



Appendix B - REFERENCE MAPS

Map 1- Elevation with Shaded Relief- Elevation refers to the height of land in relation to sea level. While Long Island is perceived as relatively flat, there is significant variation in elevations across the county. The characteristics of the county's landform speak to our geologic history including morainal ridges with elevations in excess of 300 feet extending longitudinally along the spine of the island to gently sloping outwash plains extending to the south shore bays. The morainal ridges are apparent on the map in the orange and reddish colors. The outwash plains are to the south in darkening shades of green representing lower elevations.

The map also makes clear the numerous rivers and streams that drain the upland areas. A clear example is the Nissequogue River in the Town of Smithtown where a significant portion of the town is within the watershed of the river. The river drains into Long Island Sound to the north, a federally designated estuary. Similarly, streams and rivers drain other parts of the county to adjacent estuaries including the South Shore Estuary and the Peconic Estuary.

The map makes clear the physical structure of the county and serves as a useful base of understanding for other information that will be presented in the plan.

Map 2- Hydrogeologic Zones- The Long Island Comprehensive Waste Treatment Management Plan (Koppelman, 1978), also known as the "208" study based on the funding source reference, identified eight distinct groundwater management zones in the county. The zones are areas where rainwater drains into the ground forming underground reservoirs that are located at differing depths. These include the Upper Glacial, Magothy and Lloyd aquifers (in order of depth). According to the 208 study, the major patterns of

groundwater flow are such that the region's deep groundwater reservoirs are mainly replenished of a broad area in the central part of the bi-county region. Recharge water entering this central area affects the quality of the middle and lower supply.

Groundwater flow can be generally described as either vertical or horizontal. Deep flow zones are primarily vertical recharge areas that transport water to the deeper Magothy and Lloyd aquifers. Horizontal flow generally moves towards coastal areas and other surface water bodies such as rivers and streams. Accordingly, groundwater affects both drinking water and surface water quality.

Zones I, II, III encompass the deep flow zones in the county. The zones are depicted on the map and are described as follows:

Zone I – Covers areas characterized by a deep flow system which generally contribute water to the middle and lower portions of the Magothy aquifer. This zone is a primary source of drinking water.

Zone II – This zone only affects a small part of the county at the border with Nassau County. It is a deep flow zone.

Zone III – The zone encompasses the central part of the county and is a significant deep flow recharge water supply source. The zone encompasses much of the Central Pine Barrens.

Zone IV – This zone comprises the North Fork and the eastern part of the South Fork. It is an area with a history of groundwater problems due to intensive agricultural activities and limited aquifer size.

Zone V – This zone composes the southwestern portion of the South Fork not included in Zone IV. It differs from Zone IV only in the smaller amount of agricultural activities.

Zone VI – Is that portion of the groundwater system that discharges to Moriches Bay and the eastern portion of Great South Bay.

Zone VII – The zone includes large portions of Babylon and Islip towns. It contributes water only to the shallow groundwater flow system which discharges to streams and bays and has more of a direct impact on these surface waters.

Zone VIII – Encompassing the North Shore area of the towns of Huntington, Smithtown and Brookhaven, this is also a shallow groundwater flow system.

Map 3- Municipalities: Towns and Villages- Local municipal government in Suffolk County is divided into ten towns and 33 villages. The map depicts each of these entities and their geographic boundaries. Suffolk County contains no cities.

In New York State, towns and villages have authority to plan and regulate land use. Many of the towns and villages have local plans and all have some level of land use regulation including zoning, subdivision and building permit authority. One function of the Suffolk County Planning Commission is to consider the intermunicipal aspects of development applications, an important task considering the high number of municipalities at the local level.

The largest town (geographic and population) is Brookhaven with about 491,000. The smallest is Deering Harbor with 15 year round

residents. The Town of Riverhead is the only town without a village within its boundaries.

Map 4- Census Designated Places, 2000- Many residents of Suffolk County identify with their immediate community for their identification of place. Suffolk County contains over 150 distinct communities as identified by the United States Census Bureau. These range from the villages of Amityville and Lloyd Harbor to the west and Montauk hamlet and Fishers Island to the east.

Map 5- Schools and School Districts- Suffolk County has 69 separate school districts. These are depicted by name and geographic boundary. Brookhaven town contains all or part of 17 districts while almost all of the Town of Riverhead is encompassed in one district with small portions of two other districts touching the town. Also depicted on the map are the locations of individual schools (shown with small flags).

