South Fork Export Cable - Onshore Study Area

Town of East Hampton and Village of East Hampton, Suffolk County, New York

PREPARED FOR

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1.0

Introduction

Deepwater Wind South Fork, LLC (Deepwater Wind or the Applicant) is proposing to construct, operate, and maintain the South Fork Export Cable (SFEC), an electrical energy export cable, to connect the proposed South Fork Wind Farm (SFWF), an offshore wind energy facility located in federal waters on the Outer Continental Shelf, with the existing Long Island Power Authority (LIPA) transmission system in the Town of East Hampton, Suffolk County, New York (NY) (hereinafter, the "Project").

The terrestrial portion of the SFEC (SFEC–Onshore) includes several onshore components, all of which are located in East Hampton, NY. These components include a shoreline cable landing site, buried onshore export cable, and a new substation (SFEC-Onshore Substation). Two landing sites are included in this evaluation and multiple onshore cable routes are associated with each landing site.

The two potential landing sites are located at Beach Lane and within Hither Hills State Park, as shown on Figure 1 (see Appendix A). The preferred alternative SFEC-Onshore Substation location ("Cove Hollow Road Substation" alternative) will be directly west of the existing East Hampton Substation on Cove Hollow Road in the Town of East Hampton. The Applicant considered seven potential corridor routes for the SFEC-Onshore cable route, between the two landing sites and the Cove Hollow Road Substation, all of which are shown on Figure 1 (see Appendix A) and described below:

> Beach Lane: Four potential upland cable corridor routes (Beach Lane – Routes A through D) were identified to provide a connection between the proposed Beach Lane Landing Site (0.68 acre), located near the southern terminus of Beach Lane,

and the proposed Cove Hollow Road Substation (32.87 acres). These routes include:

- Beach Lane Route A (4.1 miles, 19.23 acres),
- Beach Lane Route B (3.8 miles, 18.57 acres),
- Beach Lane Route C (4.3 miles, 35.35 acres), and
- Beach Lane Route D (3.5 miles, 23.4 acres).

In addition to the 0.68 acre Beach Lane Landing Site described above, a larger study area containing the beach, south of the Beach Landing site, was also surveyed: Beach Lane Landing Site Study Area (1.54 acre). A qualitative summary of the biological resources within the Beach Lane Landing Site Study Area, as well as a quantitative summary of the biological resources at the Beach Lane Landing Site are further discussed below.

- Hither Hills: Three potential upland cable corridor routes (Hither Hills Routes A through C) were identified to provide a connection between the proposed Hither Hills Landing Site (0.53 acre), located within an asphalt-paved parking lot along the eastern portion of Hither Hills State Park, and the proposed Cove Hollow Road Substation. These routes include:
 - Hither Hills Route A (11.4 miles, 46.02 acres),
 - Hither Hills Route B (11.9 miles, 138.39 acres), and
 - Hither Hills Route C (12.8 miles, 123.2 acres).

In addition to the 0.53 acre parking lot described above, two additional study areas containing potential alternative locations for the Hither Hills Landing Site were identified: Hither Hills Landing Site Study Area A (73.53 acres) and Hither Hills Landing Site Study Area B (6.78 acres).

Collectively, the proposed Cove Hollow Road Substation, the Beach Lane Landing Site, the Hither Hills Landing Site Study Areas, and the seven upland cable corridor routes described above represent the Overall Study Area for this report. Currently, the seven corridor routes are still under consideration by the Applicant, particularly Beach Lane - Routes A, B and C, and Hither Hills - Routes A and B. Accordingly, this report provides a comprehensive summary of desktop research, agency consultations and field surveys of biological resources within the Overall Study Area, as well as route-specific analyses of the biological resources for Beach Lane - Routes A, B and C and Hither Hills - Routes A and B.

As the seven corridor routes within the Overall Study Area vary in width in relation to the width of the multiple road and LIRR right-of-ways (ROWs) that define their boundaries, the survey area within the corridor routes also varies in width. Specifically, the range of width for corridor routes located within road ROWs is 35-to-75 linear feet, and the range of width for corridor routes located within LIRR ROW is 14-to-41 linear feet.

The biological resources summarized in this report include habitats and landcover, wetlands and surface waters, wildlife, rare/protected species and invasive species. Desktop research of the five biological resource categories included a review of

agency data, maps, records, publications, guidance manuals, and regulations of the United States Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), New York State Department of Environmental Conservation (NYSDEC), Town of East Hampton, and Village of East Hampton. Additionally, agency consultations were conducted with the USFWS and the NYSDEC's New York Natural Heritage Program (NYNHP).

Field surveys of biological resources were conducted over the course of 31 days between May 24 and November 8, 2017, and from May 30 to June 1, 2018. The field surveys included classification of observed habitats, delineations of freshwater and tidal wetlands, identification of plant and wildlife species, observations of rare/protected species, and delineation of invasive species occurrences. Field data was recorded in log books, in photographs, and/or through geospatial location with a global positioning system (GPS) instrument.

In addition to the Overall Study Area described above, field surveys were conducted for three additional landing sites and four associated corridor routes that connect to the proposed substation, including:

- Napeague Lane Landing Site: An approximately 0.7-acre area at the southern terminus of Napeague Lane at the Atlantic Ocean.
- > Fresh Pond Landing Site: An approximately 1.8-acre area at the northern terminus of Fresh Pond Road, in the western portion of Gardiners Bay within the Fresh Pond Town Park.
- Napeague State Park Landing Site: An approximately 1.9-acre area within Napeague State Park on the eastern side of Gardiners Bay.
- > Fresh Pond Route A (6.87 miles).
- > Fresh Pond Route B (9.58 miles).
- > Napeague State Park Route A (8.52 miles).
- Napeague State Park Route B (8.32 miles).

Results from these alternative landing site and corridor route field surveys are not summarized within this report, but are included in Appendix G.

2.0

Habitats and Land Cover

A desktop review was performed for habitats and land cover within the boundaries of the Overall Study Area, as defined quantitatively in Section 1.0 of this report. Additionally, quantitative field observations were made of habitats within the boundaries of the Overall Study Area.

The USGS National Land Cover Database (NLCD)¹ is a land use database compiled based on analysis of satellite imagery data. The NLCD was utilized to provide a desktop review of vegetative communities and other land cover types within the Overall Study Area, including individual analyses of Beach Lane - Routes A through C, Hither Hills - Routes A and B, the Beach Lane and Hither Hills Landing Sites, and the Hither Hills Landing Site Study Areas A and B.

The NLCD land cover types are shown on Figure 2 (see Appendix A), and a quantitative summary of the NLCD data by project component is provided on Table 1, below.

Homer, et. al., 2015. Completion of the 2011 National Land Cover Database for the conterminous United States-Representing a decade of land cover change information. Photogrammetric Engineering and Remote Sensing, v. 81, no. 5, p. 345-354.

Table 1 - National Land Cover Database Cover Types^{a, b}

Land Cover Type	Overall Study Area (acres/ %)	Beach Lane Landing Site (acres/ %)	Beach Lane – Route A (acres/ %)	Beach Lane - Route B (acres/ %)	Beach Lane - Route C (acres/ %)	Hither Hills Landing Site (acres/ %)	Hither Hills Landing Site Study Area A (acres/ %)	Hither Hills Landing Site Study Area B (acres/ %)	Hither Hills – Route A (acres/ %)	Hither Hills – Route B (acres/ %)	Cove Hollow Road Substation (acres/ %)
Barren Land (Rock/Sand/Clay)	1.27/0.52	-	0.8/4.16	0.33/1.78	-	0.12/ 22.70	61.22/ 83.26	5.02/ 73.97	0.13/0.28	0.07/0.05	-
Cultivated Crops	0.22/0.09	=	=	-	-	-	-	-	0.22/0.48	-	-
Deciduous Forest	6.26/2.48	-	0.88/4.58	0.47/2.53	0.65/1.84	-	-	-	4.57/9.93	0.07/0.05	32.87/ 100
Developed - High Intensity	8.93/3.57	-	0.29/1.51	0.13/0.70	0.28/0.79	0.17/ 31.33	0.17/0.23	-	0.07/1.52	7.77/5.61	-
Developed - Low Intensity	89.29/ 35.36	0.37/55.08	5.55/ 28.86	5.85/ 31.50	16.6/ 46.96	-	0.78/1.06	0.79/ 11.61	13.25/ 28.79	46.35/ 33.49	-
Developed - Medium Intensity	85.88/ 34.03	0.01/2.13	1.66/8.63	2.08/ 11.20	4.85/ 13.72	0.19/ 11.14	1.45/1.97	0.98/ 14.42	13.71/ 29.79	72.61/ 52.47	-
Developed - Open Space	47.29/ 18.73	0.23/34.20	5.74/ 29.85	5.18/ 27.89	12.14/ 34.34	-	0.13/0.17	-	5.53/12.02	10.91/ 7.88	-
Emergent Herbaceous Wetlands	2.99/1.18	-	0.07/0.36	0.07/0.38	-	-	-	-	2.91/6.32	0.01/0.01	-
Evergreen Forest	3.84/1.54	-	2.77/ 14.40	2.99/ 16.10	0.42/1.19	-	-	-	0.32/0.70	0.03/0.02	-
Grassland/ Herbaceous	0.52/0.19	-	-	-	-	0.18/ 34.83	9.66/ 13.13	-	0.52/1.13	0.24/0.17	-
Mixed Forest	0.39/0.16	-	-	-	-	-	-	-	0.39/0.85	-	-
Pasture/Hay	3.30/1.31	0.06/8.59	0.43/2.24	0.43/2.32	0.36/1.02	-	-	-	2.62/5.69	0.09/0.07	-
Shrub/Scrub	1.86/0.74	-	1.91/4.73	0.91/4.90	0.05/0.14	-	-	-	0.97/2.11	0.15/0.11	-
Open Water	-	-	_	-	-	-	0.01/0.02	-	-	-	-

Land Cover Type	Overall Study Area (acres/ %)	Beach Lane Landing Site (acres/ %)	Beach Lane – Route A (acres/ %)	Beach Lane - Route B (acres/ %)	Beach Lane - Route C (acres/ %)	Hither Hills Landing Site (acres/ %)	Hither Hills Landing Site Study Area A (acres/ %)	Hither Hills Landing Site Study Area B (acres/ %)	Hither Hills – Route A (acres/ %)	Hither Hills – Route B (acres/ %)	Cove Hollow Road Substation (acres/ %)
Woody Wetlands	0.31/0.12	-	0.13/0.68	0.13/0.70	-	-	0.12/0.16	0	0.18/0.39	0.09/0.07	-
Total	252.35/ 100	0.68/100	19.23/ 100	18.57/ 100	35.35/ 100	0.53/100	73.53/ 100	6.78/100	46.02/ 100	138.39/ 100	32.87/ 100

^aDue to overlap of corridor routes, the acreage totals for the corridor routes sum to greater than the acreage of the Overall Study Area.

Based on the NLCD data, the vast majority of the Overall Study Area (91.69 percent) is comprised of developed land cover types (Developed – High Intensity, Developed – Medium Intensity, Developed – Low Intensity and Developed – Open Space). The remaining 8.31 percent of the Overall Study Area is comprised of various undeveloped land cover types, including forests, successional habitats, grasslands, agricultural lands and wetlands.

Similarly, developed land cover types encompass the majority of each of the individual corridor routes, comprising 68 percent or more of the overall land cover totals. The percentage of developed land cover types for Beach Lane - Routes A, B and C, and Hither Hills - Routes A and B in descending order are as follows: Hither Hills - Route B (99.45 percent), Beach Lane - Route C (95.81 percent), Hither Hills - Route A (72.12 percent), Beach Lane - Route B (71.29 percent) and Beach Lane - Route A (68.85 percent).

With respect to the two landing sites, the Beach Lane Landing Site is comprised of 91 percent developed land cover types. In contrast, developed land cover types comprise 42 percent of the Hither Hills Landing Site, with the remainder occupied by Grassland/Herbaceous and Barren Land cover types. Barren Land (sand) comprises the majority of Hither Hills Landing Site Study Areas A and B. According to the NLCD, the Cove Hollow Road Substation site is undeveloped and comprised entirely of the Deciduous Forest cover type.

Further qualitative refinement of land cover types occurred through field identification of various community types described in the NYNHP publication *Ecological Communities of New York State* (ECNYS).² This guidance provides detailed descriptions and global and state rarity rankings for various ecological communities that occur within New York State. Utilizing the ECNYS community descriptions, qualitative observations of various ecological community types occurred during the field surveys.

As described previously, the NLCD analysis indicates that developed land cover types occupy 91.69 percent of the Overall Study Area and 68 percent or more of the analyzed corridor routes. In support of these findings, qualitative field observations indicate that the Overall Study Area is dominated by several ECNYS 'cultural' communities (communities that have been created or significantly altered by humans). Specifically, as the corridor routes occur within road and LIRR ROWs, the majority of the Overall Study Area is comprised of largely unvegetated habitats that are representative of the ECNYS Paved Road/Path and Railroad communities. Both communities are classified by the NYNHP as unranked cultural communities. Other

² Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

unranked ECNYS communities observed to occur with frequency within the corridor routes include several that are most commonly associated with road/railroad corridors and developed land uses, including Mowed Roadside/Pathway, Brushy Cleared Land, Unpaved Road/Path, Mowed Lawn and Mowed Lawn with Trees.

With respect to non-cultural, vegetated communities, observations of various ECNYS forest and successional communities occurred more often within Hither Hills - Routes A and B, as compared to Beach Lane Routes A, B and C. In particular, observations of ECNYS communities such as Pitch Pine-Oak Forest, Successional Southern Hardwoods, Successional Shrubland, Red Maple-Blackgum Swamp and Shallow Emergent Marsh occurred with the most frequency within Hither Hills – Route A, large portions of which are surrounded by large tracts of undeveloped, wooded land. Similarly, the majority of ECNYS wetland community observations occurred within Hither Hills – Routes A and B, as compared to Beach Lane - Routes A, B and C.

As observed in the field, the predominantly paved surfaces of the Beach Lane Landing and Hither Hills Landing Sites are representative of the Paved Road/Path community. The shorefront of the Beach Lane Landing Site Study Area is comprised of the ECNYS Marine Intertidal Gravel/Sand Beach and Marine Beach communities. Hither Hills Landing Site Study Areas A and B both support ECNYS Marine Intertidal Gravel/Sand Beach, Marine Beach Maritime Dune and Maritime Shrubland communities. In addition, the Coastal Oak-Heath Forest community occurs within Hither Hills Landing Site Study Area A, as well as Mowed Roadside/Pathway, Unpaved Road/Path, Mowed Lawn, Paved Road/Path and other ECNYS cultural communities associated with the site usage as a park/campground. The Maritime Heathland community occurs within Hither Hills Landing Site Study Area B.

Based on qualitative field observations, the Cove Hollow Road Substation site is comprised of disturbed examples of the ECNYS Coastal Oak-Hickory Forest and Successional Shrubland communities. As observed in the field, the two communities appear to have been subject to historic ground disturbance and currently support significant amounts of non-native/invasive vegetation.

3.0

Wetlands and Surface Waters

Agency Mapping and Field Surveys

A desktop review was performed for wetlands and surface waters within 500 feet of the Overall Study Area. Additionally, wetland delineations were performed within the boundaries of the Overall Study Area, as well as within the Beach Lane Landing Site Study Area.

The USFWS National Wetland Inventory (NWI) Maps are a desktop reference created as a guidance resource to provide information on the abundance, characteristics, and distribution of wetland and surface water resources. The NWI maps are non-regulatory references that are based upon identification of wetlands and surface waters through review of high-altitude aerial imagery.³ The NWI Maps were utilized to provide a desktop review of NWI features located within 500-feet of the Overall Study Area, as shown on Figure 3 (see Appendix A).

Wetland data available from the NYSDEC depicts the approximate location and boundaries of regulated freshwater and tidal wetlands (including surface waters), subject to field verification by NYSDEC technical staff. NYSDEC wetland data were

³ United States Fish and Wildlife Service National Wetlands Inventory. 2018. Available online at https://www.fws.gov/wetlands/Data/Mapper.html. Accessed May 12, 2018.

utilized to provide a desktop review of NYSDEC-regulated wetlands located within 500-feet of the Overall Study Area, as shown on Figure 4 (see Appendix A).

A variety of freshwater and tidal wetlands were observed during the field surveys, including marine subtidal waters, intertidal beaches, intertidal marshes, mudflats, tidal creeks and vegetated high marshes, as well as freshwater wetlands such as ponds, deepwater and emergent marshes, forested swamps, shrub swamps, bogs, wet meadows and various groundwater-influenced depressional features, including vegetated ditches and swales.

Freshwater wetlands were delineated in the field based upon observations of vegetation, soils, and hydrology, pursuant to the methods set forth in the in the Corps of Engineers Wetlands Delineation Manual, the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, the NYSDEC Freshwater Wetlands Delineation Manual and the wetland definitions set forth in the Town and Village of East Hampton Codes. Tidal wetlands located within the Overall Study Area were delineated based on observations of vegetation, hydrology, and/or the observed location of mean high water, pursuant to USACE and NYSDEC methodologies. The locations of wetland boundary flags were recorded in the field with a Trimble GeoXH GeoExplorer 6000 GPS instrument (decimeter accuracy after post-processing).

A total of 93 wetlands (83 freshwater wetlands and 10 tidal wetlands) were delineated during the field surveys. Information regarding the delineated wetlands, including wetland ID, wetland type, NYSDEC and NWI classification/type and locations, and associated resource map locations are provided on Table 2.

⁴ Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

⁵ United States Army Corps of Engineers (USACE) Engineer Research and Development Center. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0).

⁶ New York State Department of Environmental Conservation (NYSDEC). 1995. Freshwater Wetlands Delineation Manual.

Table 2 – Wetland Classifications and Locations

Wetland ID	Wetland Type	NYSDEC Freshwater Wetland ID /Classification ^a or NYSDEC Tidal Wetland Type ^b	NWI Wetland Type ^c	Location	Resource Map Page
FW14 ^d	Freshwater	EH-26/Class I	PFO1R	BL-B&C	9, 21
FW16	Freshwater	EH-28/Class I	PFO1/4R	BL-C	23, 24, 126
FW18	Freshwater	EH-27/Class I	PFO4E	BL-C	23
FW19	Freshwater	GE-41/Class II	-	HH-A&B	79
FW20	Freshwater	GE-6/Class I	-	HH-A&B	79, 80
FW21	Freshwater	GE-5/Class I	PSS1E, PUBH	НН-А&В	77, 78
FW22	Freshwater	GE-5/Class I	PSS1E, PUBH	НН-А&В	76, 77
FW23	Freshwater	GE-5/Class I	PSS1E	HH-A&B	76
FW24	Freshwater	GE-5/Class I	PSS1E	HH-A&B	76
FW25	Freshwater	GE-5/Class I	PSS1E	HH-A&B	76
FW26	Freshwater	GE-5/Class I	-	HH-A&B	76
FW27	Freshwater	GE-5/Class I	-	HH-A&B	75, 76
FW28	Freshwater	NA-8/Class III	PSS1E	НН-В	74
FW29	Freshwater	NA-8/Class III	PSS1E	НН-В	73, 74
FW30	Freshwater	NA-3/Class I	PSS1E	HH-B	71
FW31	Freshwater	NA-3/Class I	PSS1E	HH-B	71
FW32	Freshwater	NA-3/Class I	-	HH-B	71
FW33	Freshwater	NA-8/Class III	PSS1E	HH-B	72

Wetland	Wetland	NYSDEC	NWI	Location	Resource
ID	Туре	Freshwater	Wetland		Мар
		Wetland ID	Type ^c		Page
		/Classification ^a			
		or			
		NYSDEC Tidal			
		Wetland Type ^b			
FW34	Freshwater	NA-8/Class III	PSS1E	HH-B	72
FW35	Freshwater	NA-3/Class I	PSS1E	НН-В	71, 72
FW36	Freshwater	NA-8/Class III	PSS1E	НН-В	72
FW37	Freshwater	NA-8/Class III	PSS1E	HH-B	72
FW38	Freshwater	NA-8/Class III	PSS1E	НН-В	73, 74
FW39	Freshwater	NA-8/Class III	PSS1E	HH-B	74
FW40	Freshwater	GE-4/Class I	_	HH-A&B	75
FW41	Freshwater	GE-4/Class I	PSS1E	HH-A&B	75, 76
FW42	Freshwater	GE-4/Class I	PSS1E	HH-A&B	76
FW43	Freshwater	GE-4/Class I	PSS1E	HH-A&B	76
FW44	Freshwater	GE-4/Class I	PSS1E	HH-A&B	76
FW45	Freshwater	GE-5/Class I	PSS1E,	HH-A&B	77, 78
			PSS1F,		
			PUBH		
FW46	Freshwater	GE-5/Class I	PSS1E,	HH-A&B	78, 79
			PSS1F		
FW47	Freshwater	-	-	HH-A	37
FW48	Freshwater	-	-	HH-A	37
FW49	Freshwater	NA-12/Class I	-	HH-A	59
FW50	Freshwater	NA-12/Class I	-	HH-A	59
FW51	Freshwater	NA-12/Class I	_	HH-A	59

Wetland ID	Wetland Type	NYSDEC Freshwater Wetland ID /Classification ^a or NYSDEC Tidal Wetland Type ^b	NWI Wetland Type ^c	Location	Resource Map Page
FW52	Freshwater	NA-12/Class I	-	HH-A	59
FW53	Freshwater	NA-12/Class I	-	HH-A&B	59
FW54	Freshwater	NA-12/Class I	-	HH-A&B	58, 59
FW55	Freshwater	NA-12/Class I	PFO1E, PUBHx	НН-А	59, 60, 61
FW56	Freshwater	NA-12/Class I	PSS3B	HH-A	61
FW57	Freshwater	NA-12/Class I	PSS1E	HH-A	61
FW58	Freshwater	NA-12/Class I	PSS1E	HH-A	61, 62
FW59	Freshwater	NA-12/Class I	-	HH-A	63
FW60	Freshwater	NA-12/Class I	-	HH-A	64
FW61	Freshwater	NA-12/Class I	-	HH-A	64
FW62	Freshwater	NA-12/Class I	-	HH-A	64
FW63	Freshwater	NA-12/Class I	-	HH-A	64, 65
FW64	Freshwater	NA-12/Class I	-	HH-A	65
FW65	Freshwater	NA-12/Class I	-	HH-A	65
FW66	Freshwater	NA-13/Class I	-	HH-A&B	66, 67
FW67	Freshwater	NA-14/Class I	-	HH-A&B	66
FW68	Freshwater	NA-13/Class I	-	HH-A&B	66, 67
FW69	Freshwater	NA-12/Class I	-	HH-A&B	64
FW70	Freshwater	NA-12/Class I	-	HH-A&B	64

Wetland ID	Wetland Type	NYSDEC Freshwater Wetland ID /Classification ^a or NYSDEC Tidal Wetland Type ^b	NWI Wetland Type ^c	Location	Resource Map Page
FW71	Freshwater	NA-12/Class I	PFO1E	HH-A&B	61, 62
FW72	Freshwater	NA-12/Class I	PFO1E	HH-A&B	61
FW73	Freshwater	NA-12/Class I	PFO1E	HH-A&B	61
FW74	Freshwater	NA-12/Class I	-	HH-A&B	59, 60, 61
FW75	Freshwater	NA-3/Class I	-	HH-A	70
FW76	Freshwater	-	-	HH-A	69
FW77	Freshwater	-	-	HH-A	69
FW78	Freshwater	-	-	HH-A	69
FW79	Freshwater	-	-	HH-A&B	68
FW80	Freshwater	-	-	HH-A&B	67
FW81	Freshwater	NA-14/Class I	-	HH-A&B	66
FW82	Freshwater	NA-14/Class I	-	HH-A&B	67
FW83	Freshwater	NA-14/Class I	-	HH-A&B	67
FW84	Freshwater	-	-	HH-A&B	67
FW85	Freshwater	-	-	HH-A&B	68
FW86	Freshwater	-	-	HH-A&B	68
FW87	Freshwater	-	-	HH-A	69
FW88	Freshwater	-	-	HH-A	69
FW89	Freshwater	-	-	HH-A	69
FW90	Freshwater	-	-	HH-A	69

Wetland ID	Wetland Type	NYSDEC Freshwater Wetland ID /Classification ^a or NYSDEC Tidal Wetland Type ^b	NWI Wetland Type ^c	Location	Resource Map Page
FW91	Freshwater	NA-3/Class I	PSS1E	HH-A	70, 71
FW92	Freshwater	NA-8/Class III	E2EM5P	HH-A	74, 75
FW93	Freshwater	NA-8/Class III	E2EM5P	HH-A	74
FW94	Freshwater	NA-8/Class III	PSS1E	HH-A	74
FW95	Freshwater	NA-8/Class III	PSS1E	HH-A	72, 73
FW96	Freshwater	NA-8/Class III	PSS1E	HH-A	72
FW97	Freshwater	GE-22/Class II	PSS1E	HH-A	75
FW98	Freshwater	GE-41/Class II	PUBH	HH-A&B	81
TW3	Tidal	LZ	M1UBL	BBLS	1
TW7	Tidal	НМ	-	HH-A&B	69, 70
TW8	Tidal	FC, HM, IM	E2EM1PD	HH-A&B	70, 71
TW9	Tidal	FC	PSS1E	HH-A&B	71, 72
TW10	Tidal	FC, HM, IM	E2EM1PD	HH-A&B	72, 73, 74
TW11	Tidal	FC, HM, IM	E2EM1PD	HH-A&B	74, 75
TW12 ^d	Tidal	SM	PFO1R	BL-B	21
TW13	Tidal	SM	E2FO1P	BL-B	23
TW17	Tidal	LZ	M2US2P	HHLS- SSB	77A
TW18	Tidal	LZ	M2US2P	HHLS- SAA	80A, 81A, 82A, 83A,

Key: BLLS = Beach Lane Landing Site Study Area, BL-A = Beach Lane - Route A, BL-B = Beach Lane - Route B, BL-C = Beach Lane - Route C, HHLS-SAA = Hither Hills Landing Site Study Area A, HHLS-SSB = Hither Hills Landing Site Study Area B, HH-A = Hither Hills - Route A, HH-B = Hither Hills - Route B

^aPursuant to 6 NYCRRR Part 664.5, NYSDEC Freshwater Wetland Classes are based upon many factors, including vegetative cover, ecological associations, special features, hydrological and pollution control features, distribution, location and others. The wetland classes are ranked in descending order of value, with Class 1 wetlands supplying the highest level of benefits (see discussion in report text below).

^bNYSDEC Tidal Wetland Types

FC – Formerly Connected HM – High Marsh

IM – Intertidal Marsh

LZ – Littoral Zone

SM – Coastal Shoals, Bars and Mudflats

^cNWI Wetland Types

E2EM1PD - Estuarine, Intertidal, Emergent, Persistent, Irregularly Flooded

E2EM5P - Estuarine, Intertidal, Emergent, Phragmites australis, Irregularly Flooded

E2FO1P – Estuarine, Intertidal, Forested, Broad-Leaved Deciduous, Irregularly Flooded

M1UBL - Marine, Subtidal, Unconsolidated Bottom, Subtidal

PFO1E - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded/Saturated

PFO1R - Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded-Tidal

PFO1/4R - Palustrine, Forested, Broad-Leaved Deciduous, Needle-Leaved Evergreen, Seasonally Flooded-Tidal

PFO4E – Palustrine, Forested, Needle-Leaved Evergreen, Seasonally Flooded/Saturated

PSS1E – Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Seasonally Flooded/Saturated

PSS1F - Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Semipermanently Flooded

PSS3B – Palustrine, Scrub-Shrub, Broad-leaved Evergreen, Seasonally Saturated

PUBH – Palustrine, Unconsolidated Bottom, Seasonally Flooded/Saturated

PUBHx – Palustrine, Unconsolidated Bottom, Seasonally Flooded/Saturated, Excavated

^dFreshwater Wetland FW14 and Tidal Wetland TW12 are also regulated as a stream by the NYSDEC, pursuant to Article 15 of the Environmental Conservation Law (Protection of Waters Program).

The delineated wetlands within the study areas are shown on the Wetland and Habitat Resources Maps (Appendix B), and a quantitative summary of wetlands by project component is provided on Table 3.

Table 3 – Summary of Delineated Wetlands^a

Project Component	Freshwa	ter Wetlands	Tidal Wetlands		
	Wetlands Within Project Component (number/acres)	Wetland Adjacent Areas ^b Within Project Component (number/acres)	Wetlands Within Project Component (number/acres)	Wetland Adjacent Areas ^b Within Project Component (number/acres)	
Beach Lane Landing Site	0/0	0/0	0/0 ^c	0/0 ^c	
Beach Lane – Route A Corridor	0/0	0/0	0/0	0/0	
Beach Lane – Route B Corridor	0/0	0/0	0/0	0/0	
Beach Lane - Route C Corridor	2/0.03	2/1.04	0/0	1/0.01	
Hither Hills Landing Site	0/0	0/0	0/0	0/0	
Hither Hills Landing Site Study Area A	2/0.11	2/1.45	1/11.00	1/27.55	
Hither Hills Landing Site Study Area B	0/0	0/0	1/0.55	1/3.17	
Hither Hills - Route A Corridor	35/3.68	13/9.97	2/0.43	1/0.11	
Hither Hills - Route B Corridor	22/2.02	7/13.21	0/0	5/4.73	
Cove Hollow Road Substation	0/0	0/0	0/0	0/0	

^dDue to wetland and wetland adjacent areas that occur within multiple cable corridor routes, the wetland totals shown on this table sum differs from the total number of delineated wetlands.

^bThe NYSDEC regulated adjacent areas for freshwater wetlands and tidal wetlands are 100 feet and 300 feet, respectively.

^cTidal wetlands of the Atlantic Ocean and associated wetland adjacent areas occur to the south of the Beach Lane Landing Site within the Beach Lane Landing Site Study Area.

A shown on Table 3, the vast majority of delineated wetlands and the adjacent areas of delineated wetlands (100 feet for freshwater wetlands and 300 feet for tidal wetlands, as established by the NYSDEC) occur within Hither Hills - Routes A and B. Specifically, Hither Hills - Route A contains 35 freshwater wetlands and 2 tidal wetland and falls within the adjacent area of 13 freshwater wetlands and 1 tidal wetland. Hither Hills - Route B contains 22 freshwater wetlands and no tidal wetlands and falls within the adjacent area of 7 freshwater wetlands and five tidal wetlands.

In contrast, the three Beach Lane Routes contain no tidal wetlands and only two freshwater wetlands, both of which are located within Beach Lane - Route C. Two freshwater wetland adjacent areas and one tidal wetland adjacent area occur within the three Beach Lane Routes. No freshwater or tidal wetlands are located within Beach Lane - Route A.

No freshwater or tidal wetlands or associated adjacent areas occur within the Beach Lane or Hither Hills Landing Sites. Tidal wetlands of the Atlantic Ocean occur at the Beach Lane Landing Site Study Area and within Hither Hills Landing Site Study Areas A and B.

No wetlands or wetland adjacent areas occur within the Cove Hollow Road Substation site.

One permanent stream was observed within the Overall Study Area during the field surveys. Beach Lane - Routes C and D cross an unnamed stream associated with Freshwater Wetland FW14 and Tidal Wetland TW12 (Georgica Pond), located to the east of the intersection of Montauk Highway and Wainscott Stone Road, as shown on Wetland and Habitat Resources Map page 21 (Appendix B). The stream connects the two aforementioned wetlands via a culvert located beneath Montauk Highway. Pursuant to Article 15 of the Environmental Conservation Law (ECL), the portion of the unnamed stream to the north of Montauk Highway has been designated "Classification D," and the portion to the south of Montauk Highway is designated as "Classification SA." A discussion of these NYSDEC classifications is provided in the Wetland and Surface Waters Regulatory Programs section below.

Wetland and Surface Waters Regulatory Programs

The federal, New York State, and local regulatory programs pertaining to wetland resources are summarized below.

Federal

The Clean Water Act of 1972 (CWA) regulates activities within jurisdictional 'waters of the United States,' which include navigable waterways and their tributaries,

bordering wetlands, and any other bordering or isolated waters with a significant nexus to regulated waterways, such that the use, degradation, or destruction of those waters could affect interstate or foreign commerce. The USACE administers permitting and compliance under Section 404 of the CWA, which regulates discharge of dredged or fill material into waters of the United States.⁷

Various activities within navigable waterways additionally require authorization from the USACE under Section 10 of the Rivers and Harbors Act of 1899. Section 10 requires that regulated activities (e.g., placement/removal of structures, dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway) conducted below the Ordinary High Water (OHW) elevation of navigable waters of the United States must be permitted/approved by the USACE.

Currently, the USACE makes jurisdictional determinations of wetlands and other waters of the United States on a case-by-case basis. For jurisdictional waters, a USACE Individual or Nationwide Permit is required for the activities described above.

In accordance with Section 401 of the CWA, the USACE requires that applicants under Article VII of the New York Public Service Law (PSL) that are proposing activities in jurisdictional waters of the United States must also obtain a 401 Water Quality Certificate (WQC) from the NYSDEC, indicating that the proposed activity will not violate water quality standards.⁸

New York State

It is important to note that permits associated with the NYSDEC Tidal Wetlands, Freshwater Wetlands and Protection of Waters regulatory programs described below would be issued by the Public Service Commission (PSC) in coordination with the NYSDEC.

Tidal Wetlands

Tidal wetlands in New York State are protected under the Tidal Wetlands Act of 1973, which is Article 25 of the ECL. Under the Tidal Wetlands Act and its implementing regulations (6 New York Code of Rules and Regulations [NYCRR] Part 661), the NYSDEC is authorized to regulate and require permits for various land uses and activities, including clearing, grading and ground disturbance within jurisdictional tidal wetlands and the surrounding 300-foot adjacent area, with certain exceptions. These exceptions can limit the regulated adjacent area to less than 300-

⁷ U.S. Environmental Protection Agency (EPA). 2017a. *Clean Water Act Policy and Guidance*. Accessed May 9, 2018. https://www.epa.gov/cwa-404/cwa-policy-and-guidance.

⁸ U.S. Environmental Protection Agency. 2017b. *Overview of Section 401 Certification and Focusing on Wetlands*. Accessed December 6, 2017. https://www.epa.gov/cwa-404/overview-section-401-certification-and-focusing-wetlands.

feet in specific situations. Pursuant to 6 NYCRR Part 661.4(b), the tidal wetland adjacent area limits may occur at:

"...the seaward edge of the closest lawfully and presently existing (i.e., as of August 20, 1977), functional and substantial fabricated structure (including, but not limited to, paved streets and highways, railroads, bulkheads and sea walls, and rip-rap walls) which lies generally parallel to said most tidal wetland landward boundary and which is a minimum of 100 feet in length as measured generally parallel to such most landward boundary, but not including individual buildings"

or

"...to the elevation contour of 10 feet above mean sea level, except when such contour crosses the seaward face of a bluff or cliff, or crosses a hill on which the slope equals or exceeds the natural angle of repose of the soil, then to the topographic crest of such bluff, cliff, or hill. Pending the determination by the commissioner in a particular case, the most recent, as of the effective date of this Part, topographical maps published by the United States geological survey, Department of the Interior, having a scale of 1:24,000, shall be rebuttable presumptive evidence of such 10-foot elevation."

Based on the above regulation, paved roadways and railroads constructed on or before August 20, 1977 may limit the NYSDEC's tidal wetland jurisdiction within portions the SFEC-Onshore corridor routes, where applicable and subject to NYSDEC review and confirmation. Similarly, the NYSDEC's tidal wetland jurisdiction may also be limited to less than 300 feet by the 10-foot above-mean-sea-level (amsl) contour, where applicable and subject to NYSDEC review and confirmation.

The NYSDEC uses specific categories and codes to describe different types of tidal wetlands. The tidal wetland categories are also used to facilitate agency wetland protection programs. The NYSDEC tidal wetland categories for the delineated wetlands are identified on the Wetland and Habitat Resources Maps (see Appendix B) and Table 3. These tidal wetland categories are defined by the NYSDEC as follows:

- > "Coastal Shoals, Bars and Mudflats (SM) The tidal wetland zone that at high tide is covered by saline or fresh tidal waters, at low tide is exposed or is covered by water to a maximum depth of approximately one foot, and is not vegetated.
- > Formerly Connected (FC) The tidal wetlands zone in which normal tidal flow is restricted by man-made causes. Phragmites sp. is the dominant vegetation.
- High Marsh (HM) The normal upper most tidal wetland zone usually dominated by salt meadow grass, Spartina patens; and spike grass, Distichlis spicata. This zone is periodically flooded by spring and storm tides and is often vegetated by low vigor, Spartina alterniflora and Seaside lavender, Limonium carolinianum. Upper limits of this zone often include black grass, Juncus Gerardii; chairmaker's rush, Scirpus sp.; marsh elder, Iva frutescens; and groundsel bush, Baccharis halimifolia.

- > Intertidal Marsh (IM) The vegetated tidal wetland zone lying generally between average high and low tidal elevation in saline waters. The predominant vegetation in this zone is low marsh cordgrass, Spartina alterniflora.
- > Littoral Zone (LZ) The tidal wetland zone that includes all lands under tidal waters which are not included in any other category. There shall be no LZ under waters deeper than six feet at mean low water."

Freshwater Wetlands

Freshwater wetlands in New York State are protected under the Freshwater Wetlands Act of 1975, which is Article 24 of the ECL. Jurisdictional wetlands in general must be at least 12.4 acres; however, the NYSDEC also has jurisdiction over smaller wetlands if they are deemed to have unusual local importance. Pursuant to the Freshwater Wetlands Act implementing regulations (6 NYCRR Parts 663 and 664), the NYSDEC regulates and requires permits for various land uses and activities within jurisdictional freshwater wetlands and the surrounding 100-foot adjacent area. Unlike the NYSDEC tidal wetland adjacent area described above, there are no applicable limitations to the NYSDEC 100-foot freshwater adjacent area due to structures, elevation gradients or other factors.

Pursuant to 6 NYCRR Part 664.5, the NYSDEC ranks regulated freshwater wetlands according to a hierarchy of four wetland classes based upon the degree of benefits that the wetland provides (Classes I through IV, see Table 3). Wetland benefits are dependent upon many factors, including vegetative cover, ecological associations, special features, hydrological and pollution control features, distribution and location. The wetland classes established by the NYSDEC for the delineated freshwater wetlands are included on Table 3. Pursuant to 6 NYCRR Part 663.5(e), the standards for permit issuance for regulated activities within or adjacent to the four wetland classes are described as follows:

- For wetland Classes I, II, III and IV, the proposed activity must be compatible with the public health and welfare, be the only practicable alternative that could accomplish the applicant's objectives and have no practicable alternative on a site that is not a freshwater wetland or adjacent area.
- > For wetland Classes I, II, and III, the proposed activity must minimize degradation to, or loss of, any part of the wetland or is adjacent area and must minimize any adverse impacts on the functions and benefits that the wetland provides.
- > For wetland Class IV, the proposed activity must make a reasonable effort to minimize degradation to, or loss of, any part of the wetland or its adjacent area.
- Class I wetlands provide the most critical of the State's wetland benefits, reduction of which is acceptable only in the most unusual circumstances. A permit shall be issued only if it is determined that the proposed activity satisfies a compelling economic or social need that clearly and substantially outweighs the loss of or detriment to the benefit(s) of the Class I wetland.
- > Class II wetlands provide important wetland benefits, the loss of which is acceptable only in very limited circumstances. A permit shall be issued only if it is determined

- that the proposed activity satisfies a pressing economic or social need that clearly outweighs the loss of or detriment to the benefit(s) of the Class II wetland.
- > Class III wetlands supply wetland benefits, the loss of which is acceptable only after the exercise of caution and discernment. A permit shall be issued only if it is determined that the proposed activity satisfies an economic or social need that outweighs the loss of or detriment to the benefit(s) of the Class III wetland.
- Class IV wetlands provide some wildlife and open space benefits and may provide other benefits cited in the act. Therefore, wanton or uncontrolled degradation or loss of Class IV wetlands is unacceptable. A permit shall be issued for a proposed activity in a Class IV wetland only if it is determined that the activity would be the only practicable alternative which could accomplish the applicant's objectives."

Surface Waters

Surface waters (i.e., rivers, streams, lakes and ponds) in New York State are protected under Article 15 of the ECL (Protection of Waters Program) and its implementing regulations (6 NYCRR Part 608). Pursuant to 6 NYSCRR Part 608, freshwater surface waters are assigned a class based on the existing or expected best usage of each water or waterway segment:

- > Classification A, AA, A-S and AA-S indicate a best usage as a source of drinking water and for swimming and other recreation, including fishing.
- > Classification B indicates a best usage for swimming and other recreation, and fishing.
- > Classification C indicates a best usage for fishing.
- Classification D the lowest classification; indicates a best usage for fishing, but these waters will not support fish propagation.

Waters with classifications A, B, and C may also be assigned a standard of (T), indicating that the water may support a trout population, or (TS), indicating that the water may support trout spawning (TS). Special requirements apply to waters with T or TS standards.

Streams and small water bodies located within the course of a stream with a classification of AA, A, or B, or with a classification of C with a standard of (T) or (TS) are collectively referred to as "protected streams," and are subject to the stream protection provisions of the Protection of Waters Program. Small ponds and lakes with a surface area of 10 acres or less that are located within the course of a stream, are considered to be part of the stream and subject to regulation under the stream protection category of Protection of Waters.

For marine surface waters, Classification SA indicates a best usage for "shellfishing for market purposes, primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival."

A Protection of Waters Permit is required to physically disturb the bed or banks of any stream with a classification standard of C (T) or higher. As set forth in 6 NYCRR Part 608, "banks" are defined as:

"... that land area immediately adjacent to and which slopes toward the bed of a watercourse and which is necessary to maintain the integrity of the watercourse. A bank will not be considered to extend more than 50 feet horizontally from the mean high water line; with the following exception: Where a generally uniform slope of 45 degrees (100%) or greater adjoins the bed of a watercourse, the bank is extended to the crest of the slope or the first definable break in slope, either a natural or constructed (road, or railroad grade) feature lying generally parallel to the watercourse."

A Protection of Waters permit is also required when excavating or placing fill below the mean high water level in navigable waters of New York State, including adjacent and contiguous marshes and wetlands. Navigable waters include lakes, rivers and other waterways and water bodies on which water vessels with a capacity of one or more persons are operated or can be operated. Waters that are surrounded by land held in single private ownership at every point of their total area are exempt from this requirement.

Town of East Hampton

Tidal and freshwater wetlands located within the Town of East Hampton are regulated pursuant to Article IV (Protection of Natural Resources) of the Town Code zoning chapter. Pursuant to Town Code Section 255-4-20A(1), a Town permit is required for activities occurring on or within any freshwater or tidal wetland, or within 150 feet of any boundary of these features, including:

- > Clearing or grading land.
- > Digging, dredging, or excavating land, or depositing fill or other material upon
- > Building, constructing, erecting, reconstructing, enlarging, altering, or placing any structure or other improvement whatsoever in or upon land.

It is important to note that, due to the preemptive effect of PSL § 130, the procedural requirements to obtain any local approval, consent, permit, certificate, or other condition for the construction and operation of the Project do not apply.

Village of East Hampton

Wetlands and adjacent uplands within the Village of East Hampton are regulated pursuant to Village Code Section 163-2. Regulated areas include:

"The area within 150 feet of the boundary of a wetland for any structure or building; or the area within 200 feet of the boundary of a wetland for any septic or discharge system; or the area within 125 feet of a boundary of a wetland for any clearing of land, landscaping and use of fertilizers."

Regulated activities include:

"Any form of draining, dredging, excavation or mining, either directly or indirectly; any form of dumping or filling, either directly or indirectly; erecting any building or structures, constructing roads, driving pilings or placing any

obstructions, whether or not changing the ebb and flow of the water; any form of pollution..."

It is important to note that, due to the preemptive effect of PSL § 130, the procedural requirements to obtain any local approval, consent, permit, certificate, or other condition for the construction and operation of the Project do not apply.

4.0

Wildlife

A desktop review of NYSDEC wildlife databases was performed for the Overall Study Area. The individual study areas established by the NYSDEC for the databases are described quantitatively below. Additionally, field surveys to identify wildlife and habitat conditions were conducted within the boundaries of the Overall Study Area, as well as the shorefront of the Beach Lane Landing Site Study Area. Inventories of observed and expected birds, mammals, and herpetofauna (amphibians and reptiles) were compiled based on the desktop review and the field surveys.

As summarized in section 2.0, the NLCD analysis indicates that developed land cover types occupy 91.69 percent of the Overall Study Area and 68 percent of more of the individual corridor routes. Moreover, qualitative field observations indicate that the Overall Study Area and individual corridor routes are dominated by several ECNYS 'cultural' communities, including the ECNYS Paved Road/Path and Railroad communities. Accordingly, the majority of the corridor routes are comprised of paved or otherwise unvegetated surfaces that limit their functionality as wildlife habitat. Accordingly, most wildlife observations during the field surveys occurred along the vegetated perimeters of the various road and LIRR ROWs that comprise the corridor routes, as well as the Cove Hollow Road Substation site and the shorefronts of the Beach Lane and Hither Hills Landing Site Study Areas.

A summary of observed and expected birds, herpetofauna, and mammals is provided below.

Birds

Avian species expected within the Overall Study Area were identified through review of the *New York State Breeding Bird Atlas (NYSBBA)*. According to this resource, between 33 and 94 individual bird species were identified between 2000 and 2005 in each of the eight NYSBBA survey blocks within the Overall Study Area (each survey block measures nine square-miles). Confirmed breeding behavior for 12 to 44 individual bird species occurred within the same eight survey blocks (Blocks 7253B, 7253D, 7353A, 7353B, 7354C, 7354D, 7454C, and 7454D, see Appendix C).

The landcover and ecological community types identified during desktop review and observed during the field surveys represent habitat for a variety of birds, including species commonly associated with marine shorelines, tidal and freshwater wetlands, surface waters, forests, successional habitats, agricultural fields and developed areas. A total of 87 avian species were observed (i.e., seen and/or heard) during the field surveys within the Overall Study Area (see Appendix D, Table A).

With respect to the individual corridor routes, as summarized in Section 2.0, the land cover and ecological communities that occur within and surrounding Hither Hills - Routes A and B are characterized by higher overall acreages of vegetated conditions, as compared to the Beach Lane - Routes A through C. As a result, Hither Hills - Routes A and B support more avian nesting and foraging habitat, particularly for reclusive species of forest interiors and for birds adapted to wetland and surface water communities (e.g., warblers, waterfowl and shorebirds). In particular, substantial portions of Hither Hills - Route A are surrounded by extensive forest and wetland communities. In contrast, Beach Lane - Routes A through C support less acreage of forested and wetland communities overall. These observations were confirmed during the field surveys, where the observed avian fauna of Beach Lane - Routes A through C was characterized by lower overall species diversity and a greater number of species adapted to developed surroundings and human activity, as compared to the Hither Hills Routes.

As observed during the field surveys, the forested and shrub-dominated conditions of the Cove Hollow Road Substation site are habitat for birds of woodlands and mid-successional communities, while the shorefronts of Hither Hills Landing Site Study Areas A and B, and the shorefront of the Beach Lane Landing Site Study Area provide habitat for various shorebirds. In addition, Hither Hills Landing Site Study Area A provides habitat for birds adapted to woodlands mid-successional communities.

⁹ McGowan, K.J. and K. Corwin, eds. 2008. *The Atlas of Breeding Birds in New York State*. Cornell University Press. Data also available online at http://www.dec.ny.gov/animals/51030.html. Accessed May 10, 2018.

Herpetofauna

Herpetofauna that may occur within the Overall Study Area were identified through review of the 1990–1999 New York State Amphibian and Reptile Atlas Project (NYSARAP) database. ¹⁰ According to this resource, a total of 33 herpetofauna species were documented within the four USGS 7.5-minute topographic quadrangles in the Overall Study Area (East Hampton, Gardiners Island East, Napeague Beach and Sag Harbor, New York Quadrangles) (see Appendix D, Table B).

The following herpetofauna species were observed during the field surveys within the Overall Study Area: Eastern Garter Snake (*Thamnophis sirtalis*), Fowler's Toad (*Bufo fowleri*), Northern Black Racer (*Coluber c. constrictor*), Green Frog (*Rana clamitans*), Eastern Box Turtle (*Terrapene carolina*), Northern Spring Peeper (*Pseudacris crucifer*), and Red-spotted Newt (*Notophthalmus viridescens*). With the exception of Northern Black Racer (observed within Beach Lane - Route A), all of the aforementioned herpetofauna species were observed in Hither Hills – Route A. The prevalence of upland forest conditions and abundance of wetland habitats within Hither Hills – Route A provides ample habitat for herpetofauna adapted to dry upland conditions and species that require aquatic habitats for all or portions of their life cycles, respectively. As such, Hither Hills – Route A supports the highest observed and expected herpetofauna diversity among the corridor routes. Based on the presence of more undeveloped acreage of vegetated communities and wetlands, Hither Hills - Routes A and B support more potential habitat for herpetofauna than Beach Lane - Routes A through C.

As observed during the field surveys, the forested and shrub-dominated conditions of the Cove Hollow Road Substation site are potential habitat for herpetofauna adapted to dry, upland conditions. The shorefront of the Beach Lane Landing Site Study Area and Hither Hills Landing Site Study Areas A and B do not represent significant habitat areas for terrestrial herpetofauna. Although upland forests and mid-successional communities within the Hither Hills Landing Site Study Area A represent potential habitat for herpetofauna adapted to dry, upland conditions

Mammals

Mammal species that may occur within the Overall Study Area were identified through review of existing surveys of Long Island mammalian populations, including *The Mammals of Long Island, New York*¹¹ and the *Final Small Mammal and Herpetile*

¹⁰ New York State Department of Environmental Conservation (NYSDEC). 2017b. New York State Amphibian and Reptile Atlas Project. Available online at: http://www.dec.ny.gov/animals/7140.html. Accessed May 9, 2018.

¹¹ Connor, Paul F. 1971. *The Mammals of Long Island*. New York State University of New York, New York Museum and Science Service Bulletin No. 416.

Field Sampling and Summary Report for the South Shore of Long Island, New York. ¹² Based on these resources and the of habitat conditions noted during the field surveys, the observed and expected mammalian fauna within the Overall Study Area was determined (see Appendix D, Table C).

Multiple sightings of Whitetail Deer (*Odocoileus virginianus*), Eastern Chipmunk (*Tamias striatus*), Eastern Cottontail (*Sylvilagus floridanus*), Eastern Gray Squirrel (*Sciurus carolinensis*), and Woodchuck (*Marmota monax*) occurred within the Overall Study Area. Other observed mammals include Muskrat (*Ondatra zibethicus*), Red Fox (*Vulpes vulpes*), and Raccoon (*Procyon lotor*).

¹² United States Army Corps of Engineers (USACE). 2002. Final Small Mammal and Herpetile Field Sampling and Summary Report for the South Shore of Long Island, New York.

5.0

Rare/Protected Species

A desktop review of federal and New York State rare/protected species records was performed for the Overall Study Area. Additionally, field surveys to identify rare/protected species were conducted within boundaries of the Overall Study Area, as well as at the Beach Lane Landing Site Study Area.

Regulatory Programs and Records

The federal, New York State, and local regulatory and management programs pertaining to rare/protected species, and agency records for the Overall Study Area are summarized below.

Federal

At the federal level, threatened and endangered species are afforded protection under the federal Endangered Species Act of 1973 (ESA). Consultations and potential permitting with the USFWS are required for any action that might result in take of federally-listed species. Additionally, Section 7 of the ESA requires federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any federal agency. Accordingly, Section 7 consultations with the USFWS regarding federally-listed species are required for any activity that involves federal agency approvals or funding.

The USFWS Information for Planning and Conservation (IPaC) Official Species List for the Overall Study Area, dated May 10, 2018, contains six Threatened (T) or Endangered (E) species that *may* occur in or near the Overall Study Area, including three birds, one mammal and two plants (see Appendix E). The six federally-listed species are: Piping Plover (*Charadrius melodus*) (T), Red Knot (*Calidris canutus rufa*) (T), Roseate Tern (*Sterna dougallii dougalii*) (E), Northern Long-eared Bat (*myotis septentrionalis*) (T), Sandplain gerardia (*Agalinus acuta*) (E), and Seabeach Amaranth (*Amaranthus pumilus*) (T).

New York State

Correspondence from the NYNHP dated March 18, 2018 includes records for 21 New York State-listed rare/protected plant, bird, mammal and insect species for the Overall Study Area and the offshore waters beyond the Overall Study Area (see Appendix F). A summary of the NYNHP Records is provided on Table 4.

Table 2 - Summary of NYNHP Records

Scientific Name	Common Name	NYS/ Federal Listing	Field Observations	NYNHP- Provided Record Location and Year
Amaranthus pumilus	Seabeach Amaranth	T/T	None	At or near Hither Hills Landing Site; Along Napeague Beach.
Balaenoptera physalus	Fin Whale	E/E	None	Offshore waters area of the Project Site
Charadrius melodus	Piping Plover	E/T	None	Breeding: At Hither Hills Landing Site; Near Beach Lane Landing Site; Napeague, Amagansett and East Hampton Beaches.
Circus cyaneus	Northern Harrier	T/NL	None	Breeding: Napeague Meadows; Napeague State Park; Hither Hills State Park; Napeague Harbor
Coccinella novemnotata	Nine-spotted Lady Beetle	NL/NL	None	Near Old Stone Highway and Town Lane, (2011).
Cyperus polystachyos var. texensis	Coast Flatsedge	E/NL	None	Napeague State Park, between Montauk Highway and railroad, and/or along railroad (2009).

Scientific Name	Common Name	NYS/ Federal Listing	Field Observations	NYNHP- Provided Record Location and Year
Eupatorium pubescens	Serrate Round-leaf Boneset	E/NL	Hither Hills – Routes A, B and C	Hither Hills State Park, along Montauk Highway and Old Montauk Highway (2009).
Hemileuca maia ssp. 5	Coastal Barrens Buckmoth	SC/NL	None	Vicinity of East Hampton Airport, the railroad to the south, Hedges Lane, Stephen Hands Path, Wainscott Northwest Road (1983).
Iris prismatica	Slender Blue Flag	T/NL	None	Near Montauk Highway in western part Napeague State Park (2016); Along Old Montauk Highway, northwest of intersection with Montauk Highway, between Montauk Highway and railroad (2010).
Liatris scariosa var. novae-angliae	Northern Blazing- star	T/NL	Hither Hills – Routes B and C	Along Cranberry Hole Road west of Napeague State Park (2010); Napeague State Park, along and between Montauk Highway and railroad (2009).
Linum intercursum	Sandplain Wild Flax	T/NL	None	Along Montauk Highway, between Napeague State Park and Hither Hills State Park (1985).
Megaptera novaeangliae	Humpback Whale	E/E	None	Nonbreeding: Offshore waters area of the Project Site
Plantago maritima	Seaside Plantain	T/NL	None	Napeague State Park,

Scientific Name	Common Name	NYS/ Federal Listing	Field Observations	NYNHP- Provided Record Location and Year
var. juncoides				between Montauk Highway and railroad, and/or along railroad (2009).
Polygonum glaucum	Seabeach Knotweed	R/NL	None	At or near Hither Hills Landing Site; Along Napeague Beach.
Pycnanthemum muticum	Blunt Mountain- mint	T/NL	Hither Hills – Routes B and C	Hither Hills State Park, along Montauk Highway and Old Montauk Highway (2009).
Sabatia stellaris	Sea-pink	T/NL	None	Napeague State Park, between Montauk Highway and railroad, and/or along railroad (2009).
Salicornia bigelovii	Dwarf Glasswort	T/NL	None	Napeague State Park, between Montauk Highway and railroad, and/or along railroad (2009).
Schizaea pusilla	Curlygrass Fern	E/NL	None	Napeague State Park, near Montauk Highway (2004).
Sternula antillarum	Least Tern	T/NL	None	Breeding: At Hither Hills Landing Site; Near Beach Lane Landing Site; Napeague, Amagansett and East Hampton Beaches.
Suaeda linearis	Narrow-leaf Sea- blite	E/NL	None	Napeague State Park, between Montauk Highway and railroad, and/or along railroad (2009).
Viburnum dentatum var. venosum	Southern Arrowwood	T/NL	Beach Lane – Route B and C Hither Hills	Along Skimhampton Road, just east of

Scientific Name	Common Name	NYS/ Federal Listing	Field Observations	NYNHP- Provided Record Location and Year
			Routes A, B and C	Pantigo Road (1992); Along Montauk Highway, between Napeague State Park and Hither Hills State Park (2003); Hither Hills State Park, along Montauk Highway and Old Montauk Highway (2003). (

Key: E=Endangered, T=Threatened, SC=Special Concern, R=Rare, NL=not listed.

New York State Endangered, Threatened and Special Concern wildlife species are listed in 6 NYCRR Part 182. Pursuant to 6 NYCRR Part 182.8, consultations and potential permitting with the NYSDEC are required for any action that might result in incidental taking of endangered or threatened wildlife species.

New York State Endangered, Threatened, Rare and Exploitably vulnerable plants are listed and afforded protection under 6 NYCRR Part 193.3 (Protected Native Plants). Pursuant to 6 NYCRR Part 193.3(e):

"It is a violation for any person, anywhere in the state to pick, pluck, sever, remove, damage by the application of herbicides or defoliants, or carry away, without the consent of the owner, any protected plant. Each protected plant so picked, plucked, severed, removed, damaged or carried away shall constitute a separate violation."

As indicated above, it is a violation of New York State law (ECL 9-1503) to collect or destroy listed plants without landowner permission.

Town and Village of East Hampton

The Town of East Hampton Natural Resources Department actively manages approximately eighteen miles of ocean and bay beaches on which several federally-listed and New York State-listed rare, threatened, and endangered species occur. The management area consists of all beaches within the Town, as well as the Incorporated Village of East Hampton, excluding all federal, State and County-owned land. Protection and management measures afforded to rare/protected species are summarized in the *Town Management and Protection Plan for Threatened*

and Endangered Species (January 2015).¹³ The objectives of this plan are to "Carry out and enforce the provisions of the Management Plan, the East Hampton Town Code and the USFWS piping plover recovery guidelines governing the protection of nesting sites on East Hampton Town beaches."

It is important to note that, due to the preemptive effect of PSL § 130, the procedural requirements to obtain any local approval, consent, permit, certificate, or other condition for the construction and operation of the Project do not apply.

Field Surveys

The locations of rare/protected species observed during the field surveys were recorded with a GPS instrument. The locations of the rare/protected species observations are shown on the Wetland and Habitat Resources Maps (Appendix B) and detailed on Table 5.

Table 3 - Rare/Protected Species Field Observations

Observation ID	Scientific Name	Common Name	Resource Map Page(s)	Location / Number of Occurrences ^a	Comments
ES1	ES1 <i>Charadrius</i> Piping Plover <i>melodus</i>		1	Shorefront, just west of the Beach Lane Landing Site Study	Species nesting area. Species not observed during field
	Sternula antillarum	Least Tern		Area / 1	surveys.
ES2, ES3, ES20-ES55, ES58-ES66, ES70	Viburnum dentatum var. venosum	Southern Arrowwood	21, 70-76, 78, 79, 81, 126	Beach Lane - Route B / 1 Beach Lane - Route C / 1 Hither Hills - Route A / 14 Hither Hills - Route B / 45	Multiple shrubs within multiple locations.
ES56	Liatris scariosa	Northern Blazing Star	74	Hither Hills –	4 plants

¹³ Town of East Hampton Natural Resources Department. 2015. *Town Management and Protection Plan for Threatened and Endangered Species* (January 2015)

Observation ID	Scientific Name	Common Name	Resource Map Page(s)	Location / Number of Occurrences ^a	Comments
	var. novae- angliae			Route B / 1	
ES57	Pycnanthemum muticum	Blunt Mountain Mint	76	Hither Hills – Route B / 1	1 plant
ES67	Eupatorium pubescens	Serrate Round-leaf Boneset	78	Hither Hills – Route A / 1 Hither Hills – Routes B / 1	Multiple plants in upland habitat adjacent to Wetland FW46.
ES71, ES72, ES75	Accipiter cooperii	Cooper's Hawk	12, 70, 126	Beach Lane Route B /1 Hither Hills – Route A / 1 Hither Hills – Route B/1	Observed in flight.
ES73	Sterna hirundo	Common Tern	1	Shorefront of the Beach Lane Landing Site Study Area / 1	Two birds observed in flight/foraging.
ES74	Terrapene carolina	Eastern Box Turtle	55	Hither Hills – Route A / 1	carapace only
ES76	Sternula antillarum	Least Tern		Hither Hills Landing Site Study Area A	Two adults observed foraging along beach wrack line

^aSome of the individual species observations occurred within more than one of the analyzed corridor routes.

As summarized on Table 5, a total of 58 rare/protected species occurrences were identified during the field surveys. Among these, 51 of the rare/protected species occurrences were for plants, including 48 occurrences of the New York State Threatened shrub species Southern Arrowwood (*Viburnum dentatum* var. *venosum*). The remaining rare/protected species occurrences include three additional plants, four birds and one reptile. In addition, one observation occurred at the shorefront of the Beach Lane Landing Site Study Area and one observation to the west, just outside of the Beach Lane Landing Site Study Area. Table 6 below provides a summary of the rare/protected species surveys by project component.

Table 4 - Summary of Rare/Protected Species Observations

Project Component	Number of Observations ^a		
	Plant	Wildlife	
Beach Lane Landing Site	0	O _p	
Beach Lane – Route A	0	0	
Beach Lane – Route B	1	1	
Beach Lane - Route C	1	0	
Hither Hills Landing Site	0	0	
Hither Hills Landing Site Study Area A	0	1	
Hither Hills Landing Site Study Area B	0	0	
Hither Hills - Route A	15	2	
Hither Hills - Route B	48	1	
Cove Hollow Road Substation	0	0	

[&]quot;Due to rare/protected species observations that occur within multiple cable corridor routes, the observation totals shown on this table sum to greater than the total number of field observations. "Observation of Common Tern occurred at the shorefront of the Beach Lane Landing Site Study Area and a

With respect to the individual corridor routes, as summarized on Table 6, the vast majority of rare/protected species observations occurred within Hither Hills - Route A (17 observations) and Hither Hills - Route B (49 observations). Only three rare/protected species observations occurred within the Beach Lane corridor routes, with no observations within Beach Lane - Route A.

No rare/protected species observations occurred within the Beach Lane Landing Site. However, as noted above, one rare/protected species observations occurred along the shorefront within the Beach Lane Landing Site Study Area and one just to the west of the Beach Lane Landing Site Study Area. The two observations were for Common Tern (*sterna hirundo*) and for a Piping Plover (*Charadrius melodus*)/Least Tern (*Sternula antillarum*) Nesting Area, respectively, designated by the Town of East Hampton and USFWS. No adult or juvenile piping plover or least tern were observed within the nesting area at the time of the field surveys. Two adult Least Terns were observed foraging along the beach wrack line at the western end of Hither Hills Landing Site Study Area A.

No rare/protected species were observed at the Cove Hollow Road Substation site during the field surveys.

Piping Plover/Least Tern nesting area occurred at the shorefront, just west of the Beach Lane Landing Site Study Area.

6.0

Invasive Species

Field surveys to identify invasive species were conducted for the Overall Study Area, as well as at the Beach Lane Landing Site Study Area.

Invasive species are defined by the NYSDEC as:

"...nonnative to a particular ecosystem, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can harm natural communities and systems (plants and animals found in particular physical environments) by out-competing native species, reducing biological diversity, altering community structure and, in some cases, changing ecosystems." 14

New York State adopted a regulation in July 2014 that prohibits or regulates the possession, transport, importation, sale, purchase and introduction of select invasive species in New York State.¹⁵

Observed occurrences of invasive plants were identified and delineated with a GPS instrument during the field surveys. A total of 22 different invasive plant species and

¹⁴ New York State Department of Environmental Conservation. Invasive Species Regulations. Available online at: http://www.dec.ny.gov/animals/99141.html. Accessed May 14, 2018.

¹⁵ New York State Department of Environmental Conservation. 2014. New York State Prohibited and Regulated Invasive Plants.

evidence of one invasive insect were observed within the Overall Study Area, as listed on Table 7.

Table 5 - Observed Invasive Species

Scientific Name	Common Name
Acer plantanoides	Norway maple
Acer pseudoplatanus	Sycamore Maple
Ailanthus altissima	Tree-of-heaven
Alliaria petiolata	Garlic Mustard
Ampelopsis brevipedunculata	Porcelain Berry
Artemesia vulgaris	Mugwort
Berberis thunbergii	Japanese Barberry
Celastrus orbiculatus	Asiatic Bittersweet
Dendroctonus frontalis	Southern Pine Beetle
Elaeagnus umbellata	Autumn Olive
Euonymus alatus	Winged Euonymus (Burning Bush)
Hedera helix	English Ivy
Ligustrum obtusifolium	Border Privet
Lonicera japonica	Japanese Honeysuckle
Lonicera tatarica	Tatarian Honeysuckle
Microstegium vimineum	Japanese Stiltgrass
Persicaria perfoliata	Mile-a-minute
Phragmites australis	Common Reed
Phyllostachys spp.	Bamboo
Polygonum cuspidatum	Japanese Knotweed
Rosa multiflora	Multiflora Rose
Rubus phoenicolasius	Wineberry

In total, 317 invasive species occurrences were observed and delineated during the field surveys, primarily within vegetated road shoulders or vegetated habitats adjacent to the LIRR tracks. The locations of the 317 invasive species occurrences

are shown on the Wetland and Habitat Resources Maps (see Appendix B) and summarized by project component on Table 8.¹⁶ Additional details for each invasive species occurrence is included on Table D (see Appendix D).

Table 6 – Summary of Invasive Species Field Observations

Project Component	Number of Invasive Species Observations
Beach Lane Landing Site	2
Beach Lane – Route A	26
Beach Lane – Route B	40
Beach Lane - Route C	58
Hither Hills Landing Site	3
Hither Hills Landing Site Study Area A	5
Hither Hills Landing Site Study Area B	1
Hither Hills - Route A	129
Hither Hills - Route B	89
Cove Hollow Road Substation	1ª

^aInvasive plant species were observed throughout the majority of the Cove Hollow Road Substation site and recorded as a single observation encompassing the entire site.

Of the 317 invasive species occurrences, 316 are invasive plant infestations ranging in extent from a single specimen of one plant species to linear patches of over a thousand feet in length that were comprised of multiple plant species. The one remaining occurrence (IS246, see Appendix D, Table D) was observed evidence of a Southern Pine Beetle (*Dendroctonus frontalis*) infestation within dead and dying Pitch

¹⁶ Due to mowing, grubbing and other maintenance practices within the ROWs, the full extent of the observed invasive species occurrences were impossible to determine in the field. Accordingly, for the purposes of this report, occurrences shown beyond corridor routes on the Wetlands and Habitat Resource Maps were included in the invasive species occurrence total for the nearest route(s).

Pine (*Pinus rigida*) trees located within and adjacent to the LIRR ROW, in the vicinity of Stephen Hands Path (Beach Lane – Routes A, B and C).

As shown on Table 8, the greatest number of invasive species observations occurred within Hither Hills - Route A, while the least observations occurred within Beach Lane - Route A. Overall, the two Hither Hills Routes contain more invasive species observations than the Beach Lane Routes, due in part to the significantly greater lengths and areas of the two corridor routes. Based on field observations, other factors that appear to influence higher concentrations of invasive species within the corridor routes include the presence of major roadways (e.g., Montauk Highway), residential or commercial development along road or LIRR ROWs, and the proximity of agricultural land uses.

Two invasive species occurrences were observed within the Beach Lane Landing Site. Three occurrences were observed at the Hither Hills Landing Site, with an additional five occurrences at Hither Hills Landing Site Study Area A. One invasive species occurrence was observed within Hither Hills Landing Site Study Area B.

Multiple observations of 10 invasive plant species were observed throughout the Cove Hollow Road Substation site. Accordingly, the multiple observations were recorded as a single occurrence encompassing the entire site (IS345, see Appendix D, Table D).

7.0

Conclusions

The text, tables, figures, maps, and appended supporting information of this report provide a summary of the biological resources observed or expected to occur within the Overall Study Area, including habitats and landcover, wetlands and surface waters, wildlife, rare/protected species and invasive species. The information was compiled based upon desktop research, agency consultations and field surveys conducted over the course of 31 days between May 24 and November 8, 2017, and May 30 to June 1, 2018.

Habitats and landcover types within the Overall Study Area include 14 NLCD land cover types and qualitative observations of various ECNYS communities. The vast majority of the Overall Study Area (91.69 percent) is comprised of NLCD developed land cover types. A total of 93 tidal and freshwater wetland features were delineated within the Overall Study Area, including tidal and freshwater wetlands regulated by the USACE, NYSDEC, the Town or East Hampton and/or the Village of East Hampton. Inventories of observed and expected birds, mammals, and herpetofauna were compiled through field surveys and desktop research. Rare/protected species records were obtained from the USFWS and NYNHP, and 58 rare/protected species observations were documented during field surveys of the Overall Study Area. Invasive species are prevalent throughout the Overall Study Area, as evidenced by 317 such occurrences delineated during the field surveys.

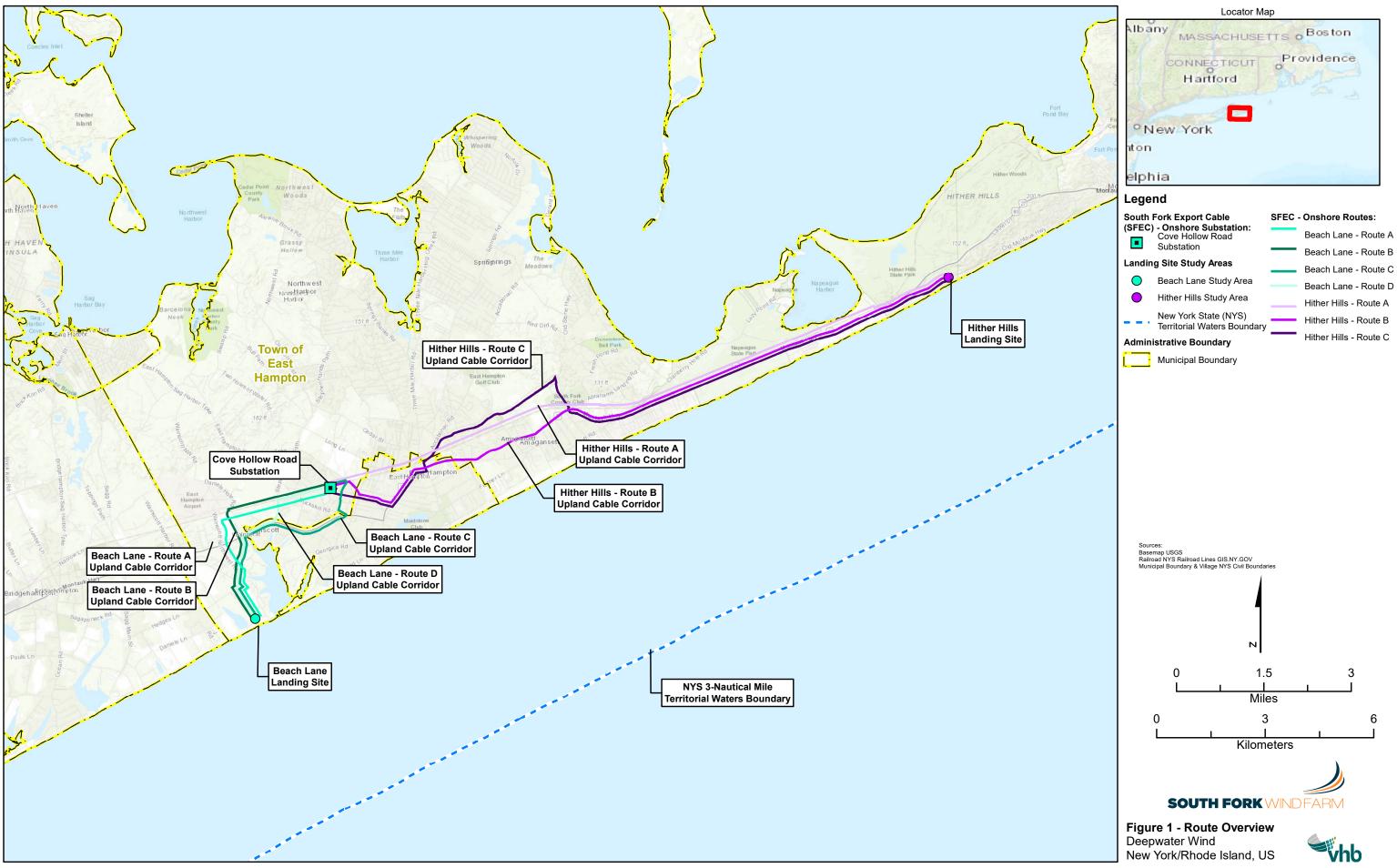
A summary of the biological resources by project component is provided on Table 9.

