MBC is not located within the boundaries of a sanitary sewer district. Therefore, on-site, subsurface sewage disposal applies to the existing uses on the site, as would be expected for potential future uses.

### Soils and Slopes

MBC primarily is comprised of Montauk and Enfield soils, as illustrated in **Figure MBC-6 in Appendix F**. The Montauk soil areas have significant limitations for potential future development, as indicated below:

- Montauk silt loam, 3-8% slopes (MkB) – This soil, which comprises 24.6± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness; moderate limitations for local roads and streets due to wetness and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation
- Montauk silt loam, 8-15% slopes (MkC) – This soil, which comprises 25.6± percent of the site area, has moderate limitations for dwellings with and without basements due to wetness and slopes; moderate limitations for local roads and streets due to wetness, slopes and frost action; and severe limitations for effluent absorption fields due to wetness and slow percolation.

The MBC site also contains large areas of soils in the Enfield series, for which the Soil Survey only provides general information regarding limitation. More specifically, Enfield Loam, 0-3% slopes (EnA) and Enfield Loam, 3-8% slopes (EnB), which together comprise 48.2± percent of the site area, are identified as having few limitations for dwellings with and without basements; however, in both cases, the Soil Survey specifies that “the permeability in the substratum makes the soil a poor filter in areas used for septic systems and causes a hazard of pollution to the water table” and that frost action is a hazard for local streets and roads on this soil.

MBC contains scattered areas of steep slopes (i.e., greater than 25 percent gradient) comprising 6.7± acres – see **Figure MBC-7 in Appendix F**.

### Visual Resources

As discussed previously, the area in which MBC is located contains a wide range of land uses and other features, which contribute to a complex visual setting and associated community character. Single-family residential neighborhoods on lots of various sizes, primarily with denser development to the west/northwest and less dense development in other directions, are the dominant land use within the half-mile-radius study area (see **Figure MBC-3 in Appendix F**). However, there are some areas of more intense uses, particularly commercial to the west within the half-mile-radius study area.

The field survey revealed that only limited views of MBC are limited to the public, from along the access road for SUNY Old Westbury to the north of the site. See the photographs in **Appendix F**.

### Other Resources

MBC contains fairly extensive tracts of woodlands totaling an estimated 29.9± percent of the parcel area, based on review of recent aerial photographs. See **Figure MBC-8 in Appendix F** for the approximate distribution of woodlands on the MBC property, which primarily includes buffers along most of the perimeter of the site, as well as significant patches within the golf course, particularly its western half.

Consultation with the Natural Heritage Program (NHP) identifies the documented presence of the State-endangered eastern tiger salamander (*Ambystoma tigrinum*) at MBC – see **Appendix F**.

As shown in **Figure MBC-9** in **Appendix F**, SHPO’s CRIS database indicates that there are no State or federal-designated historic resources on or near MBC. It is noted, however, that most of MBC, except its easternmost end, is located in an area that is considered to be archaeologically sensitive.

### 2.3.7 Public Golf Courses

There are three public golf courses within the Town of Oyster Bay which were also included in this study. These are the Town of Oyster Bay (Honorable Joseph Colby) Golf Course; Cantiague County Park in Hicksville; and the golf courses at Bethpage State Park. As noted previously, these properties have been included in the study for completeness. However, as designated parkland in public ownership, they are not of concern with respect to potential future development/redevelopment as pertains to the private golf courses. Accordingly, a concise synopsis is provided below regarding relevant inventory information for each of the three properties.

#### A. Town of Oyster Bay Golf Course (TOBGC)

TOBGC contains an 18-hole golf course located entirely in the unincorporated area of the Town, in the hamlet of Woodbury (see aerial photograph of site in **Figure TOBGC-1** in **Appendix G**). This site is zoned REC and is also within the Town’s APO District. As shown in **Figure TOBGC-3** in **Appendix G**, TOBGC is surrounded by a wide range of land uses, including extensive commercial and industrial development to the south and west, as well as mostly single-family residential uses to the east and northeast, and a mix of community service, public service and residential uses to the north. The site contains four NWI ponds, as well as scattered areas of steep slopes – see **Figure TOBGC-5** and **Figure TOBGC-7** in **Appendix G**. TOBGC is not located in a FEMA flood zone and is not proximate to coastal waters. There are extensive areas of woodlands along the perimeter of TOBGC and throughout the site, as shown in **Figure TOBGC-8** in **Appendix G**.

#### B. Cantiague County Park Golf Course (CCPGC)

CCPGC is located in the eastern portion of Cantiague County Park and contains a nine-hole golf course located entirely in the unincorporated area of the Town, in the hamlet of Hicksville (see aerial photograph of site in **Figure CPGC-1** in **Appendix H**). This site is zoned LI-Light Industrial and is not within the Town’s APO District. As shown in **Figure CPGC-3** in **Appendix H**, Cantiague County Park is surrounded by a wide range of land uses, including extensive industrial and commercial development to the south and northwest, as well as mostly single-family residential uses to the north, east and west. CCPGC contains no NYSDSEC or NWI wetlands, and virtually no areas of steep slopes. CCPGC is not located in a FEMA flood and is not proximate to coastal

waters. There are narrow areas of woodlands along the perimeter of CCPGC, as shown in **Figure CPGC-8** in **Appendix H**.

### C. Bethpage State Park Golf Courses (BSPGC)

Bethpage State Park contains five 18-hole golf courses which are located almost entirely in the unincorporated area of the Town, in the hamlets of Bethpage, Old Bethpage and Farmingdale; however, the park, including a small portion of the golf course complex, extends eastward into the Town of Babylon, Suffolk County (see aerial photograph of site in **Figure BSPGC-1** in **Appendix I**). The area of BSPGC in the Town of Oyster Bay is zoned almost entirely in the R1-1A District, although there are two small parcels within the R1-10 District; the property is not within the Town's APO District. As shown in **Figure BSPGC-3** in **Appendix I**, Bethpage State Park is surrounded by a wide range of land uses, primarily consisting of single-family residential uses (to the north, west and south), but also including community serve uses (e.g., Town of Oyster Bay Solid Waste Disposal Complex to the north), and extensive industrial and commercial development south, southwest and east. Bethpage State Park contains two isolated NWI wetlands, but these are not located within the golf course area; fairly extensive areas of steep slopes are present at BSPGC, primarily in the northeast portion of the site (see **Figure BSPGC-7** in **Appendix I**). BSPGC is not located in a FEMA flood zone and is not proximate to coastal waters. There are large areas of woodlands around the perimeter and within the interior of BSPGC, as shown in **Figure BSPGC-8** in **Appendix I**.

## 3.0 ANALYSIS

### 3.1 Analysis Methodology

Analysis of the individual golf courses examined in this study included a preliminary build-out calculation under the existing zoning. The estimated yield derived from this calculation was then used to evaluate anticipated environmental impacts that would be associated with such development.

For the purposes of this analysis, 30 percent of the total parcel area was used as a preliminary estimate for the infrastructure requirement (i.e., drainage, roadways, utility strips, etc.) for the development of a residential subdivision under the current zoning.<sup>22</sup> This assumption, and the resulting preliminary estimated lot yield quantities, is strictly for planning purposes and comparative analyses for this study. The calculated number of lots does not represent a regulatory yield determination for any given parcel, which can only be established with the preparation of a detailed yield map demonstrating compliance with all dimensional standards specified in the respective municipality's zoning code and other applicable requirements.<sup>23</sup>

The focus of the analysis presented below is to assess the development potential of the area of private golf courses in the unincorporated area of the Town of Oyster Bay. Development potential for areas of any golf courses that extend into adjacent municipalities is also addressed for completeness, but is discrete from portion in unincorporated area of Town since such development is regulated by those adjacent municipalities.

Once the development yield is preliminarily estimated, the potential impacts of such build-out development under the current zoning with regard to various environmental parameters can also be assessed. This includes calculations to estimate:

- Sewage generation – Based on 300-gallon per day (gpd) single-family residence minimum design flow sewage rates from Nassau County<sup>24</sup>
- Water use – Based on sewage generation rate above, plus 25 percent for irrigation
- Solid waste generation – Based on CalRecycle Residential Developments: Estimated Solid Waste Generation Rates; NPV computed average of all single-family waste generation examples, at 10.21 pounds per household per day
- Vehicular trip generation – Two-way vehicle trip ends, based on rates in the 10<sup>th</sup> Edition of *Trip Generation*, published by the Institute of Transportation Engineers, as follows:
  - weekday morning (AM) peak hour, at an average rate of 0.74 trips per dwelling unit;

<sup>22</sup> Because this method provides an approximation of the development yield that could be achieved, the estimated number of units is rounded up if slightly less than a whole number.

<sup>23</sup> The preparation of a detailed lot layout plan often can achieve a higher yield than the preliminary estimate using the calculation presented in this analysis.

<sup>24</sup> Web site: <https://www.nassaucountyny.gov/1874/Permits-Fees>



- weekday afternoon (PM) peak hour, at an average rate of 0.99 trips per dwelling unit; and
- Saturday peak hour, at an average rate of 0.93 trips per dwelling unit
- Number of school-aged children – Based on Rutgers University, Center for Urban Policy Research multiplier for single-family detached housing with four-bedrooms and selling prices over \$329,500, at 1.05 school-aged children per residence.

Additionally, the analysis characterizes the resource value of each golf course, and the potential for impacts to these resources due to potential residential build-out development, based on the inventory information for the following parameters:

- Wetlands
- Flood zones
- Steep slopes (>25% gradient)
- Soils (particularly identifying locations that have soils with severe limitations)
- Woodlands
- Groundwater
- Open space, aesthetics, visual resources and community character
- Threatened/endangered species
- Cultural Resources

Paralleling the preceding inventory chapter, the analysis for each golf course is presented in a separate section, below.

### 3.2 Analysis of Golf Courses

#### 3.2.1 North Shore Country Club (NSCC)

##### Estimated Residential Build-Out

Preliminary residential development yield estimate for Town portion:

- 83.4± acres; 58.4± acres for development (minus 30 percent infrastructure) = **127 lots** at 20,000 square feet each

Preliminary residential development yield estimate for Village portion:

- 74.3± acres; 52.0± acres for development (minus 30 percent infrastructure) = **113 lots** at 20,000 square feet each<sup>25</sup>

<sup>25</sup> The Village's 2009 *Buildout Analysis* indicates that the portion of NSCC in the Village contains eight occupied residential cottages, such that the net increase in the number of residences in this area would be 105 based on the above calculation.

Preliminary residential development yield estimate for NSCC based upon the above conditions: **240 lots.**

#### Potential Build-Out Impact – Resources

As noted in **Section 2.3.1**, the portion of NSCC in the Town of Oyster Bay contains a pond that is classified as a freshwater wetland on the National Wetland Inventory. This wetland currently does not have any specific regulatory protection. Additional, more extensive freshwater wetlands are located in the Village of Sea Cliff portion of NSCC, which are regulated by NYSDEC.

Potential future development of the portion of NSCC in the Town would not encroach into regulated flood zones as mapped by FEMA; however, an area in the AE flood zone is located in the portion of NSCC in the Village, which is contained within the extent of NYSDEC-regulated freshwater wetlands. Although this NYSDEC-regulated wetland area is not expected to be developable as part of a residential subdivision, it is not currently excluded from the calculation of subdivision yield.

NSCC is not located in an area served by a municipal sanitary sewer system. The usual method of sewage disposal under these circumstances is via on-site septic systems. However, the soils present on the NSCC site are identified in the Nassau County Soil Survey as having severe limitations for effluent absorption fields due to a combination of wetness, slow percolation, poor filtration, and slopes. These conditions diminish the capacity of the on-site soils to provide adequate sanitary treatment and, in combination with the increased potential for erosion and sediment transport during construction, in addition to increased stormwater runoff volumes from expanded impervious surface coverage in the completed development, magnify the potential for significant impacts to water resources. Such impacts would adversely affect the underlying groundwater aquifer, as well as the on-site surface waters and associated wetlands of Scudders Pond and the receiving waters of nearby Hempstead Harbor under a scenario of standard subdivision development using on-lot sewage disposal. As noted in **Section 2.3.1**, such an outcome would work counter to the advances that have been achieved through concerted inter-municipal effort to improve water quality conditions in Hempstead Harbor to the point that underwater lands in the outer harbor that had been closed to shellfish harvesting more than four decades are now certified and available for this activity.

The portion of NSCC in both the Town and Village contain significant areas of steep slopes (with gradients exceeding 25 percent) – i.e., 9.7± acres in the Town and 9.1± acres in the Village, or approximately 12 percent of the parcel area in each municipality. However, under the existing regulatory provisions, these areas would be included in the calculation of yield for potential future subdivision, even though the development of lands with such slopes poses the potential

for significantly increased soil erosion and sediment transport during construction and increased stormwater runoff in the completed development.

The woodlands on NSCC cover 8.0± acres in the Town and 19.6± acres in the Village (10± percent 26± percent of the respective parcel areas)<sup>26</sup>. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a significant fraction of this woodland to accommodate project infrastructure and individual home sites. Additionally, such development would eliminate the open space value of NSCC to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that is currently possesses a verdant, park-like character.

NSCC also is located in the area of documented nesting by State-endangered peregrine falcons (within one-quarter mile) and State-threatened bald eagles (within one mile). Additionally, the portion of the site in the Village of Sea Cliff is proximate to listed cultural resources (two buildings and two sites) and the majority of the area within NSCC is considered to be archaeologically sensitive. The potential effect on these and other important natural resources attributes would have to be assessed as part of any significant development of NSCC.

#### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 127 lots in the Town and 113 lots in the Village = 38,100± gpd in the Town and 33,900± gpd in the Village = **72,000± gpd total**
- Water use – 1.25 x sewage generation = 47,625± gpd in the Town and 42,375± gpd in the Village = **90,000± gpd total (32.8± million gallons per year [MGY])**
- Solid waste generation – 10.21 pounds/day per residence x 127 lots in the Town and 113 lots in the Village = 1,297± pounds/day in the Town and 1,154± pounds/day in the Village = **2,450± pounds/day (1.2± tons/day) total**
- Number of school-aged children – 1.05 children/residence x 127 lots in the Town and 113 lots in the Village = 133± children in the Town and 119± children in the Village = **252± school-aged children total**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence x 127 lots in the Town and 113 lots in the Village = 93± trips in the Town and 84± trips in the Village = **178± AM Peak Hour trips total**

<sup>26</sup> There are varying degrees of overlap between the specified areas of steep slopes and woodlands on any given site. As indicated by a comparison between **Figure NSCC-7** and **Figure NSCC-8** in **Appendix A**, this overlap is significant for NSCC.

- PM Peak – 0.99 trips per residence x 127 lots in the Town and 113 lots in the Village = 126± trips in the Town and 112± trips in the Village = **238± PM Peak Hour trips total**
- Saturday Peak – 0.93 trips per residence x 127 lots in the Town and 113 lots in the Village = 118± trips in the Town and 105± trips in the Village = **223± Saturday Peak Hour trips total**

### 3.2.2 Engineers Country Club (ECC)

#### Estimated Residential Build-Out

As indicated previously, this property is subject to a development proposal for the portion of the site within the Village of Roslyn Harbor, which is in the initial stages of the review process. As part of this review process, it is anticipated that a detailed yield map will be prepared to demonstrate the development density permitted as-of-right, which would supersede the preliminary calculation provided below for the purposes of this planning study.<sup>27</sup>

Preliminary residential development yield estimate for Town portion:

- 4.3± acres; 3.15± acres for development (minus 30 percent infrastructure) = **19 lots** at 7,000 square feet each

Preliminary residential development yield estimate for Village portion:

- 135.6± acres; 95.6 acres for development (minus 30 percent infrastructure) = **47 lots** at two acres each

Preliminary residential development yield for ECC based upon the above conditions: **66 lots**.

As noted, the portion of ECC in the Town of Oyster Bay has a zoning classification (R1-7, allowing single-family residences on 7,000-square foot lots) that is very different from the predominant two-acre residential zoning that applies to the majority of the site in the Village of Roslyn Harbor. Although small-lot zoning and residential development extends to the northeast in the hamlet of Glenwood Landing, the existing development to the south of the Town portion of ECC consists primarily of large-lot zoning and residential development in the Village of Roslyn Harbor. Thus, development under the existing R1-7 zoning of the Town portion of ECC can be viewed as inconsistent with the existing land use pattern and character of the area.

<sup>27</sup> As noted previously, an application has been submitted for 92 multi-family units on an 18.5±-acre parcel in the Village, which also would reconfigure the remaining acreage at ECC to retain the 18-hole golf course in perpetuity. A preliminary sketch prepared as part of the owner's initial public presentation for this development proposal shows a total of 77 single-family residential lots on the overall 141.5±-acre ECC property under a standard subdivision, with 13 of these lots located in the Town portion of the site and 66 lots in the Village portion of the site.

### Potential Build-Out Impact – Resources

As noted in **Section 2.3.2**, ECC is not located in an area served by a municipal sanitary sewer system. The usual method of sewage disposal under these circumstances is via on-site septic systems. However, the soils present on the ECC site are identified in the Nassau County Soil Survey as having severe limitations for effluent absorption fields due to a combination of wetness, slow percolation, poor filtration, and slopes. These conditions diminish the capacity of the on-site soils to provide adequate sanitary treatment, which increases the potential for significant impacts to the underlying groundwater aquifer, as well as the receiving waters of nearby Hempstead Harbor that would be associated with standard subdivision development of ECC using on-lot sewage disposal.

As discussed above, 0.4± acre (9± percent) of the area of ECC in the Town contains steep slopes. However, under the existing regulatory provisions, this area would be included in the calculation of yield for potential future subdivision, even though the development of lands with such slopes poses the potential for significantly increased soil erosion and sediment transport during construction and increased stormwater runoff in the completed development.

Woodlands cover 0.7± acre (16± percent) of the area of ECC in the Town. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a significant fraction of this woodland to accommodate project infrastructure and individual home sites. Additionally, such development would eliminate the open space value of this parcel to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that is currently possesses a verdant, park-like character, particularly in views from Motts Cove Road.

ECC also is located in the area of documented nesting by State-endangered peregrine falcons (within one-quarter mile) and State-threatened bald eagles (within one mile). Additionally, ECC is located in an area that is considered to be archaeologically sensitive. The potential effect on these and other important resources would have to be assessed as part of any significant development of ECC.

### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 19 lots in the Town and 47 lots in the Village = 5,700± gpd in the Town and 14,100± gpd in the Village = **19,800± gpd total**

- Water use –  $1.25 \times$  sewage generation =  $7,125\pm$  gpd in the Town and  $17,625\pm$  gpd in the Village = **24,750± gpd total (9.0± MGY)**
- Solid waste generation – 10.21 pounds/day per residence  $\times$  19 lots in the Town and 47 lots in the Village =  $194\pm$  pounds/day in the Town and  $480\pm$  pounds/day in the Village = **674± pounds/day (0.34± ton/day) total**
- Number of school-aged children – 1.05 children/residence  $\times$  19 lots in the Town and 47 lots in the Village =  $20\pm$  children in the Town and  $49\pm$  children in the Village = **69± school-aged children total**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence  $\times$  19 lots in the Town and 47 lots in the Village =  $14\pm$  trips in the Town and  $35\pm$  trips in the Village = **49± AM Peak Hour trips total**
  - PM Peak – 0.99 trips per residence  $\times$  19 lots in the Town and 47 lots in the Village =  $19\pm$  trips in the Town and  $47\pm$  trips in the Village = **65± PM Peak Hour trips total**
  - Saturday Peak – 0.93 trips per residence  $\times$  19 lots in the Town and 47 lots in the Village =  $18\pm$  trips in the Town and  $44\pm$  trips in the Village = **61± Saturday Peak Hour trips total**

### 3.2.3 Glen Head Country Club (GHCC)

#### Estimated Residential Build-Out

Preliminary residential development yield estimate (site entirely in the Town):

- $174.6\pm$  acres;  $122.2\pm$  acres for development (minus 30 percent infrastructure) = **61 lots** at two acres each

#### Potential Build-Out Impact – Resources

As noted in **Section 2.3.3**, GHCC is not located in an area served by a municipal sanitary sewer system, such that sewage disposal would be expected to occur via on-site septic systems for a potential future residential development, which would be impacted by the severe limitations of the on-site soils for effluent absorption fields due to a combination of wetness, slow percolation, poor filtration, and slopes. However, GHCC currently is zoned for two-acre residential lots (R1-2A), which would provide a low density and siting flexibility that would not be the case for higher density development.

Approximately three acres ( $1.7\pm$  percent) of GHCC are classified as wetlands, while  $11.7\pm$  acres ( $6.7\pm$  percent) contain steep slopes. However, under the existing regulatory provisions, these areas would be included in the calculation of yield for potential future subdivision, even though the development of lands with such slopes poses the potential for significantly increased soil

erosion and sediment transport during construction and increased stormwater runoff in the completed development.

Woodlands cover 33.2± acres (19.0± percent) on GHCC. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a portion of these woodlands to accommodate project infrastructure and individual home sites, and such development would impact the habitat and open space value of this parcel to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that currently possesses a verdant, park-like character. However, the property has limited visibility to the public due to its land use setting, and the two-acre minimum lot size and mandatory clustering specified in the existing APO regulations for parcels exceeding 20 acres would help to minimize impacts.

Although NHP consultation did not identify records of rare or state-listed animals or plants, or significant natural communities at GHCC or in its immediate vicinity, any proposal for development of the site would be required to include a comprehensive on-site analysis to identify significant ecological resources that may be present and to formulate appropriate measures to minimize impacts to same.

#### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 61 lots = **18,300± gpd**
- Water use – 1.25 x sewage generation = **22,875± gpd total (8.3± MGY)**
- Solid waste generation – 10.21 pounds/day per residence x 61 lots = **622± pounds/day (0.31± ton/day)**
- Number of school-aged children – 1.05 children/residence x 61 lots = **64± school-aged children**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence x 61 lots = **45± AM Peak Hour trips**
  - PM Peak – 0.99 trips per residence x 61 lots = **60± PM Peak Hour trips**
  - Saturday Peak – 0.93 trips per residence x 61 lots = **57± Saturday Peak Hour trips**



### 3.2.4 Nassau Country Club (NCC)

#### Estimated Residential Build-Out

Preliminary residential development yield estimate for Town portion:

- 55.6± acres; 38.9± acres for development (minus 30 percent infrastructure) = **39 lots** at one acre each

Preliminary residential development yield estimate for City portion:

- 91.7± acres; 64.2± acres for development (minus 30 percent infrastructure) = **70 lots** at 40,000 square feet each

Preliminary residential development yield for NCC based upon the above conditions: **109 lots.**  
Potential Build-Out Impact – Resources

As noted in **Section 2.3.4**, NCC is not located in an area served by a municipal sanitary sewer system, such that sewage disposal would be expected to occur via on-site septic systems for a potential future residential development, which would be impacted by the severe limitations of the on-site soils for effluent absorption fields due to a combination of wetness, slow percolation, and poor filtration. Although NCC currently is zoned for one-acre residential lots (R1-1A), this is a smaller lot-size requirement than applies to the other three golf courses in the Town's portion of the SGPA – i.e., R1-5A for Pine Hollow Country Club and Meadow Brook Club, and R1-2A for Glen Head Country Club – which would not be as effective in mitigating impacts associated with on-site sanitary waste disposal.

The portion of NCC in the Town does not contain designated wetlands. There also is not a significant extent of steep slopes; and the limited area of identified sloped areas mostly or entirely appear to be associated with individual golf course features (e.g., sand traps), which would be of less concern with respect to potential soil erosion and sediment transport during construction than would pertain to larger, contiguous sections of steep slopes that are common to most of the other private golf course properties in the Town.

Woodlands cover 3.8± acres (6.8± percent) of the portion of NCC in the unincorporated area of the Town, as well as an additional 3.7± acres (4.0± percent) of the area in the City of Glen Cove. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a portion of these woodlands to accommodate project infrastructure and individual home sites, and such development would impact the open space value of this parcel to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that is currently possesses a verdant, park-like character, particularly when viewed from Forest Avenue. Although the one-acre minimum lot size and mandatory clustering specified in the existing APO regulations for parcels

exceeding 20 acres would help to minimize such impacts to a certain degree, it can be expected that the degree of mitigation would not be as effective as for the three other golf course properties in the Town which have two-acre or five-acre minimum lot sizes.

The portion of NCC in the Town does not contain or adjoin State or federal-designated historic resources, is not located in an area that is considered to be archaeologically sensitive, and is not known to support protected plants or animals. However, the potential effect on any important, though undesignated, resources that may be present would have to be assessed as part of any significant development of this parcel.

#### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 39 lots in the Town and 70 lots in the City = 11,700± gpd in the Town and 21,000± gpd in the City = **32,700± gpd total**
- Water use – 1.25 x sewage generation = 14,625± gpd in the Town and 26,250± gpd in the City = **40,875± gpd total (14.9± MGY)**
- Solid waste generation – 10.21 pounds/day per residence x 39 lots in the Town and 70 lots in the City = 398± pounds/day in the Town and 715± pounds/day in the City = **1,113± pounds/day (0.56± ton/day) total**
- Number of school-aged children – 1.05 children/residence x 39 lots in the Town and 70 lots in the City = 41± children in the Town and 74± children in the City = **114± school-aged children total**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence x 39 lots in the Town and 70 lots in the City = 29± trips in the Town and 52± trips in the City = **81± AM Peak Hour trips total**
  - PM Peak – 0.99 trips per residence x 39 lots in the Town and 70 lots in the City = 39± trips in the Town and 69± trips in the City = **108± PM Peak Hour trips total**
  - Saturday Peak – 0.93 trips per residence x 39 lots in the Town and 70 lots in the City = 36± trips in the Town and 65± trips in the City = **101± Saturday Peak Hour trips total**

### 3.2.5 Pine Hollow Country Club (PHCC)

#### Estimated Residential Build-Out

Preliminary residential development yield estimate (site entirely in the Town):

- 135.2± acres; 94.6± acres for development (minus 30 percent infrastructure) = **19 lots** at five acres each

#### Potential Build-Out Impact – Resources

As noted in **Section 2.3.5**, PHCC is not located in an area served by a municipal sanitary sewer system, such that sewage disposal would be expected to occur via on-site septic systems for a potential future residential development, which would be impacted by the severe limitations of the on-site soils for effluent absorption fields due to a combination of wetness, slow percolation, and poor filtration. However, PHCC currently is zoned for five-acre residential lots (R1-5A), the largest lot size standard in the Town Code, which would provide siting flexibility that would not be the case for higher density development.