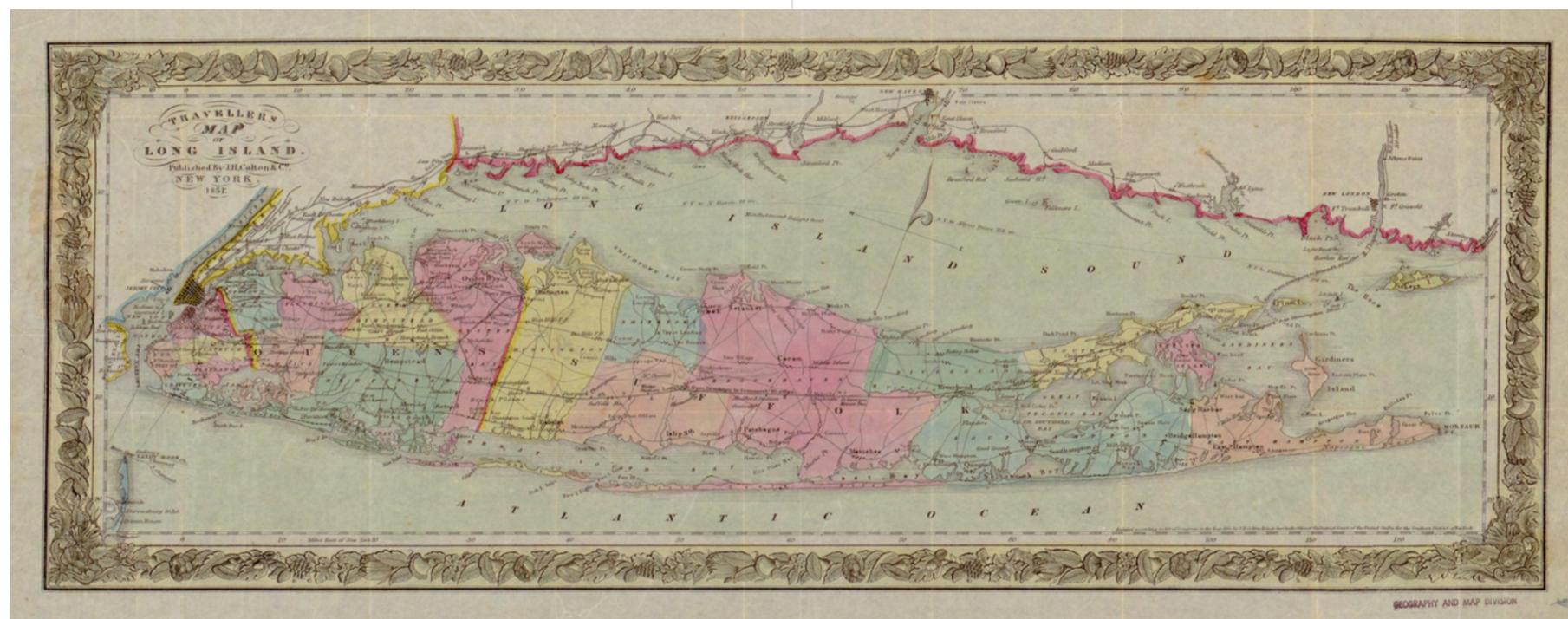
Map 6- Population Density- 2000- While Suffolk County has an average population density of 1600 persons per square mile, the actual density varies considerably throughout the county. The map indicates higher densities with darker tones and lighter densities with lighter tones. It is clear to see that higher densities are located in the western portions of the county while lighter densities generally extend from the center to the East End.

Map 7- Population Change 1990- 2000 – This map depicts the changes in population that occurred from 1990 to 2000. The largest changes (expressed as a percentage) are in the dark brown tones and extend from 15.1% to 108.6%. The green tones are census designated places where the population declined. Although some western towns had census designated places with population increases (some very

significant), most of the increases occurred in the central and eastern portions of the county.