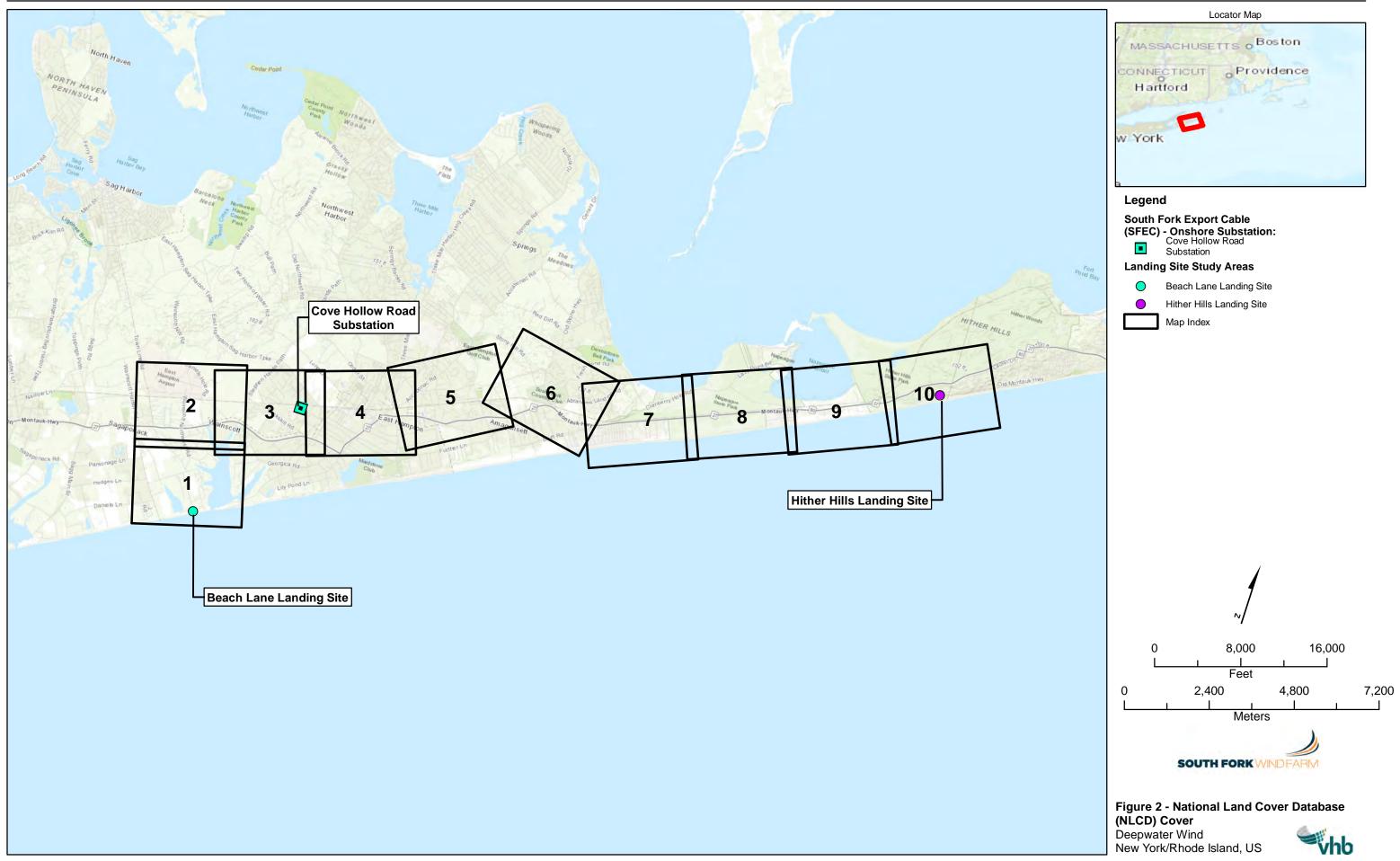
Table 7– Summary of Biological Resources Observations

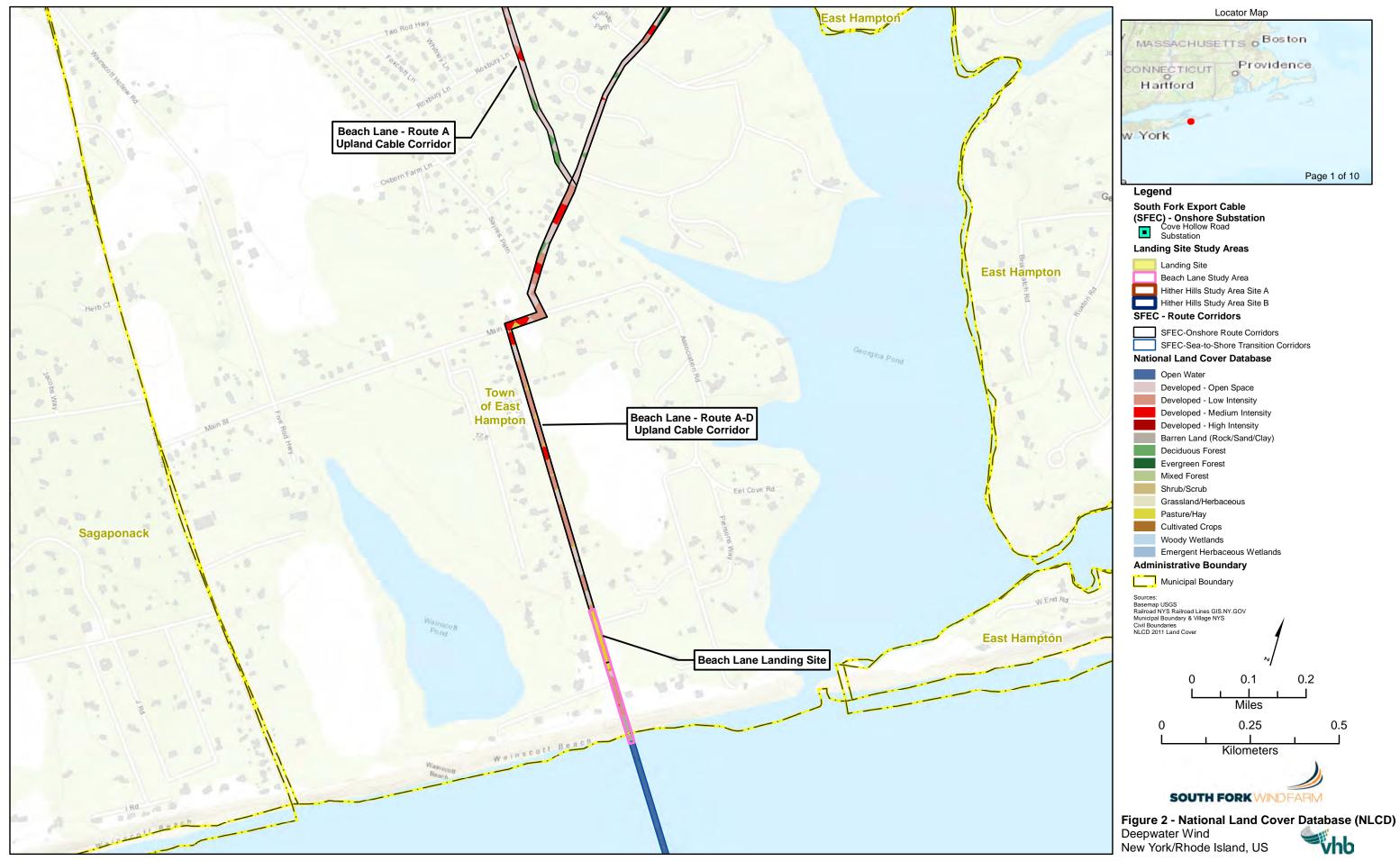
Project Component	NLCD Developed Land Cover Types (percent)	Delineated Wetlands and Wetland Adjacent Areas (number/acres)	Rare/Protected Species Observations (number)	Invasive Species Occurrences (number)
Beach Lane Landing Site	91.41	0/0	0	2
Beach Lane – Route A (length: 4.1 miles, area: 19.23 acres)	68.85	0/0	0	26
Beach Lane – Route B (length: 3.8 miles, area: 18.57 acres)	71.29	2/0.02	2	40
Beach Lane - Route C (length: 4.3 miles, 35.35 acres)	95.81	5/0.90	1	58
Hither Hills Landing Site	42.27	0/0	0	3
Hither Hills Landing Site Study Area A	3.43	12/41.45	1	5
Hither Hills Landing Site Study Area B	26.03	2/3.67	0	1
Hither Hills - Route A (length: 11.4 miles, 46.02 acres)	72.12	58/12.57	17	129
Hither Hills - Route B (length: 11.9 miles, area, 138.39 acres)	99.45	51/13.90	49	89
Cove Hollow Road Substation	0	0/0	0	1