Approximately 1.8 acres (1.3± percent) of the area of PHCC is classified as wetlands, while 7.8± acres (5.8± percent) of the site area contains steep slopes. However, under the existing regulatory provisions, these areas would be included in the calculation of yield for potential future subdivision, even though the development of lands with such slopes poses the potential for significantly increased soil erosion and sediment transport during construction and increased stormwater runoff in the completed development.

Woodlands cover 11.9± acres (8.8± percent) of the area of PHCC. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a portion of these woodlands to accommodate project infrastructure and individual home sites, and such development would impact the open space value of this parcel to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that is currently possesses a verdant, park-like character, particularly when viewed from Northern Boulevard. However, the property's five-acre minimum lot size and mandatory clustering specified in the existing APO regulations for parcels exceeding 20 acres would help to minimize impacts.

PHCC also is located in the area of documented use by State-threatened northern long-eared bat. Clearing of woodlands has the potential to remove important habitat for this threatened species. Additionally, PHCC is located in an area that is considered to be archaeologically sensitive. The potential effect on these and other resources would have to be assessed as part of any significant development of PHCC.

### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 19 lots = **5,700± gpd**
- Water use – 1.25 x sewage generation = **7,125± gpd total (2.6± MGY)**
- Solid waste generation – 10.21 pounds/day per residence x 19 lots = **194± pounds/day (0.10± ton/day)**
- Number of school-aged children – 1.05 children/residence x 19 lots = **20± school-aged children**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence x 61 lots = **14± AM Peak Hour trips**
  - PM Peak – 0.99 trips per residence x 61 lots = **19± PM Peak Hour trips**
  - Saturday Peak – 0.93 trips per residence x 61 lots = **18± Saturday Peak Hour trips**

### 3.2.6 Meadow Brook Club (MBC)

#### Estimated Residential Build-Out

Preliminary residential development yield estimate (site entirely in the Town):

- 267.3± acres; 187.1± acres for development (minus 30 percent infrastructure) = **37 lots** at five acres each

#### Potential Build-Out Impact – Resources

As noted in **Section 2.3.6**, MBC is not located in an area served by a municipal sanitary sewer system, such that sewage disposal would be expected to occur via on-site septic systems for a potential future residential development, which would be impacted by the severe limitations of the on-site soils for effluent absorption fields due to a combination of wetness and slow percolation. However, MBC currently is zoned for five-acre residential lots (R1-5A), the largest lot size standard in the Town Code, which would provide siting flexibility that would not be the case for higher density development.

Approximately 2.7 acres (1.0± percent) of the area of MBC is classified as wetlands, while 6.7± acres (2.5± percent) of the site area contains steep slopes. However, under the existing regulatory provisions, these areas would be included in the calculation of yield for potential future subdivision, even though the development of lands with such slopes poses the potential for significantly increased soil erosion and sediment transport during construction and increased stormwater runoff in the completed development.

Woodlands cover 79.9± acres (29.9± percent) of the area of MBC. It can be expected that a standard subdivision under the existing zoning, as per the scenario in the calculation set forth above, would result in the clearing of a portion of these woodlands to accommodate project infrastructure and individual home sites, and such development would impact the open space value of this parcel to the community, primarily through the removal of existing woodlands, but also by placing buildings in an area that is currently possesses a verdant, park-like character. Even with the property's five-acre minimum lot size and mandatory clustering specified in the existing APO regulations for parcels exceeding 20 acres, it is likely that impacts would still result given the large extent of woodland coverage on the site. However, because of its land use setting, MBC has limited visibility to the public.

MBC also is located in the area of documented presence by the State-endangered eastern tiger salamander. Additionally, MBC is located in an area that is considered to be archaeologically sensitive. The potential effect on these and other resources would have to be assessed as part of any significant development of MBC.

#### Build-Out Impact – Community Services and Facilities

The following are the estimated impacts on various community services and facilities based on build-out development under the current zoning (see **Section 3.1** for an explanation of the analysis methodology):

- Sewage generation – 300 gpd/residence x 37 lots = **11,100± gpd**
- Water use – 1.25 x sewage generation = **13,875± gpd total (5.1± MGY)**
- Solid waste generation – 10.21 pounds/day per residence x 37 lots = **377± pounds/day (0.19± ton/day)**
- Number of school-aged children – 1.05 children/residence x 37 lots = **39± school-aged children**
- Vehicular trip generation –
  - AM Peak – 0.74 trips per residence x 37 lots = **27± AM Peak Hour trips**
  - PM Peak – 0.99 trips per residence x 37 lots = **37± PM Peak Hour trips**
  - Saturday Peak – 0.93 trips per residence x 37 lots = **34± Saturday Peak Hour trips**

#### 3.2.7 Public Golf Courses

##### A. Town Golf Course

This property is already zoned REC, in addition to being publicly-owned parkland, conditions which combine to provide a very high level of protection from potential future development.

##### B. Cantiague County Park Golf Course

Although protected as publicly-owned parkland, this site is located in the LI District, which theoretically allows a range of intense industrial and commercial uses and, therefore, is inappropriate for the current and intended long-term recreational use of the site.

C. Bethpage State Park

Although protected as publicly-owned parkland, this site is predominantly in the R1-1A District (with a small area in the R1-10 District), which theoretically allows residential home sites on minimum one acre lots (and 10,000-square foot lots) and, therefore, is inappropriate for the current and intended long-term recreational use of the site.

## 4.0 IMPLEMENTATION STRATEGIES

### 4.1 Residential Rezoning (Larger Minimum Lot Area)

Rezoning of golf course properties in the Town was undertaken in conjunction with the adoption of the APO and REC legislation (for the four private golf courses within the SGPA) and the *Glenwood Landing Redevelopment & Revitalization Plan* (for North Shore Country Club). Currently two of the golf courses (Meadow Brook Club and Pine Hollow Country Club) are at the largest minimum lot size provided for in the Town Zoning Code (i.e., R1-5A / 5 acres); and the other courses cover a broad range of other, primarily residential, zoning districts, including R1-7 (Engineers Country Club), R1-20 (North Shore Country Club), R1-1A (Nassau Country Club and Bethpage State Park), and R1-2A (Glen Head Country Club); but also including the non-residential REC (Town Golf Course in Woodbury) and Light Industrial (Cantiague County Park) Districts.

With specific regard to the private golf courses in the Town, the practicability of any further rezonings should consider the site-specific land use and zoning setting, and significant environmental and community character resources, as well as the context of the overall setting of similar properties in the Town. On the latter point, it is important to note that the properties within the R1-5A District, which also are situated in the APO District, are not strictly surrounded by low-density zoning land uses. For example, Meadow Brook Club adjoins land zoned RMF-6 (Multi-family Residence – 6 units/acre) and is developed accordingly with multi-family housing to the south and southwest, and adjoins an assisted living facility in a General Business District to the southeast, while Pine Hollow Country Club adjoins single-family residential subdivisions in R-10 and R-20 Districts to the north and northwest.

The other two private golf courses in the APO District, while not within the R1-5A District, are similarly situated in large-lot zones and have significantly more dense neighboring land uses and zoning districts. Glen Head Country Club is zoned R1-2A and adjoins multi-family housing in RMF-6 Districts to the southwest and southeast, as well as a single-family residential subdivision in an R1-7 District to the south. Nassau Country Club is zoned R1-1A and adjoins a Neighborhood Business District to the north across Forest Avenue, with a single-family residential subdivision in an R1-6 District further to the north, and adjoins a single-family residential subdivision in an R1-7 District to the east. Likewise, Bethpage State Park, situated in a R1-1A District, is largely surrounded by single-family residential subdivisions in R1-10 and R1-7 Districts.

It is also noted that unlike the consistent zoning of the other two private golf courses that span between the Town and abutting municipal jurisdictions, the zoning of the portion of Engineers Country Club within the unincorporated area of the Town is different from the zoning of the portion of this property in the neighboring municipality, the Village of Roslyn Harbor. For North



Shore Country Club and Nassau Country Club, the minimum required residential lot size is the same on either side on the municipal boundary: 20,000 square feet in the former case and one acre in the latter. For both of these properties, the previous R1-10 zoning for the Town portion of the properties was changed specifically to match the existing zoning in the adjacent municipality (i.e., R1-20 for NSCC and R1-1A for NCC). In stark contrast, the 4.3±-acre portion of ECC in the unincorporated area of the Town of Oyster Bay is in the R1-7 District, for which the minimum lot size is only about 8 percent of the two-acre standard applying to the bulk of the property within the Village of Roslyn Harbor.

In addition to the foregoing land use and zoning factors, the analysis of potential rezonings should take into consideration the full range of relevant environmental parameters, as well as and other pertinent characteristics of each property. In particular, properties that contain significant natural resources (e.g., wetlands, woodlands, slopelands, protected wildlife species, scenic/aesthetic features, etc.) and/or have significant development constraints (e.g., poor soil characteristics, floodplains, etc.), and which also are not currently zoned for the maximum lot size (R1-5A), should be reviewed to determine whether the existing zoning, and the associated potential build-out and attendant impacts on natural resources, community services and facilities, is appropriate given the site-specific conditions.

#### **4.2 Recreation (REC) Zoning**

The Town of Oyster Bay adopted the REC District in 2004 in furtherance to a planning study (Frederick P. Clark Associates, Inc., November 2003) that was undertaken for the area of the Town within the SGPA, which also led to the establishment of the APO District. Accordingly, the initial application of the REC District was limited to the area within SGPA, which coincided with the boundaries of the APO District. As noted previously, at that time the REC District was applied only to public lands in the SGPA, including the Town Golf Course in Woodbury, as well as various other park properties. Although REC zoning was considered for the private golf courses in the Town portion of the SGPA, all of these parcels were instead rezoned to lower-density single-family residential districts. Subsequently, the REC District has not been extended to additional properties.

The primary consideration leading to the Town's decision not to pursue REC zoning for the private golf courses in the SGPA was input received from the owners of the affected properties claiming that such action would severely affect the land valuation and hinting at legal challenge if the proposed REC rezonings proceeded. In light of these circumstances, the aforementioned rezonings to larger-lot residential districts were proposed, which the involved owners indicated would not be challenged, and then were adopted without opposition.

Recreational zoning of private golf courses has been upheld in courts, most notably in the case of *Bonnie Briar Syndicate, Inc. vs. the Town of Mamaroneck et al.* However, that case, which involved protracted litigation, ultimately was not decided on a claim of regulatory taking, as the plaintiffs abandoned their initial complaint that they had been denied all economically viable use of their land. Instead, the outcome revolved solely around the question of whether the rezoning substantially advanced legitimate governmental interests. The Town of Mamaroneck was successful on that cause of action based on its ability to demonstrate that the rezoning was supported by an intensive comprehensive planning process spanning over the course of many years, which included an update to the Town’s formal Comprehensive Plan and a parallel land use study by Westchester County, as well the Town’s adoption of a New York State-sponsored Local Waterfront Revitalization Program (LWRP), all of which specifically supported the adoption of Recreational zoning for the Bonnie Briar property.

Another example is the Town of Brookhaven in Suffolk County, where, in March 2017, the Town created a Golf Course District (GCD), which is largely analogous to the Town of Oyster Bay’s REC District. Initially, rezoning to GCD was carried out only for two public golf courses. Shortly thereafter, in April 2017, the Town of Brookhaven approved a change of zone from single-family residential zoning (one-acre minimum lot area) to GCD for a private golf course, Rock Hill Golf and Country Club, which was seen as enhancing the viability of the facility by specifically allowing accessory uses such as catering, restaurants, bars/taverns, entertainment, health clubs, physical therapy, spas, and game rooms, which were not permitted under the previous residential zoning. This rezoning of the Rock Hill property occurred with the concurrence of the owners. Several other private golf courses in the Town of Brookhaven have been retained in single-family residential zoning districts.

#### **4.3 Planned Development District (PDD)**

This special zoning district allows a specific mix of uses and is governed by specific development standards that are tailored to the property or properties to which they are applied. For the purposes of this study, a PDD concept could include a mix of recreation (i.e., the golf course and associated uses) and residences (often in a clustered arrangement along the golf course fairways) in a manner that ensures a harmonious association between the two. The implementation of a PDD district in the Town of Oyster Bay would require the drafting of a new zoning district, the purposes of which can be served by other mechanisms discussed herein, particularly cluster/conservation subdivision, overlay district, and incentive zoning – see below.

#### **4.4 Cluster/Conservation Subdivision**

According to New York State Town Law Section 278, cluster development is a technique that allows flexibility in the design and subdivision of land. The Town of Oyster Bay Zoning Code

already contains a provision for Conservation Subdivision (§246-5.4.1), which is directed at preserving and protecting groundwater and surface water resources, natural landforms, existing vegetation and wildlife habitats. As subdivision applications in the unincorporated area of the Town are under the jurisdiction of the Nassau County Planning Commission (NCPC), the implementation of conservation subdivisions involves cooperation between the Town Board in establishing standards for such development and the NCPC in reviewing and approving subdivision applications in accordance with these standards. This includes a provision, at §246-5.4.1.2, specifying that, “All residential subdivision applications for parcels having an area of five acres or more shall be considered for possible conservation subdivision.” However, this is an advisory standard, and the NCPC ultimately would decide for any given application whether clustering is appropriate. The APO legislation, at §246-5.4.7.5, specifies, in part, that “...in the case of properties which are 20 acres or larger and located in an APO District, conservation development shall be mandatory.” Thus, mandatory clustering would apply to potential future development of the private golf courses within the unincorporated area of the Town in the APO (i.e., Glen Head Country Club, Nassau Country Club, Pine Hollow Country Club, and Meadow Brook Club, all of which exceed the 20-acre threshold). However, partial development of these golf courses that falls below the 20-acre threshold would not be subject to mandatory clustering, and the other private golf courses outside the APO District either would be subject only to the advisory provision for clustering (i.e., North Shore Country Club) or would not even trigger that standard (i.e., for Engineers Country Club, for which the area in the Town is less than 5 acres).

#### **4.5 Overlay Zoning**

An overlay zone applies a common set of standards to a designated area regardless of their “underlying” zoning district. This is a general zoning mechanism which provides additional development standards, typically to protect important resources, beyond the requirements of the underlying zoning district. The Town created the APO District in 2004 to protect groundwater resources in the SGPA. Within the APO District, the base zoning is retained, setting limits on minimum lot area, minimum setbacks, maximum building height and maximum building coverage, among other dimensional requirements; and additional standards are established under §246-5.4.7, including limits on the permissible extent of impervious surface cover and disturbance of natural vegetation, along with a range of other standards directed at minimizing development-related impacts to the aquifer. Other Long Island municipalities have enacted overlay districts to govern a range of important resources (e.g., waterfront areas, historic districts, wetlands, and coastal dunes) or areas for which there is a special development focus (e.g., downtown business districts targeted for economic revitalization, former industrial sites proposed for redevelopment, and urban renewal areas).

#### 4.6 Incentive Zoning

This zoning mechanism enabled by New York State Town Law Section 261-b offers incentives to property owners in the form of development bonuses in exchange for the provision of public benefits. One common incentive arrangement involves allowing a developer additional building height and/or density in exchange for the construction of public amenity space (e.g., parkland, plazas, civic space, etc.). For private golf courses, incentive zoning might take the form of allowing a development product that is not currently permitted under the zoning code (e.g., multifamily housing) in order to accommodate the preservation of the golf course use on all or part of the property. This mechanism is under consideration for the proposed development of 92 townhouse and condominium units on a portion of Engineers Country Club in the Village of Roslyn Harbor, which would retain the country club and its 18-hole golf course, as reconfigured to create the footprint of the residential development area.<sup>28</sup>

#### 4.7 Yield Deductions for Sensitive Environmental Features

Currently, the calculation of development yield in the Town's single-family residence districts is based upon the maximum number of conforming housing lots, complying with all applicable dimensional standards set forth in the Zoning Code, that can be arranged in a preliminary subdivision plan covering the entire property, with no environmental deductions. The Oyster Bay Town Zoning Code does not currently include a provision that reduces development yield by deducting the area encompassing sensitive environmental features; although, as noted previously, individual lots must comply with the requirements for "minimum contiguous buildable area" (MCBA) per §246-4.3.6. As set forth therein, the full minimum lot area must qualify as MCBA with on-lot sewage disposal in the R1-7 and R1-10 Districts, such that the presence of any wetlands or steep slopes would require the affected lot to exceed the district's minimum 7,000-square foot or 10,000-square foot lot size by an amount equal to the area of wetlands and steep slopes, thereby decreasing the development yield. In contrast, the MCBA in the larger-lot districts is only a fraction of the minimum lot area, with this percentage progressively decreasing as the required minimum lot increases, as follows:

- R1-20 – 80 percent (16,000-square foot MCBA and 20,000-square foot minimum lot size)
- R1-1A – 48 percent (21,000-square foot MCBA and 43,560-square foot minimum lot size)
- R1-2A – 30 percent (26,000-square foot MCBA and 87,120-square foot minimum lot size)
- R1-5A – 16 percent (34,000-square foot MCBA and 217,800-square foot minimum lot size)

<sup>28</sup> The zoning mechanism to be applied to this proposed action has not yet been finalized and ultimately may also include an overlay zone covering the portion of the property in the Village. As previously noted, the application does not include the 4.3-acre portion of the property in the unincorporated area of the Town of Oyster Bay, and it is not clear at this time how the pending application to the Village will address the area of the golf course in the Town.

As shown above, the current provision allowing the majority of large lots be non-buildable (i.e., comprising areas of wetlands and steep slopes) may have little, if any, effect on the overall development yield, as long as a subdivision layout can be devised to distribute these sensitive features among the individual lots. As an example, a 140-acre parcel in the R1-5A district with no wetlands or steep slopes could be subdivided into approximately 20 five-acre lots (after deducting 30 percent of the area of infrastructure, per the previously discussed methodology). Similarly, the same size parcel with 50 percent or more of its area in wetlands and steep slopes could theoretically be subdivided into the same number of lots – with each lot having a minimum of 34,000 square feet of MCBA within its five-acre lot area – depending on the distribution of these features.

In some jurisdictions, sensitive environmental features (e.g., steep slopes, wetlands, etc.) are deducted out of the total land area considered to be developable, thereby effectively reducing the resulting number of permissible units<sup>29</sup>. This mechanism could be considered for application to the golf course properties in the Town of Oyster Bay if they are found to contain significant areas of sensitive environmental features. Such provisions affecting yield for the subdivision of land have been enacted in the following municipalities on Long Island:

- Town of East Hampton – §220-1.06.H(2) of the Town Code – which requires that various features shall be deducted from a parcel’s buildable area in determining yield, including wetlands and slopes exceeding 20 percent (as well as beaches, bluffs, infrastructure areas, and required setbacks).
- Town of Southold – §240-10.B(2)(b) of the Town Code – which requires that wetlands be deducted from a parcel’s buildable area in determining yield (as well as beaches, bluffs, infrastructure areas, park dedications, and areas involved in transfer of development rights and similar conveyances)
- Town of Riverhead – §301-285.A of the Town Code – which requires that wetlands be deducted from a parcel’s buildable area in determining yield (as well as beaches, bluffs, infrastructure areas, and park dedications)
- Town of Shelter Island – §111-10.B of the Town Code – which requires that wetlands be deducted from a parcel’s buildable area in determining yield (as well as beaches, bluffs, infrastructure areas, and park dedications).

<sup>29</sup> Review of zoning codes for other Long Island municipalities identified several examples where certain environmental features are precluded from the calculation of overall parcel size for the purposes of determining yield in the subdivision of land. This analysis did not involve a comprehensive review of local codes; but, rather, examined selected codes to determine whether yield deductions have been enacted in the region for the protection of sensitive environmental features. As indicated, such provisions are not uncommon.

#### **4.8 Transfer of Development Rights**

Transfer of Development Rights (TDR) is a complex growth management technique. It is based on the real property concept that ownership of land gives the owner a “bundle of rights,” each of which may be separated from the rest.<sup>30</sup> This mechanism involves the establishment of a program per Town Law section 261-a to provide for the preservation of lands with important resource value where development should be avoided, by allowing the permissible development yield for such properties (called the “sending parcels”) to be transferred to other properties that do not contain such resources (called the “receiving parcels”). Transfer of development rights generally is best suited to areas that are less developed than the Town of Oyster Bay, where there is sufficient inventory of lands in both sending and receiving areas, thereby also justifying the effort needed to establish the program.

#### **4.9 Transfer of Density Flow Rights**

Transfer of density flow rights is comparable to transfer of development rights as discussed above, except that the transfer of development density from the sending parcel to the receiving parcel is based on regulatory limits for on-site sewage flow. Similarly, transfer of density flow rights generally is best suited to areas that are less developed than the Town of Oyster Bay.

#### **4.10 Negotiated Purchase**

This mechanism involves the fee-simple purchase of a property, at terms (including price) agreed-to by both parties. Outright purchase provides the purchaser with the maximum degree of control over the involved property, but generally is the most costly option to acquire property interest.

#### **4.11 Eminent Domain**

Eminent domain involves acquisition of real property by a public entity via legal “taking” for a public purpose. The acquiring entity must provide just compensation at the time of vesting (transfer of title), with the price typically being set by a professional real estate appraisal to determine the property’s fair market value. The original owner has the right to file a legal challenge the taking itself, which would have to establish that the acquisition does not serve a valid public purpose, and also to challenge the acquiring entity’s appraisal in an effort to obtain additional compensation even if the taking itself is not opposed. Eminent domain generally is considered the acquisition option of last resort because of the uncertainties involved in comparison to the definitive terms established with a negotiated purchase.

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<sup>30</sup> From the *Local Governmental Handbook*, New York State Department of State, November 16, 2018.

#### **4.12 Purchase of Development Rights**

A purchase of development-rights (PDR) system involves the purchase by a municipal or county government of development rights from private landowners whose land it seeks to preserve in its current state without further development. In this mechanism, a landowner is offered payment to retain a property in its existing condition of low development density (i.e., as a golf course) in exchange for forgoing potential future development pursuant to the underlying zoning. With this arrangement, the owner benefits from a financial gain for maintaining the status quo without expending the money or taking the risk that would be associated with a development application. The purchaser benefits by precluding further development and associated impacts, often at a cost significantly lower than outright purchase.

#### **4.13 Voluntary Conservation Easement**

A voluntary conservation easement achieves an outcome similar to purchase of development rights, via a different legal instrument and at no public cost.

#### **4.14 Voluntary Open Space Dedication**

In this mechanism, a property owner voluntarily cedes development rights on a property for the good of the community, again at no public cost.



## 5.0 RECOMMENDATIONS

### 5.1 General Recommendations

The Town has already undertaken action during prior planning initiatives involving the private golf courses within its jurisdiction using some of the implementation strategies discussed in Chapter 4, including enactment of the REC and APO Districts, as well as individual residential rezonings. General, Town-wide recommendations expanding upon these strategies based on the findings of the present investigation include:

- **REC Zoning** – These provisions were enacted in furtherance to the Town’s 2003 study of the SGPA. REC zoning has only been applied to the Town Golf Course and certain other public lands. Although REC zoning was recommended in that study for application to the private golf courses in the Town’s portion of the SGPA (i.e., Glen Head Country Club, Nassau Country Club, Meadow Brook Club, and Pine Hollow Country Club), rezonings were undertaken instead to increase the minimum lot size for those properties (see below).

As a general matter, the appropriateness of REC zoning for the private golf courses can be revisited, not only for the four aforementioned properties in the SGPA, but also for the remaining golf courses in the Town. Such action should consider the purposes of the REC zoning and its applicability to the individual parcels examined in this study. For any private golf course that spans municipal boundaries (i.e., North Shore Country Club, Engineers Country Club and Nassau Country Club), coordination with the adjacent jurisdiction is recommended to ensure that the full parcel area is included in a comprehensive planning approach.

As indicated above, the REC zoning district was enacted and associated rezonings into the new district occurred in connection with the Town’s study of the SGPA. Although the potential use of REC zoning has been discussed in subsequent studies (e.g., for groundwater protection in the area of the Town outside the SGPA and for the waterfront area in Glenwood Landing), no further action has been taken on rezoning properties into the REC District. The other two public golf course properties in the Town (i.e., Bethpage State Park and Cantiague County Park) were not included in those prior studies and would be suitable pursuant to the findings of the present study for REC zoning in a similar manner in which the Town Golf Course was rezoned to REC District in 2004. It is recommended that any consideration of such zoning for Bethpage State Park and/or Cantiague County Park be accompanied by outreach to the respective governmental owners.

- **Residential Zoning Amendments** – Although the original recommendation for REC zoning of the private golf courses in the SGPA in the 2003 study was not implemented, the Town did, instead, proceed with residential rezonings to larger-lot districts for these properties in September 2004. For the most part, these rezonings involved a change to the next highest (i.e., larger lot) zoning district: R1-1A to R1-2A for Glen Head Country Club; R1-2A to R1-5A for Meadow Brook Club; and R1-2A to R1-5A for Pine Hollow Country Club. The only exception was for Nassau Country Club, which was rezoned from R1-10 to R1-1A,

jumping over the R1-20 District, for the purpose of matching the existing one-acre (i.e., 40,000-square foot) zoning density of the portion of this property in the City of Glen Cove. This rezoning of NCC paralleled similar action that was taken earlier, in January 2004, for NSCC, whereby NSCC was rezoned from R1-10 to R1-20 to match the existing zoning on the portion of the golf course in the Village of Sea Cliff. Thus, based on the actions that have been taken previously by the Town in furtherance to the recommendations of geographical studies involving the SGPA and the Glenwood Landing waterfront area, it would be appropriate for the current Town-wide study of the particular land use of private golf courses to examine whether other inter-municipal properties have disparate zoning classifications and whether these or any other golf course properties should be considered for rezonings at this time.

As noted, two of the three golf course properties in the study that span between the Town and a neighboring municipality have consistent zoning (i.e., 20,000-square foot minimum single-family residential lot size for North Shore Country Club and one-acre minimum lot size for Nassau Country Club). However, the portion of Engineers Country Club in the unincorporated area of the Town has a zoning classification (R1-7, with a 7,000-square minimum lot size) that is very different from the zoning which applies to the overwhelming majority of the property in the Village of Roslyn Harbor (with two-acre minimum lot size, differing by more than a factor of 12). There is no rational planning justification for a deviation of this magnitude.

The golf courses in the study show tremendous variation in their zoning and land use setting. Notably, even the two properties with the largest-lot zoning designation (i.e., Pine Hollow Country Club and Meadow Brook Club, at R1-5A) both adjoin areas of fairly intense zoning and land uses. PHCC is in an area which contains R1-6, R1-7 and R-10 zoning, as well as corresponding small-lot single-family residential development. MBC is in an area which contains industrial, commercial, and multi-family districts, as well as a corresponding mix of land uses pursuant to this zoning. Glen Head Country Club, with R1-2A zoning, similarly is located in a mixed-use area, which includes light industrial, business, multi-family and small-lot single-family residential districts, with corresponding land uses. Thus, it is not unusual for large-lot-zoned golf courses to be located in a significantly more intense zoning/land use setting; and therefore, conversely, the presence of an intense zoning/land use setting around a golf course should not be taken as a determinative factor in deciding whether or not the golf course suitable for possible rezoning to a larger-lot district.