Map 8- Transportation- Mobility in Suffolk County is accomplished by a transportation system that includes roads and highways, commuter and freight rail, interstate and intrastate ferries, and aviation facilities. Much of the land-based network is oriented in an east west direction representing the Island's geography and connection to New York City and the continental U.S. The only federal highway is the Long Island Expressway (Interstate 495). There are many State highways including the Northern and Southern State

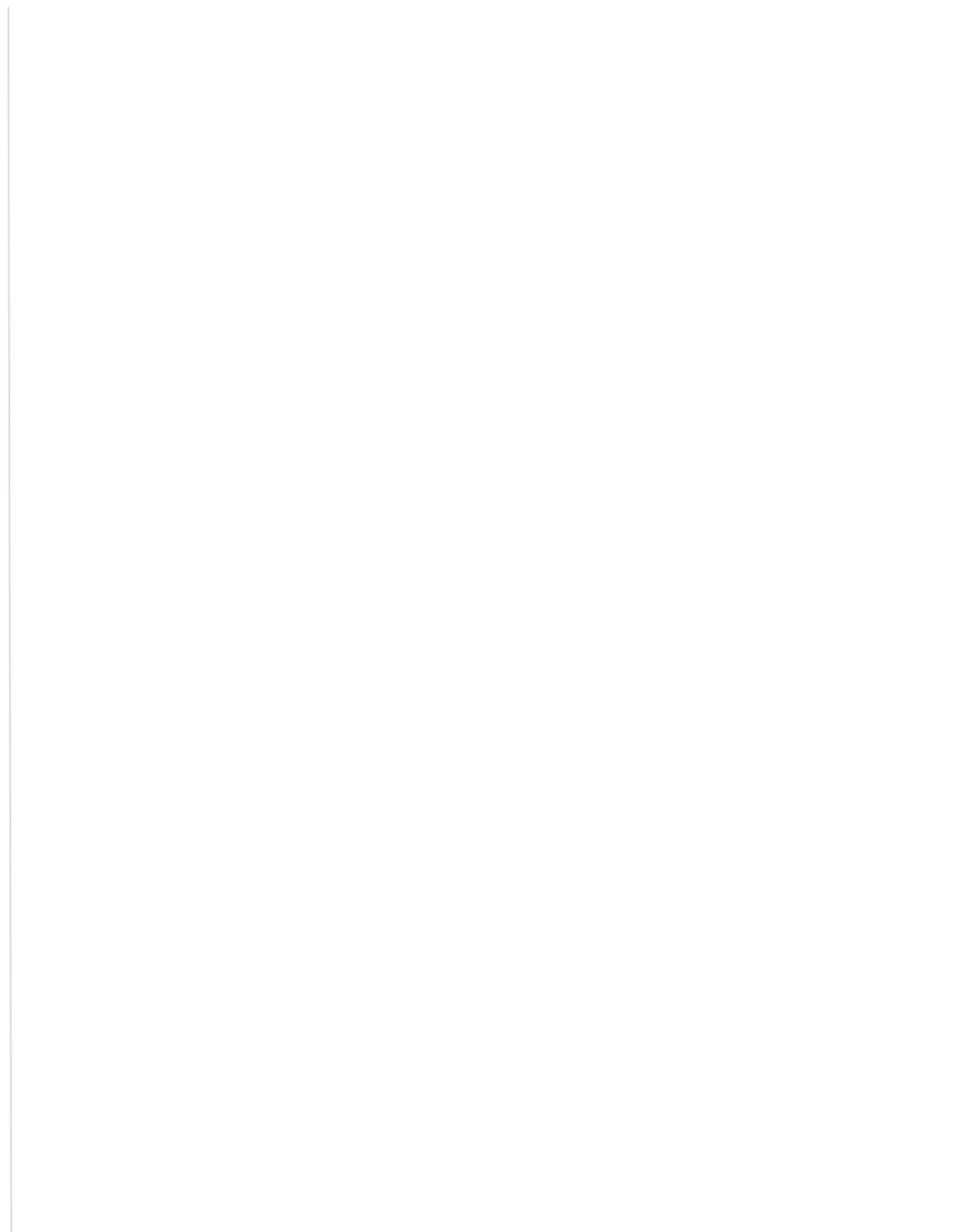
Parkways, Sunrise Highway, Nesconset Highway, parts of Montauk Highway and routes 110- 114 that provide north- south connections. County Roads are numerous and include Nichols Road, William Floyd Parkway, Motor Parkway, C.R. 39 to the South Fork, C.R. 48 to the North Fork, among others. Aviation facilities are primarily for general aviation purposes. Scheduled commercial services are available at Long Island MacArthur Airport while most other national and all international services are accommodated by facilities in the New York Metropolitan area.