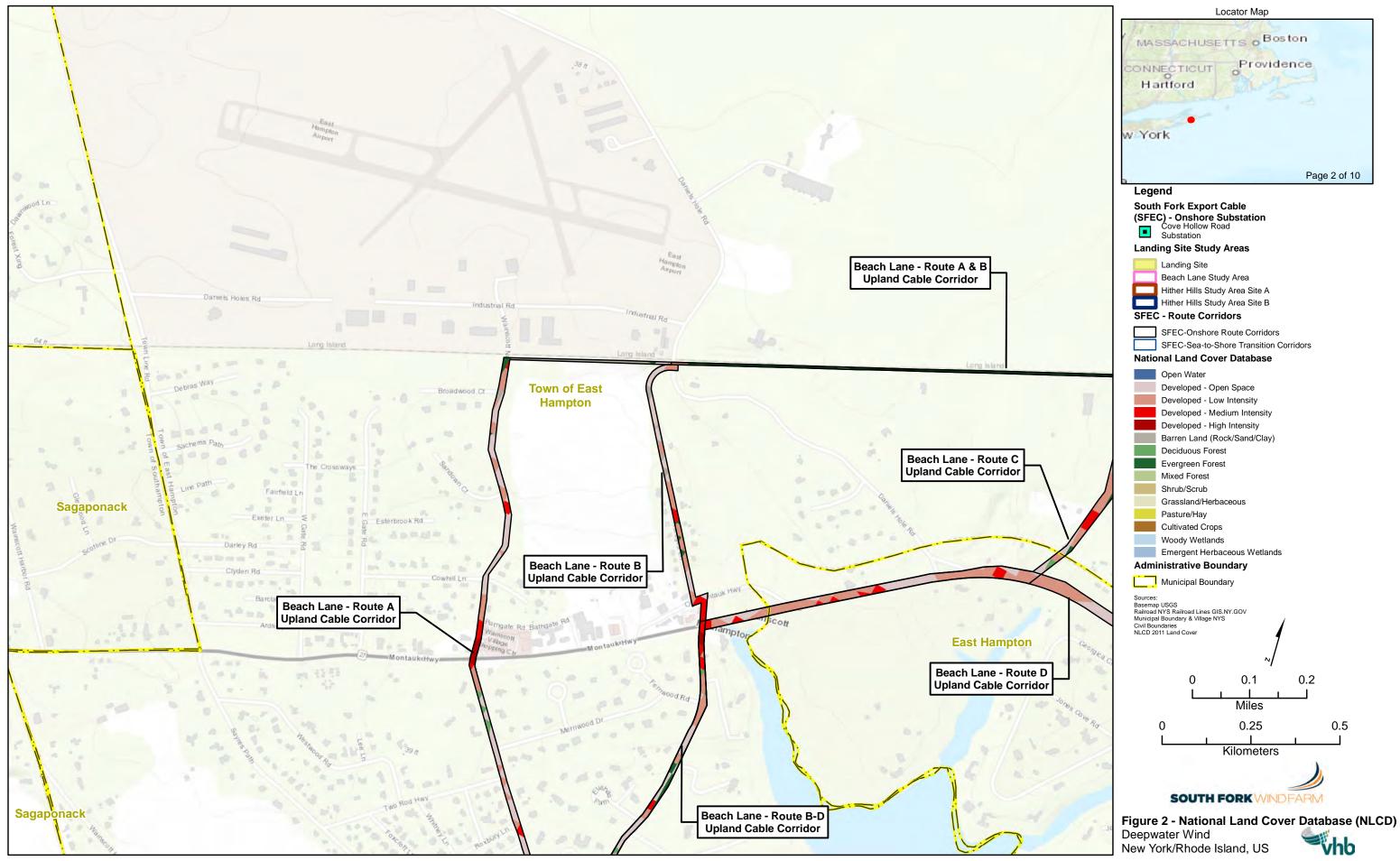


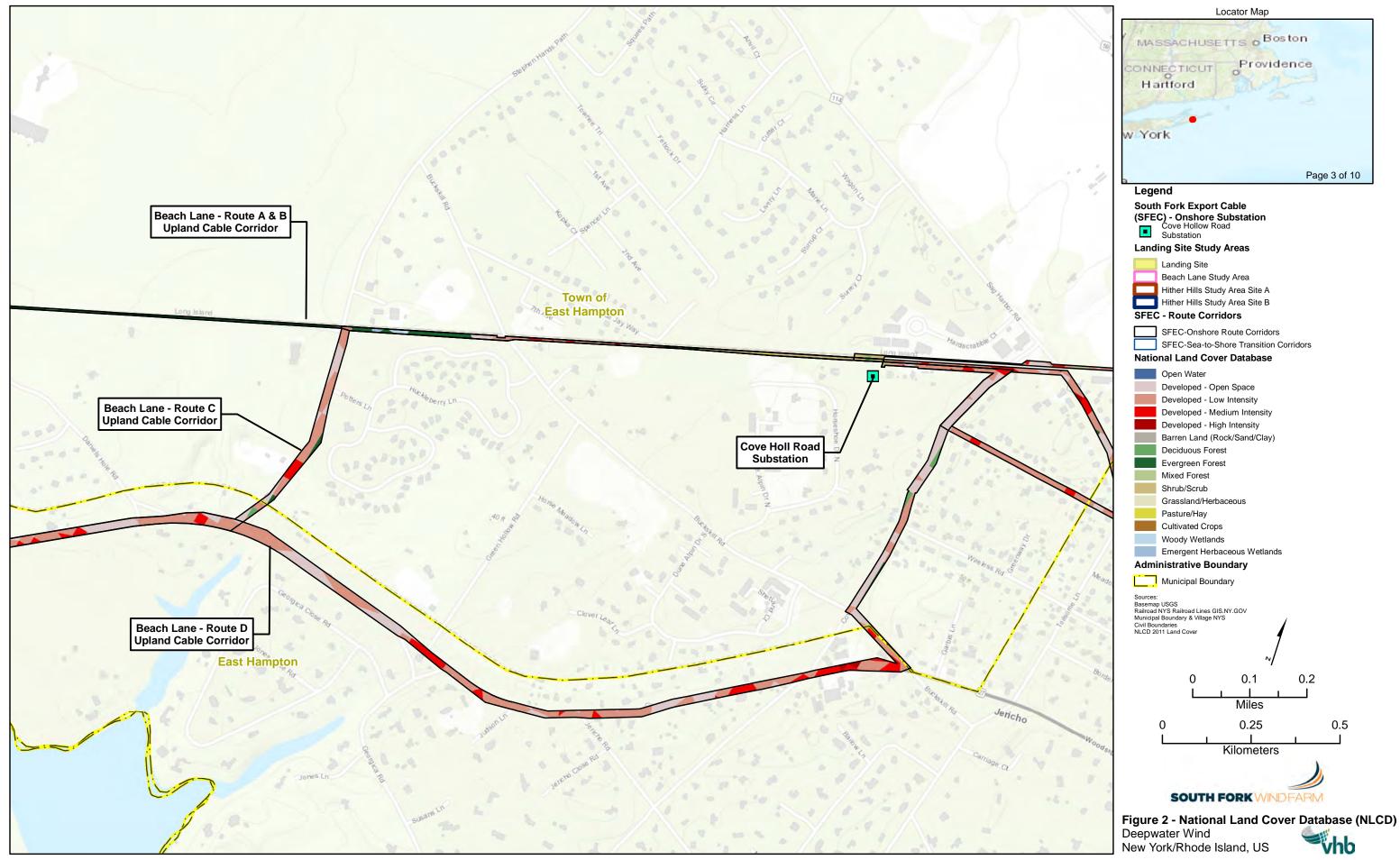
Appendix A

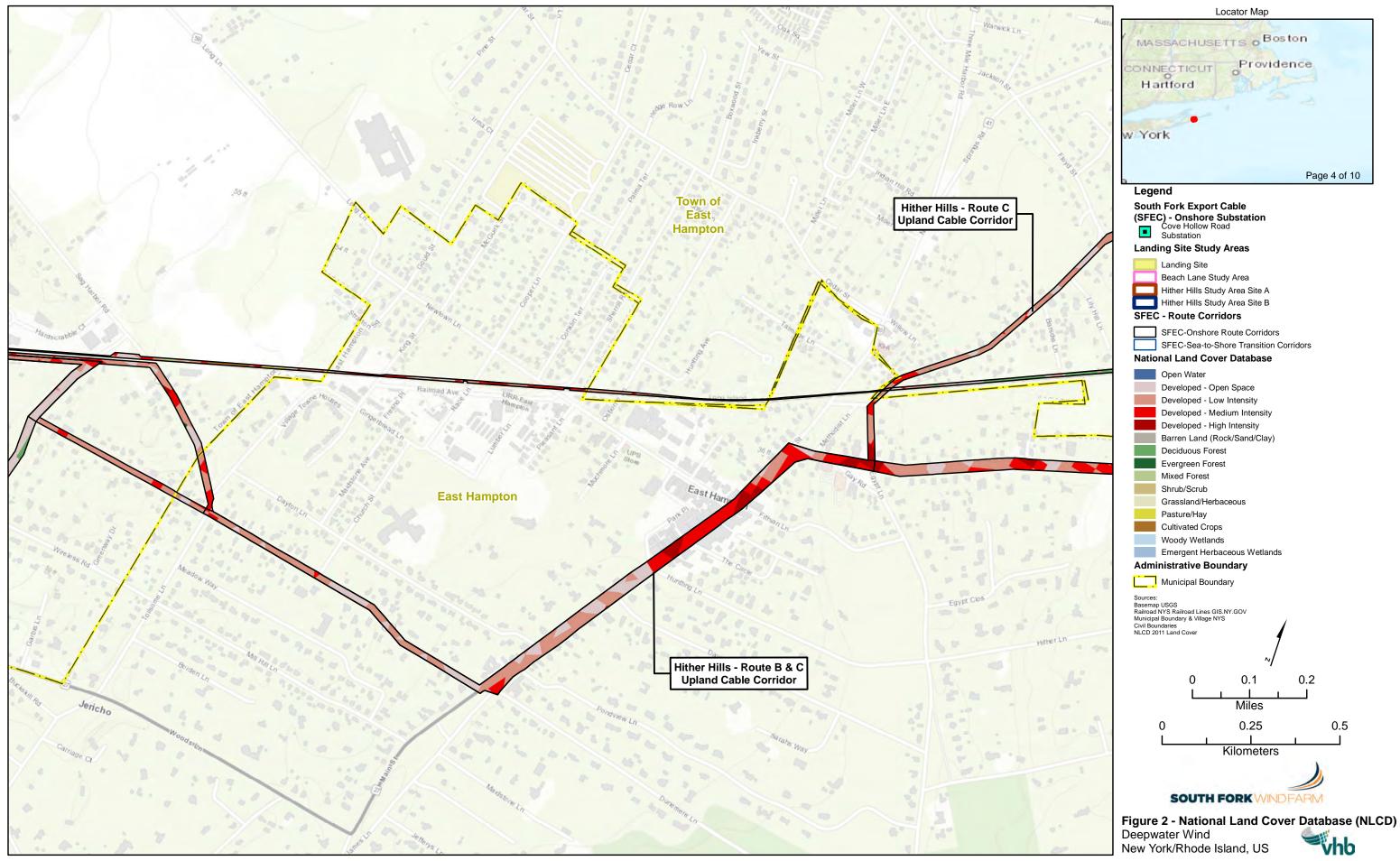


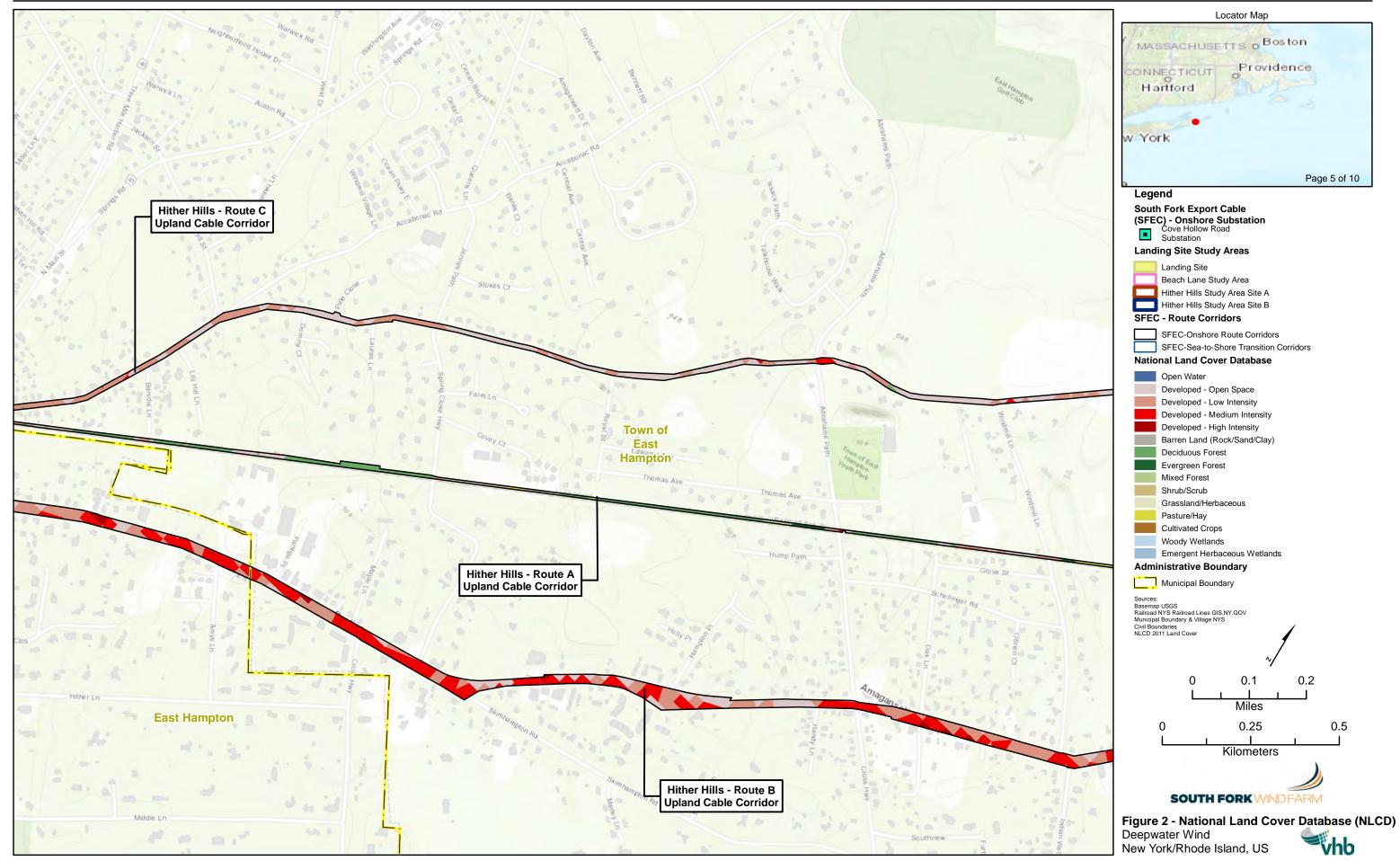


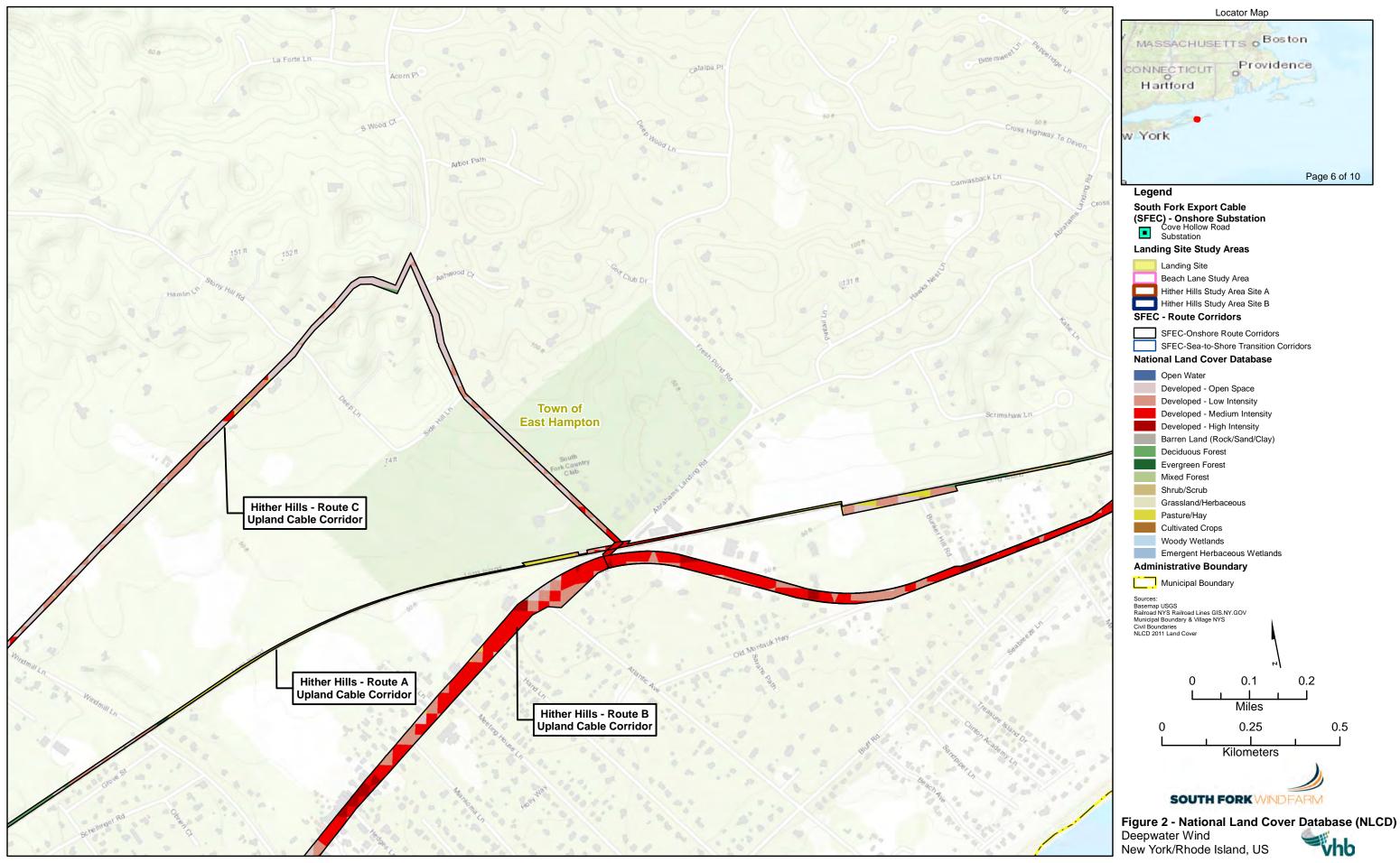


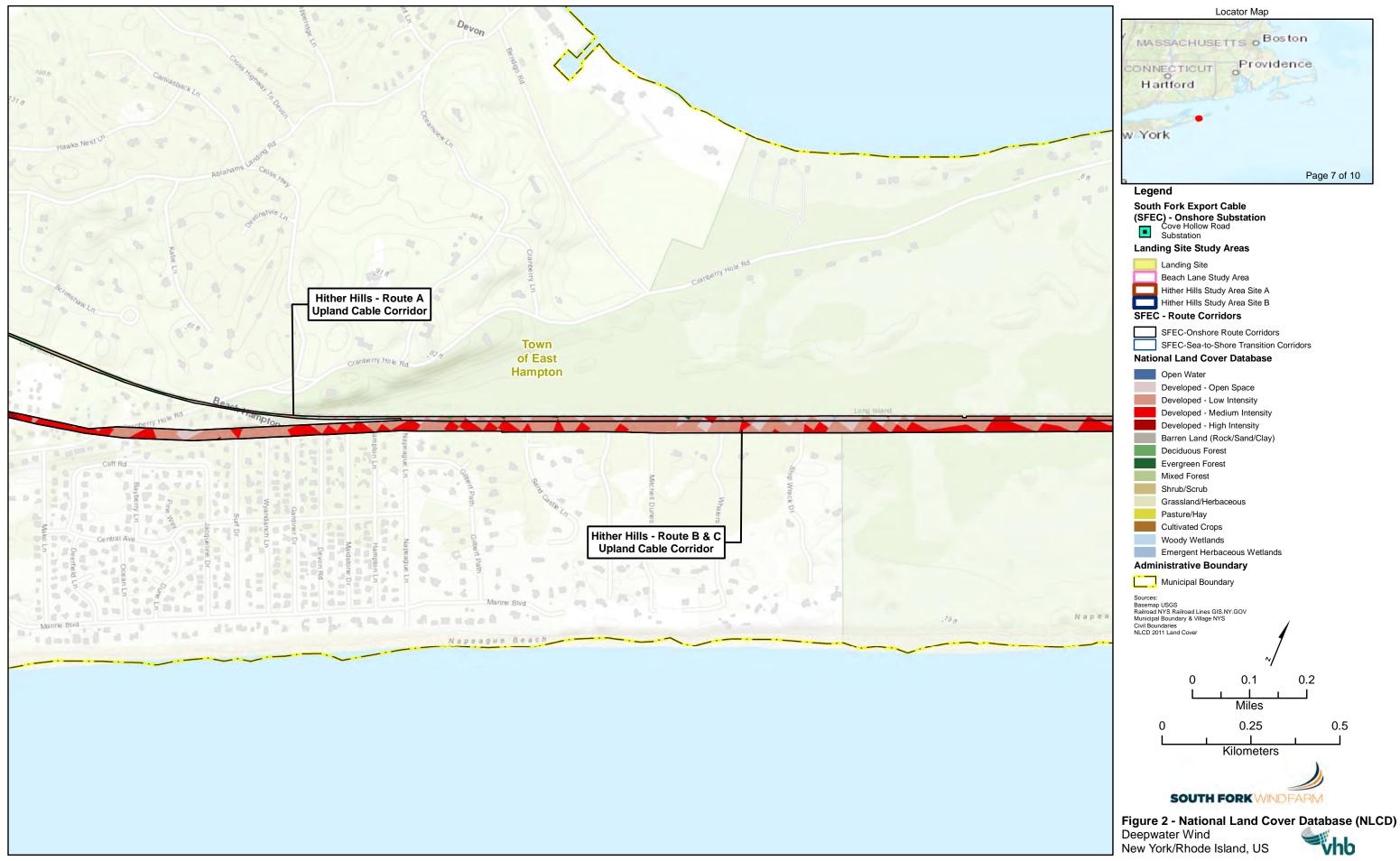


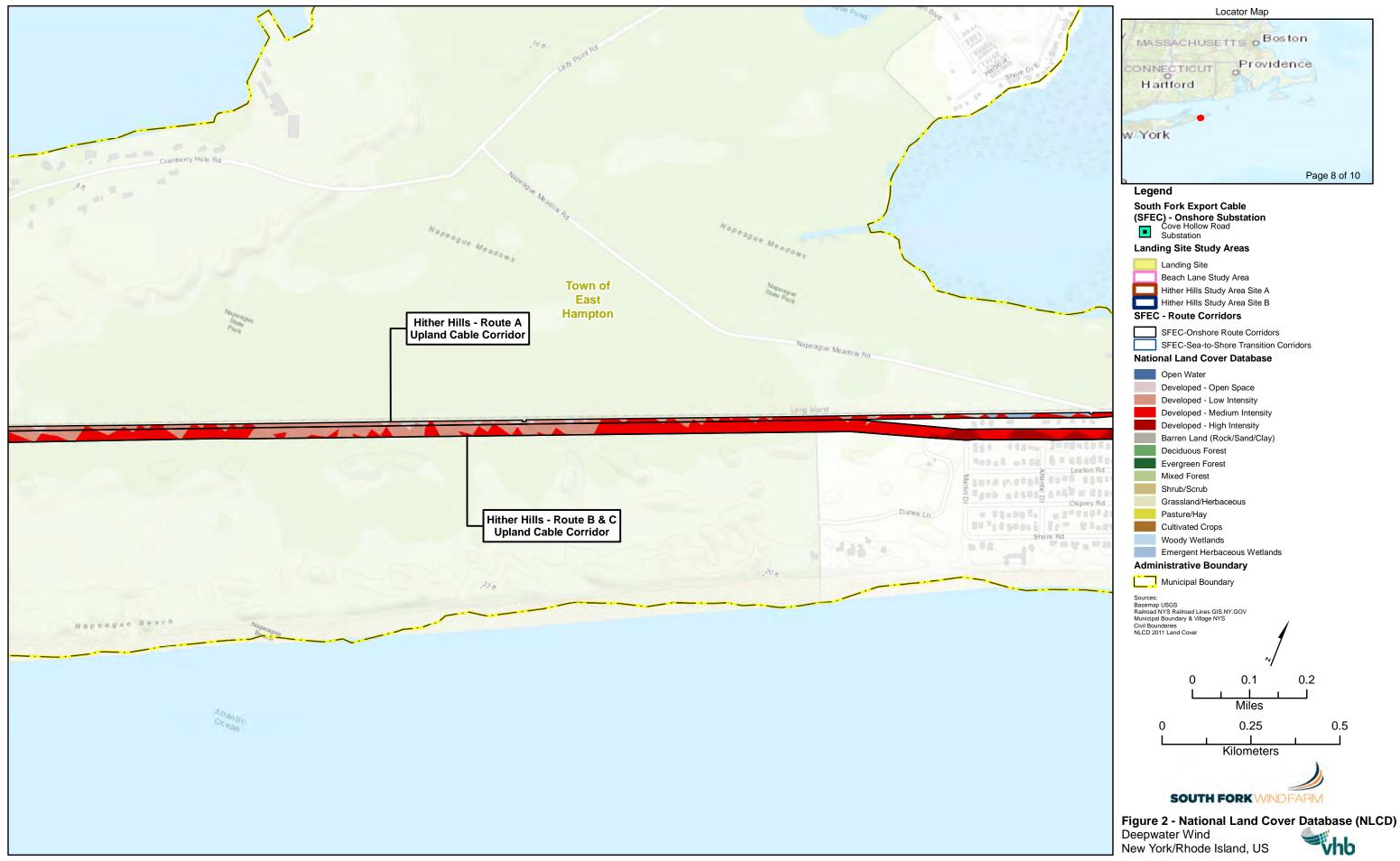


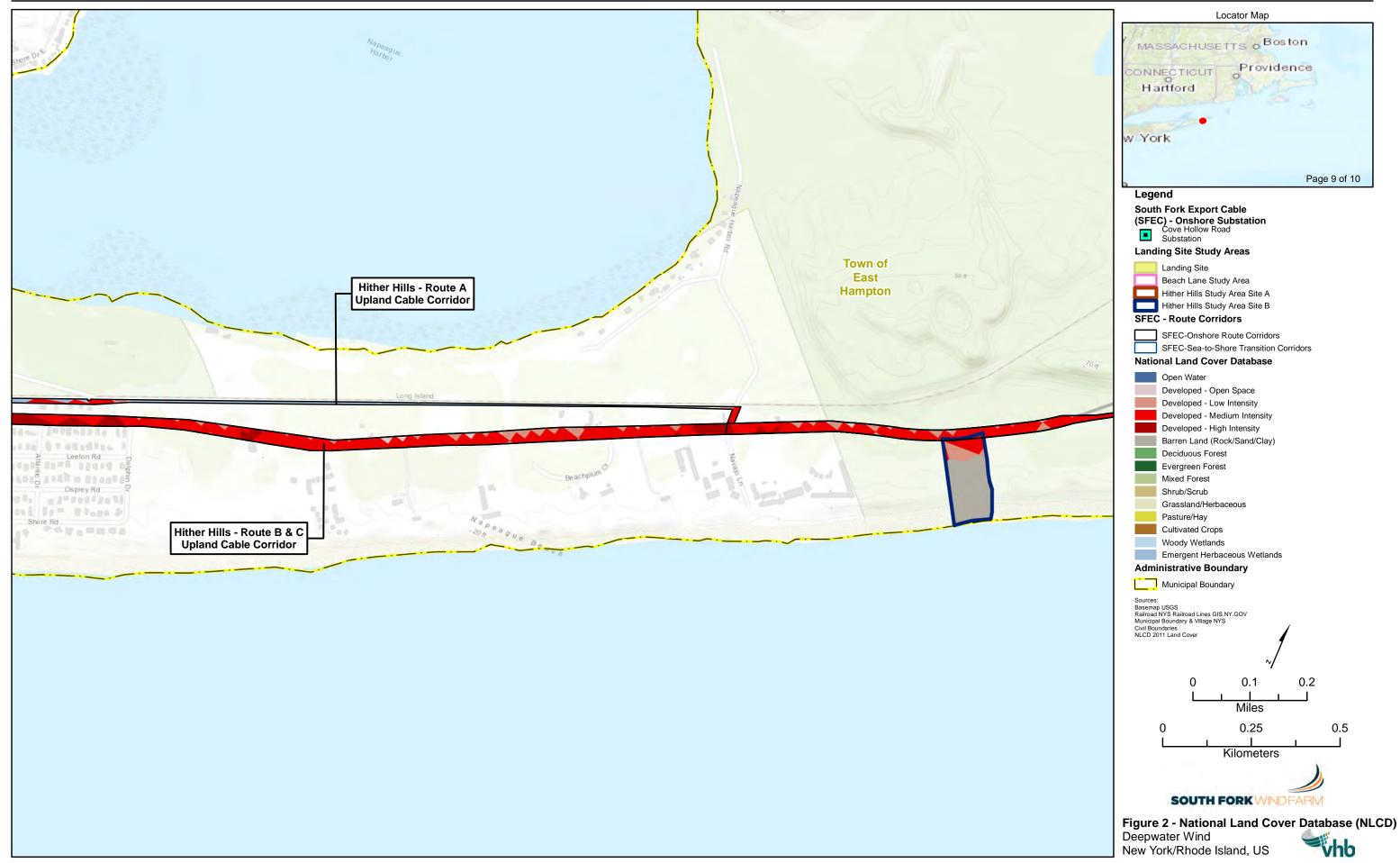


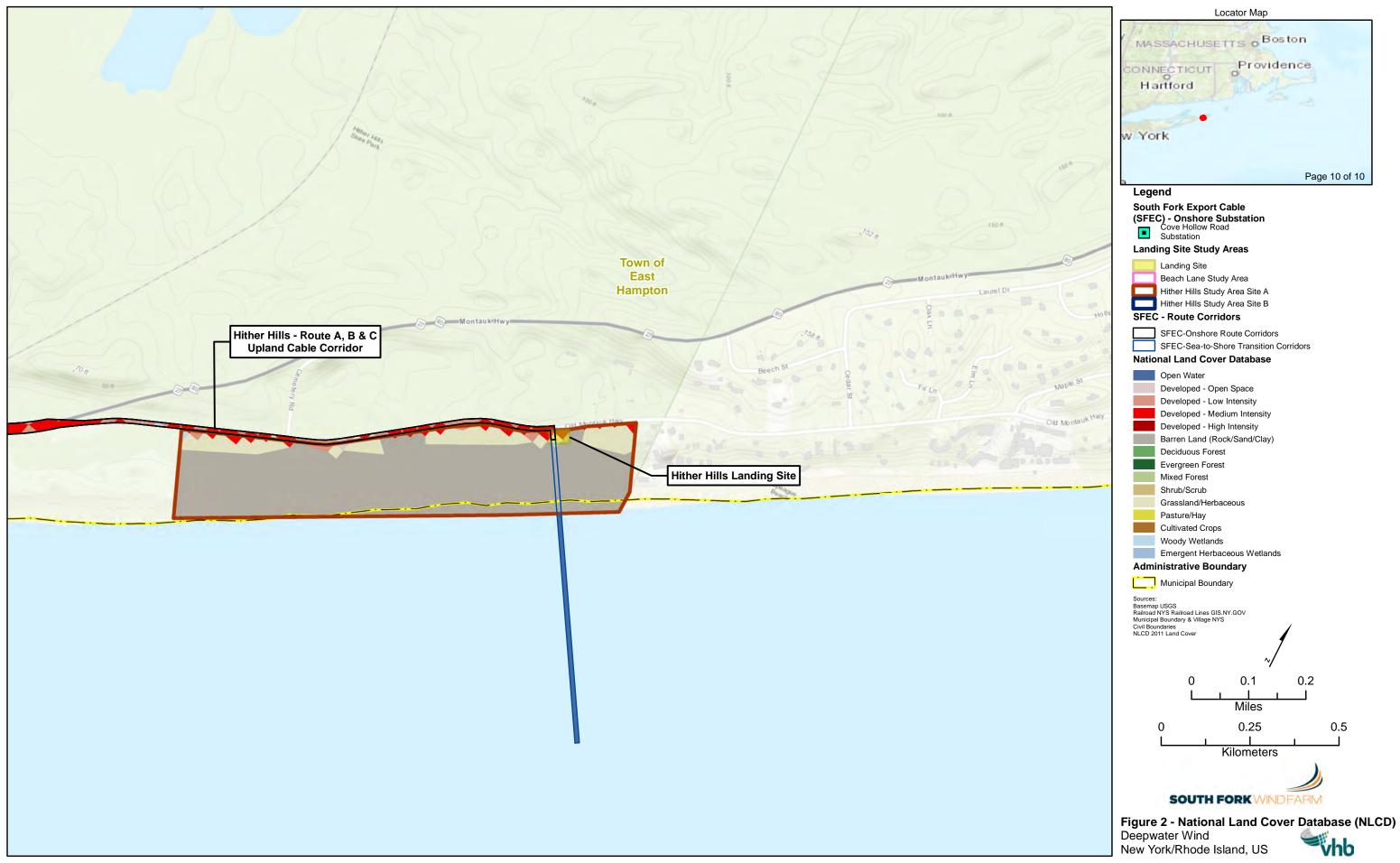


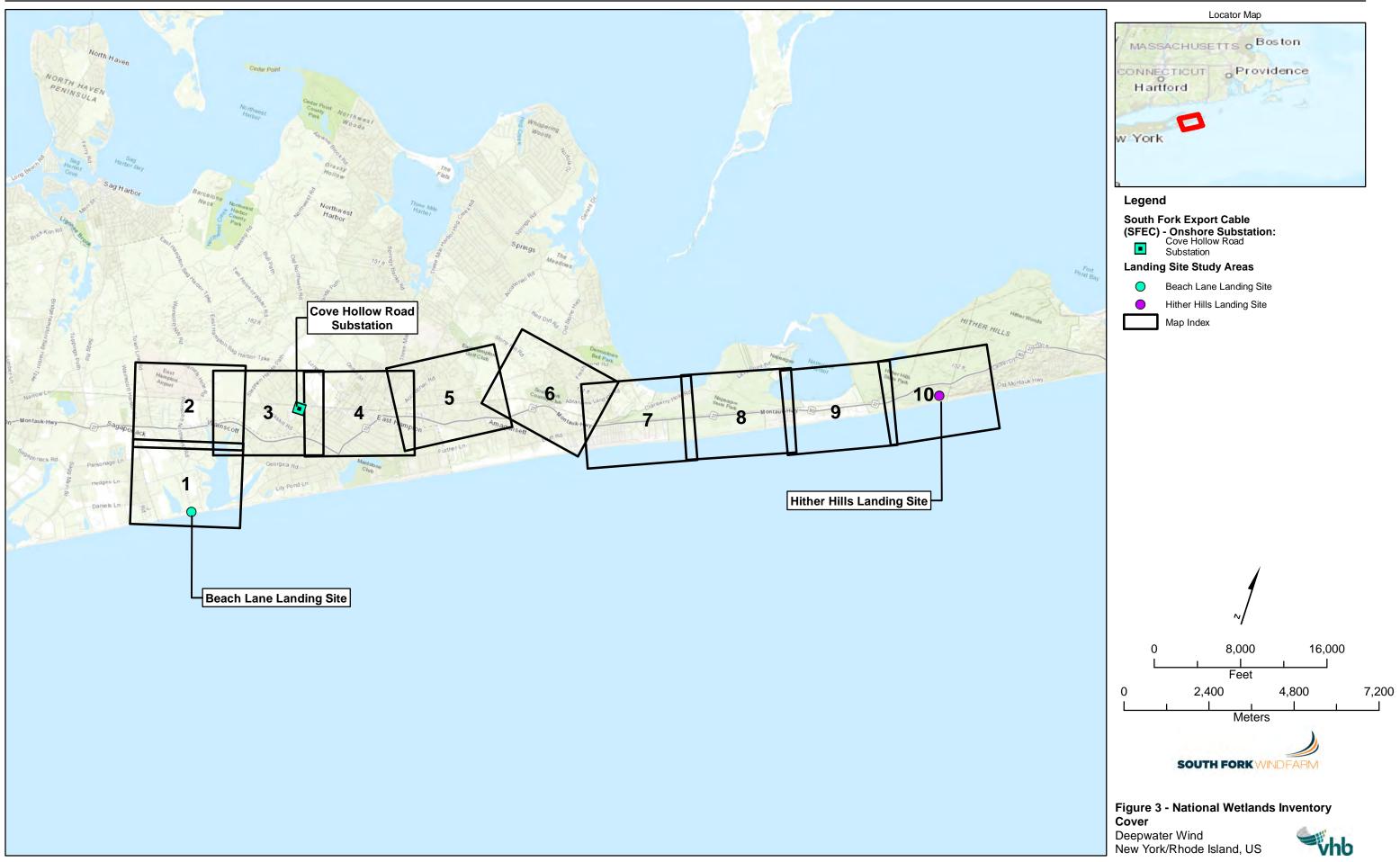


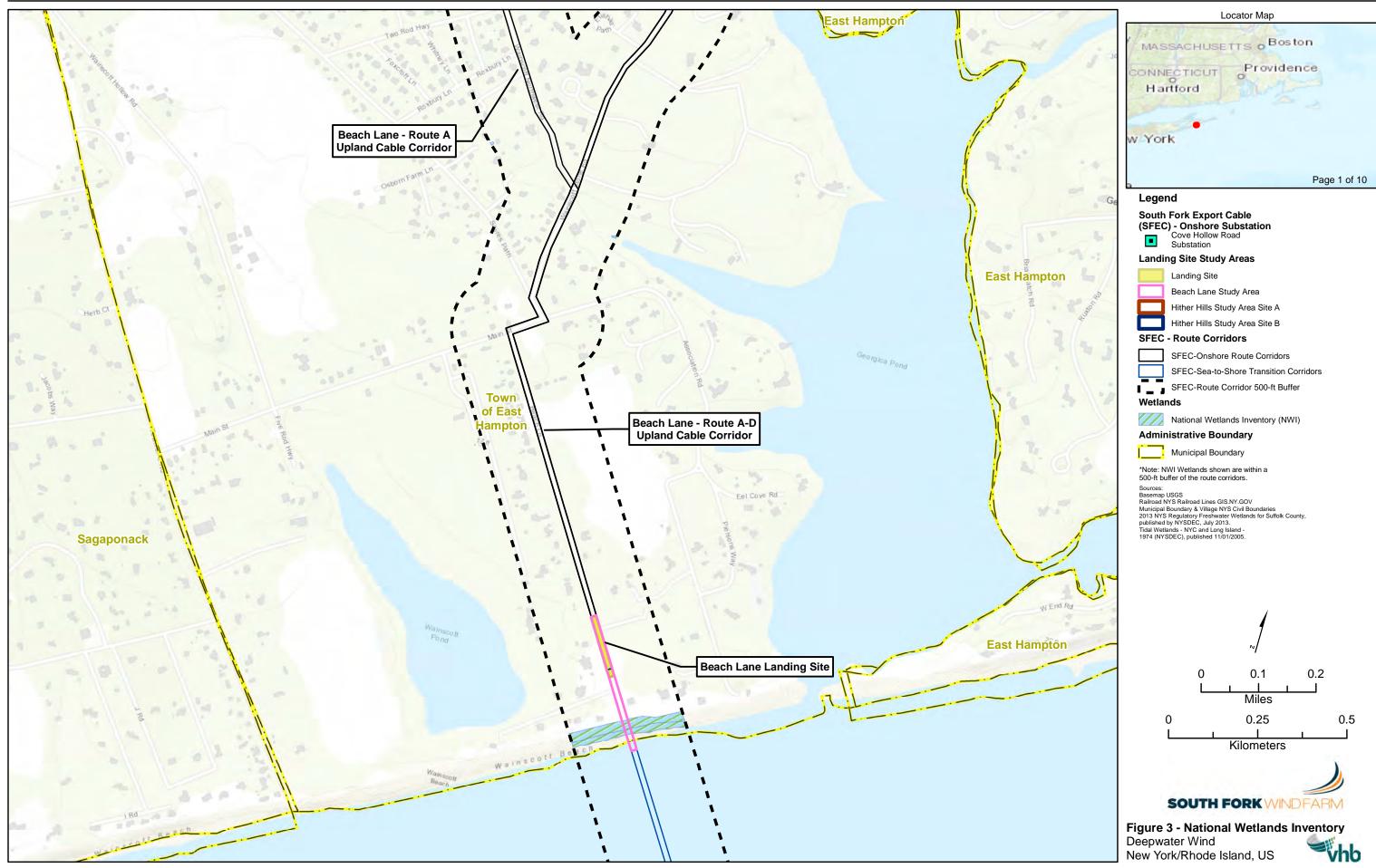


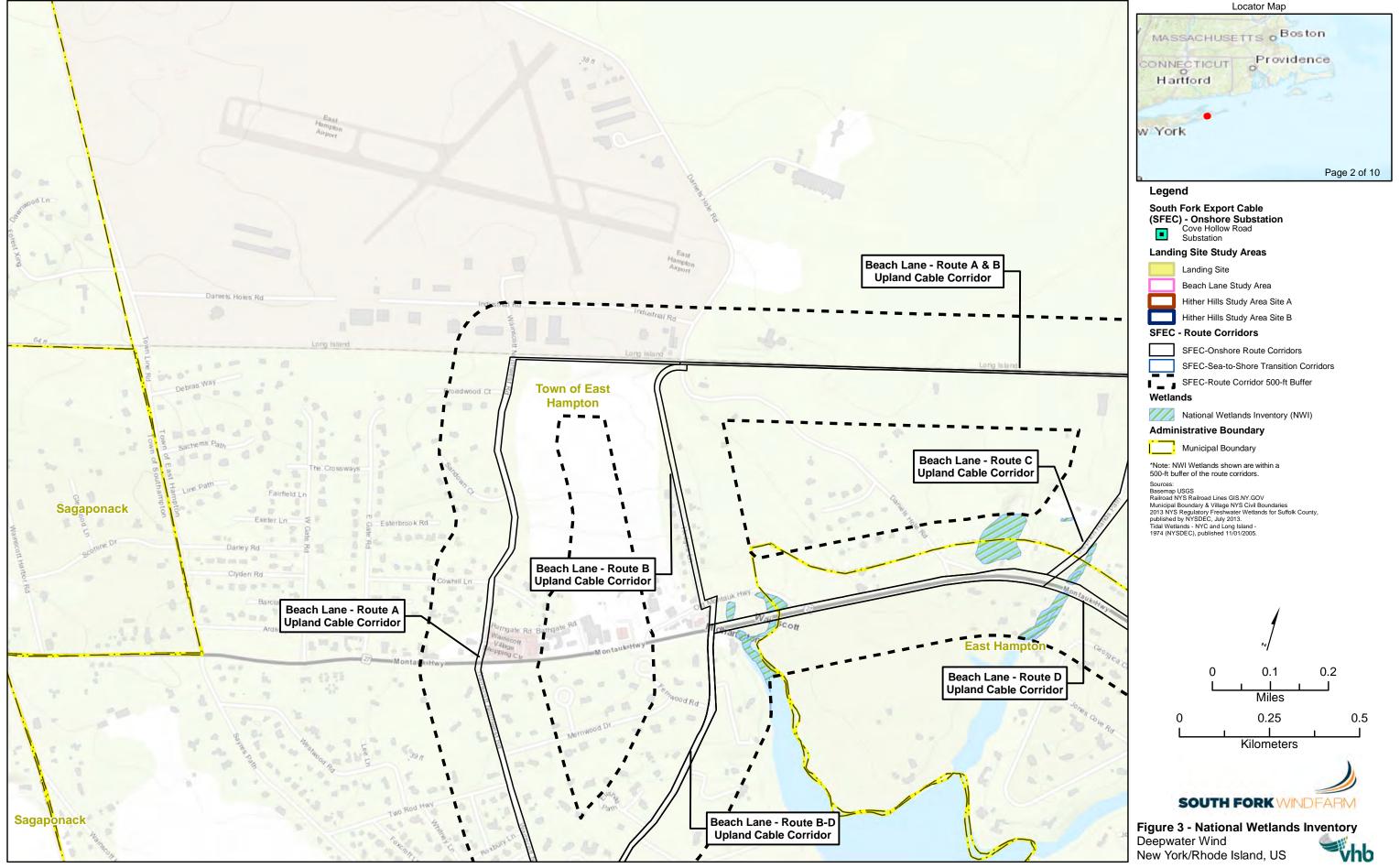


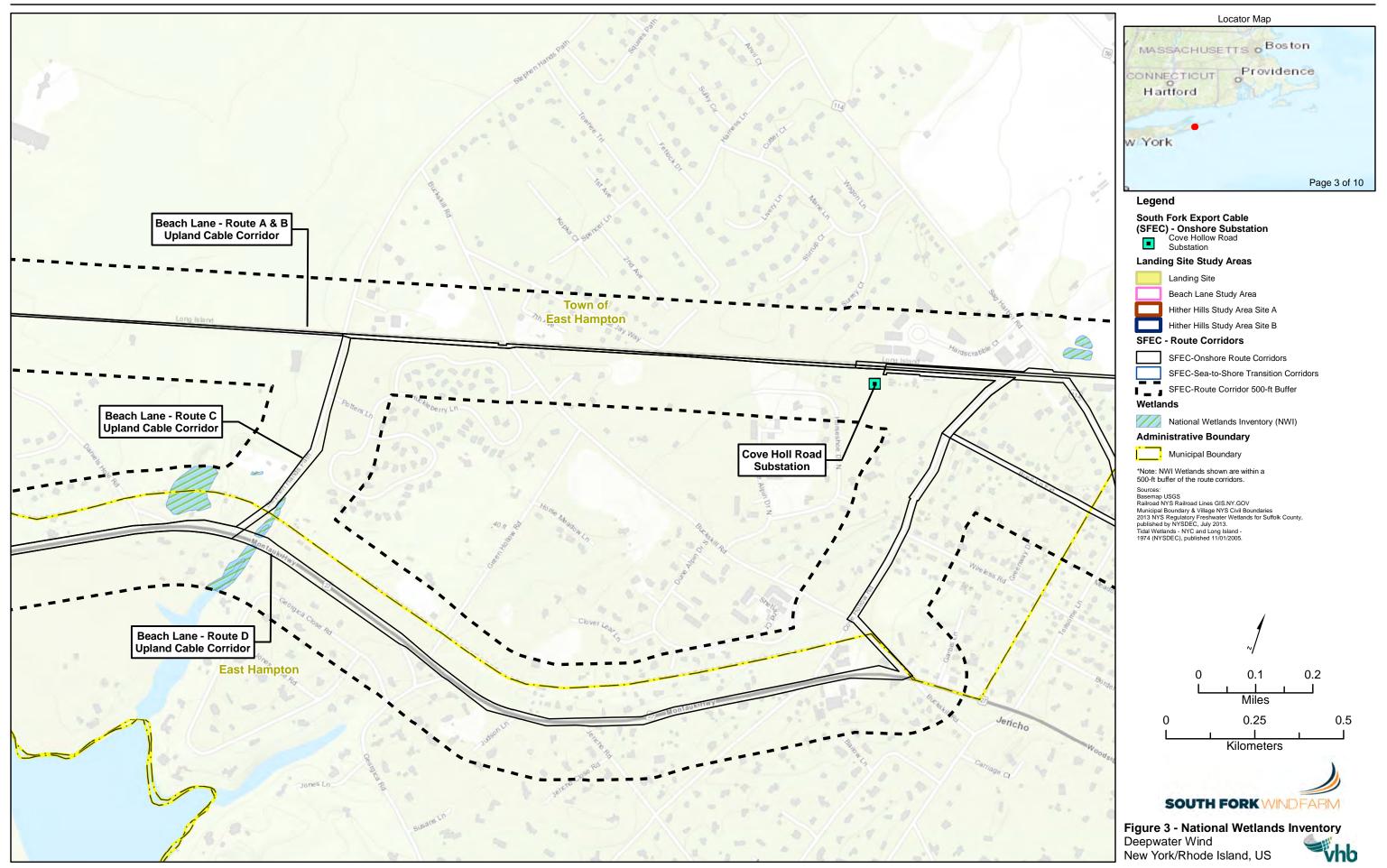


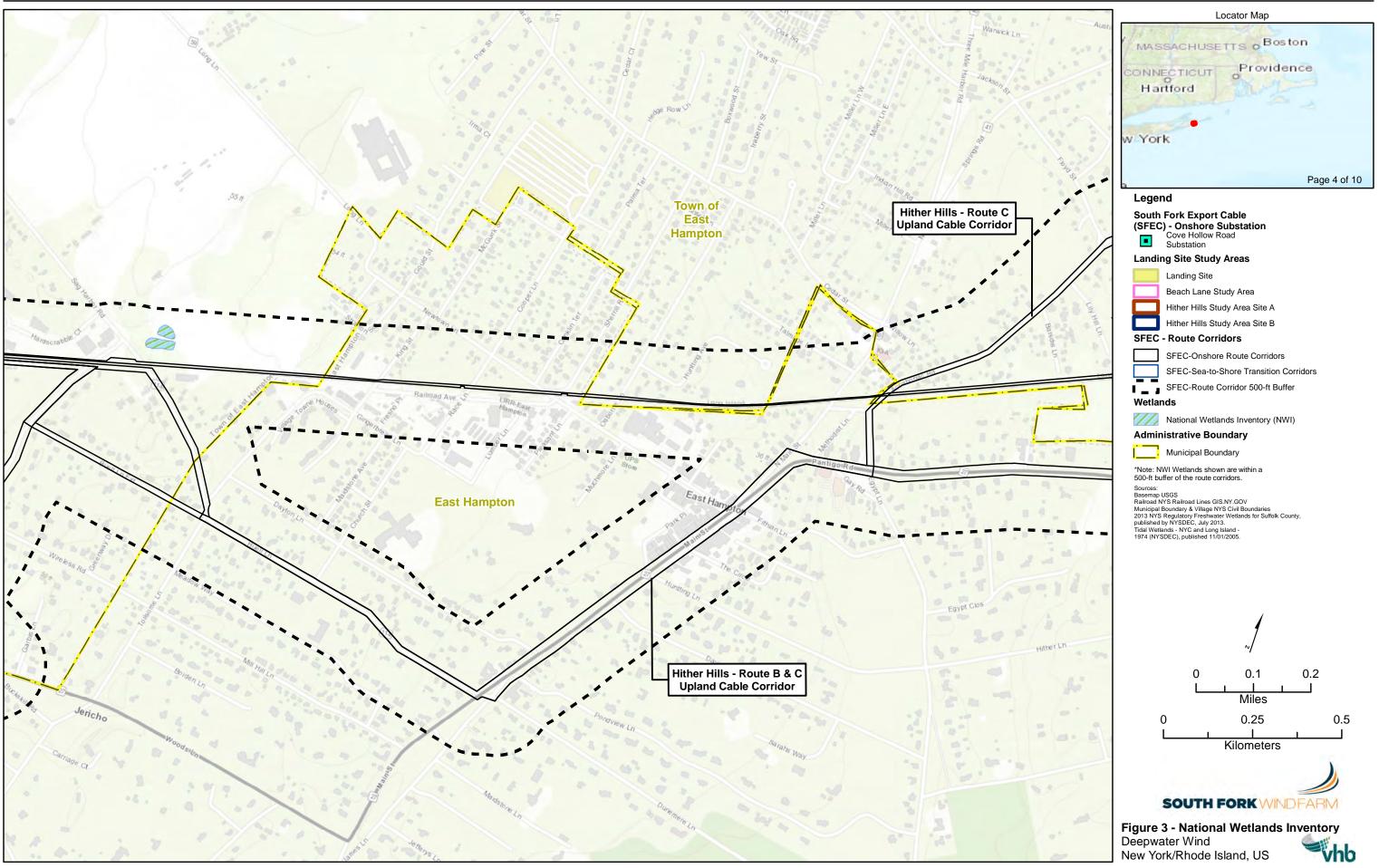


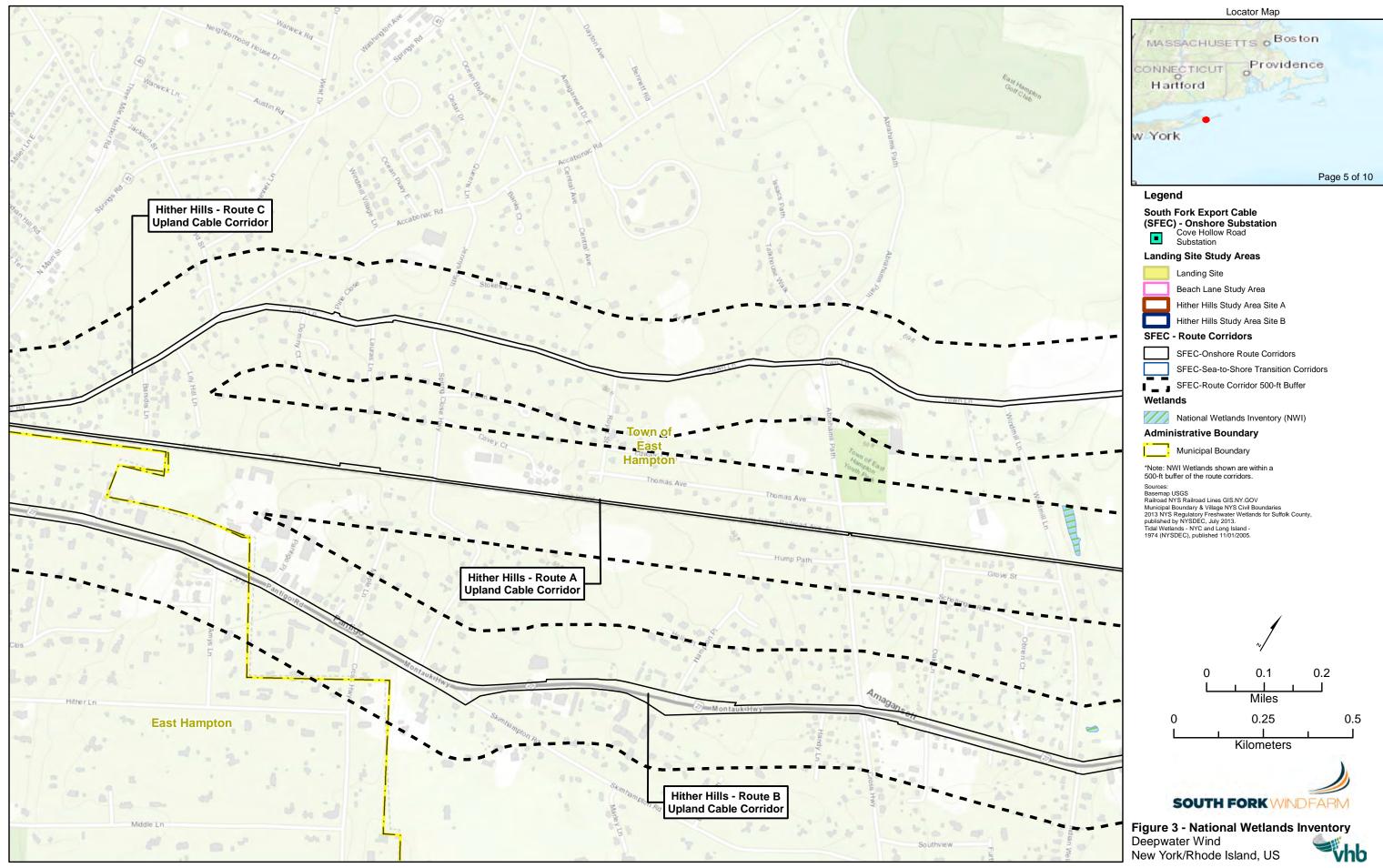


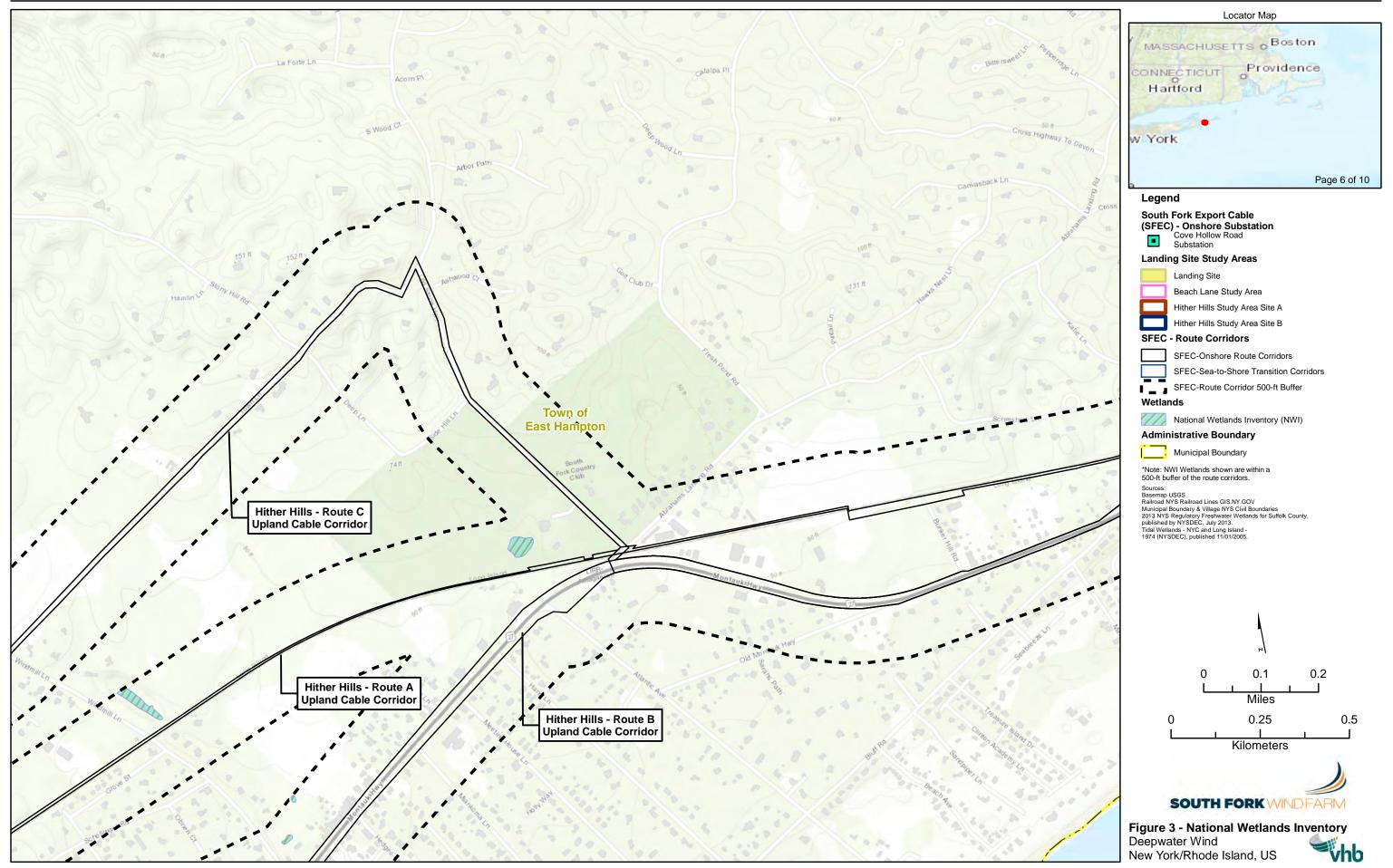


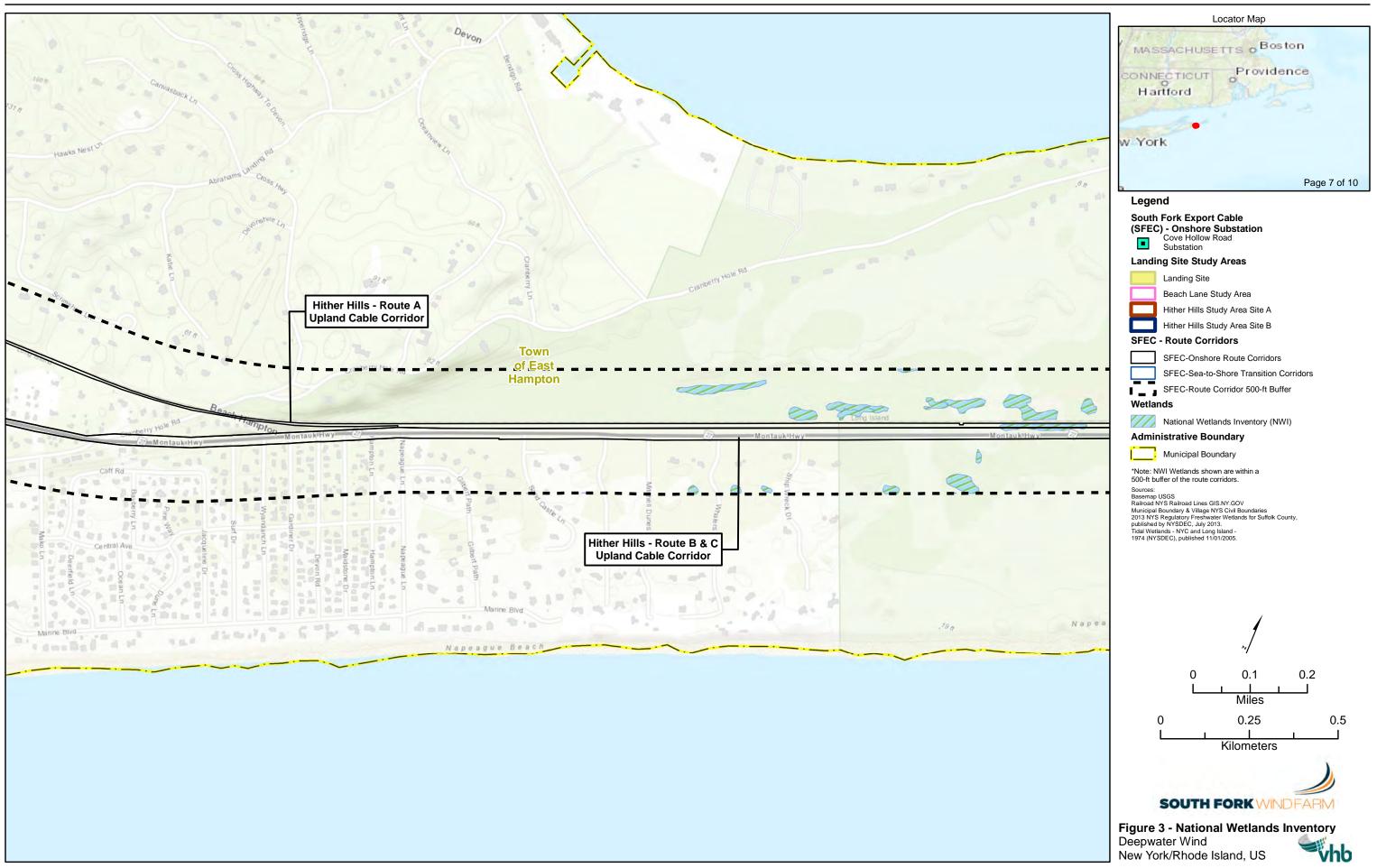


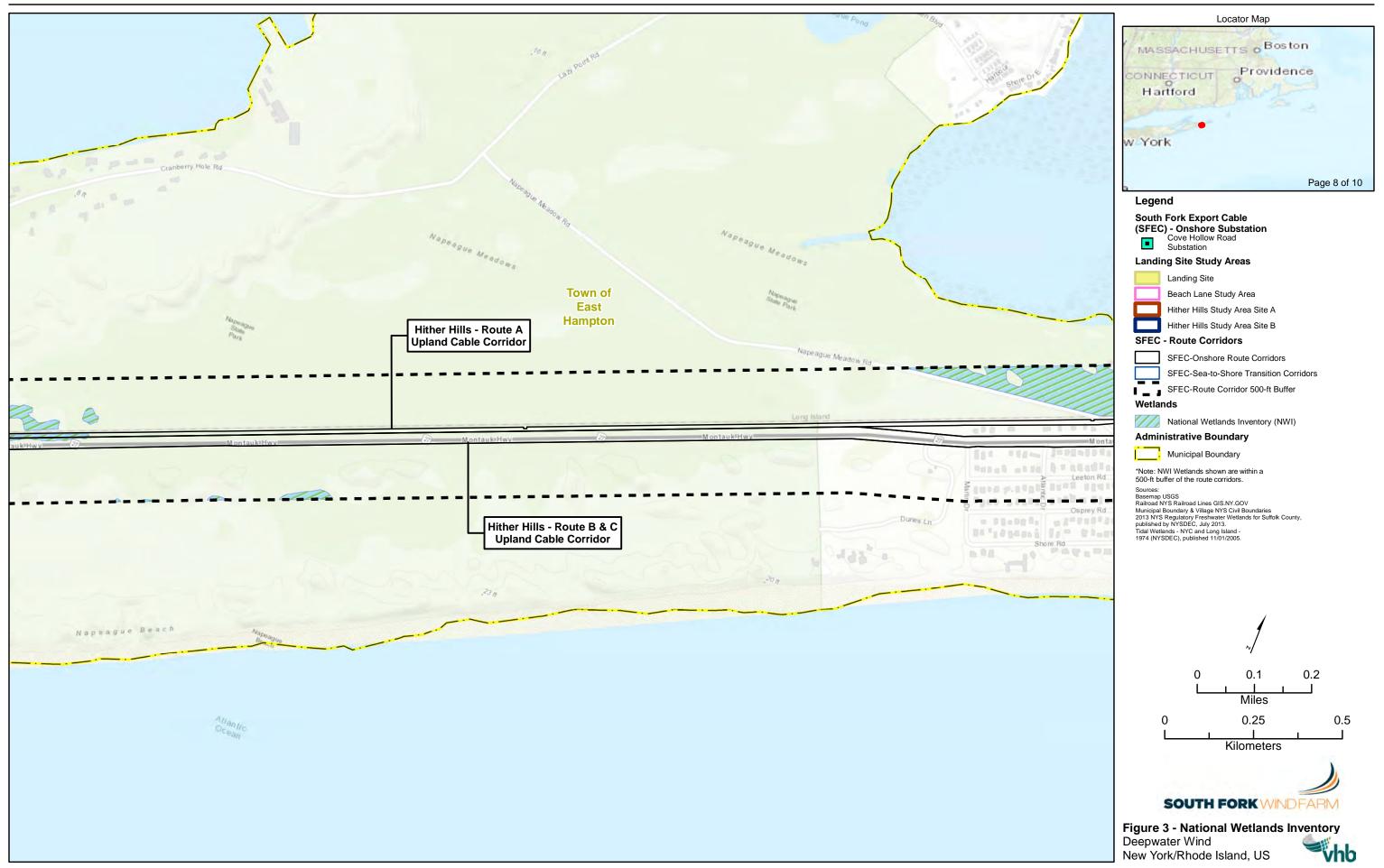


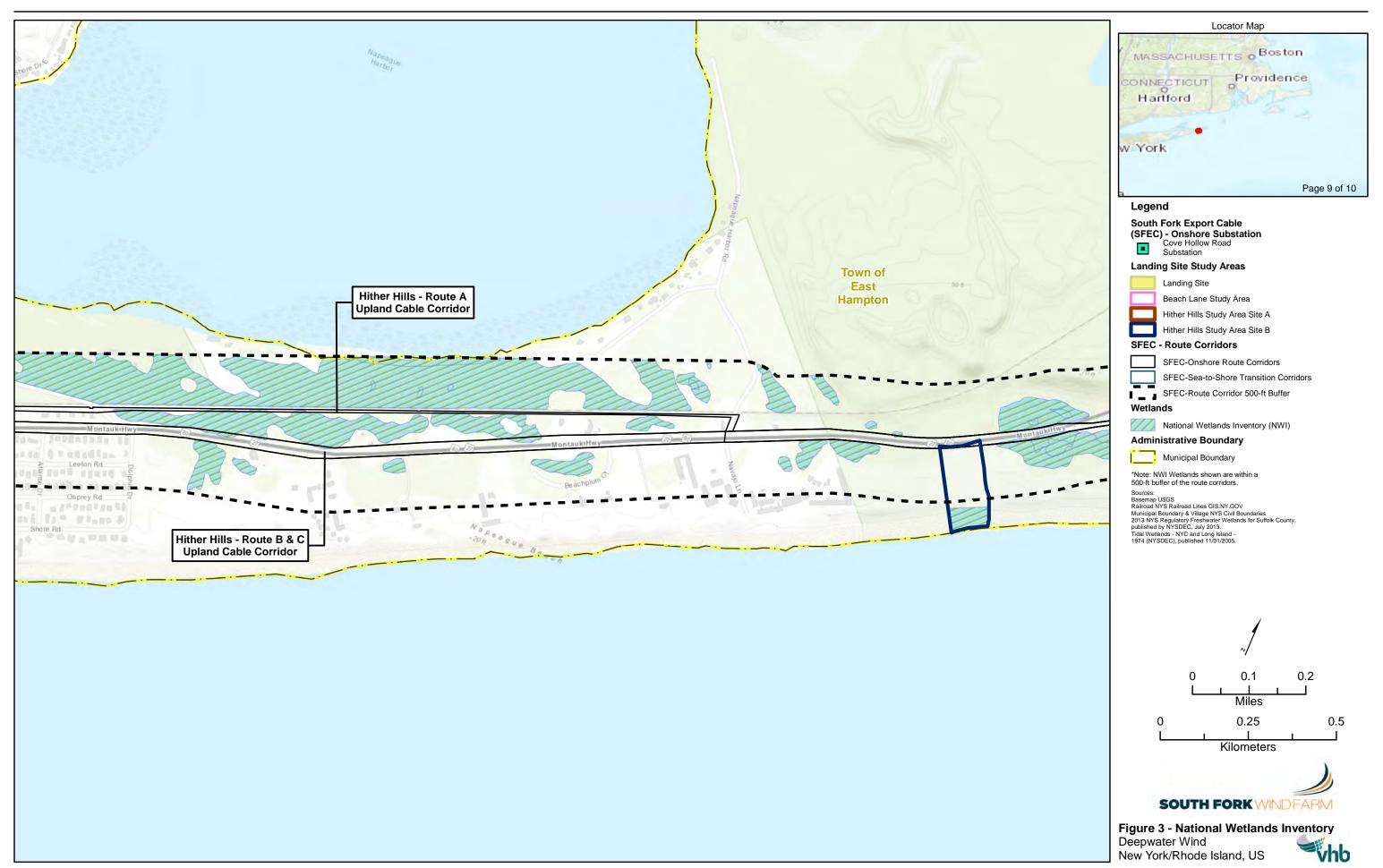


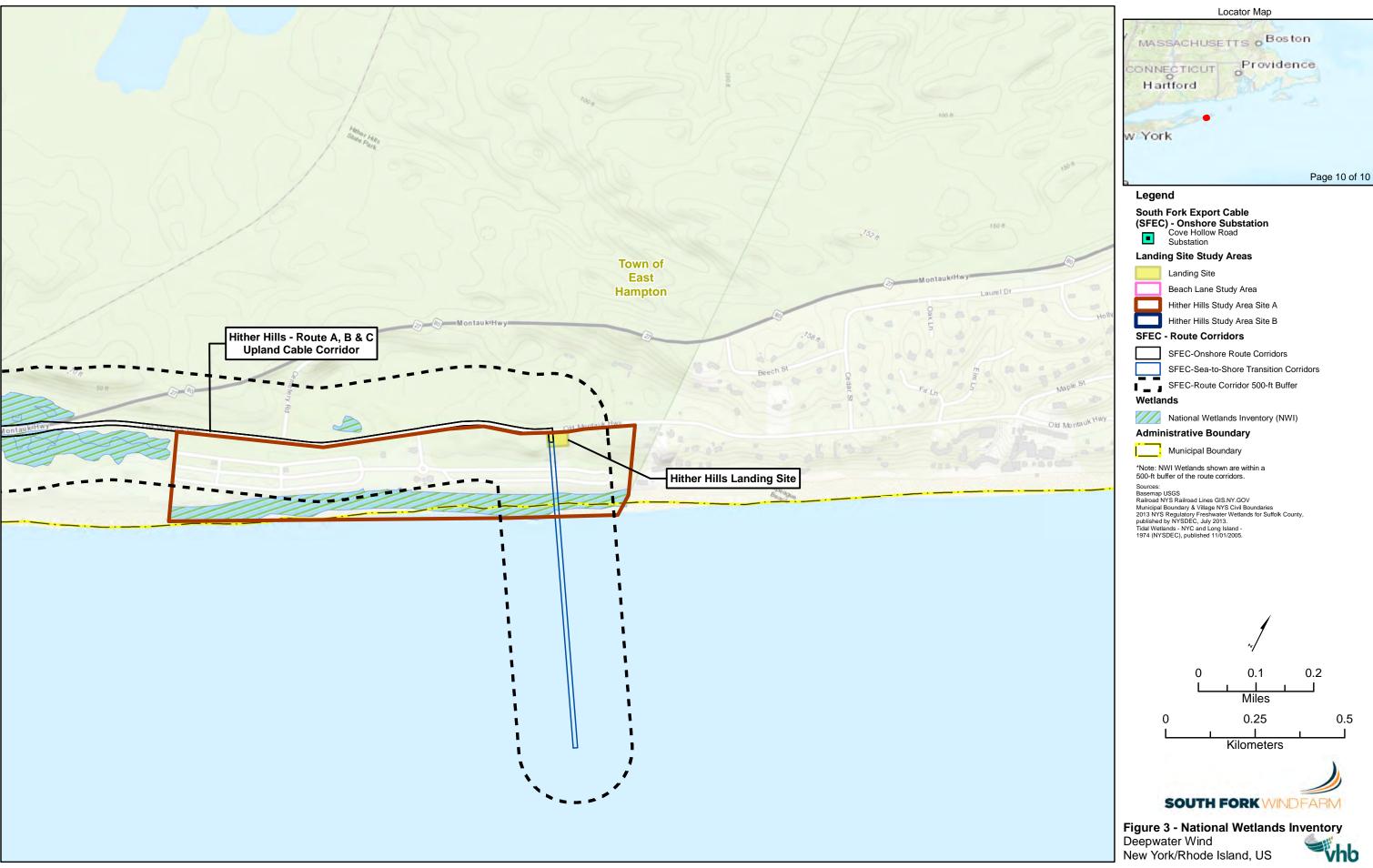


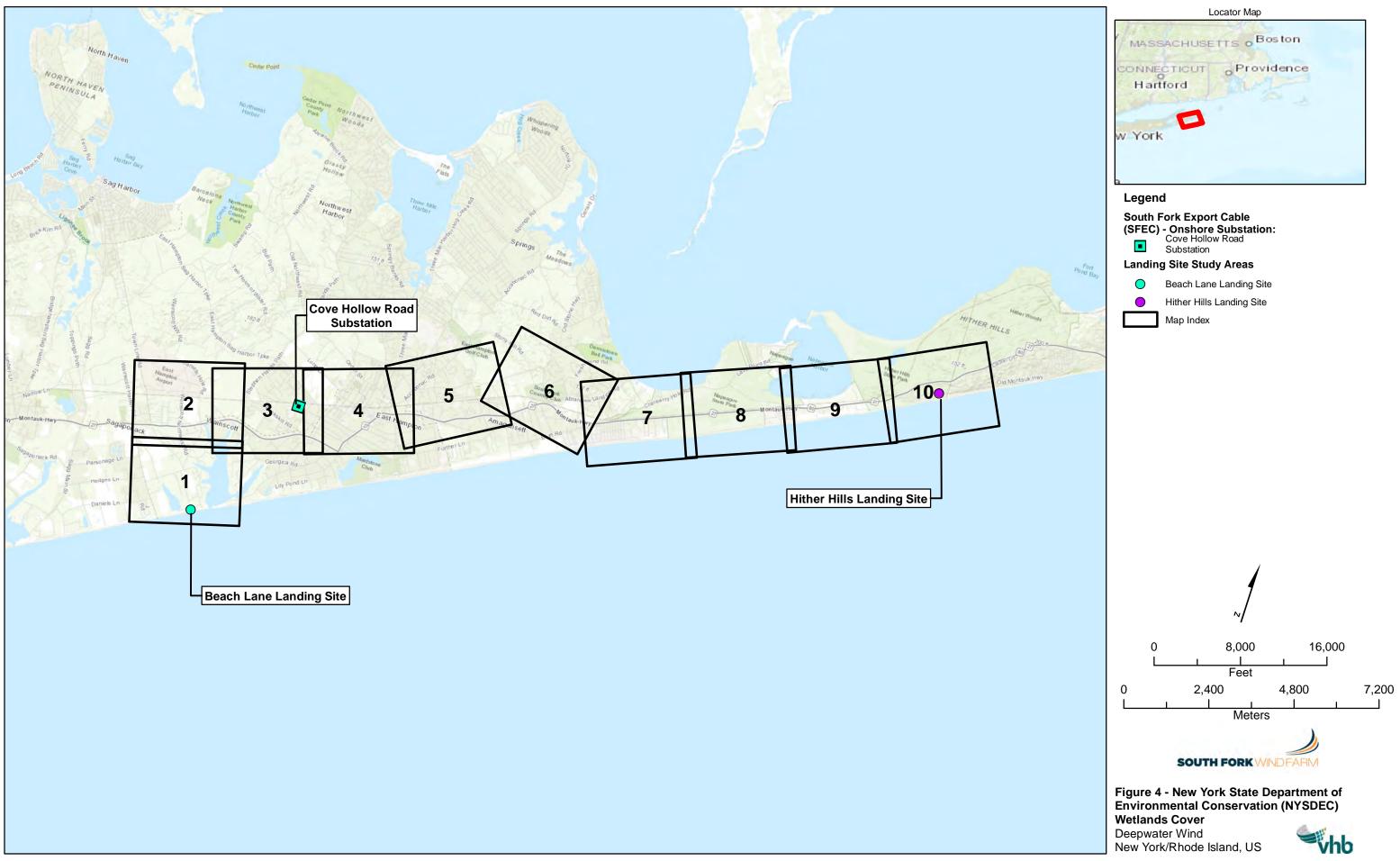


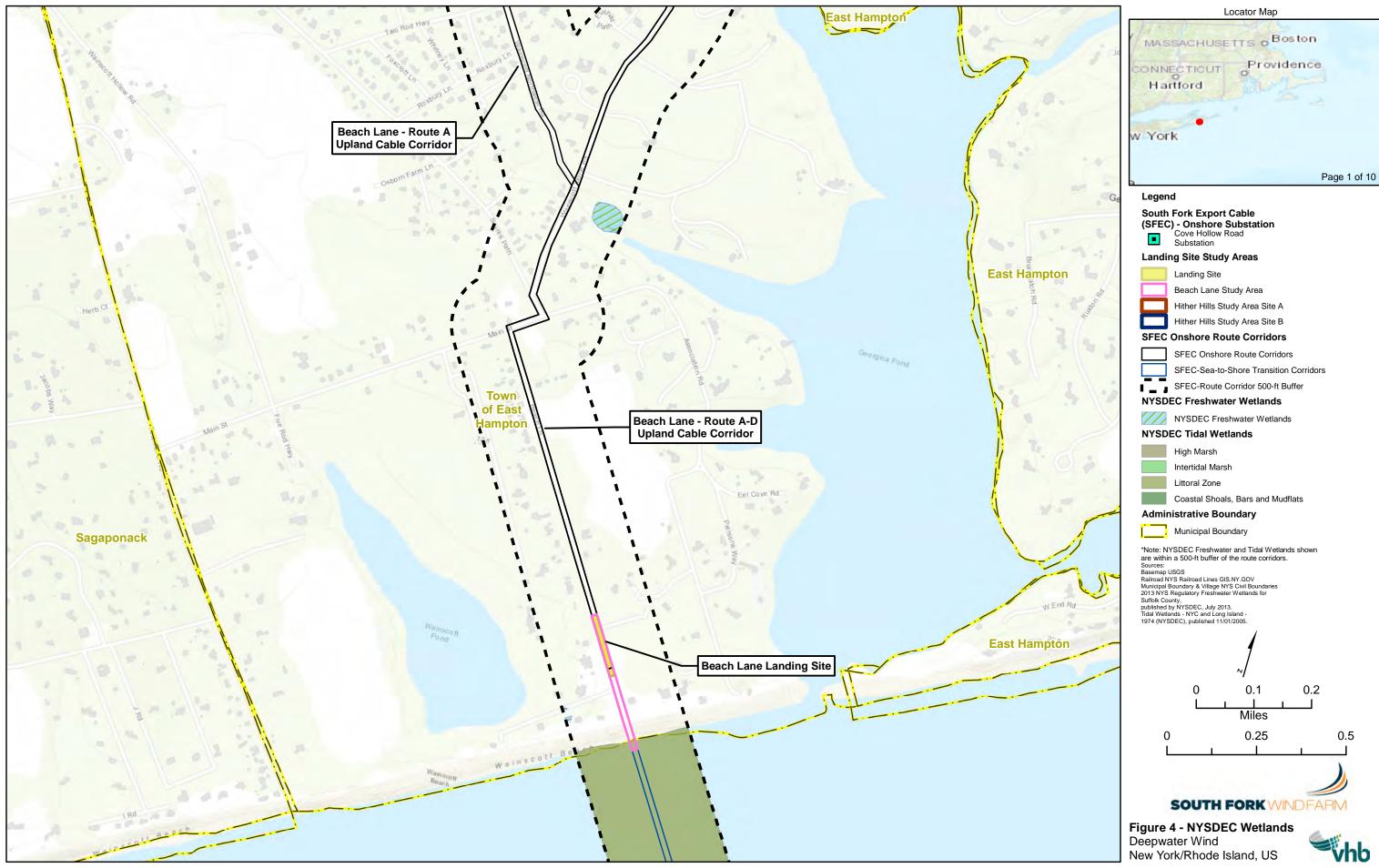


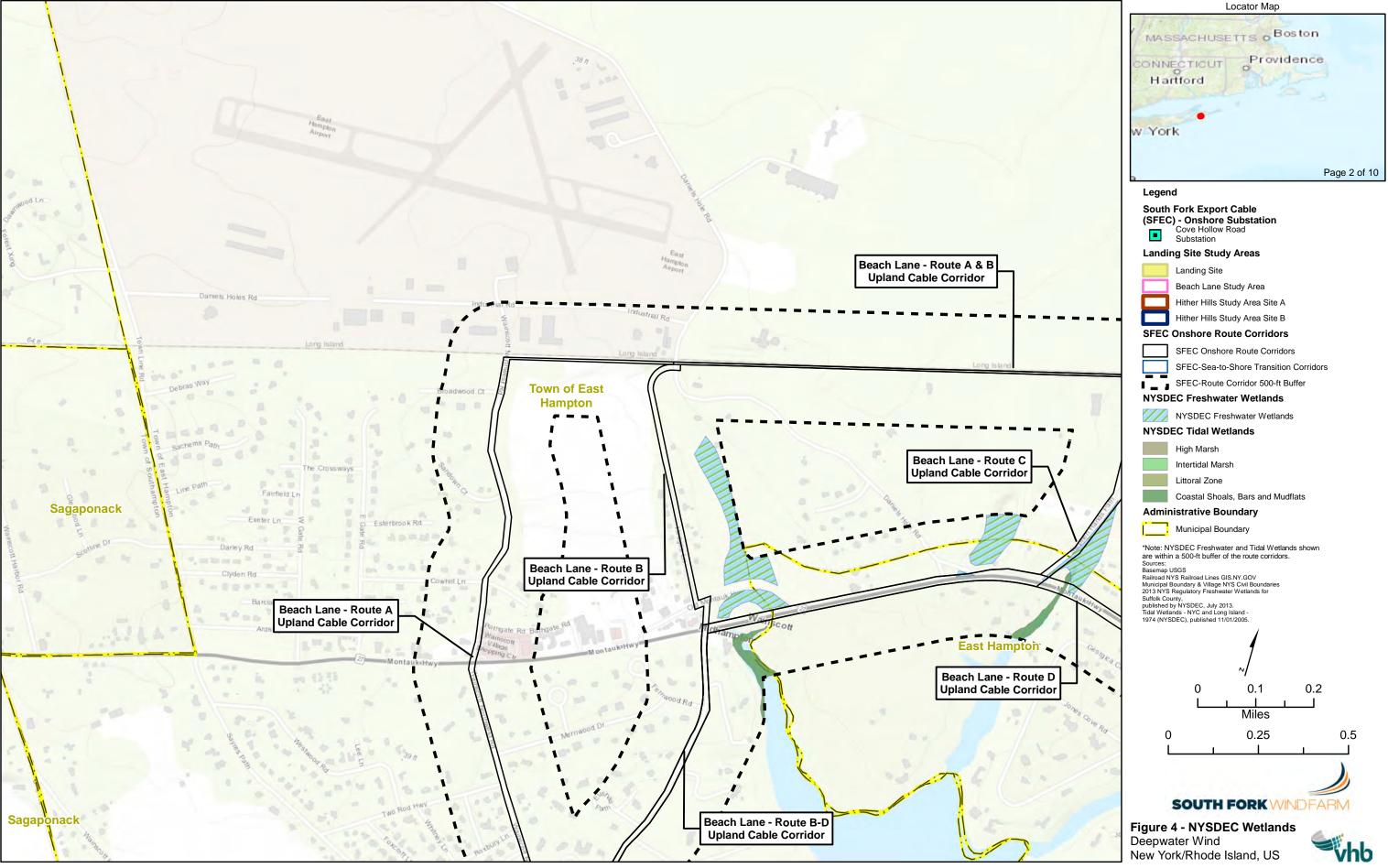


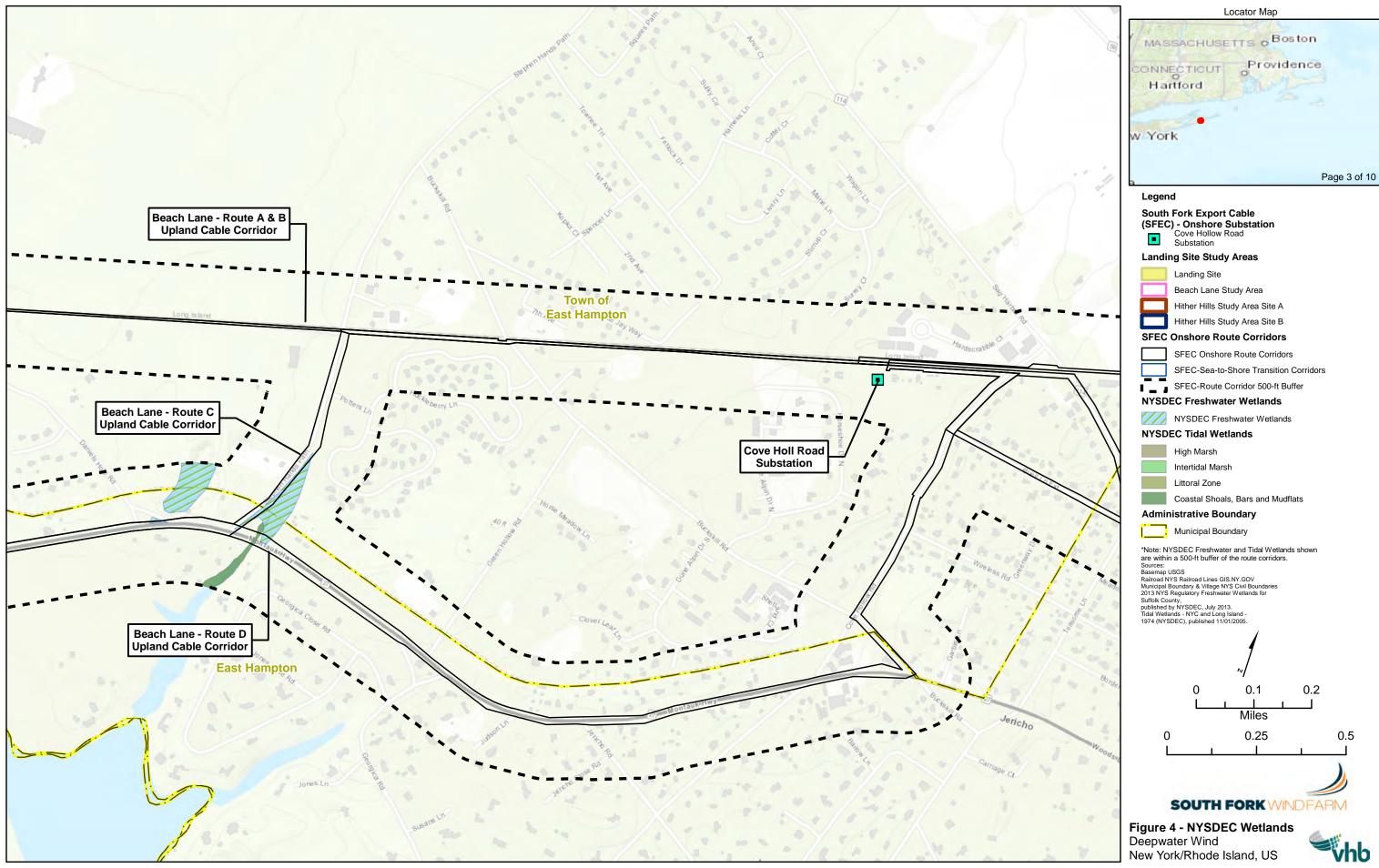


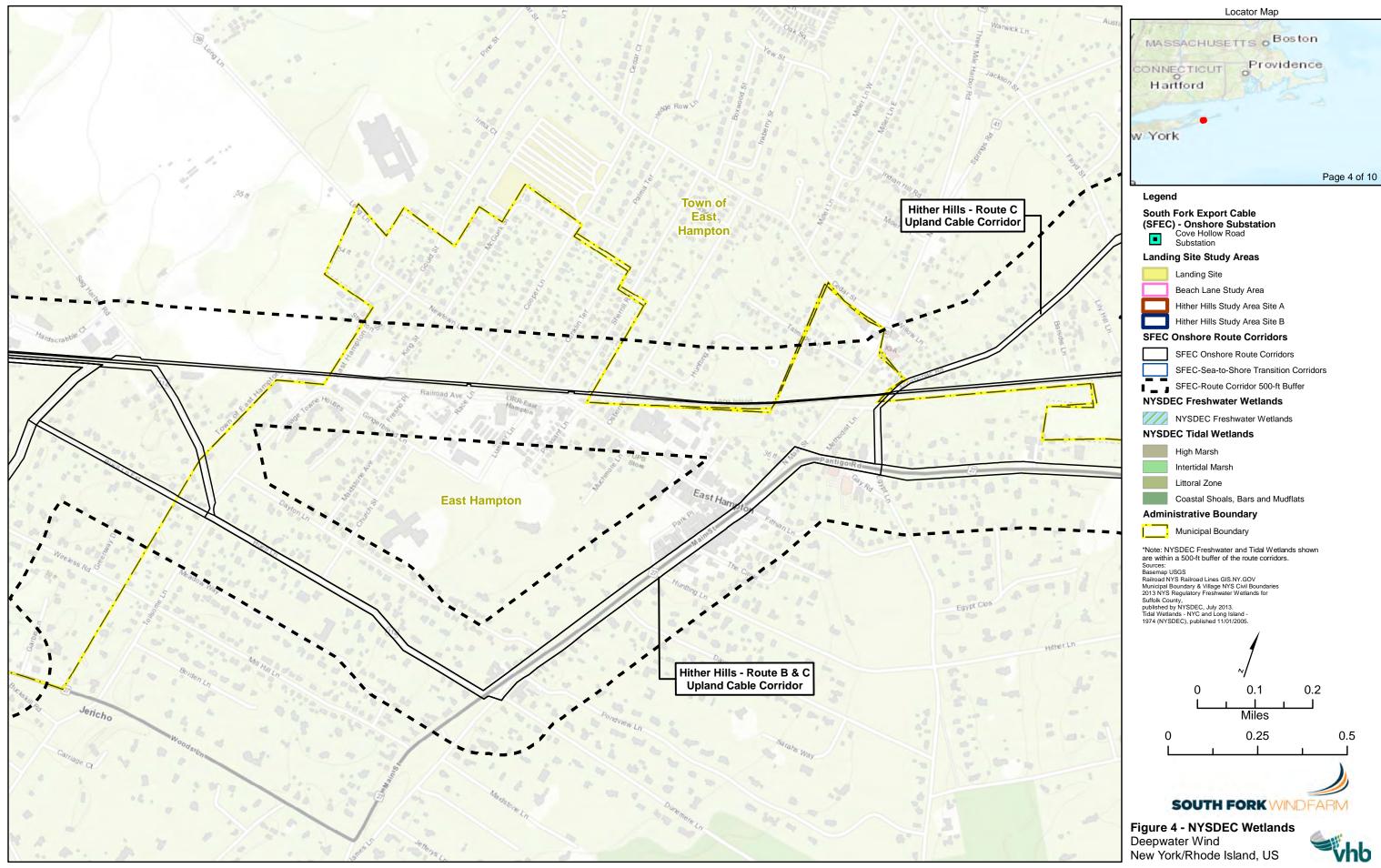


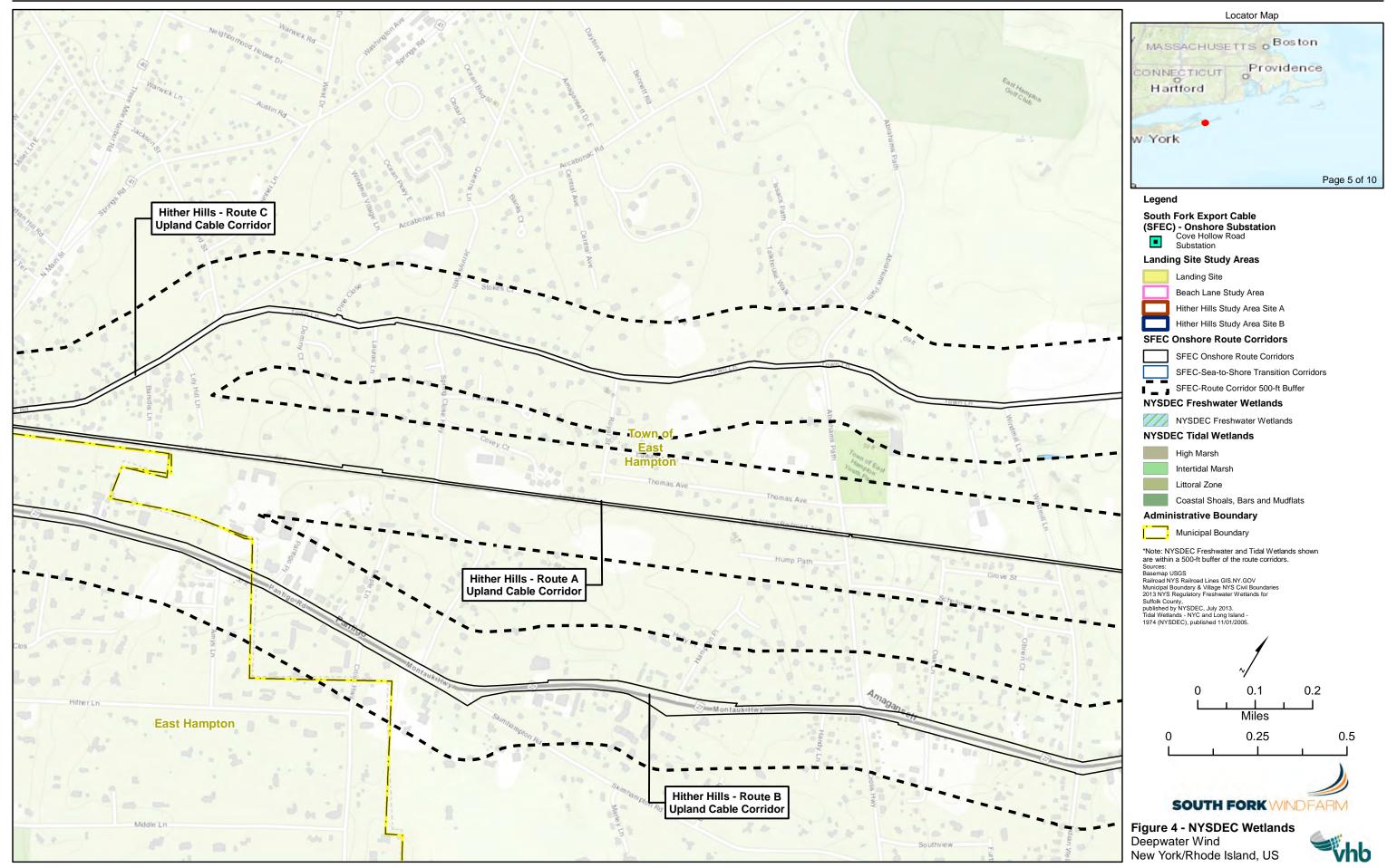


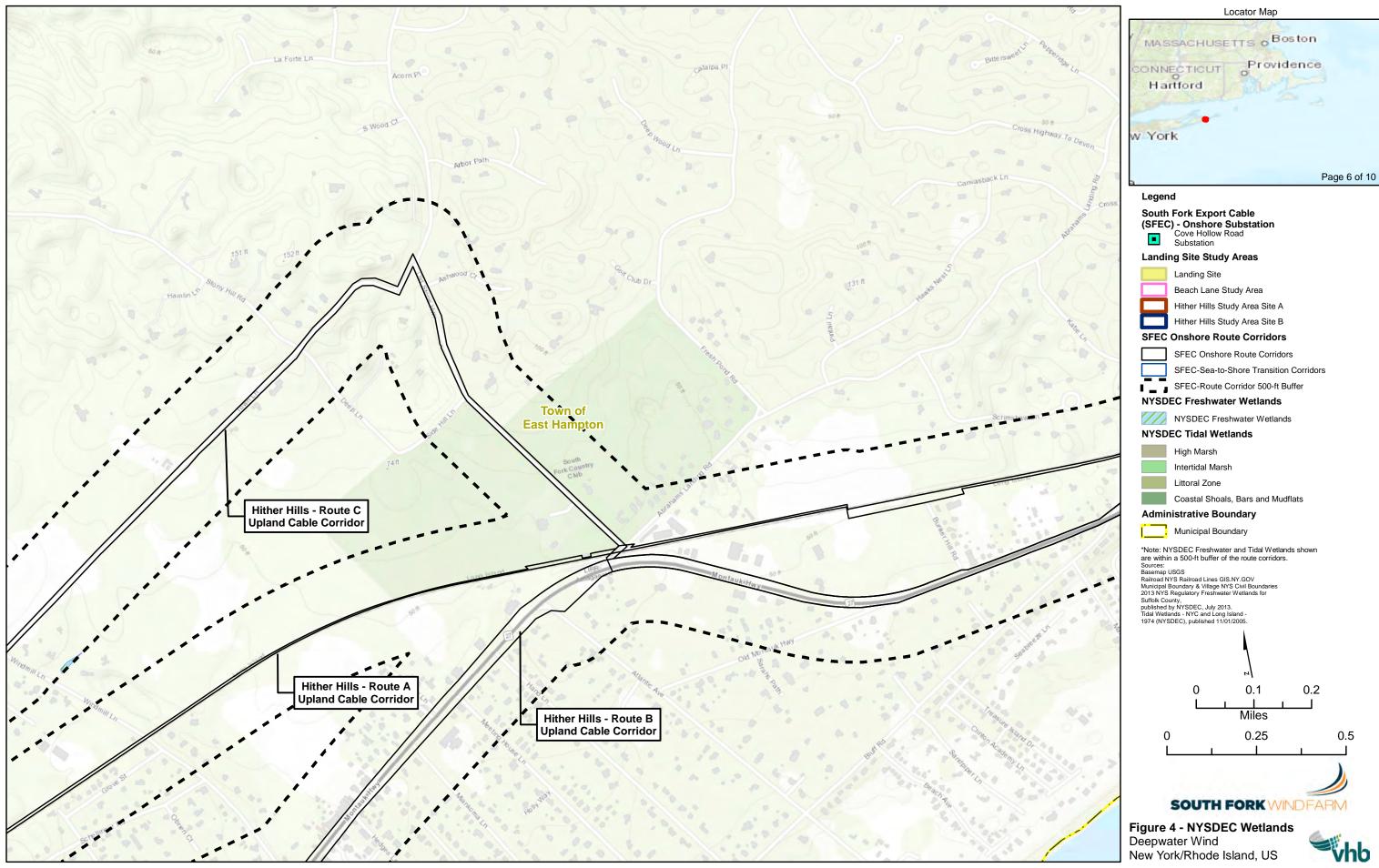