As noted above, PHCC and MBC both are situated in the largest-lot single-family districts in the Town, which is consistent with the largest lot zoning generally established on Long Island. Therefore, it does not appear that these properties should be considered at this time for possible rezoning to larger minimum lot area zoning districts. However, it is recommended that the remaining golf courses, even if previously rezoned, be evaluated on a site-specific basis to determine whether the available information supports continuation of the status quo – see the individual analyses in **Section 5.2**, below.

- Yield Deductions for Sensitive Environmental Features – The Town Code contains a provision establishing a requirement for “minimum contiguous lot area” (i.e., not including areas containing wetlands or steep slopes) for each residential zoning district,

depending on whether a given lot is served by a central sanitary sewer system or on-lot sewage disposal. Although this standard serves a practical purpose of ensuring that each lot contains a suitable area on which to place development, it does not treat the sensitive environmental features as non-buildable, since steep slopes and wetlands are included in the overall area of a subdivision parcel for the purpose of calculating lot yield. As discussed in **Section 4.7**, it is possible that development yield, particularly in the larger-lot zoning districts (especially R1-5A), may not be significantly affected for a subdivision parcel with large areas of wetlands and steep slopes, as compared to a parcel of equal size without such features.

A number of municipalities on Long Island have established provisions which require that sensitive environmental features be deducted from the developable parcel area for the purposes of calculating the permissible number of lots (see **Section 4.7**). All of the municipal codes included in the analysis require that this deduction be applied to wetland areas, and at least one code also requires a deduction for steep slope areas (i.e., with gradient of 20 percent or more). Consideration could be given to establishing similar yield deductions for sensitive environmental features in the Oyster Bay Town Code. If a steep slope exclusion is established, it should be based on the threshold of 25 percent specified in the definition section of the Zoning Code. Additionally, a minimum contiguous area should be established as a threshold for regulation, so that small patches of non-significant slopes, such as embankments associated with individual sand traps or other isolated golf course features, are not included in the area to be deducted.

- **Conservation Subdivision** – The existing provisions of the Town Code specify that clustering shall be considered, but is not required, for any residential subdivision application in the Town of five acres or more, and that clustering is mandatory only for residential subdivisions of 20 acres or more in the APO District. Thus, clustering of potential future development currently is optional for all of the private golf courses situated outside the APO District, including North Shore Country Club (83.4± acres in the Town) and Engineers Country Club (4.3± acres in the Town). Although the area of ECC within the Town is smaller than the five-acre threshold specified in the Zoning Code for optional clustering and, therefore, may not be considered suitable for clustering, the other property is larger than the 20-acre threshold for mandatory clustering established for the APO District. Despite this property (NSCC) being located outside the SGPA, which was the basis for establishing the requirement for mandatory clustering in connection with the APO District, it contains significant resources which merit the protection that would be afforded by a conservation subdivision. Therefore, it is recommended that the current provision requiring clustering for residential subdivisions within the APO District of 20 acres or more be amended to apply this requirement to all subdivisions of that size, while retaining the existing provision requiring that consideration be given to clustering for any residential subdivision of five acres or more (but less than the recommended 20-acre threshold for Town-wide mandatory clustering).

## 5.2 Site-Specific Recommendations

Summary tables reflecting site-specific recommendations for the six private golf courses analyzed in this study are presented in Section 5.3. These tables provide a synopsis of existing conditions, existing and recommended zoning, estimated build-out development yield under existing zoning, estimated build-out development yield under recommended zoning, and community service impact quantities for both existing and recommended zoning conditions.

### 5.2.1 North Shore Country Club (NSCC)

Based on the methodology used in this study, it is preliminarily estimated that NSCC, with R1-20 zoning on the Town portion of the site and equivalent zoning requiring minimum 20,000-square foot lots on the Village portion of the site, could potentially be developed with approximately 240 single-family residential lots under existing zoning, including 127± lots in the Town portion of the site and 113± lots in the Village of Sea Cliff portion of the site – see **Section 3.2.1**. This magnitude of development would pose the potential for significant adverse impacts to the important resources at and near the site, including, but not limited to:

- Impacts to the NWI-designated pond in the Town portion of NSCC, as well as the more extensive NYSDEC-designated freshwater wetlands in the Village of Sea Cliff portion of the site
- On-site sewage disposal, with the potential to adversely affect the quality of the underlying groundwater aquifer and the nearby receiving waters of Hempstead Harbor, particularly in light of the severe limitations of the soils present at NSCC
- Potential erosion and sediment transport impacts during construction, particularly given the presence of steep slopes on the site
- Potential long-term increase in stormwater runoff volumes to Hempstead Harbor due to increased extent of impervious surfaces on the site that would result from residential development
- Potential for significant impacts to water quality conditions in Hempstead Harbor due to the combination of non-point source contaminant inputs from stormwater and sanitary waste generation, possibly reversing the recent trend of improving water quality conditions in the harbor resulting from concerted inter-municipal initiatives
- Loss of woodlands on the site, in addition to the loss of individual mature trees which were not inventoried in this study
- Loss of the aesthetic and open space value of NSCC to the community
- Potential impacts to State-endangered peregrine falcons and State-threatened bald eagles, which are documented as nesting in proximity to NSCC
- Increased burden on community services and facilities, including water supply, sewage treatment, solid waste management, public schools, and roadway systems.

In order to enhance the protection of the important resources listed above and provide increased mitigation to reduce the potential for significant impacts that would be associated with build-out under the current R1-20 zoning of the Town portion of NSCC, in addition to the general recommendations set forth in **Section 5.1**, it is recommended that consideration be given to further rezoning of this property. Based on the value of the resources present at NSCC in comparison to the other golf courses in the Town, R1-2A zoning appears to be warranted. This rezoning scenario would be a suitable reflection of the location of NSCC in the coastal zone and its proximity to Hempstead Harbor, and the amount of concerted, intermunicipal effort that has been exerted over many years to enhance these resources. This rezoning would also be protective of the large extent of sensitive environmental features on the site (particularly woodlands and steep slopes on the Town portion), possible utilization by threatened/endangered species and its visibility to the surrounding area and contribution to community character. The R1-2A District for NSCC would match the zoning already in place for Glen Head Country Club, which is analogous to NSCC in terms of overall resource value; and it is not clear why the coastal location of NSCC would be any less deserving of zoning protection than GHCC with its location at the outer edge of the SGPA.

To ensure optimal effectiveness, it is recommended, if possible, that any action affecting the zoning of the portion of NSCC in the unincorporated area of the Town be coordinated with the Village of Sea Cliff so that consistent zoning remains in place for the entire site. This would require the Village to adopt a new residential district into its zoning code, as the Village's largest minimum residential lot size requirement currently is the 20,000-square foot Residence D District which is in place for the Village portion of NSCC.

The following calculation provides a preliminary estimate of potential residential build-out using the same methodology as presented in **Section 3.3** for two-acre residential zoning for the entire NSCC property, while also including yield deductions for wetlands and steep slopes (greater than 25 percent gradient). The analysis assumes that in addition to corresponding rezoning of NSCC, the Village would also enact analogous provisions for yield reduction for wetlands and steep slopes.

#### Estimated Residential Build-Out (Two-Acre Zoning)

Preliminary residential development yield estimate for Town portion:

- 83.4± acres total area  
Minus 0.3± acre wetlands and 9.7± acres steep slopes = 73.4± acres developable area  
Deduct 30 percent for infrastructure = 51.4± acres for development =  
**25 lots** at two acres each

Preliminary residential development yield estimate for Village portion:

- 74.3± acres total area  
Minus 8.0± acres wetlands and 9.1± acres steep slopes = 57.2± acres developable area  
Deduct 30 percent for infrastructure = 40.0± acres for development =  
**20 lots** at two acres each

Preliminary residential development yield for NSCC based upon the above conditions: **45 lots**.

Thus, the total estimated development yield for the entire NSCC property would be 45± lots under the two-acre zoning scenario, which would be approximately 19 percent of the 240± lot yield estimated under the existing zoning scenario. In addition to reducing the development footprint on the site and providing more flexibility to devise a layout that avoids or minimizes important environmental features to the maximum extent practicable (including a recommendation for Town-wide mandatory clustering that is not currently specified in the Zoning Code for parcels outside the APO District), this rezoning scenario would result in a commensurate, percentagewise decrease in the impact on community services/facilities that are based on unit count (e.g., water use, sewage volume, solid waste volume, number of public-school students, and vehicular trip generation).

See Table 1 in **Section 5.3** for a summary of existing and recommended conditions for NSCC.

### 5.2.2 Engineers Country Club (ECC)

ECC is one of three private golf courses in the Town that extends across a municipal boundary. However, whereas the other two multi-jurisdictional properties (i.e., North Shore Country Club and Nassau Country Club) individually have consistent, site-wide single-family residence zoning; ECC has disparate zoning across the municipal line, with minimum two-acre lots predominating in the Village of Roslyn Harbor but only 7,000-square foot lots required in the Town of Oyster Bay portion of the site. The Town portion of the other two golf courses was rezoned for the specific objective of establishing zoning consistency between the adjoining municipalities in furtherance to previous planning studies conducted by the Town – i.e., the portion of NSCC in the Town was rezoned from R1-10 to R1-20 to match the existing 20,000-square foot zoning in the Village of Sea Cliff portion of that site, pursuant the *Final Recommendations Glenwood Landing Redevelopment & Revitalization Plan* (June 2002); while the portion of NCC in the Town was rezoned from R1-10 to R1-1A to match the existing one-acre zoning in the City of Glen Cove portion of that site pursuant to the pursuant to the *Zoning for the Protection of Groundwater in the Oyster Bay Special Groundwater Protection Area* (November 2003)<sup>31</sup>. ECC has not previously

<sup>31</sup> As noted previously, the original recommendation of this study was for consideration to be given to REC zoning for all private golf courses in the Town portion of the SGPA. The residential rezonings were implemented as a secondary recommendation when the Town decided not to proceed in applying REC zoning to these properties.



been subject to a similar planning analysis which involved the formulation of comprehensive zoning recommendations.

The examples summarized above describe a uniform precedent that has been applied to multi-jurisdictional golf course properties in the Town, for the establishment of consistent site-wide zoning. This is based on the simple premise that there is no evident planning justification for the occurrence disparate zoning on a property that spans between two municipalities, particularly where the disparity is as great as the 12-fold difference between the minimum lot size requirement pertaining to ECC. With these factors in mind, it is recommended that consideration be given to rezoning the 4.3±-acre portion of ECC in the Town to R1-2A so as to match the existing two-acre zoning in the Village of Roslyn Harbor which applies to the preponderance of the overall site acreage.

With R1-2A zoning for the 4.3±-acre Town portion of ECC, a development yield of two **(2) lots** can be expected; although the estimated area of steep slopes is 0.4 acres, it is likely that this includes small patches (e.g., golf course features) that would not be included in the deduction, and this parcel does not contain wetlands. This compares to a 19-lot preliminary yield estimate under the current R1-7 zoning.

See Table 2 in **Section 5.3** for a summary of existing and recommended conditions for ECC.

### 5.2.3 Glen Head Country Club (GHCC)

Based on the methodology used in this study, it is preliminarily estimated that GHCC could potentially be developed with approximately 61 single-family residential lots under the existing R1-2A zoning. As the site is also located in the APO District, it would further be subject to the existing requirement for mandatory clustering, as well as various other standards that have been established for the protection of the groundwater aquifer in the SGPA.

The two-acre standard in the R1-2A district is the second-largest minimum lot size specified in the Zoning Code, after the five-acre requirement in the R1-5A District. There appears to be a clear distinction between GHCC and the two golf courses in the R1-5A District in the study (i.e., Pine Hollow Country Club and Meadow Brook Club) in terms of important planning considerations. In particular, GHCC is located at the westerly edge of the SGPA, while PHCC and MBC are more centrally located in the SGPA and arguably serve a more important function for the deep recharge of the aquifer and protection of groundwater quality. Additionally, the land use setting for GHCC is somewhat more intense than the other two properties. More specifically, the area surrounding GHCC has a preponderance of small-lot single-family residential use versus the relatively minor presence of large-lot areas, and is bordered by a large industrial use; whereas, large-lot single-family residences are the primary use surrounding PHCC, and MBC is



mostly surrounded a large institutional use in a campus setting, open space and single-family residences on large lots, although, as noted previously, both properties are adjacent to more intense zoning and development. It is also noted that GHCC has limited visibility to the public due to its existing land use setting. Therefore, although a larger lot zoning district is available, it is not clear that rezoning to R1-5A is warranted for GHCC based on the available site-specific information.

Even if the existing R1-2A zoning district for GHCC remains in place, the Town-wide recommendations in **Section 5.1** include a proposal for yield deductions for wetlands and steep slopes. If this provision is adopted into the Zoning Code, it is estimated that the lot yield for GHCC would be reduced as follows:

- 174.6± acres total area  
Minus 3.0± acre wetlands and 11.7± acres steep slopes = 159.9± acres developable area  
Deduct 30 percent for infrastructure = 111.9± acres for development =  
**56 lots** at two acres each (a decrease of 5 lots from the yield without a deduction for environmental features)

See Table 3 in **Section 5.3** for a summary of existing and recommended conditions for GHCC.

#### 5.2.4 Nassau Country Club (NCC)

NCC spans between the Town and the City of Glen Cove, and was rezoned from R1-10 to R1-1A in furtherance to the Town's 2003 study of the SGPA, thereby matching the zoning density of the portion of the site in the City. The area of NCC in the Town has a similar setting to Glen Head Country Club, being located at the western edge of the SGPA, and being surrounded primarily by small-lot single-family residences, with a significant commercial/industrial element. However, GHCC contains fairly extensive on-site natural resources, including wetlands, steep slopes, and woodlands, which either are absent (for wetlands) or much less prevalent (for steep slopes and woodlands) at NCC. Therefore, on the basis of these distinctions, it appears to be appropriate to retain NCC in its current R1-1A zoning. If consideration is to be given for any rezoning of the portion of NCC in the Town, such action should be coordinated with the City of Glen Cove if feasible to retain the entire property in a uniform zoning classification, consistent with the policy that has been followed in the past for the multi-municipal golf courses.<sup>32</sup>

It is not anticipated that NCC would be significantly affected if the Zoning Code incorporates a recommendation for yield deductions for wetlands and steep slopes, since the site lacks

<sup>32</sup> The City of Glen Cove Zoning Code currently includes a two-acre single-family residence district, R-1A, which has a minimum lot area requirement of 80,000 square feet.

designated wetlands and existing sloped areas mostly appear to be limited to isolated golf course features (e.g., sand traps).

See Table 4 in **Section 5.3** for a summary of existing and recommended conditions for NCC.

#### 5.2.5 Pine Hollow Country Club (PHCC)

Based on the methodology used in this study, it is preliminarily estimated that PHCC could potentially be developed with approximately 19 single-family residential lots under the existing R1-5A zoning. As the site is also located in the APO District, it also would be subject to the existing requirement for mandatory clustering, as well as various other standards that have been established for the protection of the groundwater aquifer in the SGPA.

The five-acre standard in the R1-5A district is the largest minimum lot size specified in the Zoning Code, and is consistent with the standards in place in similar settings in other municipalities on Long Island. Therefore, any potential further residential rezoning of this property is not considered practical. However, included in the Town-wide recommendations in **Section 5.1** is a proposal for yield deductions for wetlands and steep slopes. If this provision is adopted into the Zoning Code, it is estimated that the lot yield for PHCC would be reduced as follows:

- 135.2± acres total area  
Minus 1.8± acres wetlands and 7.8± acres steep slopes = 125.6± acres developable area  
Deduct 30 percent for infrastructure = 87.9± acres for development =  
**17 lots** at five acres each (a decrease of **two lots** from the yield without a deduction for environmental features)

See Table 5 in **Section 5.3** for a summary of existing and recommended conditions for PHCC.

#### 5.2.6 Meadow Brook Club (MBC)

The methodology used in this study resulted in a preliminary estimate of potential development yield for MBC at approximately 37 single-family residential lots under the existing R1-5A zoning. This site is also located in the APO District, such that it would be subject to the existing requirement for mandatory clustering and various other standards for groundwater protection.

As is the case for PHCC discussed above, the five-acre standard in the R1-5A district applying to MBC is the maximum provided for in the Zoning Code, consistent with other Long Island municipalities; such that potential further residential rezoning of MBC is not considered practical. However, implementation of the proposal for yield deductions for wetlands and steep slopes would reduce the estimated lot yield for MBC as follows:

- 267.3± acres total area  
Minus 2.7± acres wetlands and 6.7± acres steep slopes = 257.9± acres developable area  
Deduct 30 percent for infrastructure = 180.5± acres for development =  
**36 lots** at five acres each (a decrease of **one lot** from the yield without a deduction for environmental features)

See Table 6 in **Section 5.3** for a summary of existing and recommended conditions for MBC.

#### 5.2.7 Public Golf Courses

##### A. Town of Oyster Bay Golf Course (TOBGC)

TOBGC currently has the highest level of protection of all ten golf courses examined in this study, with its public ownership and its REC/APO zoning adopted in 2004. The Town's efforts to minimize impacts related to the operations at the site should continue, consistent with available best management practices, the provisions of the APO legislation and other relevant standards. No further zoning action is recommended for TOBGC.

##### B. Cantiague County Park Golf Course (CCPGC)

CCPGC currently has anomalous LI-Light Industrial zoning, which is inconsistent with the current use and long-term intention to continue the golf course and other portions of the property in public recreational use. It is recommended that coordination occur with Nassau County to implement REC zoning for the site.

##### C. Bethpage State Park Golf Courses (BSPGC)

Bethpage State Park currently contains large-lot single-family residential zoning – i.e., R1-1A, for minimum one-acre lots (also including two small R1-10 parcels, for minimum 10,000-square foot lots) – which historically has been widely applied to public recreational lands. Similar to Cantiague Park, although to a lesser degree, the R1-1A District is inconsistent with the current public recreational use of BSPGC and the long-term intention to continue the golf courses and other portions of the property in this use. It is recommended that coordination occur with New York State to implement REC zoning for the site.

### 5.3 Summary Tables

For quick reference, this section provides a series of summary tables reflecting site-specific recommendations for the six private golf courses analyzed in this study. These tables provide a synopsis of existing conditions, existing and recommended zoning, estimated build-out development yield under existing zoning, estimated build-out development yield under recommended zoning (including zoning district changes and deduction for sensitive

environmental areas from yield calculations for subdivisions), and community service impact quantities for both existing and recommended zoning conditions.

The Summary Tables provided in this section are as follows:

Table 1: North Shore Country Club

Table 2: Engineers Country Club

Table 3: Glen Head Country Club

Table 4: Nassau Country Club

Table 5: Pine Hollow Country Club

Table 6: Meadow Brook Club

**Table 1**

**North Shore Country Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	83.4± ac – Town of Oyster Bay (Glenwood Landing)	
	74.3± ac – Village of Sea Cliff	
<b>Wetlands</b>	8.3± ac	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	No	
<b>Steep Slopes (&gt; 25%)</b>	18.8± ac	
<b>Woodlands</b>	27.6± ac	
<b>Other Special Features</b>	Proximity to Hempstead Harbor; proximity of Bald Eagle and Peregrine Falcon; archaeological sensitivity; FEMA flood zone around Scudders Pond in Village; soils with severe limitations for effluent absorption fields; high visibility to surrounding community	
<b>Zoning</b>	R1-20 Town	R1-2A Town
	B Residence (20,000 sf) Village	2-Acre (new district) Village
<b>Estimated Build-out</b>	240± lots	45± lots
<b>Sewage Volume</b>	72,000± gallons	13,500± gallons
<b>Water Consumption</b>	90,000± gallons	16,875± gallons
<b>Solid Waste Quantity</b>	2,450± pounds/day	459± pounds/day
<b>School-age Children</b>	252±	48±
<b>Trip Generation – AM</b>	178± trips	34± trips
<b>Trip Generation – PM</b>	238± trips	45± trips
<b>Trip Generation – Sat</b>	223± trips	42± trips

**Table 2**

**Engineers Country Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	4.3± ac – Town of Oyster Bay (Glen Head)	
	135.6± ac – Village of Roslyn Harbor	
<b>Wetlands</b>	N/A	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	No	
<b>Steep Slopes (&gt; 25%)</b>	10.6± ac	
<b>Woodlands</b>	15.4± ac	
<b>Other Special Features</b>	Proximity of Bald Eagle and Peregrine Falcon; soils with severe limitations for effluent absorption fields; visibility to surrounding community	
<b>Zoning</b>	R1-7 Town	R1-2A Town
	R-AA and R-A (1A and 2A) Village	R-AA and R-A (1A and 2A) Village
<b>Estimated Build-out</b>	66± lots	49± lots
<b>Sewage Volume</b>	19,800± gallons	14,700± gallons
<b>Water Consumption</b>	24,750± gallons	18,375± gallons
<b>Solid Waste Quantity</b>	674± pounds/day	500± pounds/day
<b>School-age Children</b>	69±	52±
<b>Trip Generation – AM</b>	49± trips	37± trips
<b>Trip Generation – PM</b>	65± trips	49± trips
<b>Trip Generation – Sat</b>	61± trips	46± trips

**Table 3**

**Glen Head Country Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	174.6± ac – Town of Oyster Bay (Glen Head)	
<b>Wetlands</b>	3.0± ac	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	Yes	
<b>Steep Slopes (&gt; 25%)</b>	11.7± ac	
<b>Woodlands</b>	19.0± ac	
<b>Other Special Features</b>	Soils with severe limitations for effluent absorption fields; some visibility to surrounding community	
<b>Zoning</b>	R1-1A	R1-1A
<b>Estimated Build-out</b>	61± lots	56± lots
<b>Sewage Volume</b>	18,300± gallons	16,800± gallons
<b>Water Consumption</b>	22,875± gallons	21,000± gallons
<b>Solid Waste Quantity</b>	622± pounds/day	571± pounds/day
<b>School-age Children</b>	64±	59±
<b>Trip Generation – AM</b>	45± trips	42± trips
<b>Trip Generation – PM</b>	60± trips	55± trips
<b>Trip Generation – Sat</b>	57± trips	53± trips



**Table 4**

**Nassau Country Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	55.7± ac – Town of Oyster Bay (Locust Valley)	
	92.9± ac – City of Glen Cove	
<b>Wetlands</b>	1.0± ac	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	Yes	
<b>Steep Slopes (&gt; 25%)</b>	4.1± ac	
<b>Woodlands</b>	7.5± ac	
<b>Other Special Features</b>	Soils with severe limitations for effluent absorption fields; high visibility to surrounding community	
<b>Zoning</b>	R1-1A Town	R1-1A Town
	R1 Residence (40,000 sf) City	R1 Residence (40,000 sf) City
<b>Estimated Build-out</b>	109± lots	No Significant Change
<b>Sewage Volume</b>	32,700± gallons	No Significant Change
<b>Water Consumption</b>	40,875± gallons	No Significant Change
<b>Solid Waste Quantity</b>	1,113± pounds/day	No Significant Change
<b>School-age Children</b>	114±	No Significant Change
<b>Trip Generation – AM</b>	81± trips	No Significant Change
<b>Trip Generation – PM</b>	108± trips	No Significant Change
<b>Trip Generation – Sat</b>	101± trips	No Significant Change

**Table 5**

**Pine Hollow Country Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	135.2± ac – Town of Oyster Bay (East Norwich)	
<b>Wetlands</b>	1.8± ac	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	Yes	
<b>Steep Slopes (&gt; 25%)</b>	7.8± ac	
<b>Woodlands</b>	11.9± ac	
<b>Other Special Features</b>	Proximity of Northern Long-eared Bat; archaeological sensitivity; soils with severe limitations for effluent absorption fields; high visibility to surrounding community from Northern Boulevard	
<b>Zoning</b>	R1-5A	R1-5A
<b>Estimated Build-out</b>	19± lots	17± lots
<b>Sewage Volume</b>	5,700± gallons	5,100± gallons
<b>Water Consumption</b>	7,125± gallons	6,377± gallons
<b>Solid Waste Quantity</b>	194± pounds/day	174± pounds/day
<b>School-age Children</b>	20±	18±
<b>Trip Generation – AM</b>	14± trips	13± trips
<b>Trip Generation – PM</b>	19± trips	17± trips
<b>Trip Generation – Sat</b>	18± trips	16± trips

**Table 6**

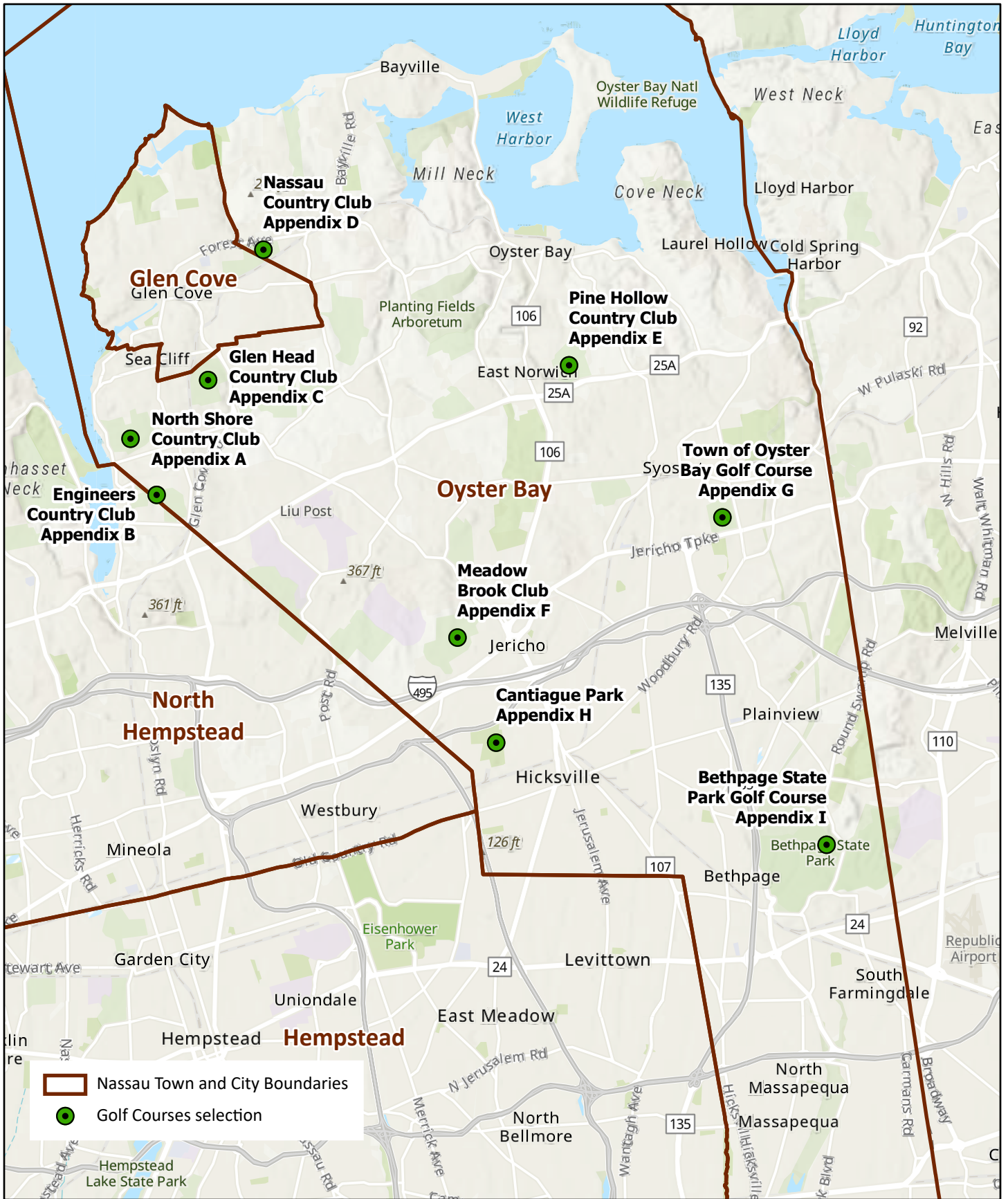
**Meadow Brook Club: Summary of Existing and Recommended Conditions**