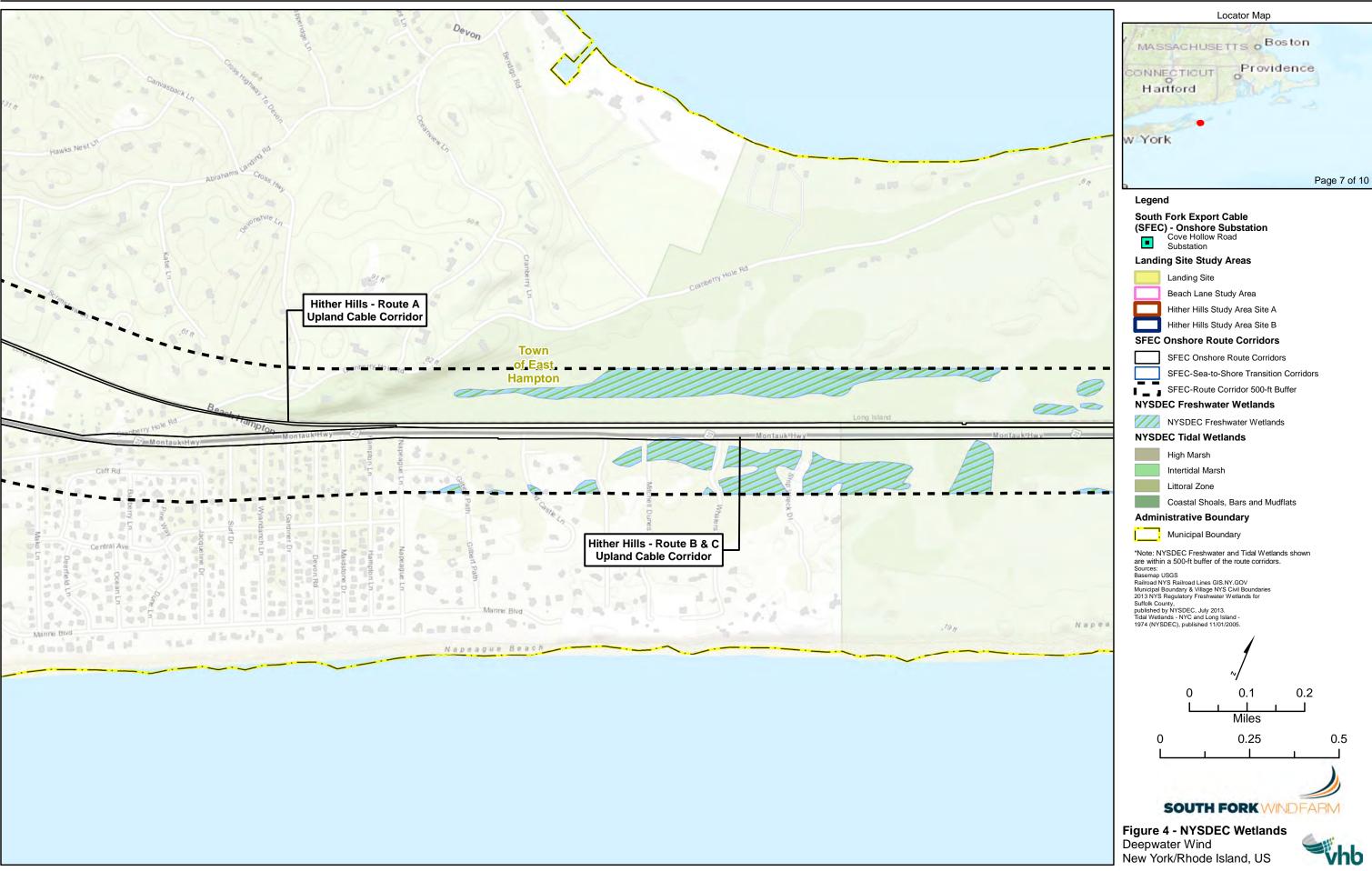


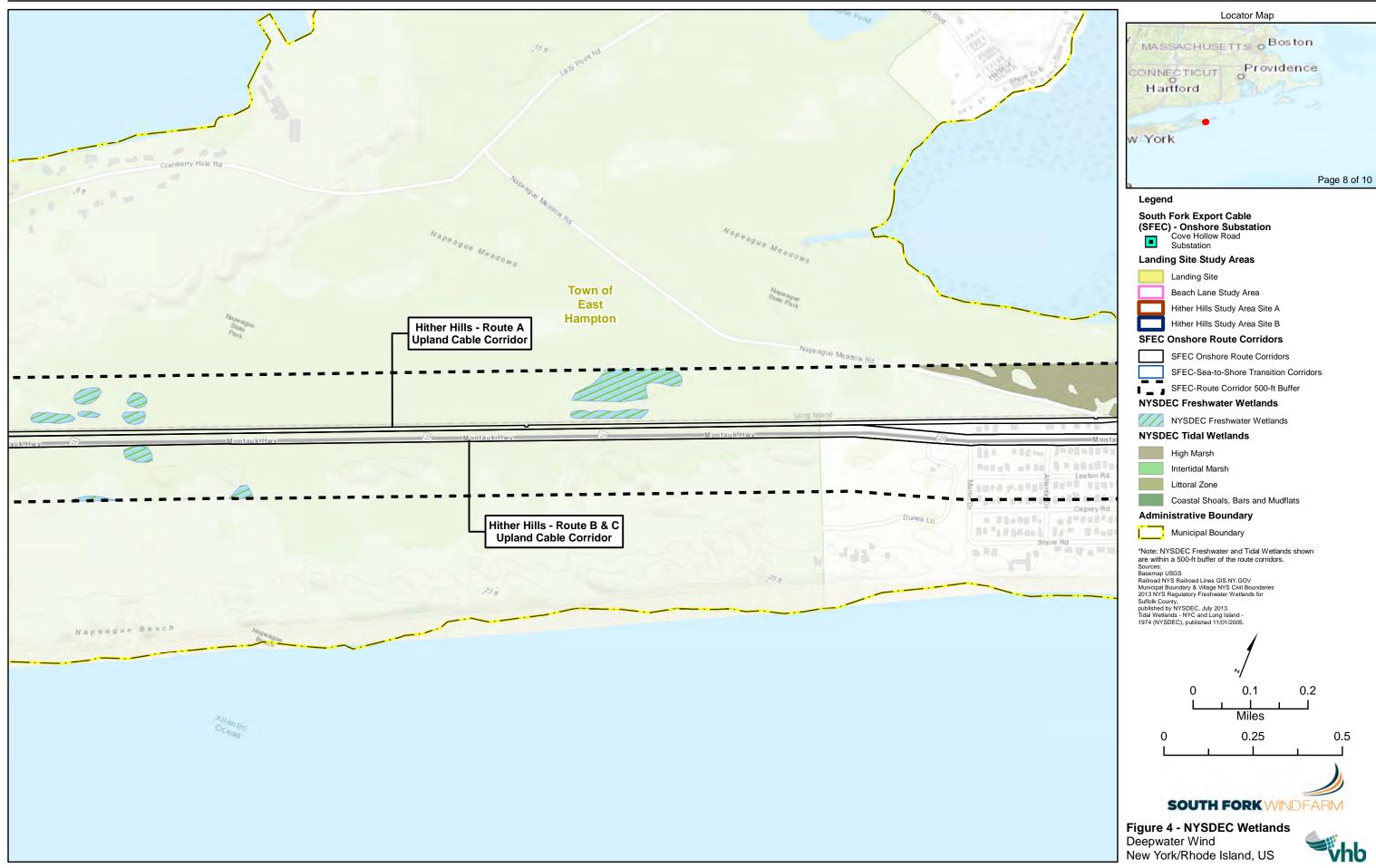


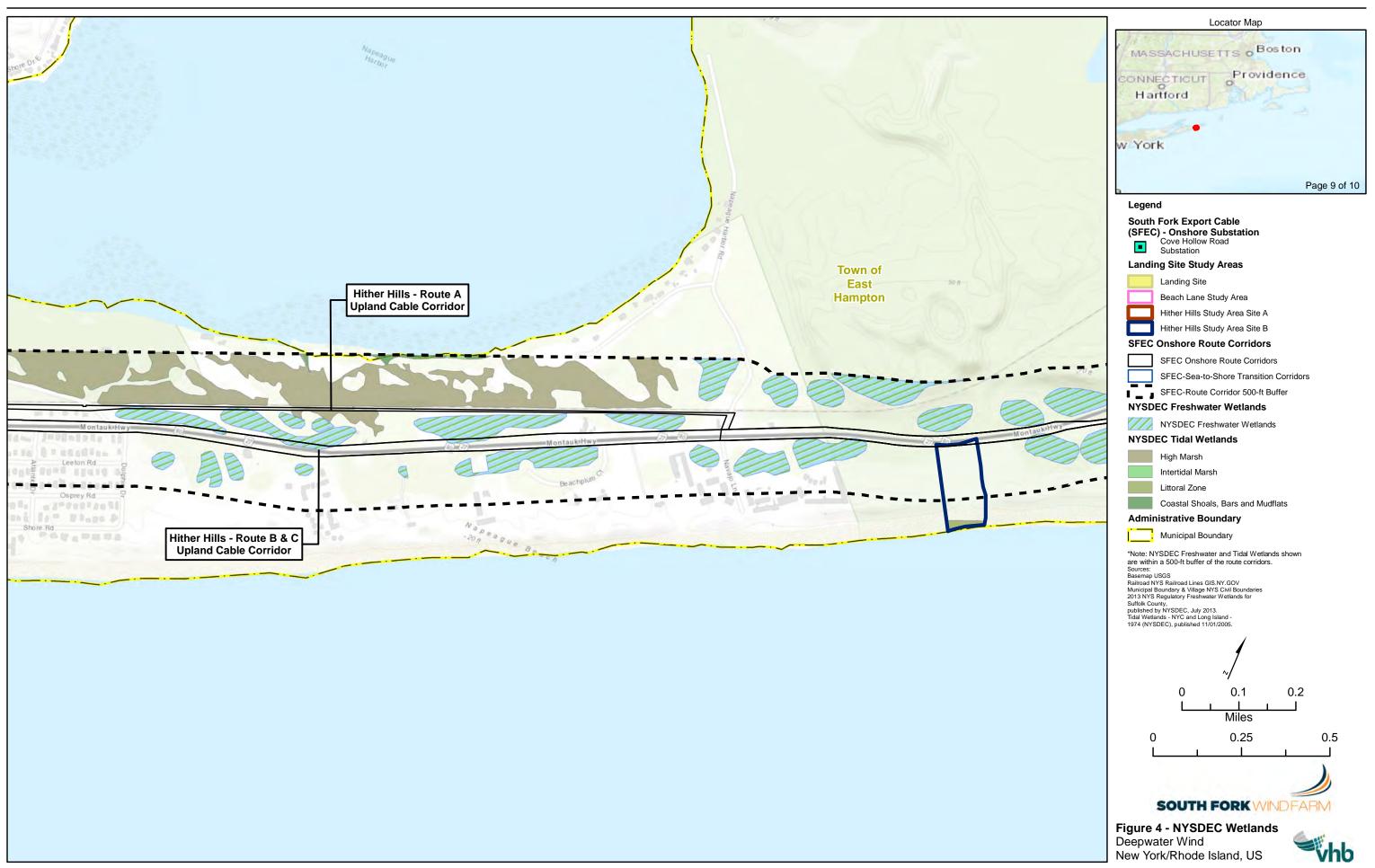


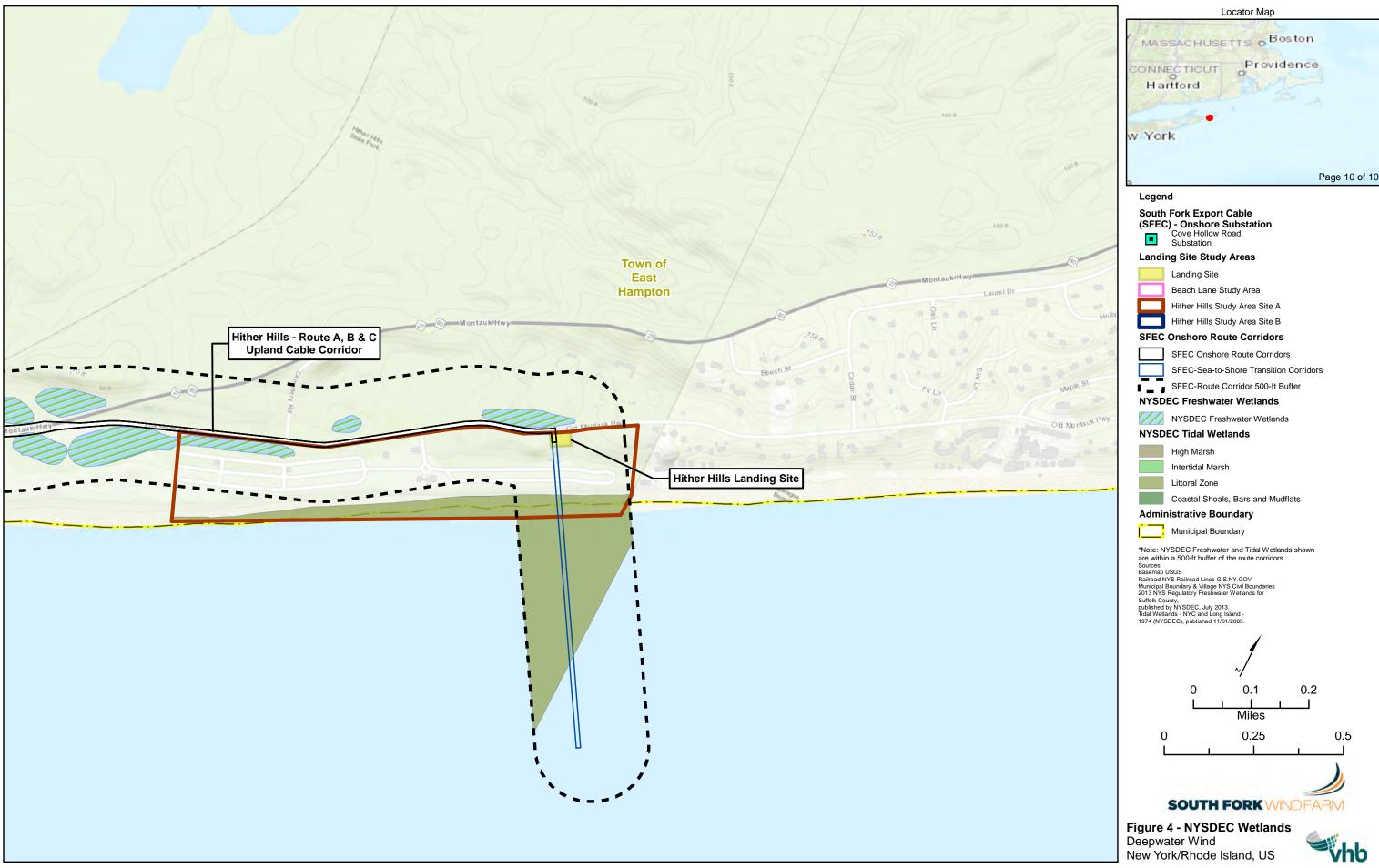






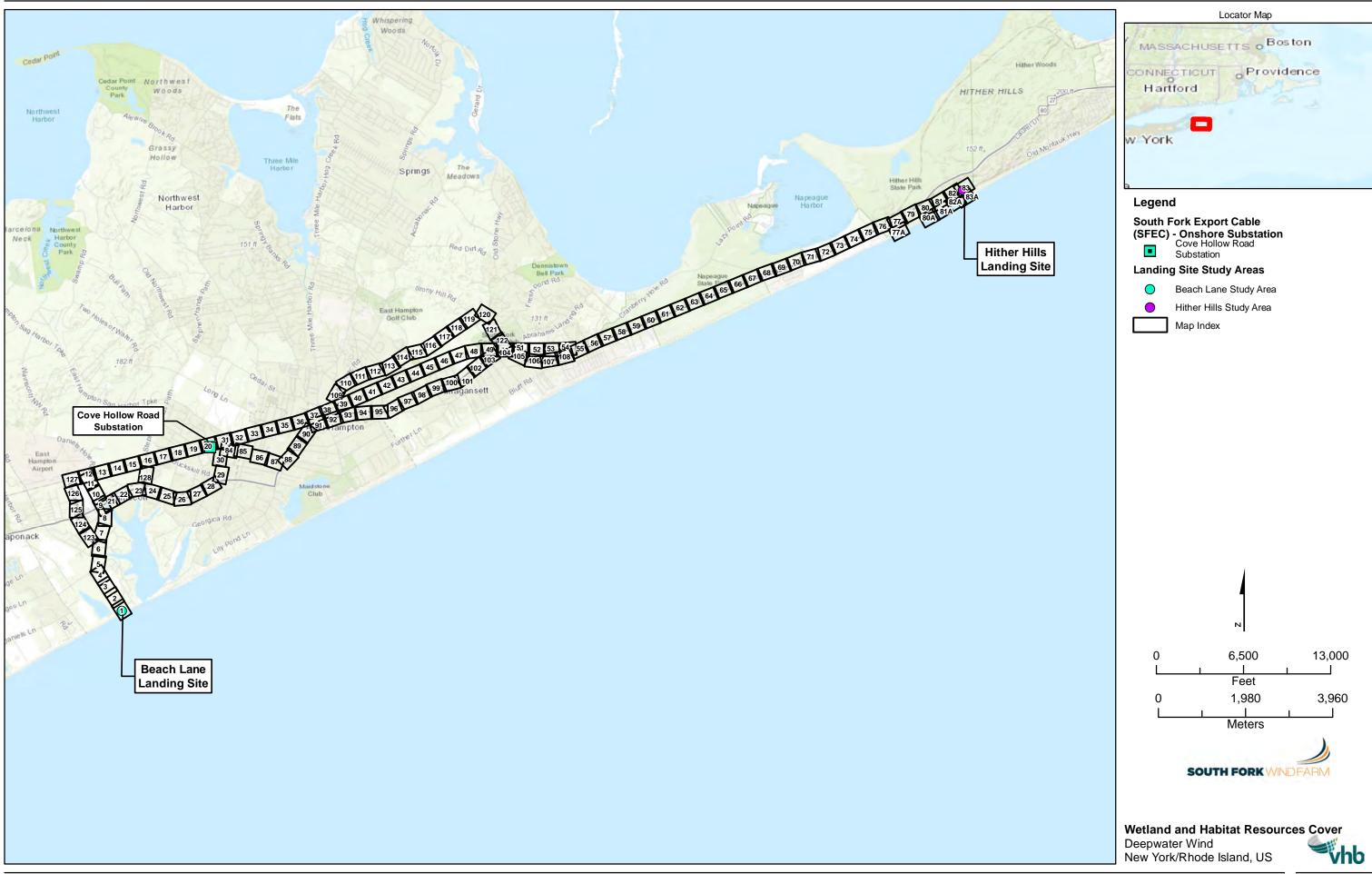


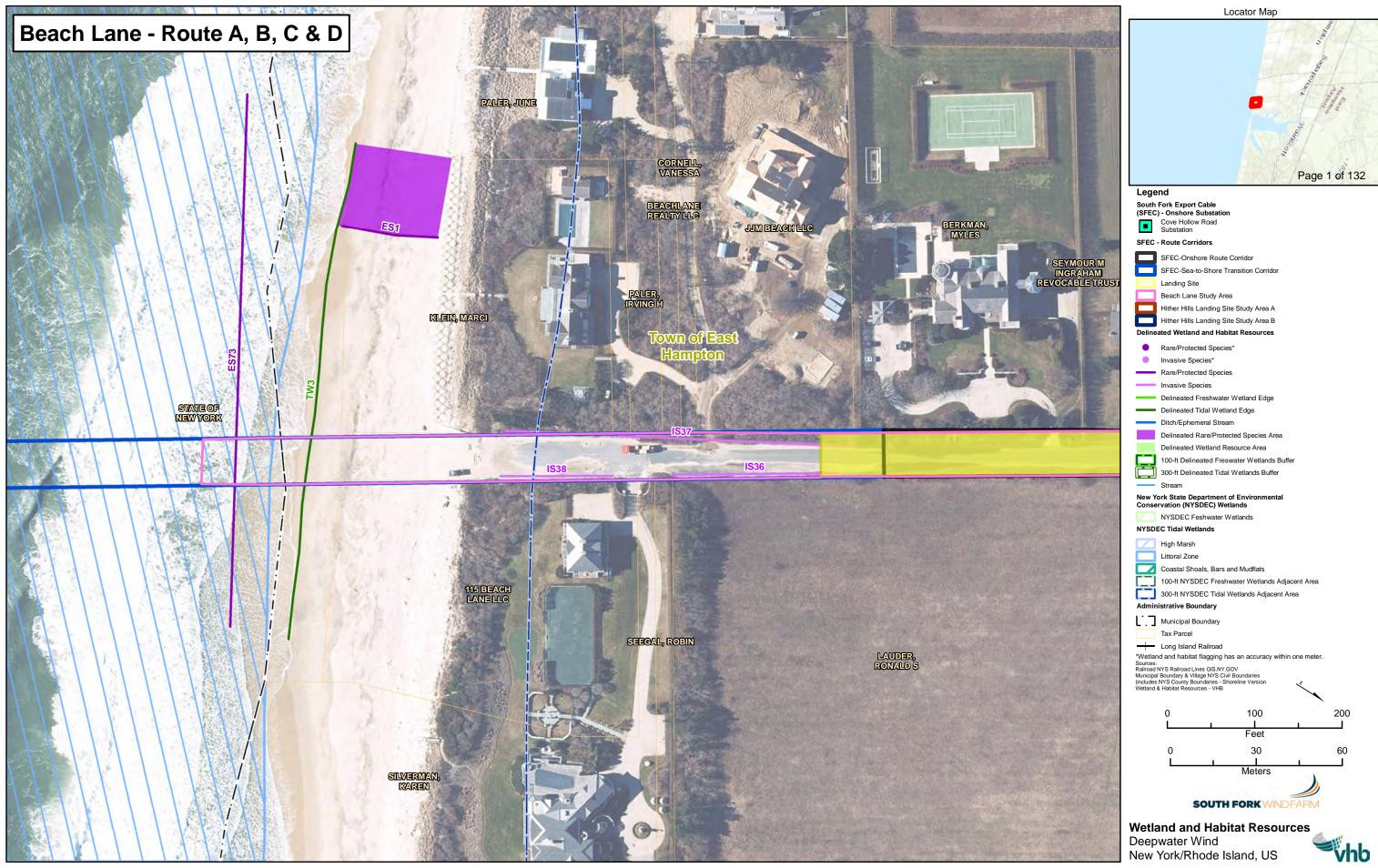






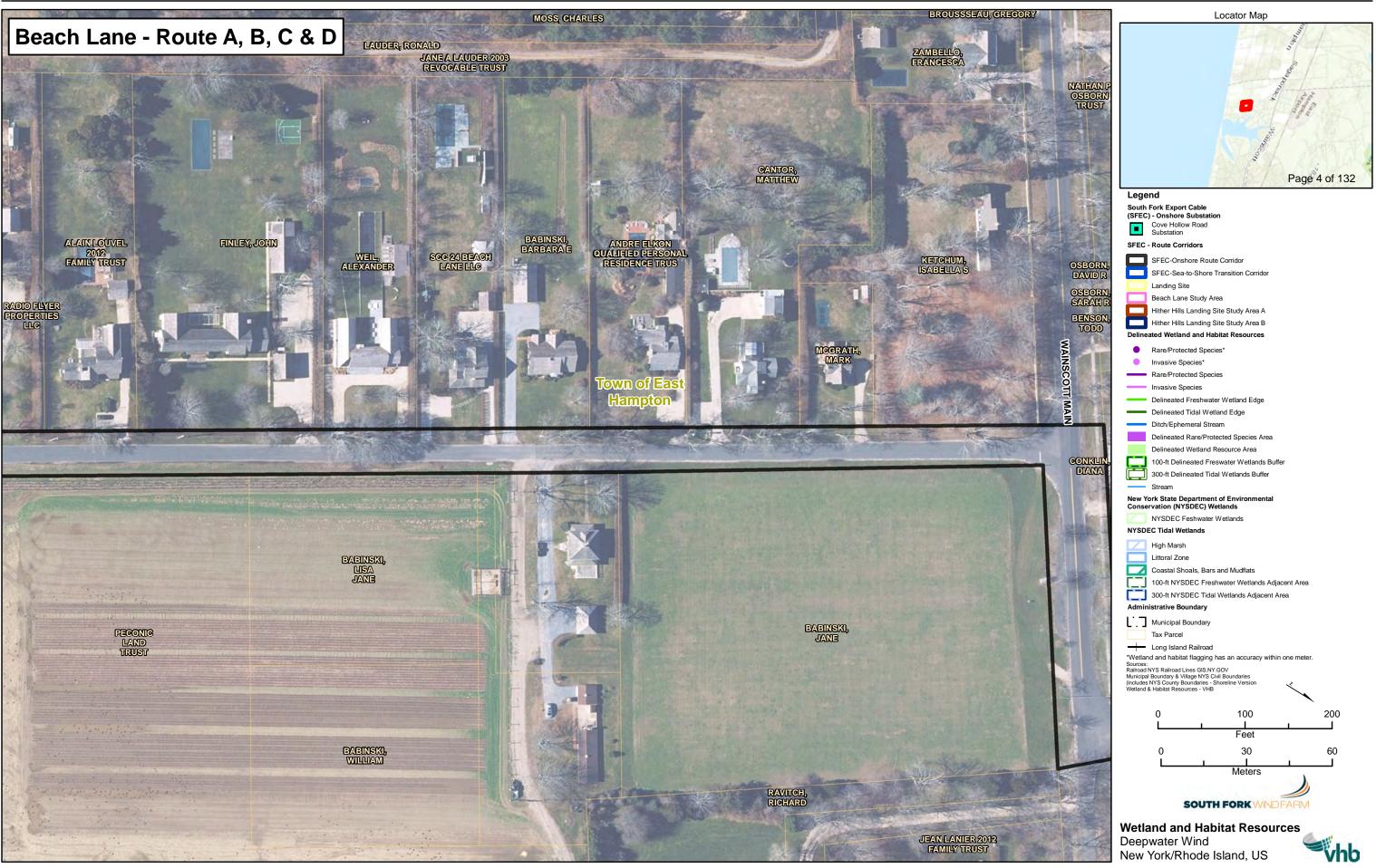
Appendix B

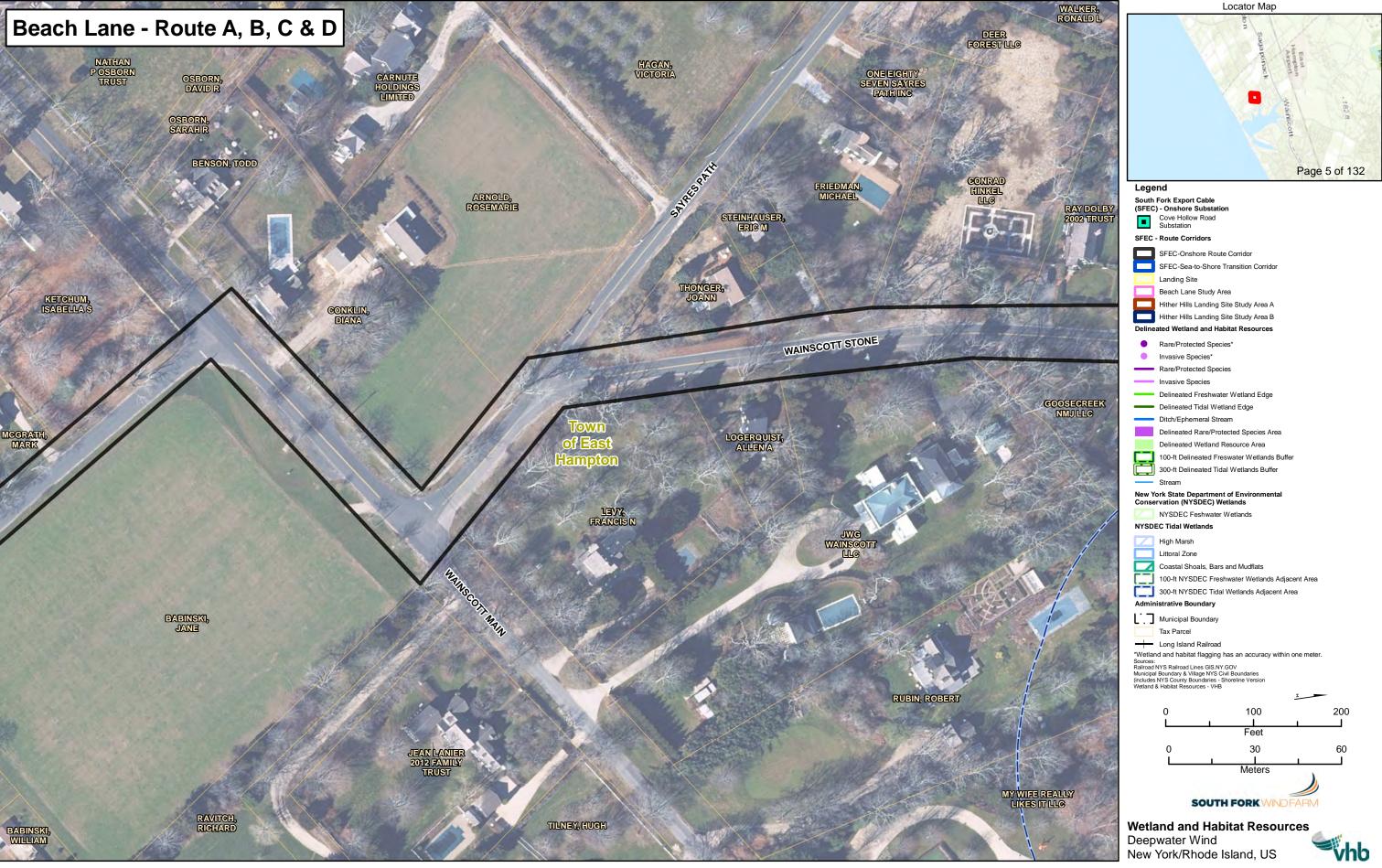


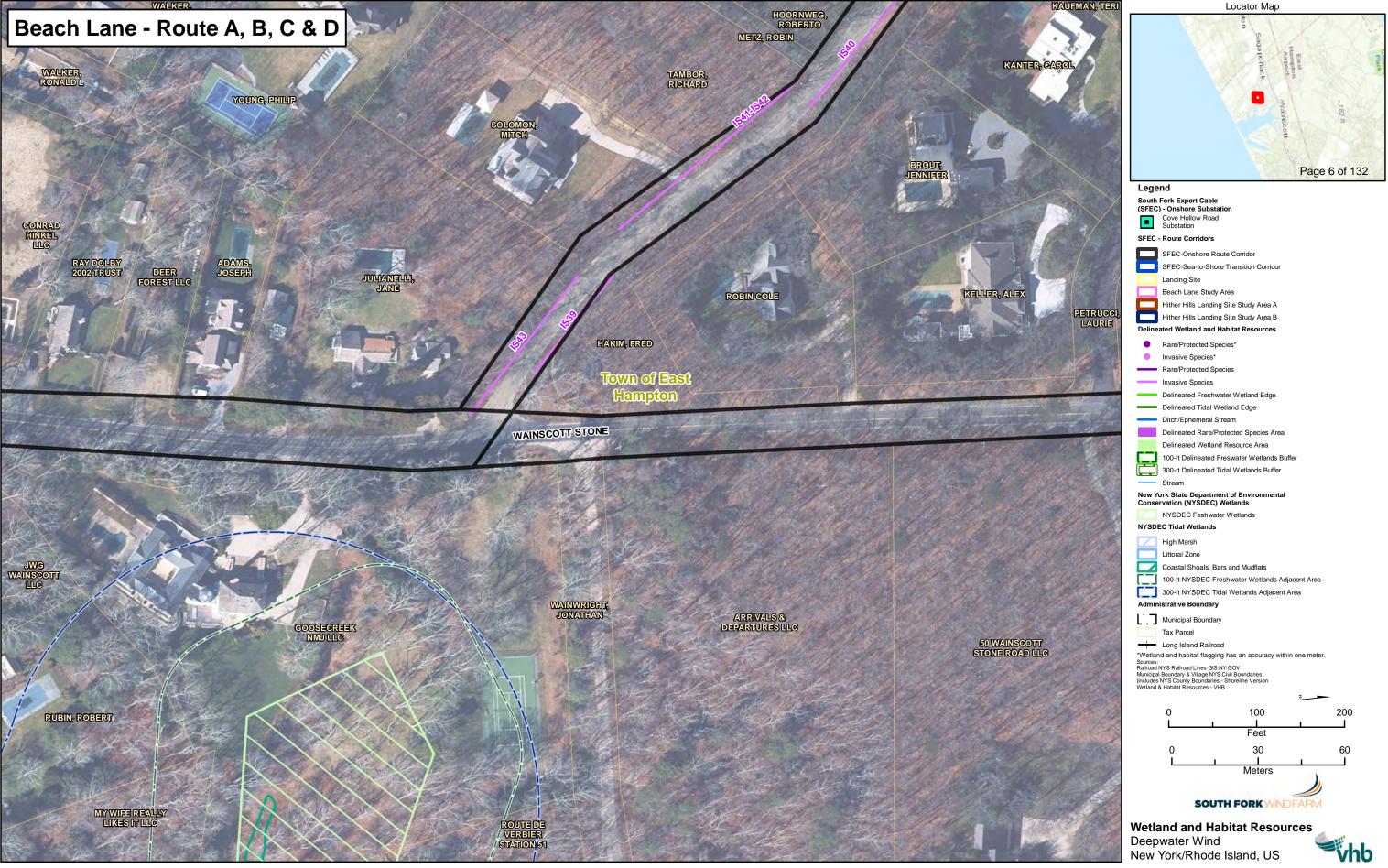


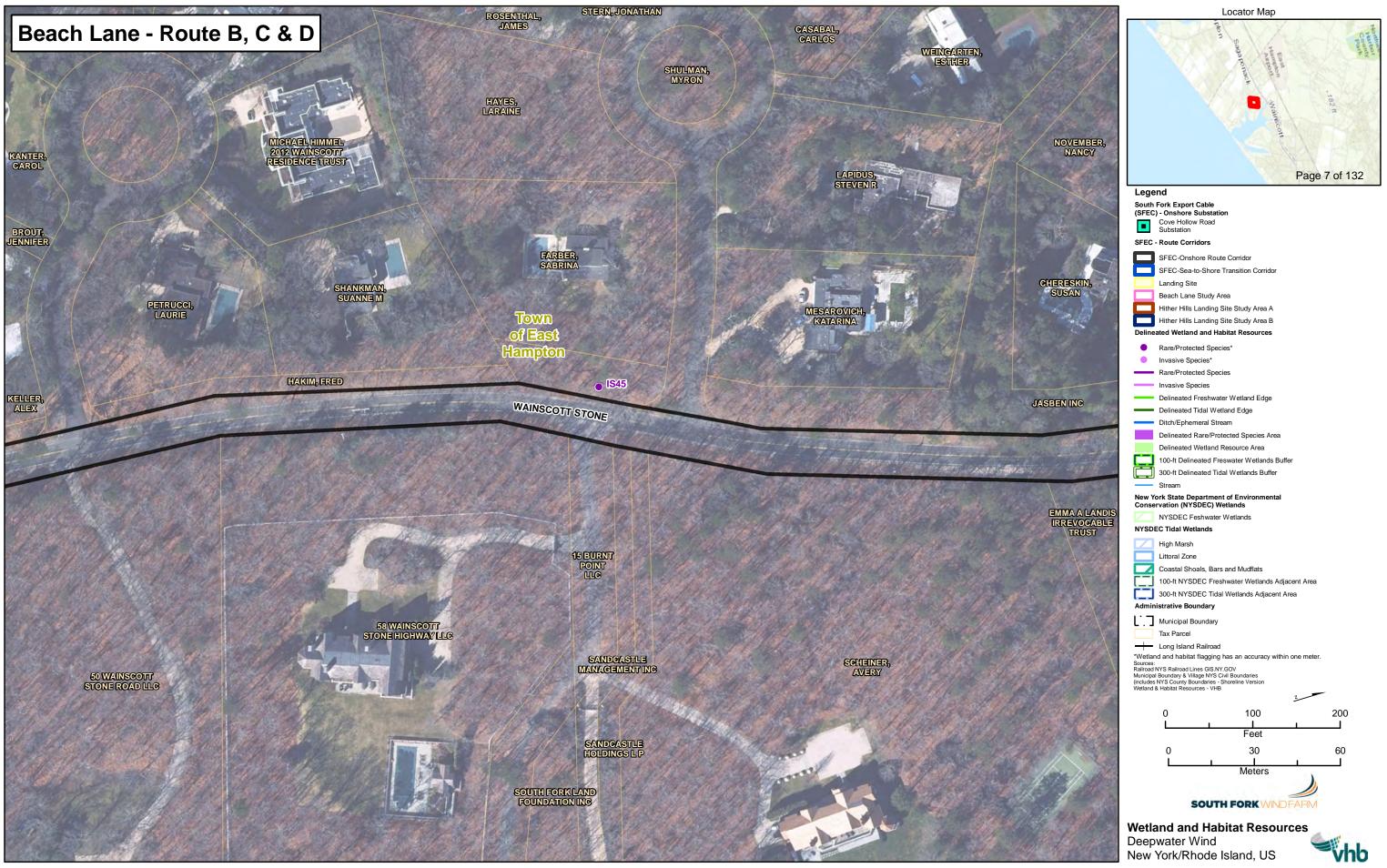


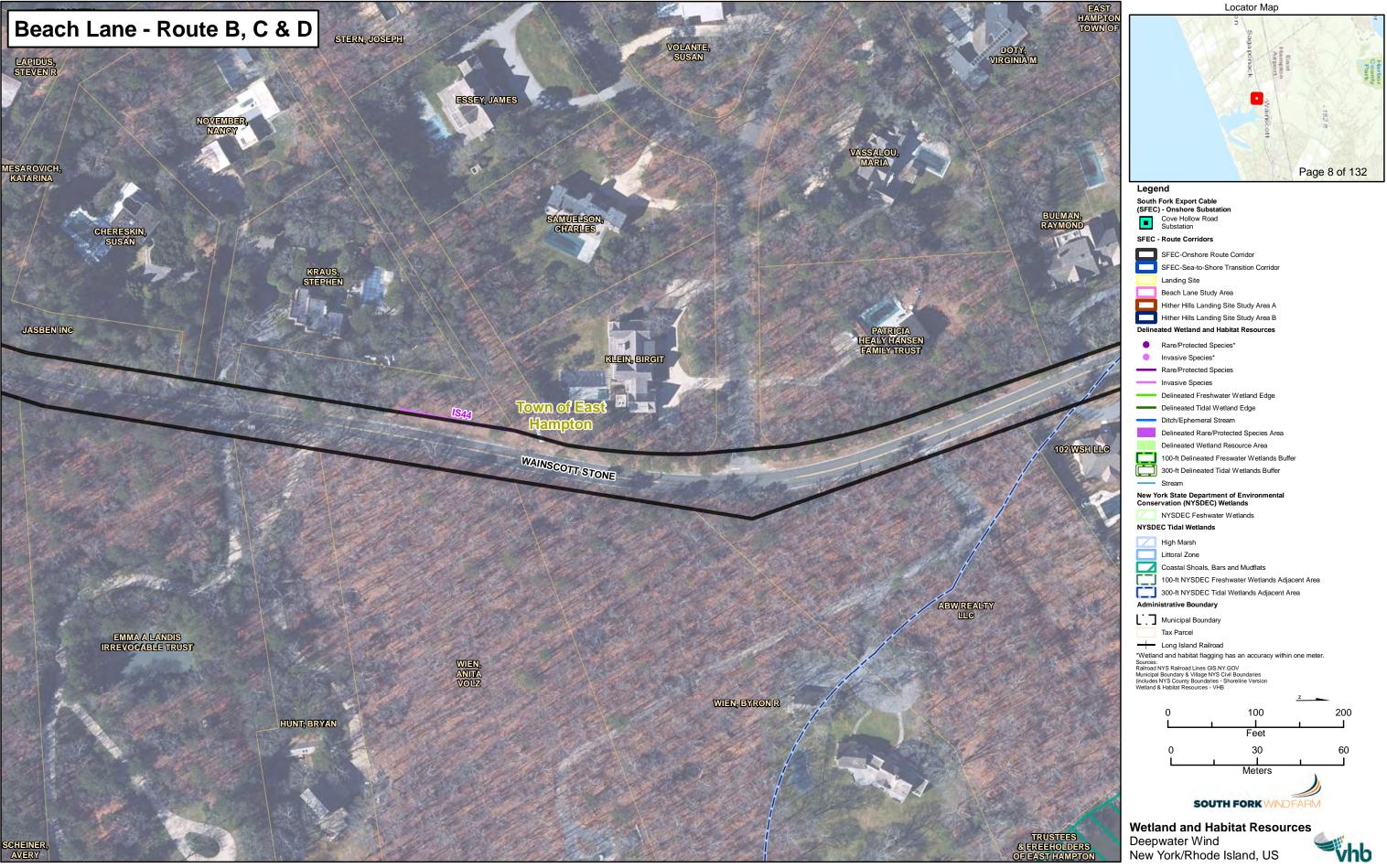


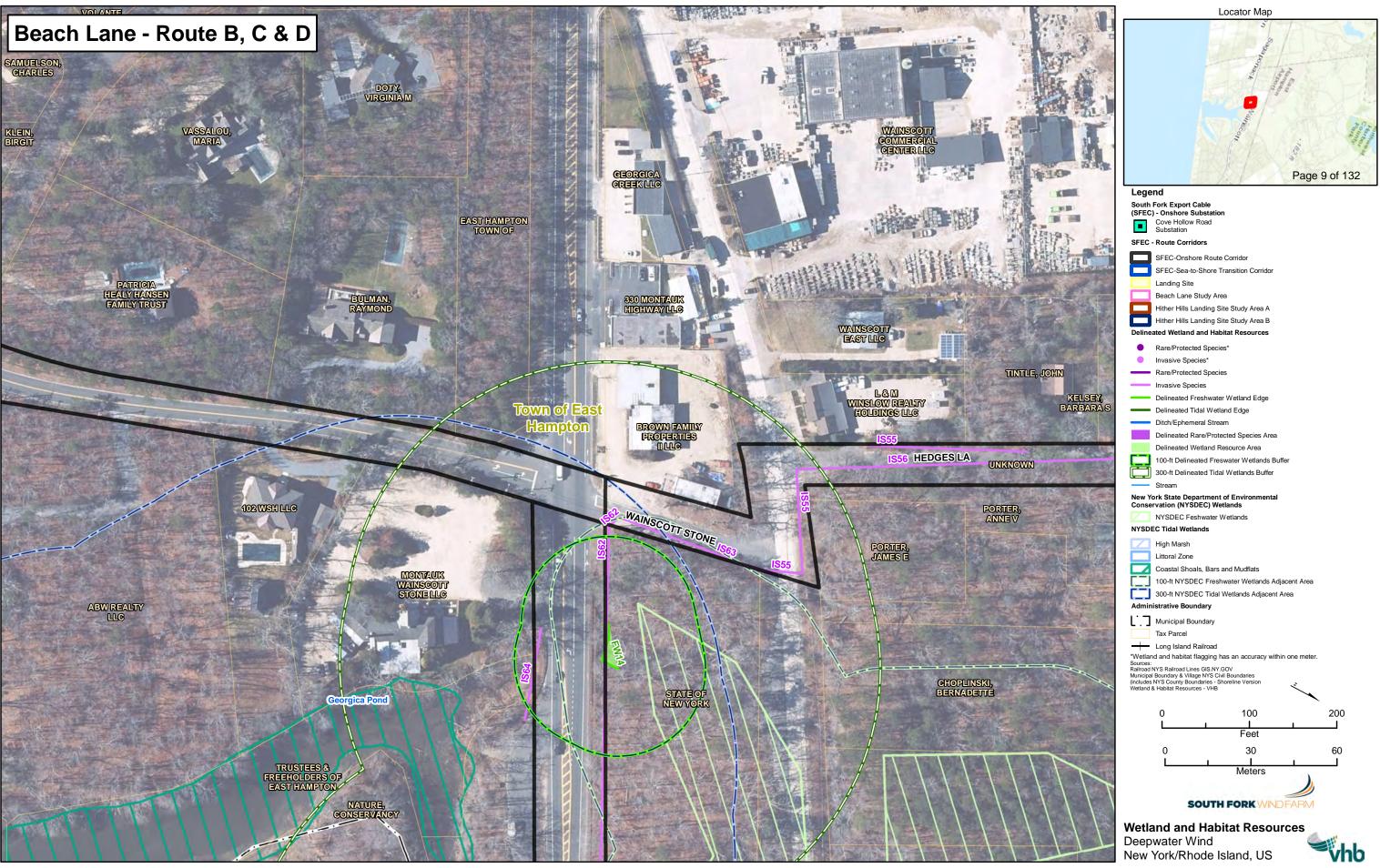


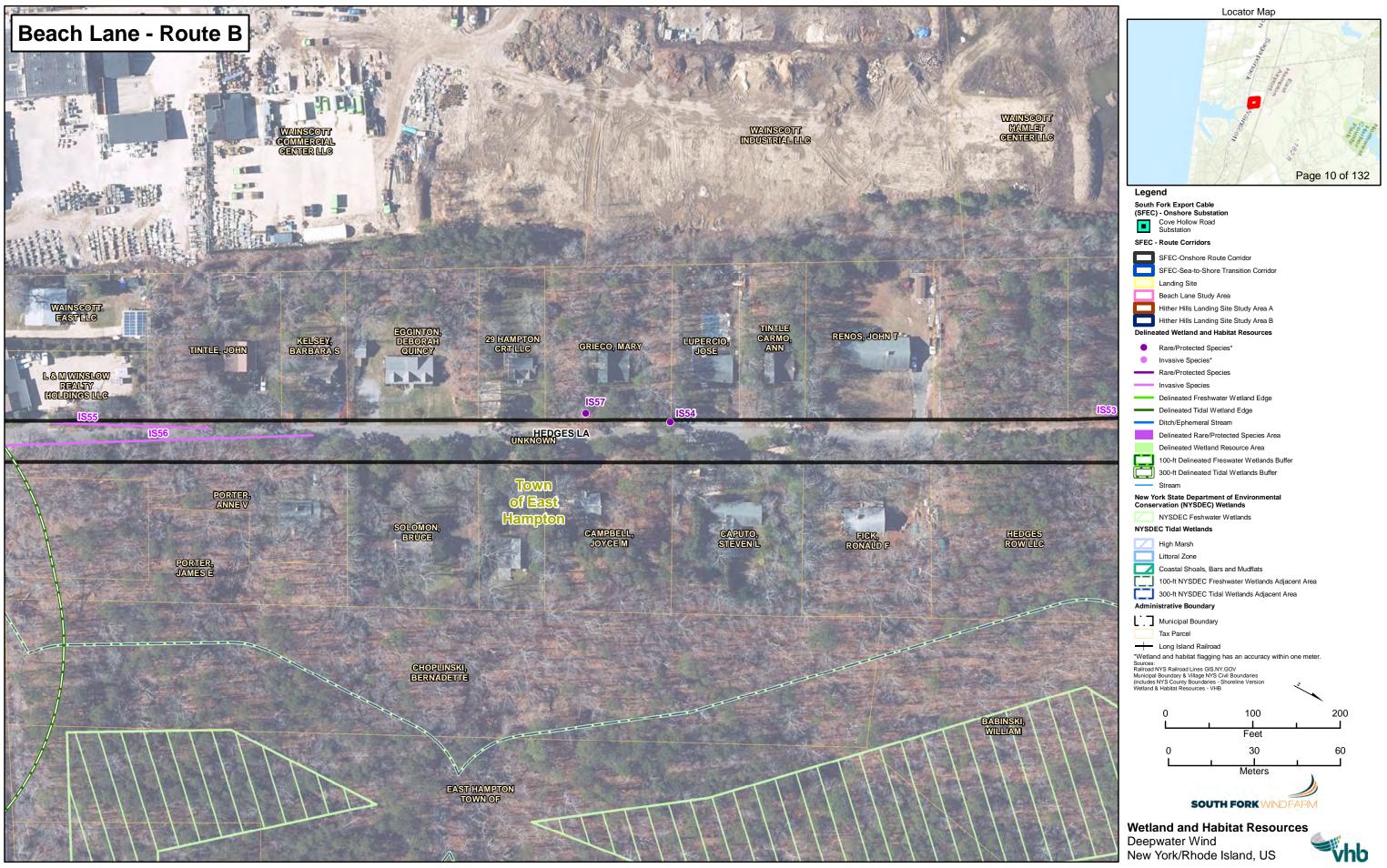


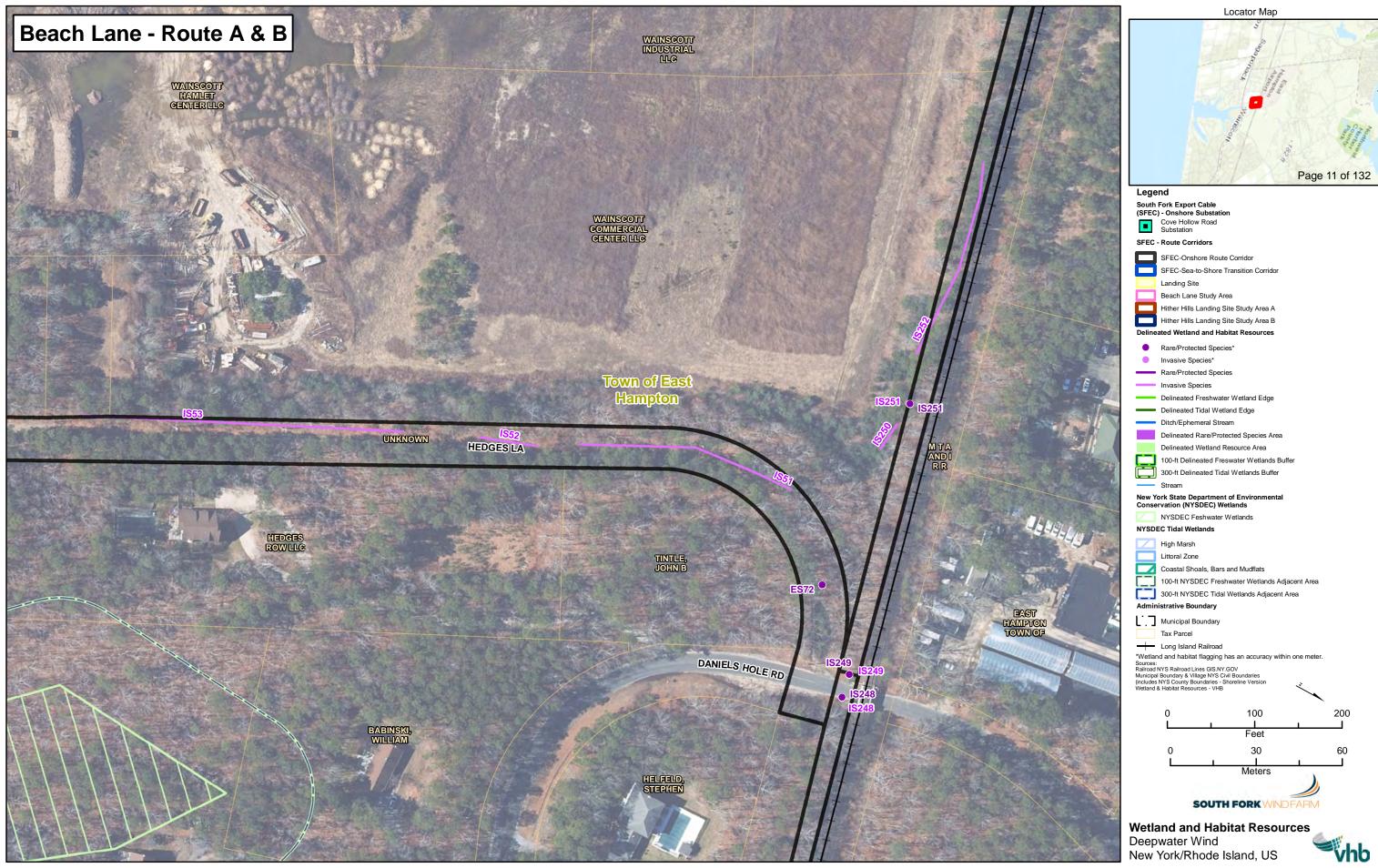


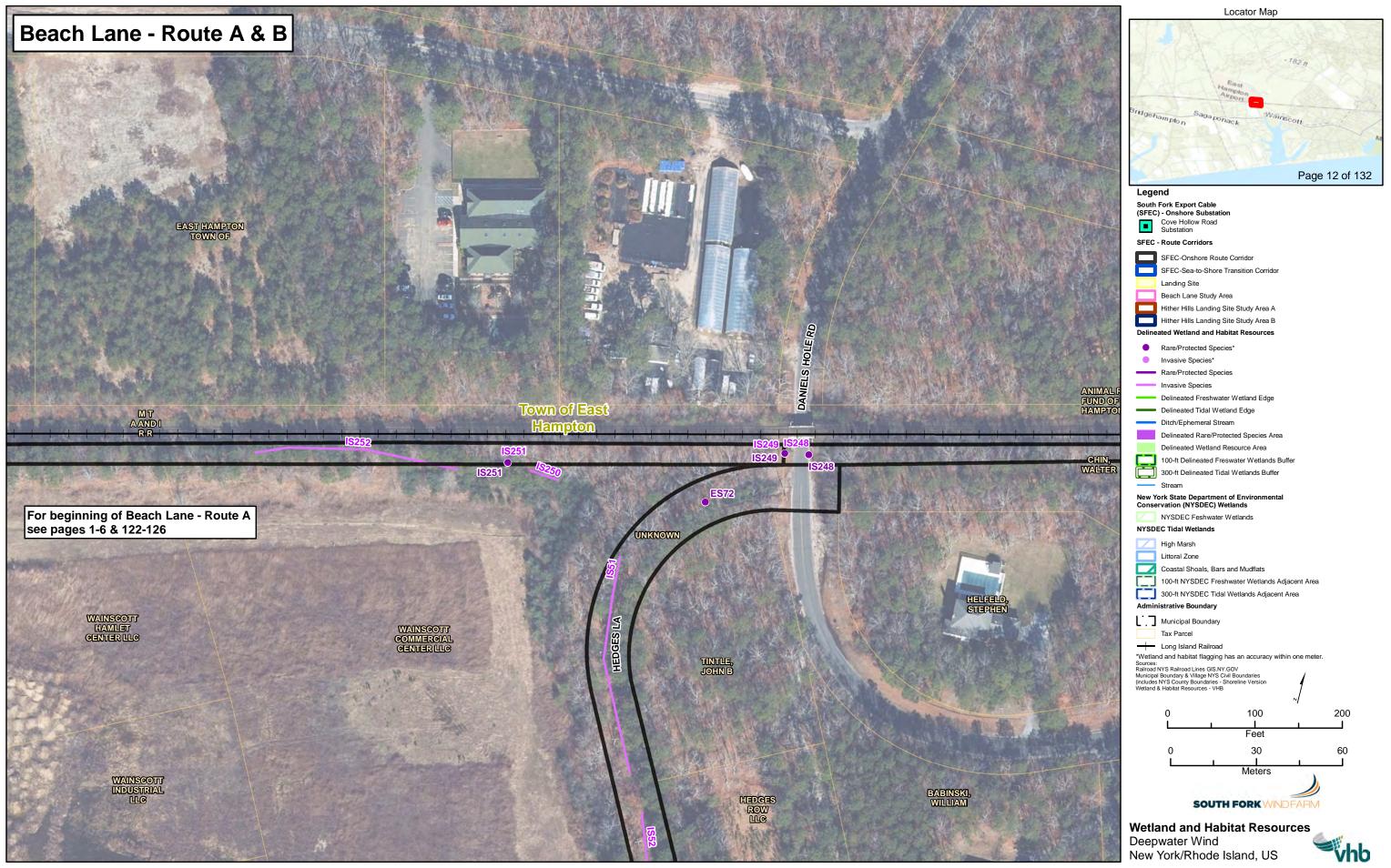






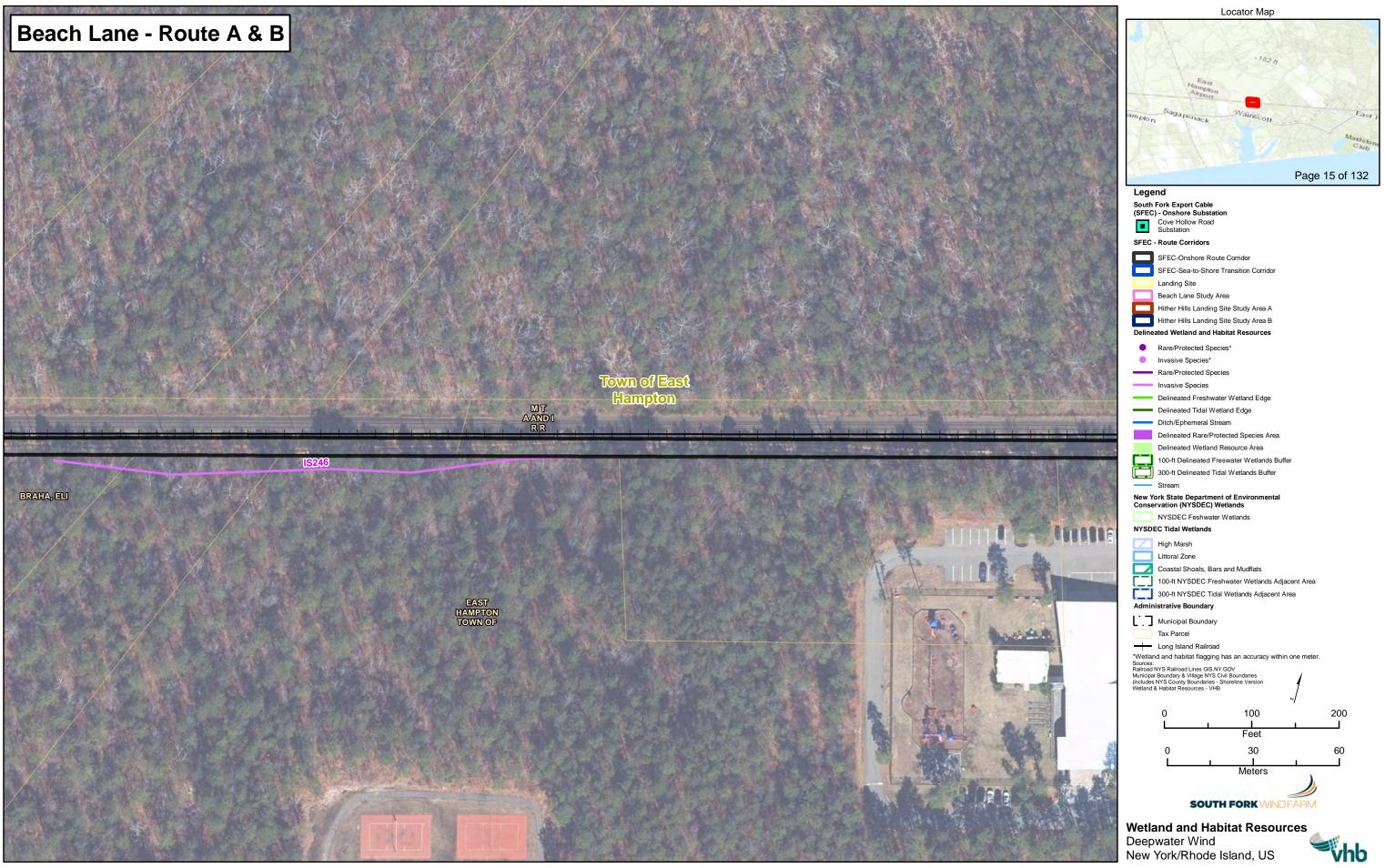


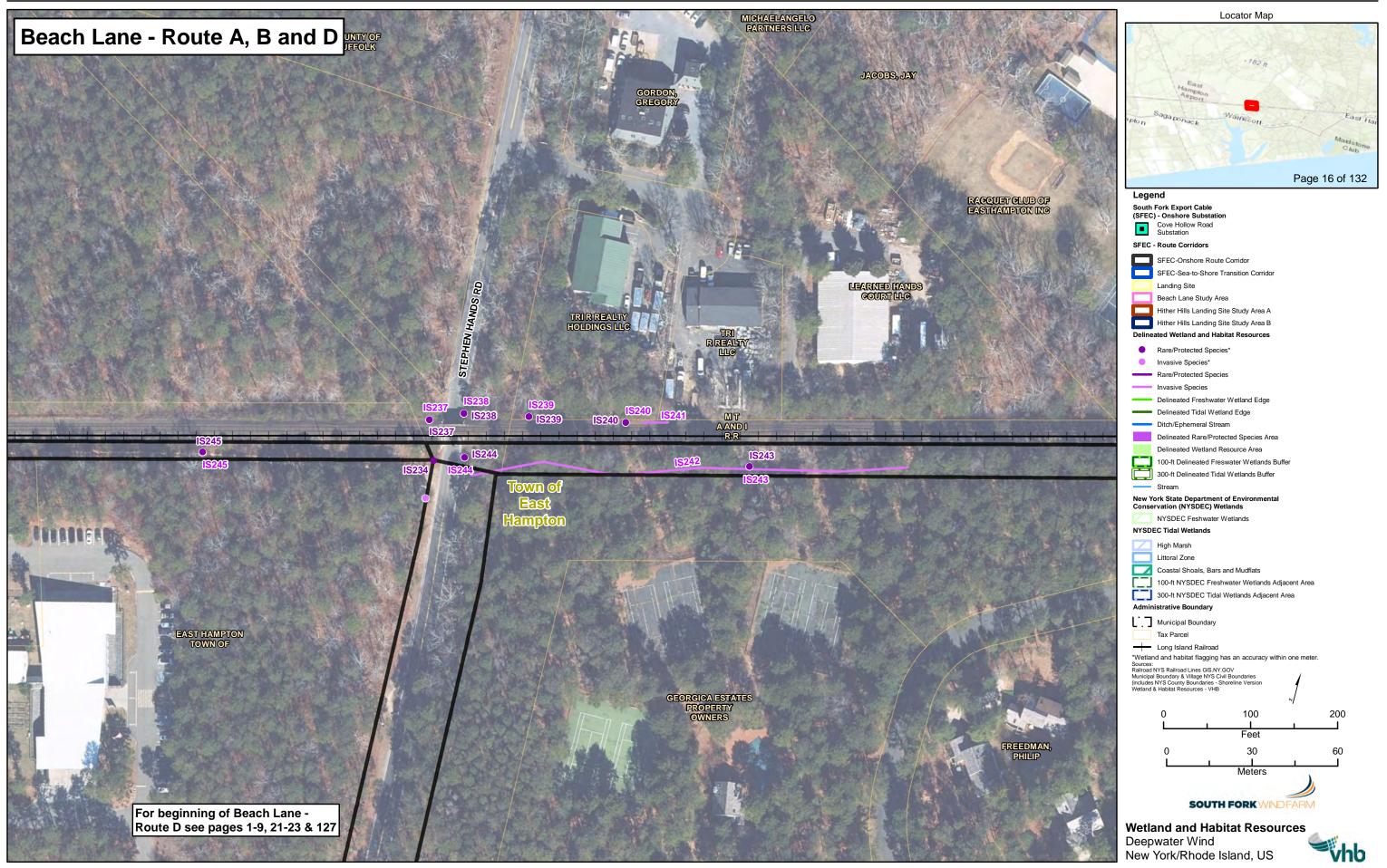


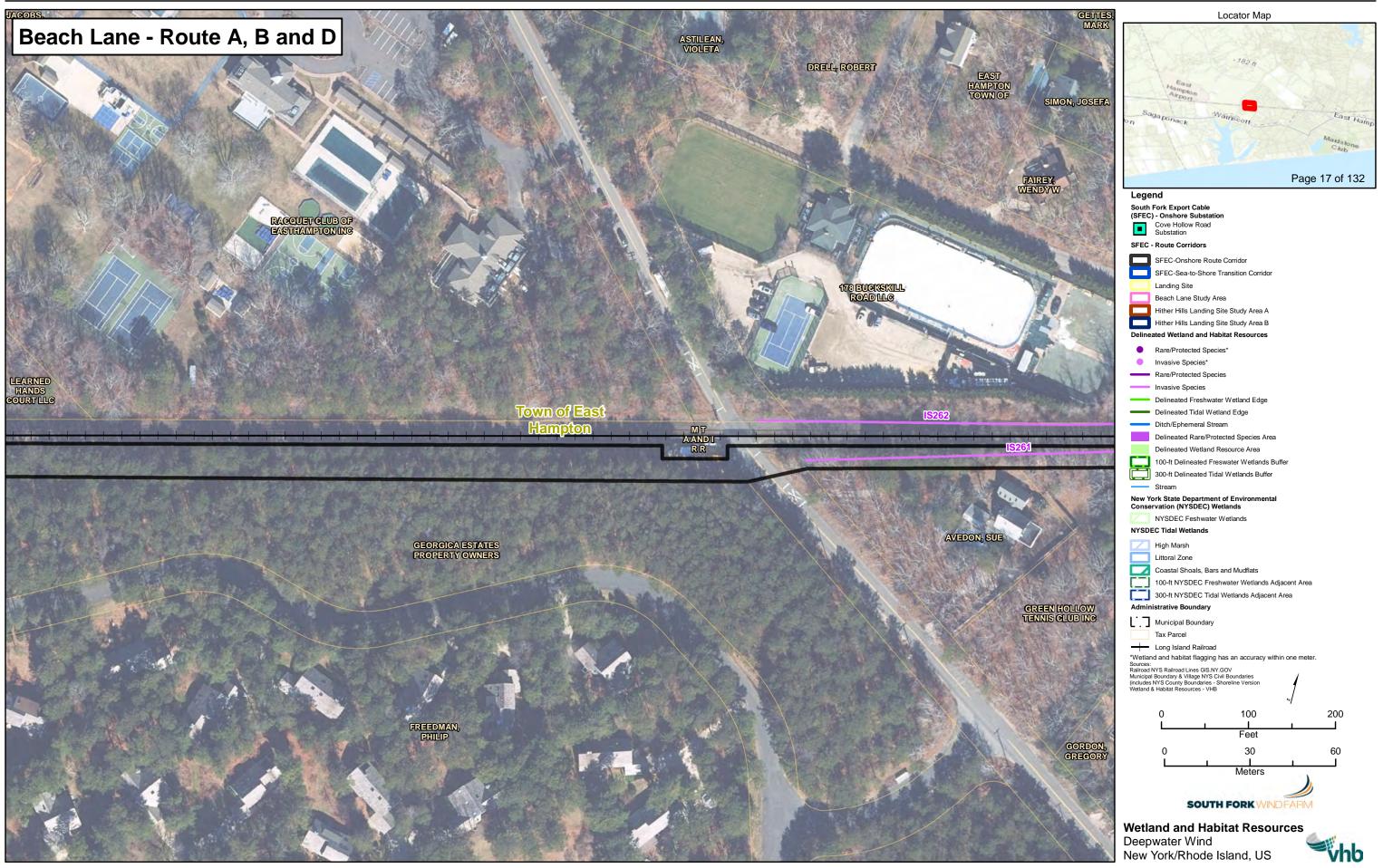


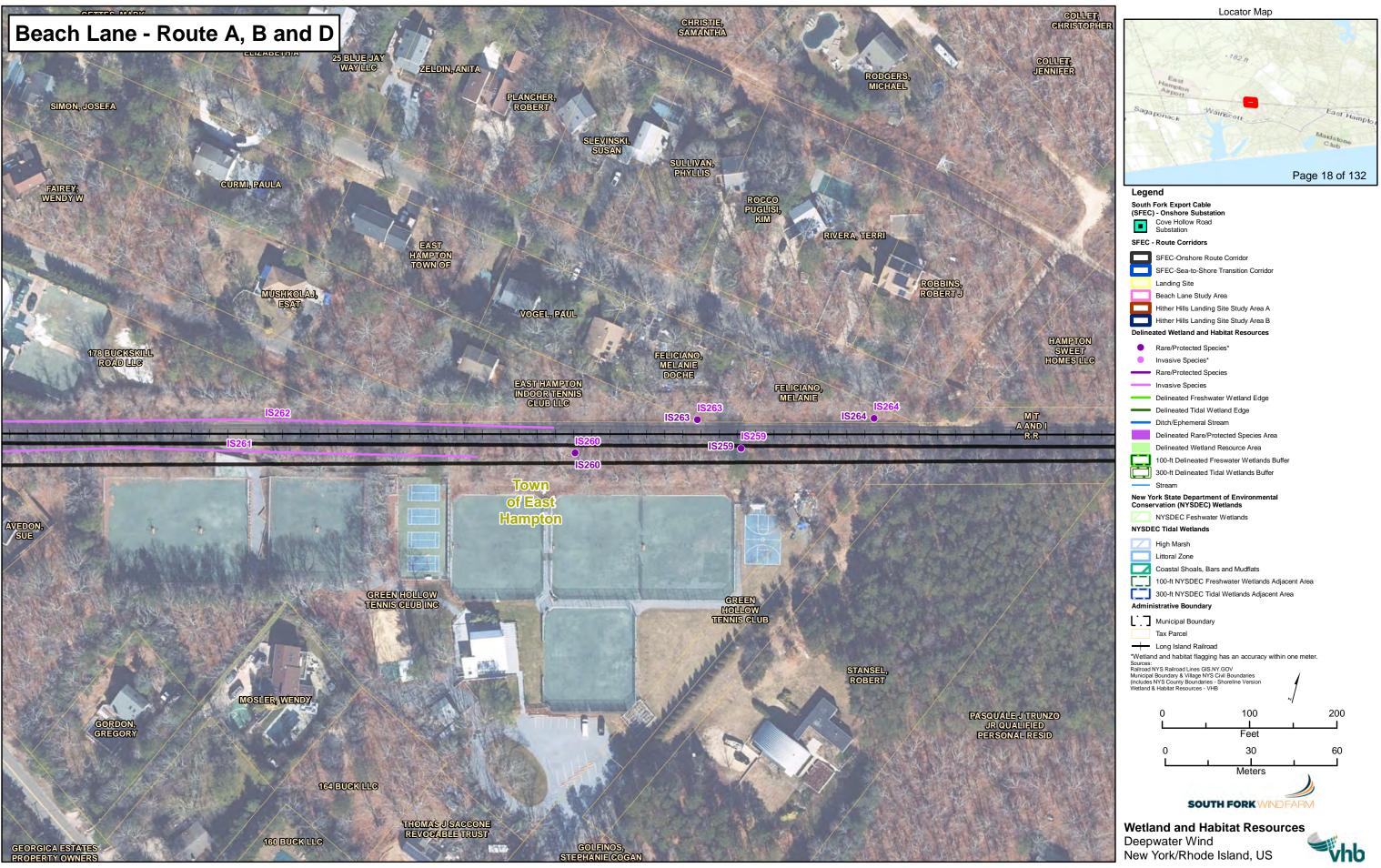


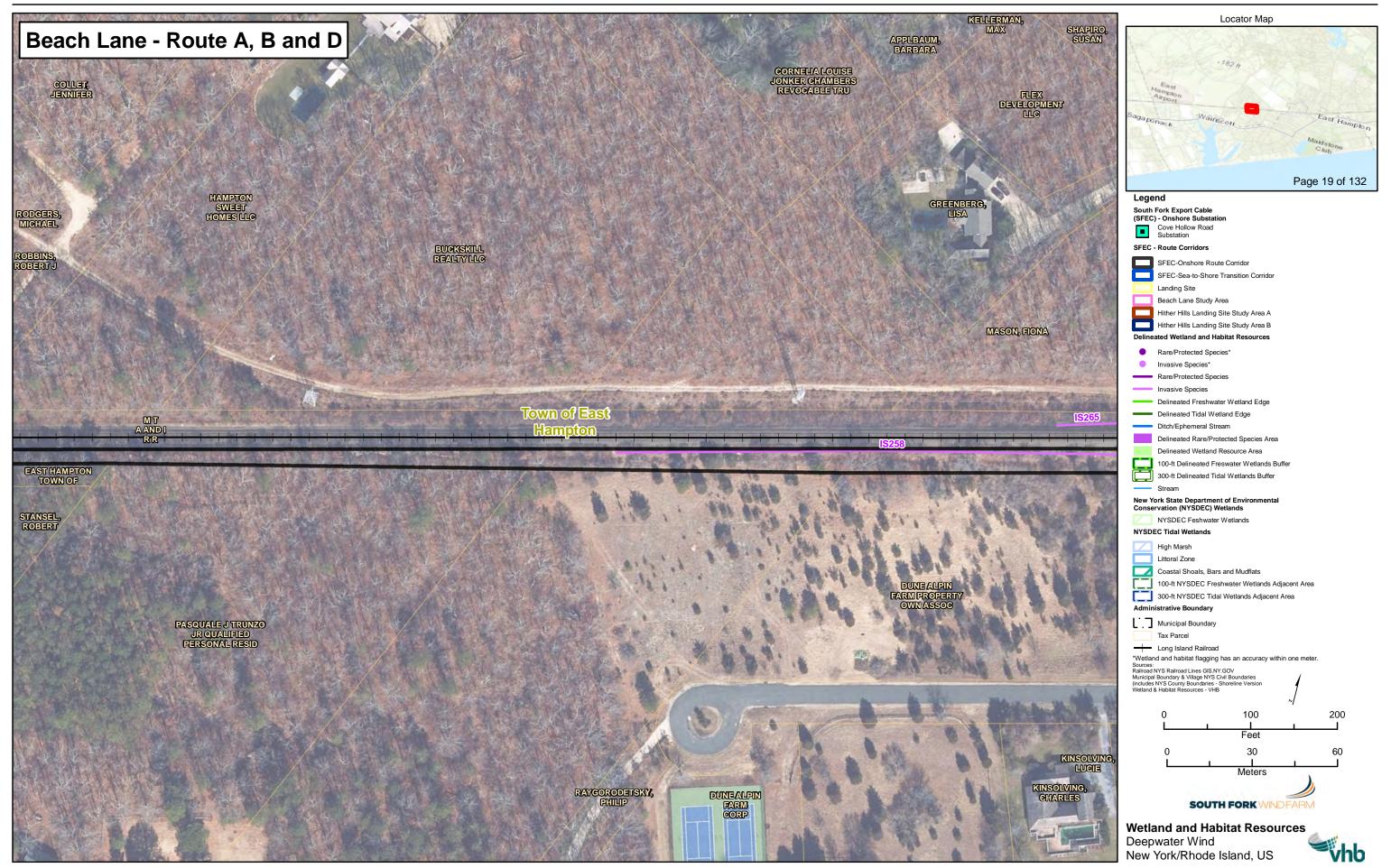


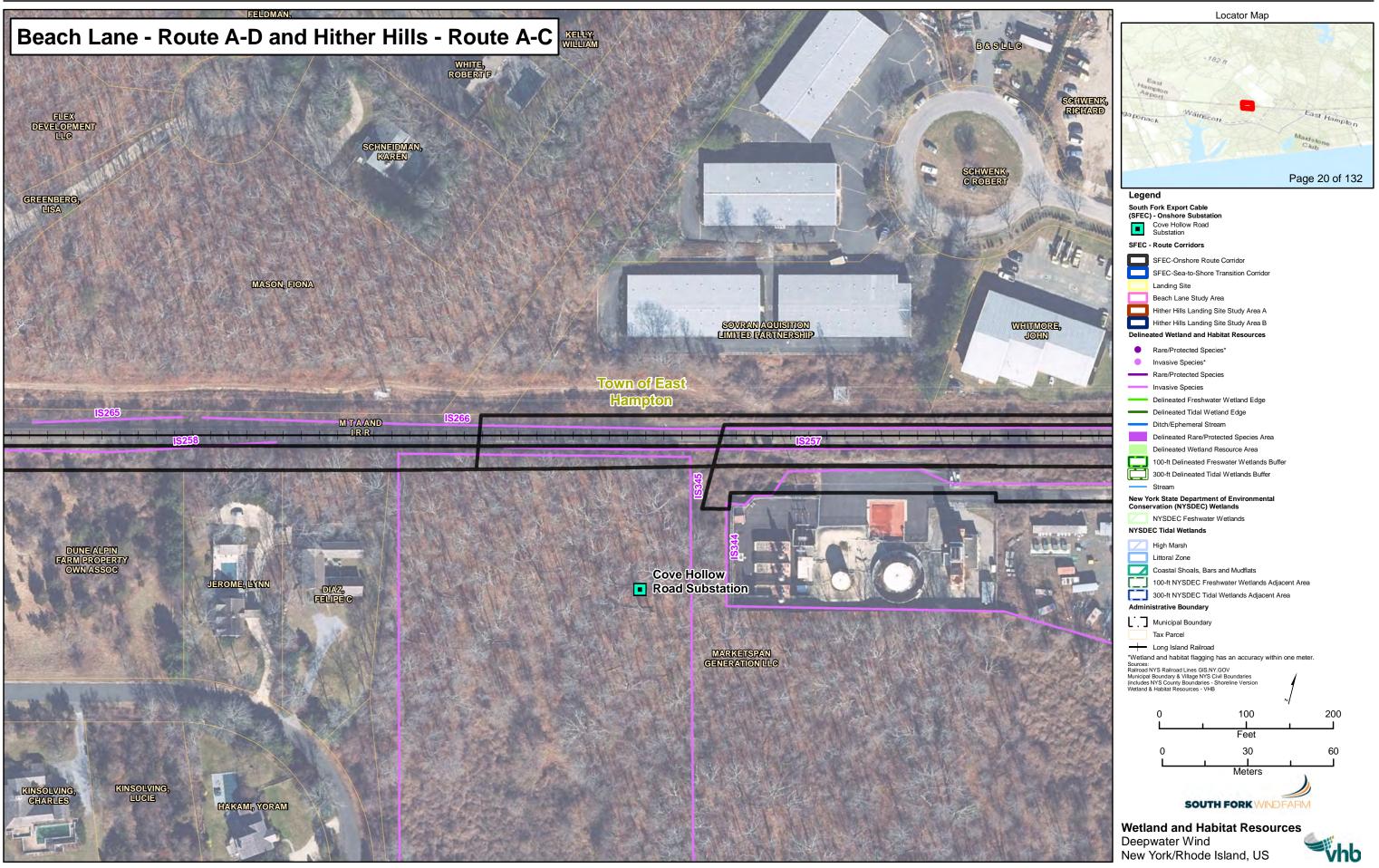


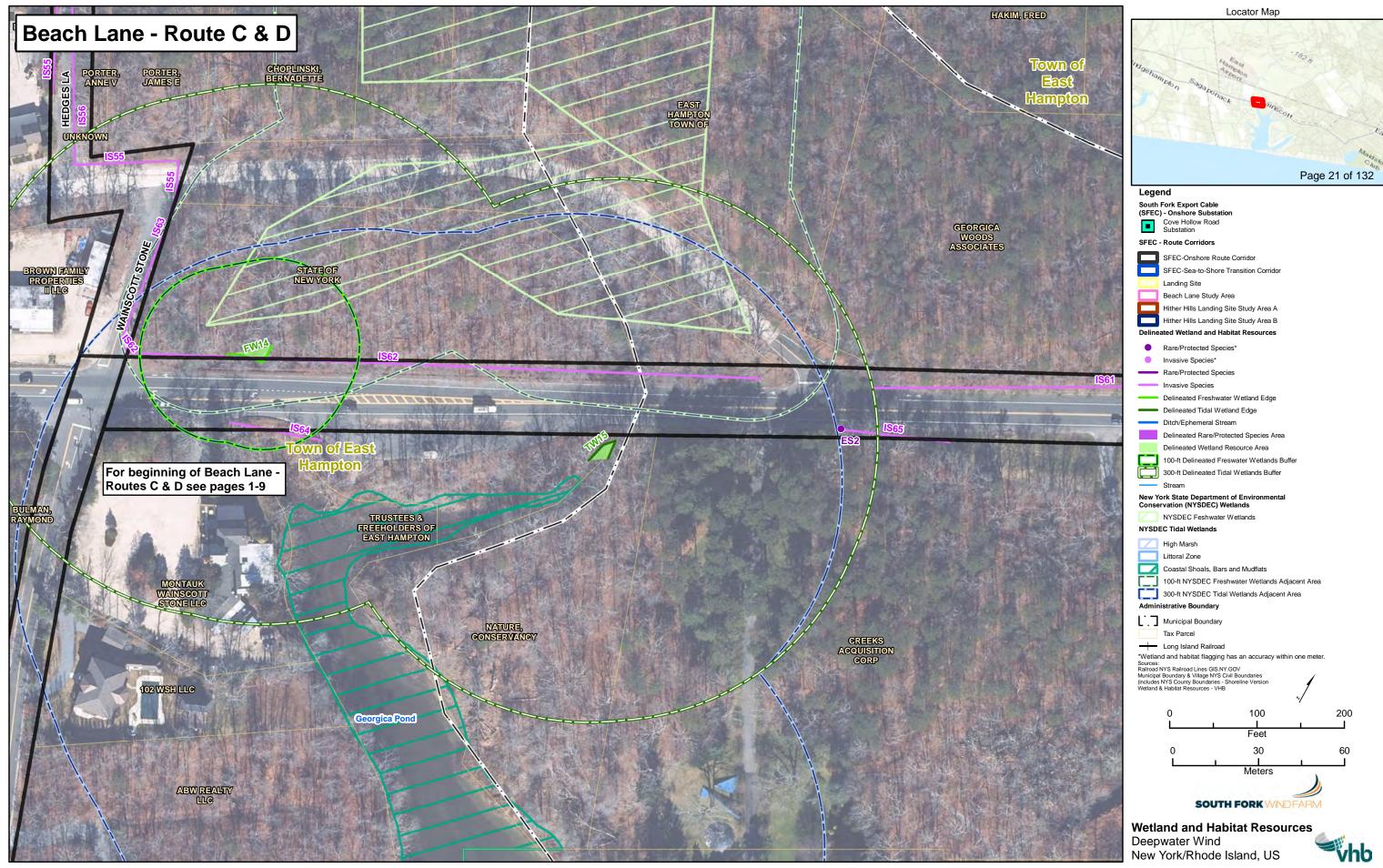


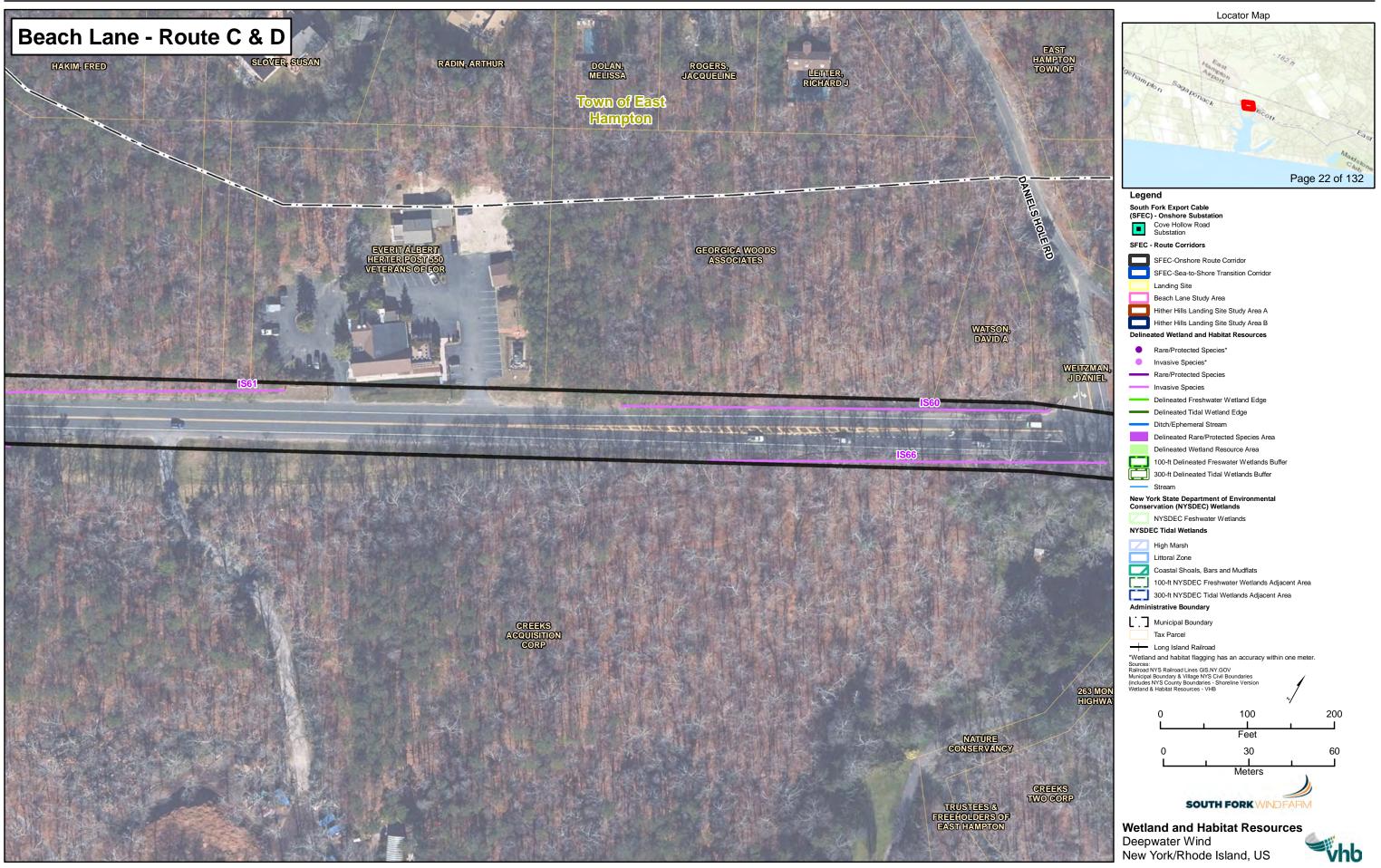


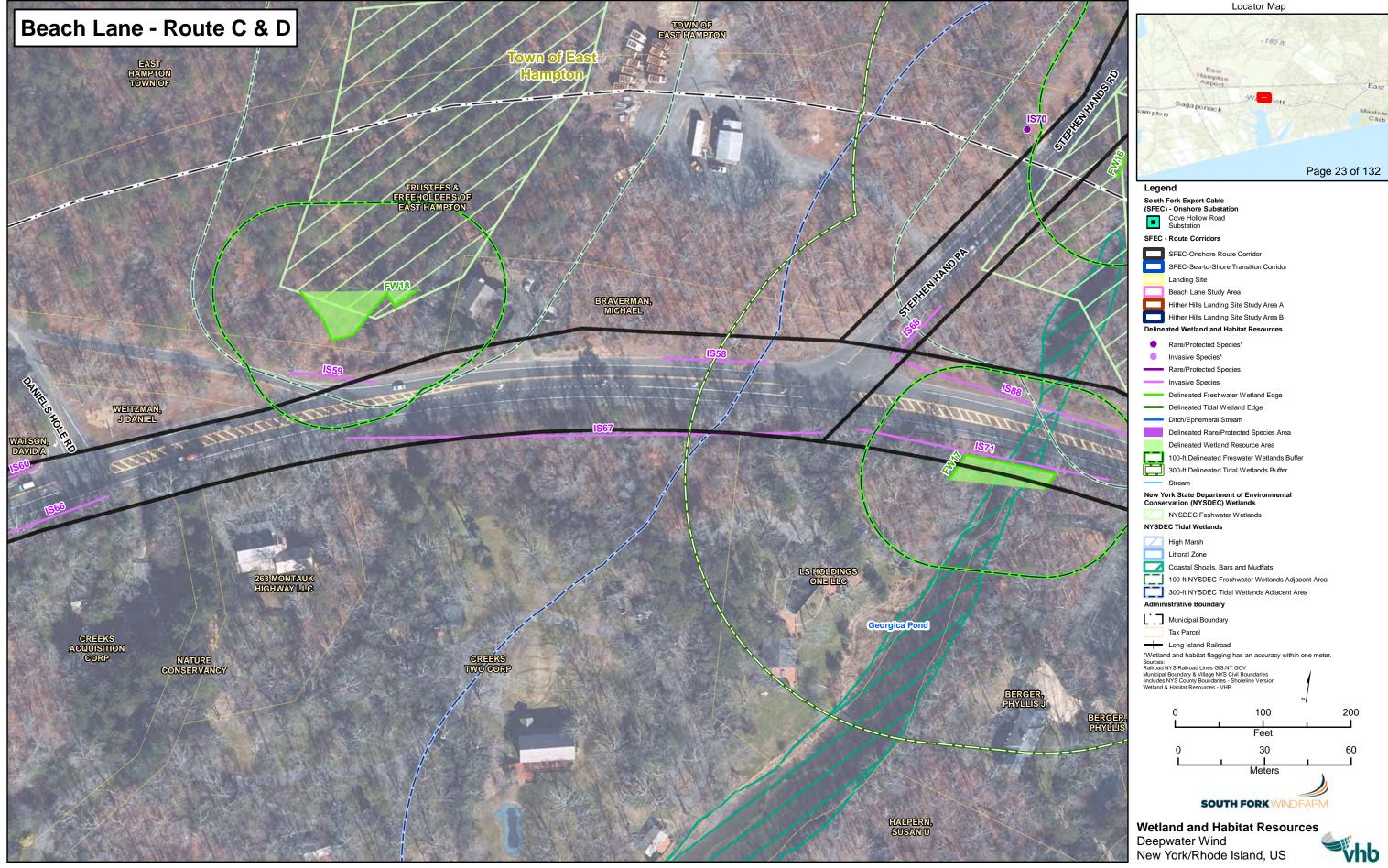






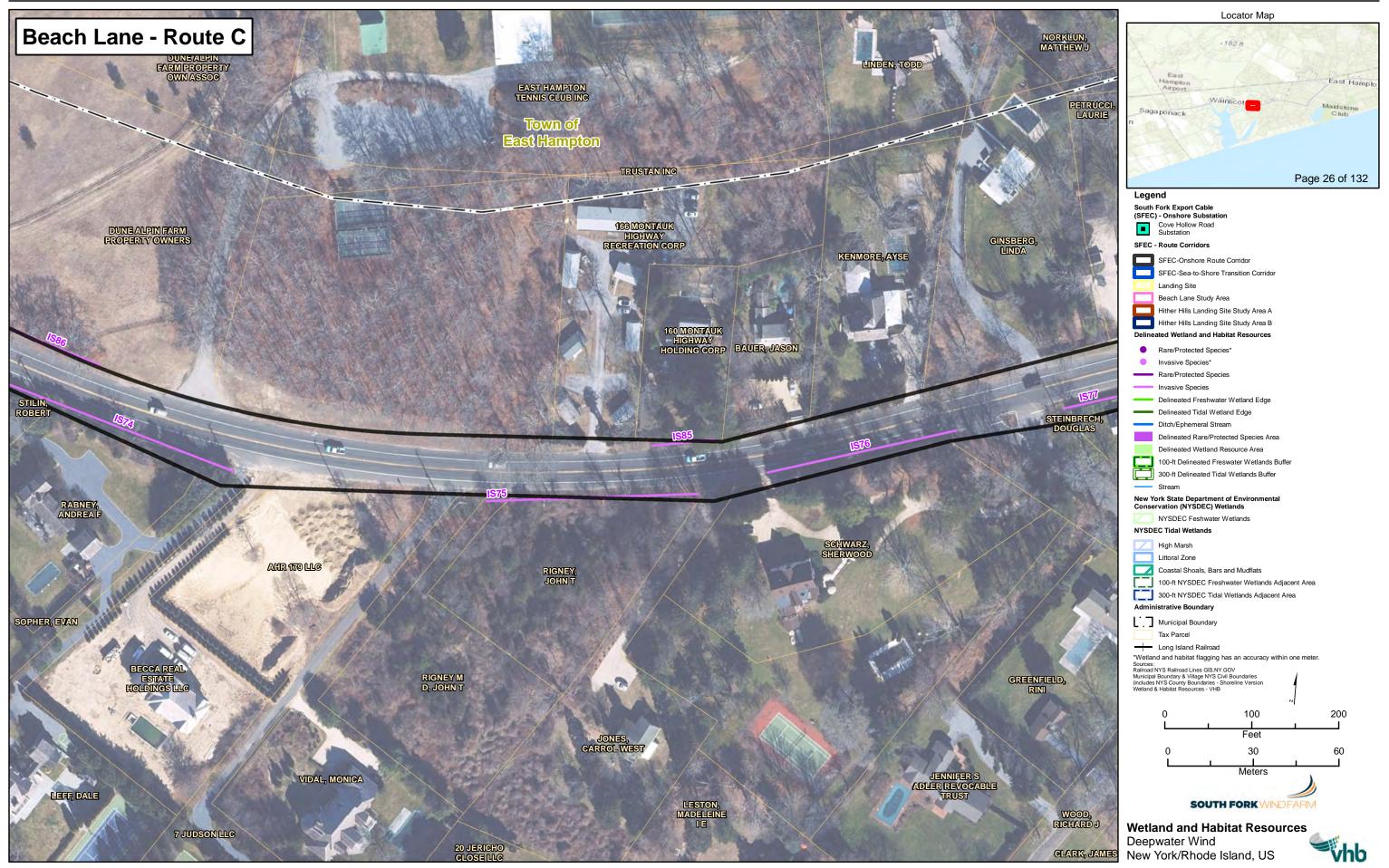


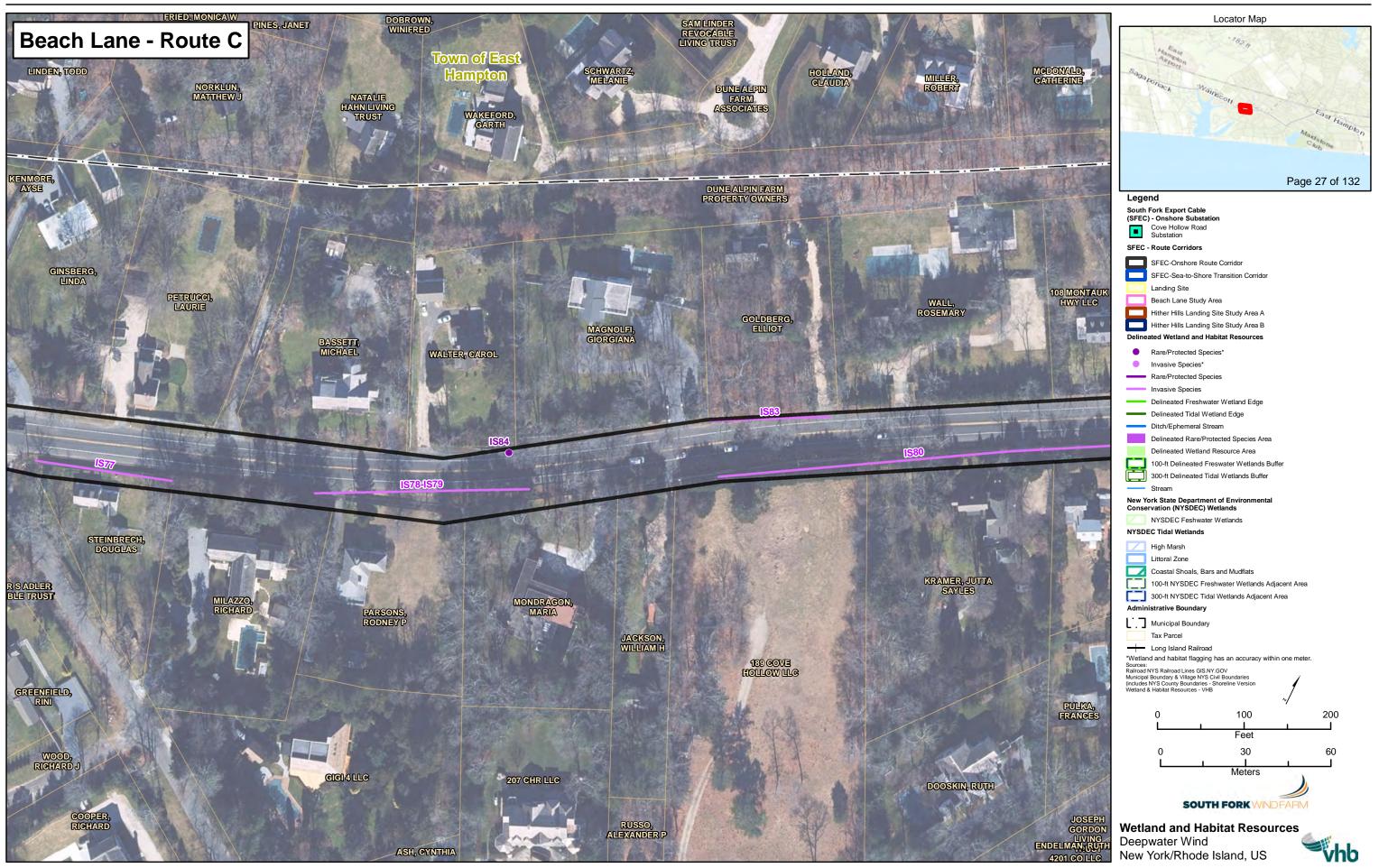




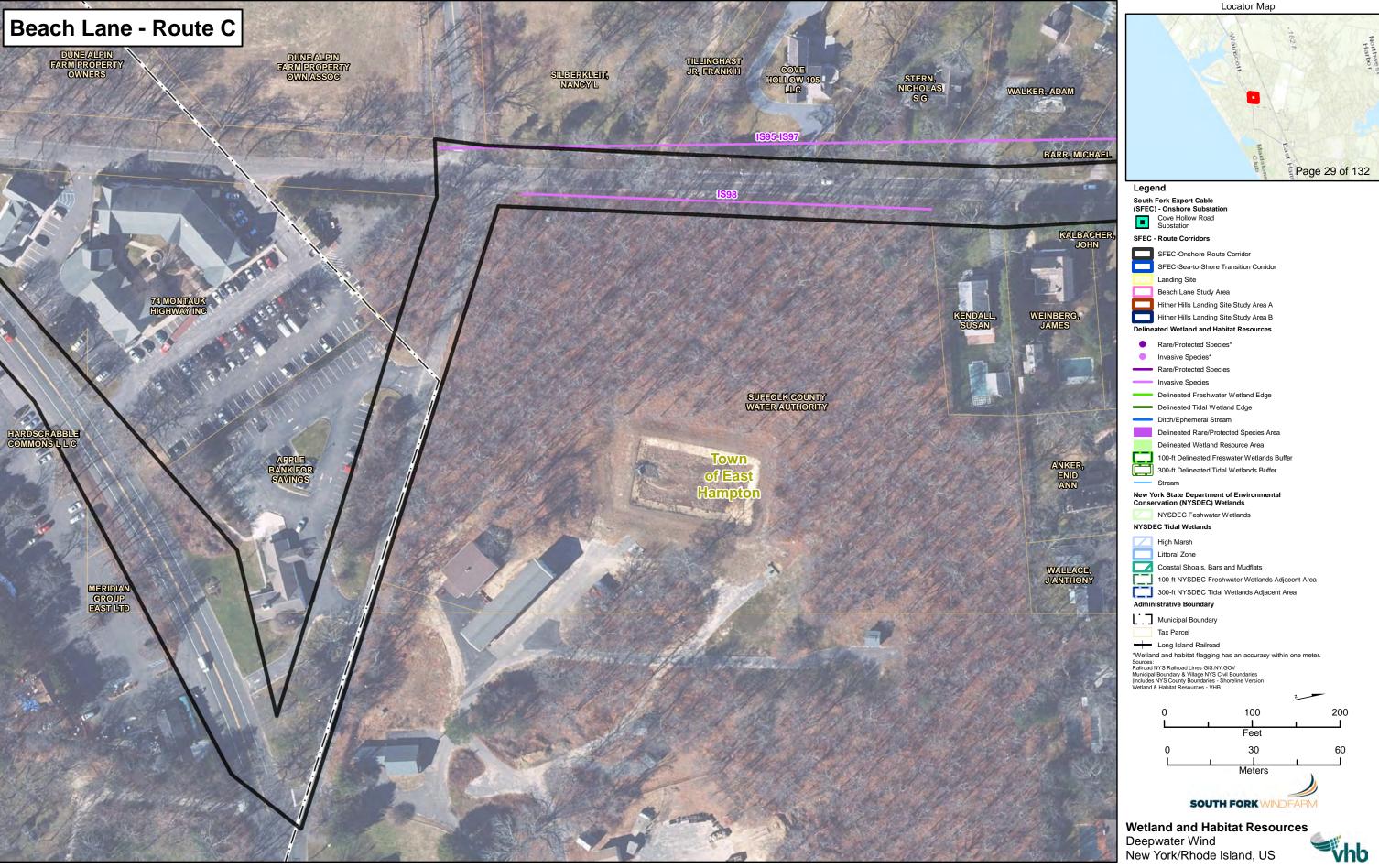


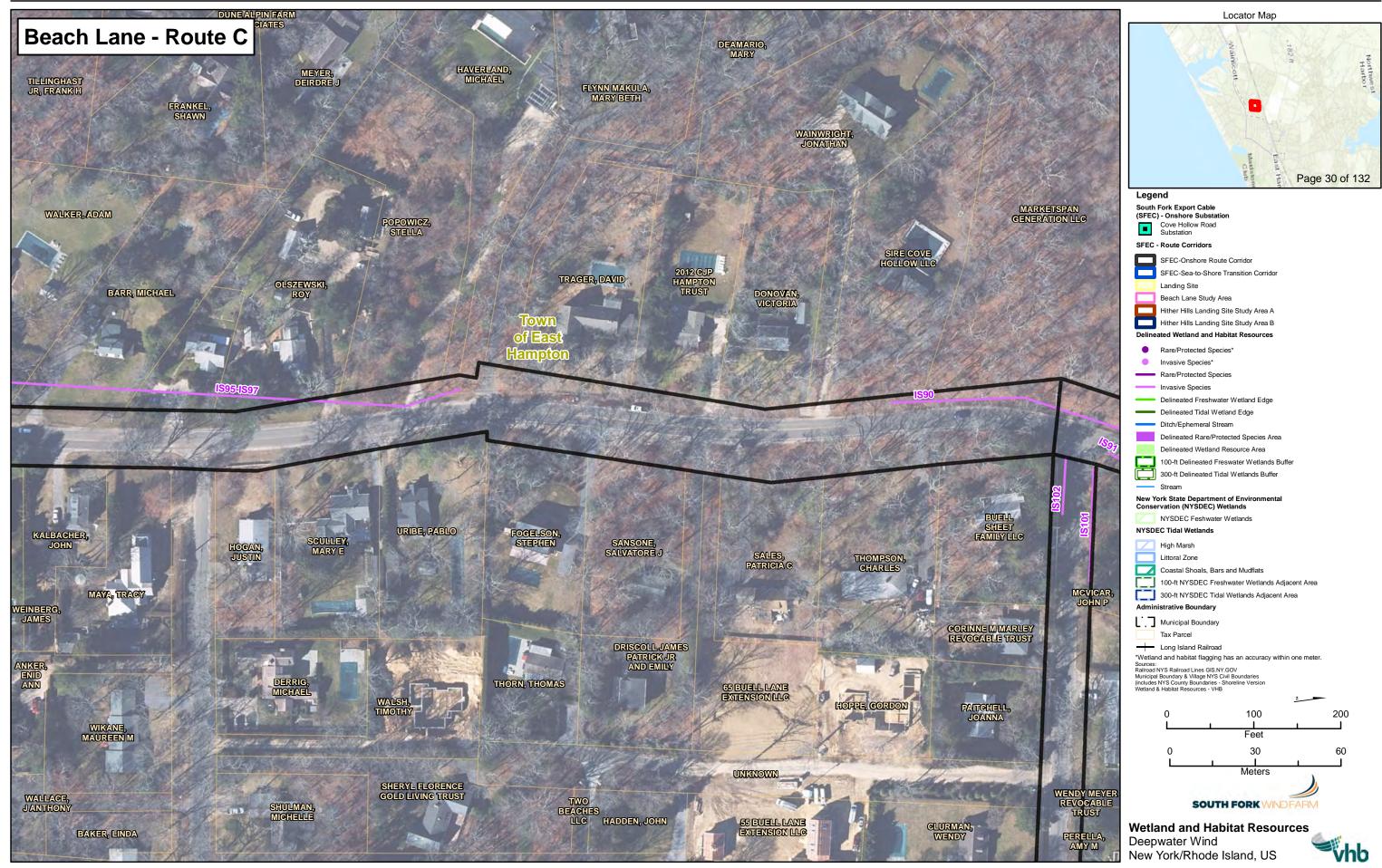


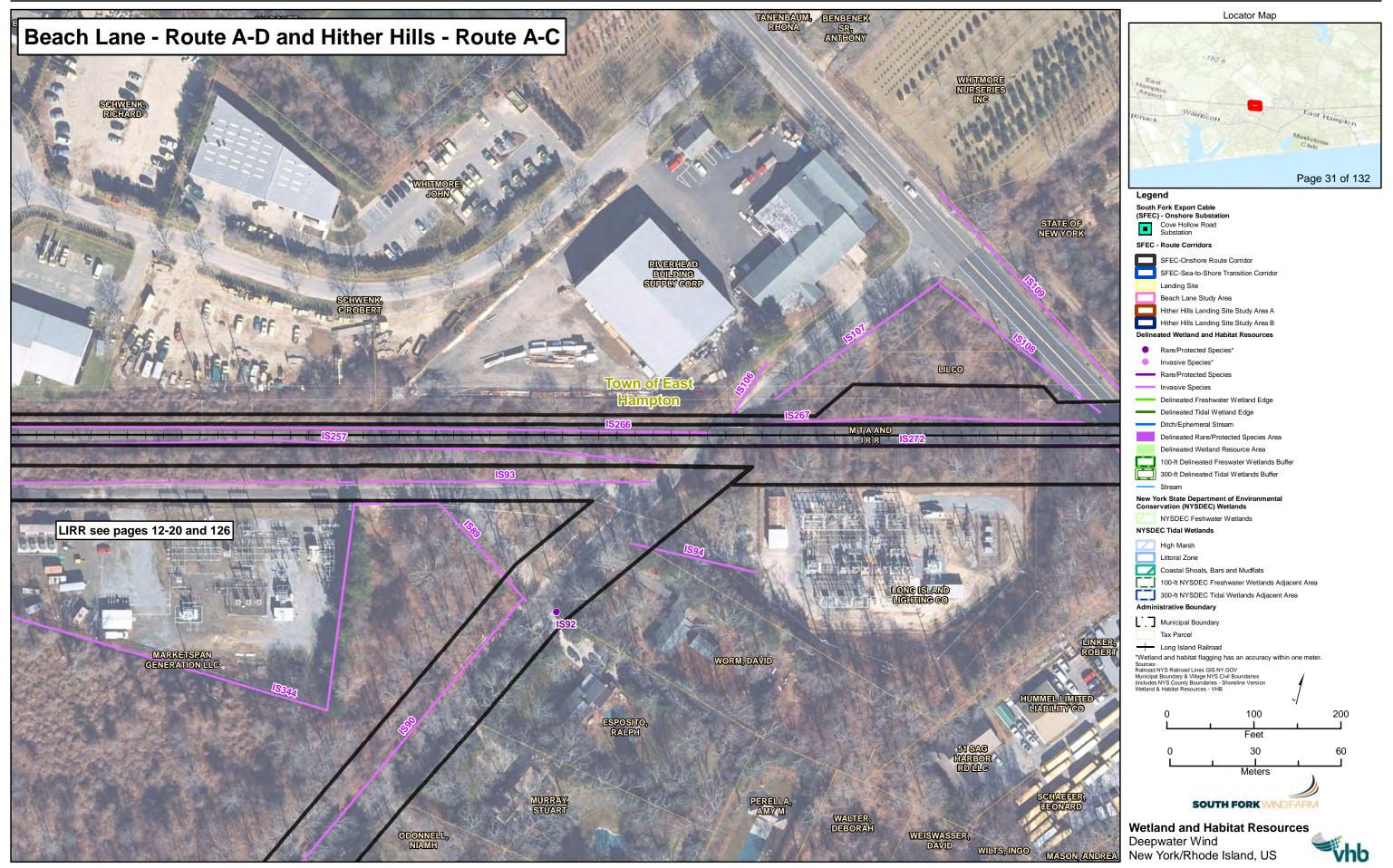


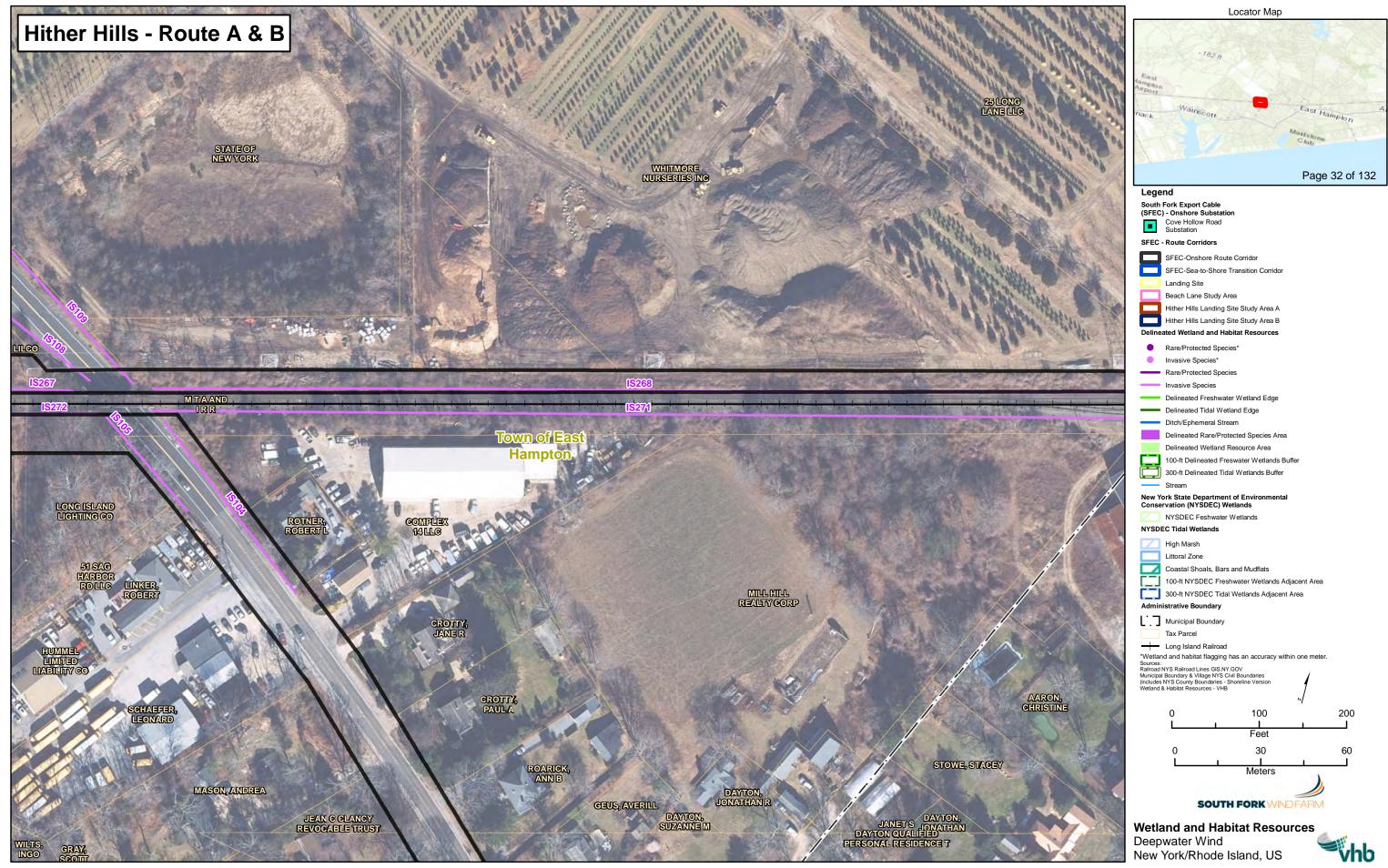






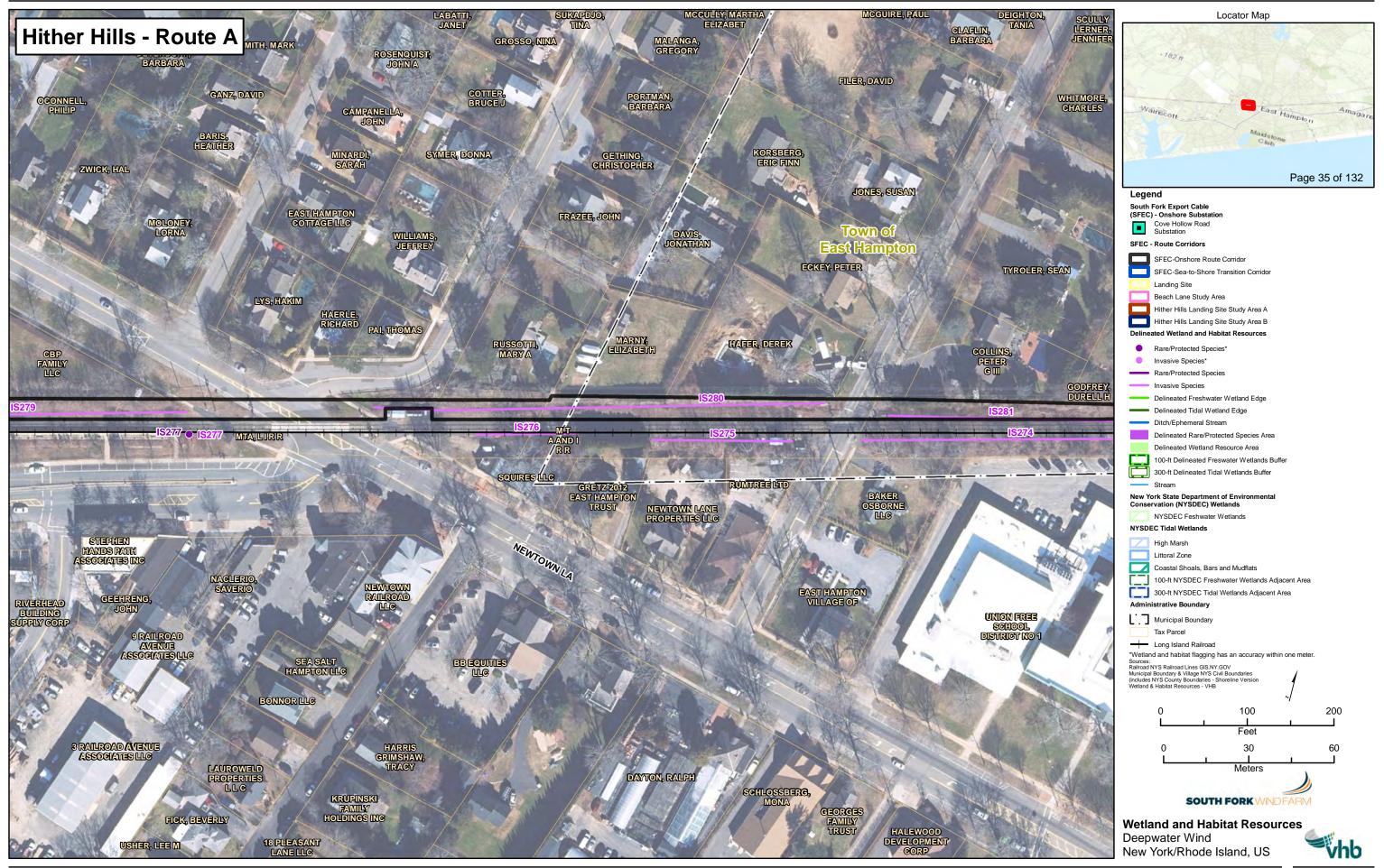


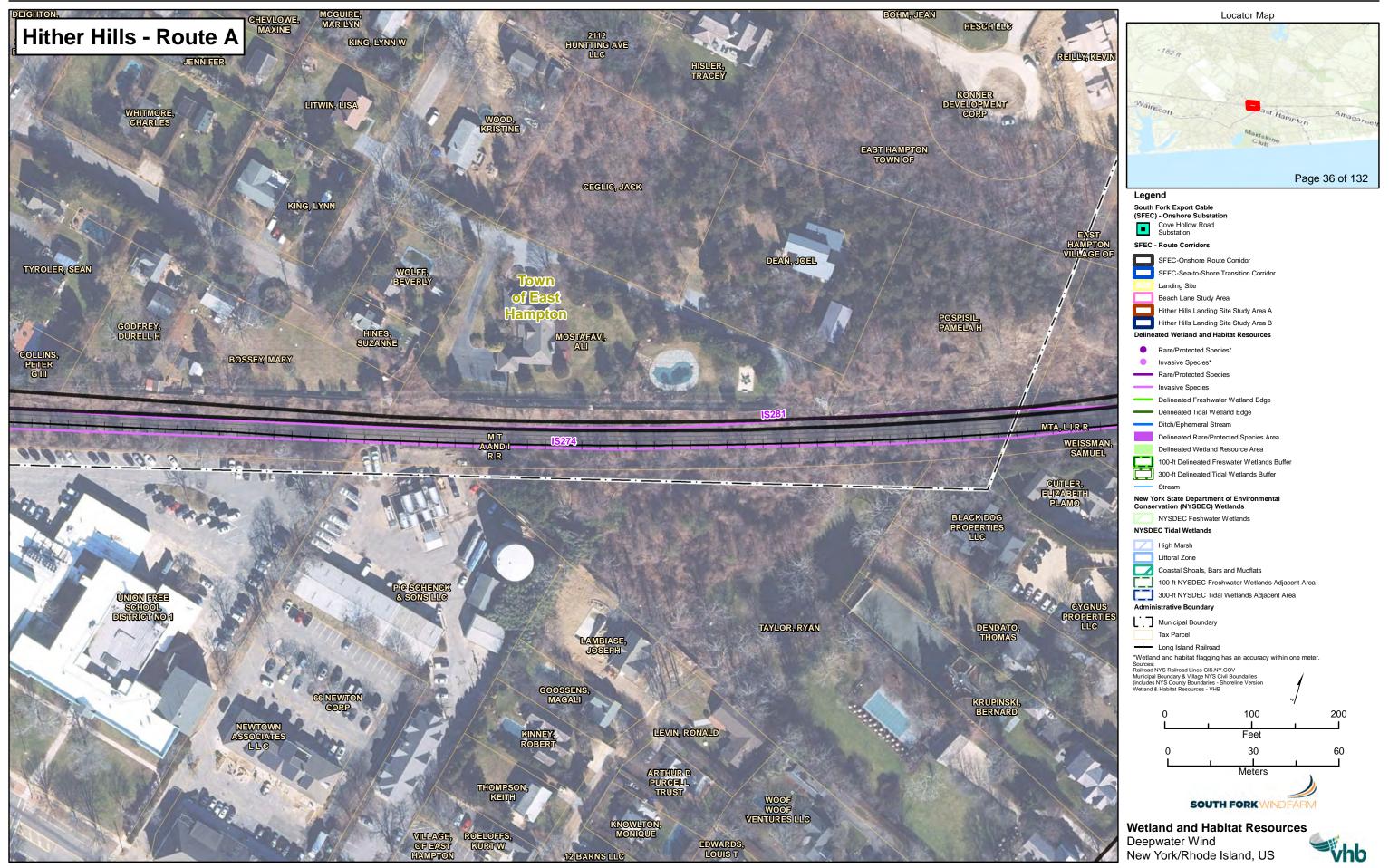


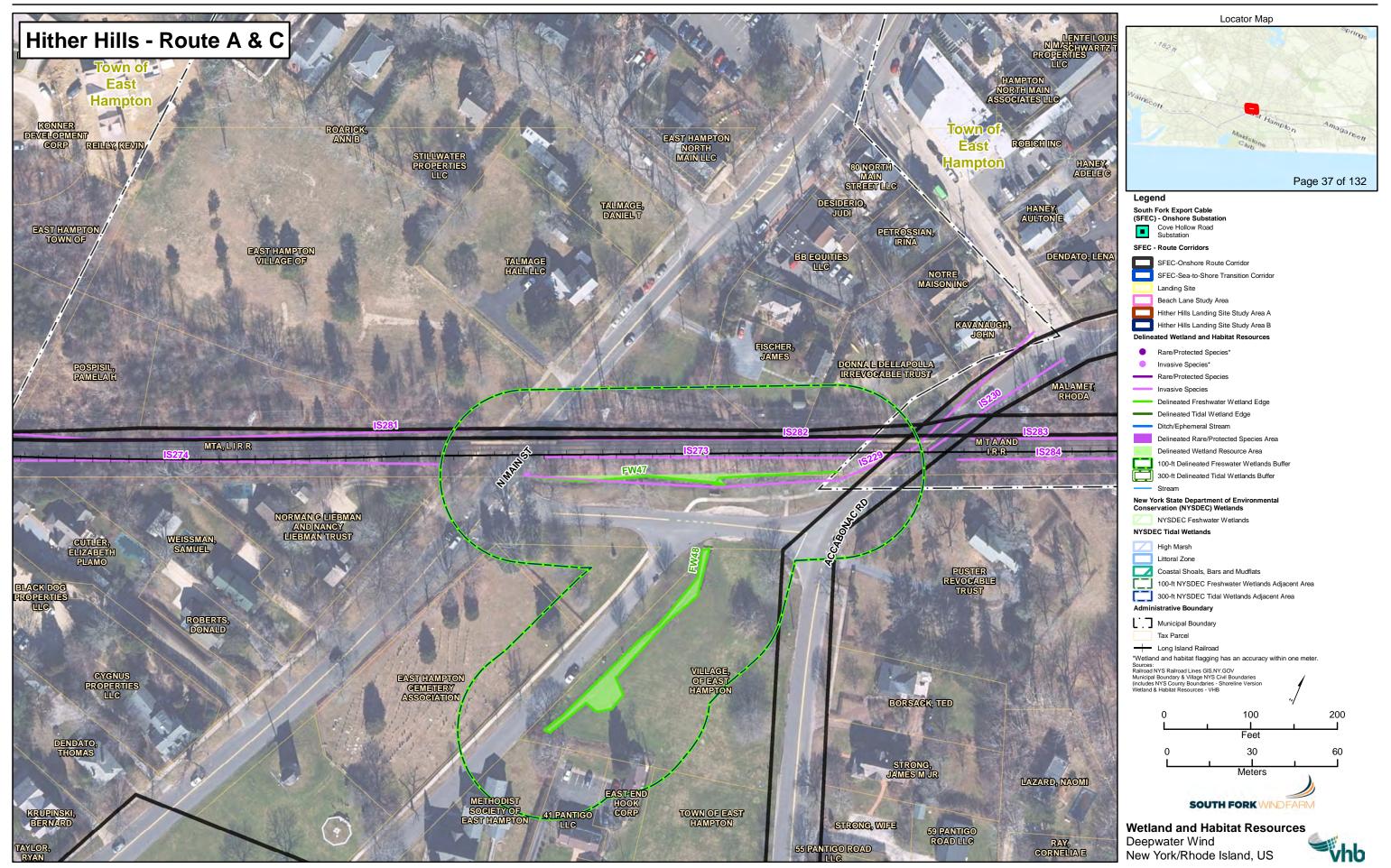


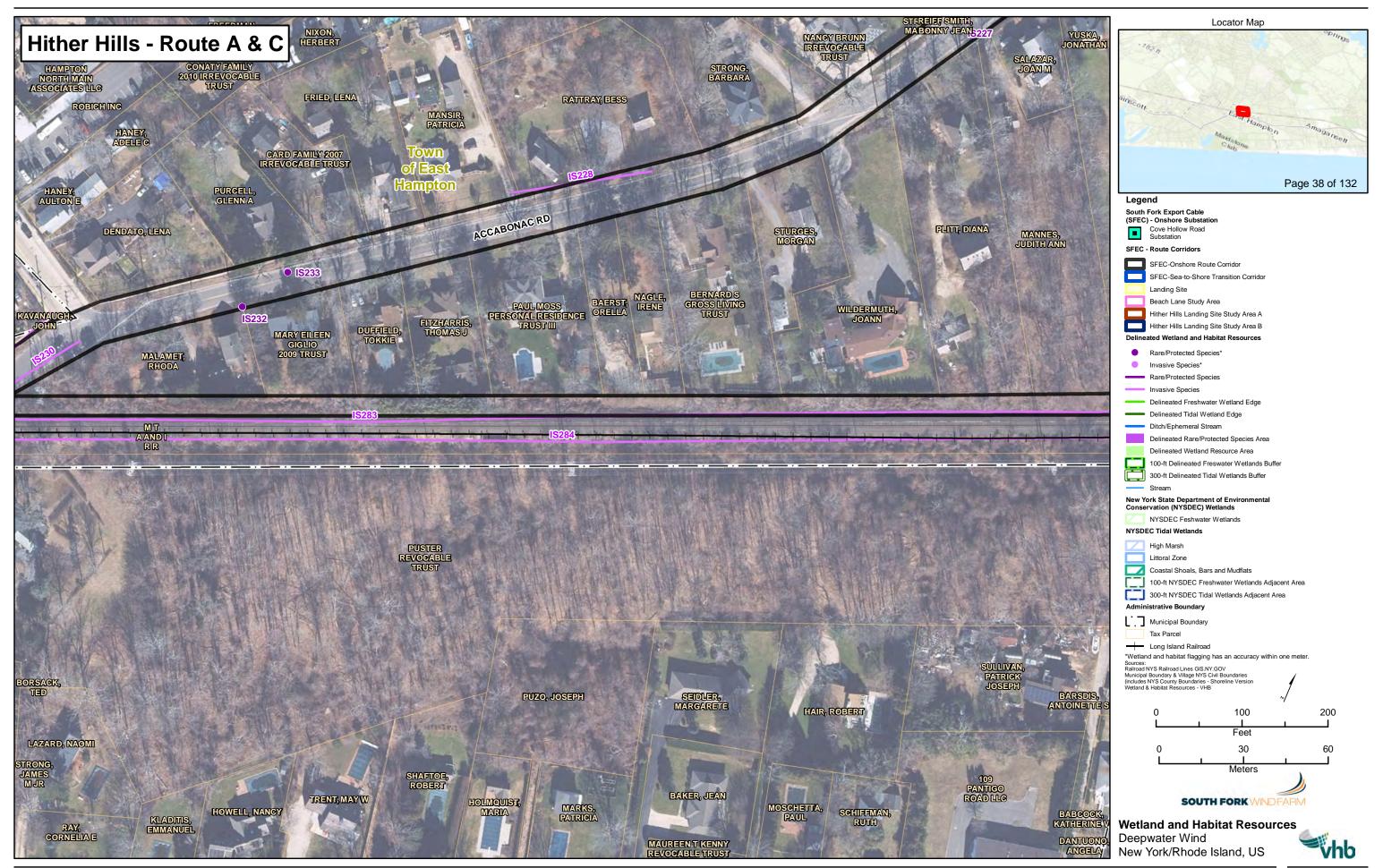


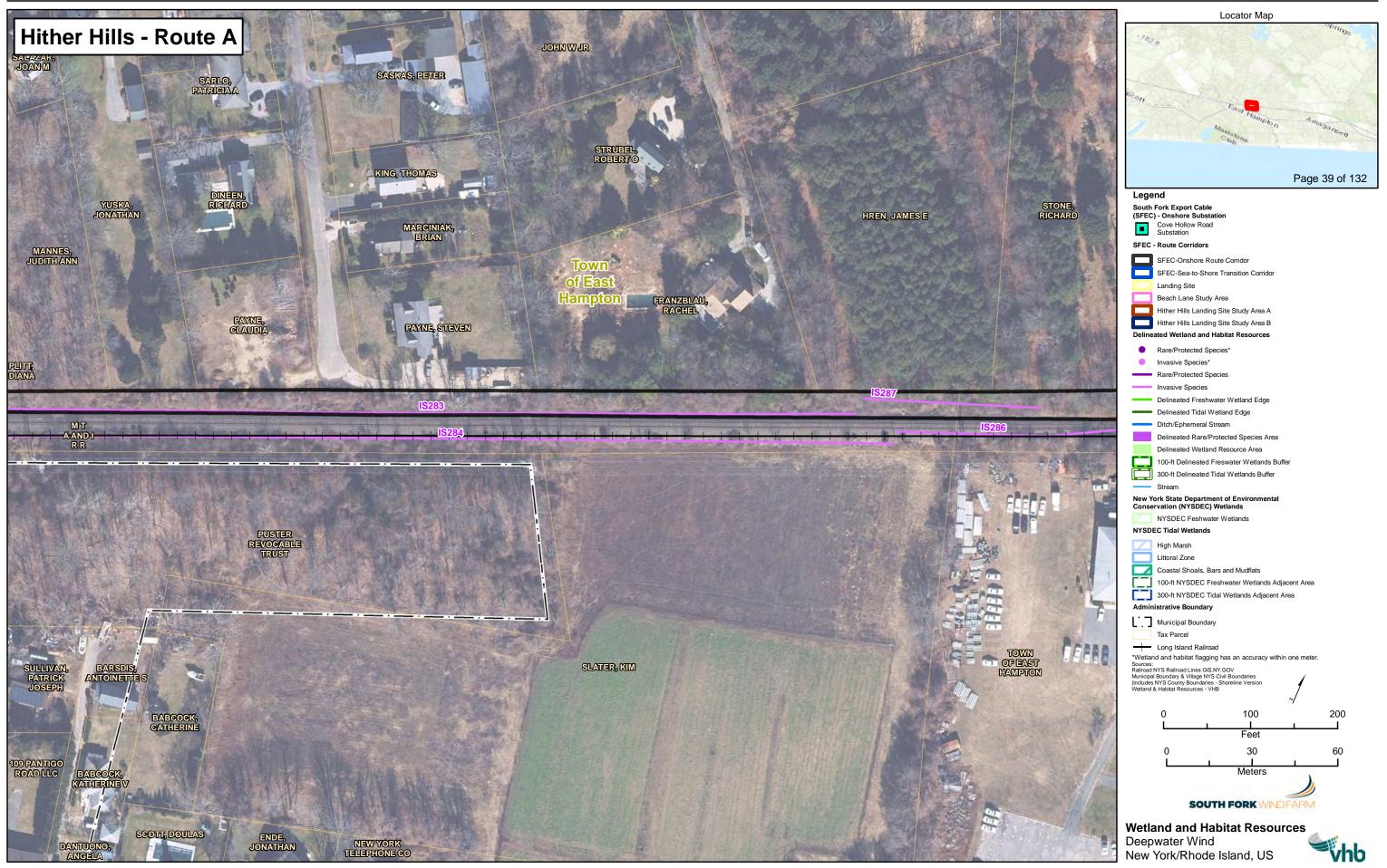






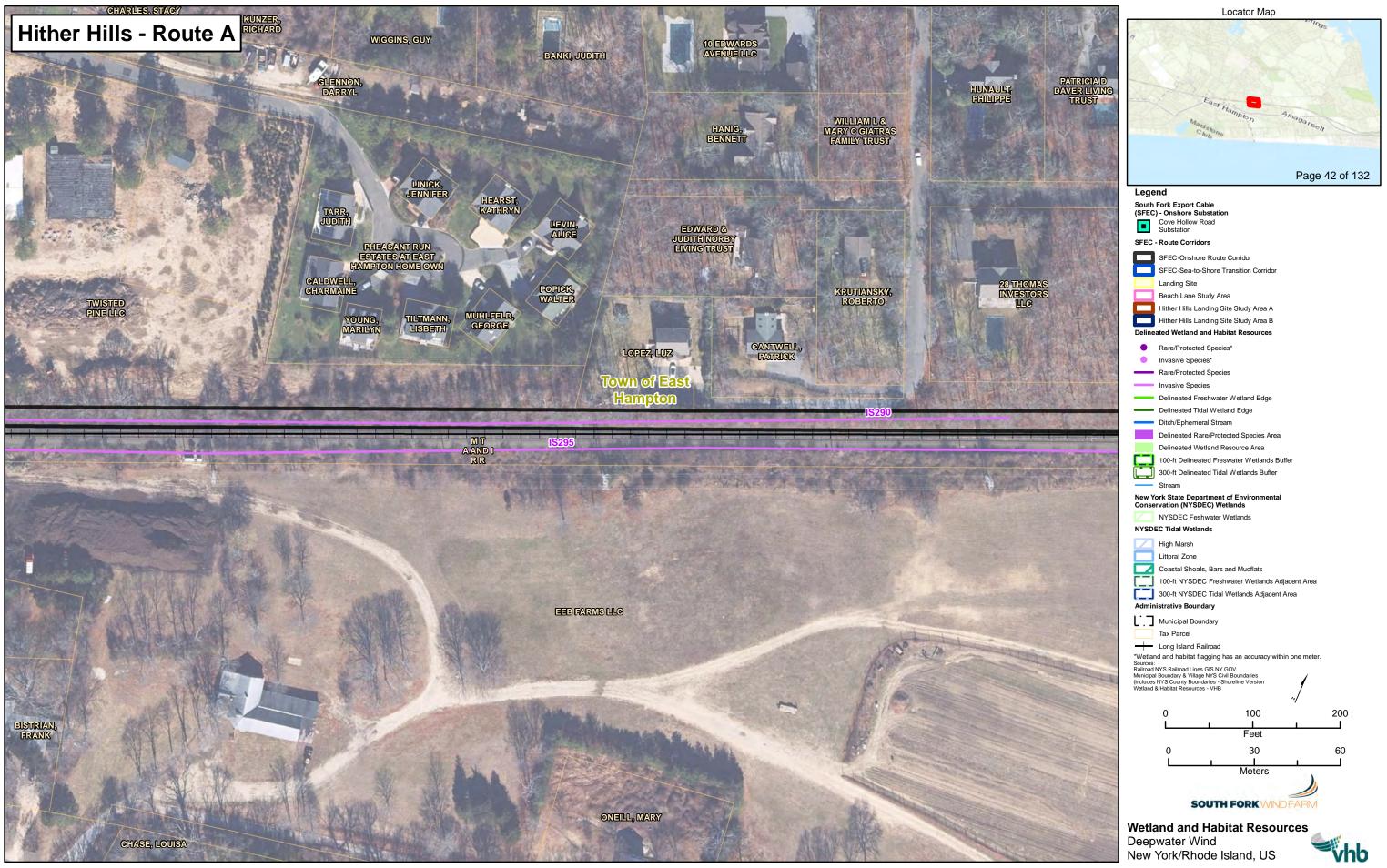


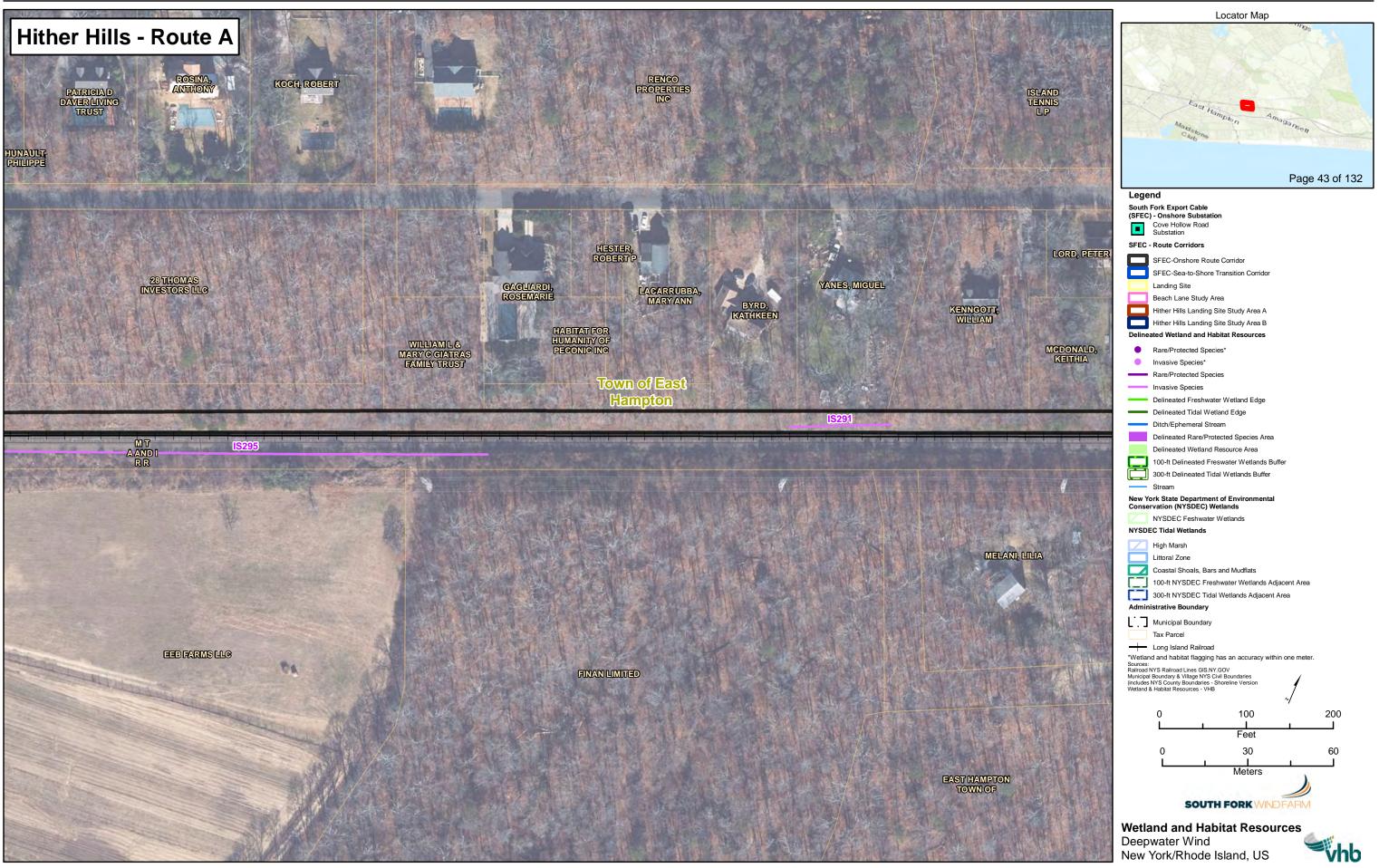


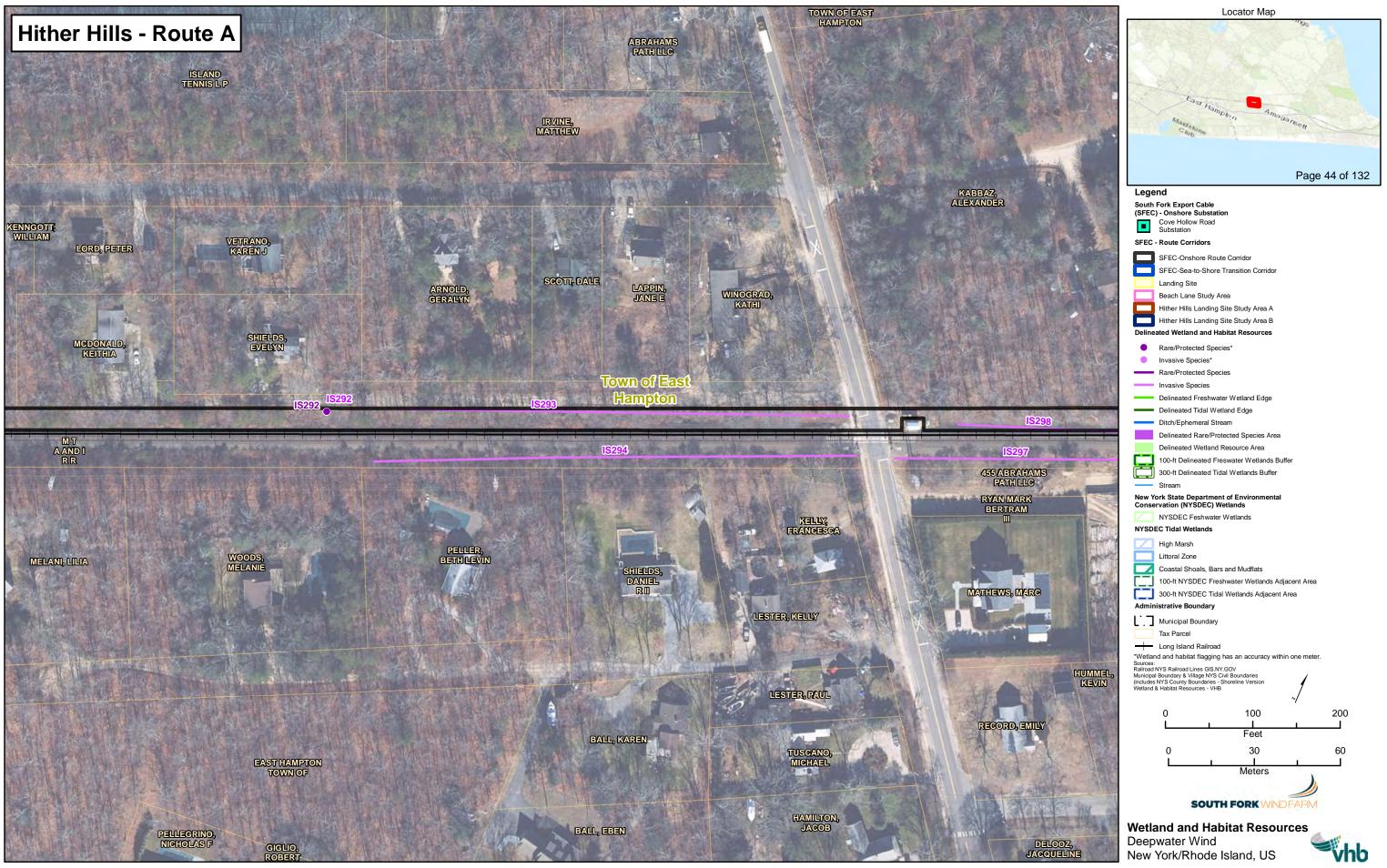




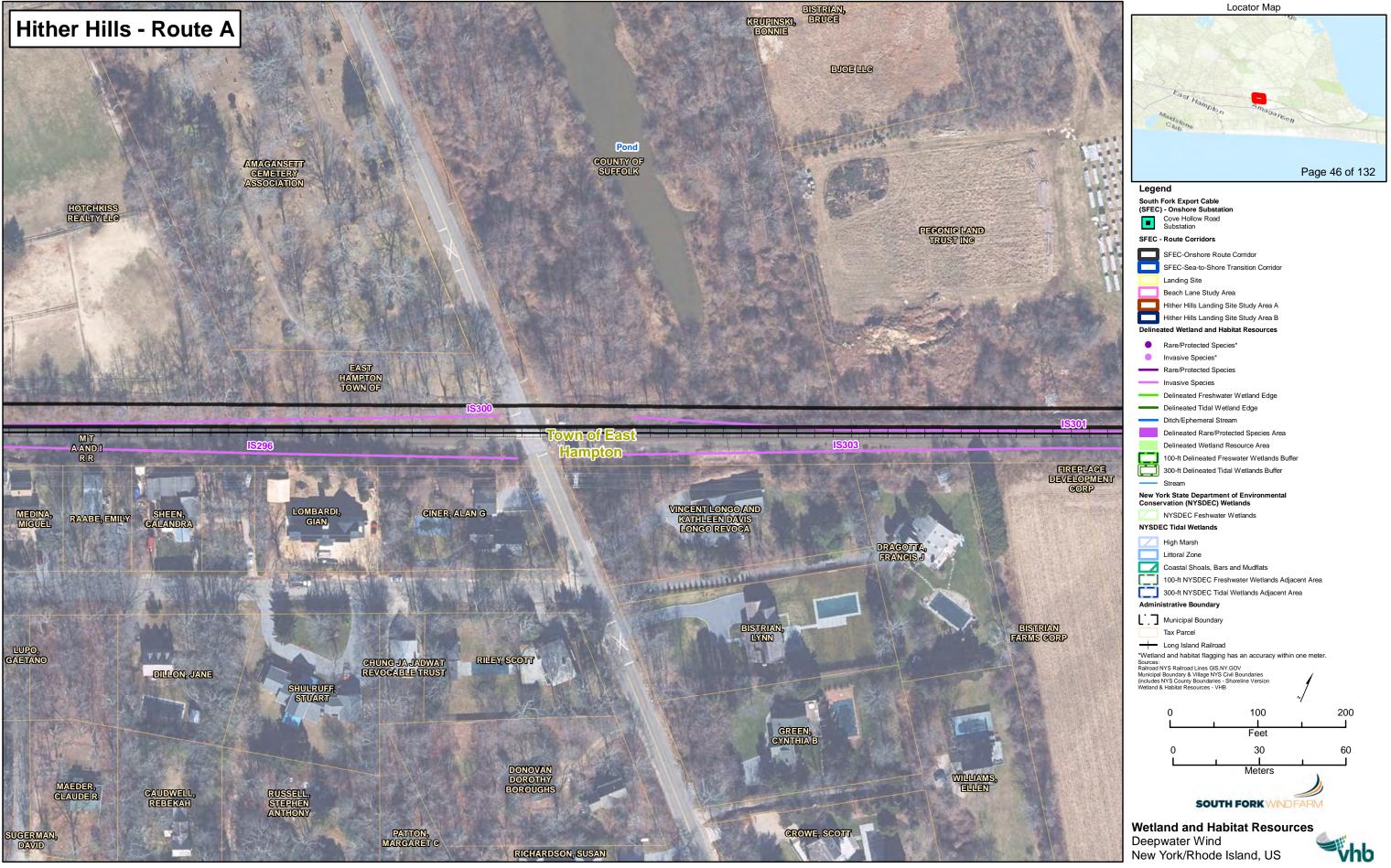






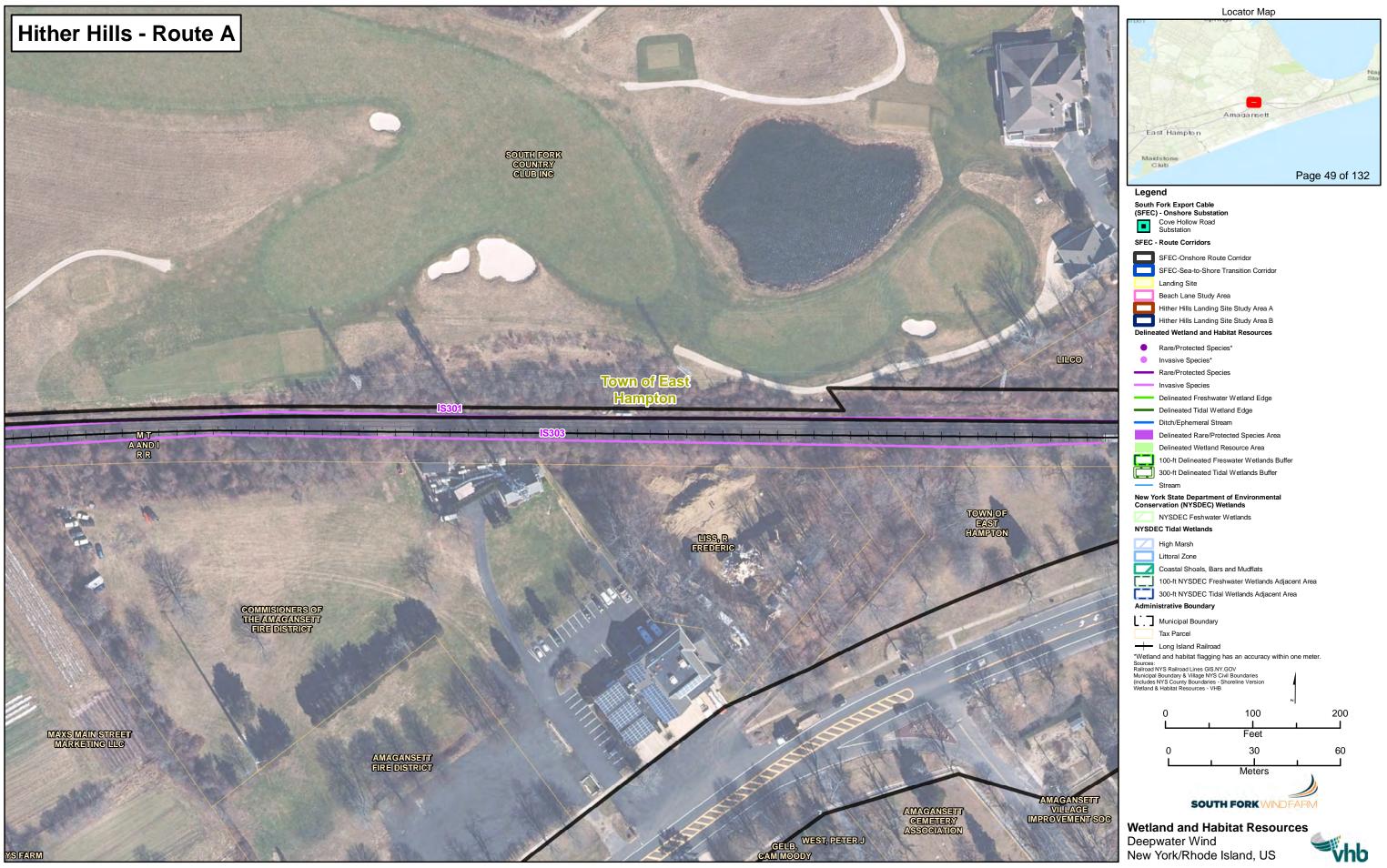


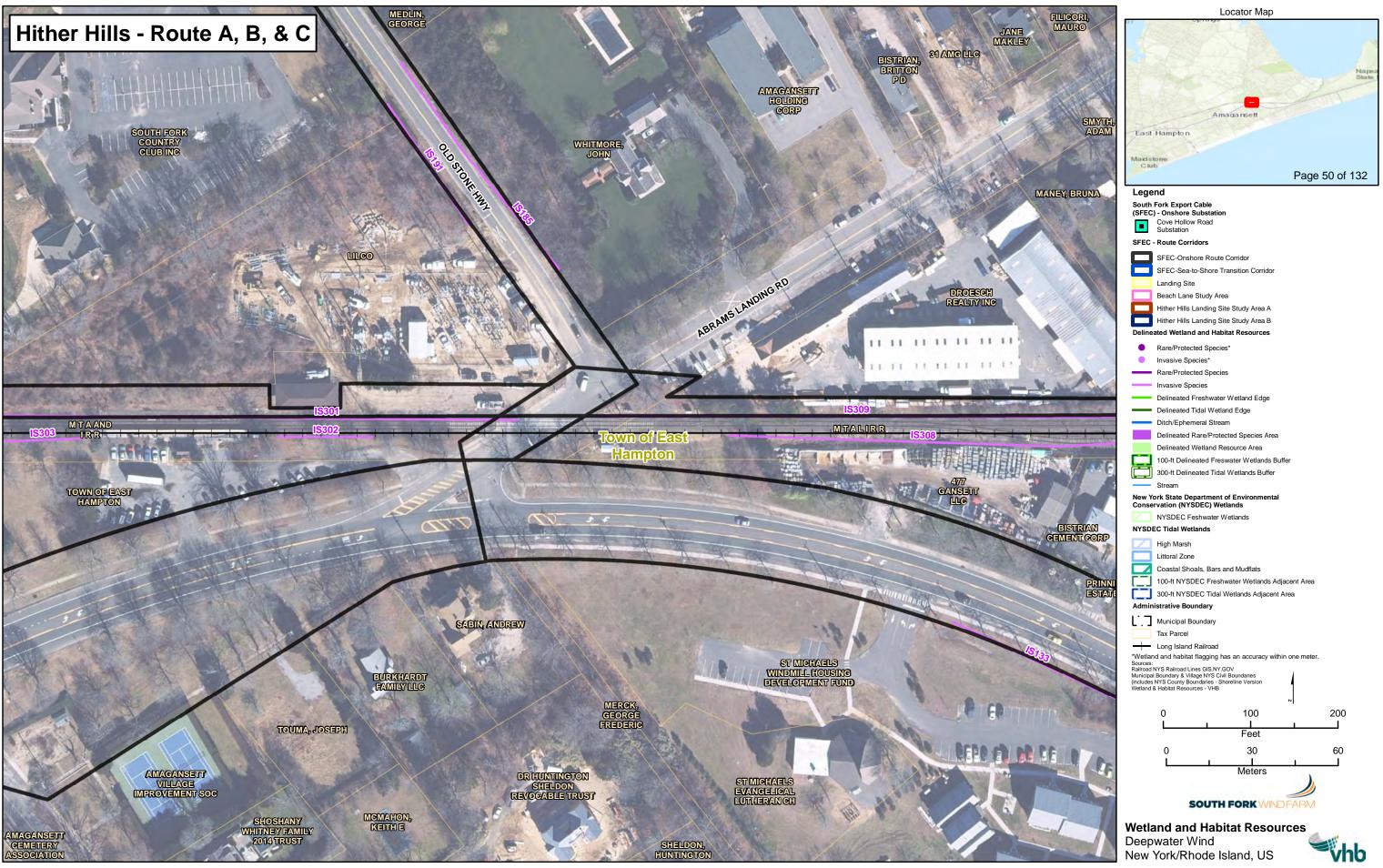




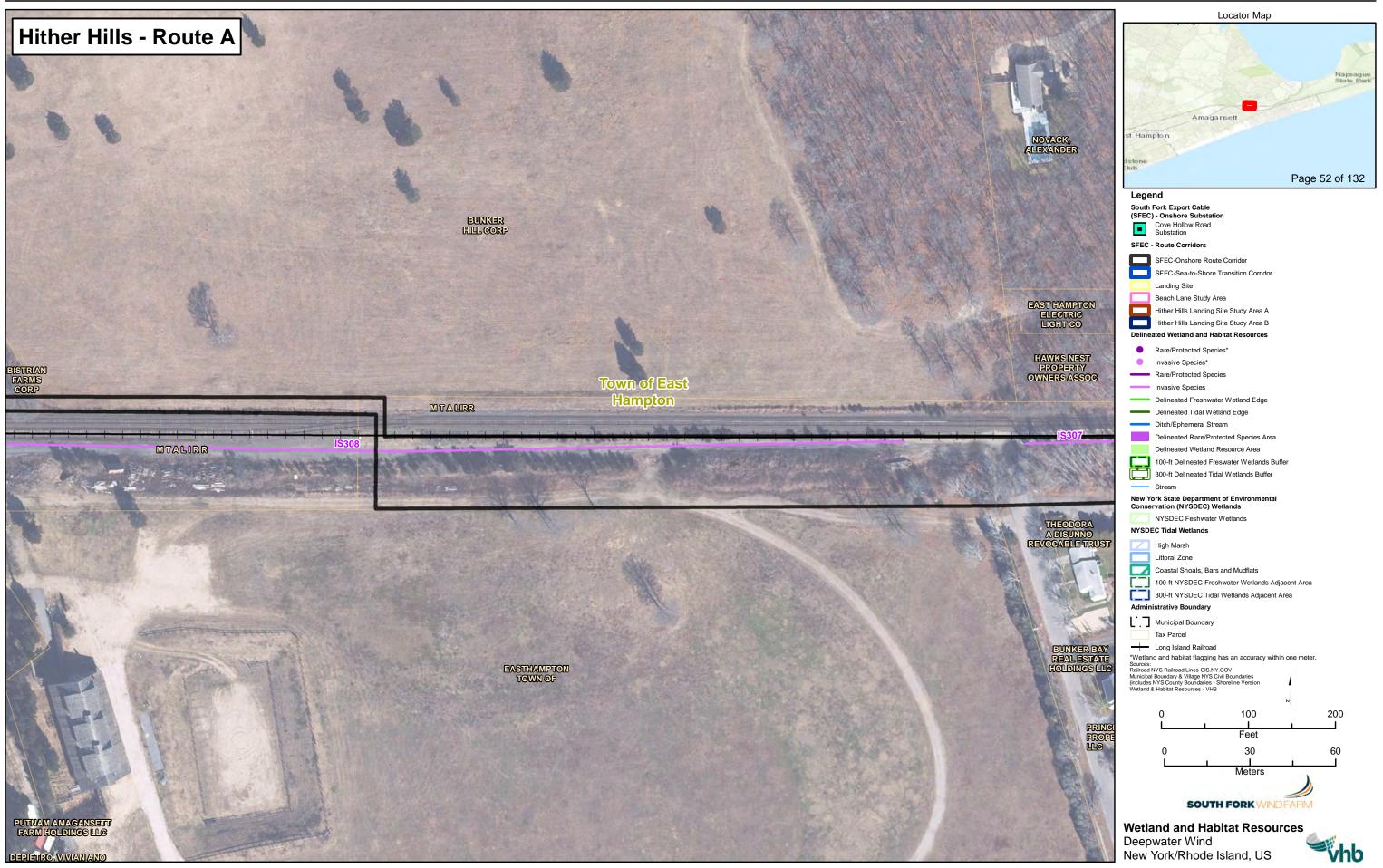




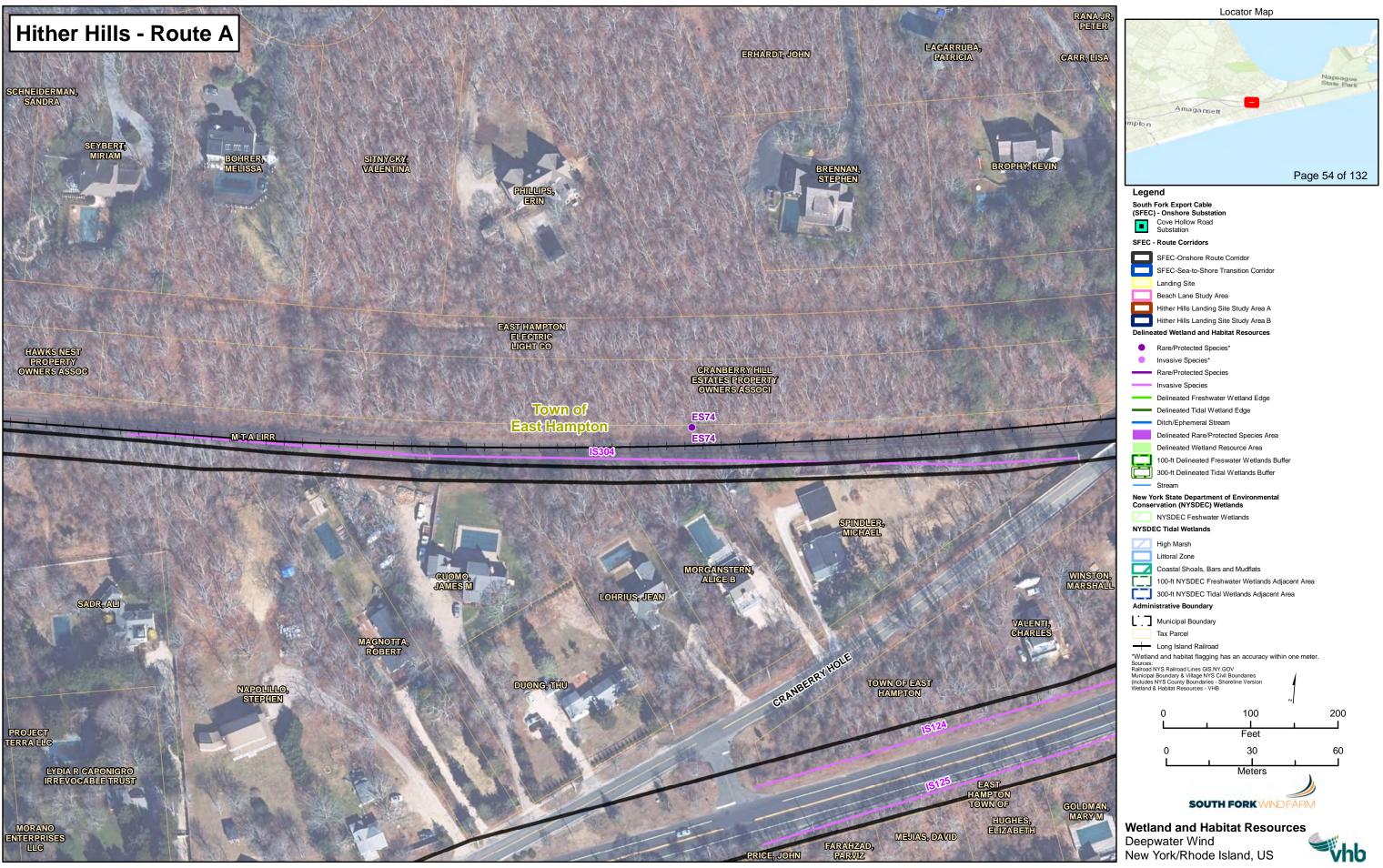


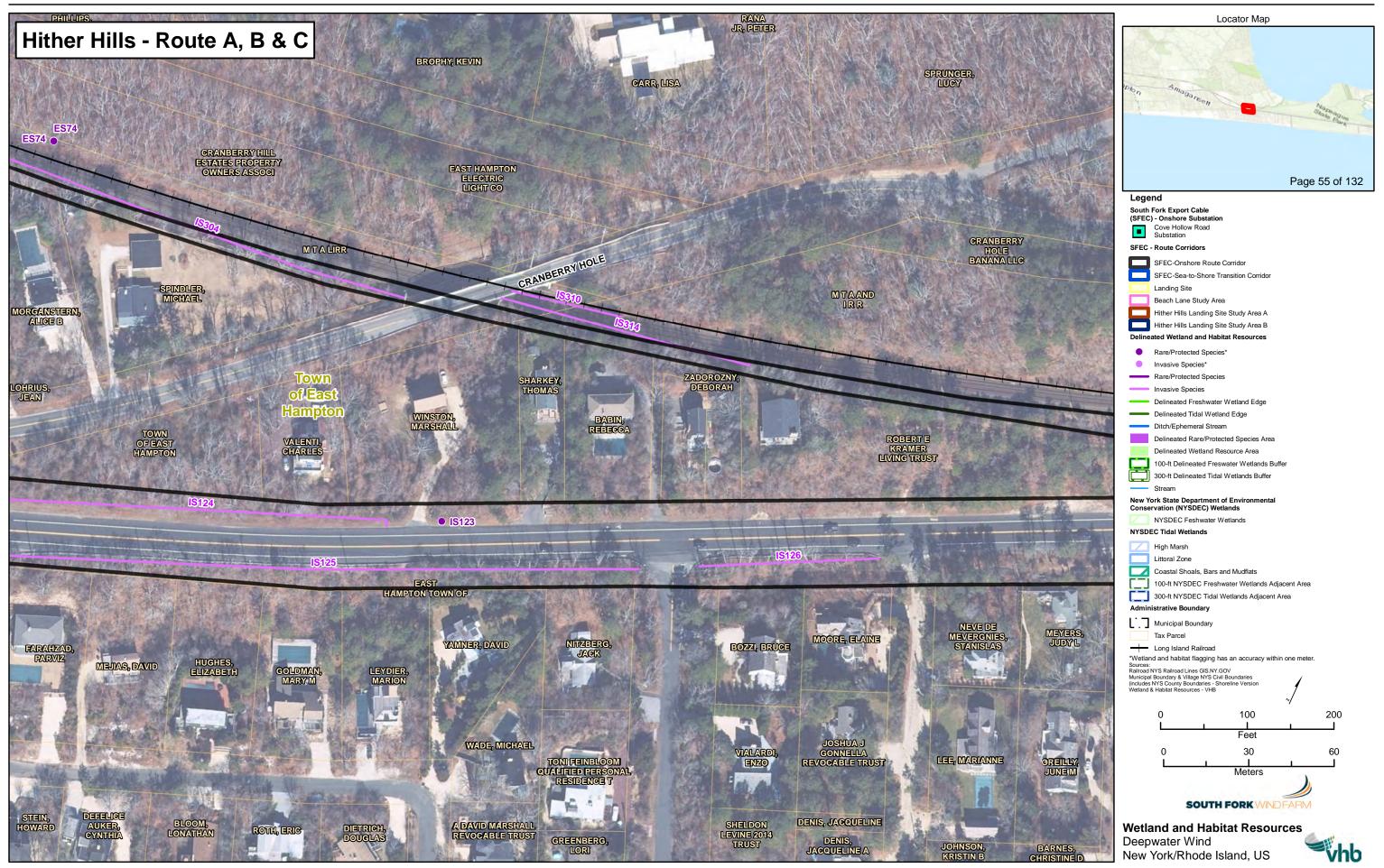






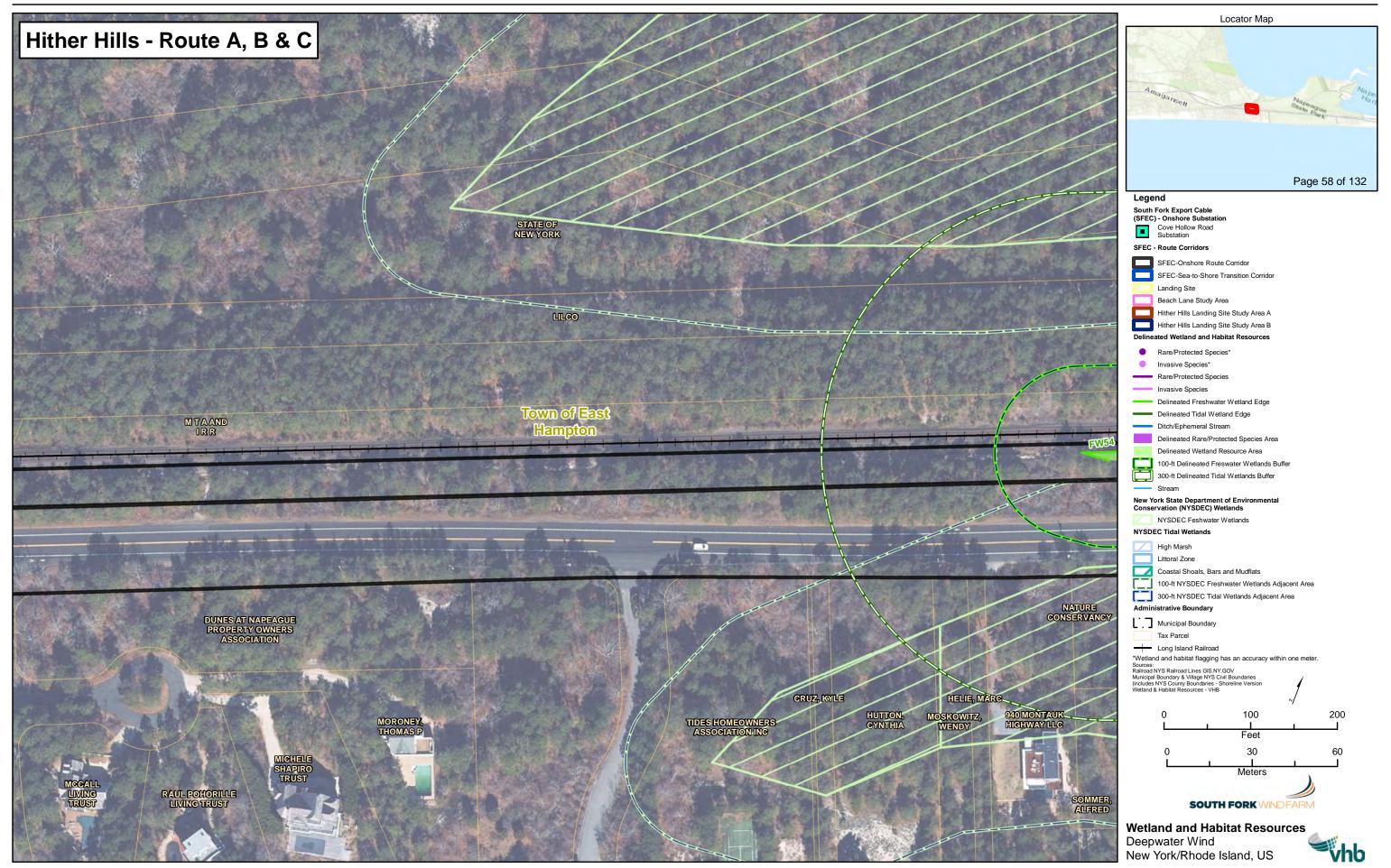


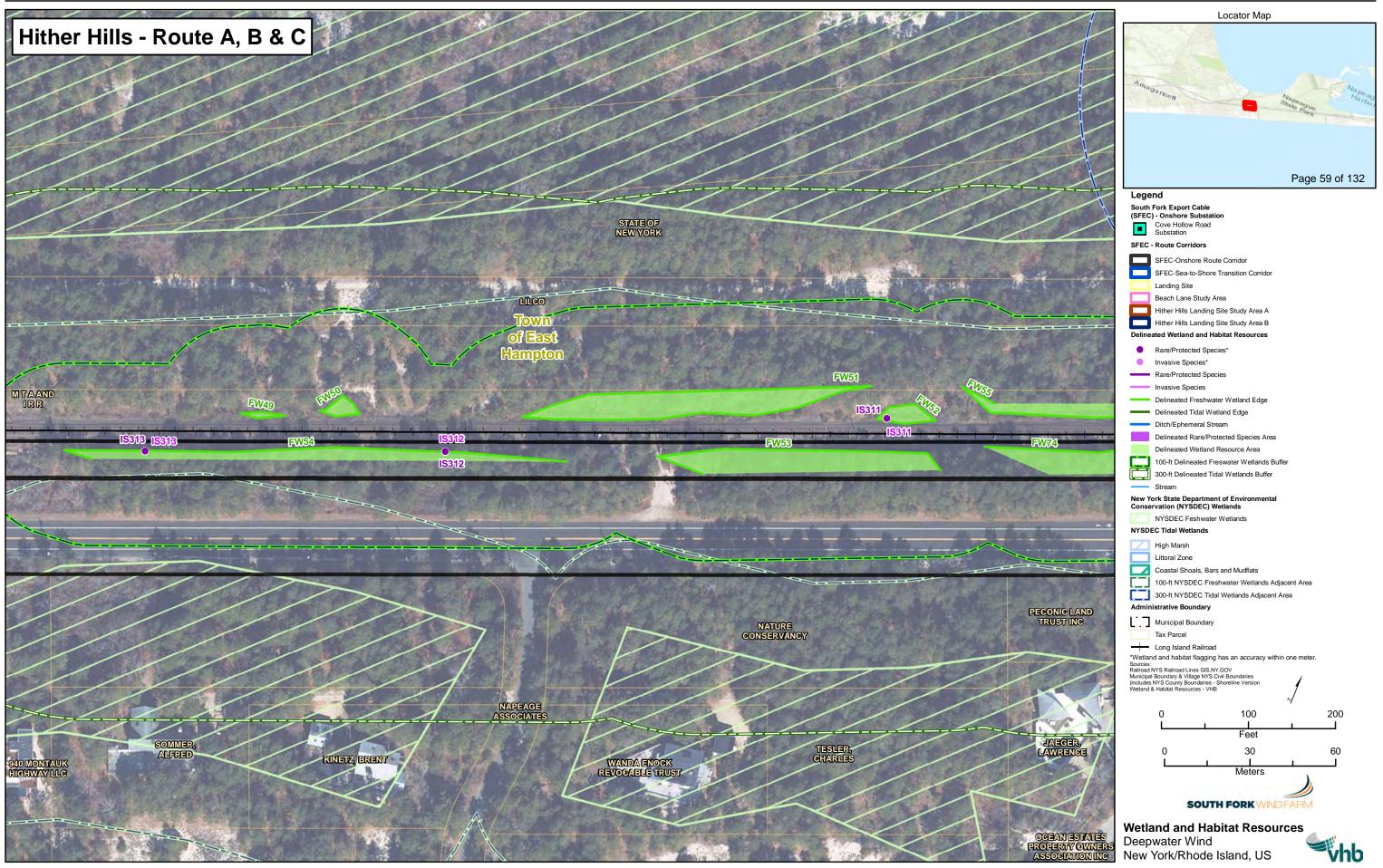




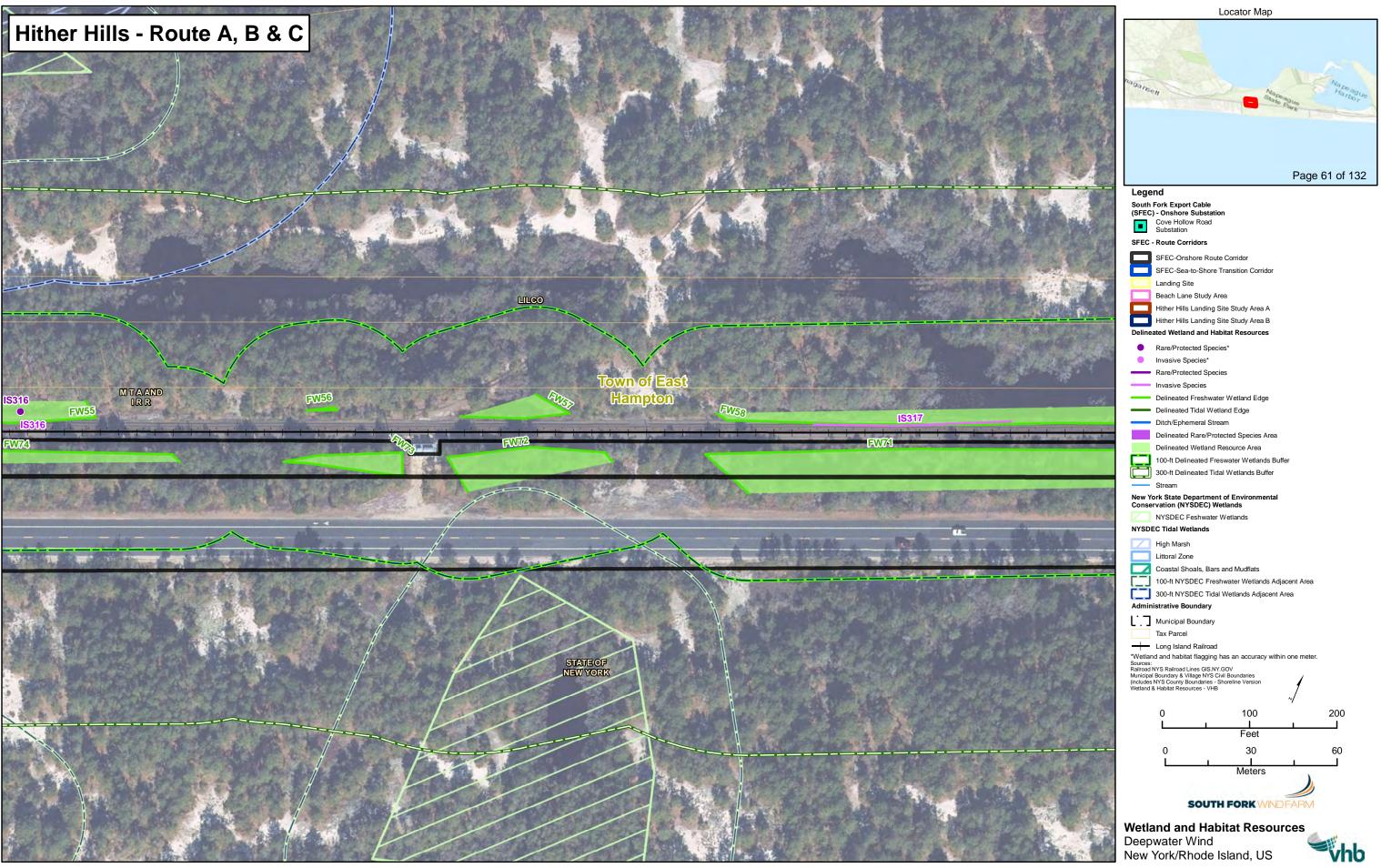


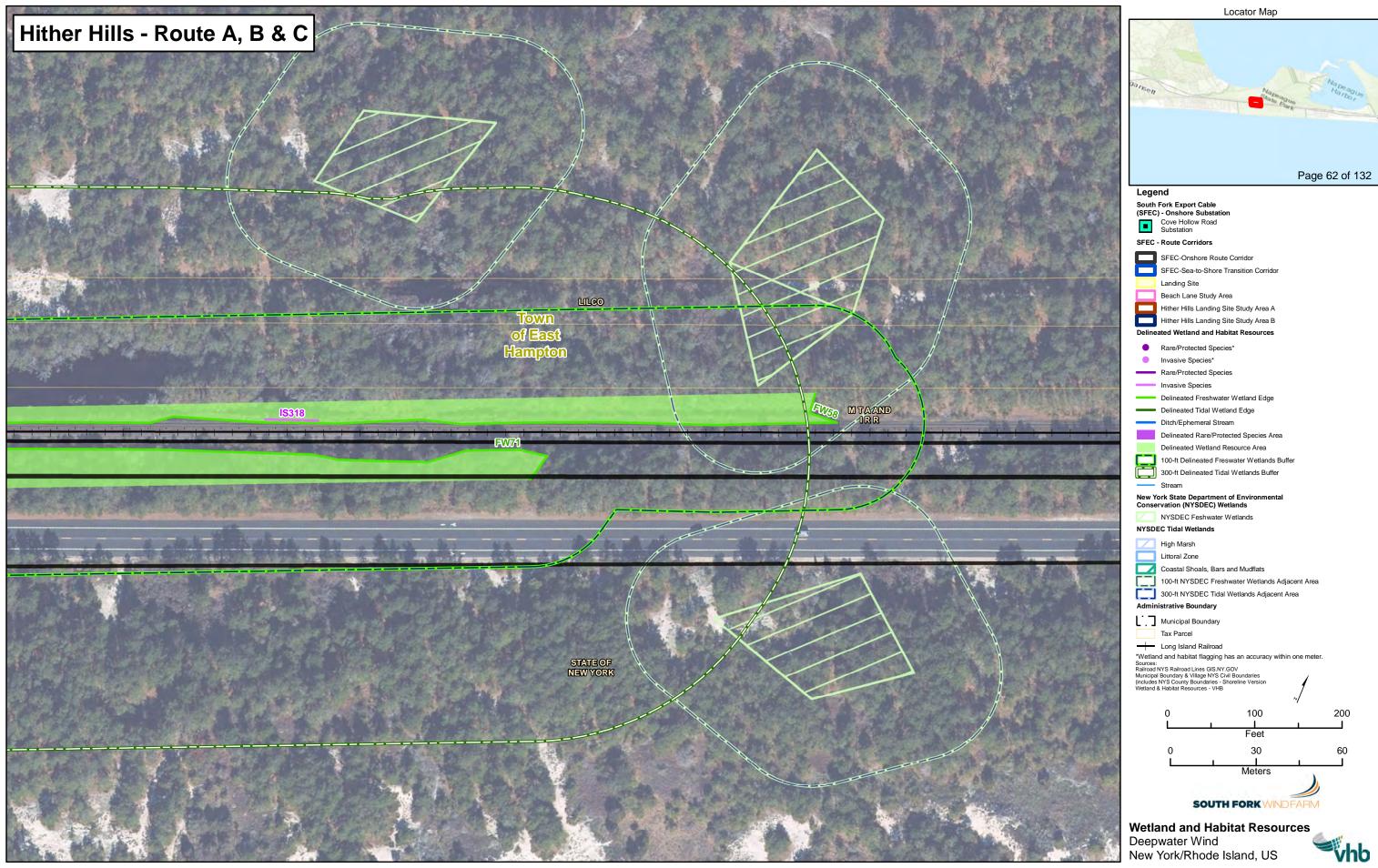


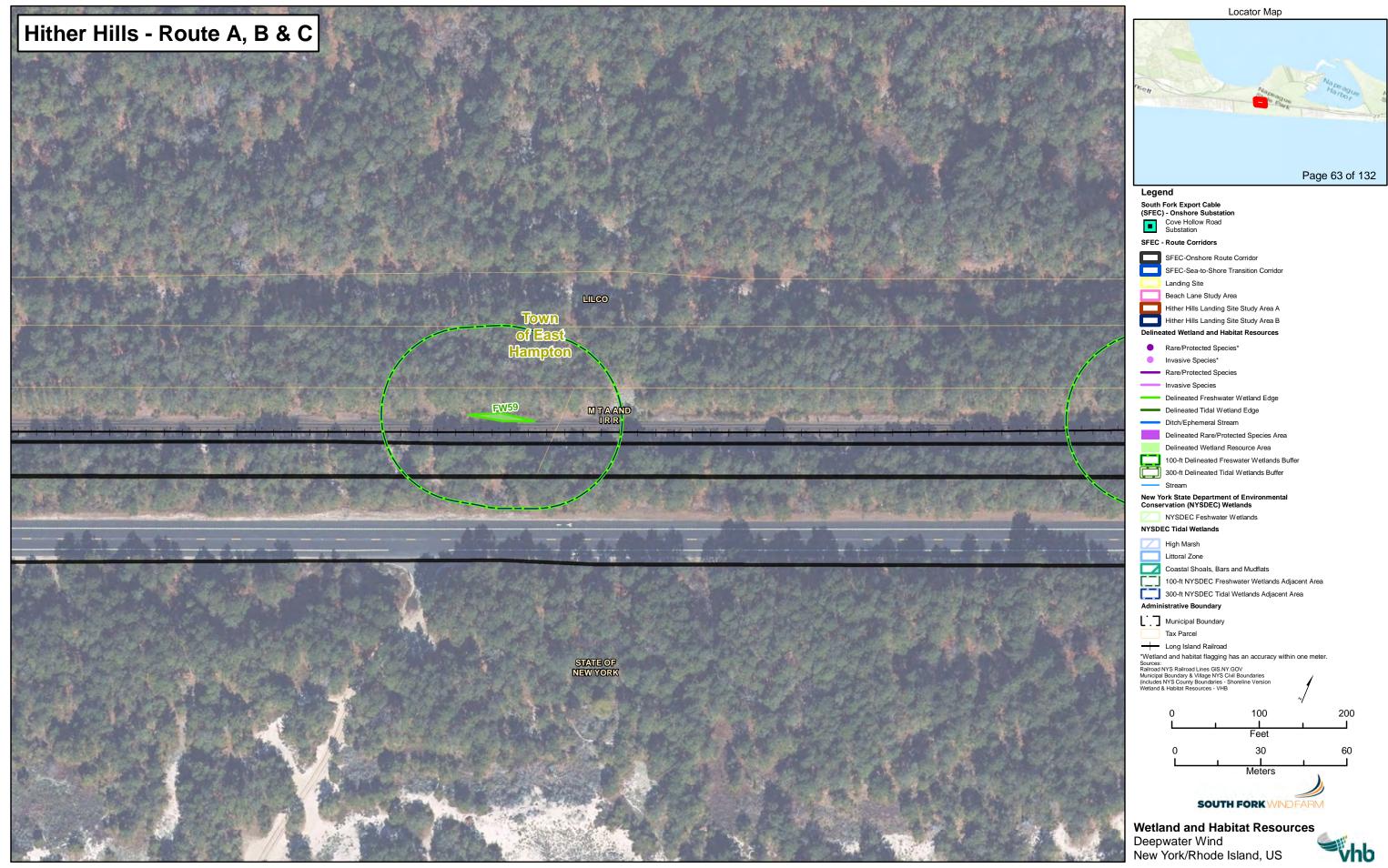


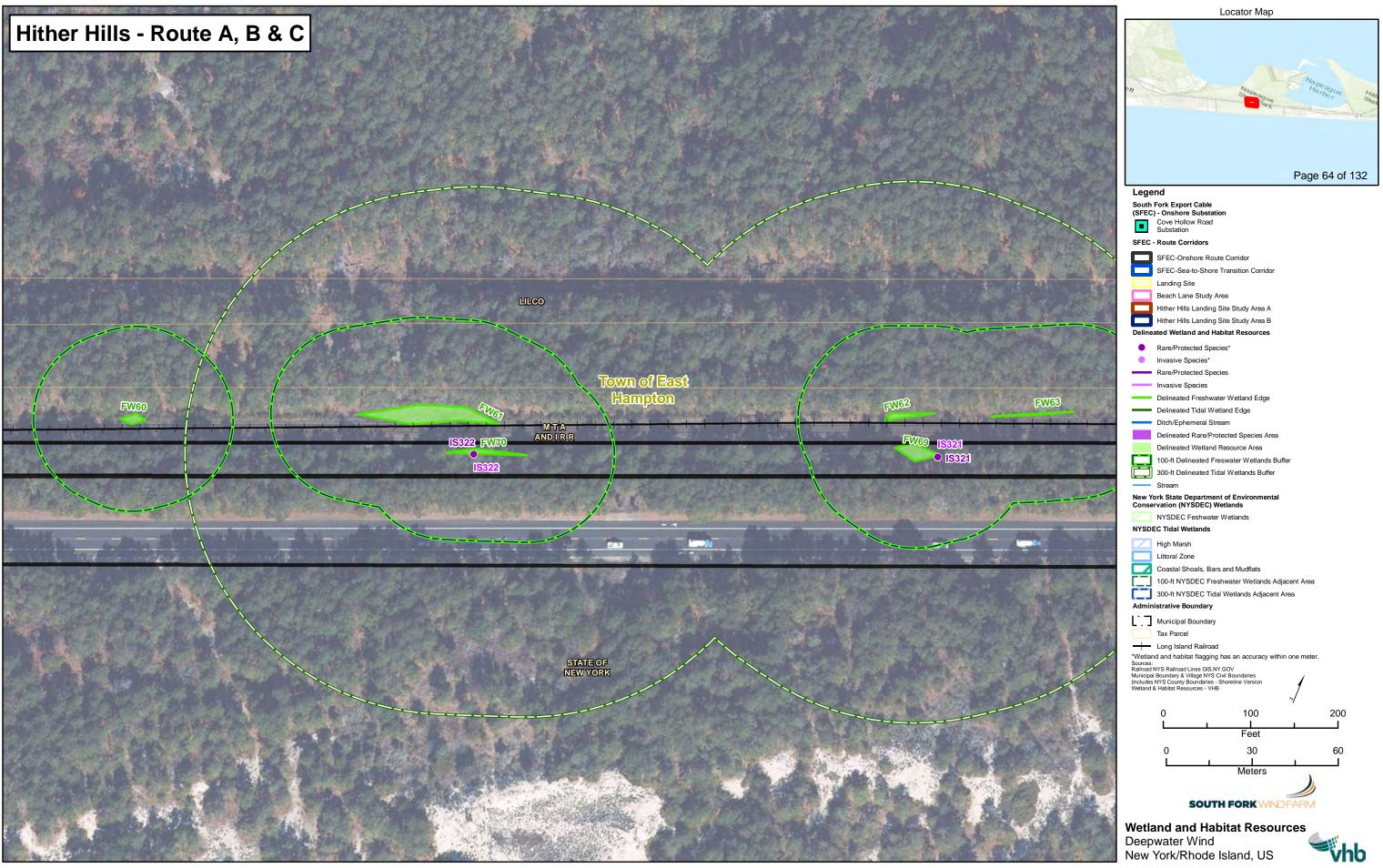


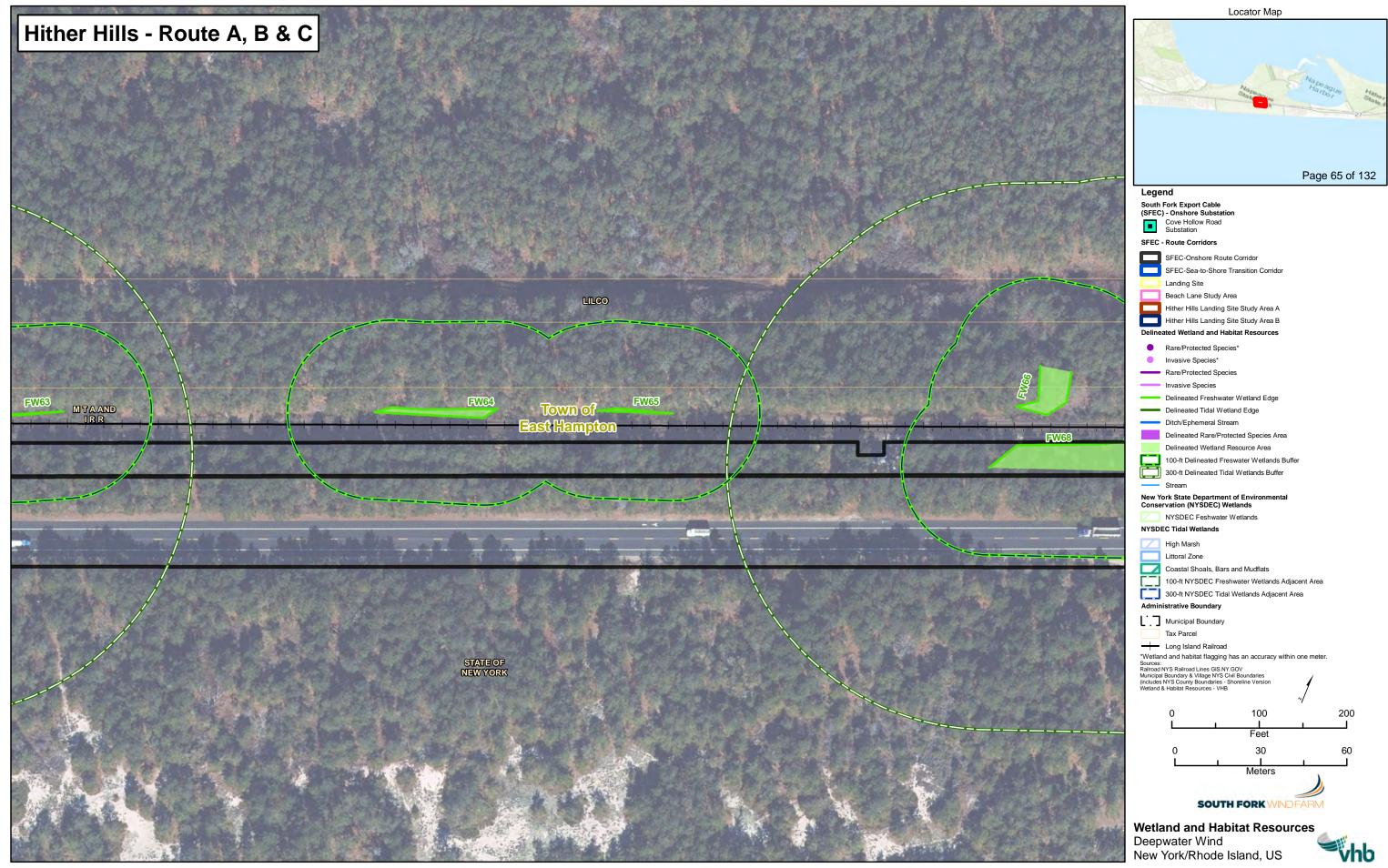


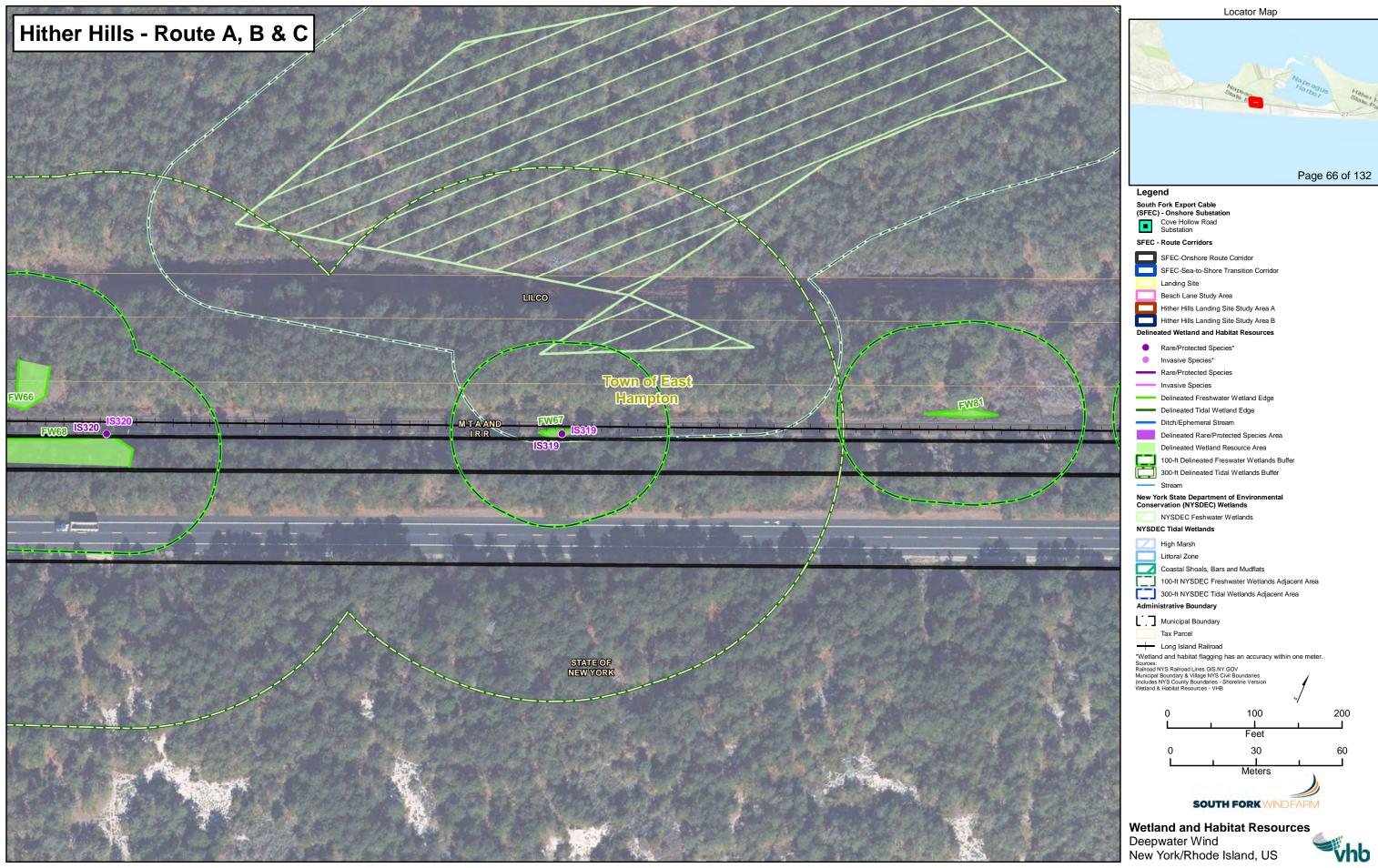


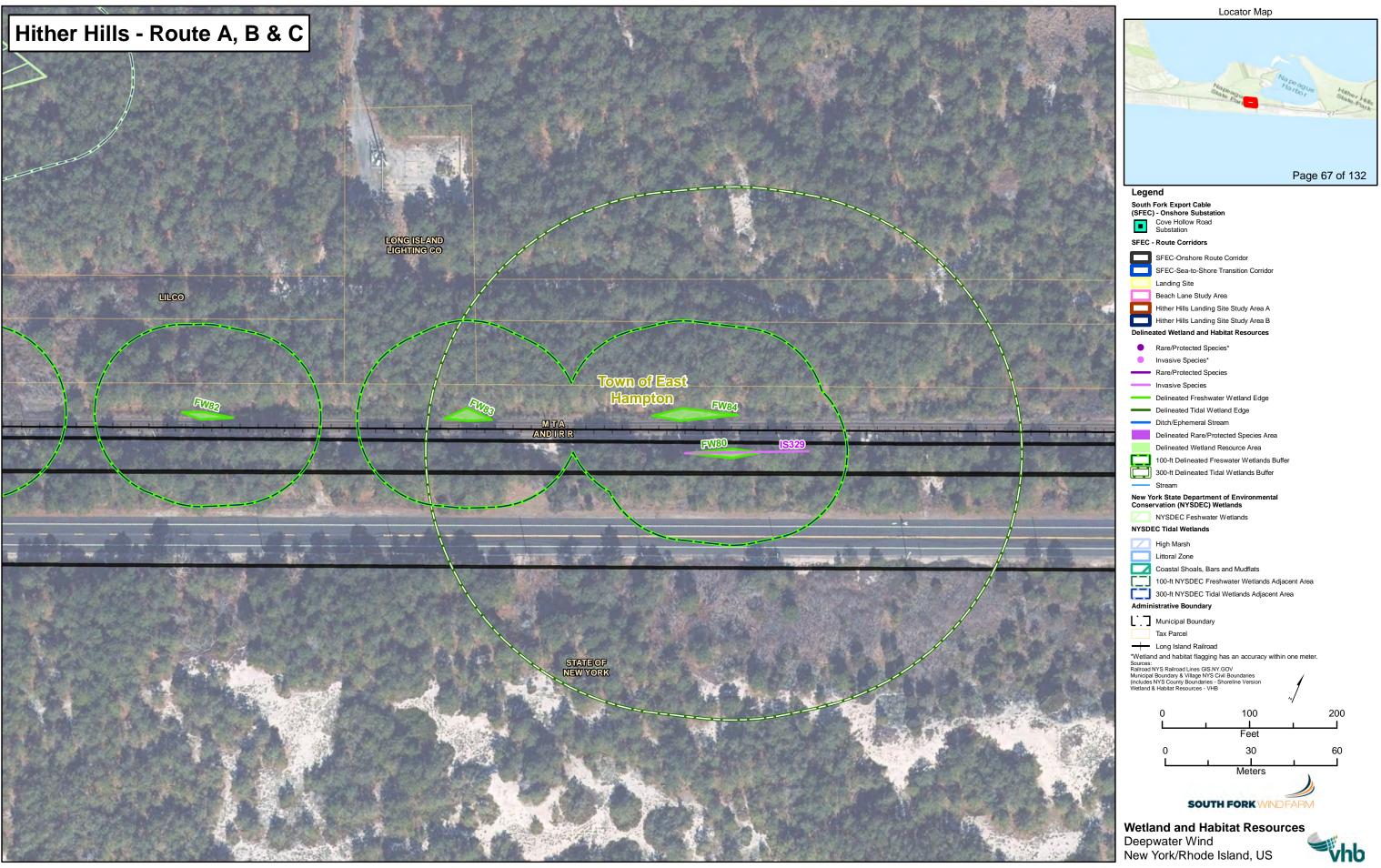


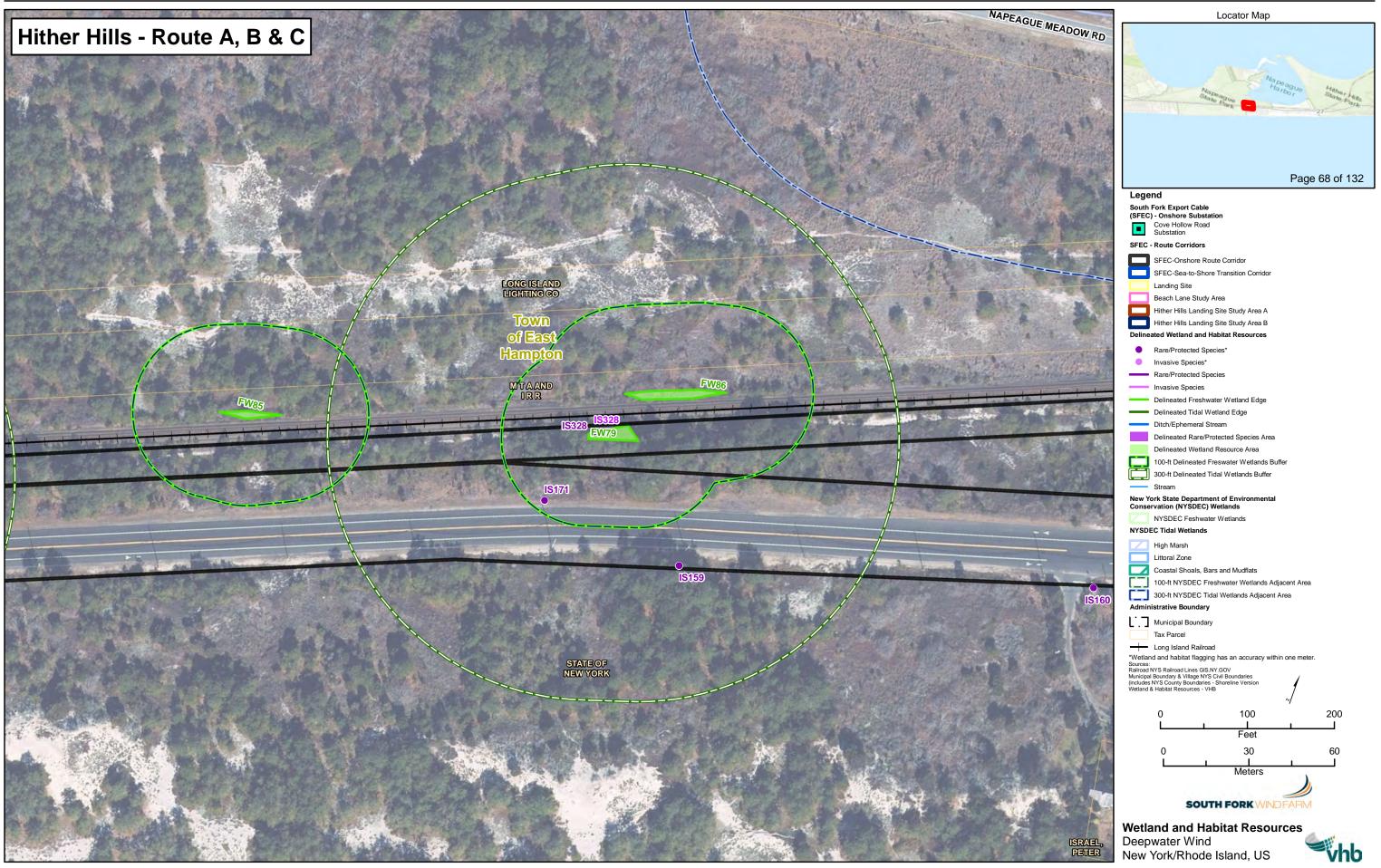