	Existing Condition	Recommended Condition
<b>Municipality</b>	267.3± ac – Town of Oyster Bay (Jericho)	
<b>Wetlands</b>	2.7± ac	
<b>Municipal Sewers?</b>	No	
<b>APO District?</b>	Yes	
<b>Steep Slopes (&gt; 25%)</b>	6.7± ac	
<b>Woodlands</b>	29.9± ac	
<b>Other Special Features</b>	Eastern Tiger Salamander present on-site; archaeological sensitivity; soils with severe limitations for effluent absorption fields	
<b>Zoning</b>	R1-5A	R1-5A
<b>Estimated Build-out</b>	37± lots	36± lots
<b>Sewage Volume</b>	11,100± gallons	10,800± gallons
<b>Water Consumption</b>	13,875± gallons	13,500± gallons
<b>Solid Waste Quantity</b>	377± pounds/day	367± pounds/day
<b>School-age Children</b>	39±	38±
<b>Trip Generation – AM</b>	27± trips	26± trips
<b>Trip Generation – PM</b>	37± trips	36± trips
<b>Trip Generation – Sat</b>	34± trips	33± trips

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## APPENDICES

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### APPENDIX KEY MAP

Sources: ESRI Basemap, NYS GIS  
 Scale: 1 inch equals 10,000 feet



Golf Course  
 Planning Study

Town of Oyster Bay




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**APPENDIX A**  
**NORTH SHORE COUNTRY CLUB**

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North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres

-  Nassau Town and City Boundaries
-  Golf Course Boundary
-  Nassau Village Boundaries



**FIGURE NSCC-1**  
**AERIAL PHOTOGRAPH**

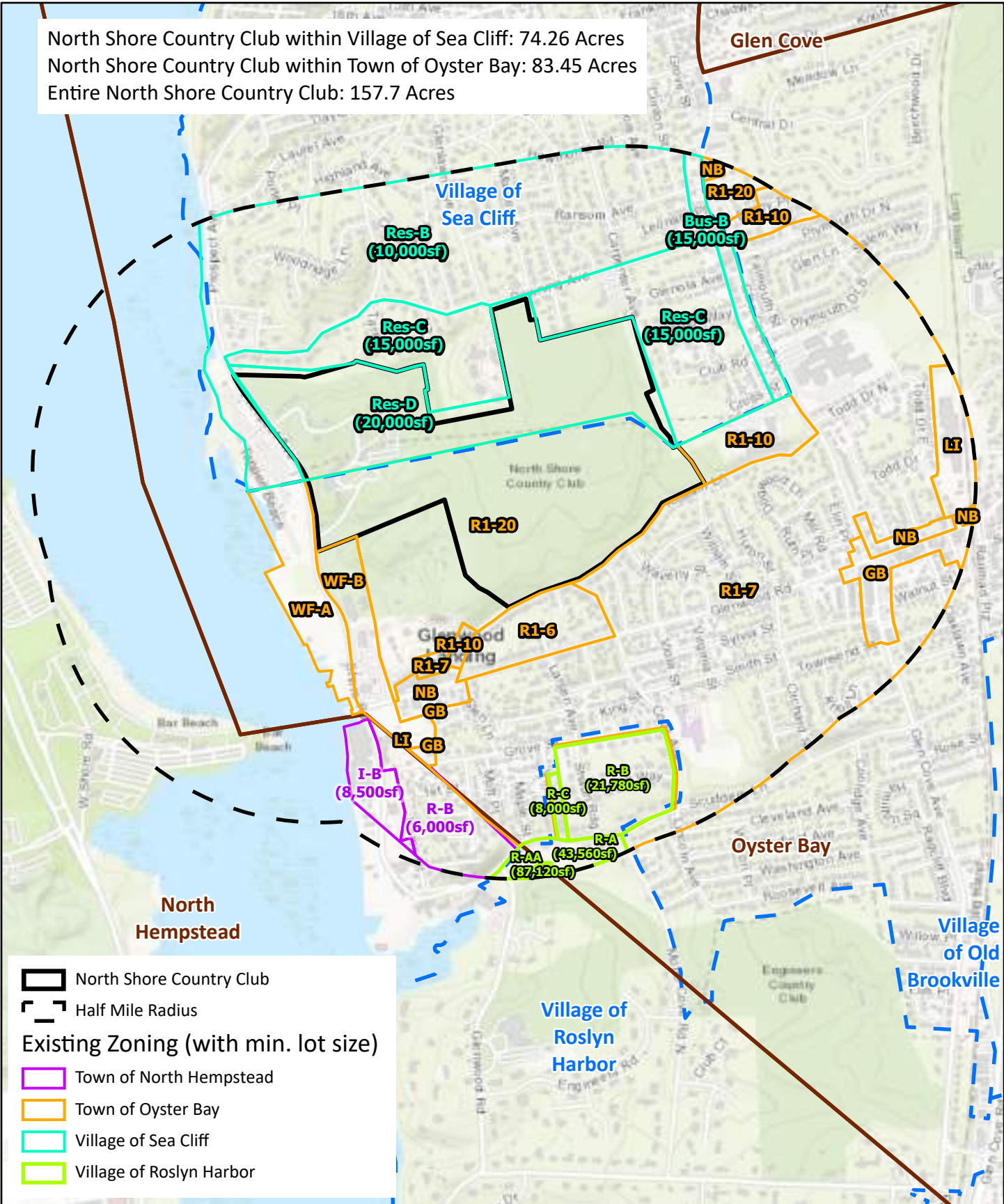
Golf Course  
 Planning Study

Sources: NYS Orthophotography, 2020; Nassau data  
 Scale: 1 inch equals 700 feet

Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



- North Shore Country Club
- Half Mile Radius
- Existing Zoning (with min. lot size)**
- Town of North Hempstead
- Town of Oyster Bay
- Village of Sea Cliff
- Village of Roslyn Harbor



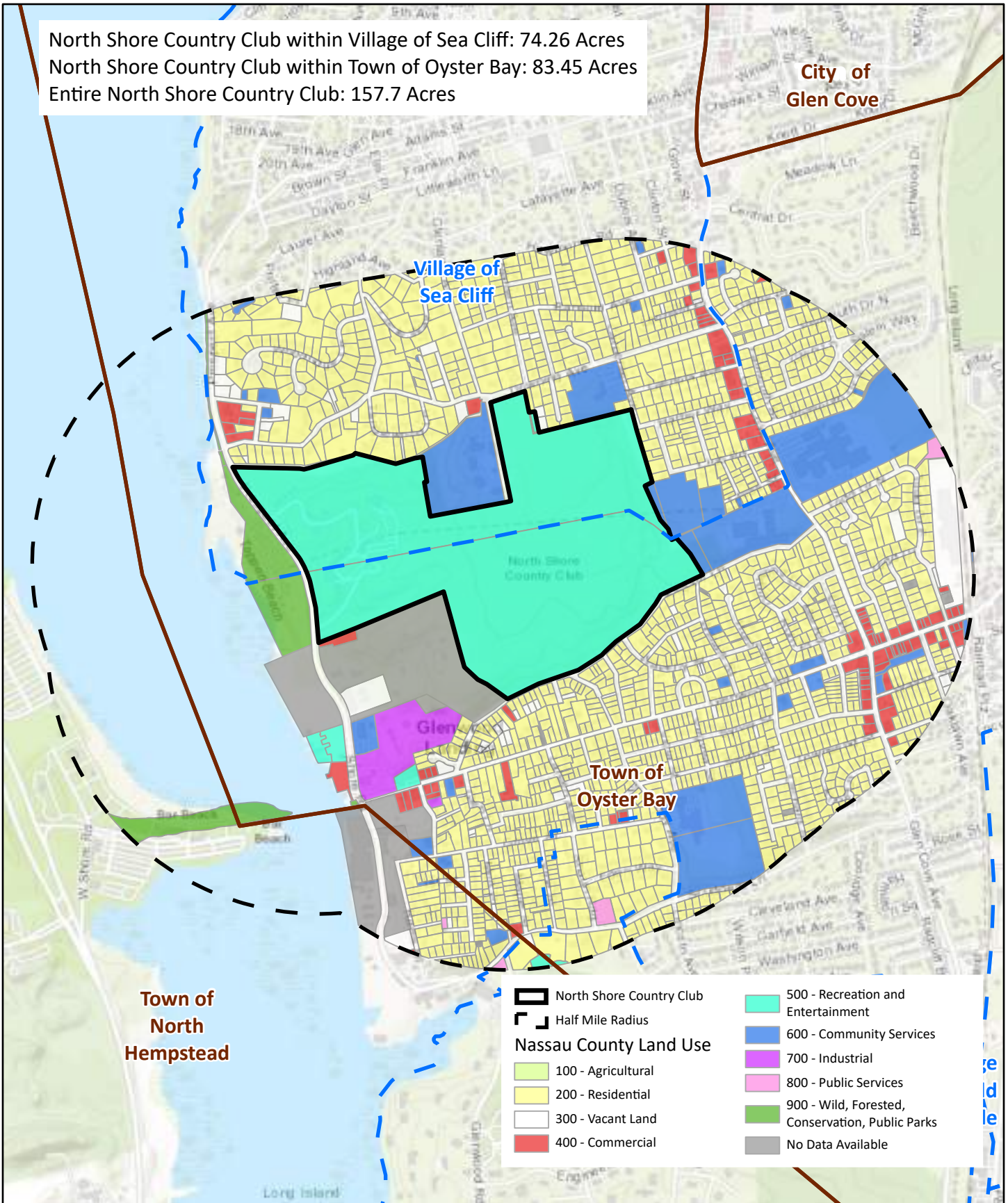
**FIGURE NSCC-2  
 EXISTING ZONING**

Sources: ESRI Basemap; Nassau GIS; Village Zoning Maps  
 Scale: 1 inch equals 1,300 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay

North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



North Shore Country Club	500 - Recreation and Entertainment
Half Mile Radius	600 - Community Services
<b>Nassau County Land Use</b>	
100 - Agricultural	700 - Industrial
200 - Residential	800 - Public Services
300 - Vacant Land	900 - Wild, Forested, Conservation, Public Parks
400 - Commercial	No Data Available



**FIGURE NSCC-3  
 EXISTING LAND USE**

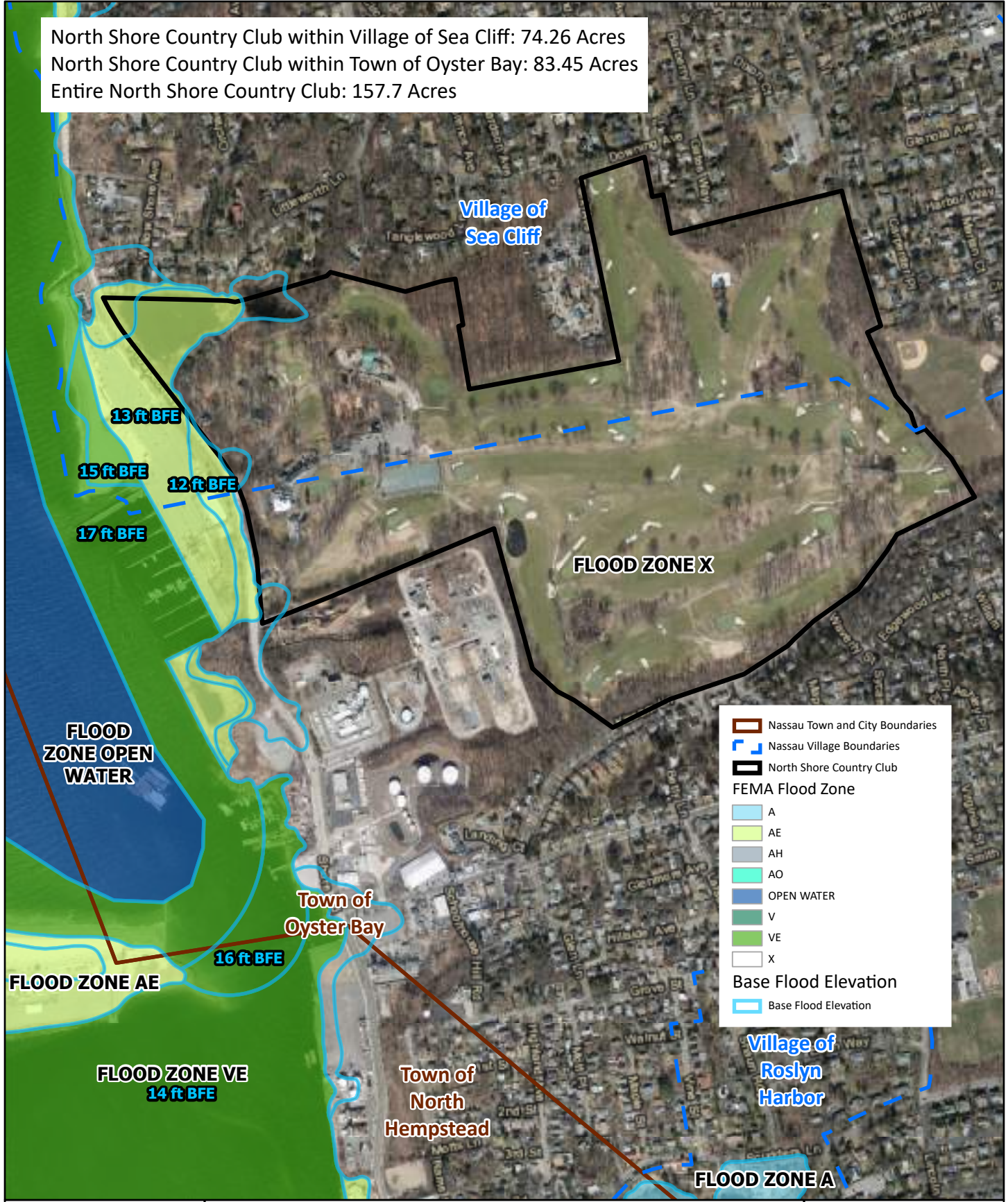
Sources: ESRI Basemap; Nassau GIS  
 Scale: 1 inch equals 1,300 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



**FIGURE NSCC-4  
 FEMA FLOOD ZONES**

Golf Course  
 Planning Study

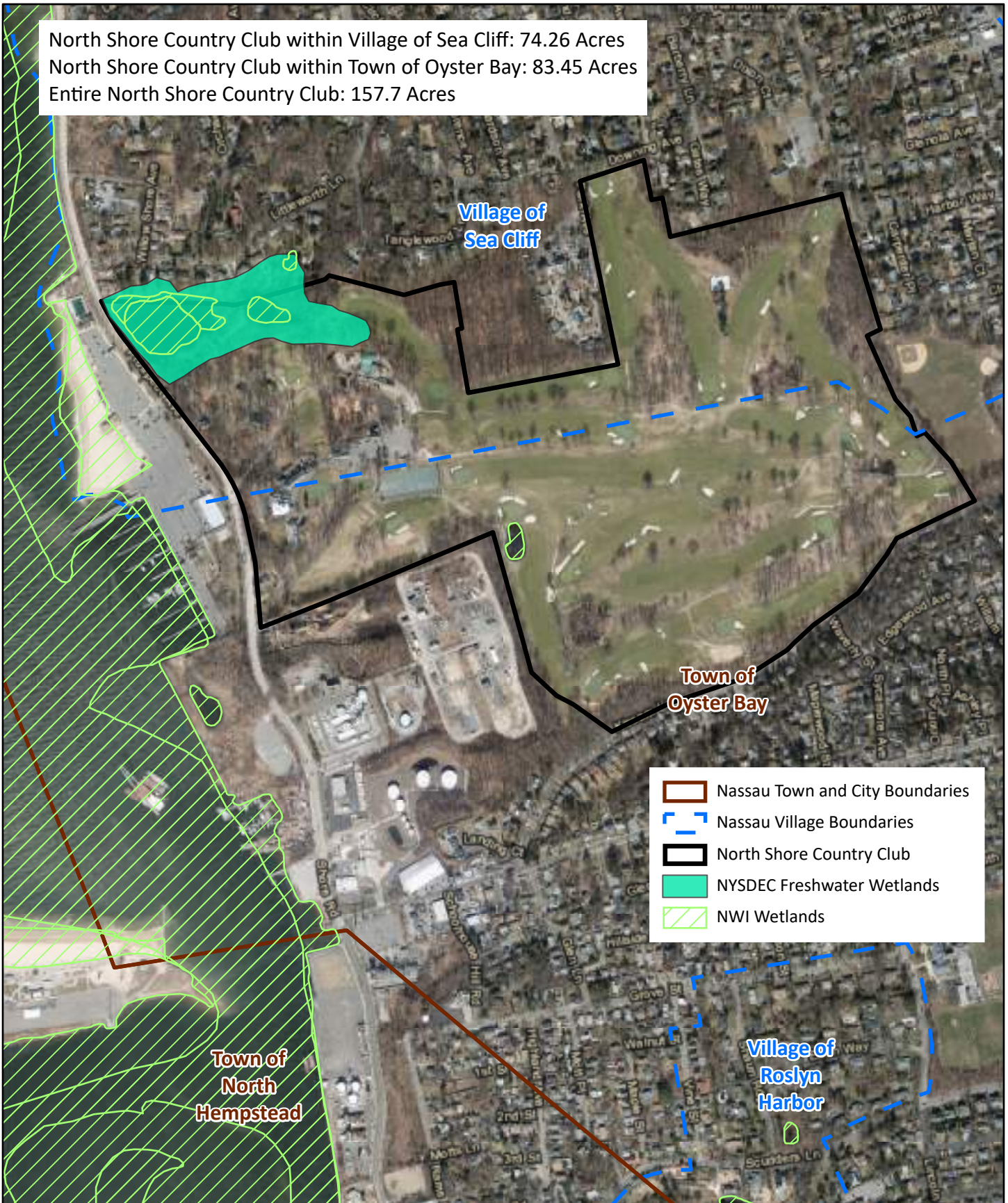
Sources: NYS Orthophotography, 2020; Nassau GIS; FEMA 2013  
 Scale: 1 inch equals 700 feet



Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



**FIGURE NSCC-5  
 WETLANDS**

Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
 Scale: 1 inch equals 700 feet






Golf Course  
 Planning Study

Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres

-  Nassau Town and City Boundaries
-  Nassau Village Boundaries
-  North Shore Country Club



**FIGURE NSCC-6  
SOILS**

Sources: NYS Orthophotography, 2020; Nassau GIS; Web Soil Survey<sup>N</sup>  
 Scale: 1 inch equals 700 feet

Golf Course  
 Planning Study

Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



	Nassau Town and City Boundaries
	Nassau Village Boundaries
	North Shore Country Club
<b>Slope (%)</b>	
	Less than 25%
	25% or Greater



**FIGURE NSCC-7**  
**STEEP SLOPES (>25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
 Scale: 1 inch equals 600 feet







Golf Course  
 Planning Study  
 Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



-  Nassau Town and City Boundaries
-  Nassau Village Boundaries
-  North Shore Country Club
-  Wooded Areas (27.7 acres)



**FIGURE NSCC-8  
WOODLANDS**

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
 Scale: 1 inch equals 600 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay



North Shore Country Club within Village of Sea Cliff: 74.26 Acres  
 North Shore Country Club within Town of Oyster Bay: 83.45 Acres  
 Entire North Shore Country Club: 157.7 Acres



**USN Building Points (View)**

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

**LPC Landmarks**



**Survey Building Areas (View)**



**National Register Building Sites (View)**



**USN Building Districts (View)**



**Survey Archaeology Areas (View)**



**LPC Historic Districts**



**Archeologically Sensitive Areas**



Extent of Archeologically Sensitive Area.



**FIGURE NSCC-9  
 CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
 Scale: Not to scale



Golf Course  
 Planning Study  
 Town of Oyster Bay

**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Friday, August 06, 2021 2:17:18 PM

---

Submission ID: 6057  
Submitted on Friday, August 6, 2021 - 14:04  
Submitted values are:

Company, Organization, or Agency: Nelson, Pope & Voorhis, LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxess Road  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: [amarciszyn@nelsonpope.com](mailto:amarciszyn@nelsonpope.com)  
Project Type: Golf Course  
Project Name: 21169-North Shore CC  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Inventory of Town of Oyster Bay Golf Courses  
Current Land Use: Existing Golf Course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project: 500 Shore Rd, Glen Head, NY 11545If you are submitting a map, this field is optional.  
Project Notes:

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
[www.dec.ny.gov](http://www.dec.ny.gov)

September 16, 2021

Ashley Marciszyn  
Nelson, Pope & Voorhis, LLC  
70 Maxess Road  
Melville, NY 11747

Re: 21169- North Shore Country Club  
County: Nassau Town/City: Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov).

Sincerely,



Heidi Kraehling  
Environmental Review Specialist  
New York Natural Heritage Program



**The following state-listed animals have been documented in the vicinity of the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

**For information about any permit considerations for the project, please contact the Permits staff at the NYSDEC Region 1 Office at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov), 631-444-0365.**

**The following species has been documented nesting within 1/4 mile of the project site.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
<b>Birds</b>			
<b>Peregrine Falcon</b> <i>Breeding</i>	<i>Falco peregrinus</i>	Endangered	12409

**The following species has been documented nesting within one mile of the project site.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
<b>Birds</b>			
<b>Bald Eagle</b> <i>Breeding</i>	<i>Haliaeetus leucocephalus</i>	Threatened	17151

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), and from NYSDEC at [www.dec.ny.gov/animals/7494.html](http://www.dec.ny.gov/animals/7494.html).

North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSCC-1: View of entrance to North Shore Country Club, from Shore Road, facing northeast.



North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSCC-2: View looking north along Betty Lane, with North Shore Country Club visible on the opposite side of Kissam Lane in the distance, facing north.

North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSCC-3: View along Kissam Lane, showing southern edge of North Shore Country Club to the right, facing southwest.



North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSCC-4: View looking north along Maplewood Street, with North Shore Country Club visible on the opposite side of Kissam Lane in the distance, facing north.

North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSSC- 5: View looking north along Waverly Street, with North Shore Country Club visible on the opposite side of Kissam Lane in the distance, facing northwest.



North Shore Country Club – Photo Log  
Photograph Taken September 20, 2021



NSSC- 6: View along Kissam Lane, showing southern edge of North Shore Country Club to the right, from vicinity of southeast corner of North Shore Country Club property, facing southwest.