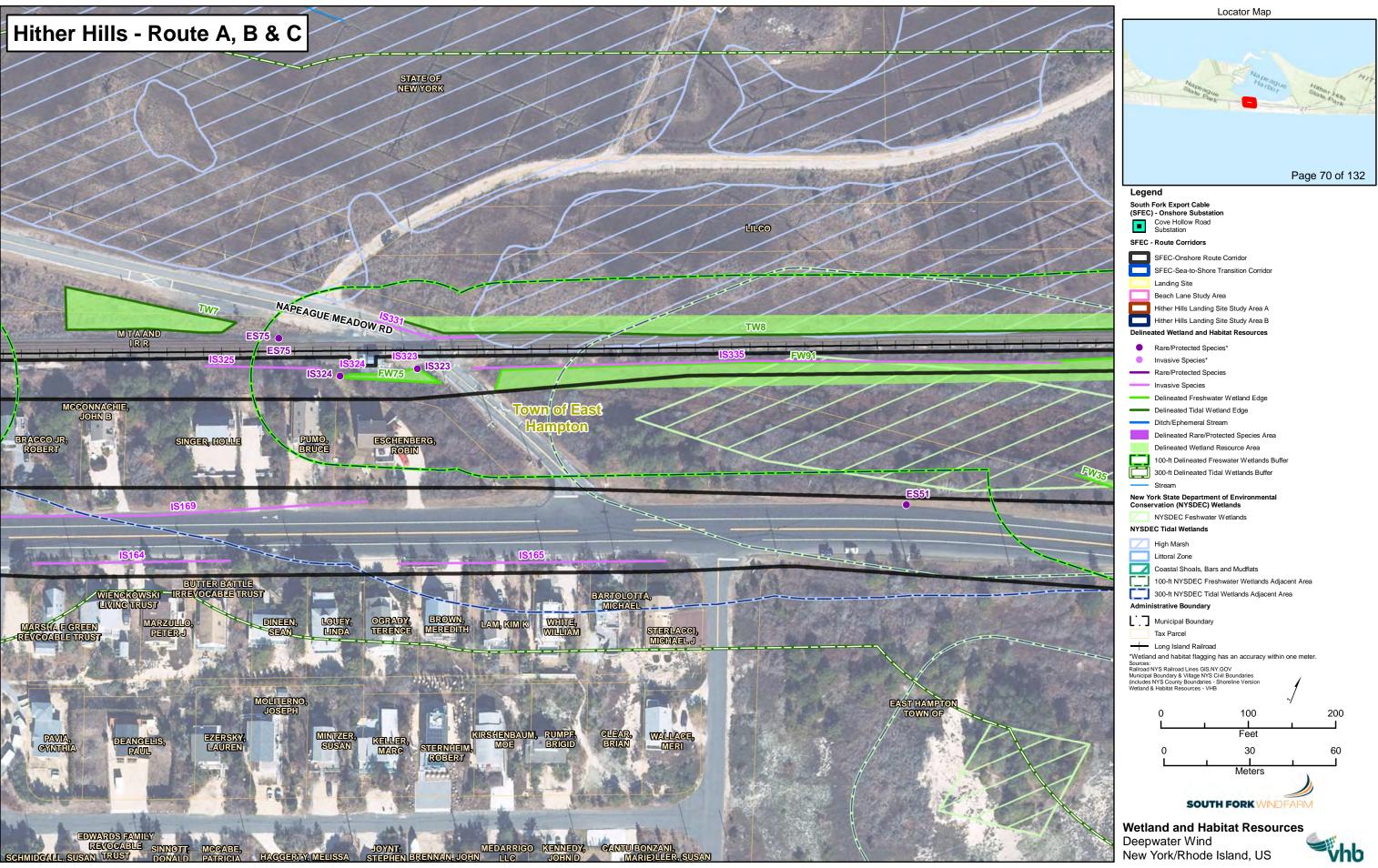


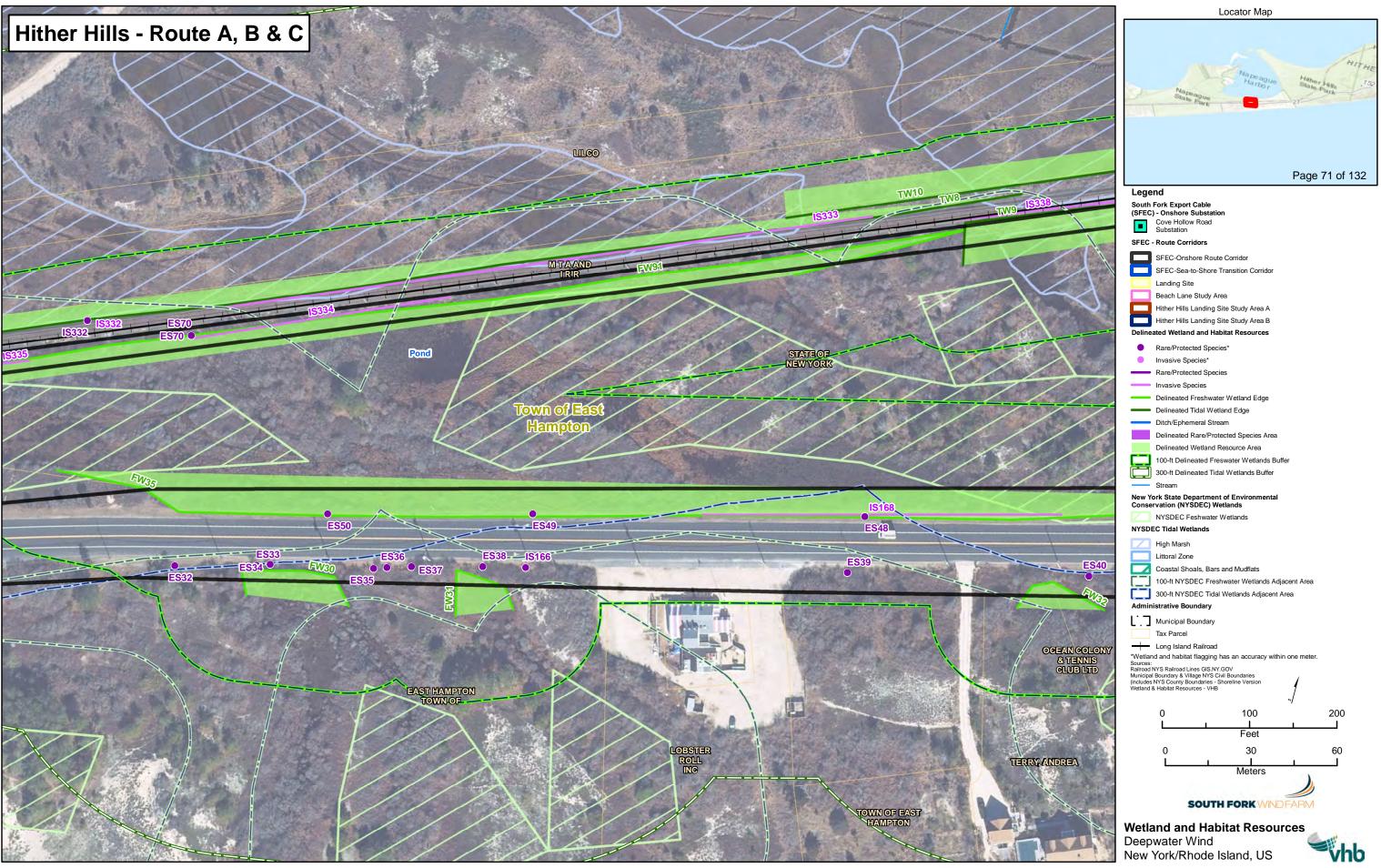


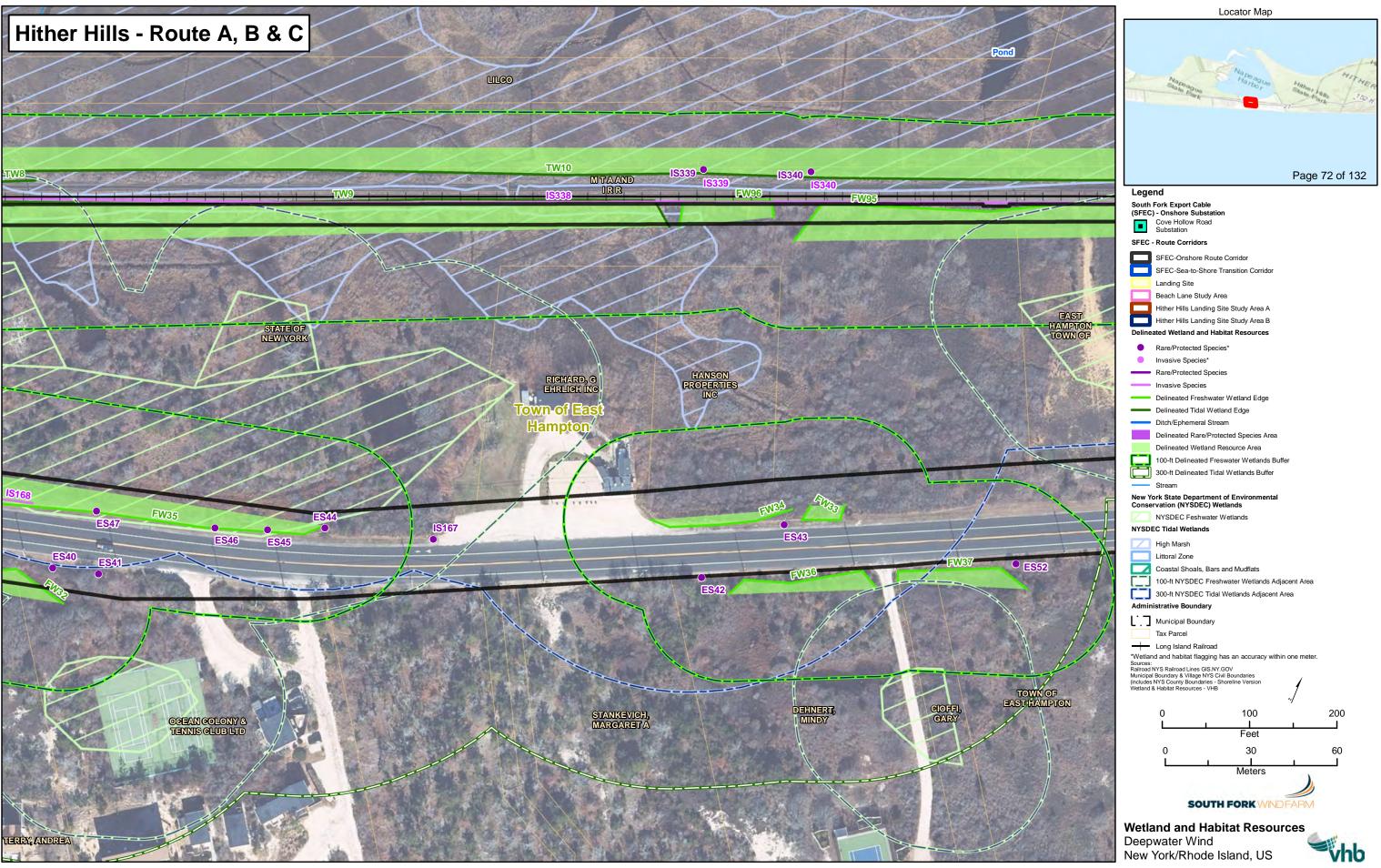




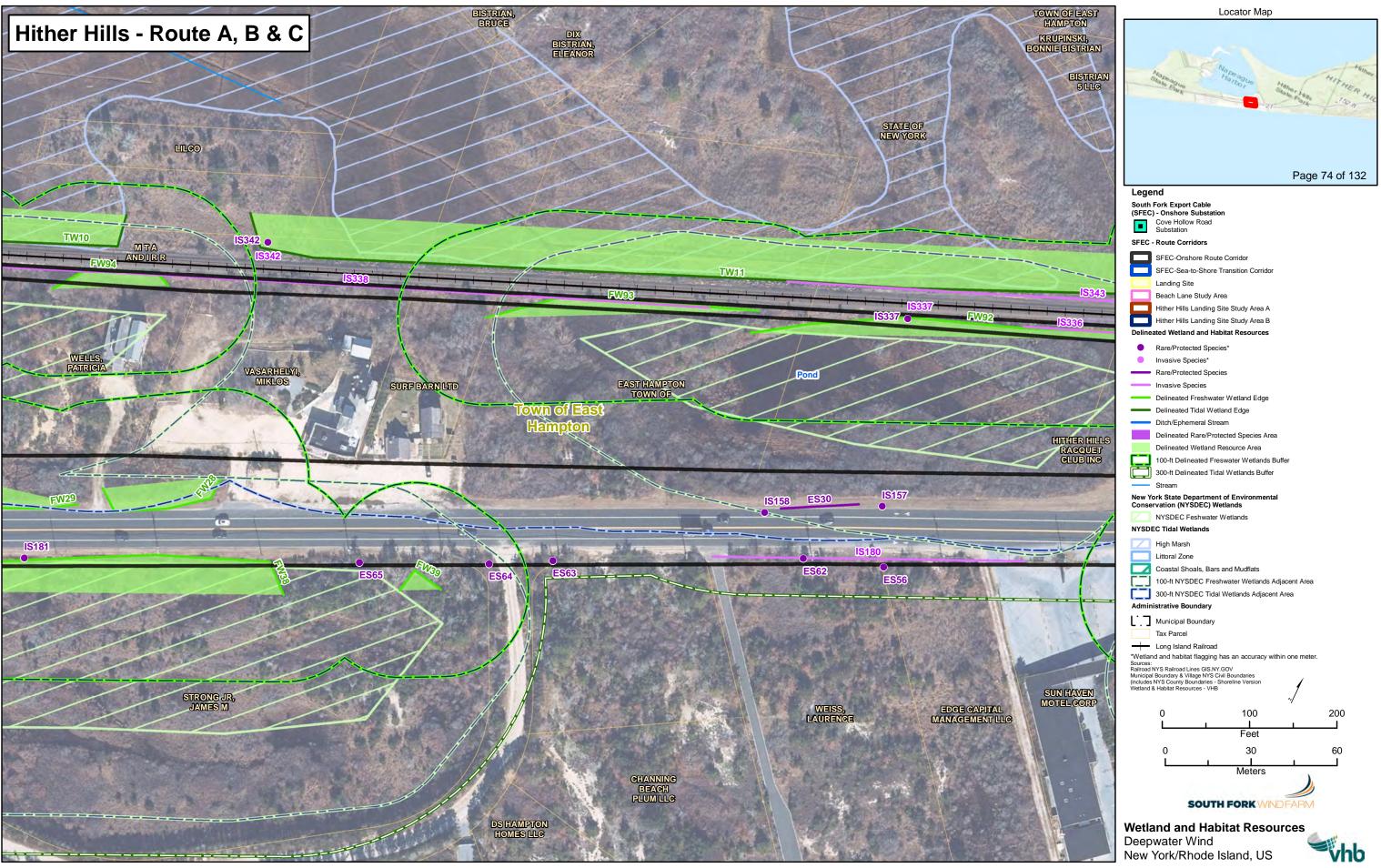


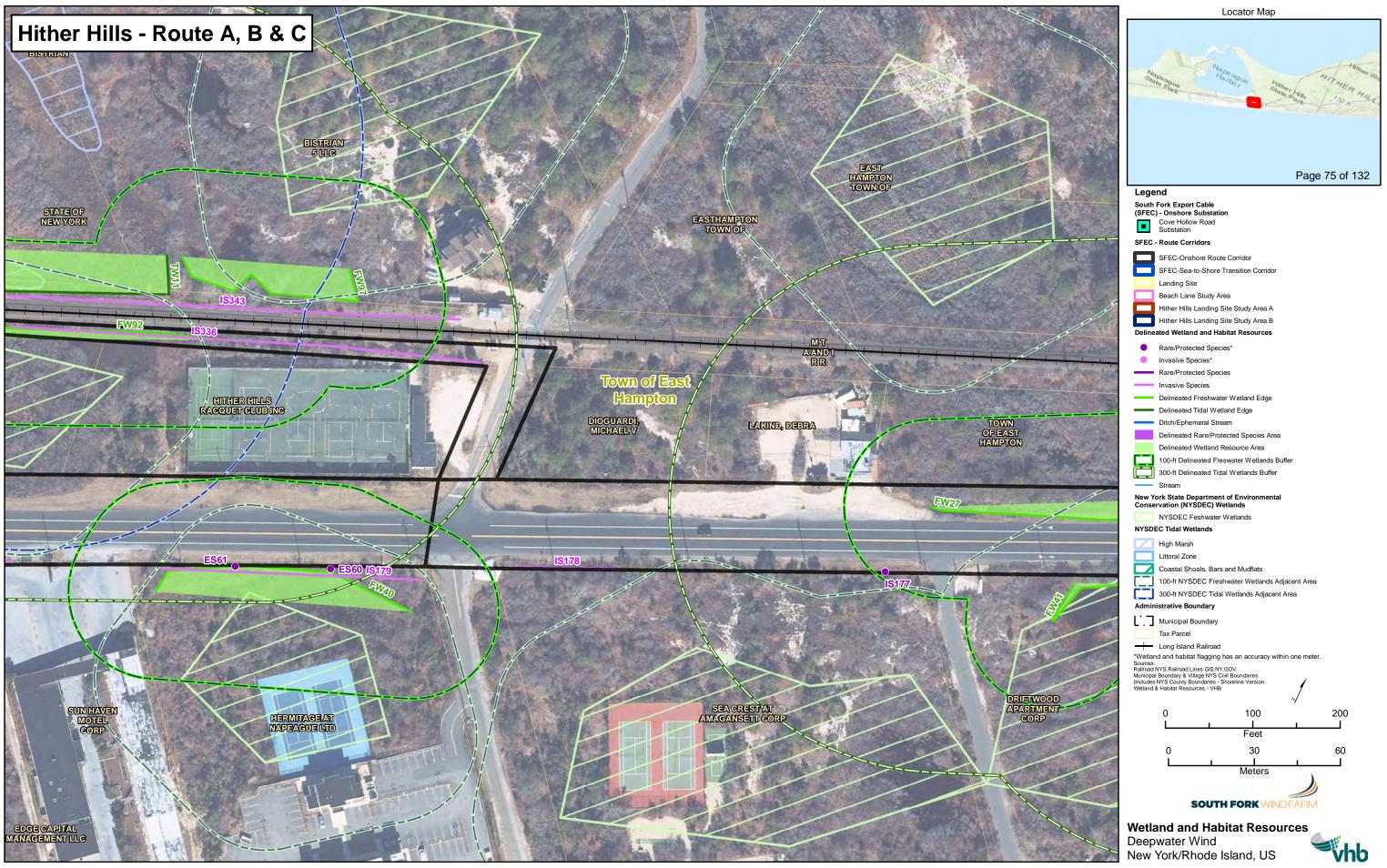


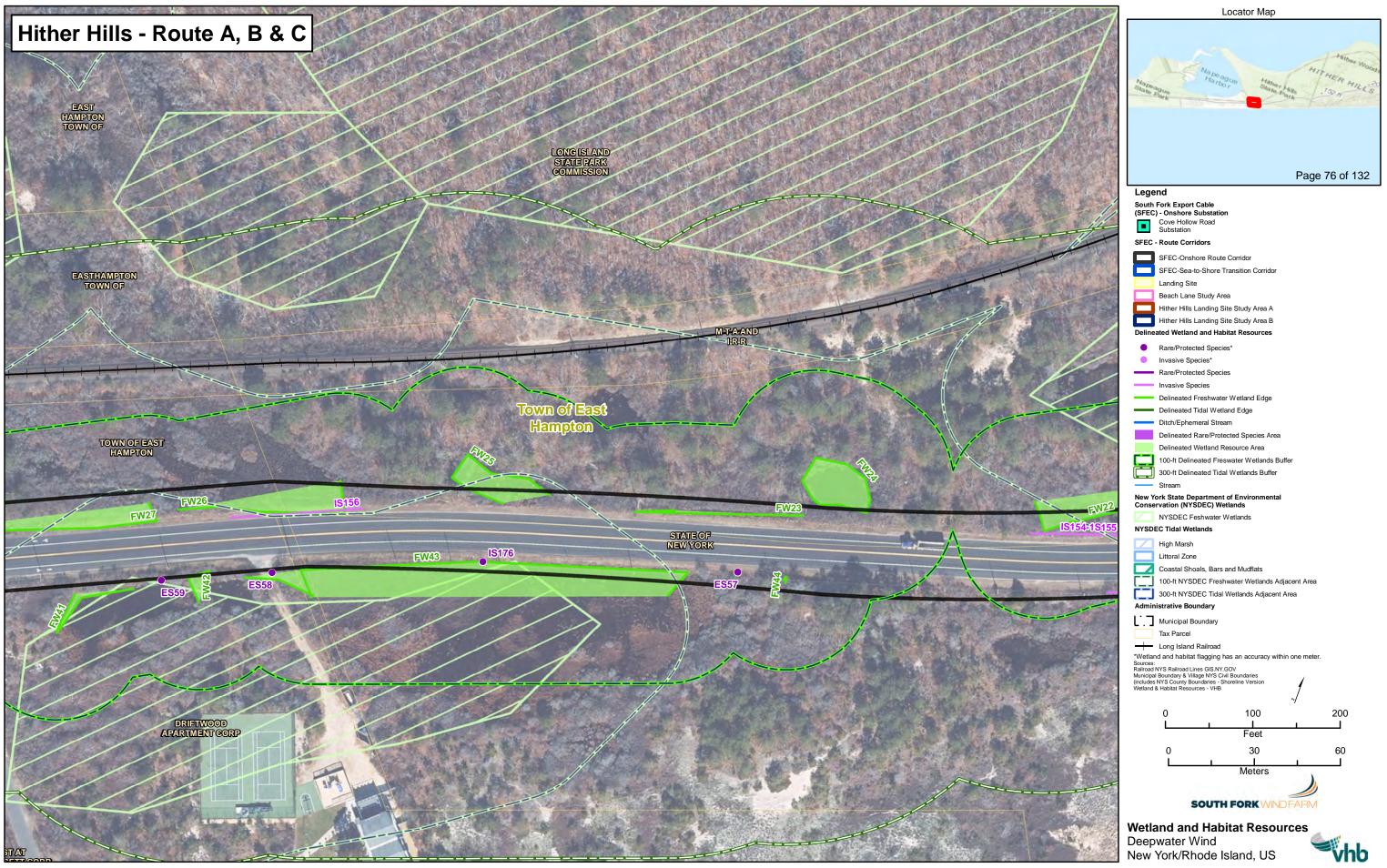


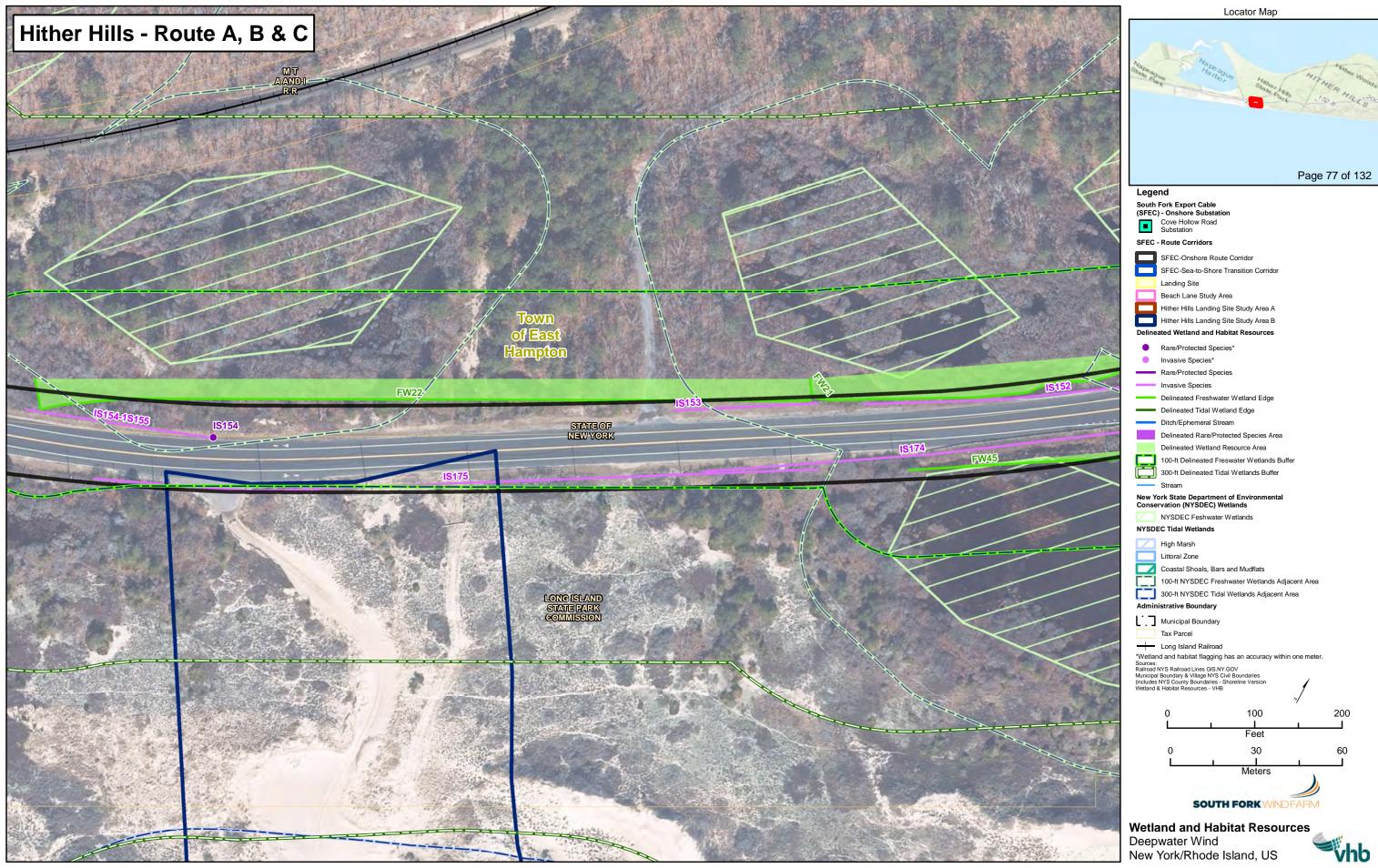


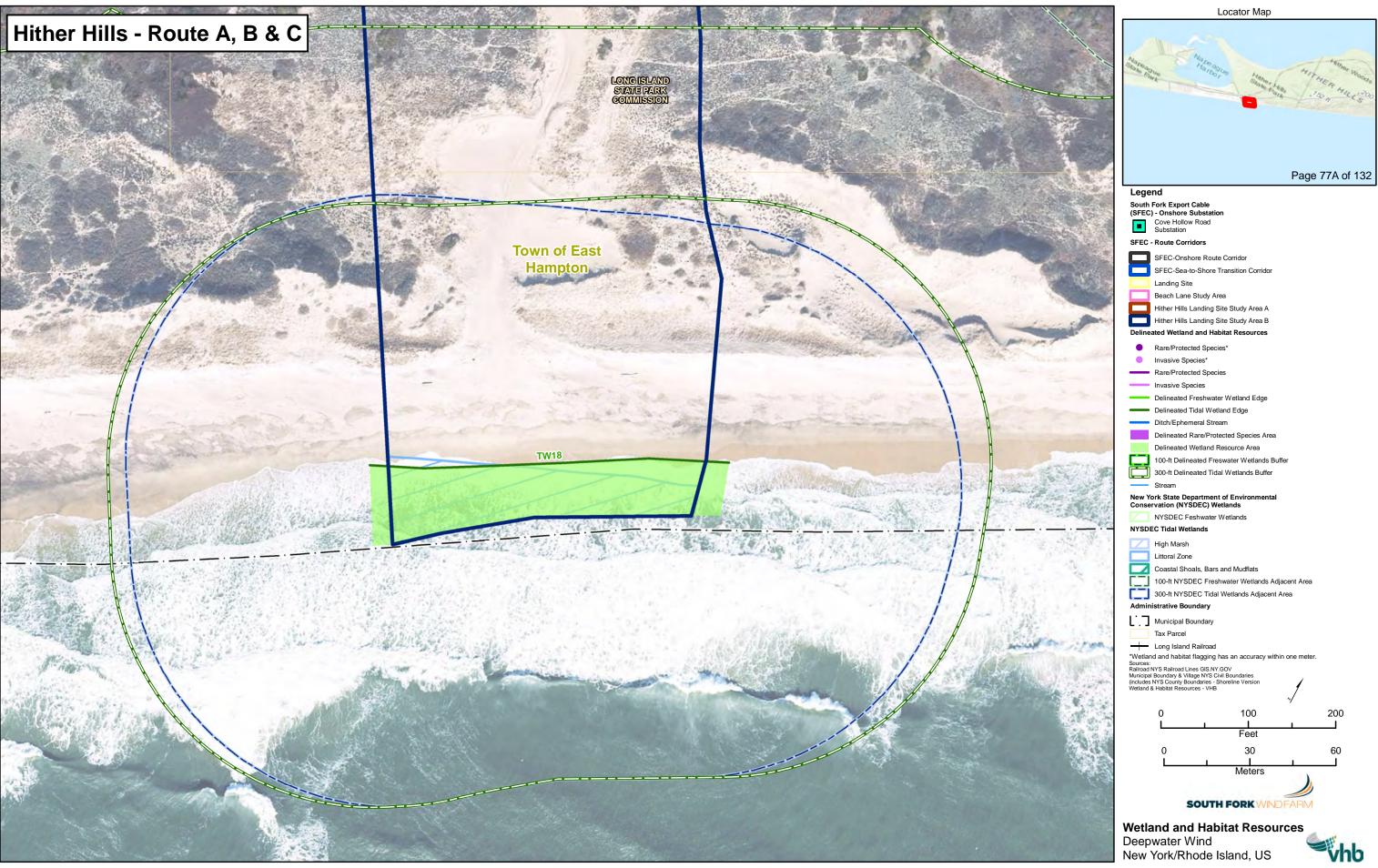


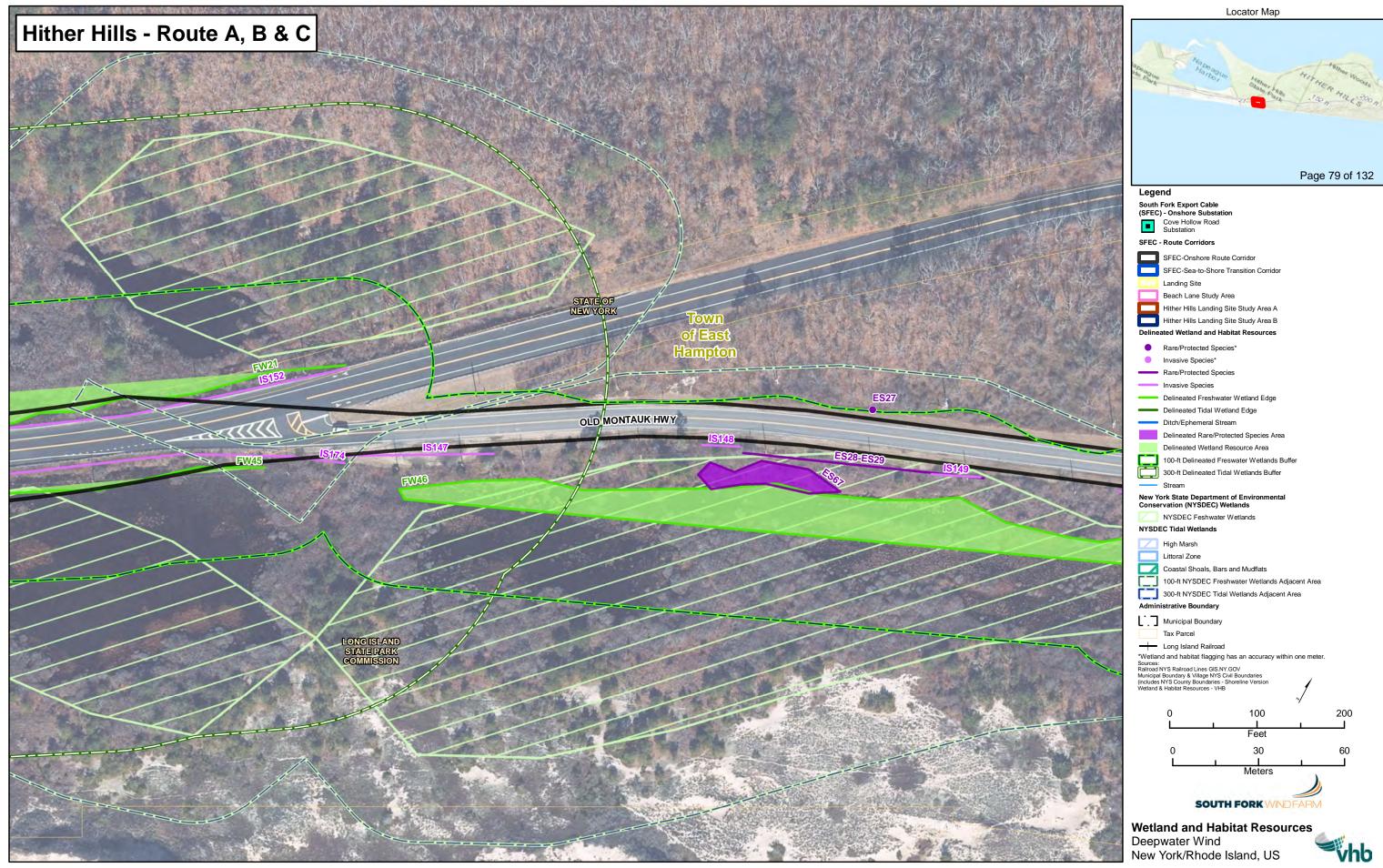


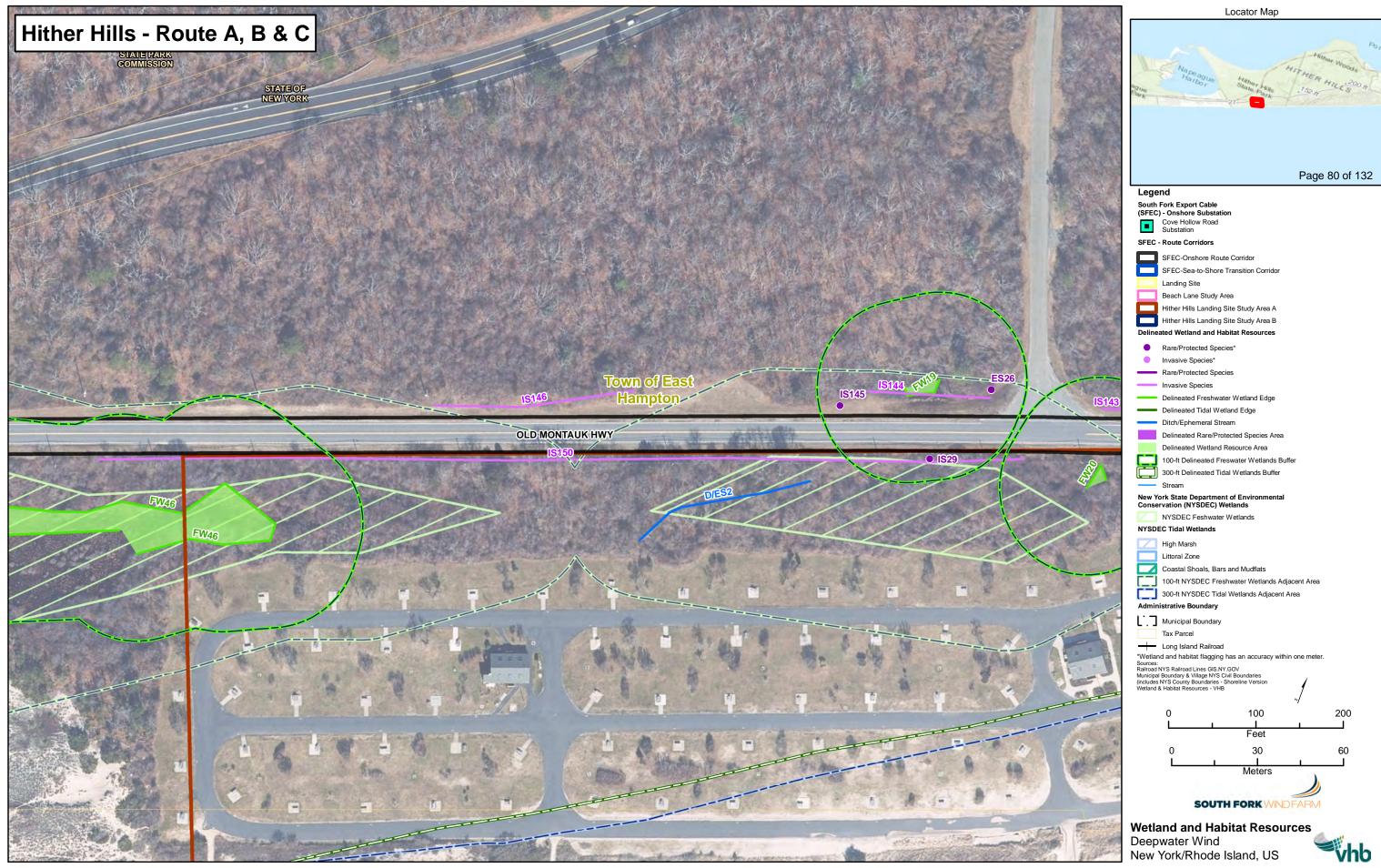


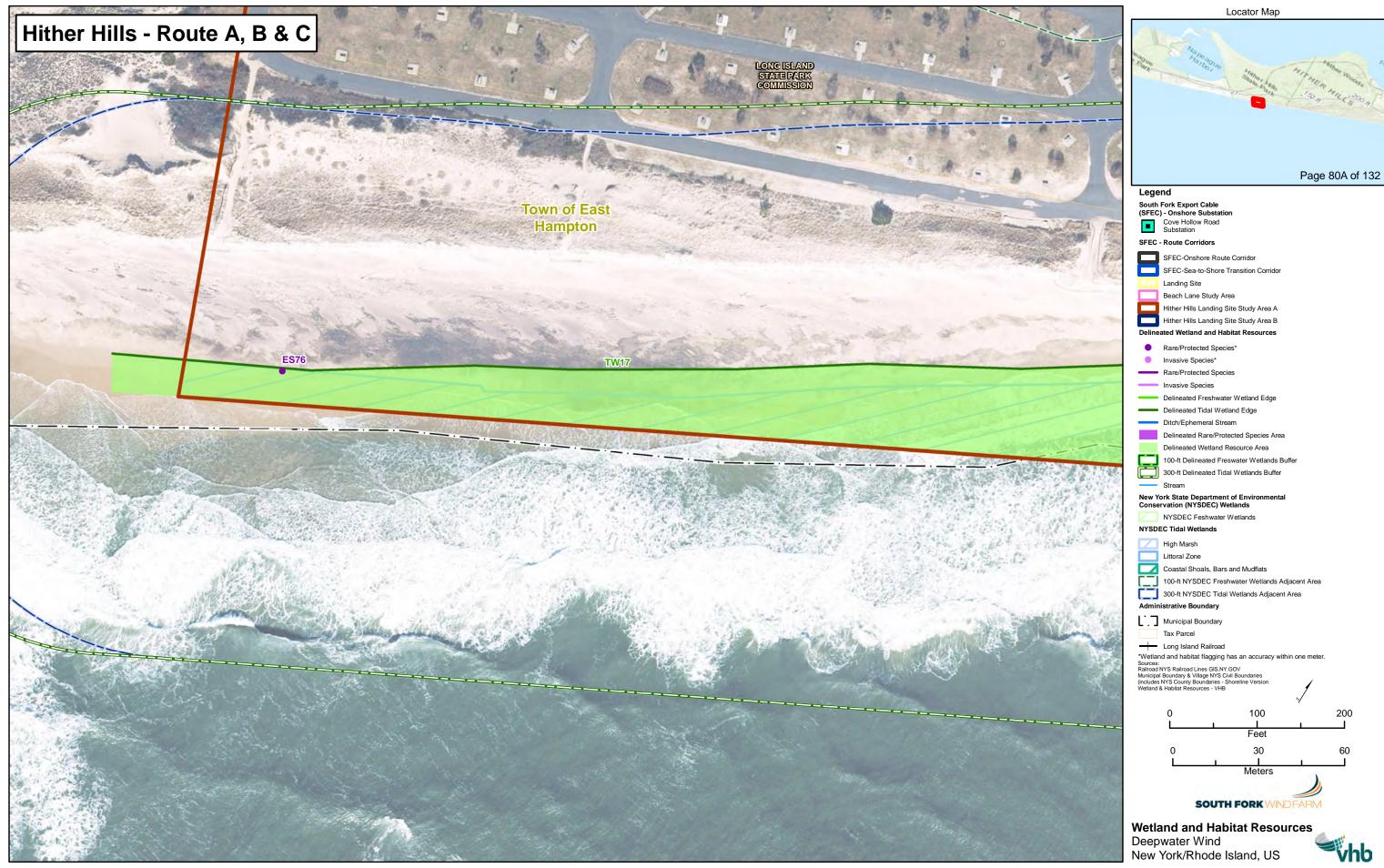


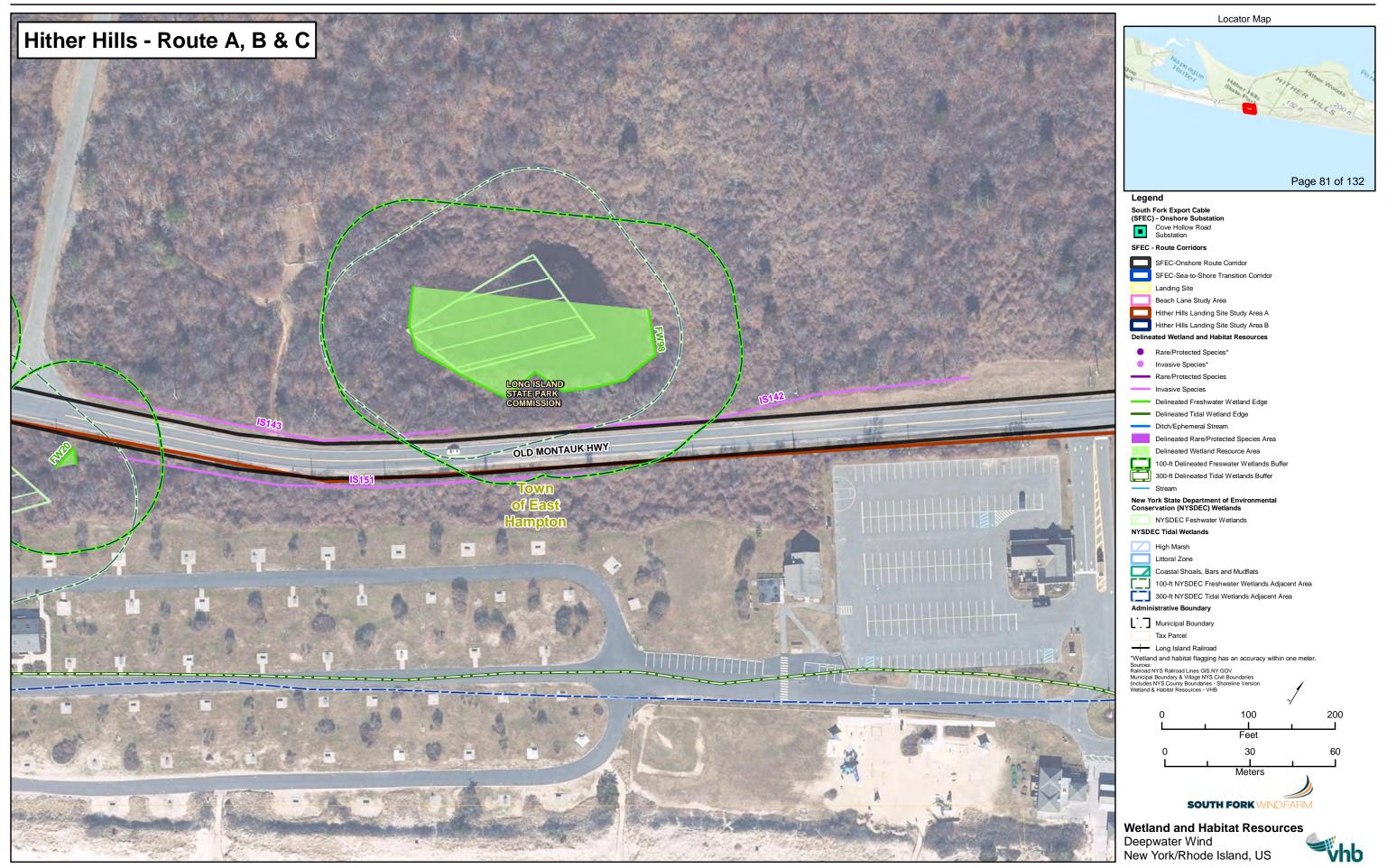


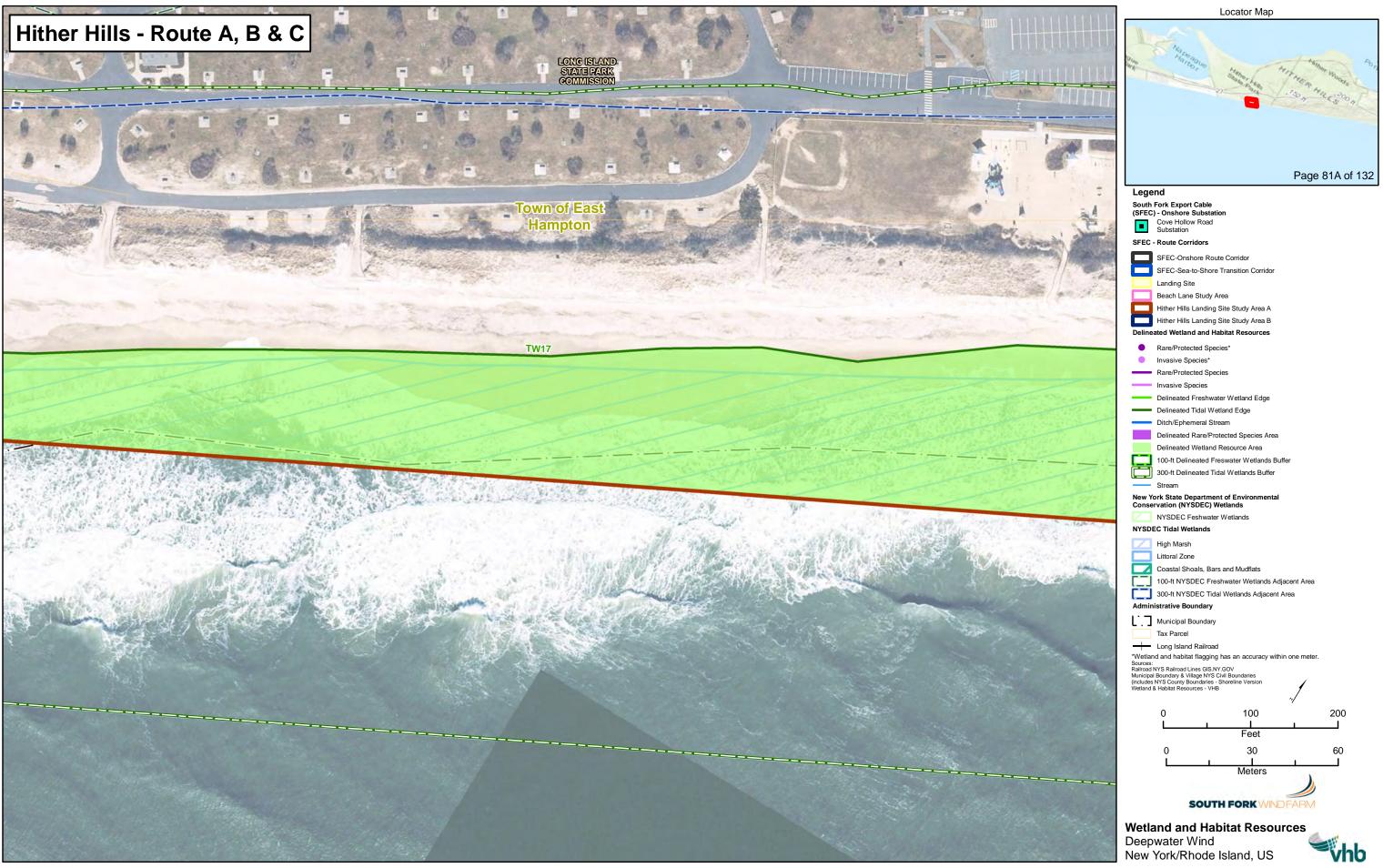


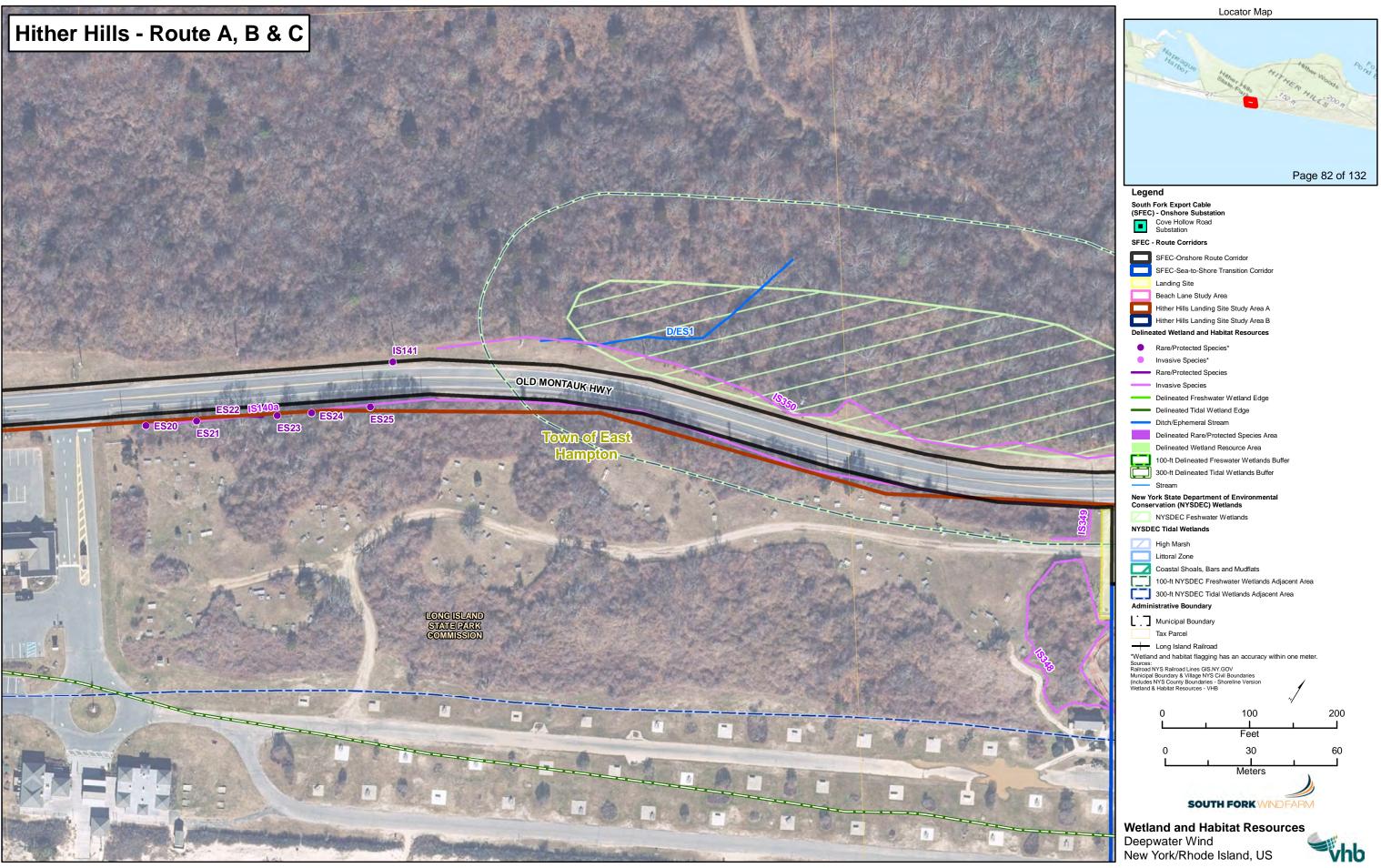


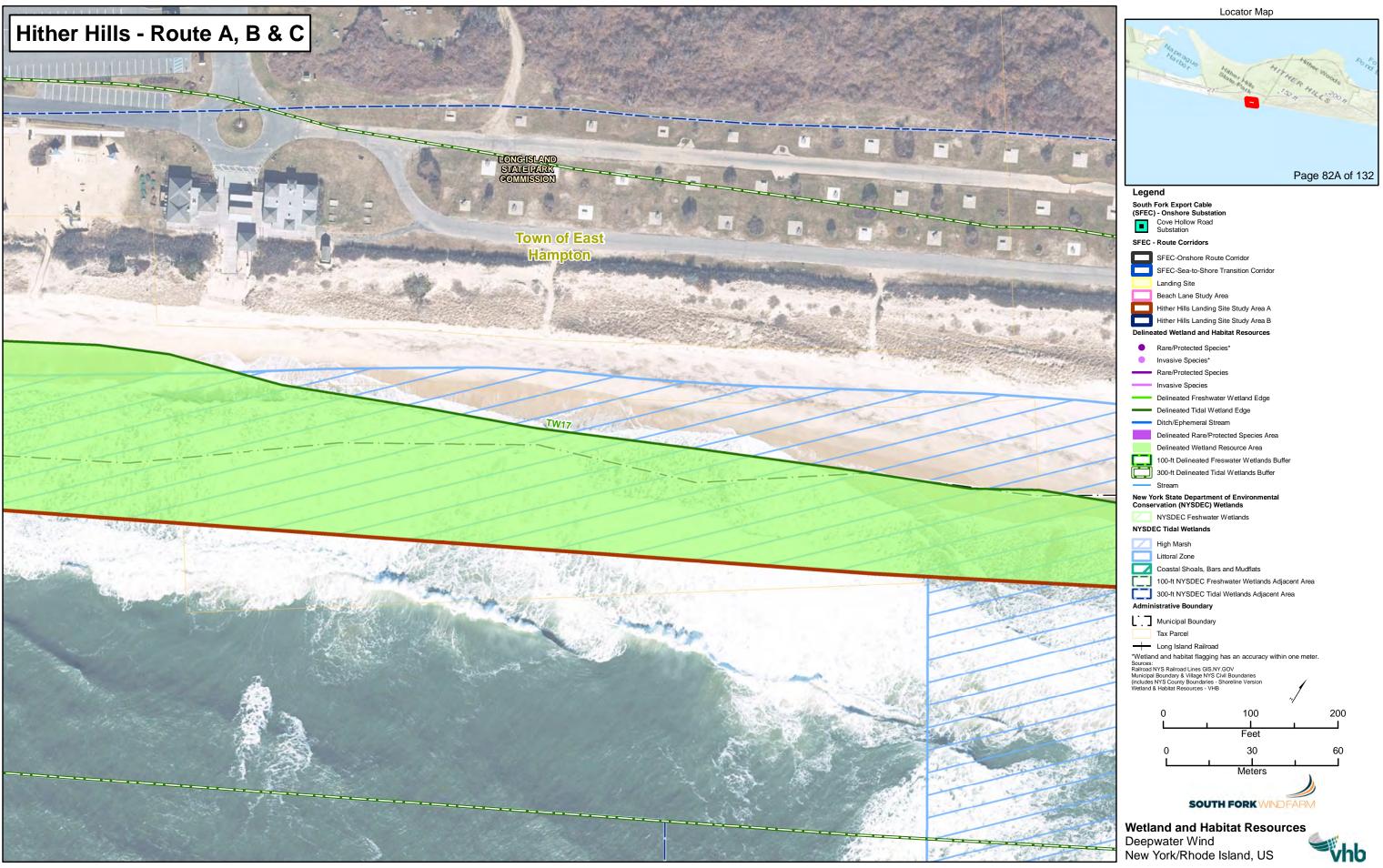


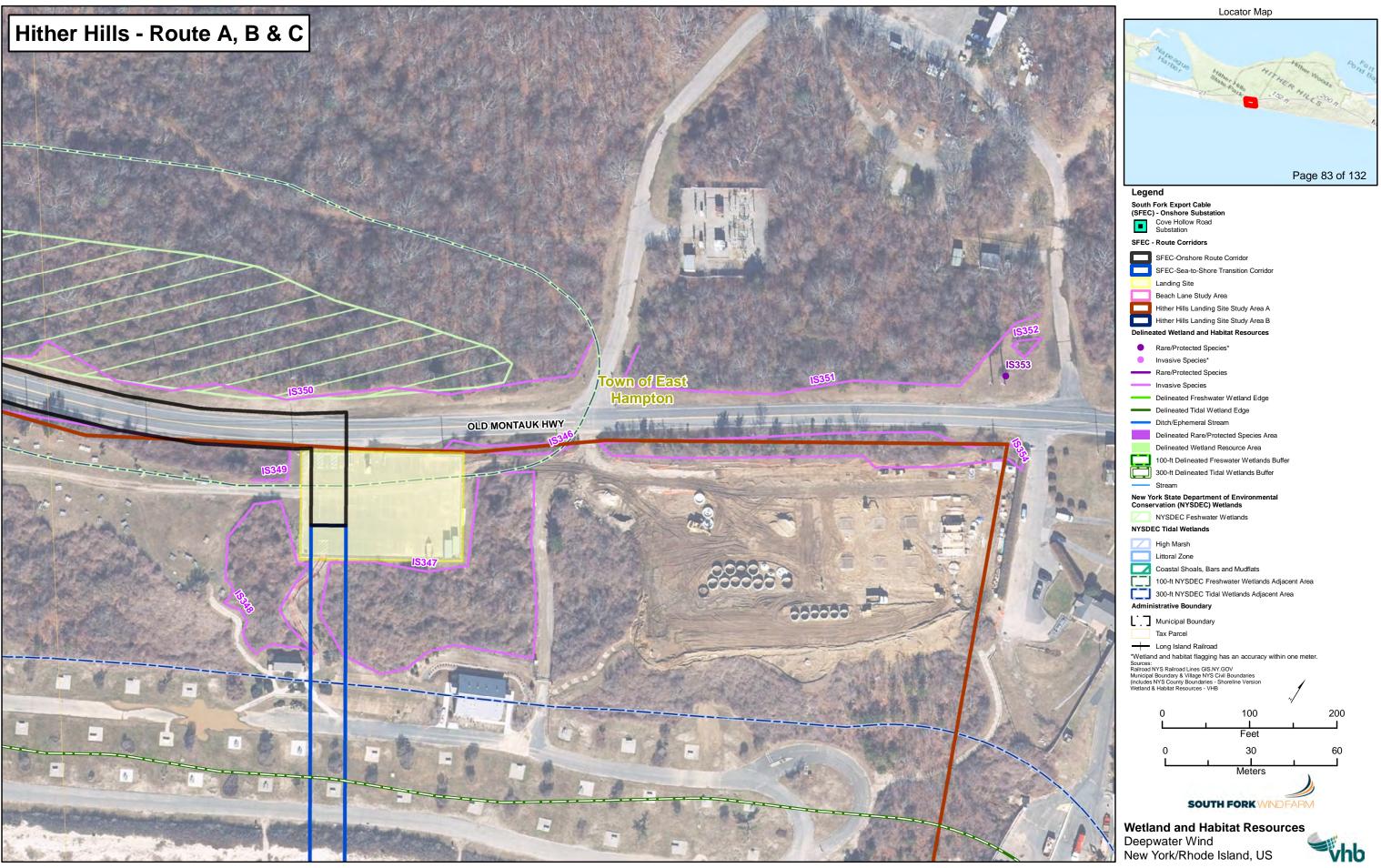


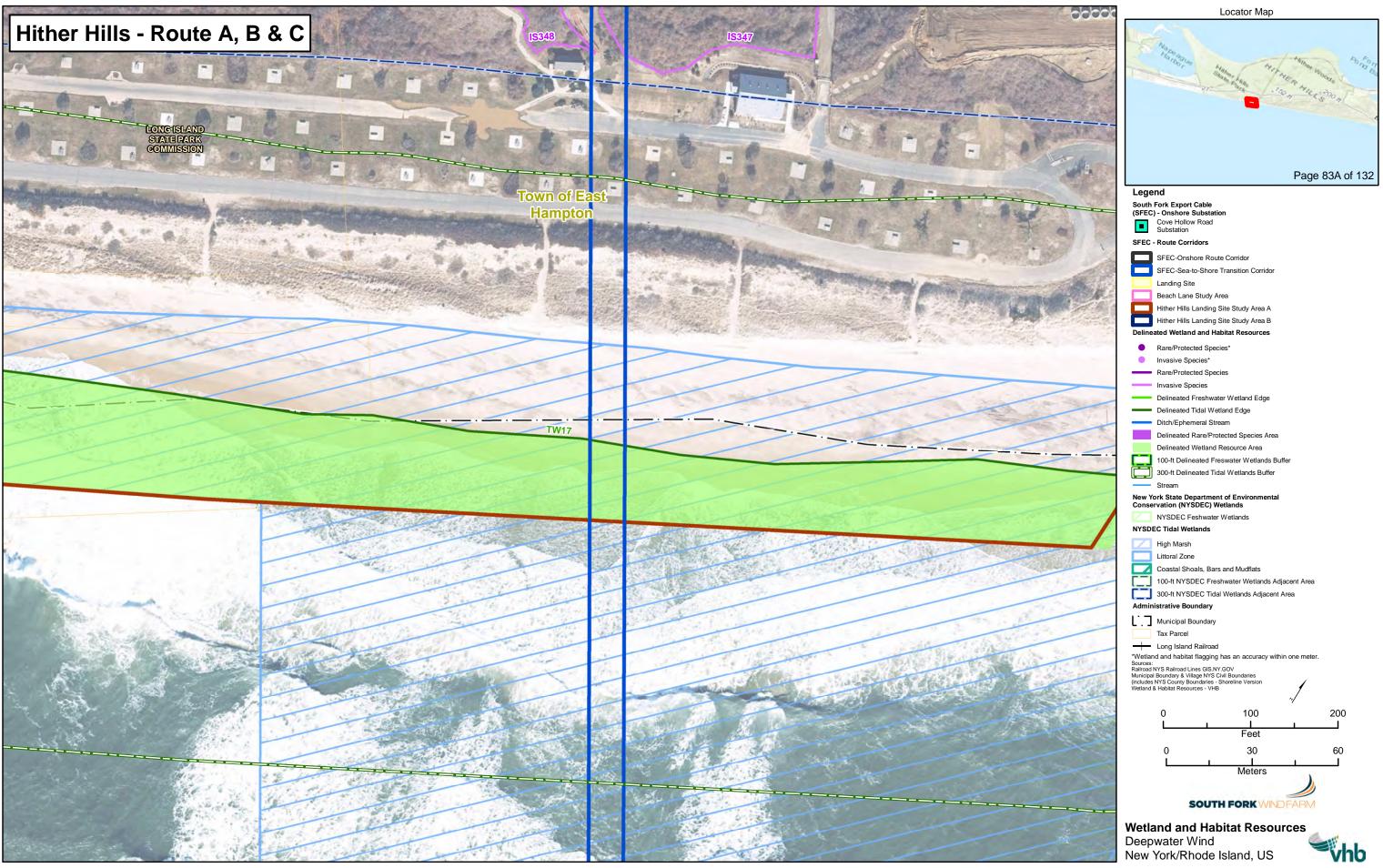




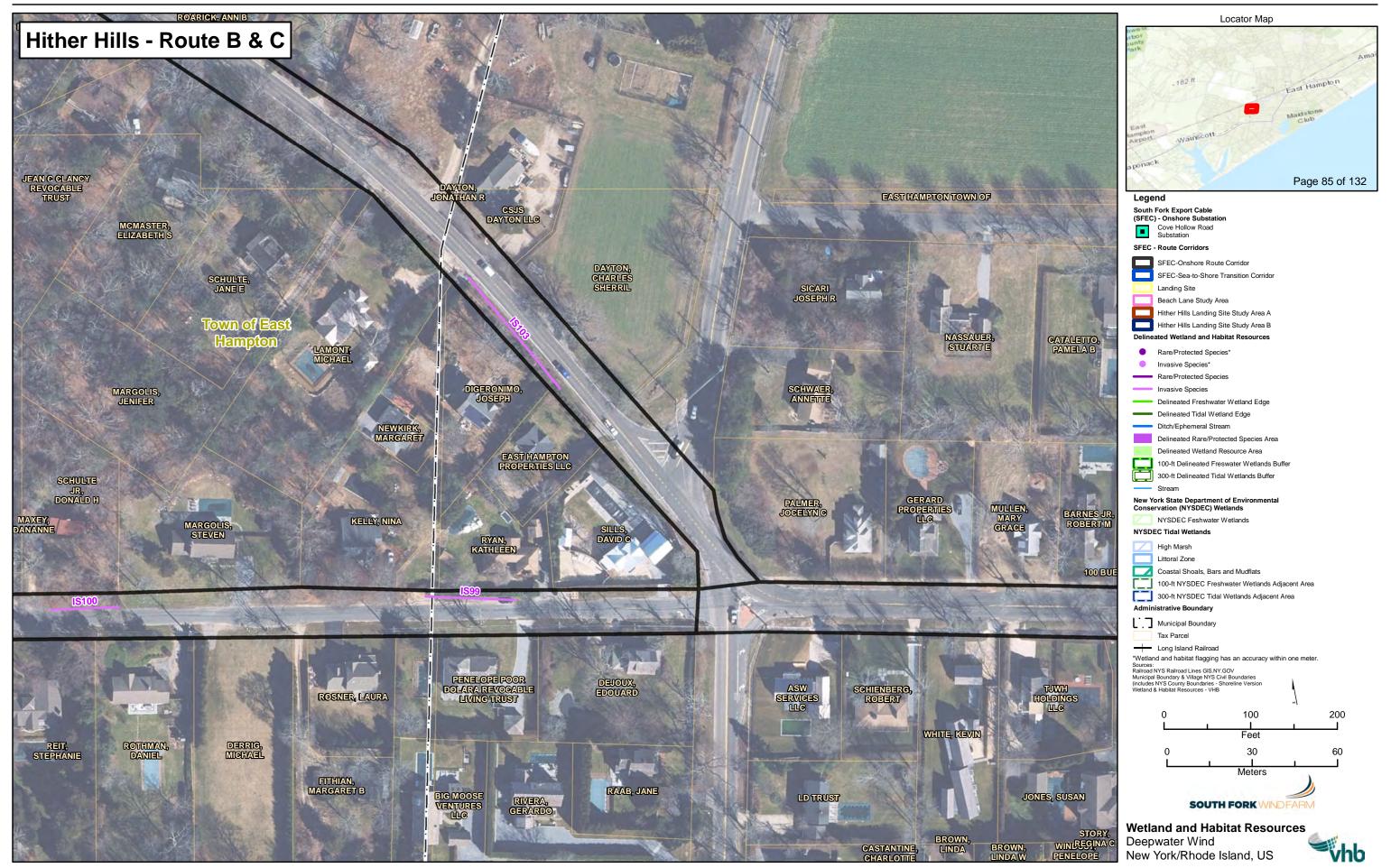




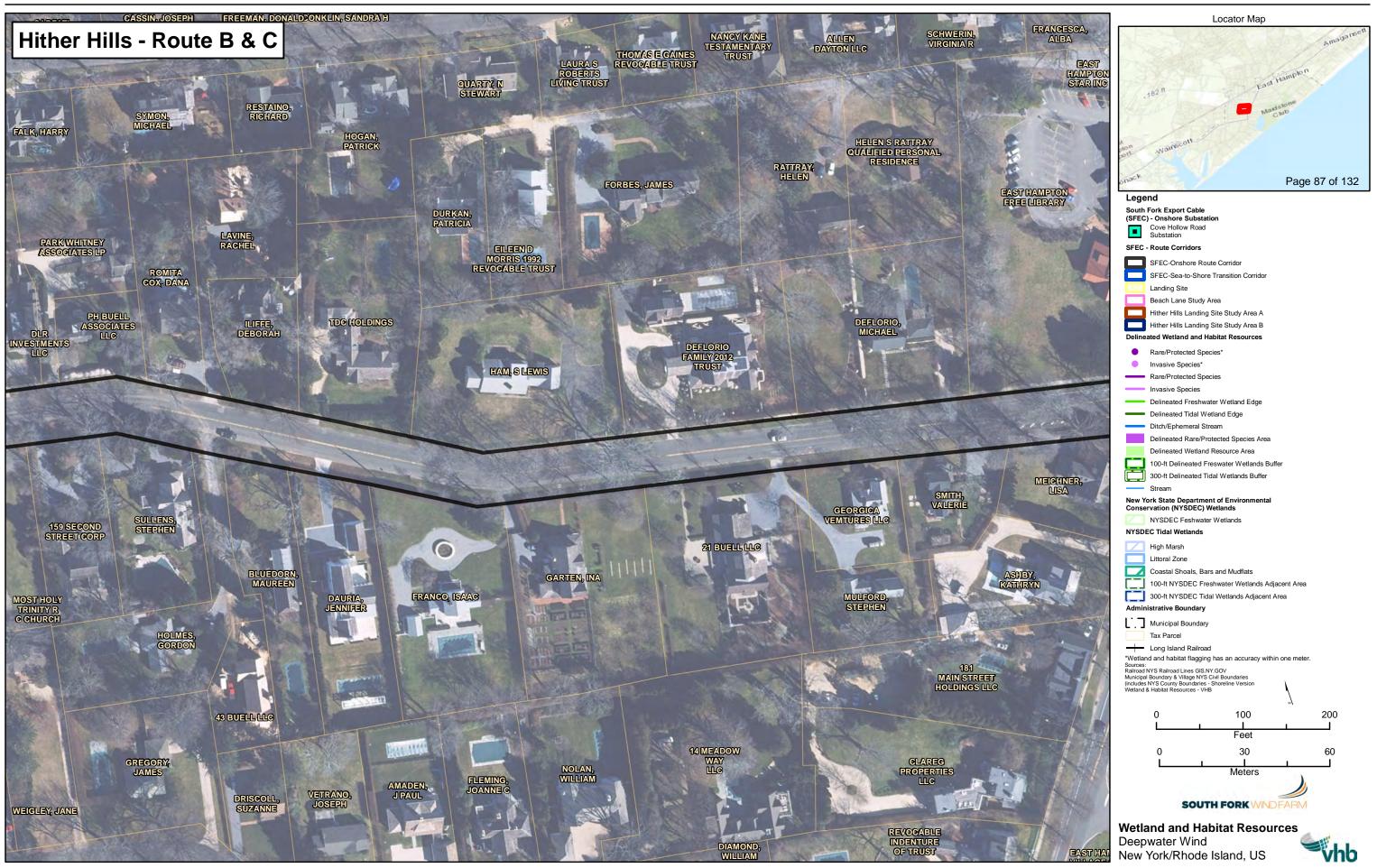




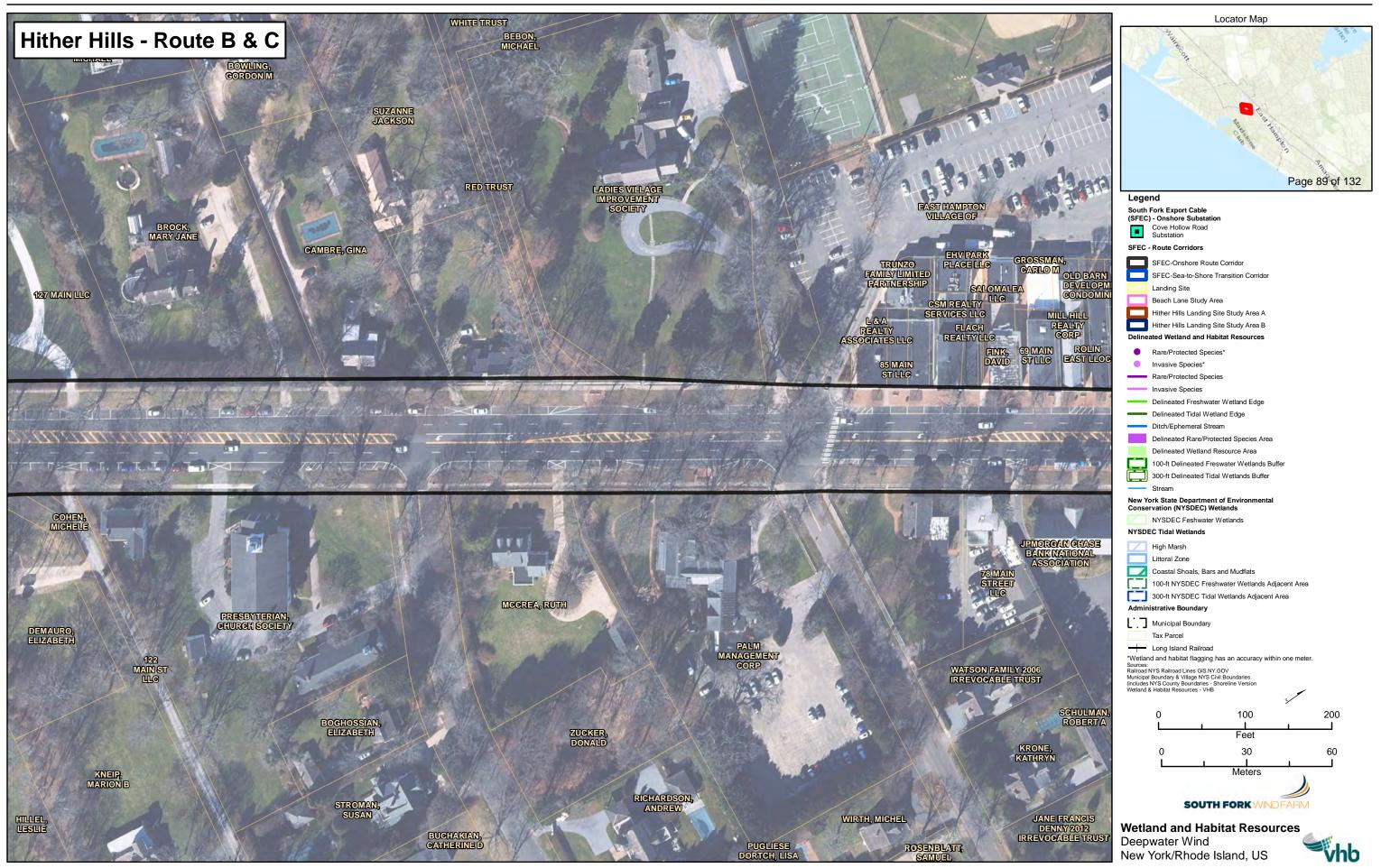




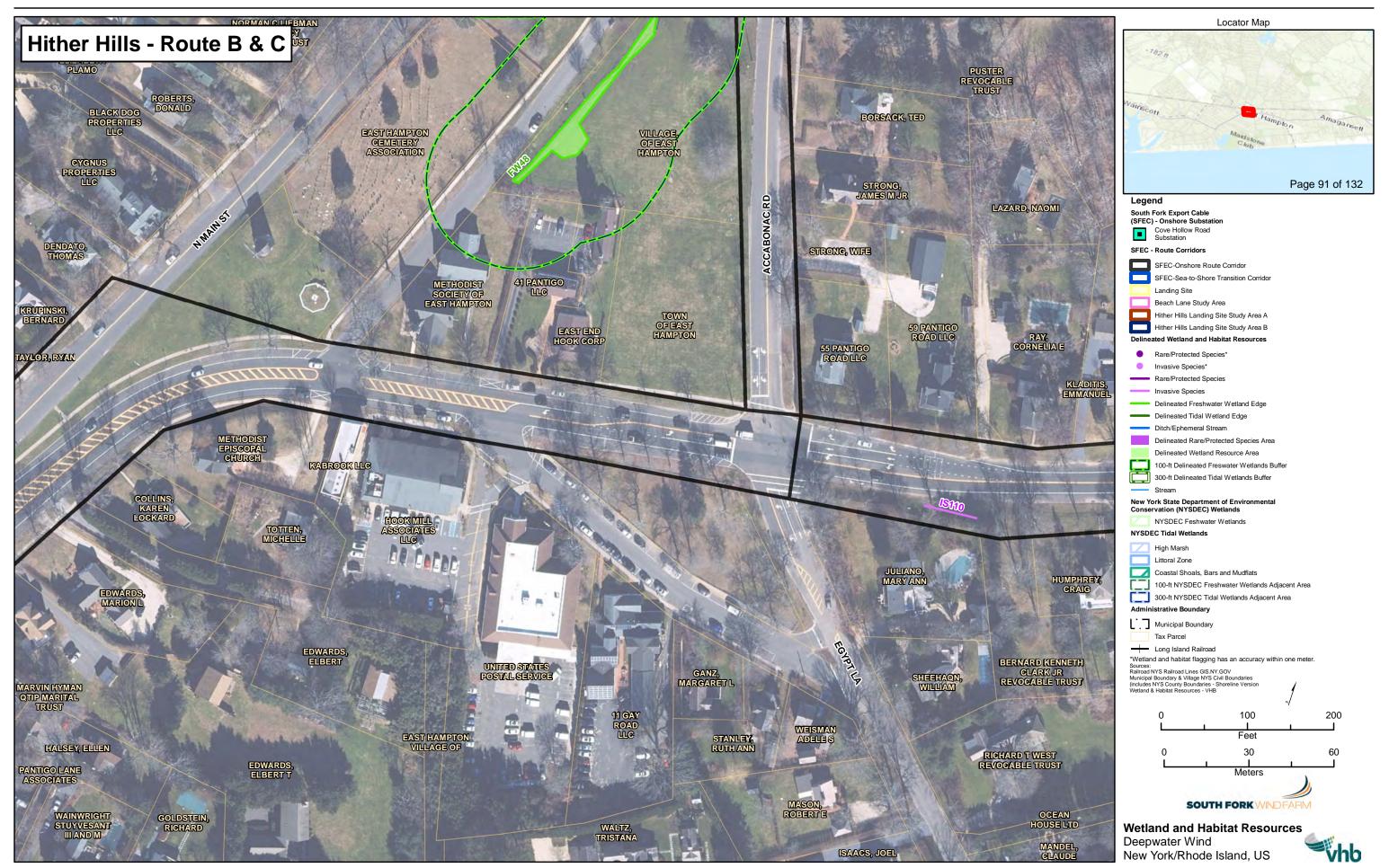






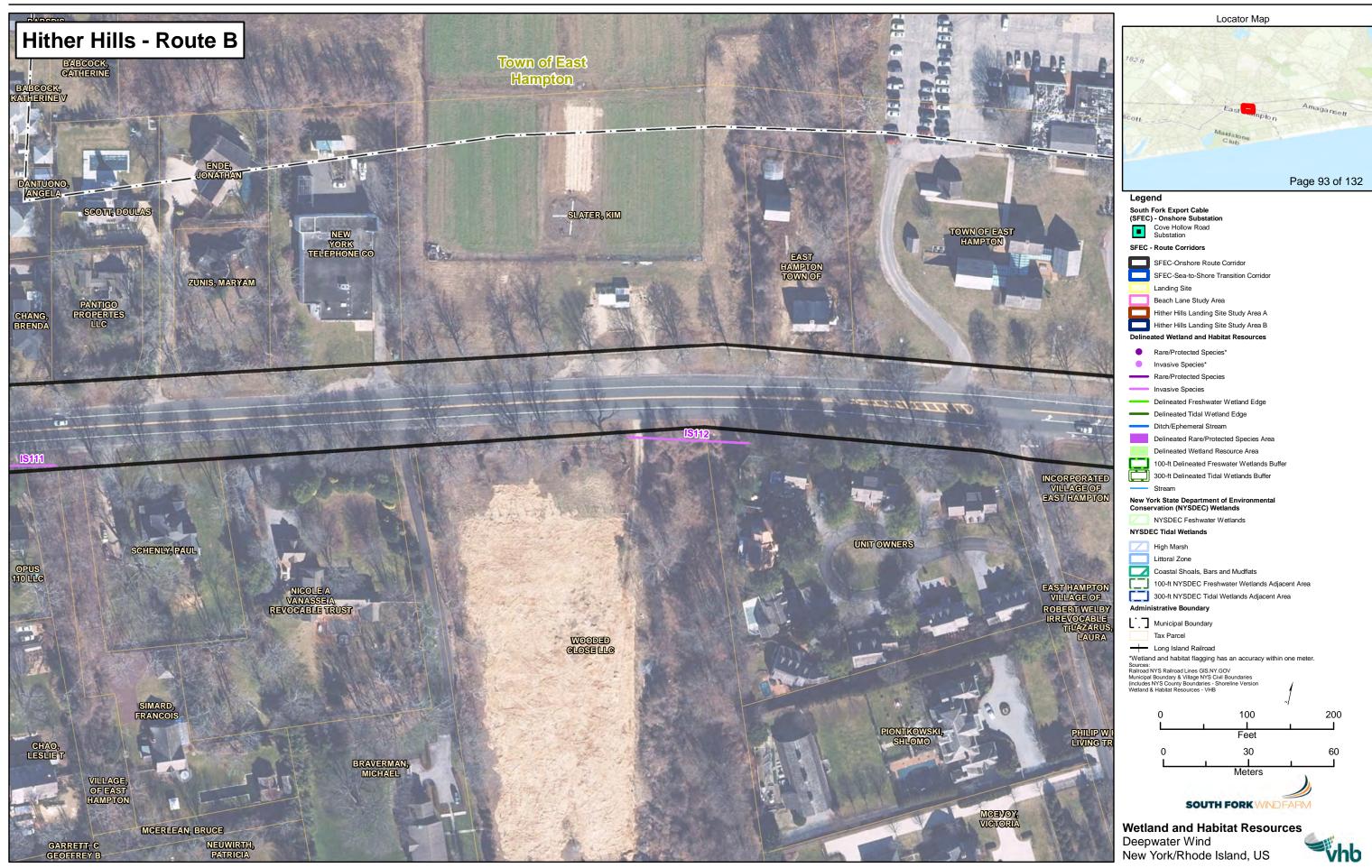




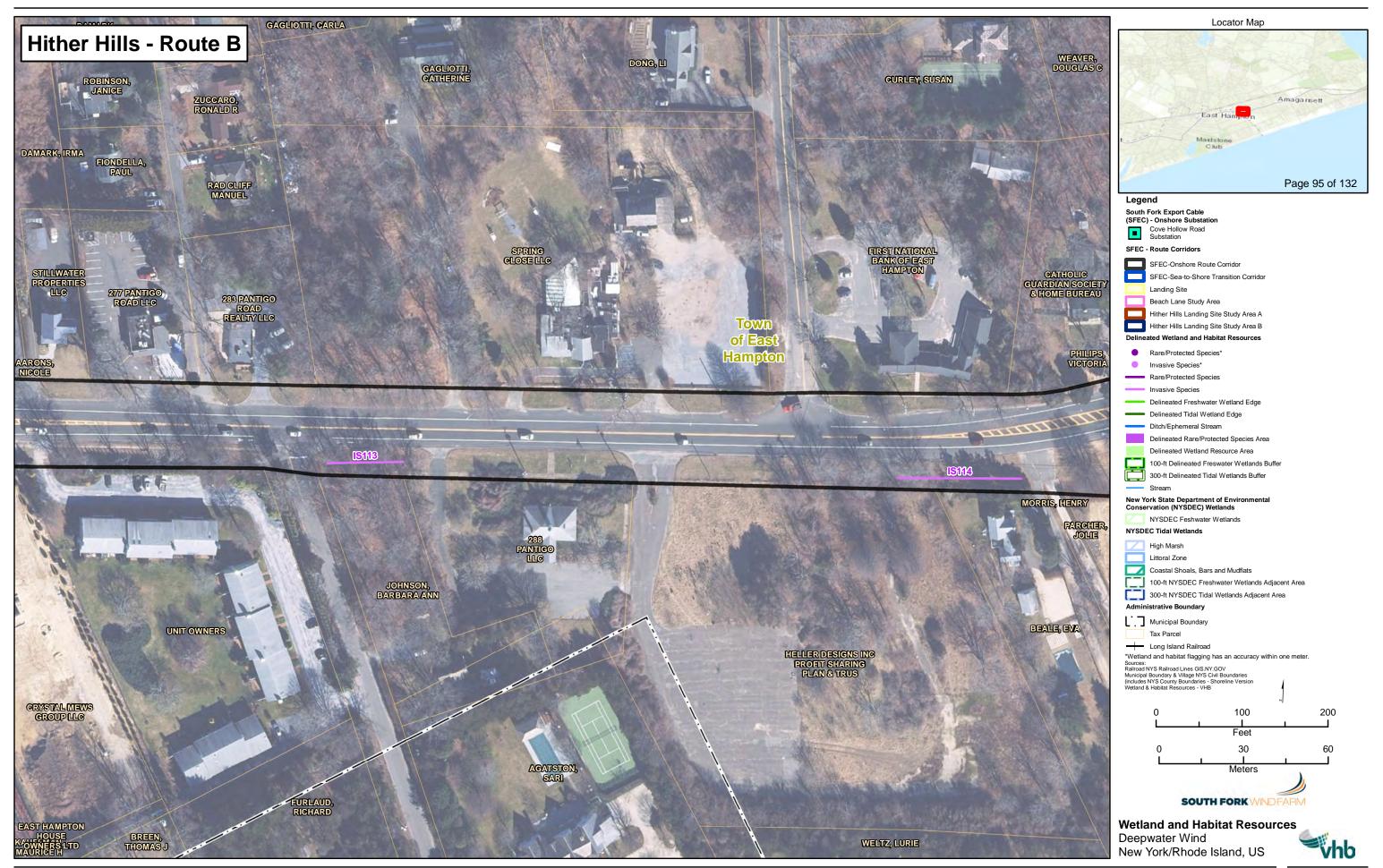


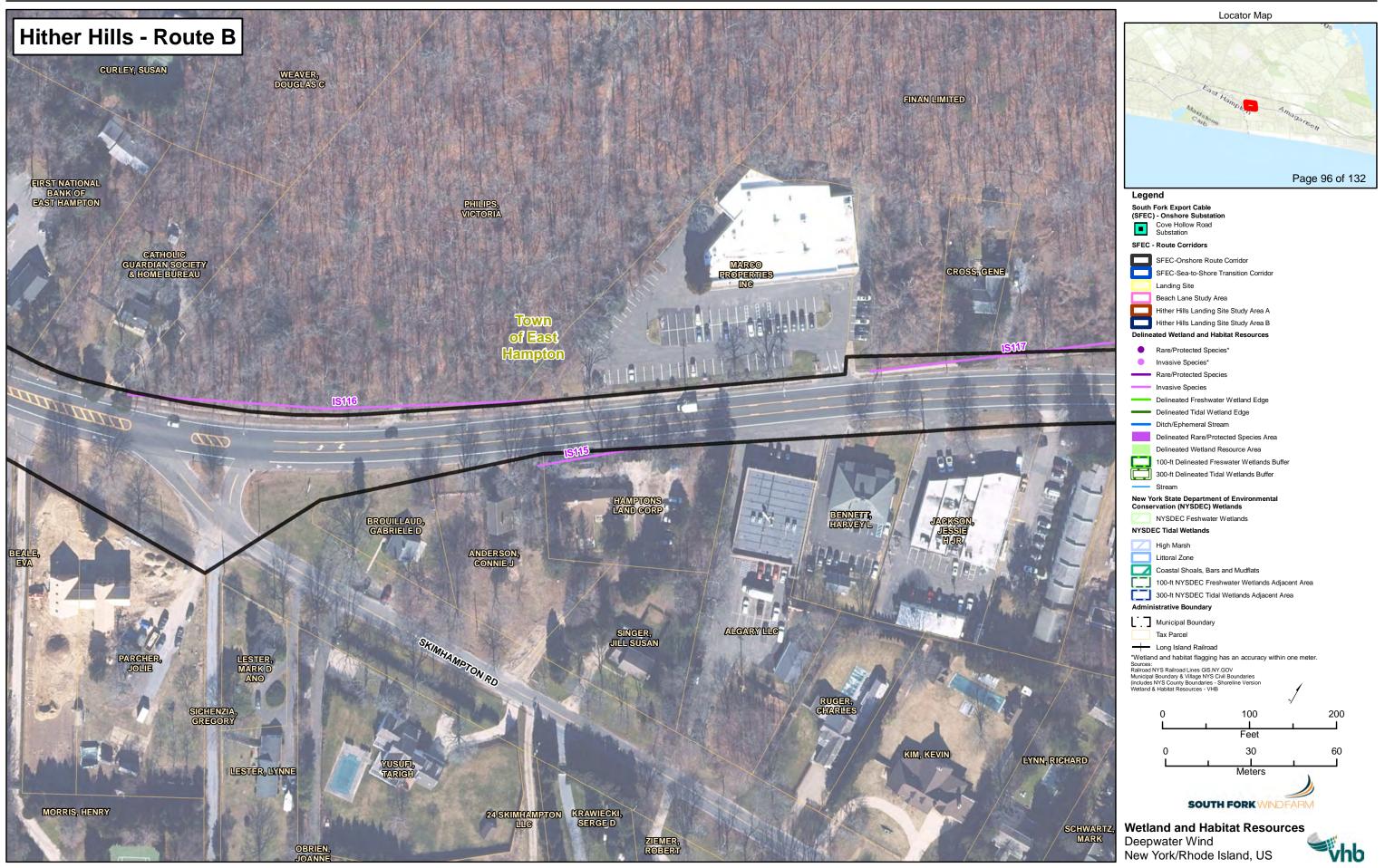


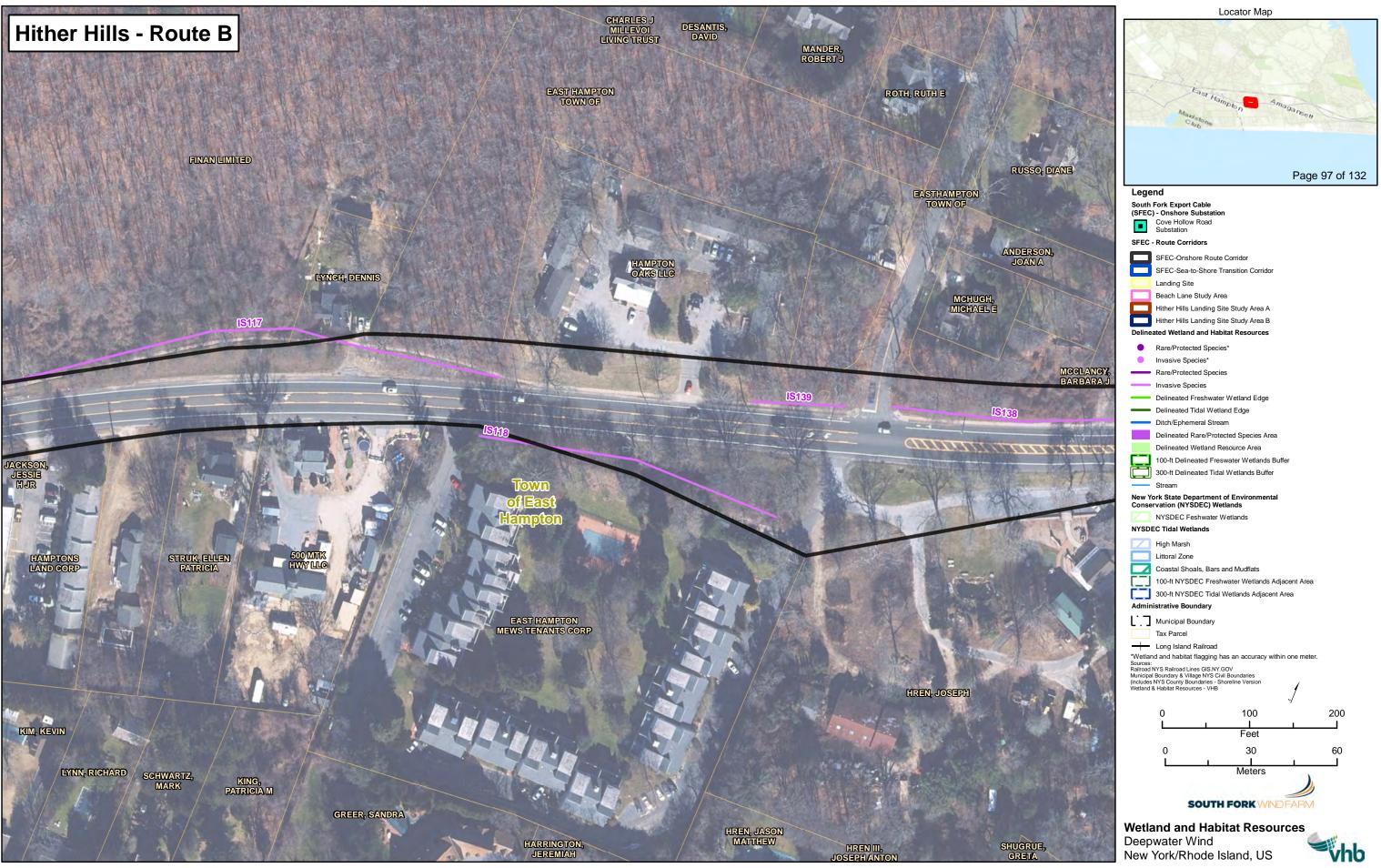
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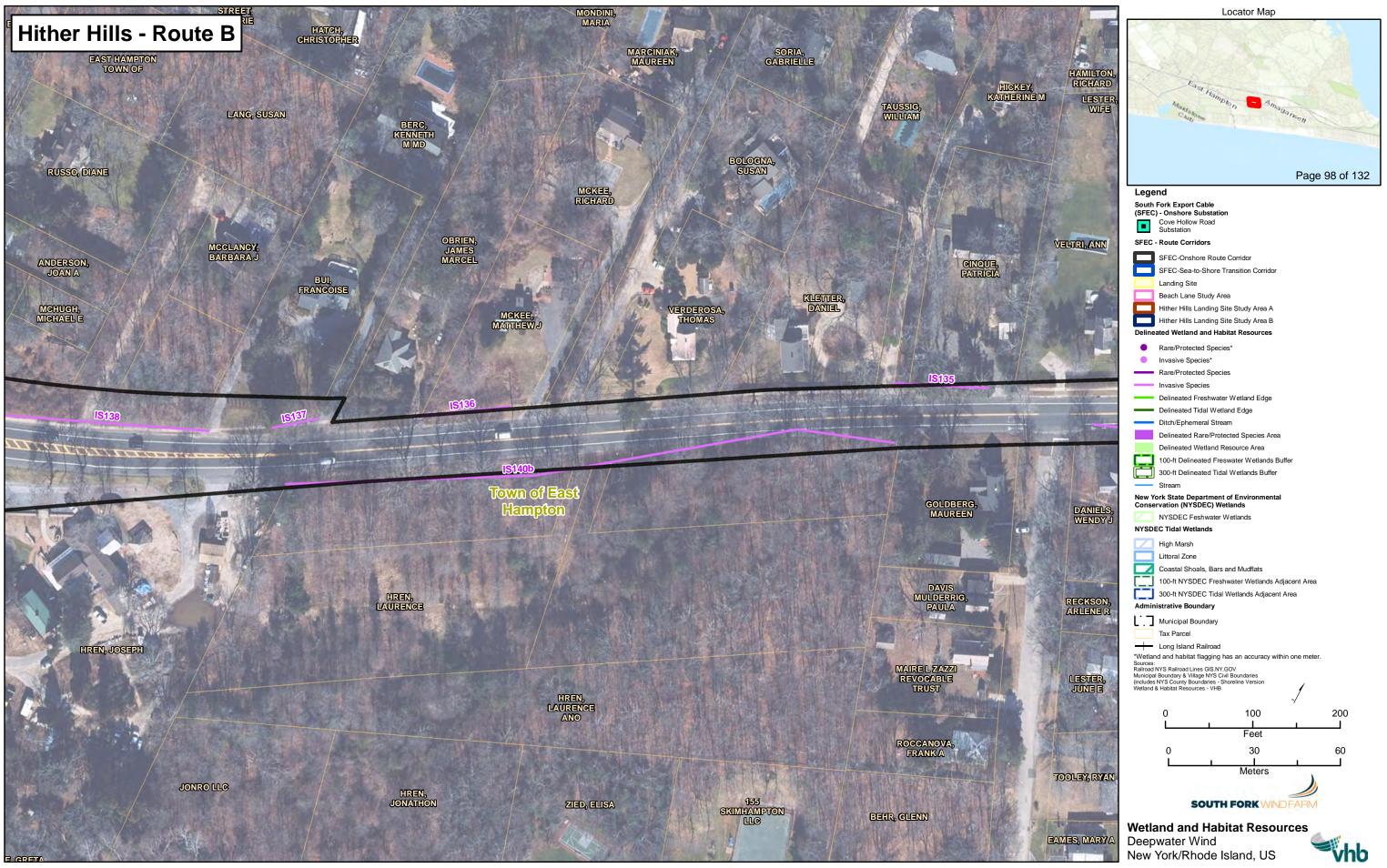