---

**APPENDIX B**  
**ENGINEERS COUNTRY CLUB**

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**FIGURE ECC-1  
AERIAL PHOTOGRAPH**

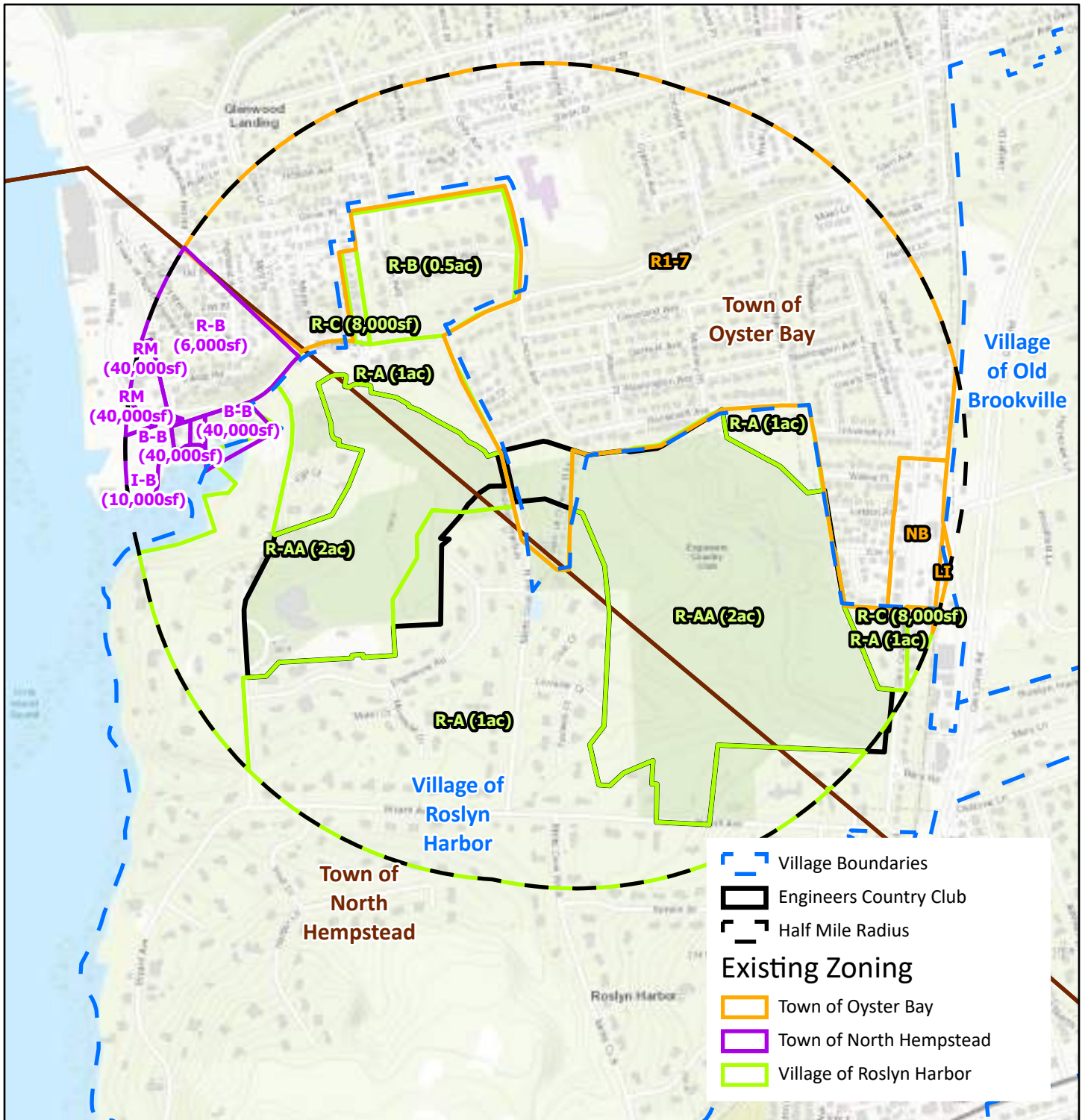
Golf Course  
Planning Study



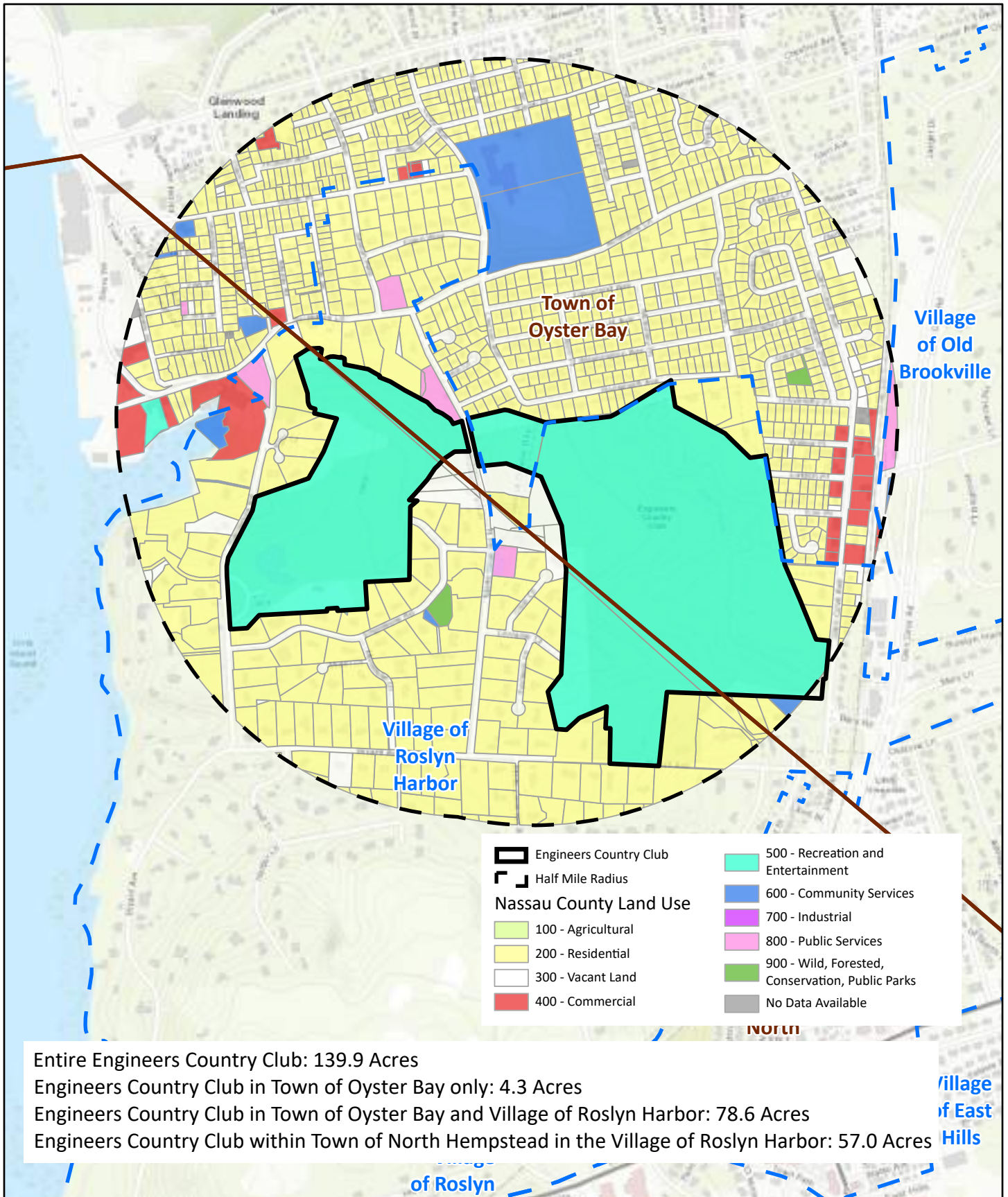
Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 700 feet

Town of Oyster Bay





Entire Engineers Country Club: 139.9 Acres  
 Engineers Country Club in Town of Oyster Bay only: 4.3 Acres  
 Engineers Country Club in Town of Oyster Bay and Village of Roslyn Harbor: 78.6 Acres  
 Engineers Country Club within Town of North Hempstead in the Village of Roslyn Harbor: 57.0 Acres



Entire Engineers Country Club: 139.9 Acres

Engineers Country Club in Town of Oyster Bay only: 4.3 Acres

Engineers Country Club in Town of Oyster Bay and Village of Roslyn Harbor: 78.6 Acres

Engineers Country Club within Town of North Hempstead in the Village of Roslyn Harbor: 57.0 Acres



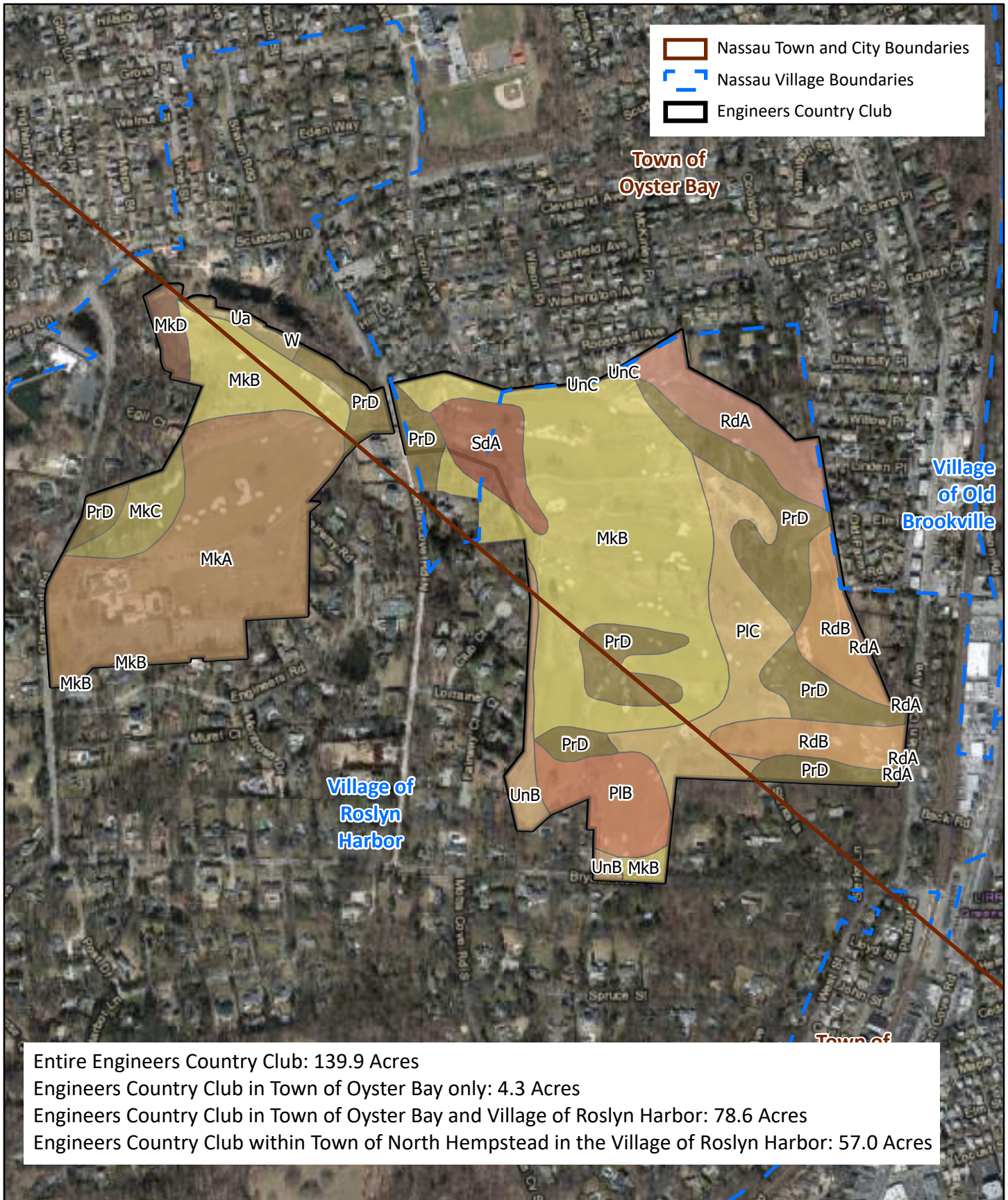
**FIGURE ECC-3  
EXISTING LAND USE**




Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,000 feet



Golf Course  
Planning Study  
Town of Oyster Bay





-  Nassau Town and City Boundaries
-  Nassau Village Boundaries
-  Engineers Country Club

Town of  
Oyster Bay

Village  
of Old  
Brookville

Village of  
Roslyn  
Harbor

Town of



**FIGURE ECC-6  
SOILS**

Sources: NYS Orthophotography, 2020; Nassau; Web Soil Survey  
 Scale: 1 inch equals 700 feet



Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE ECC-7**  
**STEEP SLOPES (> 25%)**

Golf Course  
 Planning Study







Sources: NYS Orthophotography, 2020; Nassau; FEMA 2013  
 Scale: 1 inch equals 700 feet



Town of Oyster Bay





-  Nassau Town and City Boundaries
-  Nassau Village Boundaries
-  Engineers Country Club
-  Engineers Country Club Wooded Areas (15.5 acres)

Town of  
Oyster Bay

Village  
of Old  
Brookville

Village of  
Roslyn  
Harbor

Town of  
North



**FIGURE ECC-8  
WOODLANDS**

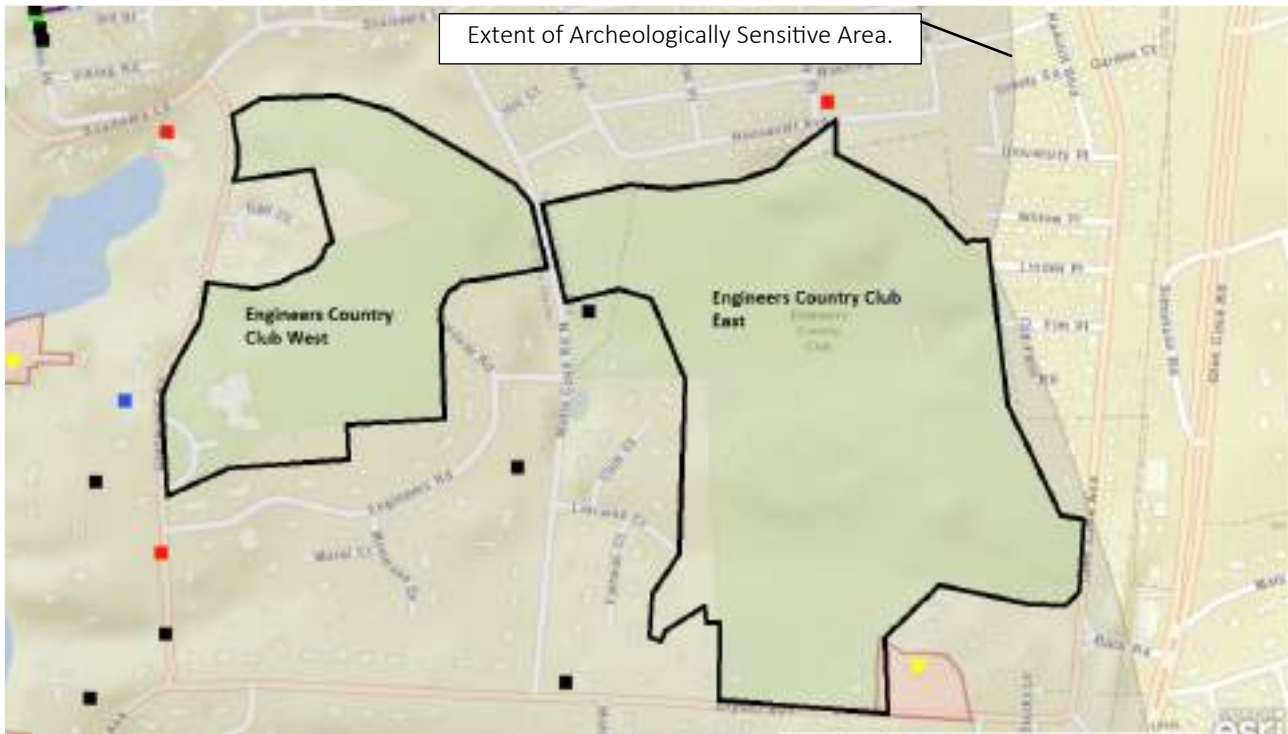
Sources: ESRI World Transportation; NYS Orthophotography, 2020  
Scale: 1 inch equals 700 feet



Golf Course  
Planning Study

Town of Oyster Bay

Entire Engineers Country Club: 139.9 Acres  
 Engineers Country Club in Town of Oyster Bay only: 4.3 Acres  
 Engineers Country Club in Town of Oyster Bay and Village of Roslyn Harbor: 78.6 Acres  
 Engineers Country Club within Town of North Hempstead in the Village of Roslyn Harbor: 57.0 Acres



**USN Building Points (View)**

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

**LPC Landmarks**



**Survey Building Areas (View)**



**National Register Building Sites (View)**



**USN Building Districts (View)**



**Survey Archaeology Areas (View)**



**LPC Historic Districts**



**Archeologically Sensitive Areas**



**FIGURE ECC-9  
 CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
 Scale: Not to scale



Golf Course  
 Planning Study  
 Town of Oyster Bay



**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Thursday, August 05, 2021 4:43:42 PM

---

Submission ID: 6050  
Submitted on Thursday, August 5, 2021 - 16:43  
Submitted values are:

Company, Organization, or Agency: Nelson, Pope & Voorhis, LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxess Road  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: amarciszyn@nelsonpope.com  
Project Type: Golf Course  
Project Name: 21169- Engineers CC  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Golf Course Planning Study for Town of Oyster Bay  
Current Land Use: Existing Golf Course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project:  
Project Notes:



**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
www.dec.ny.gov

September 15, 2021

Ashley Marciszyn  
Nelson, Pope & Voorhis, LLC  
70 Maxess Road  
Melville, NY 11747

Re: 21169- Engineers CC  
County: Nassau Town/City: North Hempstead, Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov).

Sincerely,



Heidi Kraehling  
Environmental Review Specialist  
New York Natural Heritage Program



**The following state-listed animals have been documented  
in the vicinity of the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

**For information about any permit considerations for the project, please contact the Permits staff at the NYSDEC Region 1 Office at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov), 631-444-0365.**

**The following species has been documented within 250 yards of the project site.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
<b>Birds</b>			
<b>Bald Eagle</b> <i>Breeding</i>	<i>Haliaeetus leucocephalus</i>	Threatened	17151

**The following species has been documented within 1/4 mile of the project site.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
<b>Birds</b>			
<b>Peregrine Falcon</b> <i>Breeding</i>	<i>Falco peregrinus</i>	Endangered	12409

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), and from NYSDEC at [www.dec.ny.gov/animals/7494.html](http://www.dec.ny.gov/animals/7494.html).

Engineers Country Club – Photo Log  
Photograph Taken September 20, 2021



ECC-1: View along Lincoln Avenue on north side of Engineers Country Club, with golf course visible through trees, facing south.

Engineers Country Club – Photo Log  
Photograph Taken September 20, 2021



ECC-2: View along from west side of Mott's Cove Road showing Engineers Country Club golf cart bridge, facing southeast.

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**APPENDIX C**  
**GLEN HEAD COUNTRY CLUB**

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Glen Head Country Club: 174.6 Acres

- Nassau Town and City Boundaries
- Golf Course Boundary
- Nassau Village Boundaries

Glen Cove

Glen Head  
Country Club  
174.6 Acres

Oyster Bay

Village  
of Old  
Brookville

Village of  
Sea Cliff



**FIGURE GHCC-1  
AERIAL PHOTOGRAPH**

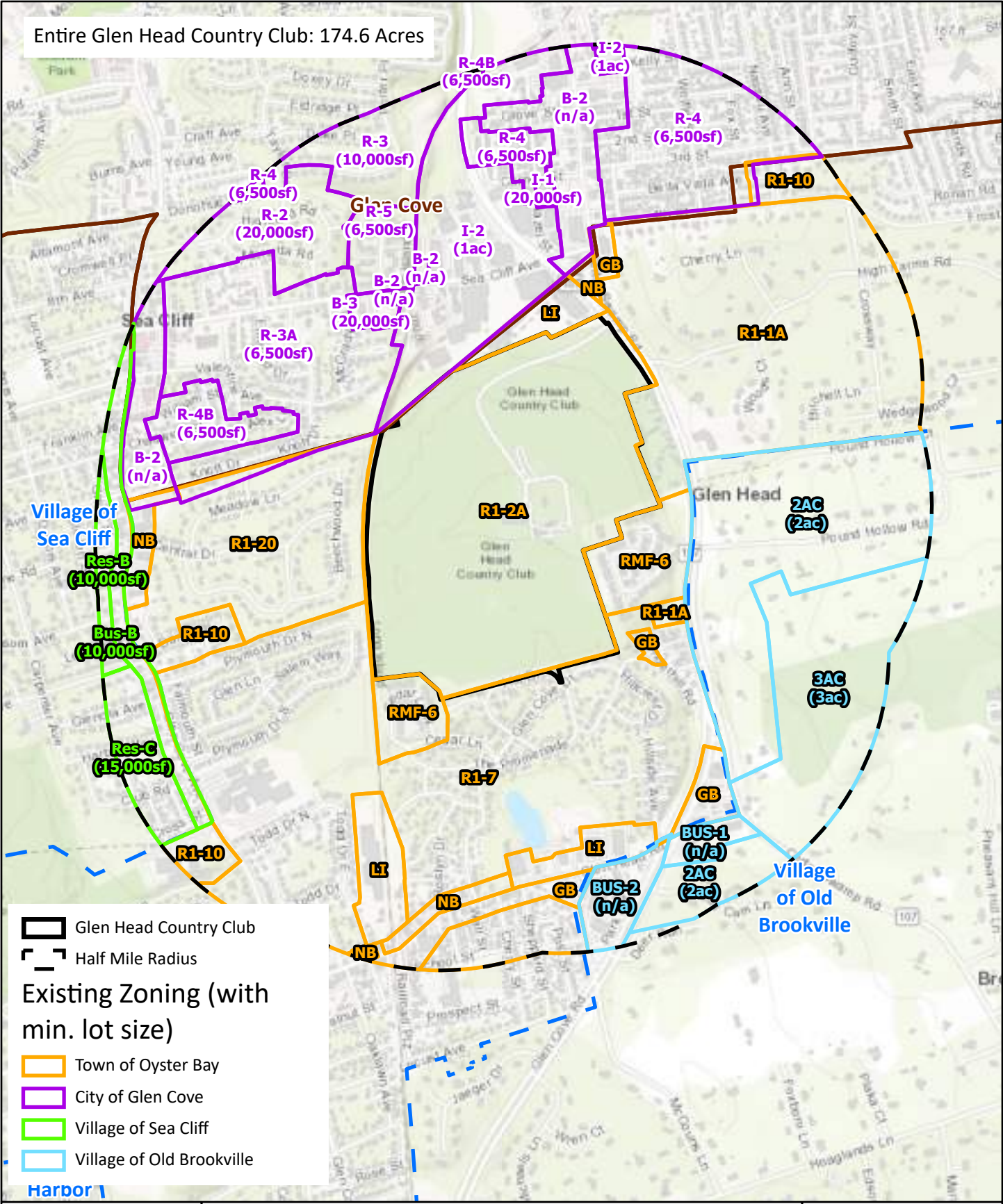
Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 700 feet

Golf Course  
Planning Study

Town of Oyster Bay



Entire Glen Head Country Club: 174.6 Acres



**Legend**

- Glen Head Country Club
- Half Mile Radius
- Existing Zoning (with min. lot size)**
- Town of Oyster Bay
- City of Glen Cove
- Village of Sea Cliff
- Village of Old Brookville

Harbor



**FIGURE GHCC-2  
EXISTING ZONING**

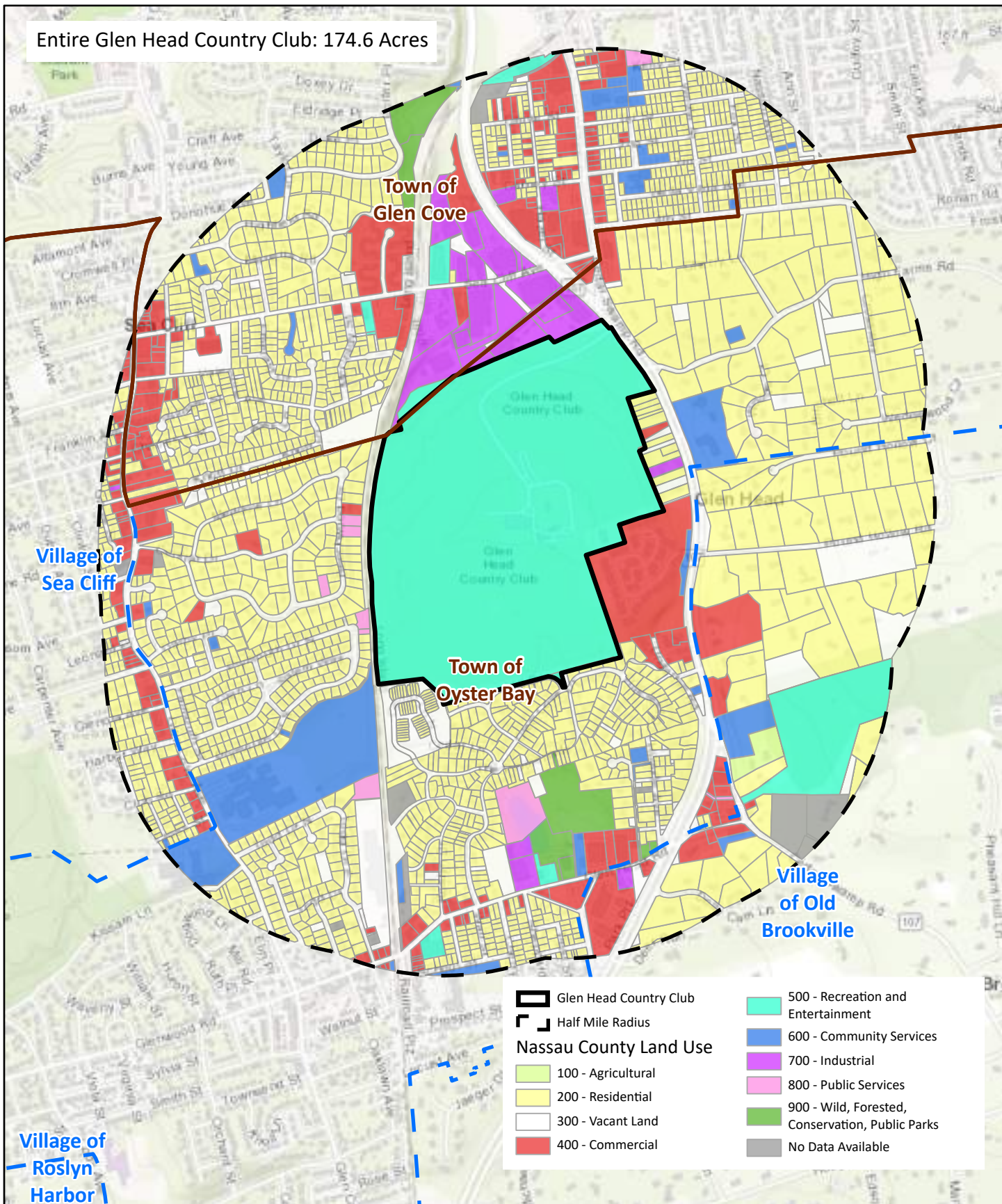
Sources: Nassau GIS; Glen Cove GIS, Village Zoning Maps  
Scale: 1 inch equals 1,300 feet



Golf Course  
Planning Study  
Town of Oyster Bay



Entire Glen Head Country Club: 174.6 Acres



**FIGURE GHCC-3  
EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,300 feet



Golf Course  
Planning Study  
Town of Oyster Bay





Entire Glen Head Country Club: 174.6 Acres

City of  
Glen Cove

Town of  
Oyster Bay

Village  
of Old  
Brookville

- Nassau Town and City Boundaries
- Glen Head Country Club
- NYSDEC Freshwater Wetlands
- NWI Wetlands
- Nassau Village Boundaries

Village of  
Sea Cliff



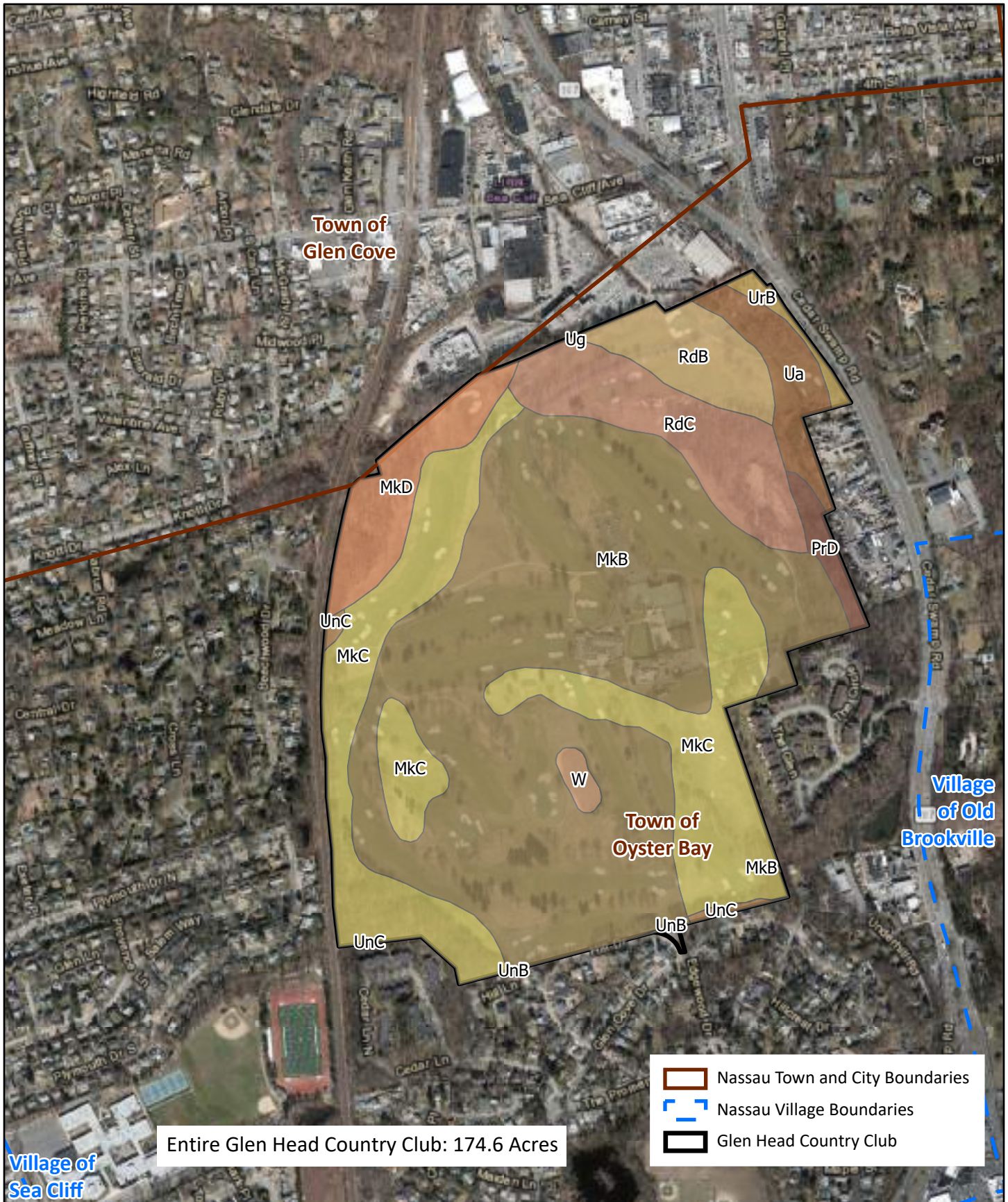
**FIGURE GHCC-5  
WETLANDS**

Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
Scale: 1 inch equals 700 feet






Golf Course  
Planning Study  
Town of Oyster Bay





Entire Glen Head Country Club: 174.6 Acres

-  Nassau Town and City Boundaries
-  Nassau Village Boundaries
-  Glen Head Country Club

Village of Sea Cliff



### FIGURE GHCC-6 SOILS

Sources: NYS Orthophotography, 2020; Nassau; Web Soil Survey  
Scale: 1 inch equals 700 feet



Golf Course  
Planning Study  
Town of Oyster Bay





**FIGURE GHCC-7**  
**STEEP SLOPES (>25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
 Scale: 1 inch equals 500 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay





**FIGURE GHCC-8  
WOODLANDS**

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
Scale: 1 inch equals 500 feet



Golf Course  
Planning Study

Town of Oyster Bay

Entire Glen Head Country Club: 174.6 Acres



**USN Building Points (View)**

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

**LPC Landmarks**



**Survey Building Areas (View)**



**National Register Building Sites (View)**



**USN Building Districts (View)**



**Survey Archaeology Areas (View)**



**LPC Historic Districts**



**Archeologically Sensitive Areas**



**FIGURE GHCC-9  
CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
Scale: Not to scale



Golf Course  
Planning Study  
Town of Oyster Bay



**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Monday, August 9, 2021 8:59:32 AM

---

Submission ID: 6068  
Submitted on Monday, August 9, 2021 - 08:59  
Submitted values are:

Company, Organization, or Agency: Nelson, Pope, & Voorhis LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxess road  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: amarciszyn@nelsonpope.com  
Project Type: golf course  
Project Name: 21169- Glen Head Country Club  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Inventory of Oyster Bay Golf Courses  
Current Land Use: Existing Golf Course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project:  
Project Notes:



**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
www.dec.ny.gov

September 20, 2021

Ashley Marciszyn  
Nelson, Pope, & Voorhis LLC  
70 Maxess road  
Melville, NY 11747

Re: 21169- Glen Head Country Club  
County: Nassau Town/City: Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

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Sincerely,



Heidi Krahling  
Environmental Review Specialist  
New York Natural Heritage Program

Glen Head Club – Photo Log  
Photograph Taken September 20, 2021



GHCC- 1: View across Cedar Swamp Road near northeast corner of Glen Head Country Club property, facing west.

Glen Head Club – Photo Log  
Photograph Taken September 20, 2021



GHCC- 2: View from west side of Cedar Swamp Road near northeast corner of Glen Head Country Club, facing southwest.



Glen Head Country Club – Photo Log  
Photograph Taken September 20, 2021



GHCC- 3: View along Hill Drive at south end of Glen Head Country Club, facing northwest.



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**APPENDIX D**  
**NASSAU COUNTRY CLUB**

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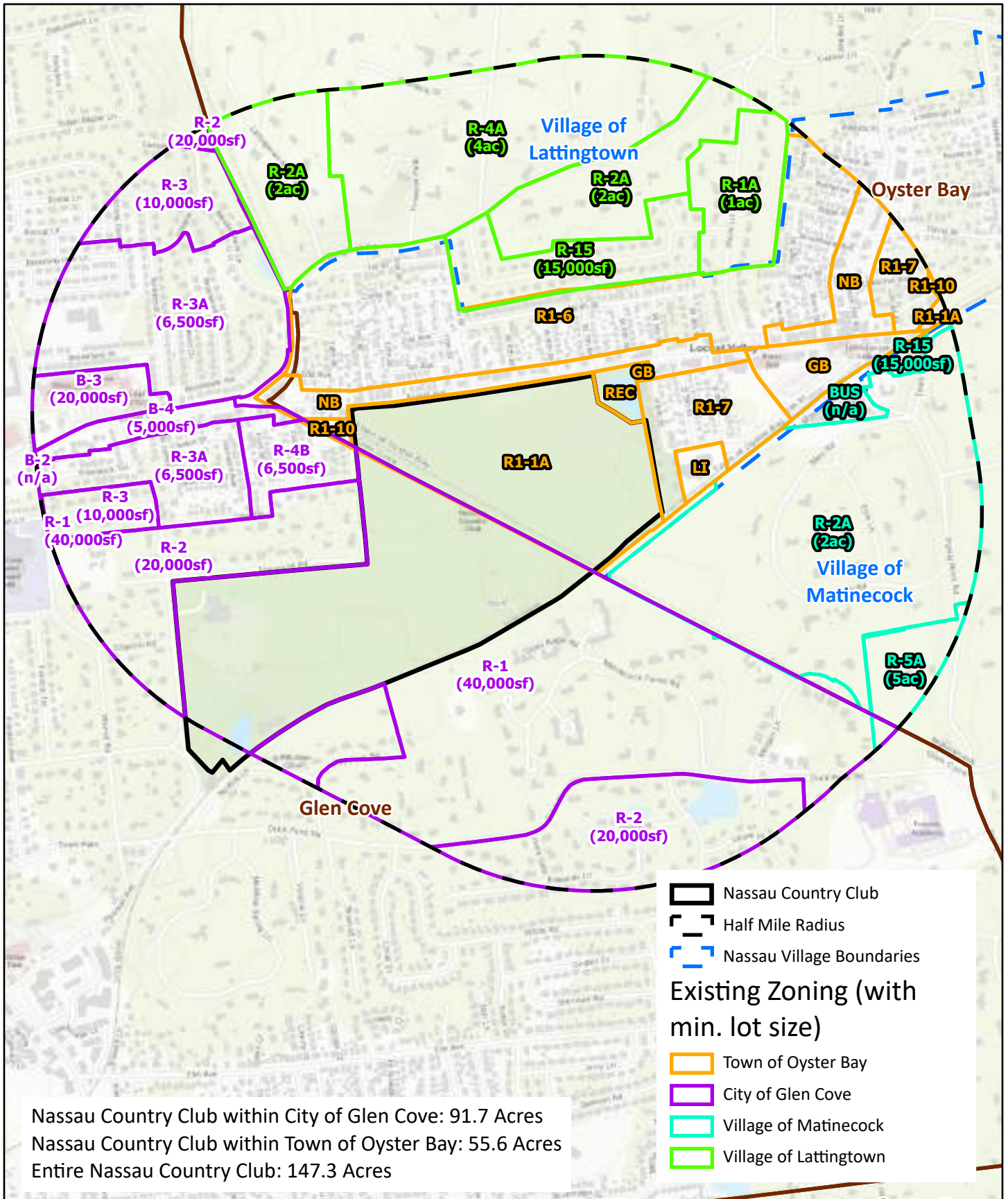
**FIGURE NCC-1  
AERIAL PHOTOGRAPH**

Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 700 feet

Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE NCC-2  
EXISTING ZONING**

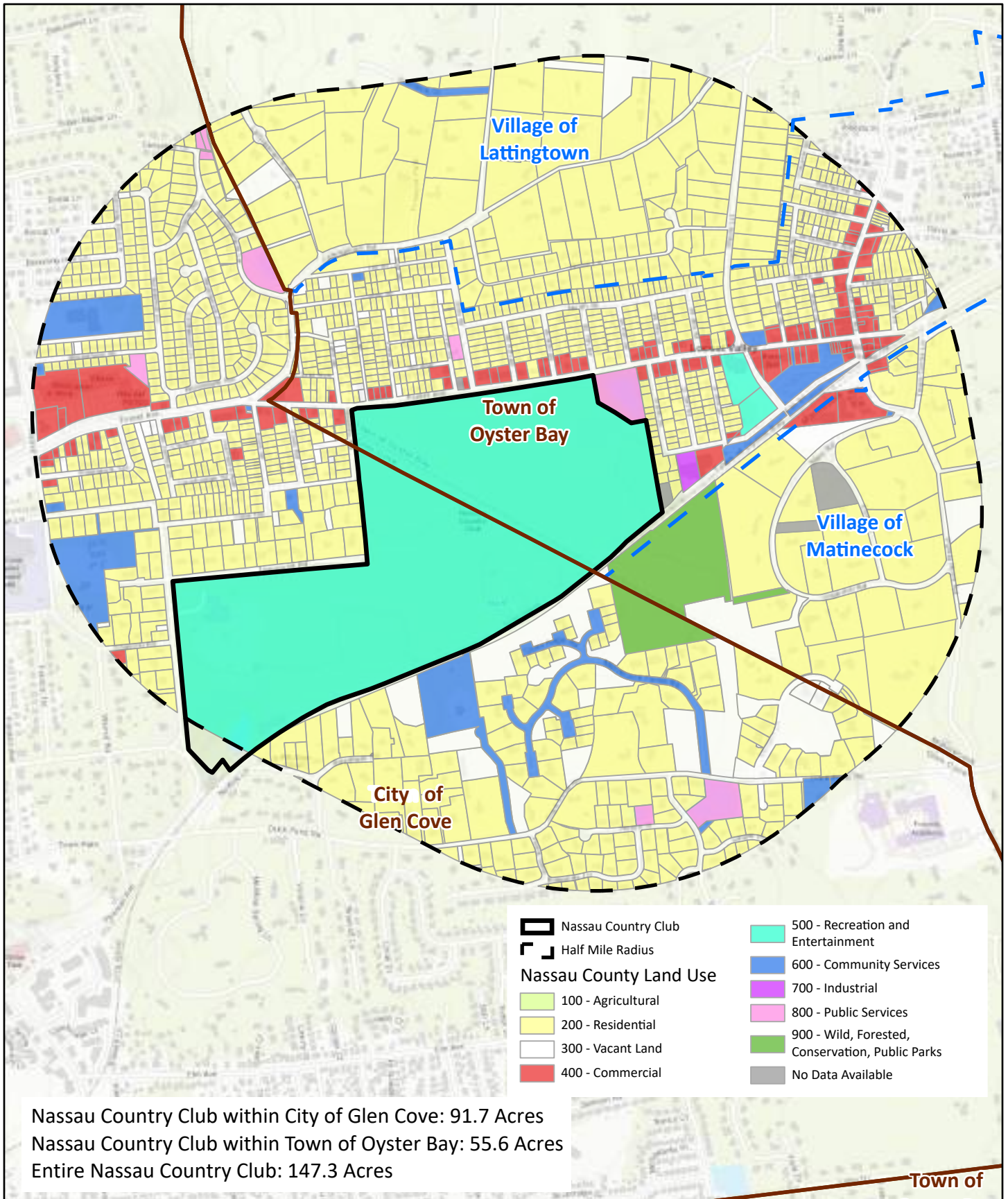
Golf Course  
Planning Study



Sources: Nassau GIS; Glen Cove GIS, Village Zoning Maps  
Scale: 1 inch equals 1,100 feet



Town of Oyster Bay



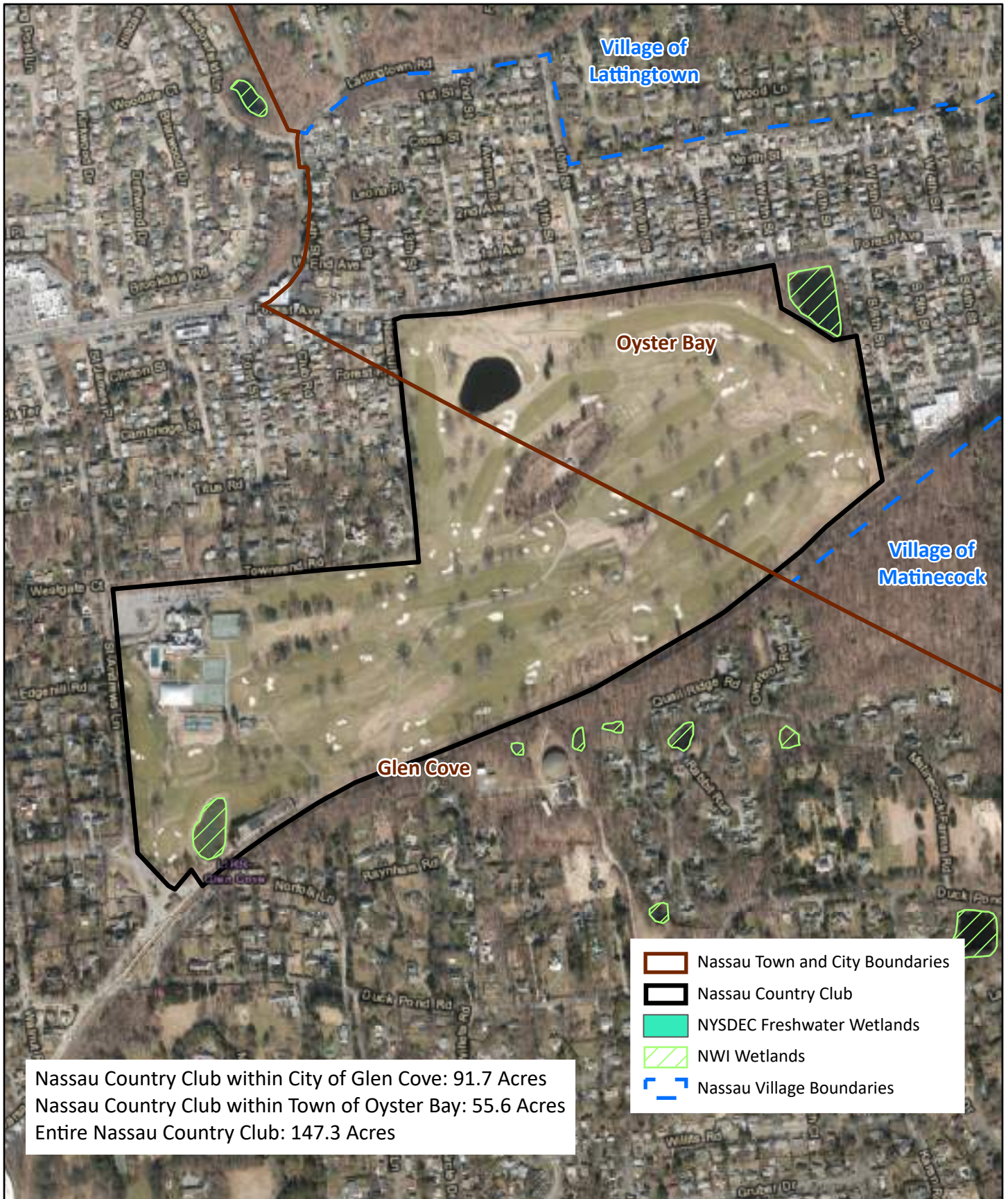
**FIGURE NCC-3  
 EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
 Scale: 1 inch equals 1,100 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay





**FIGURE NCC-5  
WETLANDS**

Golf Course  
Planning Study

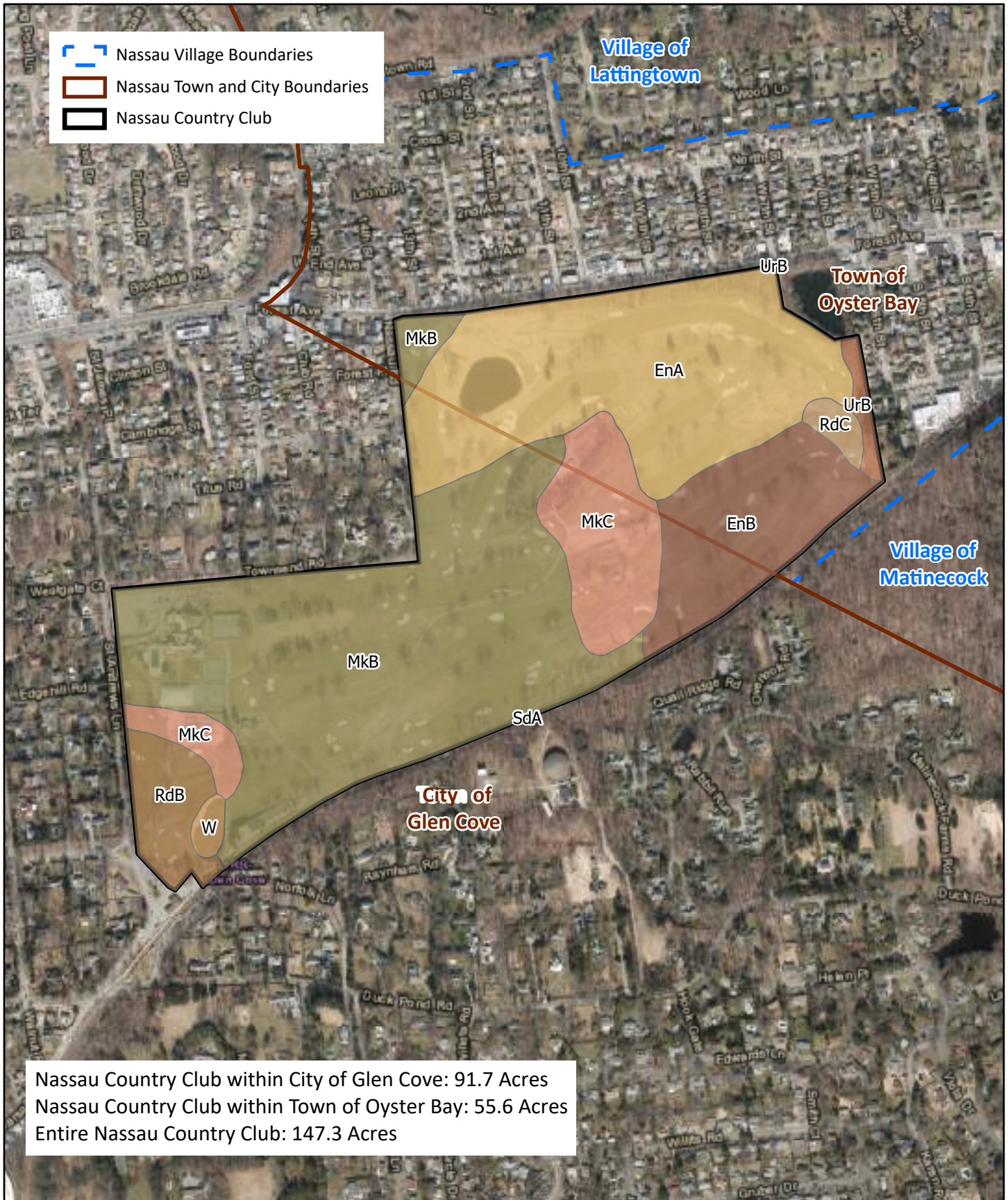


Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
 Scale: 1 inch equals 700 feet



Town of Oyster Bay





**FIGURE NCC-6  
SOILS**

Golf Course  
Planning Study

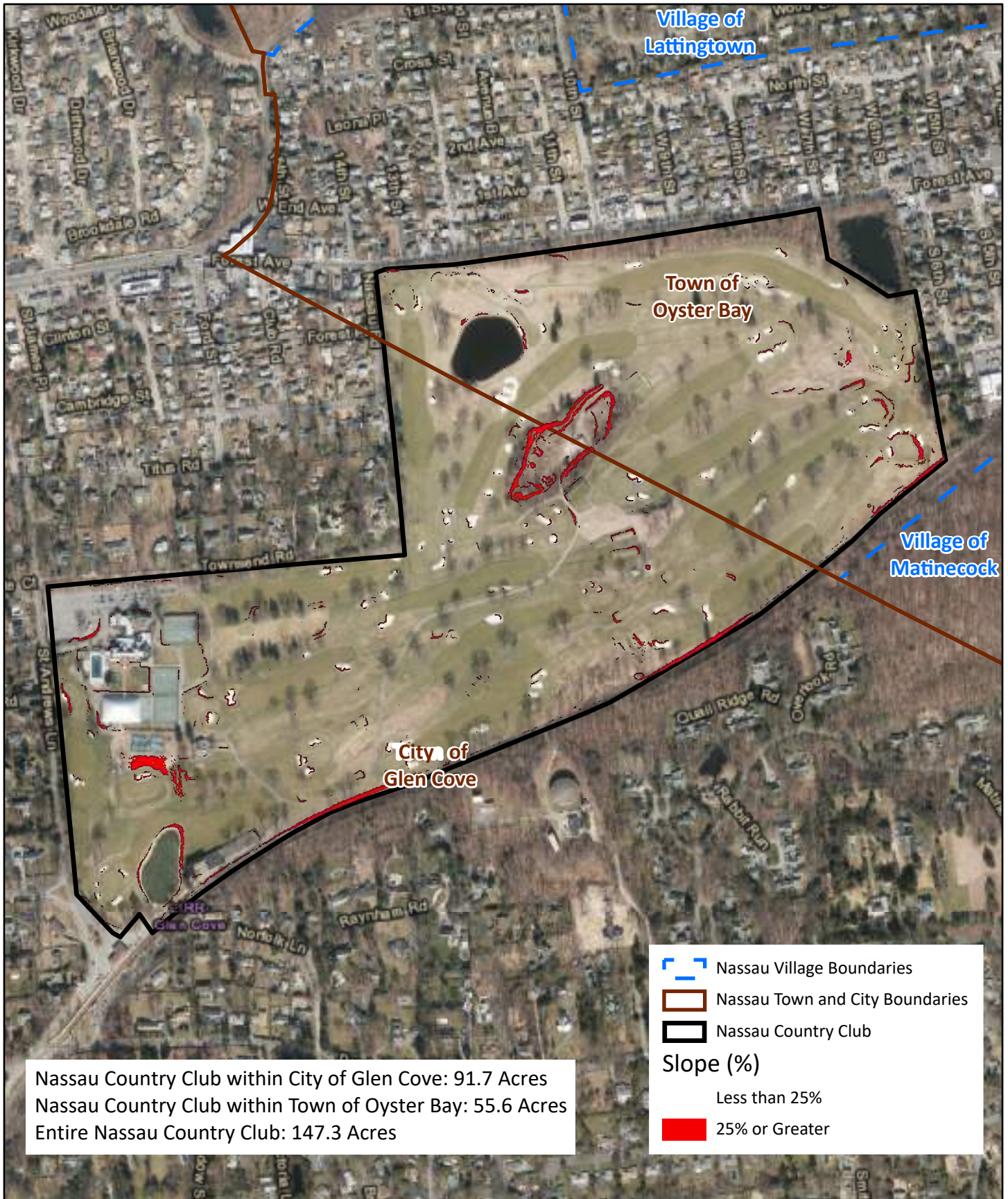


Sources: NYS Orthophotography, 2020; Nassau; Web Soil Survey  
Scale: 1 inch equals 700 feet



Town of Oyster Bay





**FIGURE NCC-7**  
**STEEP SLOPES (>25%)**

Golf Course  
 Planning Study



Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
 Scale: 1 inch equals 600 feet



Town of Oyster Bay





**FIGURE NCC-8  
WOODLANDS**

Sources: ESRI Transportation; NYS Orthophotography, 2020  
 Scale: 1 inch equals 600 feet

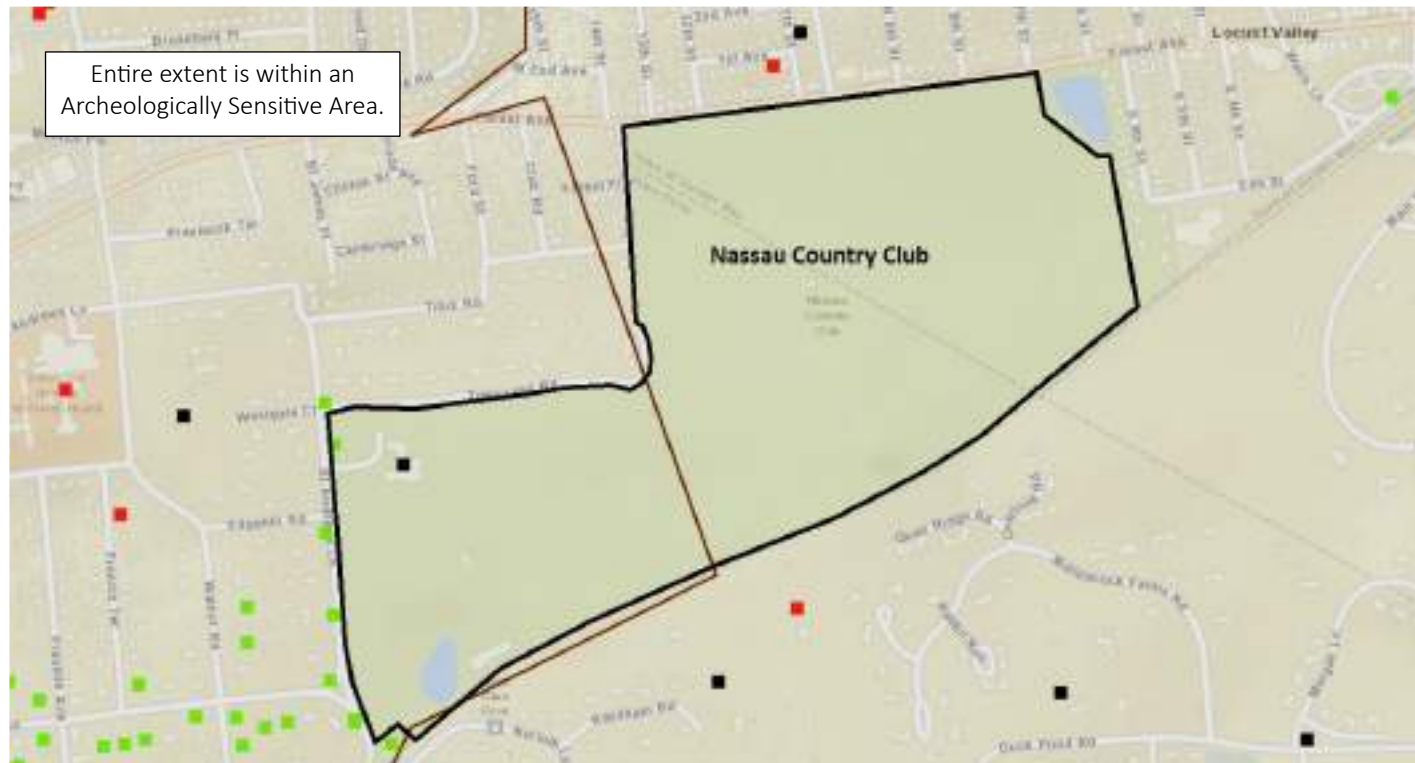


Golf Course  
 Planning Study

Town of Oyster Bay



Nassau Country Club within City of Glen Cove: 91.7 Acres  
 Nassau Country Club within Town of Oyster Bay: 55.6 Acres  
 Entire Nassau Country Club: 147.3 Acres



**USN Building Points (View)**

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

**LPC Landmarks**



**Survey Building Areas (View)**



**National Register Building Sites (View)**



**USN Building Districts (View)**



**Survey Archaeology Areas (View)**



**LPC Historic Districts**



**Archeologically Sensitive Areas**



**FIGURE NCC-9  
 CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
 Scale: Not to scale



Golf Course  
 Planning Study  
 Town of Oyster Bay

**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Monday, August 09, 2021 9:17:30 AM

---

Submission ID: 6070  
Submitted on Monday, August 9, 2021 - 09:16  
Submitted values are:

Company, Organization, or Agency: Nelson, Pope, & Voorhis LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxess road  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: amarciszyn@nelsonpope.com  
Project Type: golf course  
Project Name: 21169- Nassau CC  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Inventory of Oyster Bay golf courses  
Current Land Use: Existing Golf course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project:  
Project Notes:

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
[www.dec.ny.gov](http://www.dec.ny.gov)

September 20, 2021

Ashley Marciszyn  
Nelson, Pope, & Voorhis LLC  
70 Maxess road  
Melville, NY 11747

Re: 21169- Nassau Country Club  
County: Nassau      Town/City: Glen Cove, Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov).