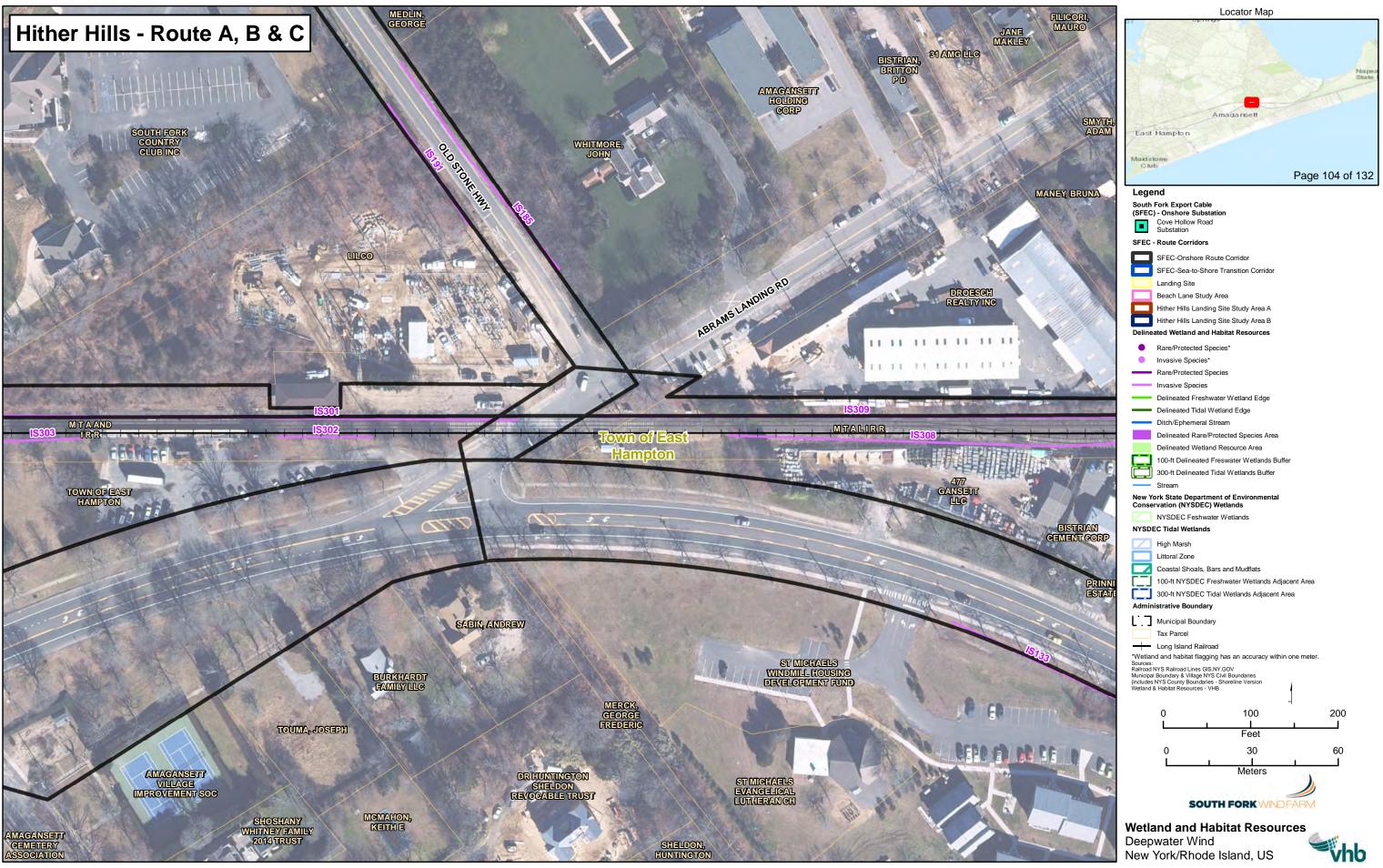








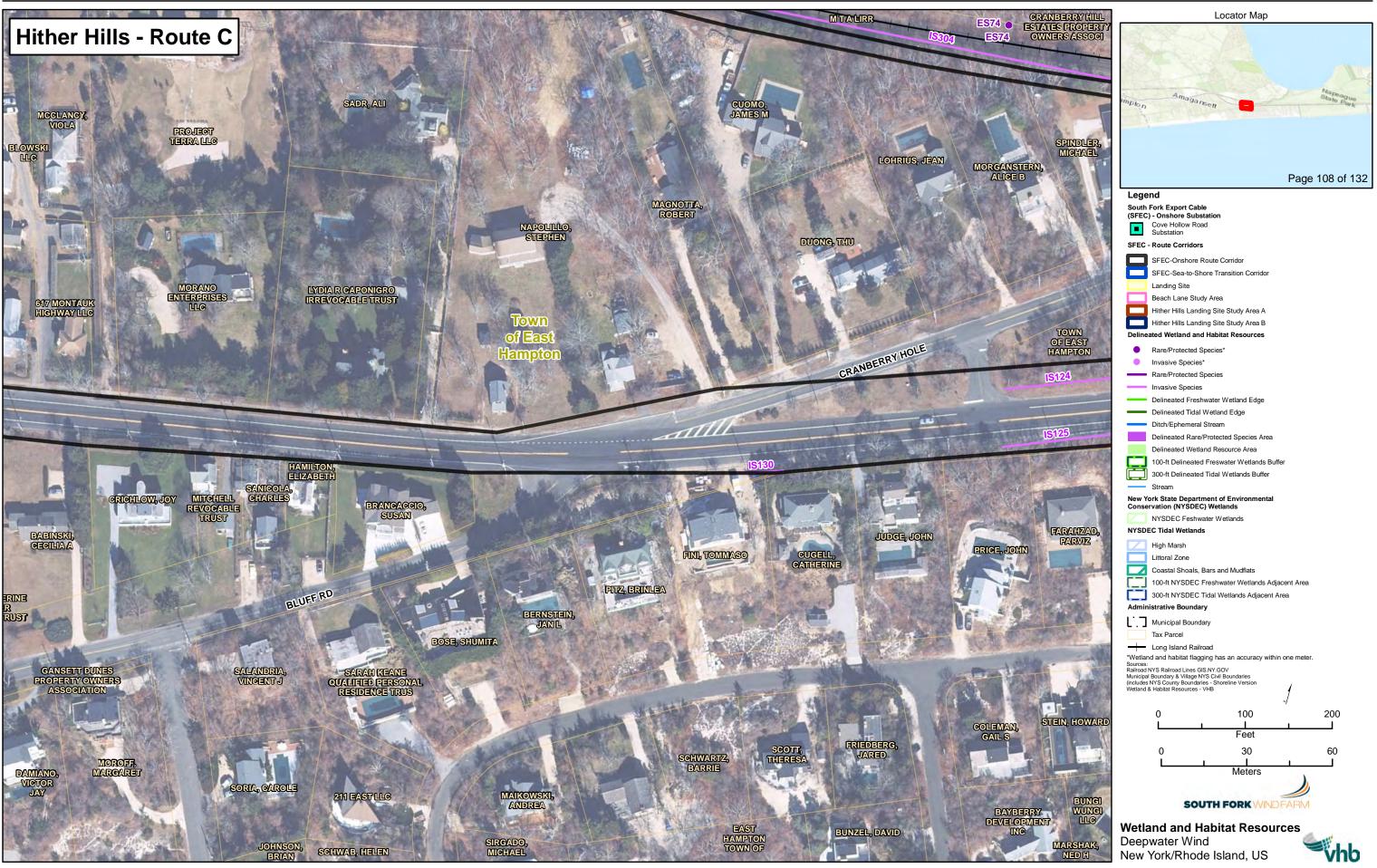


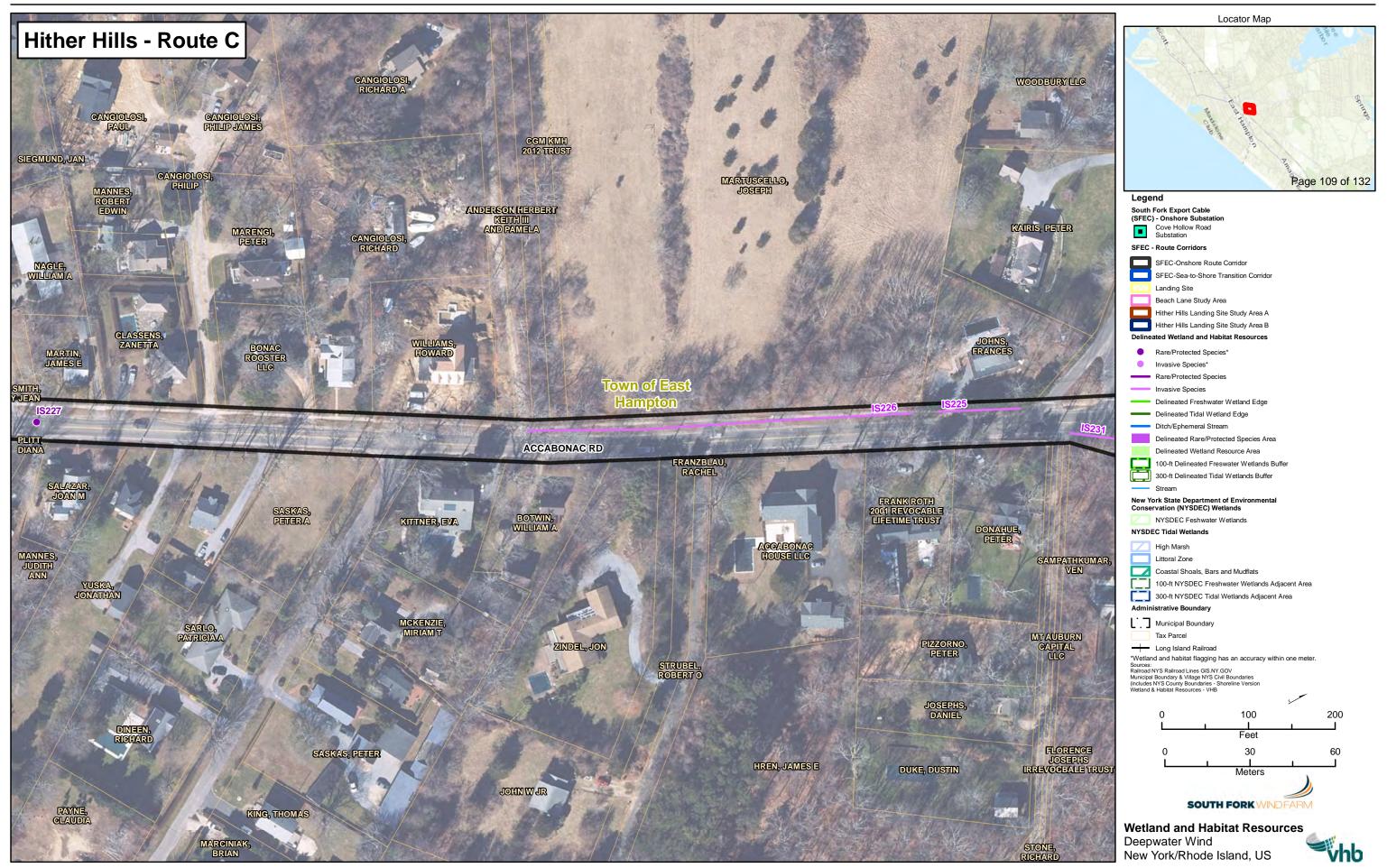


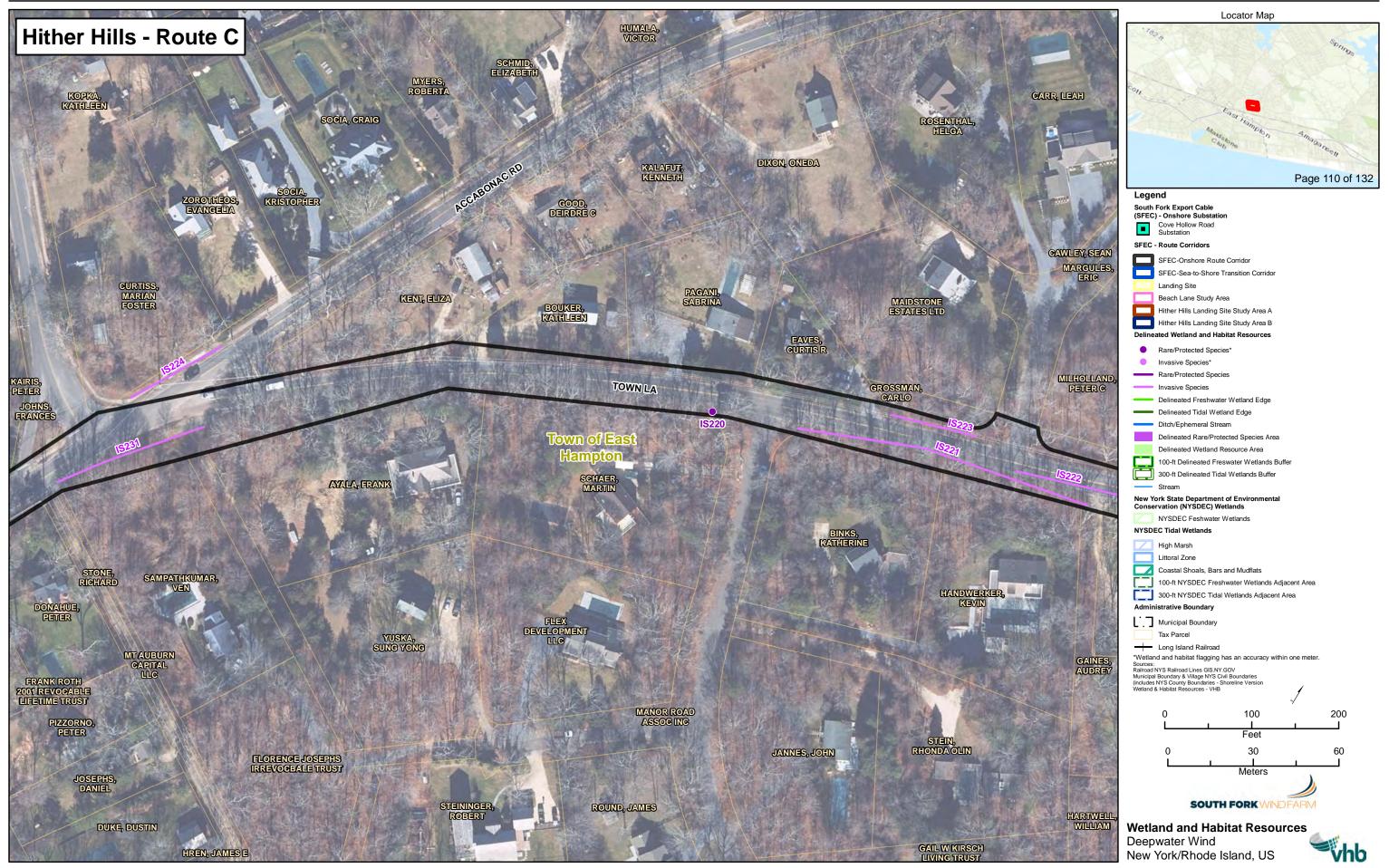


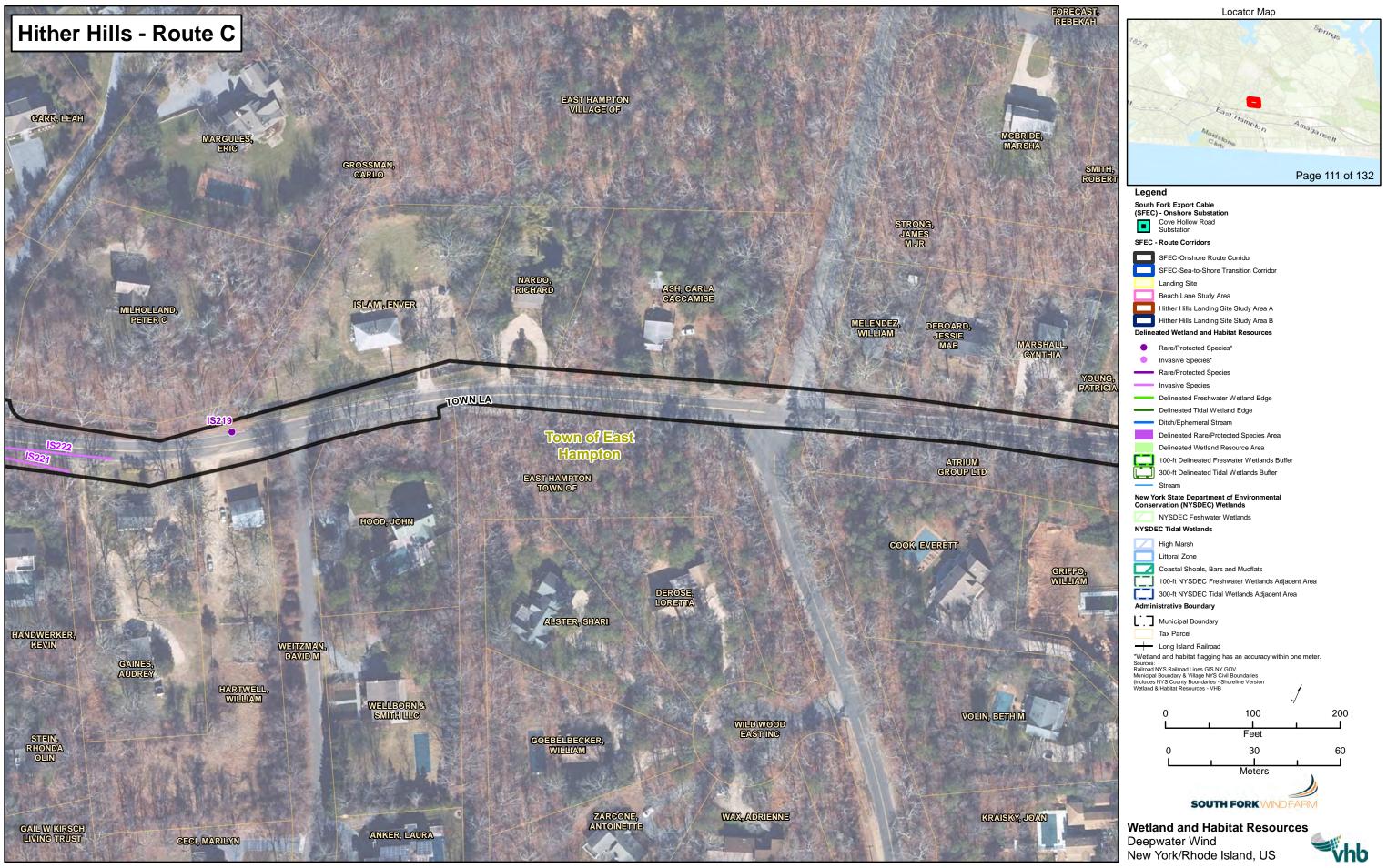


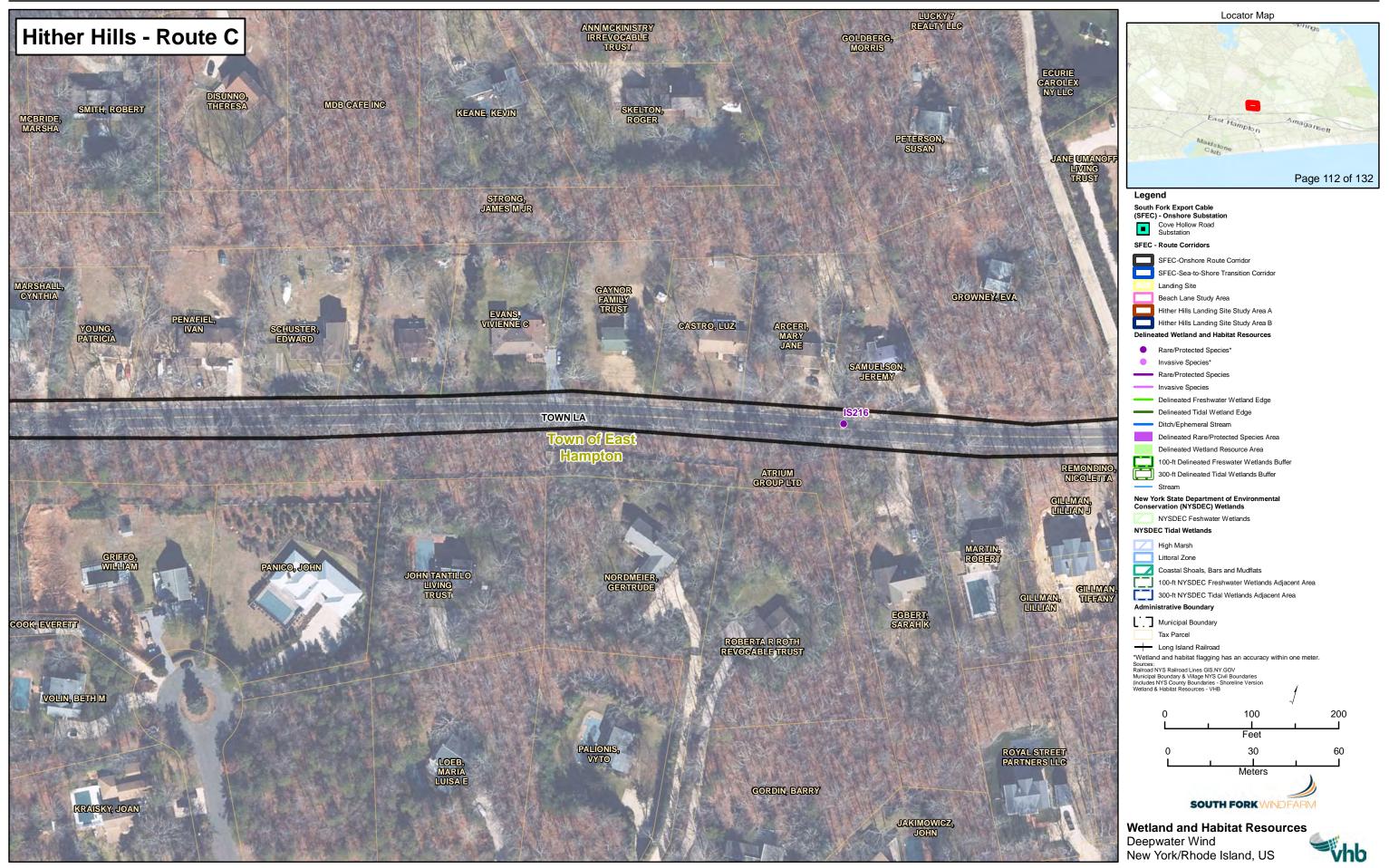


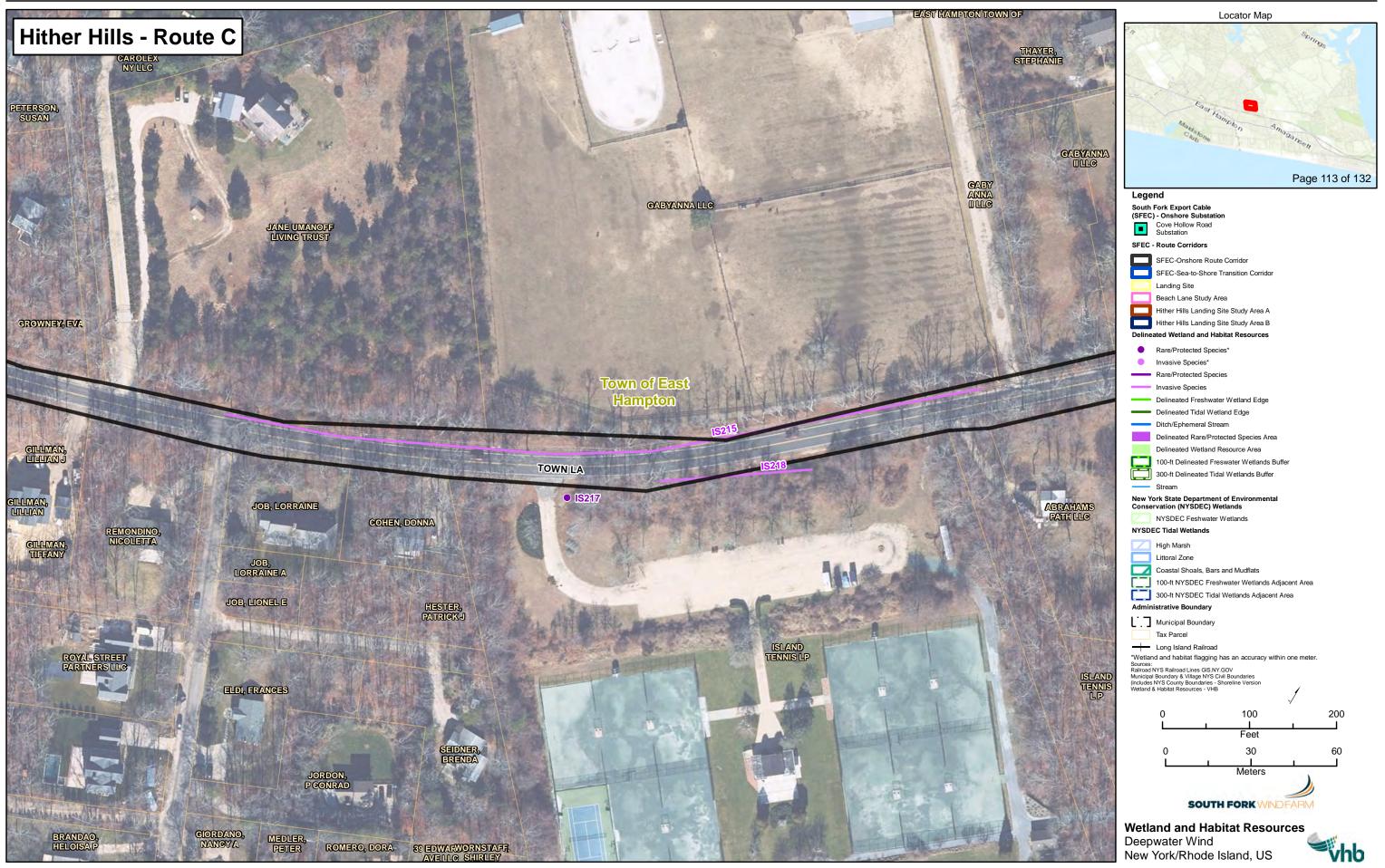


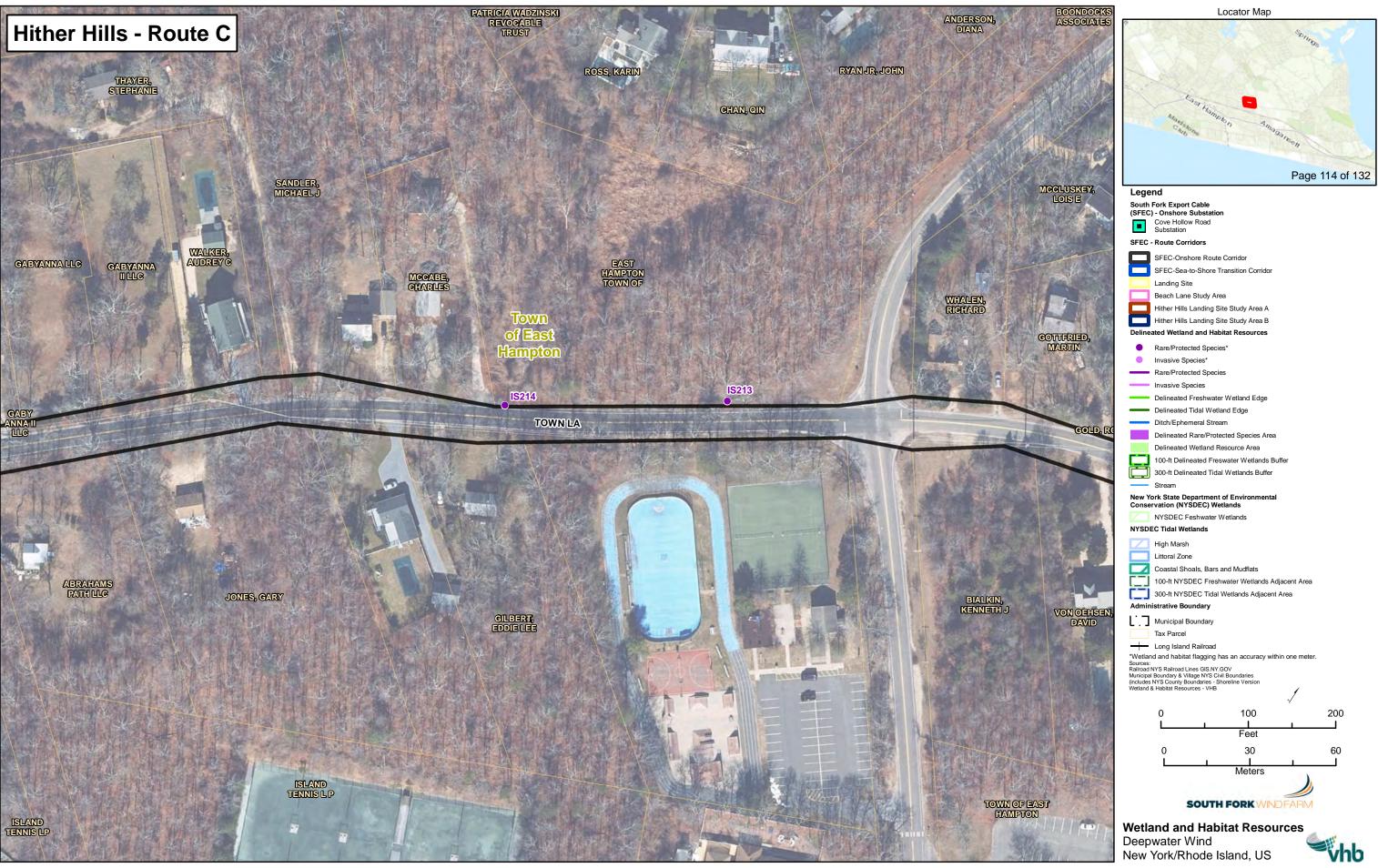




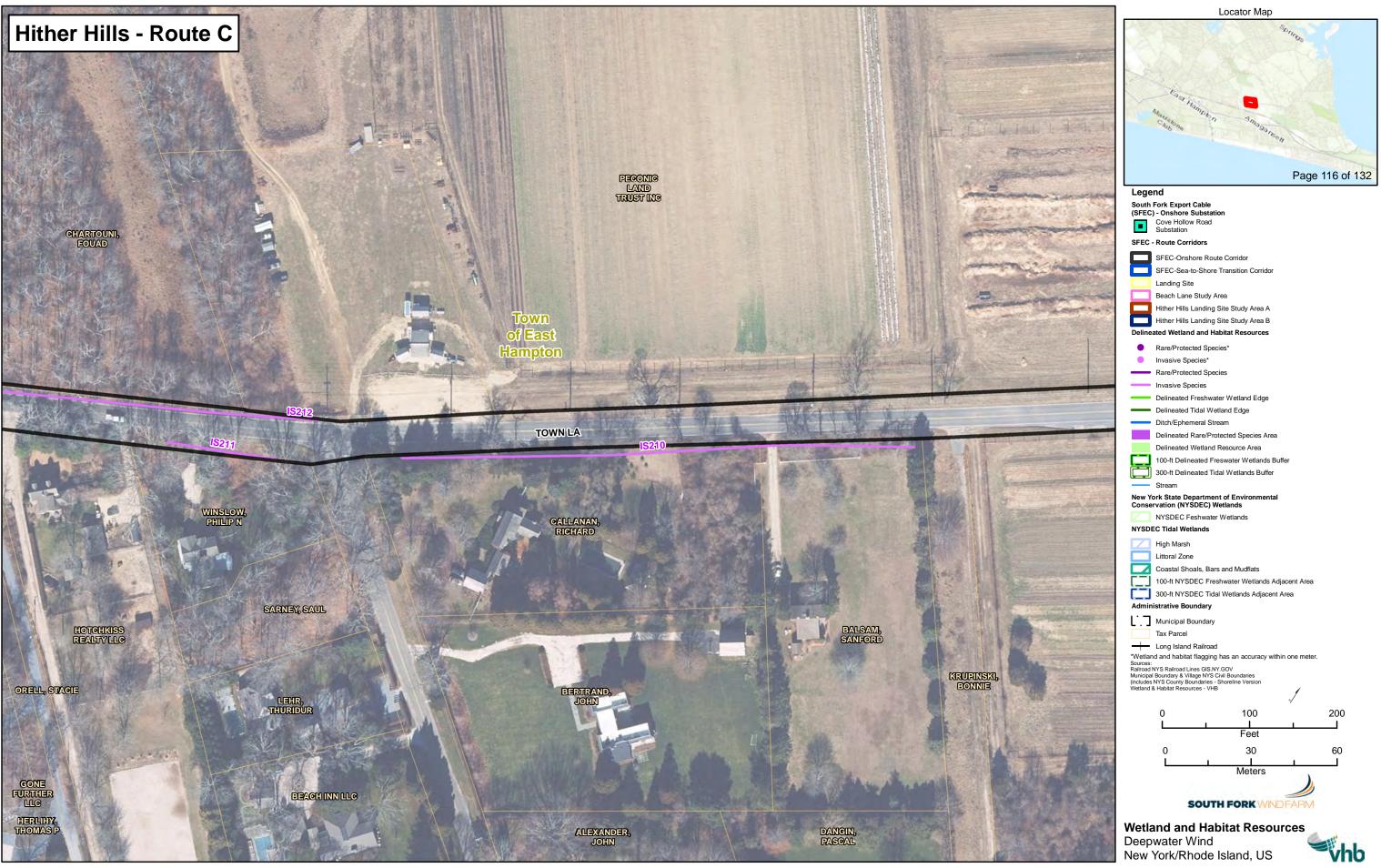




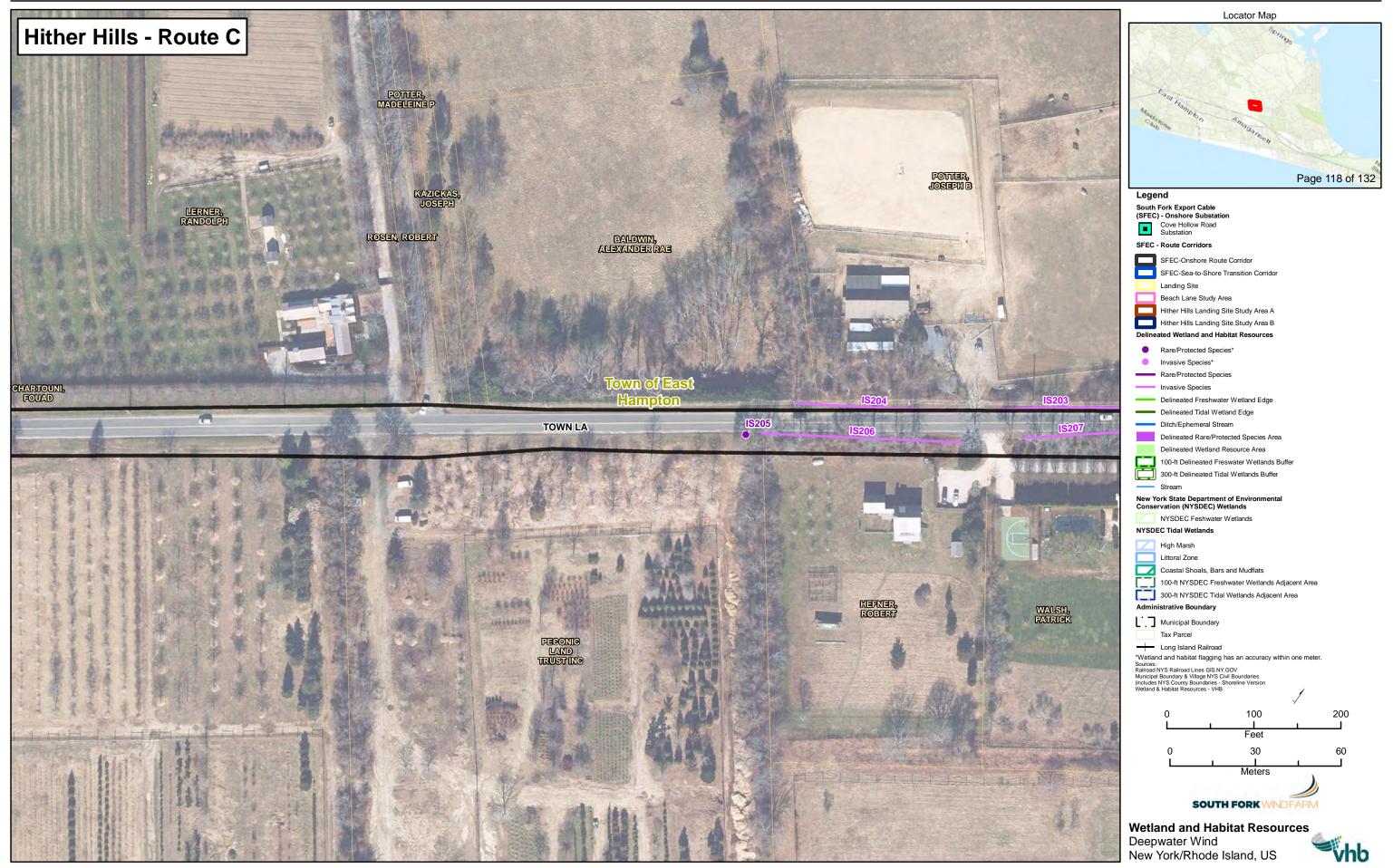


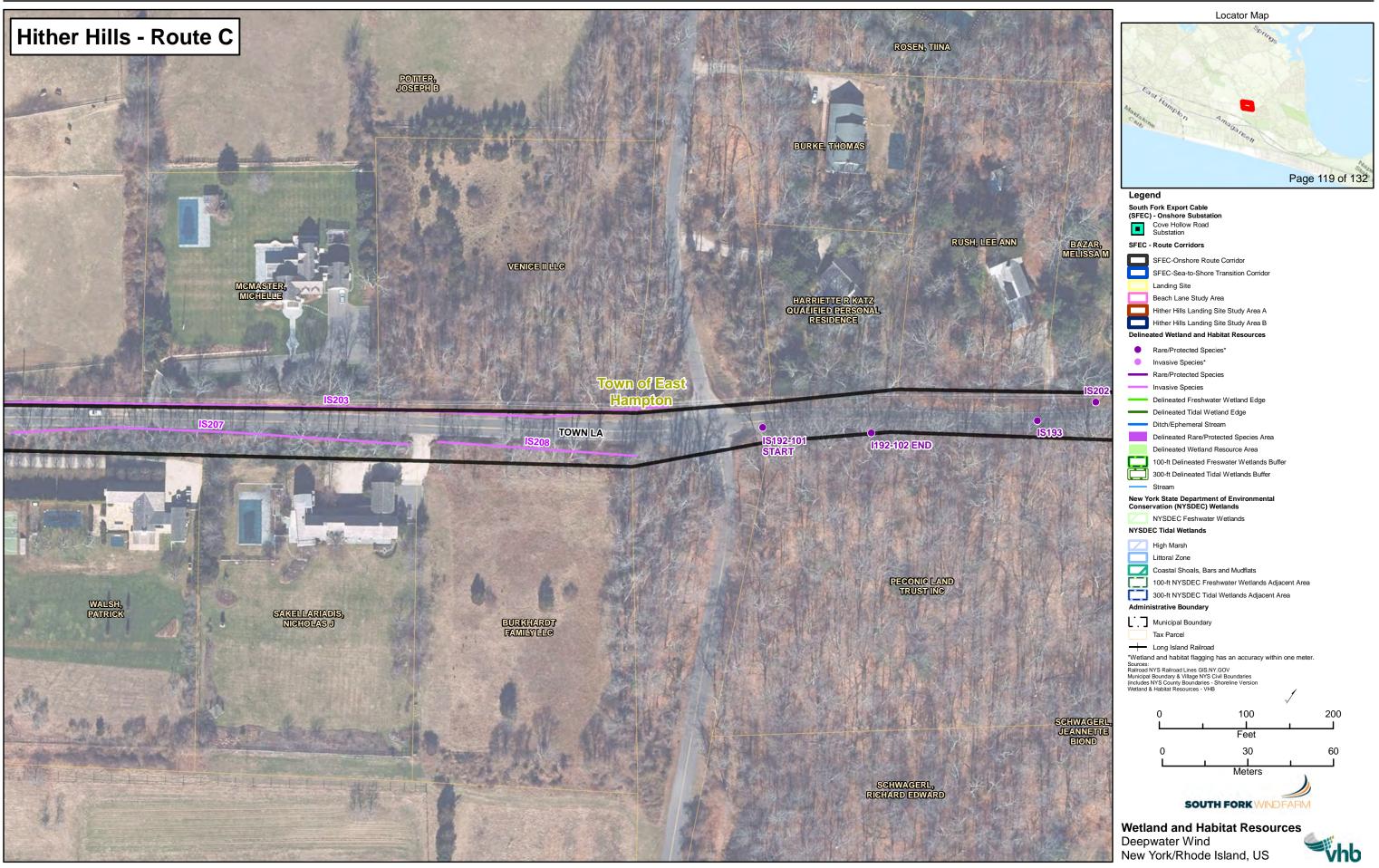


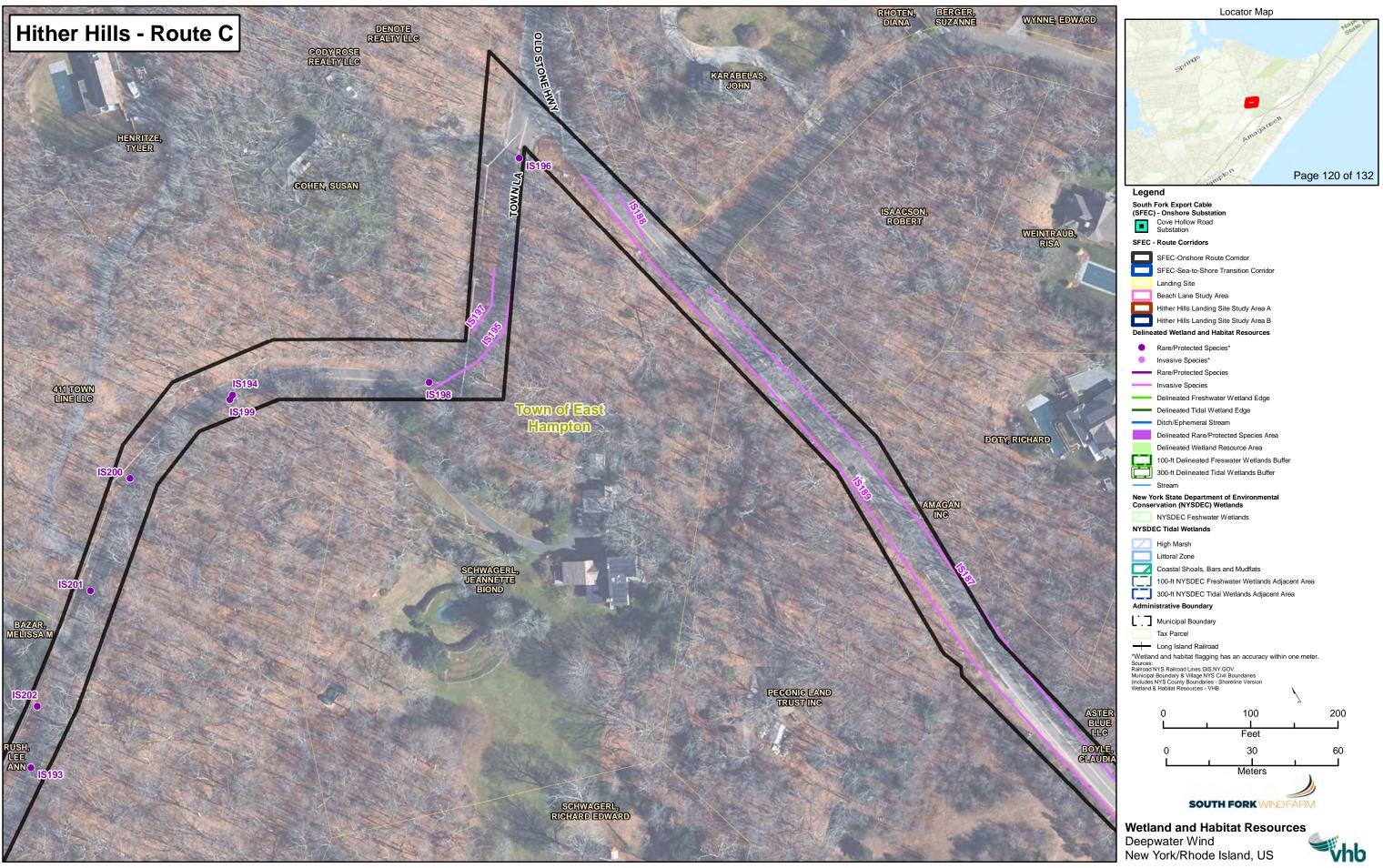


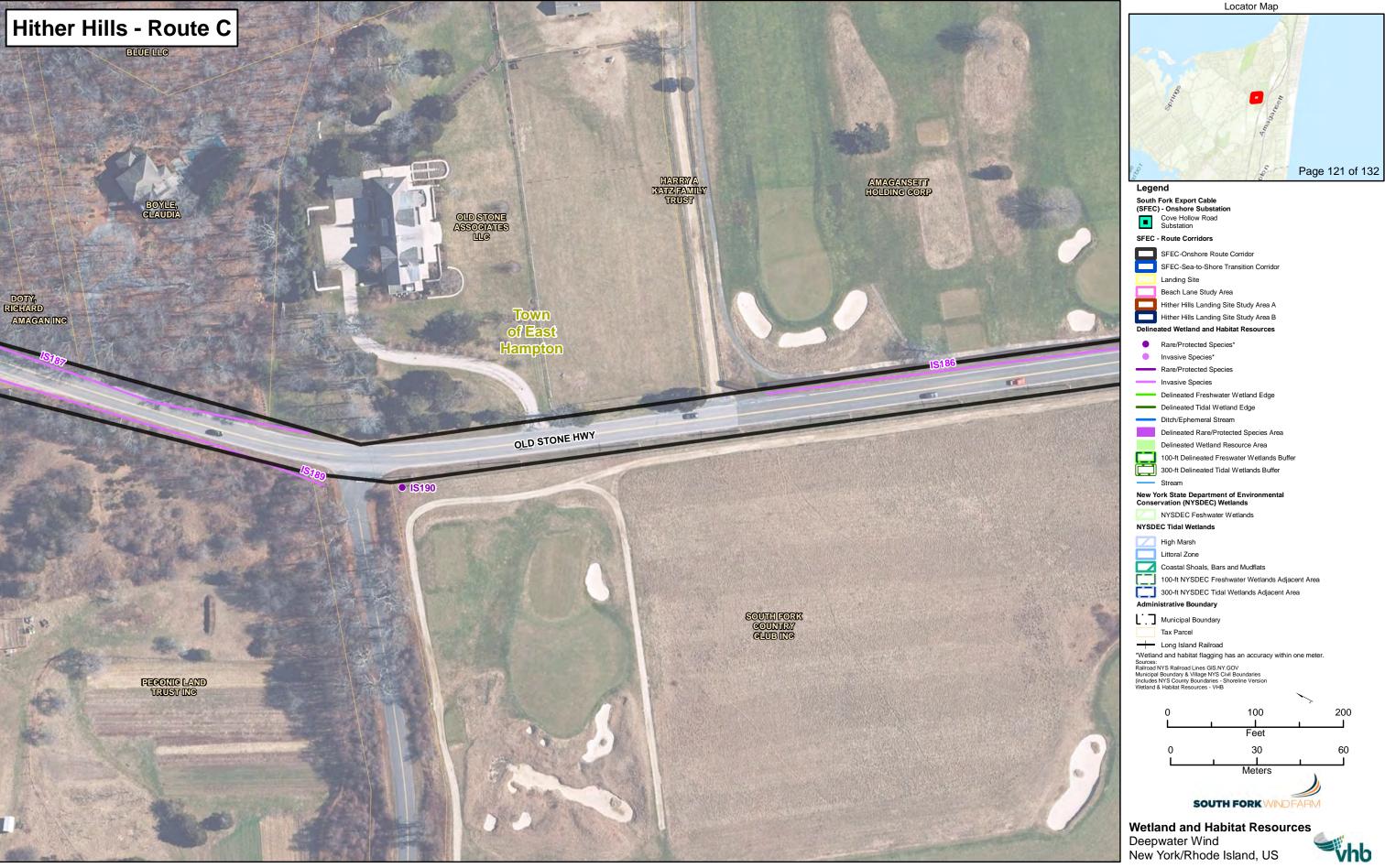


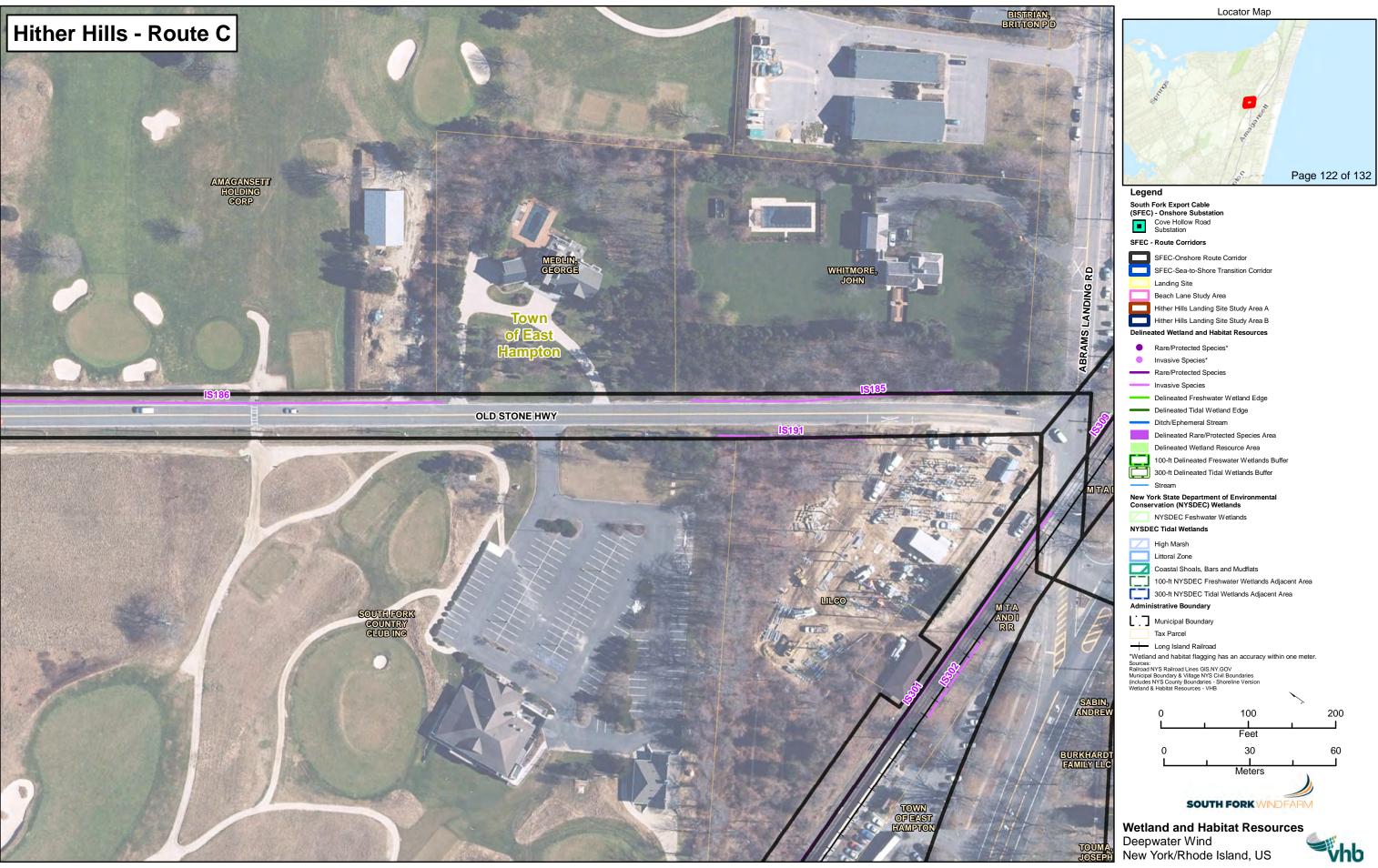


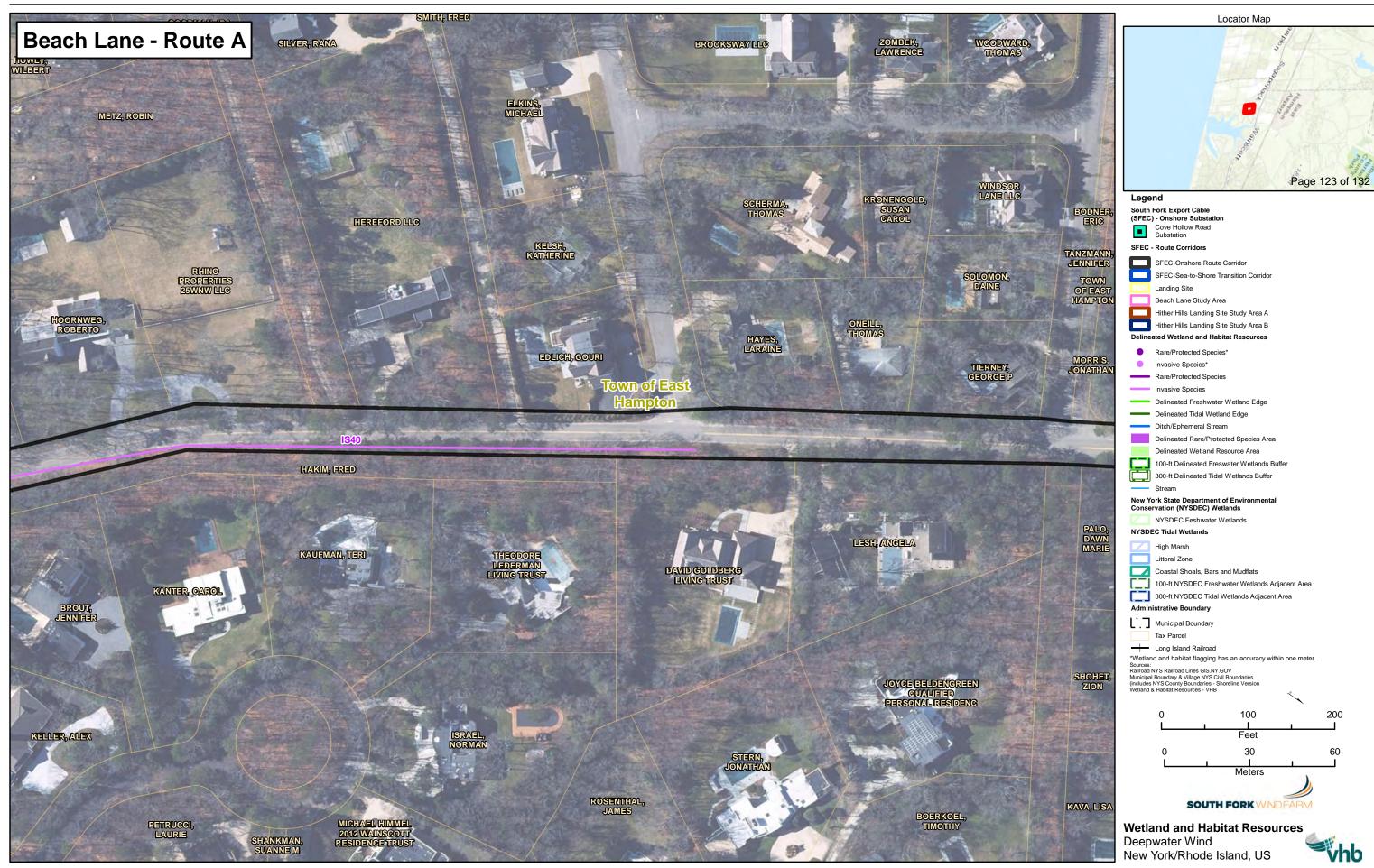




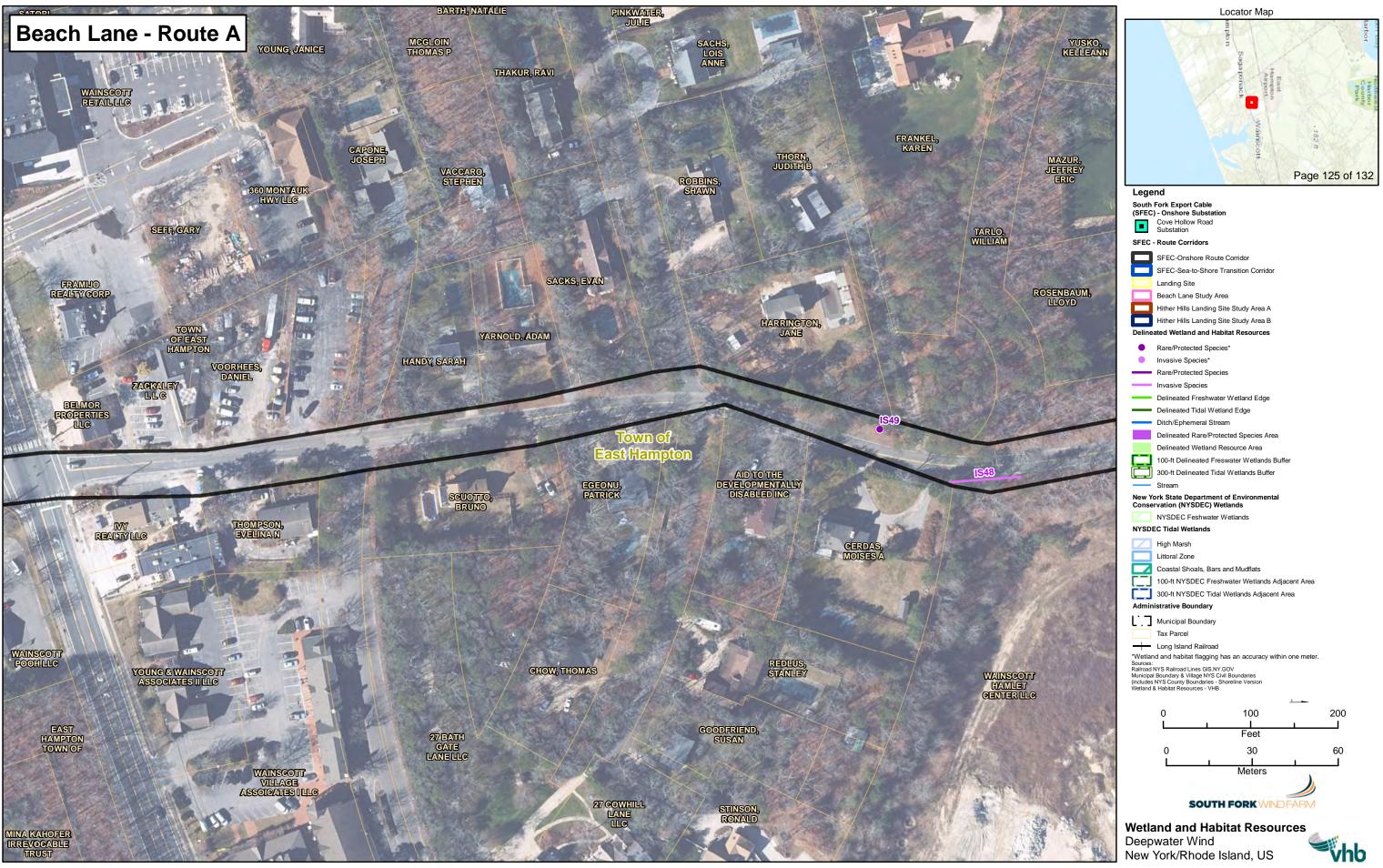


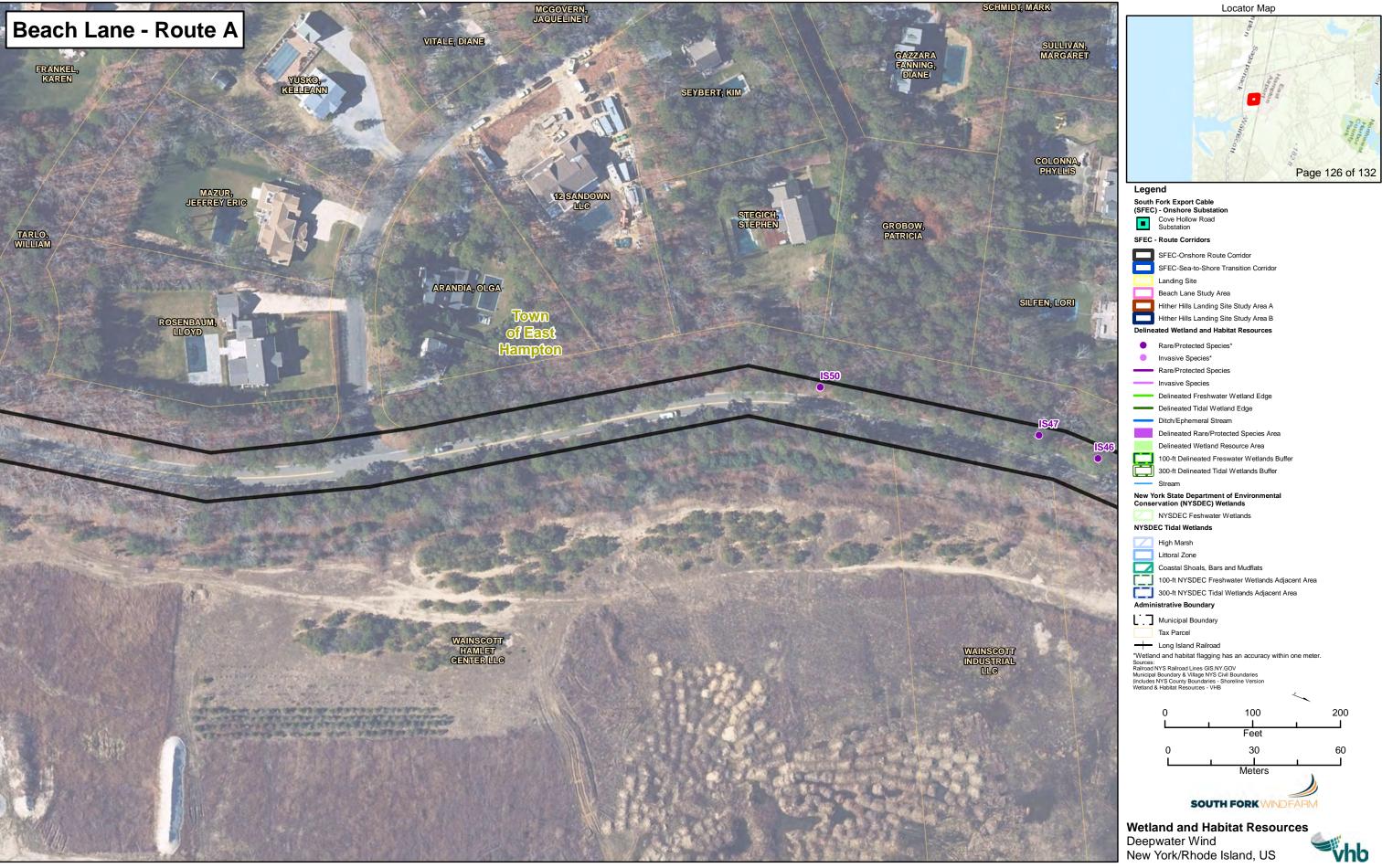














Appendix C



NYS Breeding Bird Atlas Block 7253B 2000-2005



Navigation Tools Block 7253B Summary

Perform Another SearchTotal Species:72Show All RecordsPossible:12Sort by Field Card OrderProbable:31Sort by Taxonomic OrderConfirmed:29

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7253B

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	FY	6/28/2002	Protected
Mallard	Anas platyrhynchos	FL	6/29/2003	Game Species
American Black Duck	Anas rubripes	P2	5/8/2004	Game Species
Gadwall	Anas strepera	P2	5/8/2004	Game Species
Ruby-throated Hummingbird	Archilochus colubris	X1	5/28/2004	Protected
Great Egret	Ardea alba	X1	5/31/2004	Protected
Tufted Titmouse	Baeolophus bicolor	FY	6/28/2002	Protected
Cedar Waxwing	Bombycilla cedrorum	S2	5/31/2004	Protected
Canada Goose	Branta canadensis	P2	5/8/2004	Game Species
Great Horned Owl	Bubo virginianus	T2	12/27/2003	Protected
Red-tailed Hawk	Buteo jamaicensis	P2	3/9/2002	Protected
Whip-poor-will	Caprimulgus vociferus	T2	6/26/2003	Protected-Special Concern
Northern Cardinal	Cardinalis cardinalis	FY	6/28/2002	Protected
House Finch	Carpodacus mexicanus	FY	6/29/2003	Protected

Hermit Thrush	Catharus guttatus	T2	5/30/2004	Protected
Brown Creeper	Certhia americana	T2	5/30/2004	Protected
Chimney Swift	Chaetura pelagica	X1	6/28/2002	Protected
Killdeer	Charadrius vociferus	P2	6/8/2003	Protected
Yellow-billed Cuckoo	Coccyzus americanus	T2	6/8/2003	Protected
Northern Flicker	Colaptes auratus	FL	7/10/2004	Protected
Northern Bobwhite	Colinus virginianus	X1	6/8/2003	Game Species
Eastern Wood- Pewee	Contopus virens	S2	6/8/2003	Protected
American Crow	Corvus brachyrhynchos	FY	6/28/2002	Game Species
Fish Crow	Corvus ossifragus	FL	6/29/2003	Protected
Blue Jay	Cyanocitta cristata	FL	7/10/2004	Protected
Mute Swan	Cygnus olor	NE	5/8/2004	Protected
Yellow Warbler	Dendroica petechia	T2	6/28/2002	Protected
Pine Warbler	Dendroica pinus	FL	6/27/2005	Protected
Gray Catbird	Dumetella carolinensis	FY	6/28/2002	Protected
Willow Flycatcher	Empidonax traillii	T2	6/29/2003	Protected
Common Yellowthroat	Geothlypis trichas	T2	6/28/2002	Protected
Barn Swallow	Hirundo rustica	FY	6/28/2002	Protected
Baltimore Oriole	Icterus galbula	FY	7/10/2004	Protected
Orchard Oriole	Icterus spurius	T2	6/8/2003	Protected
Eastern Screech-Owl	Megascops asio	X1	12/27/2003	Protected
Red-bellied Woodpecker	Melanerpes carolinus	T2	7/10/2004	Protected
Wild Turkey	Meleagris gallopavo	X1	4/10/2004	Game Species
Song Sparrow	Melospiza melodia	T2	4/21/2002	Protected
Northern Mockingbird	Mimus polyglottos	T2	6/28/2002	Protected
Brown-headed Cowbird	Molothrus ater	FL	7/10/2004	Protected
Great Crested Flycatcher	Myiarchus crinitus	P2	6/28/2002	Protected
Black-crowned Night- Heron	Nycticorax nycticorax	X1	5/31/2004	Protected
Osprey	Pandion haliaetus	P2	4/21/2002	Protected-Special Concern

House Sparrow	Passer domesticus	ON	6/28/2002	Unprotected
Ring-necked Pheasant	Phasianus colchicus	S2	6/28/2002	Game Species
Downy Woodpecker	Picoides pubescens	FY	6/28/2002	Protected
Hairy Woodpecker	Picoides villosus	T2	5/30/2004	Protected
Eastern Towhee	Pipilo erythrophthalmus	FL	7/10/2004	Protected
Scarlet Tanager	Piranga olivacea	X1	7/10/2004	Protected
Summer Tanager	Piranga rubra	X1	5/30/2004	Protected
Black-capped Chickadee	Poecile atricapillus	FY	6/28/2002	Protected
Blue-gray Gnatcatcher	Polioptila caerulea	FY	5/31/2004	Protected
Common Grackle	Quiscalus quiscula	FY	6/28/2002	Protected
Eastern Phoebe	Sayornis phoebe	T2	6/28/2002	Protected
American Woodcock	Scolopax minor	X1	6/26/2003	Game Species
Ovenbird	Seiurus aurocapilla	T2	6/28/2002	Protected
Eastern Bluebird	Sialia sialis	FL	6/28/2002	Protected
White-breasted Nuthatch	Sitta carolinensis	FL	7/10/2004	Protected
American Goldfinch	Spinus tristis	P2	6/28/2002	Protected
Chipping Sparrow	Spizella passerina	FY	6/28/2002	Protected
European Starling	Sturnus vulgaris	ON	4/21/2002	Unprotected
Tree Swallow	Tachycineta bicolor	ON	6/28/2002	Protected
Carolina Wren	Thryothorus ludovicianus	T2	6/28/2002	Protected
Brown Thrasher	Toxostoma rufum	T2	6/8/2003	Protected
House Wren	Troglodytes aedon	ON	6/8/2003	Protected
American Robin	Turdus migratorius	B2	4/22/2004	Protected
Eastern Kingbird	Tyrannus tyrannus	FL	7/10/2004	Protected
Blue-winged Warbler	Vermivora pinus	X1	6/8/2003	Protected
Warbling Vireo	Vireo gilvus	X1	6/8/2003	Protected
White-eyed Vireo	Vireo griseus	S2	5/8/2004	Protected
Red-eyed Vireo	Vireo olivaceus	T2	5/31/2004	Protected
Mourning Dove	Zenaida macroura	FL	7/10/2004	Protected

Current Date: 12/7/2017



NYS Breeding Bird Atlas Block 7253D 2000-2005



Navigation Tools Block 7253D Summary

Perform Another Search

Show All Records

Sort by Field Card Order

Sort by Taxonomic Order

Probable:

Confirmed:

12

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7253D

Common Name	Scientific Name Behav		Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	FY	6/8/2003	Protected
Mallard	Anas platyrhynchos	P2	4/21/2002	Game Species
Tufted Titmouse	Baeolophus bicolor	X1	4/21/2002	Protected
Cedar Waxwing	Bombycilla cedrorum	P2	5/31/2004	Protected
Canada Goose	Branta canadensis	P2	4/21/2002	Game Species
Red-tailed Hawk	Buteo jamaicensis	X1	6/28/2002	Protected
Northern Cardinal	Cardinalis cardinalis	FY	5/31/2004	Protected
House Finch	Carpodacus mexicanus	P2	6/28/2002	Protected
Chimney Swift	Chaetura pelagica	P2	6/29/2003	Protected
Piping Plover	Charadrius melodus	NE	6//2000	Endangered
Killdeer	Charadrius vociferus	X1	6/28/2002	Protected
Northern Flicker	Colaptes auratus	T2	6/28/2002	Protected
Northern Bobwhite	Colinus virginianus	X1	6/28/2002	Game Species
Rock Pigeon	Columba livia	T2	6/29/2003	Unprotected
American Crow	Corvus brachyrhynchos	P2	4/21/2002	Game Species
Mute Swan	Cygnus olor	P2	4/21/2002	Protected
Prairie Warbler	Dendroica discolor	X1	5/8/2004	Protected

Yellow Warbler	Dendroica petechia	T2	6/8/2003	Protected
Bobolink	Dolichonyx oryzivorus	T2	6/8/2003	Protected
Gray Catbird	Dumetella carolinensis	FY	6/29/2003	Protected
Willow Flycatcher	Empidonax traillii	S2	6/29/2003	Protected
Common Yellowthroat	Geothlypis trichas	X1	6/8/2003	Protected
Barn Swallow	Hirundo rustica	FY	6/29/2003	Protected
Baltimore Oriole	Icterus galbula	X1	6/8/2003	Protected
Song Sparrow	Melospiza melodia	T2	4/21/2002	Protected
Northern Mockingbird	Mimus polyglottos	P2	4/21/2002	Protected
Brown-headed Cowbird	Molothrus ater	P2	6/8/2003	Protected
House Sparrow	Passer domesticus	FY	6/8/2003	Unprotected
Savannah Sparrow	Passerculus sandwichensis	FY	6/29/2003	Protected
Ring-necked Pheasant	Phasianus colchicus	FL	6/28/2002	Game Species
Downy Woodpecker	Picoides pubescens	T2	6/8/2003	Protected
Black-capped Chickadee	Poecile atricapillus	T2	4/21/2002	Protected
Common Grackle	Quiscalus quiscula	FY	6/8/2003	Protected
American Goldfinch	Spinus tristis	X1	5/8/2004	Protected
Chipping Sparrow	Spizella passerina	S2	6/8/2003	Protected
Northern Rough-winged Swallow	Stelgidopteryx serripennis	X1	5/8/2004	Protected
Least Tern	Sternula antillarum	NE	6/9/2002	Threatened
Eastern Meadowlark	Sturnella magna	X1	5/8/2004	Protected
European Starling	Sturnus vulgaris	ON	4/21/2002	Unprotected
Tree Swallow	Tachycineta bicolor	T2	5/8/2004	Protected
Carolina Wren	Thryothorus Iudovicianus	T2	4/21/2002	Protected
House Wren	Troglodytes aedon	T2	6/28/2002	Protected
American Robin	Turdus migratorius	FY	6/28/2002	Protected
Eastern Kingbird	Tyrannus tyrannus	X1	6/29/2003	Protected
Mourning Dove	Zenaida macroura	P2	6/28/2002	Protected



NYS Breeding Bird Atlas Block 7353A 2000-2005



Navigation Tools Block 7353A Summary

Perform Another Search	Total Species:	52
Show All Records	Possible:	15
Sort by Field Card Order	Probable:	21
Sort by Taxonomic Order	Confirmed:	16
View 1985 Data		

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7353A

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	ON	6/29/2003	Protected
Wood Duck	Aix sponsa	P2	5/8/2004	Game Species
Mallard	Anas platyrhynchos	FL	5/6/2002	Game Species
American Black Duck	Anas rubripes	P2	6/1/2003	Game Species
Tufted Titmouse	Baeolophus bicolor	P2	4/21/2002	Protected
Cedar Waxwing	Bombycilla cedrorum	S2	5/28/2004	Protected
Canada Goose	Branta canadensis	P2	5/6/2002	Game Species
Red-tailed Hawk	Buteo jamaicensis	X1	4/21/2002	Protected
Green Heron	Butorides virescens	X1	5/6/2002	Protected
Northern Cardinal	Cardinalis cardinalis	FY	5/28/2004	Protected
House Finch	Carpodacus mexicanus	P2	4/21/2002	Protected
Piping Plover	Charadrius melodus	FL	6/1/2002	Endangered
Marsh Wren	Cistothorus palustris	X1	6/28/2002	Protected
Northern Flicker	Colaptes auratus	ON	4/28/2002	Protected
Rock Pigeon	Columba livia	X1	2/28/2002	Unprotected
American Crow	Corvus brachyrhynchos	FY	6/28/2002	Game Species
Blue Jay	Cyanocitta cristata	P2	4/21/2002	Protected

Mute Swan	Cygnus olor	NE	4/21/2002	Protected
Yellow Warbler	Dendroica petechia	X1	6/28/2002	Protected
Gray Catbird	Dumetella carolinensis	FY	6/29/2003	Protected
Willow Flycatcher	Empidonax traillii	T2	6/28/2002	Protected
Common Yellowthroat	Geothlypis trichas	FY	6/28/2002	Protected
Barn Swallow	Hirundo rustica	P2	6/28/2002	Protected
Baltimore Oriole	Icterus galbula	X1	5/8/2004	Protected
Eastern Screech-Owl	Megascops asio	X1	1/19/2004	Protected
Swamp Sparrow	Melospiza georgiana	X1	6/1/2003	Protected
Song Sparrow	Melospiza melodia	FY	5/28/2004	Protected
Northern Mockingbird	Mimus polyglottos	T2	4/21/2002	Protected
Brown-headed Cowbird	Molothrus ater	P2	6/28/2002	Protected
Great Crested Flycatcher	Myiarchus crinitus	X1	6/28/2002	Protected
House Sparrow	Passer domesticus	ON	4/21/2002	Unprotected
Ring-necked Pheasant	Phasianus colchicus	T2	5/31/2004	Game Species
Downy Woodpecker	Picoides pubescens	X1	6/28/2002	Protected
Black-capped Chickadee	Poecile atricapillus	FL	6/28/2002	Protected
Blue-gray Gnatcatcher	Polioptila caerulea	X1	6/28/2002	Protected
Sora	Porzana carolina	X1	5/19/2002	Game Species
Common Grackle	Quiscalus quiscula	FY	6/28/2002	Protected
Eastern Phoebe	Sayornis phoebe	T2	4/21/2002	Protected
American Woodcock	Scolopax minor	X1	5/19/2002	Game Species
White-breasted Nuthatch	Sitta carolinensis	X1	4/21/2002	Protected
American Goldfinch	Spinus tristis	T2	5/31/2004	Protected
Chipping Sparrow	Spizella passerina	T2	5/8/2004	Protected
Least Tern	Sternula antillarum	NE	6//2000	Threatened
Eastern Meadowlark	Sturnella magna	D2	5/31/2004	Protected
European Starling	Sturnus vulgaris	ON	5/8/2004	Unprotected
Tree Swallow	Tachycineta bicolor	P2	4/21/2002	Protected
Carolina Wren	Thryothorus ludovicianus	T2	4/21/2002	Protected
Brown Thrasher	Toxostoma rufum	S2	5/8/2004	Protected
House Wren	Troglodytes aedon	X1	5/8/2004	Protected
American Robin	Turdus migratorius	NE	5/8/2004	Protected

Eastern Kingbird	Tyrannus tyrannus	T2	6/29/2003	Protected
Mourning Dove	Zenaida macroura	P2	6/28/2002	Protected



NYS Breeding Bird Atlas Block 7353B 2000-2005

Navigation Tools



12

Block 7353B Summary

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Perform Another Search	Total Species:	33
Show All Records	Possible:	4
Sort by Field Card Order	Probable:	17

View 1985 Data

Sort by Taxonomic Order

Click on column heading to sort by that category.