Sincerely,



Heidi Kraehling  
Environmental Review Specialist  
New York Natural Heritage Program

Nassau Country Club – Photo Log  
Photograph Taken September 20, 2021



NCC- 1: View along Nassau Road near northwest corner of Nassau Country Club property, facing southeast.



Nassau Country Club – Photo Log  
Photograph Taken September 20, 2021



NCC- 2: View of Nassau Country Club from across Forest Avenue, in vicinity of intersection with 12<sup>th</sup> Street, facing south.

Nassau Country Club – Photo Log  
Photograph Taken September 20, 2021



NCC- 3: View of Nassau Country Club from across Forest Avenue, in vicinity of intersection with 11<sup>th</sup> Street, facing south.

Nassau Country Club – Photo Log  
Photograph Taken September 20, 2021



NCC- 4: View of Nassau Country Club from across Forest Avenue, in vicinity of intersection with 9<sup>th</sup> Street, facing south.

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**APPENDIX E**  
**PINE HOLLOW COUNTRY CLUB**

---





- Golf Course Boundary
- Nassau Village Boundaries
- Nassau Town and City Boundaries

Pine Hollow Country Club: 135.2 Acres



**FIGURE PHCC-1  
AERIAL PHOTOGRAPH**

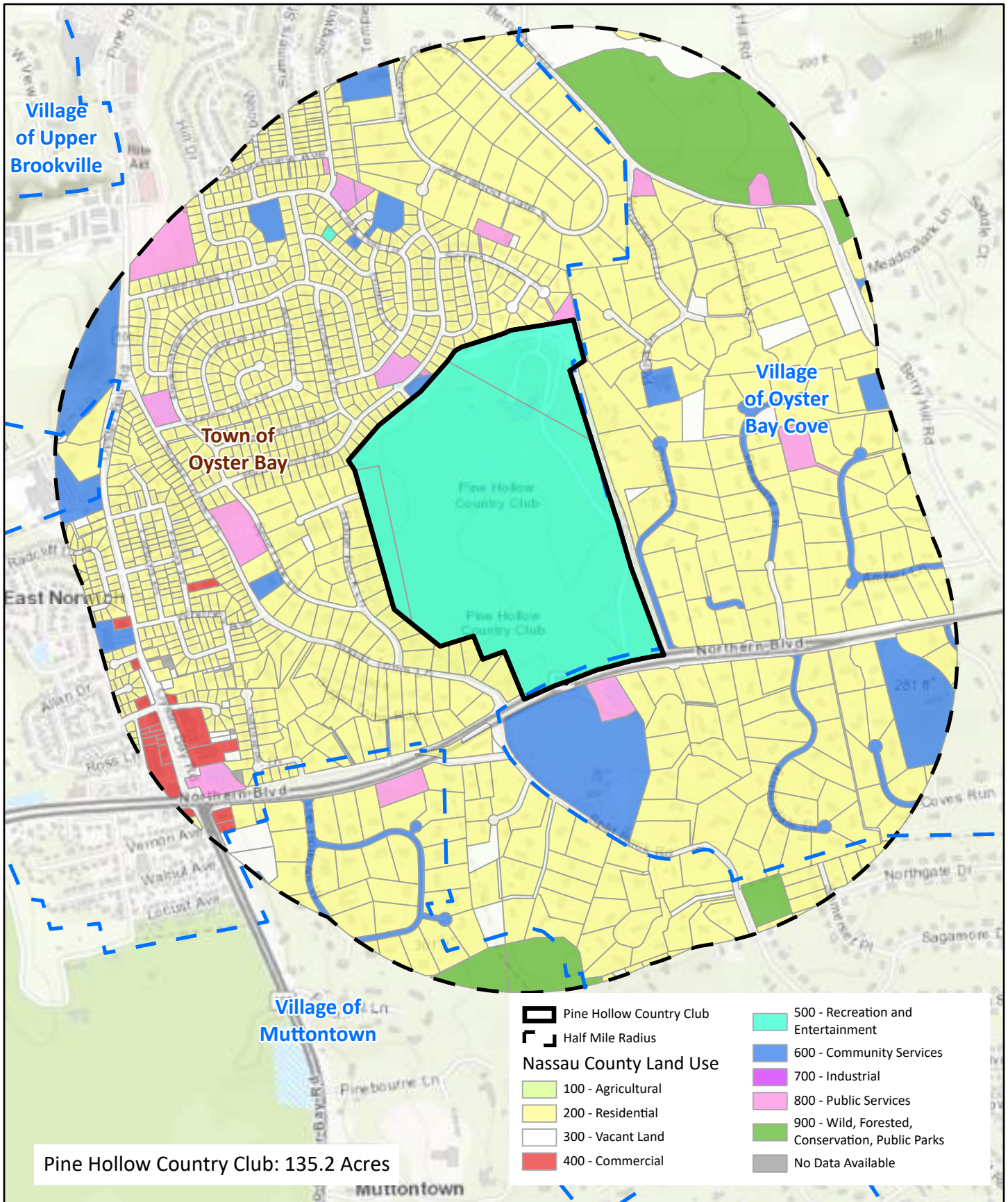
Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 700 feet

Golf Course  
Planning Study

Town of Oyster Bay







**FIGURE PHCC-3  
EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,200 feet



Golf Course  
Planning Study  
Town of Oyster Bay





**FIGURE PHCC-5  
WETLANDS**

Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
Scale: 1 inch equals 700 feet





Golf Course  
Planning Study

Town of Oyster Bay





	<b>FIGURE PHCC-6 SOILS</b>	Golf Course Planning Study
	Sources: NYS Orthophotography, 2020; Nassau; Web Soil Survey Scale: 1 inch equals 700 feet	





**FIGURE PHCC-7  
STEEP SLOPES (>25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
Scale: 1 inch equals 400 feet



Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE PHCC-8  
WOODLANDS**

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
Scale: 1 inch equals 400 feet



Golf Course  
Planning Study

Town of Oyster Bay

Pine Hollow Country Club: 135.2 Acres



**USN Building Points (View)**

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

**LPC Landmarks**



**Survey Building Areas (View)**



**National Register Building Sites (View)**



**USN Building Districts (View)**



**Survey Archaeology Areas (View)**



**LPC Historic Districts**



**Archeologically Sensitive Areas**



**FIGURE PHCC-9  
CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
Scale: Not to scale



Golf Course  
Planning Study  
Town of Oyster Bay



**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Friday, August 06, 2021 4:26:22 PM

---

Submission ID: 6064  
Submitted on Friday, August 6, 2021 - 16:26  
Submitted values are:

Company, Organization, or Agency: Nelson Pope & Voorhis. LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxiss Rd  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: amarciszyn@nelsonpope.com  
Project Type: Golf course  
Project Name: 21169-PineHollowCountryClub  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Inventory of town of Oyster Bay golf courses  
Current Land Use: Existing Golf Course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project: 6601 Northern Boulevard, NY-25A, East Norwich, NY 11732If you are submitting a map, this field is optional.  
Project Notes:

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
[www.dec.ny.gov](http://www.dec.ny.gov)

September 18, 2021

Ashley Marciszyn  
Nelson Pope & Voorhis. LLC  
70 Maxiss Rd  
Melville, NY 11747

Re: 21169- Pine Hollow Country Club  
County: Nassau Town/City: Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov).

Sincerely,



Heidi Kraehling  
Environmental Review Specialist  
New York Natural Heritage Program



**The following state-listed animal has been documented in the vicinity of the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

**For information about any permit considerations for the project, please contact the Permits staff at the NYSDEC Region 1 Office at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov), 631-444-0365.**

**The following species have been documented within 3/4 mile of the project site. Individual animals may travel 1.5 miles from documented locations.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>	
<b>Mammals</b>				
<b>Northern Long-eared Bat</b> <i>Non-winter location -- acoustic detector</i>	<i>Myotis septentrionalis</i>	Threatened	Threatened	15069

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), and from NYSDEC at [www.dec.ny.gov/animals/7494.html](http://www.dec.ny.gov/animals/7494.html).



**The following rare plants, rare animals, and significant natural communities have been documented at the project site, or in its vicinity.**

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

**The following natural community is considered significant from a statewide perspective by the NY Natural Heritage Program. By meeting specific, documented criteria, the NY Natural Heritage Program considers this community occurrence to have high ecological and conservation value.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
<b>Upland/Terrestrial Communities</b>			
<b>Coastal Oak-Laurel Forest</b>			High Quality Occurrence of Uncommon Community Type
Documented within 1/3 mile northeast of the project site. This is a relatively large coastal oak-laurel forest in good condition with few invasive species and surrounded by suburban residential development.			12844

**The following plant is listed as Endangered by New York State, and so is a vulnerable natural resource of conservation concern.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
<b>Vascular Plants</b>			
<b>Georgia Bulrush</b>	<i>Scirpus georgianus</i>	Endangered	Critically Imperiled in NYS
Laurel Hollow, 2006-07-10: Specimen label: Wet roadside.			13047

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), from NatureServe Explorer at [www.natureserve.org/explorer](http://www.natureserve.org/explorer), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org). For descriptions of all community types, go to [www.dec.ny.gov/animals/97703.html](http://www.dec.ny.gov/animals/97703.html) for Ecological Communities of New York State.



Pine Hollow Country Club – Photo Log  
Photograph Taken September 20, 2021



PHCC-1: View of west side of Pine Hollow Country Club at North Hills Road dead end, facing east.

Pine Hollow Country Club – Photo Log  
Photograph Taken September 20, 2021



PHCC-2: View of north side of Pine Hollow Country Club at Laurel Hill Drive dead end, facing south.



Pine Hollow Country Club – Photo Log  
Photograph Taken September 20, 2021



PHCC-3: View of south side of Pine Hollow Country Club from median on Northern Boulevard near east end of site, facing northwest.



Pine Hollow Country Club – Photo Log  
Photograph Taken September 20, 2021



PHCC-4: View of south side of Pine Hollow Country Club from median on Northern Boulevard near west end of site, facing north.

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**APPENDIX F**  
**MEADOW BROOK COUNTRY CLUB**

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- Nassau Village Boundaries
- Nassau Town and City Boundaries
- Golf Course Boundary

Entire Meadow Brook Club: 267.29 Acres

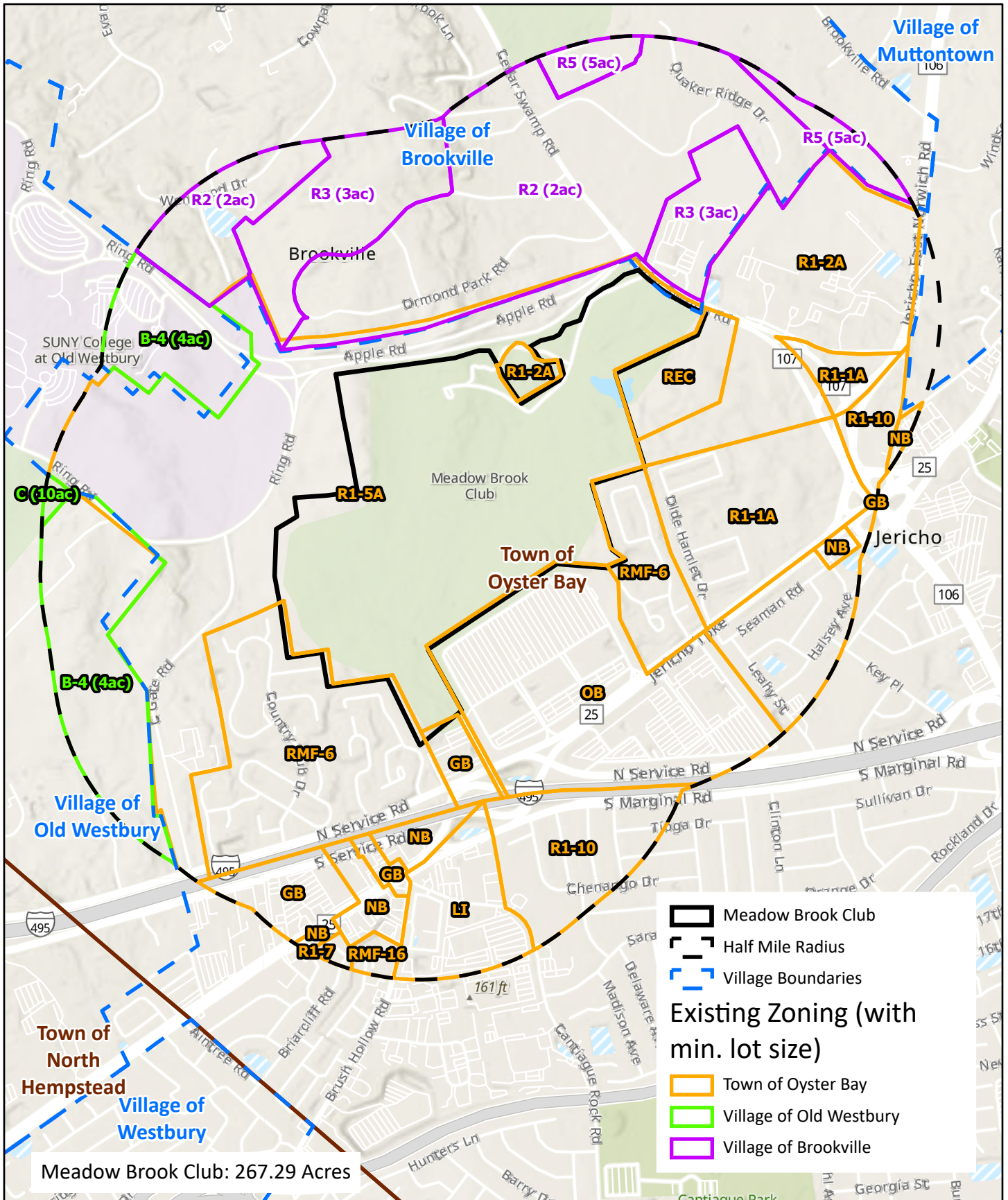


**FIGURE MBC-1  
AERIAL PHOTOGRAPH**

Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 700 feet

Golf Course  
Planning Study  
Town of Oyster Bay





**FIGURE MBC-2  
EXISTING ZONING**

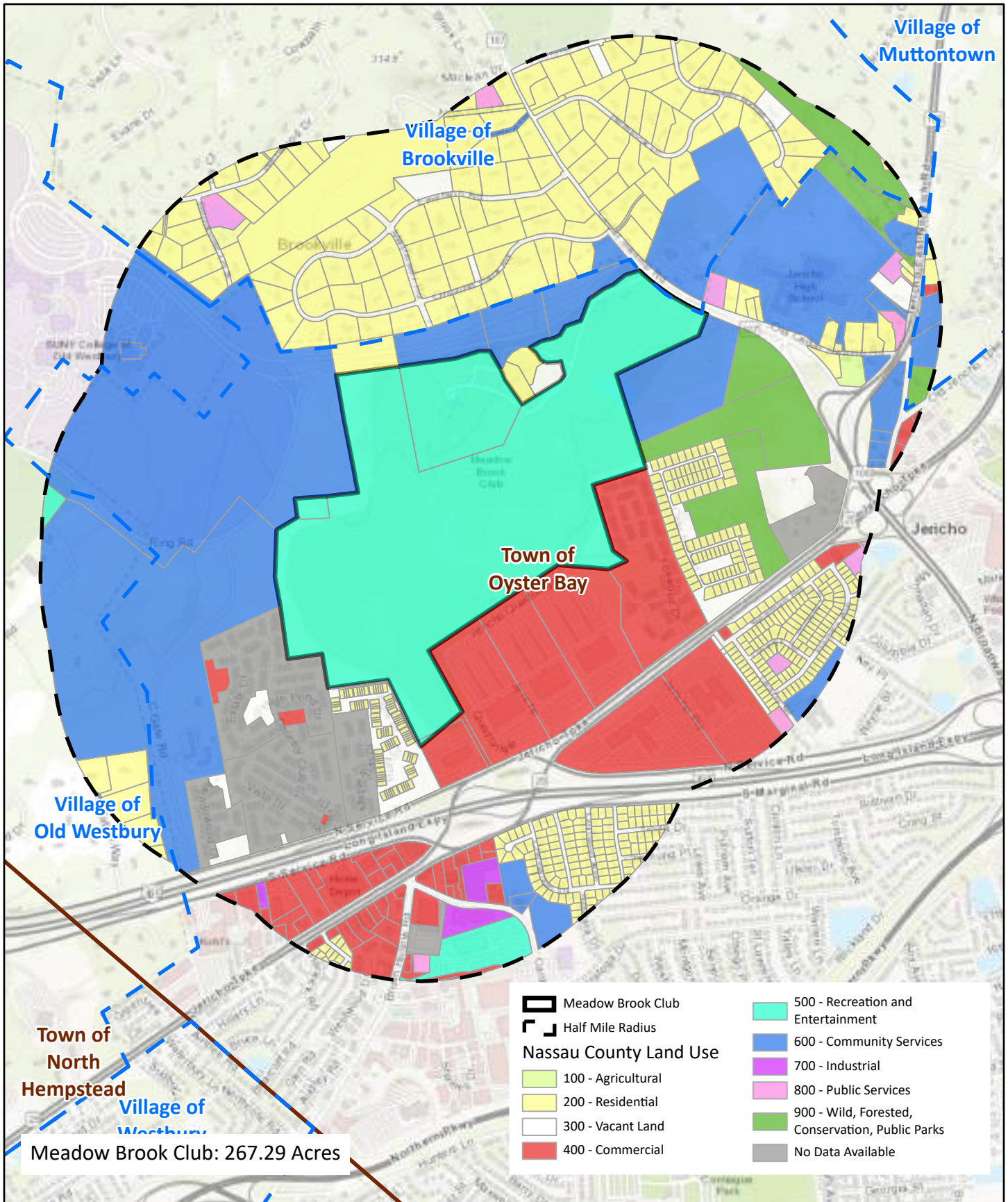
Golf Course  
Planning Study

Sources: Nassau GIS; Village Zoning Map  
Scale: 1 inch equals 1,500 feet



Town of Oyster Bay





**FIGURE MBC-3  
EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,500 feet








Golf Course  
Planning Study  
Town of Oyster Bay







Meadow Brook Club: 267.29 Acres

-  Nassau Village Boundaries
-  Nassau Town and City Boundaries
-  Meadow Brook Club
-  NWI Wetlands
-  NYSDEC Freshwater Wetlands



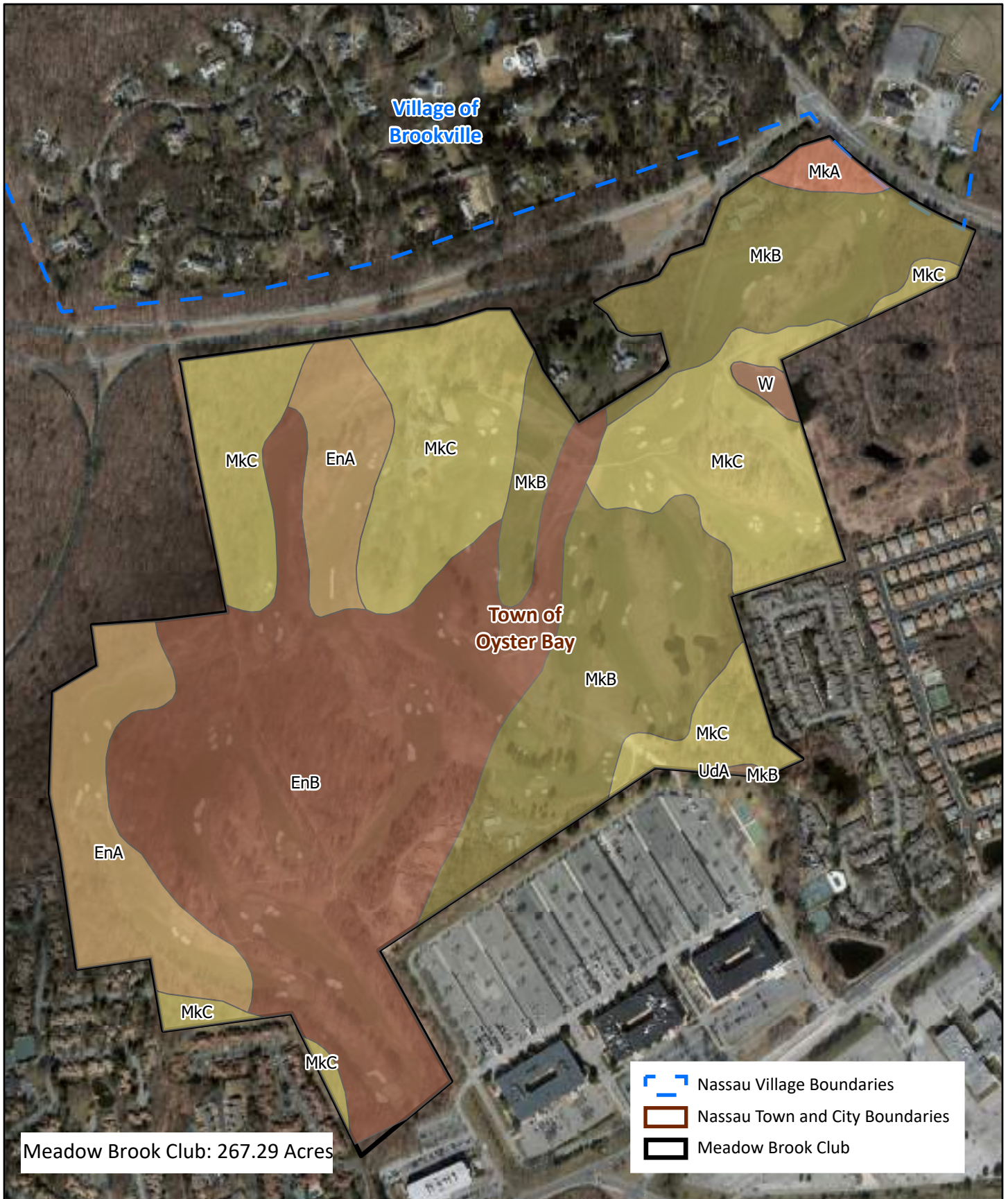
### FIGURE MBC-5 WETLANDS

Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
Scale: 1 inch equals 700 feet



Golf Course  
Planning Study  
Town of Oyster Bay





**FIGURE MBC-6  
SOILS**

Sources: NYS Orthophotography, 2020; Nassau; Web Soil Survey  
Scale: 1 inch equals 700 feet



Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE MBC-7  
STEEP SLOPES (25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
Scale: 1 inch equals 700 feet





Golf Course  
Planning Study

Town of Oyster Bay





Meadow Brook Club: 267.29 Acres

-  Nassau Village Boundaries
-  Nassau Town and City Boundaries
-  Meadow Brook Club
-  Meadow Brook Wooded Areas (80.0 acres)



## FIGURE MBC-8 WOODLANDS

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
Scale: 1 inch equals 700 feet