Confirmed:

List of Species Breeding in Atlas Block 7353B

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	FY	6/28/2005	Protected
Mallard	Anas platyrhynchos	X1	6/1/2003	Game Species
Tufted Titmouse	Baeolophus bicolor	X1	6/29/2003	Protected
Cedar Waxwing	Bombycilla cedrorum	S2	5/28/2004	Protected
Green Heron	Butorides virescens	P2	6/1/2003	Protected
Northern Cardinal	Cardinalis cardinalis	FY	6/1/2003	Protected
House Finch	Carpodacus mexicanus	ON	6/1/2003	Protected
Piping Plover	Charadrius melodus	NY	6//2003	Endangered
American Crow	Corvus brachyrhynchos	P2	3/9/2002	Game Species
Blue Jay	Cyanocitta cristata	T2	6/28/2002	Protected
Prairie Warbler	Dendroica discolor	T2	5/28/2004	Protected
Yellow Warbler	Dendroica petechia	X1	6/1/2003	Protected
Gray Catbird	Dumetella carolinensis	FY	6/29/2003	Protected
Common Yellowthroat	Geothlypis trichas	T2	6/1/2003	Protected
Barn Swallow	Hirundo rustica	X1	5/28/2004	Protected
Baltimore Oriole	Icterus galbula	UN	3/9/2002	Protected
Song Sparrow	Melospiza melodia	T2	6/28/2002	Protected

Northern Mockingbird	Mimus polyglottos	ON	6/28/2002	Protected
Brown-headed Cowbird	Molothrus ater	T2	5/28/2004	Protected
House Sparrow	Passer domesticus	ON	5/28/2004	Unprotected
Eastern Towhee	Pipilo erythrophthalmus	T2	6/1/2003	Protected
Black-capped Chickadee	Poecile atricapillus	P2	6/28/2002	Protected
Common Grackle	Quiscalus quiscula	FL	6/28/2005	Protected
American Goldfinch	Spinus tristis	T2	5/28/2004	Protected
Field Sparrow	Spizella pusilla	S2	5/28/2004	Protected
European Starling	Sturnus vulgaris	ON	6/1/2003	Unprotected
Tree Swallow	Tachycineta bicolor	T2	6/1/2003	Protected
Carolina Wren	Thryothorus ludovicianus	T2	6/28/2002	Protected
Brown Thrasher	Toxostoma rufum	FY	6/28/2005	Protected
House Wren	Troglodytes aedon	S2	5/28/2004	Protected
American Robin	Turdus migratorius	FY	6/29/2003	Protected
Eastern Kingbird	Tyrannus tyrannus	T2	6/28/2005	Protected
Mourning Dove	Zenaida macroura	T2	6/1/2003	Protected



NYS Breeding Bird Atlas Block 7354C 2000-2005



Navigation Tools Block 7354C Summary

Perform Another Search

Show All Records

Sort by Field Card Order

Sort by Taxonomic Order

Total Species:

Possible:

8

Probable:

Confirmed:

24

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7354C

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	FY	6/16/2002	Protected
Mallard	Anas platyrhynchos	FL	6/26/2003	Game Species
Tufted Titmouse	Baeolophus bicolor	FL	6/26/2003	Protected
Cedar Waxwing	Bombycilla cedrorum	P2	6/16/2002	Protected
Canada Goose	Branta canadensis	P2	3/24/2002	Game Species
Red-tailed Hawk	Buteo jamaicensis	X1	5/30/2004	Protected
Green Heron	Butorides virescens	X1	6/16/2002	Protected
Northern Cardinal	Cardinalis cardinalis	FY	6/26/2003	Protected
House Finch	Carpodacus mexicanus	T2	3/24/2002	Protected
Northern Flicker	Colaptes auratus	T2	4/21/2002	Protected
Rock Pigeon	Columba livia	P2	4/21/2002	Unprotected
Eastern Wood- Pewee	Contopus virens	X1	5/30/2004	Protected
American Crow	Corvus brachyrhynchos	FL	6/16/2002	Game Species
Fish Crow	Corvus ossifragus	P2	6/26/2003	Protected

Blue Jay	Cyanocitta cristata	FL	6/16/2002	Protected
Mute Swan	Cygnus olor	FL	5/30/2004	Protected
Prairie Warbler	Dendroica discolor	T2	6/26/2003	Protected
Yellow Warbler	Dendroica petechia	T2	6/16/2002	Protected
Pine Warbler	Dendroica pinus	X1	6/16/2002	Protected
Gray Catbird	Dumetella carolinensis	FY	6/16/2002	Protected
Willow Flycatcher	Empidonax traillii	T2	5/30/2004	Protected
Common Yellowthroat	Geothlypis trichas	T2	5/31/2003	Protected
Barn Swallow	Hirundo rustica	ON	6/26/2003	Protected
Wood Thrush	Hylocichla mustelina	T2	6/16/2002	Protected
Baltimore Oriole	Icterus galbula	FY	6/16/2002	Protected
Belted Kingfisher	Megaceryle alcyon	T2	5/30/2003	Protected
Red-bellied Woodpecker	Melanerpes carolinus	FL	6/16/2002	Protected
Wild Turkey	Meleagris gallopavo	FL	6/25/2004	Game Species
Song Sparrow	Melospiza melodia	NE	5/31/2003	Protected
Northern Mockingbird	Mimus polyglottos	T2	6/26/2003	Protected
Brown-headed Cowbird	Molothrus ater	FY	6/16/2002	Protected
Great Crested Flycatcher	Myiarchus crinitus	ON	6/26/2003	Protected
Osprey	Pandion haliaetus	NY	6/16/2002	Protected-Special Concern
House Sparrow	Passer domesticus	FL	6/16/2002	Unprotected
Downy Woodpecker	Picoides pubescens	FY	6/26/2003	Protected
Eastern Towhee	Pipilo erythrophthalmus	T2	6/26/2003	Protected
Scarlet Tanager	Piranga olivacea	S2	5/30/2004	Protected
Black-capped Chickadee	Poecile atricapillus	FL	6/26/2003	Protected
Common Grackle	Quiscalus quiscula	FL	6/16/2002	Protected
Ovenbird	Seiurus aurocapilla	X1	5/30/2004	Protected
White-breasted Nuthatch	Sitta carolinensis	FL	6/26/2003	Protected
American Goldfinch	Spinus tristis	S2	6/26/2003	Protected
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European Starling	Sturnus vulgaris	FL	6/16/2002	Unprotected
Carolina Wren	Thryothorus Iudovicianus	T2	4/21/2002	Protected
Brown Thrasher	Toxostoma rufum	X1	6/26/2003	Protected
Willet	Tringa semipalmata	X1	5/30/2004	Protected
House Wren	Troglodytes aedon	T2	6/16/2002	Protected
American Robin	Turdus migratorius	FY	6/16/2002	Protected
Eastern Kingbird	Tyrannus tyrannus	D2	5/30/2004	Protected
Warbling Vireo	Vireo gilvus	X1	6/26/2003	Protected
Red-eyed Vireo	Vireo olivaceus	T2	6/26/2003	Protected
Mourning Dove	Zenaida macroura	P2	5/30/2003	Protected



NYS Breeding Bird Atlas Block 7354D 2000-2005



Navigation Tools Block 7354D Summary

Perform Another Search
Show All Records
Possible:
14
Sort by Field Card Order
Probable:
36
Sort by Taxonomic Order
Confirmed:
44

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7354D

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Spotted Sandpiper	Actitis macularius	X1	5/30/2003	Protected
Red-winged Blackbird	Agelaius phoeniceus	FY	6/16/2002	Protected
Saltmarsh Sparrow	Ammodramus caudacutus	T2	5/31/2003	
Grasshopper Sparrow	Ammodramus savannarum	T2	5/31/2004	Protected-Special Concern
Mallard	Anas platyrhynchos	FL	6/10/2000	Game Species
Ruby-throated Hummingbird	Archilochus colubris	D2	5/28/2004	Protected
Great Egret	Ardea alba	X1	5/30/2000	Protected
Tufted Titmouse	Baeolophus bicolor	FY	6/16/2000	Protected
Cedar Waxwing	Bombycilla cedrorum	P2	6/16/2002	Protected
Canada Goose	Branta canadensis	P2	4/21/2002	Game Species
Great Horned Owl	Bubo virginianus	NE	3/24/2002	Protected
Red-tailed Hawk	Buteo jamaicensis	D2	3/9/2002	Protected
Green Heron	Butorides virescens	X1	6/10/2000	
Whip-poor-will	Caprimulgus vociferus	T2	6/25/2002	Protected-Special Concern

Northern Cardinal	Cardinalis cardinalis	FL	7/3/2000	Protected
House Finch	Carpodacus mexicanus	FL	6/16/2000	Protected
Veery	Catharus fuscescens	S2	6/16/2000	Protected
Hermit Thrush	Catharus guttatus	S2	6/17/2000	Protected
Piping Plover	Charadrius melodus	NE	6/16/2000	Endangered
Northern Harrier	Circus cyaneus	T2	5/29/2004	Threatened
Yellow-billed Cuckoo	Coccyzus americanus	FY	7/4/2004	Protected
Black-billed Cuckoo	Coccyzus erythropthalmus	X1	6/10/2000	Protected
Northern Flicker	Colaptes auratus	ON	6/10/2000	Protected
Northern Bobwhite	Colinus virginianus	T2	6/26/2003	Game Species
Eastern Wood-Pewee	Contopus virens	T2	6/16/2002	Protected
American Crow	Corvus brachyrhynchos	FL	6/26/2003	Game Species
Blue Jay	Cyanocitta cristata	FL	6/17/2000	Protected
Mute Swan	Cygnus olor	NE	5/6/2002	Protected
Prairie Warbler	Dendroica discolor	FY	6/21/2002	Protected
Chestnut-sided Warbler	Dendroica pensylvanica	X1	5/30/2003	Protected
Yellow Warbler	Dendroica petechia	NE	//2004	Protected
Pine Warbler	Dendroica pinus	T2	4/21/2002	Protected
Gray Catbird	Dumetella carolinensis	FL	6/13/2002	Protected
Snowy Egret	Egretta thula	X1	//2000	Protected
Willow Flycatcher	Empidonax traillii	T2	5/31/2004	Protected
Acadian Flycatcher	Empidonax virescens	X1	6/7/2004	Protected
Horned Lark	Eremophila alpestris	T2	4/21/2002	Protected-Special Concern
American Kestrel	Falco sparverius	X1	6/12/2002	Protected
Common Yellowthroat	Geothlypis trichas	FY	6/8/2004	Protected
American Oystercatcher	Haematopus palliatus	P2	6/10/2000	Protected
Barn Swallow	Hirundo rustica	ON	6/16/2002	Protected
Wood Thrush	Hylocichla mustelina	FY	6/7/2004	Protected
Baltimore Oriole	Icterus galbula	FL	6/13/2002	Protected
Orchard Oriole	Icterus spurius	T2	5/28/2004	Protected
Belted Kingfisher	Megaceryle alcyon	X1	6/21/2002	Protected
Eastern Screech-Owl	Megascops asio	P2	8/13/2000	Protected

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sserculus	J L	3/24/2002	Unprotected
ndwichensis	S2	5/31/2004	Protected
asianus colchicus	T2	5/29/2004	Game Species
eucticus Iovicianus	P2	6/16/2000	Protected
coides pubescens	FL	6/26/2003	Protected
coides villosus	NY	5/28/2004	Protected
oilo rthrophthalmus	FL	6/26/2000	Protected
anga olivacea	FY	6/21/2002	Protected
egadis falcinellus	X1	5/29/2002	Protected
ecile atricapillus	FL	6/26/2003	Protected
lioptila caerulea	P2	6/26/2000	Protected
ogne subis	X1	6/17/2000	Protected
iscalus quiscula	FY	6/16/2002	Protected
llus longirostris	X1	5/29/2004	Protected
paria riparia	D2	5/30/2004	Protected
yornis phoebe	P2	6/10/2000	Protected
iurus aurocapilla	FY	6/21/2002	Protected
tophaga ruticilla	FL	6/17/2000	Protected
alia sialis	ON	6/16/2000	Protected
	asianus colchicus eucticus ovicianus oides pubescens oides villosus ilo throphthalmus anga olivacea gadis falcinellus ecile atricapillus lioptila caerulea ogne subis iscalus quiscula llus longirostris earia riparia yornis phoebe furus aurocapilla tophaga ruticilla	eucticus ovicianus oides pubescens ilo throphthalmus anga olivacea gadis falcinellus cicle atricapillus ficiptila caerulea ogne subis iscalus quiscula ficiparia paria riparia paria phoebe furus aurocapilla functicus prophaga ruticilla prophaga ruticilla prophaga pubis prophaga pubis prophaga ruticilla prophaga ruticilla prophaga pubis proph	T2

White-breasted Nuthatch	Sitta carolinensis	FY	6/17/2000	Protected
American Goldfinch	Spinus tristis	P2	7/3/2000	Protected
Chipping Sparrow	Spizella passerina	FL	6/16/2002	Protected
Field Sparrow	Spizella pusilla	X1	7/3/2000	Protected
Northern Rough- winged Swallow	Stelgidopteryx serripennis	FL	7/4/2004	Protected
Least Tern	Sternula antillarum	P2	5/29/2002	Threatened
Eastern Meadowlark	Sturnella magna	FL	6/16/2002	Protected
European Starling	Sturnus vulgaris	FL	6/16/2002	Unprotected
Tree Swallow	Tachycineta bicolor	ON	4/21/2002	Protected
Carolina Wren	Thryothorus ludovicianus	T2	6/16/2002	Protected
Brown Thrasher	Toxostoma rufum	T2	5/30/2003	Protected
Willet	Tringa semipalmata	D2	6/16/2002	Protected
House Wren	Troglodytes aedon	T2	6/16/2002	Protected
American Robin	Turdus migratorius	FY	6/26/2003	Protected
Eastern Kingbird	Tyrannus tyrannus	P2	6/16/2000	Protected
Blue-winged Warbler	Vermivora pinus	FY	6/16/2000	Protected
Warbling Vireo	Vireo gilvus	X1	6/29/2003	Protected
White-eyed Vireo	Vireo griseus	T2	6/29/2003	Protected
Red-eyed Vireo	Vireo olivaceus	T2	6/26/2003	Protected
Mourning Dove	Zenaida macroura	P2	5/30/2000	Protected



NYS Breeding Bird Atlas Block 7454C 2000-2005



Navigation Tools Block 7454C Summary

Perform Another Search

Show All Records

Possible:

Sort by Field Card Order

Sort by Taxonomic Order

Confirmed:

70tal Species:

Probable:

27

Confirmed:

31

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7454C

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Red-winged Blackbird	Agelaius phoeniceus	FY	6/25/2001	Protected
Saltmarsh Sparrow	Ammodramus caudacutus	T2	6/25/2001	Protected
Grasshopper Sparrow	Ammodramus savannarum	T2	6/25/2002	Protected-Special Concern
Mallard	Anas platyrhynchos	P2	6/27/2005	Game Species
American Black Duck	Anas rubripes	FL	6/27/2005	Game Species
Great Egret	Ardea alba	X1	5/30/2003	Protected
Tufted Titmouse	Baeolophus bicolor	T2	5/21/2004	Protected
Cedar Waxwing	Bombycilla cedrorum	P2	6/25/2001	Protected
Great Horned Owl	Bubo virginianus	D2	12/20/2003	Protected
Red-tailed Hawk	Buteo jamaicensis	T2	6/25/2002	Protected
Green Heron	Butorides virescens	X1	7/3/2004	Protected
Chuck-will's-widow	Caprimulgus carolinensis	T2	6/3/2004	Protected
Whip-poor-will	Caprimulgus vociferus	X1	6/25/2002	Protected-Special Concern

Northern Cardinal	Cardinalis cardinalis	T2	6/25/2001	Protected
House Finch	Carpodacus mexicanus	FL	6/27/2003	Protected
Piping Plover	Charadrius melodus	NE	6//2000	Endangered
Killdeer	Charadrius vociferus	X1	6/29/2003	Protected
Northern Harrier	Circus cyaneus	P2	6/25/2002	Threatened
Marsh Wren	Cistothorus palustris	T2	6/29/2003	Protected
Yellow-billed Cuckoo	Coccyzus americanus	X1	6/25/2002	Protected
Northern Flicker	Colaptes auratus	T2	6/27/2002	Protected
Northern Bobwhite	Colinus virginianus	T2	6/25/2001	Game Species
Rock Pigeon	Columba livia	X1	6/27/2005	Unprotected
Eastern Wood- Pewee	Contopus virens	X1	6/26/2002	Protected
American Crow	Corvus brachyrhynchos	FY	6/25/2002	Game Species
Blue Jay	Cyanocitta cristata	FL	6/25/2001	Protected
Mute Swan	Cygnus olor	P2	5/31/2003	Protected
Prairie Warbler	Dendroica discolor	T2	6/25/2001	Protected
Yellow Warbler	Dendroica petechia	T2	5/30/2003	Protected
Pine Warbler	Dendroica pinus	FL	6/25/2001	Protected
Gray Catbird	Dumetella carolinensis	FL	6/27/2002	Protected
Snowy Egret	Egretta thula	X1	5/30/2003	Protected
Willow Flycatcher	Empidonax traillii	X1	5/30/2004	Protected
Horned Lark	Eremophila alpestris	T2	5/30/2003	Protected-Special Concern
American Kestrel	Falco sparverius	ON	6/25/2001	Protected
Common Yellowthroat	Geothlypis trichas	T2	6/25/2001	Protected
American Oystercatcher	Haematopus palliatus	T2	5/31/2003	Protected
Barn Swallow	Hirundo rustica	ON	6/25/2001	Protected
Baltimore Oriole	Icterus galbula	FL	7/3/2004	Protected
Orchard Oriole	Icterus spurius	FL	7/3/2004	Protected
Great Black-backed Gull	Larus marinus	FY	6/29/2003	Protected
Belted Kingfisher	Megaceryle alcyon	X1	5/29/2004	Protected
Wild Turkey	Meleagris gallopavo	FL	6/1/2004	Game Species

Song Sparrow	Melospiza melodia	FL	6/26/2002	Protected
Northern Mockingbird	Mimus polyglottos	FY	6/25/2002	Protected
Brown-headed Cowbird	Molothrus ater	FL	6/27/2003	Protected
Great Crested Flycatcher	Myiarchus crinitus	D2	6/27/2005	Protected
Osprey	Pandion haliaetus	NE	6/25/2001	Protected-Special Concern
House Sparrow	Passer domesticus	ON	6/25/2001	Unprotected
Ring-necked Pheasant	Phasianus colchicus	T2	6/25/2001	Game Species
Eastern Towhee	Pipilo erythrophthalmus	DD	6/29/2003	Protected
Black-capped Chickadee	Poecile atricapillus	P2	6/25/2001	Protected
Blue-gray Gnatcatcher	Polioptila caerulea	P2	4/29/2004	Protected
Common Grackle	Quiscalus quiscula	FL	6/25/2001	Protected
American Woodcock	Scolopax minor	FL	5/2/2005	Game Species
White-breasted Nuthatch	Sitta carolinensis	X1	4/29/2004	Protected
American Goldfinch	Spinus tristis	P2	6/25/2001	Protected
Chipping Sparrow	Spizella passerina	FL	6/29/2003	Protected
Field Sparrow	Spizella pusilla	FY	5/31/2003	Protected
Least Tern	Sternula antillarum	NE	6//2000	Threatened
European Starling	Sturnus vulgaris	FL	6/25/2001	Unprotected
Tree Swallow	Tachycineta bicolor	ON	5/30/2003	Protected
Carolina Wren	Thryothorus ludovicianus	T2	6/25/2001	Protected
Brown Thrasher	Toxostoma rufum	T2	6/25/2001	Protected
Willet	Tringa semipalmata	FL	7/3/2004	Protected
House Wren	Troglodytes aedon	ON	6/27/2003	Protected
American Robin	Turdus migratorius	FY	6/25/2002	Protected
Eastern Kingbird	Tyrannus tyrannus	T2	6/25/2001	Protected
Mourning Dove	Zenaida macroura	FL	6/25/2001	Protected



NYS Breeding Bird Atlas Block 7454D 2000-2005



Navigation Tools Block 7454D Summary

71 Perform Another Search **Total Species:** Possible: 13 **Show All Records** Probable: 33 Sort by Field Card Order Confirmed: 25 Sort by Taxonomic Order

View 1985 Data

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 7454D

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Spotted Sandpiper	Actitis macularius	X1	7/6/2004	Protected
Red-winged Blackbird	Agelaius phoeniceus	FY	6/25/2001	Protected
Wood Duck	Aix sponsa	P2	5/29/2004	Game Species
Ruby-throated Hummingbird	Archilochus colubris	B2	5/29/2004	Protected
Tufted Titmouse	Baeolophus bicolor	T2	5/31/2003	Protected
Cedar Waxwing	Bombycilla cedrorum	P2	6/25/2001	Protected
Canada Goose	Branta canadensis	X1	6/25/2002	Game Species
Red-tailed Hawk	Buteo jamaicensis	P2	6/26/2002	Protected
Green Heron	Butorides virescens	T2	6/12/2004	Protected
Chuck-will's-widow	Caprimulgus carolinensis	S2	6/26/2002	Protected
Whip-poor-will	Caprimulgus vociferus	T2	6/25/2002	Protected-Special Concern
Northern Cardinal	Cardinalis cardinalis	T2	6/25/2001	Protected
House Finch	Carpodacus mexicanus	T2	6/25/2002	Protected
Hermit Thrush	Catharus guttatus	X1	5/29/2004	Protected
	II	II	II I	l II

Chimney Swift	Chaetura pelagica	X1	5/31/2003	Protected
Piping Plover	Charadrius melodus	FL	6/1/2002	Endangered
Common Nighthawk	Chordeiles minor	X1	5/29/2004	Protected-Special Concern
Yellow-billed Cuckoo	Coccyzus americanus	T2	6/25/2001	Protected
Northern Flicker	Colaptes auratus	FL	7/16/2004	Protected
Northern Bobwhite	Colinus virginianus	T2	6/27/2003	Game Species
Eastern Wood-Pewee	Contopus virens	T2	6/27/2002	Protected
American Crow	Corvus brachyrhynchos	P2	6/25/2001	Game Species
Blue Jay	Cyanocitta cristata	FY	5/29/2004	Protected
Mute Swan	Cygnus olor	P2	5/31/2003	Protected
Prairie Warbler	Dendroica discolor	T2	6/27/2002	Protected
Yellow Warbler	Dendroica petechia	T2	6/25/2001	Protected
Pine Warbler	Dendroica pinus	X1	6/27/2002	Protected
Gray Catbird	Dumetella carolinensis	FY	6/25/2001	Protected
Acadian Flycatcher	Empidonax virescens	X1	5/29/2004	Protected
Common Yellowthroat	Geothlypis trichas	FY	6/25/2001	Protected
Barn Swallow	Hirundo rustica	X1	6/25/2002	Protected
Wood Thrush	Hylocichla mustelina	T2	6/25/2001	Protected
Baltimore Oriole	Icterus galbula	NE	6/25/2001	Protected
Orchard Oriole	Icterus spurius	FL	7/16/2004	Protected
Belted Kingfisher	Megaceryle alcyon	X1	6/25/2001	Protected
Red-bellied Woodpecker	Melanerpes carolinus	T2	5/30/2004	Protected
Wild Turkey	Meleagris gallopavo	D2	5/29/2004	Game Species
Song Sparrow	Melospiza melodia	FL	6/25/2002	Protected
Northern Mockingbird	Mimus polyglottos	FY	5/29/2004	Protected
Black-and-white Warbler	Mniotilta varia	FY	6/27/2003	Protected
Brown-headed Cowbird	Molothrus ater	FL	7/16/2004	Protected
Great Crested Flycatcher	Myiarchus crinitus	T2	5/31/2003	Protected
Northern Parula	Parula americana	S2	5/29/2004	Protected
House Sparrow	Passer domesticus	FY	6/25/2002	Unprotected
Downy Woodpecker	Picoides pubescens	FY	6/25/2002	Protected

Hairy Woodpecker	Picoides villosus	X1	7/16/2004	Protected
Eastern Towhee	Pipilo erythrophthalmus	T2	6/25/2001	Protected
Scarlet Tanager	Piranga olivacea	FL	7/16/2004	Protected
Black-capped Chickadee	Poecile atricapillus	FL	6/25/2002	Protected
Common Grackle	Quiscalus quiscula	FL	6/25/2002	Protected
Bank Swallow	Riparia riparia	P2	5/29/2004	Protected
Eastern Phoebe	Sayornis phoebe	X1	5/19/2004	Protected
American Woodcock	Scolopax minor	X1	6/30/2004	Game Species
Ovenbird	Seiurus aurocapilla	T2	6/25/2001	Protected
American Redstart	Setophaga ruticilla	FY	7/16/2004	Protected
White-breasted Nuthatch	Sitta carolinensis	FL	6/25/2002	Protected
American Goldfinch	Spinus tristis	P2	6/25/2001	Protected
Chipping Sparrow	Spizella passerina	FY	5/29/2004	Protected
Field Sparrow	Spizella pusilla	T2	6/25/2002	Protected
Northern Rough- winged Swallow	Stelgidopteryx serripennis	X1	6/27/2003	Protected
European Starling	Sturnus vulgaris	ON	5/31/2003	Unprotected
Tree Swallow	Tachycineta bicolor	ON	6/25/2001	Protected
Carolina Wren	Thryothorus Iudovicianus	S2	5/31/2003	Protected
Brown Thrasher	Toxostoma rufum	T2	6/27/2003	Protected
House Wren	Troglodytes aedon	ON	5/31/2003	Protected
American Robin	Turdus migratorius	FY	6/25/2002	Protected
Eastern Kingbird	Tyrannus tyrannus	D2	6/25/2002	Protected
Blue-winged Warbler	Vermivora pinus	FY	6/25/2001	Protected
White-eyed Vireo	Vireo griseus	S2	5/29/2004	Protected
Red-eyed Vireo	Vireo olivaceus	T2	6/25/2001	Protected
Mourning Dove	Zenaida macroura	P2	6/25/2002	Protected



Appendix D

Table A – Observed* Avian Species

Scientific Name	Common Name
Accipiter cooperii	Cooper's Hawk
Accipiter striatus	Sharp-shinned Hawk
Actitis macularius	Spotted Sandpiper
Agelaius phoeniceus	Red-winged Blackbird
Aix sponsa	Wood Duck
Anas platyrhynchos	Mallard
Anas rubripes	American Black Duck
Ardea alba	Great Egret
Ardea herodias	Great Blue Heron
Baeolophus bicolor	Tufted Titmouse
Bombycilla cedrorum	Cedar Waxwing
Buteo jamaicensis	Red-tailed Hawk
Calidris alba	Sanderling
Cardinalis	Northern Cardinal
Cathartes aura	Turkey Vulture
Catharus guttatus	Hermit Thrush
Chaetura pelagica	Chimney Swift
Charadrius vociferous	Killdeer
Colaptes auratus	Northern Flicker
Columba livia	Rock Dove
Contopus virens	Eastern Wood Peewee
Corvus brachyrhynchos	American Crow
Corvus corax	Common Raven
Corvus ossifragus	Fish Crow
Cyanocitta cristata	Blue Jay
Cygnus olor	Mute Swan
Dendroica discolor	Prairie Warbler
Dendroica virens	Black-throated Green Warbler

Scientific Name	Common Name
Dolichonyx oryzivorus	Bobolink
Dumetella carolinensis	Gray Catbird
Empidonax traillii	Willow Flycatcher
Geothlypis trichas	Common Yellowthroat
Haemorhous mexicanus	House Finch
Hirundo rustica	Barn Swallow
Icterus galbula	Northern Oriole
Junco hyemalis	Dark-eyed Junco
Larus argentatus	Herring Gull
Larus delawarensis	Ring-billed Gull
Larus marinus	Great Black-backed Gull
Leucophaeus atricilla	Laughing Gull
Megaceryle alcyon	Belted Kingfisher
Melanerpes carolinus	Red-bellied Woodpecker
Meleagris gallopavo	Wild Turkey
Melospiza melodia	Song Sparrow
Mimus polyglottos	Northern Mockingbird
Mniotilta varia	Black-and-white Warbler
Molothrus ater	Brown-headed Cowbird
Myiarchus crinitus	Great-crested Flycatcher
Nycticorax	Black-crowned Night Heron
Pandion haliaetus	Osprey
Passer domesticus	House Sparrow
Passerina cyanea	Indigo Bunting
Phalacrocorax auritus	Double-crested Cormorant
Picoides pubescens	Downy Woodpecker
Picoides villosus	Hairy Woodpecker
Pipilo erythrophthalmus	Eastern Towhee

Scientific Name	Common Name
Piranga olivacea	Scarlet Tanager
Poecile atricapillus	Black-capped Chickadee
Progne subis	Purple Martin
Quiscalus quiscula	Common Grackle
Rallus crepitans	Clapper Rail
Riparia	Bank Swallow
Sayornis phoebe	Eastern Phoebe
Seiurus aurocapilla	Ovenbird
Setophaga coronate	Yellow-rumped Warbler
Setophaga discolor	Prairie Warbler
Setophaga petechia	Yellow Warbler
Setophaga pinus	Pine Warbler
Sialia sialis	Eastern Bluebird
Sitta carolinensis	White-breasted Nuthatch
Spinus tristis	American Goldfinch
Spizella passerine	Chipping Sparrow
Spizella pusilla	Field Sparrow
Sterna hirundo	Common Tern
Sternula antillarum	Least Tern
Sturnus vulgaris	European Starling
Tachycineta bicolor	Tree Swallow
Thryothorus ludovicianus	Carolina Wren
Toxostoma rufum	Brown Thrasher
Troglodytes aedon	House Wren
Turdus migratorius	American Robin
Tyrannus	Eastern Kingbird
Vermivora cyanoptera	Blue-winged Warbler
Vireo gilvus	Warbling Vireo

Scientific Name	Common Name
Vireo olivaceus	Red-eyed Vireo
Zenaida macroura	Mourning Dove

^{*}Through visual and/or audial recognition.

Table B – New York State Amphibian and Reptile Atlas Project Species*

Scientific Name	Common Name
Ambystoma maculatum	Spotted Salamander
Ambystoma opacum	Marbled Salamander
Ambystoma tigrinum	Eastern Tiger Salamander
Bufo fowleri	Fowler's Toad*
Caretta	Loggerhead Sea Turtle
Chelonia mydas	Green Sea Turtle
Chelydra serpentine	Common Snapping Turtle
Chrysemys picta	Painted Turtle
Clemmys guttate	Spotted Turtle
Coluber c. constrictor	Northern Black Racer*
Diadophis punctatus	Northern Ringneck Snake
Hemidactylium scutatum	Four-Toed Salamander
Heterodon platirhinos	Eastern Hognose Snake
Hyla versicolor	Gray Treefrog
Lampropeltis Triangulum	Eastern Milk Snake
Lepidochelys kempii	Atlantic Ridley Sea Turtle
Malaclemys terrapin	Diamondback Terrapin
Nerodia sipedon	Northern Water Snake
Notophthalmus viridescens	Red-Spotted Newt*
Plethodon cinereus	Northern Redback Salamander
Pseudacris crucifer	Northern Spring Peeper*
Pseudemys rubriventris	Eastern Redbelly Turtle
Rana clamitans	Green Frog*
Rana sylvatica	Wood Frog
Rana catesbeiana	American Bullfrog
Rana palustris	Pickerel Frog
Scaphiopus holbrookii	Eastern Spadefoot Toad
Sternotherus oderatus	Common Musk Turtle

Scientific Name	Common Name
Terrapene Carolina	Eastern Box Turtle*
Thamnophis sauritus	Eastern Ribbon Snake
Thamnophis sirtalis	Eastern Garter Snake*
Trachemys s. scripta	Yellowbelly Slider
Trachemys scripta elegans	Red-Eared Slider

 $^{^{\}star}$ Indicates species was observed within the Overall Study Area during field surveys.

Table C - Observed and Expected Mammals*

Scientific Name	Common Name
Blarina brevicauda	Short-tailed Shrew
Chiroptera spp.	Bats
Condylura cristata	Star-nosed Mole
Didelphis virginialis	Virginia Opossum
Glaucomys Volans	Southern Flying Squirrel
Marmota monax	Woodchuck
Mephitis	Striped Skunk
Microtus pennsylvanicus	Meadow Vole
Mus musculus	House Mouse
Mustela frenata	Long-tailed Weasel
Odocoileus virginianus	Whitetail Deer
Ondatra zibethicus	Muskrat
Peromyscus leucopus	White-footed Mouse
Pitymys pinetorum	Pine Mouse
Procyon lotor	Raccoon
Ratus norvegicus	Norway Rat
Scalopus aquaticus	Eastern Mole
Sciurus carolinensis	Eastern Gray Squirrel
Sorex cinerus	Masked Shrew
Sylvilagus floridanus	Eastern Cottontail
Tamias striatus	Eastern Chipmunk
Vulpes	Red Fox

^{*}This list is not intended to be an all-inclusive inventory of mammals that occur within the Overall Study Area

Table D - Invasive Species Inventory

Occurrence	Invasive Species Inventory	Location	Resource Map Page
ID	anvasive species	Location	Resource Map 1 age
IS35	AB	Beach Lane – Routes A,	2
		B, C and D	
IS36	MW	Beach Lane Landing	1
		Site Beach Lane – Routes A,	
		B, C and D	
IS37	AB, GM, JH MW, PB	Beach Lane Landing	1
		Site	
		Beach Lane – Routes A, B, C and D	
IS38	AO, MW	Beach Lane – Routes A,	1
		B, C and D	
IS39	GM, MW	Beach Lane – Route A	6
IS40	WB	Beach Lane – Route A	6, 121
IS41	MR	Beach Lane – Route A	6
IS42	JB	Beach Lane – Route A	6
IS43	AB, GM, MW	Beach Lane – Routes A, B, C and D	6
IS44	GM, MM, WB	Beach Lane – Routes B, C and D	8
IS45	GM	Beach Lane – Routes B, C and D	7
IS46	MM	Beach Lane – Route A	124
IS47	MM	Beach Lane – Route A	124
IS48	GM, JH	Beach Lane – Route A	123
IS49	TH	Beach Lane – Route A	123
IS50	MW	Beach Lane – Route A	124
IS51	JH, MM, MR, MW	Beach Lane – Route B	11, 12
IS52	MM	Beach Lane – Route B	11, 12
IS53	GM, MM, MW, TH	Beach Lane – Route B	10, 11
IS54	AB, GM, MW	Beach Lane – Route B	10
IS55	AB, GM, JH, MR, MW, WB	Beach Lane – Route B	9, 10, 21
IS56	AB, GM, JH, MW, PB, TH	Beach Lane – Route B	9, 10, 21
IS57	GM, JH, MM, MW	Beach Lane - Route B	10
IS58	AB, MW	Beach Lane – Routes C and D	23

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS59	AB	Beach Lane – Routes C	23
IS60	AB, MW	and D Beach Lane – Routes C and D	22, 23
IS61	AB, JH, MW	Beach Lane – Routes C	21, 22
IS62	AB, JB, JH, MM, MR, MW	Beach Lane – Routes B, C and D	9, 21
IS63	AB, JH	Beach Lane – Route B	9, 21
IS64	AB, GM, MW	Beach Lane – Routes C and D	9, 21
IS65	AB, MW	Beach Lane – Routes C and D	21
IS66	AB, MW, TH	Beach Lane – Routes C and D	22, 23
IS67	AB, MW, WE	Beach Lane – Routes C and D	23
IS68	AB, JH	Beach Lane – Routes C and D	23
IS69	CR, MR	Beach Lane – Route D	126
IS70	AO	Beach Lane – Route D	23
IS71	AB, MR, MW, WB	Beach Lane – Route C	23
IS72	AB, GM, TH, MW	Beach Lane – Route C	24, 25
IS73	AB, BP, GM, MW	Beach Lane – Route C	25
IS74	AB, BB, GM, MR, MW, TH	Beach Lane – Route C	25, 26
IS75	AB, MR, MW, NM	Beach Lane – Route C	26
IS76	AB, GM, MR, MW, PB	Beach Lane – Route C	26
IS77	BP	Beach Lane – Route C	26, 27
IS78	AB, JB	Beach Lane – Route C	27
IS79	MR	Beach Lane – Route C	27
IS80	AB, BP, MW	Beach Lane – Route C	27, 28
IS81	AB, BB, GM, MW	Beach Lane – Route C	28
IS82	AB	Beach Lane – Route C	28
IS83	GM, MW	Beach Lane – Route C	27
IS84	MW	Beach Lane – Route C	27

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS85	BP	Beach Lane – Route C	26
IS86	AB, JB, MM, MR, MW	Beach Lane – Route C	25, 26
IS87	AB, GM, JH MW, TH	Beach Lane – Route C	24, 25
IS88	AB, JH, MR, MW, TH	Beach Lane – Route C	23, 24
IS89	AB, JH, MR, MW, TH, WB	Beach Lane – Route C Hither Hills – Route C	31
IS90	AB, GM, JH, MR, MW, TH WB	Beach Lane – Route C Hither Hills – Route C	30, 31, 82
IS91	AB, BP, MR, WB	Beach Lane – Route C Hither Hills – Route C	30, 82
IS92	AB	Beach Lane – Route C Hither Hills – Route C	31
IS93	AB, JH, MR, PB	Beach Lane – Route C Hither Hills – Routes A, B and C	31
IS94	AB, MR, TH, WB	Beach Lane – Route C Hither Hills – Route C	31
IS95	AB	Beach Lane – Route C	29, 30
IS96	AB, MW, TH	Beach Lane – Route C	29, 30
IS97	AB, JK, MW	Beach Lane – Route C	29, 30
IS98	AB, JH, MW, TH	Beach Lane – Route C	29
IS99	AB, MR, MW	Hither Hills – Route C	83
IS100	AB, GM, JH, PB, MR, MW	Hither Hills – Route C	82, 83
IS101	AB, MR, TH	Hither Hills – Route C	30, 82
IS102	АВ	Hither Hills – Route C	30, 82
IS103	AB, MW	Hither Hills – Route B	83
IS104	AB, MR, MW, PB, WB	Beach Lane – Route C Hither Hills – Route B	32
IS105	AB, MR, MW, PB	Beach Lane – Route C Hither Hills – Route B	32
IS106	AB, JH, MR, MW, WB	Hither Hills – Route B	31
IS107	AB, BP, JH, MR, MW, WB	Hither Hills – Route B	31
IS108	AB, JH, JK, MR, MW, PB	Beach Lane – Route C Hither Hills – Route B	31, 32
IS109	AB, BP, GM, JH, MR, MW	Beach Lane – Route C Hither Hills – Route B	31, 32

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS110	GM, MW	Hither Hills – Route B	89
IS111	GM, MW, WB	Hither Hills – Route B	90, 91
IS112	MM, MW	Hither Hills – Route B	92
IS113	AB, TH	Hither Hills – Route B	93
IS114	BP, GM, PB, TH, WB	Hither Hills – Route B	93
IS115	GM, JK, MW	Hither Hills – Route B	94
IS116	AB, GM, JH, MW, PB, TH	Hither Hills – Route B	94
IS117	AB, BP, MR, MW, JH, TH	Hither Hills – Route B	94, 95
IS118	AB, BP, GM, MR, MW, JK	Hither Hills – Route B	95
IS123	JH, MW	Hither Hills – Routes B and C	55
IS124	JH, MR, MW	Hither Hills – Routes B and C	54, 55, 106
IS125	AB, JH, MR, MW	Hither Hills – Routes B and C	54, 55, 106
IS126	AB, JH, MR, MW	Hither Hills – Routes B and C	55
IS127	MW, TH	Hither Hills – Routes B and C	56
IS128	MW	Hither Hills – Routes B and C	56
IS129	CR	Hither Hills – Routes B and C	56
IS130	MW	Hither Hills – Routes B and C	106
IS131	AB, BP, MR, MW	Hither Hills – Routes B and C	105
IS132	AB, AO, BP, JH, MW, WE	Hither Hills – Routes B and C	105
IS133	AB, MR, MW, TH	Hither Hills – Routes B and C	50, 51, 102, 103
IS134	AB, BP, JH, MR	Hither Hills – Route B	96, 97
IS135	AB, EI	Hither Hills – Route B	96
IS136	AB, MW	Hither Hills – Route B	96
IS137	AB, BP, MW, TH	Hither Hills – Route B	96
IS138	AB, BP, JH, MR, MW,	Hither Hills – Route B	95, 96
IS139	AB	Hither Hills – Route B	95

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS140a	AO, GM, JK, JS, MR, MW, WB	Hither Hills – Routes A, B and C	81
IS140b	JH, MR, TH	Hither Hills – Route B	96
IS141	AO	Hither Hills – Routes A, B and C	81
IS142	AB, AO, JH, TH	Hither Hills – Routes A, B and C	80
IS143	AB, AO, JH, MR	Hither Hills – Routes A, B and C	79, 80
IS144	JH, MR, TH	Hither Hills – Routes A, B and C	79
IS145	AO	Hither Hills – Routes A, B and C	79
IS146	AB, AO, MR, JH	Hither Hills – Routes A, B and C	79
IS147	AB, AO, TH	Hither Hills – Routes A, B and C	78
IS148	TH, MR	Hither Hills – Routes A, B and C	78
IS149	AB, AO, JH	Hither Hills – Routes A, B and C	78
IS150	AO, BP, JH, MR, TH	Hither Hills – Routes A, B and C	79
IS151	AB, AO, BP, JH, MR, TH	Hither Hills – Routes A, B and C	80
IS152	AB, CR, JH, TH	Hither Hills – Routes A, B and C	77, 78
IS153	AB, JH, TH	Hither Hills – Routes A, B and C	77
IS154	AO	Hither Hills – Routes A, B and C	76, 77
IS155	AO, CR, JH	Hither Hills – Routes A, B and C	76, 77
IS156	CR	Hither Hills – Routes A, B and C	76
IS157	AO	Hither Hills – Routes B and C	74
IS158	AO	Hither Hills – Routes B and C	74
IS159	AO	Hither Hills – Routes B and C	68

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS160	AO	Hither Hills – Routes B and C	68, 69
IS161	AO	Hither Hills – Routes B and C	69
IS162	AB, AO, MW, TH	Hither Hills – Routes B and C	69
IS163	AO	Hither Hills – Routes B and C	69
IS164	AB, AO, MW	Hither Hills – Routes B and C	69, 70
IS165	AB, CR, MR, MW	Hither Hills – Routes B and C	70
IS166	AO	Hither Hills – Routes B and C	71
IS167	JK	Hither Hills – Routes B and C	72
IS168	CR	Hither Hills – Routes B and C	71, 72
IS169	AB, BB, MW	Hither Hills – Routes B and C	69, 70
IS170	AB. MW	Hither Hills – Routes B and C	69
IS171	AO	Hither Hills – Routes B and C	68
IS172	AO	Hither Hills – Routes B and C	73
IS173	AO, CR, MR	Hither Hills – Routes B and C	73
IS174	AB, AO, CR, TH	Hither Hills – Routes A, B and C	77, 78
IS175	AB, AO, MW	Hither Hills – Routes A, B and C	77
IS176	AO	Hither Hills – Routes A, B and C	76
IS177	AO	Hither Hills – Routes A, B and C	75
IS178	AB, AO, TH	Hither Hills – Routes A, B and C	75
IS179	AB, AO, CR, MR	Hither Hills – Routes B and C	75

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS180	AB, AO, TH	Hither Hills – Routes B and C	74
IS181	AO	Hither Hills – Routes B and C	73, 74
IS182	AO, CR	Hither Hills – Routes B and C	73
IS185	AB, GM, JH, MR, TH	Hither Hills – Route C	50, 102, 120
IS186	AB, BP, MR, MW	Hither Hills – Route C	119, 120
IS187	AB, JH, MR, WB	Hither Hills – Route C	118, 119
IS188	JH, MR, WB	Hither Hills – Route C	118
IS189	AB, JH, JS, MR, WB	Hither Hills – Route C	118, 119
IS190	AB, JH, MR	Hither Hills – Route C	119
IS191	AB, JS, MM, MW, WB	Hither Hills – Route C	50, 102, 120
IS192	GM, JH	Hither Hills – Route C	117
IS193	WB	Hither Hills – Route C	117, 118
IS194	WB	Hither Hills – Route C	118
IS195	GM, JB, JS, WB	Hither Hills – Route C	118
IS196	TH	Hither Hills – Route C	118
IS197	GM, WB	Hither Hills – Route C	118
IS198	WB	Hither Hills – Route C	118
IS199	WB	Hither Hills – Route C	118
IS200	WB, GM	Hither Hills – Route C	118
IS201	GM, WB	Hither Hills – Route C	118
IS202	WB	Hither Hills – Route C	117, 118
IS203	AB, JH, JK, MR, WB	Hither Hills – Route C	116, 117
IS204	AB, JH, MR, WB	Hither Hills – Route C	116
IS205	MW, JK	Hither Hills – Route C	116
IS206	MR, MW, WB	Hither Hills – Route C	116
IS207	GM, JB, JH, MR	Hither Hills – Route C	116, 117
IS208	GM, JH, MR	Hither Hills – Route C	117
IS209	AO, JH, MR, WB	Hither Hills – Route C	115
IS210	AB, GM, JH, MR, MW	Hither Hills – Route C	114

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS211	GM, MR	Hither Hills – Route C	114
IS212	GM, JH, JK, MR, MW	Hither Hills – Route C	113, 114
IS213	AO, MR	Hither Hills – Route C	112
IS214	AB, MR	Hither Hills – Route C	112
IS215	AB, AO, MR, WB	Hither Hills – Route C	111
IS216	JB	Hither Hills – Route C	110
IS217	AO	Hither Hills – Route C	111
IS218	AB, GM, JB, JH, MR, MW, WB	Hither Hills – Route C	111
IS219	BP	Hither Hills – Route C	109
IS220	AB	Hither Hills – Route C	108
IS221	BP, JH, MR, WB	Hither Hills – Route C	108, 109
IS222	JH, MR, TH	Hither Hills – Route C	108, 109
IS223	AB, BP, GM, TH	Hither Hills – Route C	108
IS224	JK, MR MW, PB	Hither Hills – Route C	108
IS225	GM	Hither Hills – Route C	107
IS226	AB, GM, JB, MR, MW, TJH WB	Hither Hills – Route C	107
IS227	AB	Hither Hills – Route C	38, 107
IS228	AB, BP, GM, JH, PB, TH	Hither Hills – Route C	38
IS229	AB, BP, CR, GM, JH, JK, MW	Hither Hills – Route C	37, 38
IS230	JH, JK, MW	Hither Hills – Route C	37, 38
IS231	AB, GM, MW, TH, WB	Hither Hills – Route C	107, 108
IS232	AB, MR, MW	Hither Hills – Route C	38
IS233	JK	Hither Hills – Route C	38
IS234	MR, MW	Beach Lane – Route D	16
IS235	MR, MW	Beach Lane – Route D	126
IS236	MR, MW	Beach Lane – Route D	126
IS237	MW	Beach Lane – Routes A, B and D	16
IS238	MW	Beach Lane – Routes A, B and D	16
IS239	WB	Beach Lane – Routes A, B and D	16

Occurrence	Invasive Species ^a	Location	Resource Map Page	
ID				
IS240	WB	Beach Lane – Routes A,	16	
10241	CAA AAD WAD	B and D	16	
IS241	GM, MR, WB	Beach Lane – Routes A, B and D	16	
IS242	SB	Beach Lane – Routes A,	16	
132 12		B and D	10	
IS243	WB	Beach Lane – Routes A,	16	
		B and D		
IS244	MW, WB	Beach Lane – Routes A,	16	
		B and D		
IS245	ТО	Beach Lane – Routes A	16	
15246	CD	and B	14 15	
IS246	SB	Beach Lane – Routes A and B	14, 15	
IS247	WB	Beach Lane – Routes A	14	
132		and B		
IS248	MW	Beach Lane – Routes A	11, 12	
		and B		
IS249	AB, MW	Beach Lane – Routes A	11, 12	
		and B		
IS250	JK	Beach Lane – Route A	11, 12	
IS251	GM, MW	Beach Lane – Route A	11, 12	
IS252	AB, MM, MW, WB	Beach Lane – Route A 11, 12		
IS253	MM	Beach Lane – Route A	125	
IS254	GM, MM, MW, WB	Beach Lane – Route A 125		
IS255	MM	Beach Lane – Route A	125	
IS256	MM, MW	Beach Lane – Route A	125	
IS257	GM, JB, JH, MR, MW, PB, TH, WB	Beach Lane – Routes A, B and C Hither Hills – Routes A, B and C	20, 31	
IS258	AO, JB, JH, MM, MR, TO, WB	Beach Lane – Routes A, 19, 20 B and D		
IS259	TH	Beach Lane – Routes A, 18 B and D		
IS260	WB	Beach Lane – Routes A, 18 B and D		
IS261	AO, GM, JH, MM, TH, WB	Beach Lane – Routes A, 17, 18 B and D		
IS262	AO, BP, GM, JH, MM, MW, WB	Beach Lane – Routes A, 17, 18 B and D		

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS263	GM TO	Roach Lang Poutos A	18
13203	GM, TO	Beach Lane – Routes A, B and D	10
IS264	WB	Beach Lane – Routes A,	18
700CF	A.D. 57 A.M. A.M. A. G. A.M. D.	B and D	10.00
IS265	AB, EI, MM, NM, SM, WB,	Beach Lane – Routes A, B and D	19, 20
IS266	AB, JH, MM, MW, TH, TO, WB	Beach Lane – Routes A, B and C Hither Hills – Routes A, B and C	20, 31
IS267	AB, GM, MW, TH, WB	Beach Lane – Route C Hither Hills – Routes A, B and C	31, 32
IS268	JH, JH MW, PB, SM	Hither Hills – Route A	32, 33
IS269	AO, BB, BP, MR, MW, PB, TH	Hither Hills – Route A	33, 34
IS270	MW	Hither Hills – Route A	34
IS271	AO, GM, JH, MW, NM, PB, TO WB	Hither Hills – Route A	32, 33
IS272	AB, JH, MR, MW, PB, TH,	Hither Hills – Routes A and B	31, 32
IS273	AB, NM, SM, TO	Hither Hills – Route A	37
IS274	GM, JH, JK, MR, MW, NM, PB, TH, TO, WB	Hither Hills – Route A	35, 36, 37
IS275	GM, JH, NW, TH, TO	Hither Hills – Route A	35
IS276	GM, MR, MW, PB, SM, TH,	Hither Hills – Route A	35
IS277	MW	Hither Hills – Route A	35
IS278	MW	Hither Hills – Route A	33
IS279	AB, AO, MR, MW, NM, PB, TH	Hither Hills – Route A	33, 35
IS280	AB, BB, GM, MW, TO	Hither Hills – Route A	35
IS281	AB, MM, MR, MW, NM, PB TH, TO, WB	Hither Hills – Route A	35, 36, 37
IS282	AB, JK, NM, PB, SM, TO	Hither Hills – Route A	37
IS283	AB, AO, BB, BP, GM, JK, MM, MW, PB, TH, TO, WB	Hither Hills – Route A	37, 38, 39
IS284	AB, BP, GM, MM, MW, NM, TO	Hither Hills – Route A	37, 38, 39
IS285	AB, JB, JH, MM, MR, TH, WB	Hither Hills – Route A	40, 41
IS286	AB, GM, JH, MM, TH, WB	Hither Hills – Route A	39, 40

Occurrence ID	Invasive Species ^a	Location	Resource Map Page	
IS287	AB, GM, JB, MM, MR, TH	Hither Hills – Route A	39	
IS288	JH, MM, MR, TH, WB	Hither Hills – Route A	40	
IS289	AB, GM, MW, TH, WB	Hither Hills – Route A	41	
IS290	AB, GM, JB, JH, MM, MW, WB	Hither Hills – Route A	41, 42	
IS291	GM, MM, TH, WB	Hither Hills – Route A	43	
IS292	AO	Hither Hills – Route A	44	
IS293	AB, AO, JH, MR, MW, TH, TO	Hither Hills – Route A	44	
IS294	AB, AO, GM, MW, TH, TO, WB	Hither Hills – Route A	44	
IS295	AB, AO, BB, GM, JB, JH, JK, MM, MR, MW WB	Hither Hills – Route A	41, 42, 43	
IS296	GM, JK, MR, MW, NW, PB, TO, WB	Hither Hills – Route A	45, 46	
IS297	AB, AO, GM, JH, JK, MM, MR, MW, PB, WB	Hither Hills – Route A	44, 45	
IS298	AB, JB, WB	Hither Hills – Route A	44, 45	
IS299	EI, MR, WE	Hither Hills – Route A	45	
IS300	GM, MR, MW, WB	Hither Hills – Route A	45, 46	
IS301	AB, AO, GM, JH, JK, MM, MR, MW, PB, WB	Hither Hills – Route A	46, 47, 48, 49, 50, 101, 102, 120	
IS302	AO, MW	Hither Hills – Route A	50, 102, 120	
IS303	AB, AO, GM, JH, JK, MM, MR, MW, PB, TH, WB	Hither Hills – Route A	46, 47, 48, 49, 50, 101, 102	
IS304	AO, GM, MR, MW, TH, TO, WB	Hither Hills – Route A	54, 55, 106	
IS305	AO, JH	Hither Hills – Route A 53		
IS306	JH, WB	Hither Hills – Route A 53		
IS307	AO, AB MW, WB	Hither Hills – Route A 52, 53		
IS308	AB, AO, JH, MR, PB, SM, TO, WB	Hither Hills – Route A 50, 51, 52, 102, 1		
IS309	AB, AO, JH, MW, NM, SM	Hither Hills – Route A	50, 51, 102, 103, 120	
IS310	CR, MW, TO	Hither Hills – Route A	55	
IS311	CR	Hither Hills – Route A	59	
IS312	CR	Hither Hills – Route A	59	
IS313	CR	Hither Hills – Route A	59	

Occurrence ID	Invasive Species ^a	Location	Resource Map Page	
IS314	AB, JH, MW, TH, WB	Hither Hills – Route A	55	
IS315	CR	Hither Hills – Route A	60	
IS316	CR	Hither Hills – Route A	60, 61	
IS317	CR	Hither Hills – Route A	61	
IS318	CR	Hither Hills – Route A	62	
IS319	CR	Hither Hills – Route A	66	
IS320	CR	Hither Hills – Route A	66	
IS321	CR	Hither Hills – Route A	64	
IS322	CR	Hither Hills – Route A	64	
IS323	MW	Hither Hills – Route A	70	
IS324	GM, MR	Hither Hills – Route A	70	
IS325	MR, MW	Hither Hills – Route A	70	
IS326	AB, CR	Hither Hills – Route A	69	
IS327	AB, CR, MR	Hither Hills – Route A	69	
IS328	CR	Hither Hills – Route A	68	
IS329	CR	Hither Hills – Route A	67	
IS330	CR	Hither Hills – Route A	69	
IS331	AB, CR	Hither Hills – Route A	70	
IS332	AB	Hither Hills – Route A	71	
IS333	AB, CR	Hither Hills – Route A	71	
IS334	CR	Hither Hills – Route A	71	
IS335	AB, CR, JH, MW, TH	Hither Hills – Route A	70, 71	
IS336	AB, CR, JH, TH	Hither Hills – Route A	74, 75	
IS337	AB	Hither Hills – Route A	74	
IS338	AB, AO, CR, JH, TH, TO	Hither Hills – Route A	71, 72, 73, 74	
IS339	CR	Hither Hills – Route A	72	
IS340	CR	Hither Hills – Route A 72		
IS341	CR	Hither Hills – Route A	73	
IS342	CR	Hither Hills – Route A	74	
IS343	AB, BP, CR, MW, TH	Hither Hills – Route A 74, 75		

Occurrence ID	Invasive Species ^a	Location	Resource Map Page
IS344	AB, GM, JB, JH, MM, MR MW, PB, TH, WB	Beach Lane – Route C Hither Hills – Routes A, B and C	20, 31, 82
IS345	AB, GM, JB, JH, MM, MR MW, PB, TH, WB	Cove Hollow Road Substation Beach Lane – Routes A, B C and D Hither Hills – Routes A B and C	20

^aInvasive Species Codes

AB – Asiatic Bittersweet (*Celastrus orbiculatus*)

AO – Autumn Olive (*Elaeagnus umbellatus*)

BB – Bamboo (*Phyllostachys* sp.)

BP - Border Privet (Ligustrum obtusifolium)

CR – Common Reed (Phragmites australis)

EI – English Ivy (Hedera helix)

GM – Garlic Mustard (Alliaria petiolata)

JB – Japanese Barberry (Berberis thunbergii)

JH – Japanese Honeysuckle (*Lonicera japonica*)

JK – Japanese Knotweed (*Polygonum cuspidatum*)

JS – Japanese Stiltgrass (*Microstegium vimineum*)

MM – Mile-a-minute (*Persicaria perfoliata*)

MR – Multiflora Rose (*Rosa multiflora*)

MW – Mugwort (Artemesia vulgaris)

NM – Norway Maple (Acer plantanoides)

PB – Porcelain Berry (Ampelopsis brevipedunculata)

SB – Southern Pine Beetle (*Dendroctonus frontalis*)

SM – Sycamore Maple (Acer pseudoplatanus)

TH – Tatarian Honeysuckle (*Lonicera tatarica*)

TO – Tree-of-heaven (Ailanthus altissima)

WB – Wineberry (Rubus phoenicolasius)

WE – Winged Euonymus (Euonymus alatus)



Appendix E



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Long Island Ecological Services Field Office 340 Smith Road Shirley, NY 11967-2258 Phone: (631) 286-0485 Fax: (631) 286-4003



In Reply Refer To: May 10, 2018

Consultation Code: 05E1LI00-2018-SLI-0463

Event Code: 05E1LI00-2018-E-01005

Project Name: South Fork Wind Farm: Onshore Alternative Routes of the South Fork Export

Cable

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office 340 Smith Road Shirley, NY 11967-2258 (631) 286-0485

Project Summary

Consultation Code: 05E1LI00-2018-SLI-0463

Event Code: 05E1LI00-2018-E-01005

Project Name: South Fork Wind Farm: Onshore Alternative Routes of the South Fork

Export Cable

Project Type: POWER GENERATION

Project Description: Proposed offshore wind energy project interconnecting with the Long

Island Power Authority transmission system on Long Island. The SFWF is planned to consist of up to 15 wind turbine generators, a collection system consisting of an offshore substation and inter-array cables, and an export cable from the offshore substation to Long Island, and an onshore cable

from shore to substation.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.970178463142915N72.15672547082693W



Counties: Suffolk, NY

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an
office of the National Oceanic and Atmospheric Administration within the Department of
Commerce.

Mammals

NAME STATUS

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045

Birds

NAME STATUS

Piping Plover Charadrius melodus

Threatened

 $Population: [At lantic \ Coast \ and \ Northern \ Great \ Plains \ populations] \ - \ Wherever \ found, \ except$

those areas where listed as endangered.

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6039

Red Knot Calidris canutus rufa

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864

Roseate Tern Sterna dougallii dougallii

Endangered

Population: northeast U.S. nesting pop.

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083

Flowering Plants

NAME

Sandplain Gerardia Agalinis acuta

Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8128

Seabeach Amaranth Amaranthus pumilus

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8549

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



Appendix F

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

March 19, 2018

David Kennedy VHB 100 Motor Parkway, Suite 135 Hauppauge, NY 11788

Re: Deepwater Wind South Fork Wind Farm and associated transmission line routes

County: Suffolk Town/City: East Hampton

Dear Mr. Kennedy:

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. Note that the offshore waters area of the project has records of **humpback and fin whales**, both state-and federally listed. Also attached are lists of rare species and significant natural communities for Napeague State Park and Hither Hills State Park.

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.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

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, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nicholas Conrad

Information Resources Coordinator New York Natural Heritage Program





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

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

For information about any permit considerations for the project, contact the Permits staff at the NYSDEC Region 1 Office, dep.r1@dec.ny.gov, (631) 444-0365. For information about potential impacts of the project on these species, and how to avoid, minimize, or mitigate any impacts, contact: for whales -- Lisa Bonacci, Marine Endangered Species Biologist, lisa.bonacci@dec.ny.gov, (631) 444-0462.

for other species -- Region 1 Wildlife Manager, (631) 444-0310.

The following species have been documented within .5 mile of the project site.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING FEDERAL LISTING

Birds

2116 **Piping Plover** Charadrius melodus Endangered Threatened

Breeding: at Hither Hills landing site, near Beach Lane landing site, and on Napeague, Amagansett, and East Hampton

Beaches

2003 **Least Tern** Sternula antillarum Threatened

Breeding: near Hither Hills and Beach Lane landing sites, and on Napeague, Amagansett, and East Hampton Beaches

7352 **Northern Harrier** Circus cyaneus Threatened

Breeding: Napeague Meadows, Napeague State Park, Hither Hills State Park, Napeague Harbor

The following marine species have been documented in the offshore waters area of the project site.

FEDERAL LISTING COMMON NAME SCIENTIFIC NAME NY STATE LISTING

15039 **Humpback Whale** Megaptera novaeangliae Endangered Endangered

Nonbreeding

Fin Whale Balaenoptera physalus Endangered Endangered

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, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

> 3/16/2018 Page 1 of 1

15040



Report on Rare Animals, Rare Plants, and Significant Natural Communities

The following rare animals, rare plants, and significant natural communities have been documented at the project route, or within 0.1 mile.

We recommend that potential onsite and offsite 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 animals listed in this report, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state, and are considered rare by the New York Natural Heritage Program.

The plants listed in this report are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and so are a vulnerable natural resource of conservation concern.

The natural communities listed in this report are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

A GIS dataset of significant natural communities is available from the NYS GIS Clearinghouse, www.gis.ny.gov/gisdata/inventories/details.cfm?DSID=1241.

Records in this report are listed approximately in order from west to east.

COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Vicinity of East Hampton Airport

Coastal Barrens Buckmoth Hemileuca maia ssp. 5 Special Concern Imperiled in NYS

and Globally Uncommon

1983-fall: The moths were observed in pine oak barrens disturbed by development.

Vicinity of East Hampton Airport, the railroad to the south, Hedges Lane, Stephen Hands Path, and Wainscott Northwest Road

Pitch Pine-Oak Forest High Quality Occurrence

Along Skimhampton Road, just east of intersection with Pantigo Road in Pantigo

Southern Arrowwood Viburnum dentatum Threatened Imperiled in NYS

var. venosum

1992-07-19

Amagansett: Near Old Stone Highway and Town Lane

Nine-spotted Lady Beetle Coccinella novemnotata Unlisted Critically Imperiled in NYS and Globally Rare

2011-08-16: The lady beetles were found on an organic farm.

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COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Along Cranberry Hole Road just northeast of intersection with Montauk Highway and railroad, west of Napeague State Park

Northern Blazing-star Liatris scariosa Threatened Imperiled in NYS

var. novae-angliae and Globally Uncommon

2010-09-21: The plants are growing in maritime heathland along the roadside.

Near Montauk Highway, in western part of Napeague State Park

Slender Blue Flag Iris prismatica Threatened Imperiled in NYS

2016-08-08: The plants are growing in brackish and freshwater wetlands dominated by Juncus and Scirpus, and in a sea level fen.

Curlygrass Fern Schizaea pusilla Endangered Critically Imperiled in NYS

2004-06-23: The plants are in a low wet swale running roughly east to west bordered by shrubs and a dry pine-oak woods upland.

Napeague State Park: Along Montauk Highway and railroad through most of the park

Northern Blazing-star

Liatris scariosa
var. novae-angliae

Threatened
Imperiled in NYS
and Globally Uncommon

2009-09-14: The plants were observed in a sandy, dry, and fairly undisturbed roadside and herbaceous edge of scrubby pine/oak woods; and in patches of maritime heathland surrounded by salt marsh. A railroad line passes nearby some of the locations.

Maritime Pitch Pine Dune Woodland

Maritime Heathland

High Quality Occurrence of Rare Community Type and Globally Rare

This is a very large maritime pitch pine dune woodland with very good condition, with few disturbances outside of the natural processes (such as sand movement and salt spray), and within a moderately intact landscape.

γ.....,

and Globally Uncommon

This is an expansive example of maritime heathland in a good landscape setting and part of a 1700 acre natural area.

Maritime Freshwater Interdunal Swales

High Quality Occurrence of Rare Community Type

High Quality Occurrence of Rare Community Type

This is a large, relatively intact community comprised of many patches within a large natural area. Most patches are of excellent quality and high diversity, surrounded by high-quality natural communities. Other patches have been more impacted by past land use, off-road vehicles, and encroachment by non-native species that alter structure and composition.

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COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Along Old Montauk Highway just northwest of intersection with Montauk Highway, between Montauk Highway and railroad

Slender Blue Flag Iris prismatica Threatened Imperiled in NYS

2010-06-02: The plants are in a roadside ditch next to natural vegetation in maritime shrubland.

Napeague State Park: south of Napeague Harbor, between Montauk Highway and railroad, and/or along railroad

Northern Blazing-star Liatris scariosa Threatened Imperiled in NYS

var. novae-angliae and Globally Uncommon

2009-09-13: The plants are growing in patches of maritime heathland surrounded by salt marsh. The marsh is part of a larger complex of salt marsh, brackish meadow, maritime dunes, and maritime heathland communities.

Narrow-leaf Sea-blite Suaeda linearis Endangered Critically Imperiled in NYS

2009-09-13: The plants are growing along the edge of a high salt marsh. The marsh is part of a larger complex of salt marsh, brackish meadow, maritime dunes, and maritime heathland communities. A railroad line passes nearby the site.

Sea-pink Sabatia stellaris Threatened Imperiled in NYS

2009-09-13: The plants are growing along the edge of a high salt marsh. The marsh is part of a larger complex of salt marsh, brackish meadow, maritime dunes, and maritime heathland communities. A railroad line passes nearby the site.

Seaside Plantain Plantago maritima Threatened Imperiled in NYS var. juncoides

2009-09-13: The plants are growing along the edge of a high salt marsh. The marsh is part of a larger complex of salt marsh, brackish meadow, maritime dunes, and maritime heathland communities. A railroad line passes nearby the site.

Coast Flatsedge Cyperus polystachyos Endangered Critically Imperiled in NYS var. texensis

2009-09: The plants are growing along a sand road and in a brackish meadow at the edge of sparsely vegetated high marsh.

Dwarf Glasswort Salicornia bigelovii Threatened Imperiled in NYS

2009-09-13: The plants are growing along the sandy edge of a high salt marsh. The marsh is part of a larger complex of salt marsh, brackish meadow, maritime dunes, and maritime heathland communities. A railroad line passes near the site

High Salt Marsh

High Quality Occurrence of Uncommon Community Type

This community is of moderate size, with good species composition and structure and connection to other estuarine communities. It is located within a fairly large area of natural cover, intersected by several roads and small developments.

Maritime Dunes High Quality Occurrence of Uncommon Community Type

This is a large example in a good landscape setting and part of a managed natural area.

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COMMON NAME SCIENTIFIC NAME NY STATE LISTING HERITAGE CONSERVATION STATUS

Along Montauk Highway between Napeague State Park and Hither Hills State Park

Southern Arrowwood Viburnum dentatum Threatened Imperiled in NYS

var. venosum

2003-07-30: The plant was in a shrubland along the highway.

Sandplain Wild Flax Linum intercursum Threatened Imperiled in NYS

1985-10-10: Low stabilized dunes with interdunal swales and a salt marsh to the north. The habitat is unusual and the species is not usually seen in dune sand.

Hither Hills State Park: Along Montauk Highway and Old Montauk Highway

Southern Arrowwood Viburnum dentatum Threatened Imperiled in NYS

var. venosum

2003-07-30: A maritime shrubland located at the edges of a roadside. The soil is sandy and well-drained.

Blunt Mountain-mint Pycnanthemum muticum Threatened Imperiled in NYS

2009-09-13: The population is located along a highway roadside and along the edges of interdunal swales. The plants are growing in the open, densely vegetated bands between the road and the wet interdunal swales. The swales are surrounded by wet coastal maritime shrubland and a maritime dune system.

Serrate Round-leaf Boneset Eupatorium pubescens Endangered Critically Imperiled in NYS

2009-09-13: The plants are growing in an open, densely vegetated band between the road and a wet interdunal swale, and in the transition zone between the swale and the maritime dunes.

Maritime Freshwater Interdunal Swales

High Quality Occurrence of Rare Community Type

This is a moderately large community, with high representative diversity, nearby and adjacent transportation corridors and frequent occurrence of non-native species (primarily *Phragmites*), in a relatively intact natural landscape.

Maritime Pitch Pine Dune Woodland

High Quality Occurrence of Rare Community Type and Globally Rare

This is a large maritime pitch pine dune woodland in very good condition, with little disturbance, natural processes, unbisected by roads, and in a moderate-size intact landscape block.

Maritime Dunes

High Quality Occurrence of Uncommon Community Type

This is a large maritime dune community with representative native species, in a relatively intact regional landscape. Some trail use and off-road vehicle use occur in the dunes and the non-native *Phragmites* is frequent in some areas.

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Hither Hills State Park: Near Montauk Highway

Coastal Oak-Hickory Forest

High Quality Occurrence of Uncommon Community Type

This is a moderate-size to large, mature and recovering intact forest, with little disturbance, in a regionally intact landscape.

Hither Hills State Park: At or near Hither Hills landing site, and along Napeague Beach

Seabeach Amaranth

Amaranthus pumilus

Threatened

Vulnerable in NYS

and Federally Listed as Threatened

and Globally Uncommon

2008: A maritime beach.

Seabeach Knotweed Polygonum glaucum Rare Vulnerable in NYS

and Globally Uncommon

2003: A maritime beach.

Marine Intertidal Gravel/Sand Beach

High Quality Occurrence of Uncommon Community Type

This is a large marine intertidal beach with intact natural natural processes of tides, waves, and winds, embedded in a landscape of mixed natural and somewhat altered habitats.

In addition to the species and communities listed here, many others occur at Napeague State Park and Hither Hills State Park; a full list is provided in a separate document.

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, from NatureServe Explorer at 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. For descriptions of all community types, go to www.dec.ny.gov/animals/97703.html for Ecological Communities of New York State.

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Appendix G



To: Ms. Melanie Gearon
Deepwater Wind South Fork, LLC
56 Exchange Terrace, Suite 300
Providence, RI 02903-1772

Date: May 23, 2018

Project #: 29137.05 – South Fork Export Cable – Onshore Study Area

Re: Biological Resource Survey

From: David Kennedy, M.S.
Project Scientist

of Alternative Project Components

VHB Engineering, Surveying and Landscape Architecture, P.C. (VHB) has prepared this memorandum to provide a summary of biological resources observed during field surveys of alternative project components for the terrestrial portion of the South Fork Export Cable (SFEC–Onshore), in East Hampton, NY. This summary is intended as a supplement to VHB's May 2018 SFEC-Onshore Biological Resources Report.

The biological resources summarized in this memorandum include wetlands and surface waters, rare/protected species and invasive species. Biological resource field surveys were conducted between May and September of 2017 for seven project components, including three alternative landing sites and four associated corridor routes connecting to the proposed Cove Hollow Road Substation site (see Figure 1). The project components are summarized as follows:

- Napeague Lane Landing Site: An approximately 0.7-acre area at the southern terminus of Napeague Lane at the Atlantic Ocean.
- Fresh Pond Landing Site: An approximately 1.8-acre area at the northern terminus of Fresh Pond Road, in the western portion of Gardiners Bay within the Fresh Pond Town Park.
- Napeague State Park Landing Site: An approximately 1.9-acre area within Napeague State Park on the eastern side of Gardiners Bay.
- Fresh Pond Route A (6.87 miles).
- Fresh Pond Route B (9.58 miles).
- Napeague State Park Route A (8.52 miles).
- ➤ Napeague State Park Route B (8.32 miles).

A summary of the biological resources observed during the field surveys within the project components described above is provided on Table 1.

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Table 1 – Summary of Biological Resources Observations

Project Component	Delineated Wetlands	Rare/Protected Species Observations	Invasive Species Occurrences
Fresh Pond Landing Site (area: 1.8 acre)	1 TW	0	0
Fresh Pond – Route A (length: 6.87 miles)	4 FW	0	51
Fresh Pond – Route B (length: 9.58 miles)	1 FW	0	35
Napeague State Park Landing Site (area: 1.9 acres)	1TW	1	5
Napeague State Park - Route A (length: 8.52 miles)	11 FW	4	71
Napeague State Park - Route B (length: 8.32 miles)	2 FW	4	27
Napeague Lane Landing Site (area: 0.7 acre)	1 TW	2	0

Key: TW = tidal wetland, FW = freshwater wetland,

As shown on Table 1, tidal wetlands of Napeague Bay or the Atlantic Ocean occur at each of the three landing sites. Freshwater wetlands occur within the four corridor routes, with the highest number occurring within Napeague State Park - Route A (14) and the least within Fresh Pond – Route B.

The New York State Rare plant species Seabeach Knotweed (*Polygonum glaucum*) was observed at the Napeague State Park Landing Site. The four rare/protected species observations within Napeague State Park - Routes A and B were for the New York State threatened plant species Northern Blazing Star (*Liatris scariosa* var. *novae-angliae*), Southern Arrowwood (*Viburnum dentatum* var. *venosum*) and the New York State Endangered plant species Carolina Clubmoss (*Pseudolycopodiella caroliniana*). Two rare/protected species observations occurred at and in the vicinity of the Napeague Lane Landing Site. The two observations were for the New York State Threatened avian species

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Common Tern (*sterna hirundo*) and for a Piping Plover (*Charadrius melodus*)/Least Tern (*Sternula antillarum*) nesting area (as designated by the Town of East Hampton and USFWS) located approximately 2,000 feet to the east of the landing site. Piping Plover is listed as Threatened by the federal government and New York State and Least Tern is listed as Threatened in New York State.

Multiple invasive species occurrences were observed within the four corridor routes, with the highest number of occurrences at Napeague State Park - Route A (71) and the least at Napeague State Park - Route B (27). Five invasive species occurrences were observed at the Napeague State Park Landing Site.