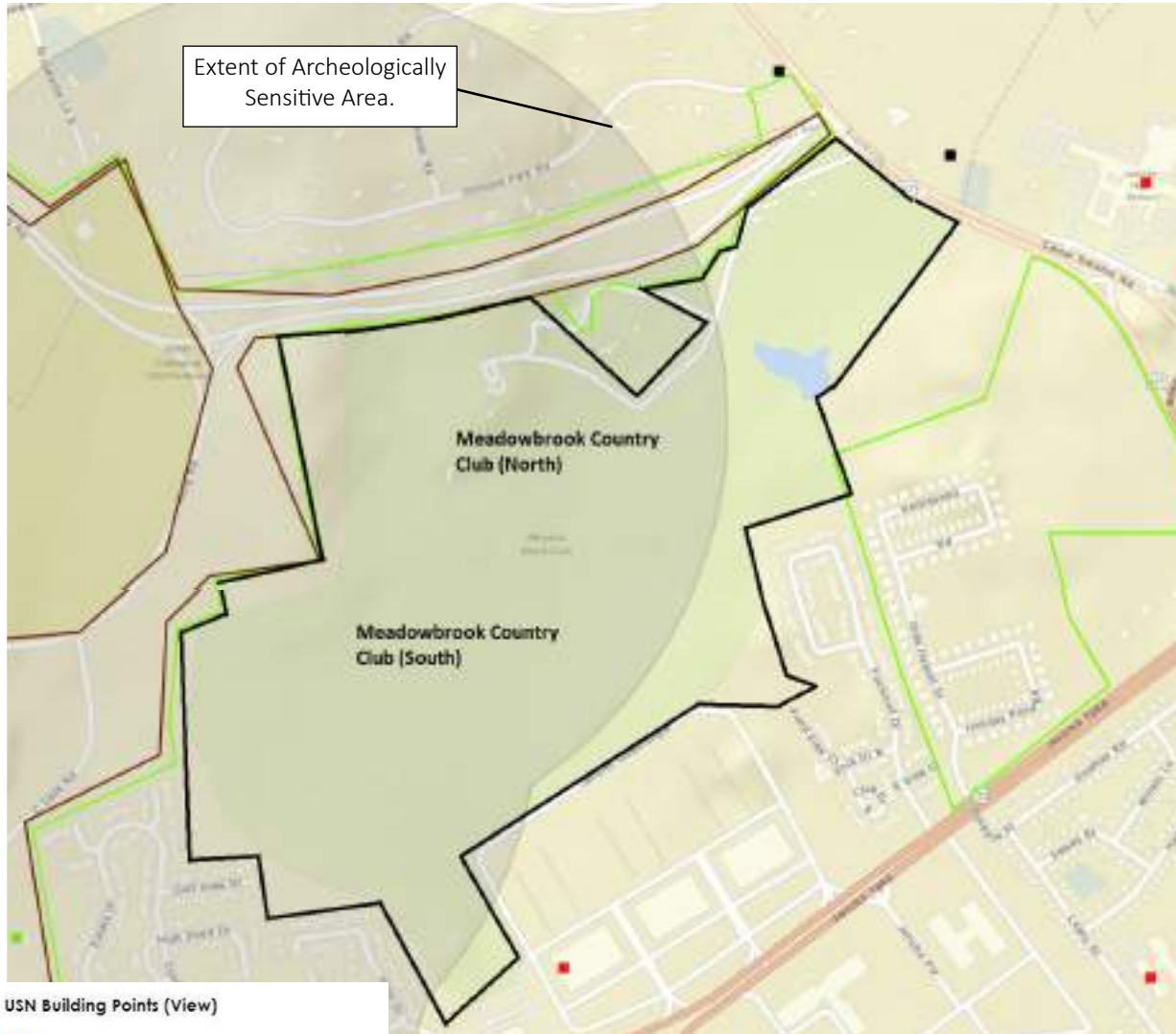


Golf Course  
Planning Study

Town of Oyster Bay



Meadow Brook Club: 267.29 Acres



USN Building Points (View)

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

LPC Landmarks



Survey Building Areas (View)



National Register Building Sites (View)



USN Building Districts (View)



Survey Archaeology Areas (View)



LPC Historic Districts



Archeologically Sensitive Areas



**FIGURE MBC-9  
CULTURAL RESOURCES (CRIS)**

Source: NYS Cultural Resource Information System  
Scale: Not to scale



Golf Course  
Planning Study  
Town of Oyster Bay

**From:** [naturalheritage@nynhp.org](mailto:naturalheritage@nynhp.org)  
**To:** [Ashley Marciszyn](#)  
**Subject:** Confirmation of your submitted request to New York Natural Heritage  
**Date:** Friday, August 6, 2021 5:11:08 PM

---

Submission ID: 6063  
Submitted on Friday, August 6, 2021 - 16:21  
Submitted values are:

Company, Organization, or Agency: Nelson Pope & Voorhis. LLC  
Requestor Name: Ashley Marciszyn  
Requestor Address (Street/PO Box): 70 Maxiss Rd  
Requestor City: Melville  
Requestor State: New York  
Requestor Zip Code: 11747  
Requestor Telephone #: 6314275665215  
Requestor Email: [amarciszyn@nelsonpope.com](mailto:amarciszyn@nelsonpope.com)  
Project Type: Golf course  
Project Name: 21169-MeadowBrookClub  
Project Applicant:  
Project County: Nassau  
Town (Nassau County): Oyster Bay  
Project Summary: Inventory of Town of Oyster Bay golf courses  
Current Land Use: Existing golf course  
Tax parcel number:  
Latitude:  
Longitude:  
Street Address of Project: 500 Cedar Swamp Rd, Jericho, NY 11753If you are submitting a map, this field is optional.  
Project Notes:

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program  
625 Broadway, Fifth Floor, Albany, NY 12233-4757  
P: (518) 402-8935 | F: (518) 402-8925  
[www.dec.ny.gov](http://www.dec.ny.gov)

September 16, 2021

Ashley Marciszyn  
Nelson Pope & Voorhis. LLC  
70 Maxiss Rd  
Melville, NY 11747

Re: 21169- Meadow Brook Club  
County: Nassau Town/City: Oyster Bay

Dear Ashley Marciszyn:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov).

Sincerely,



Heidi Kraehling  
Environmental Review Specialist  
New York Natural Heritage Program





**The following state-listed animal has been documented at the project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed.

**For information about any permit considerations for the project, please contact the Permits staff at the NYSDEC Region 1 Office at [dep.r1@dec.ny.gov](mailto:dep.r1@dec.ny.gov), 631-444-0365.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>
<b>Amphibians</b>			
<b>Tiger Salamander</b>	<i>Ambystoma tigrinum</i>	Endangered	10413

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), and from NYSDEC at [www.dec.ny.gov/animals/7494.html](http://www.dec.ny.gov/animals/7494.html).



**The following rare plants, rare animals, and significant natural communities have been documented at the project site, or in its vicinity.**

We recommend that potential impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQ. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

**The following plant is listed as Threatened by New York State, and so is a vulnerable natural resource of conservation concern.**

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
<b>Vascular Plants</b>			
<b>Green Milkweed</b>	<i>Asclepias viridiflora</i>	Threatened	Imperiled in NYS

Documented within 250 yards east of the project site in the vicinity of Kettlepond Road. 2013-08-21: The plants are in fairly extensive rolling grassland interspersed with ponds and wet spots. It was mostly mowed in 1987. The plants are at drier high spots of sparser vegetation. 2013: Dry, slightly south-facing knoll at far northern edge of fenced former field/pasture, with dense, grassy vegetation, predominantly native species.

8521

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), from NatureServe Explorer at [www.natureserve.org/explorer](http://www.natureserve.org/explorer), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Meadow Brook Club – Photo Log  
Photograph Taken September 20, 2021



MBC-1: View along SUNY Old Westbury access roadway, showing northern edge of Meadow Brook Club to the left, facing west.



Meadow Brook Club – Photo Log  
Photograph Taken September 20, 2021



MBC-2: NYS Route 107, showing northwestern edge of Meadow Brook Club to the left, facing northwest.

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**APPENDIX G**  
**TOWN OF OYSTER BAY GOLF COURSE**

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- ┌───┐ Nassau Village Boundaries
- Nassau Town and City Boundaries
- Golf Course Boundary

Town of  
Oyster Bay

Town of Oyster Bay Golf Course: 118.6 Acres



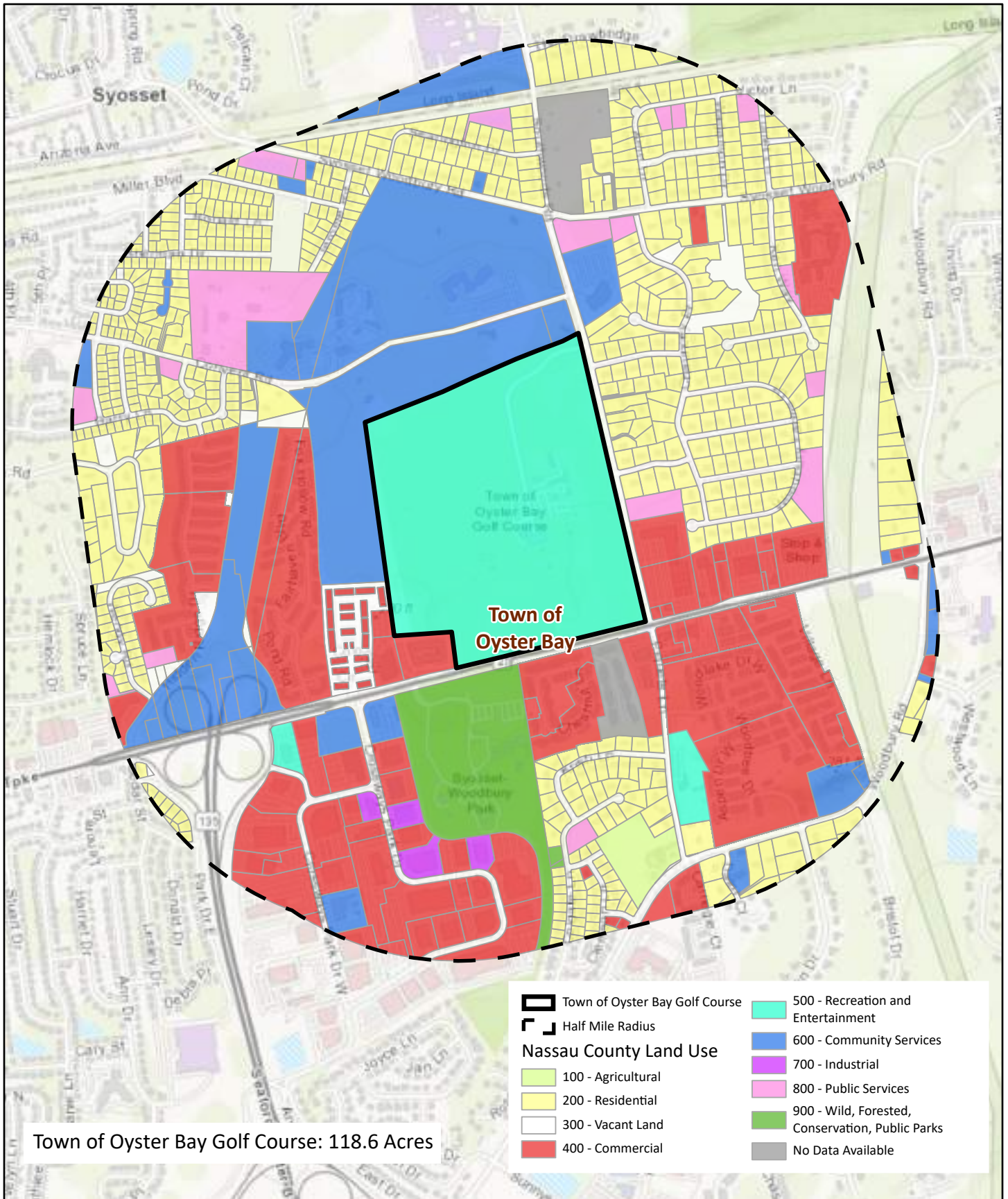
**FIGURE TOBGC-1  
AERIAL PHOTOGRAPH**

Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 500 feet

Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE TOBGC-3  
EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,200 feet







Golf Course  
Planning Study  
Town of Oyster Bay





Town of Oyster Bay Golf Course: 118.6 Acres

-  Nassau Village Boundaries
-  Nassau Town and City Boundaries
-  Town of Oyster Bay Golf Course
-  NWI Wetlands
-  NYSDEC Freshwater Wetlands



### FIGURE TOBGC-5 WETLANDS

Sources: NYS Orthophotography, 2020; Nassau data; NWI; NYSDEC  
Scale: 1 inch equals 500 feet



Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE TOBGC-7**  
**STEEP SLOPES (> 25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
Scale: 1 inch equals 400 feet



Golf Course  
Planning Study

Town of Oyster Bay





## FIGURES TOBGC-8 WOODLANDS

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
Scale: 1 inch equals 400 feet



Golf Course  
Planning Study

Town of Oyster Bay

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**APPENDIX H**  
**CANTIAGUE COUNTY PARK GOLF COURSE**

---





- - - Nassau Village Boundaries
- Nassau Town and City Boundaries
- Golf Course Boundary

Town of  
Oyster Bay

Entire Cantigue Park: 127.5 Acres  
Golf Course area: +/- 44.8 Acres

Hempstead



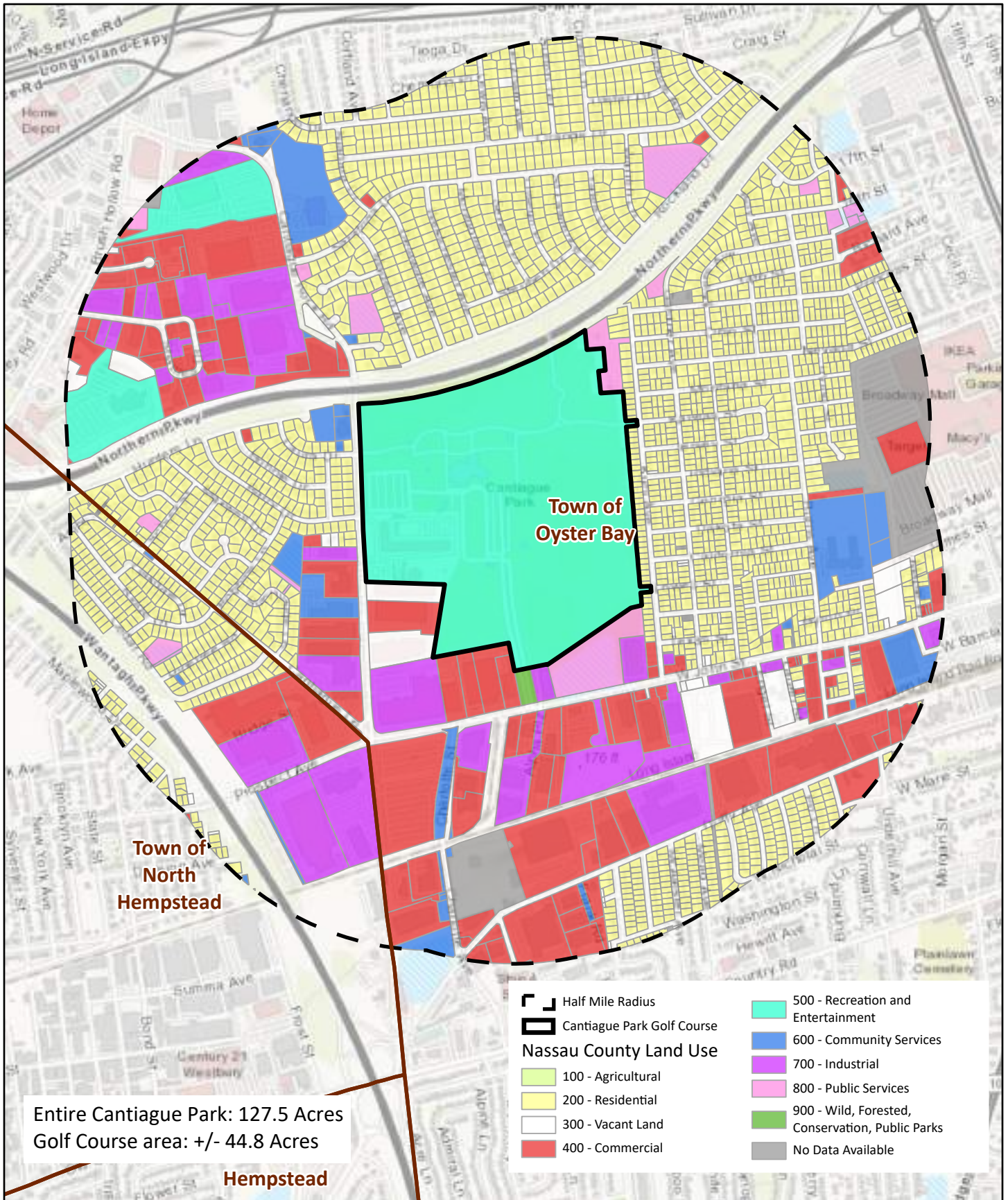
**FIGURE CCPGC-1  
AERIAL PHOTOGRAPH**

Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 500 feet

Golf Course  
Planning Study

Town of Oyster Bay





**FIGURE CCPGC-3  
EXISTING LAND USE**

Golf Course  
Planning Study







Sources: ESRI Basemap; Nassau GIS  
Scale: 1 inch equals 1,200 feet



Town of Oyster Bay



-  Nassau Village Boundaries
-  Nassau Town and City Boundaries
-  Cantiague Park Golf Course
-  Cantiague Wooded Areas (10.5 acres)



Entire Cantiague Park: 127.5 Acres  
 Golf Course area: +/- 44.8 Acres



**FIGURES CCPGC-8  
WOODLANDS**

Sources: ESRI World Transportation; NYS Orthophotography, 2020  
 Scale: 1 inch equals 400 feet

Golf Course  
 Planning Study

Town of Oyster Bay

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**APPENDIX I**  
**BETHPAGE STATE PARK GOLF COURSES**

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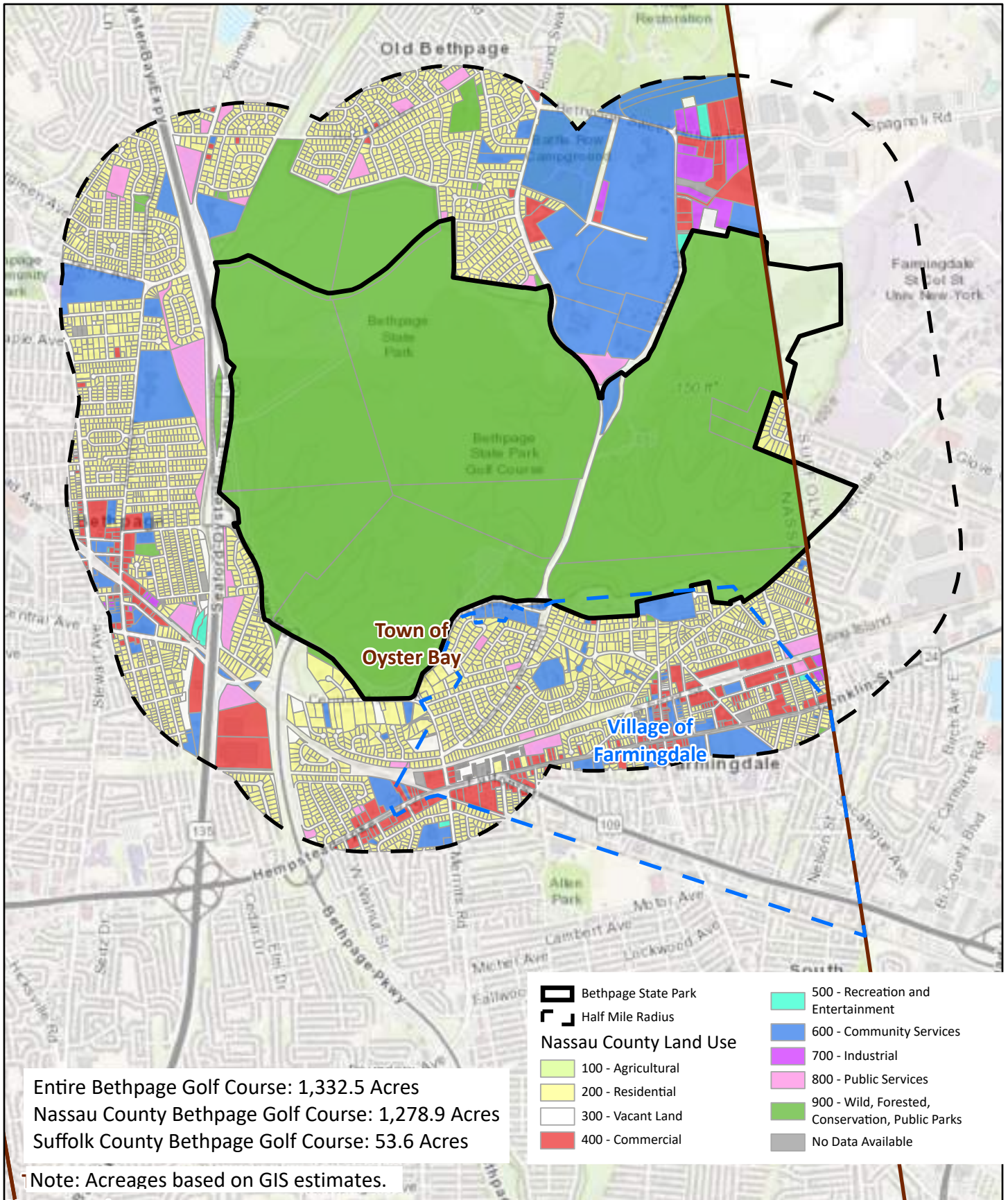
**FIGURE BSPGC-1  
AERIAL PHOTOGRAPH**

Sources: NYS Orthophotography, 2020; Nassau data  
Scale: 1 inch equals 1,700 feet

Golf Course  
Planning Study

Town of Oyster Bay





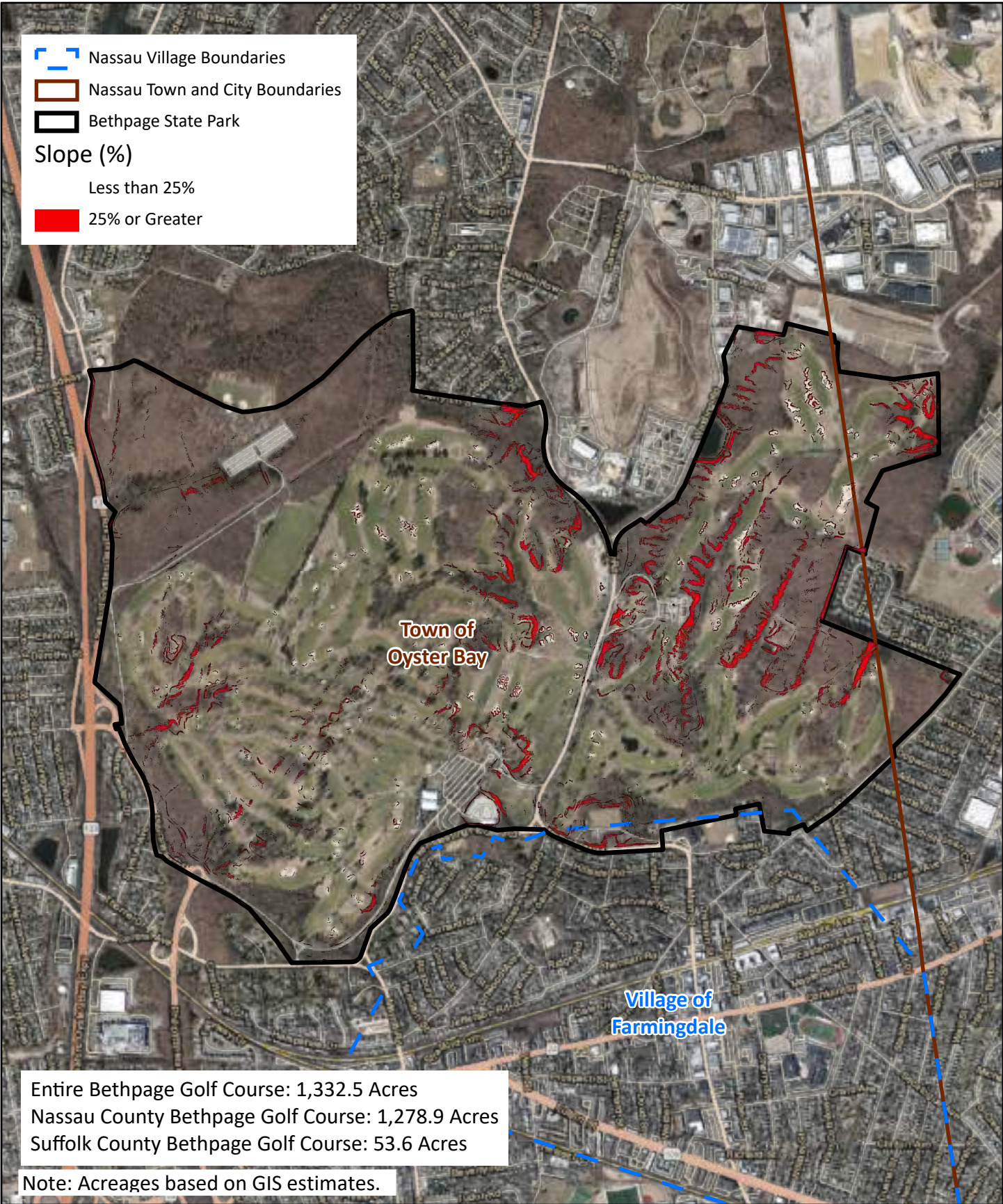
**FIGURE BSPGC-3  
EXISTING LAND USE**

Sources: ESRI Basemap; Nassau GIS  
 Scale: 1 inch equals 2,300 feet



Golf Course  
 Planning Study  
 Town of Oyster Bay





**FIGURE BSPGC-7**  
**STEEP SLOPES (>25%)**

Sources: NYS Orthophotography, 2020; NOAA LiDAR 2014  
 Scale: 1 inch equals 1,700 feet







Golf Course  
 Planning Study  
 Town of Oyster Bay





Entire Bethpage Golf Course: 1,332.5 Acres  
 Nassau County Bethpage Golf Course: 1,278.9 Acres  
 Suffolk County Bethpage Golf Course: 53.6 Acres  
 Note: Acreages based on GIS estimates.

-  Nassau Village Boundaries
-  Nassau Town and City Boundaries
-  Bethpage State Park
-  Bethpage Wooded Areas (511.2 acres)