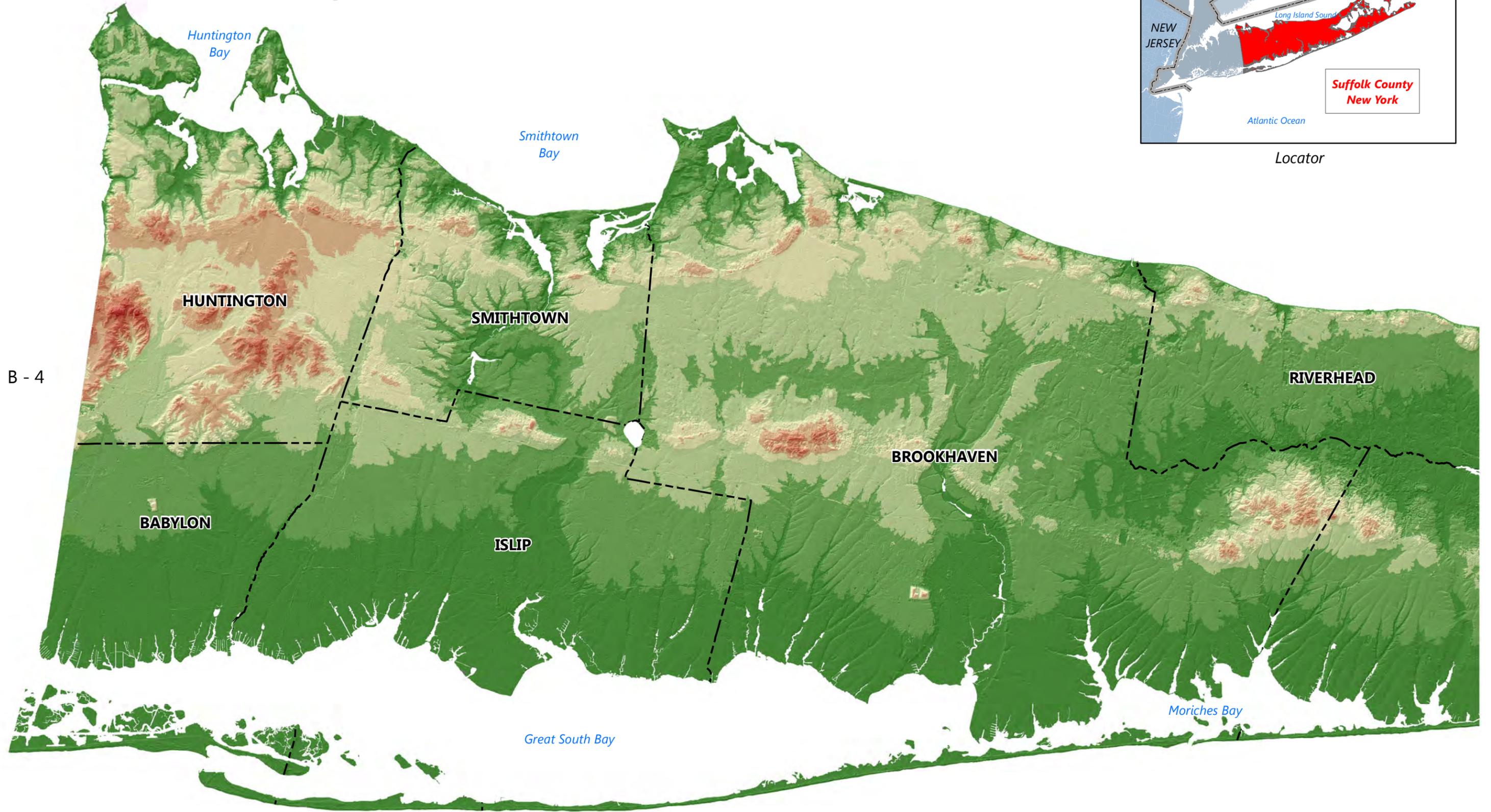
1857 Travellers Map of Long Island

Source: Library of Congress Geography and Map Division Washington, D.C. 20540-4650 USA . New York : J.H. Colton & Co., 1857, c1855

Map -1 ELEVATION WITH SHADED RELIEF

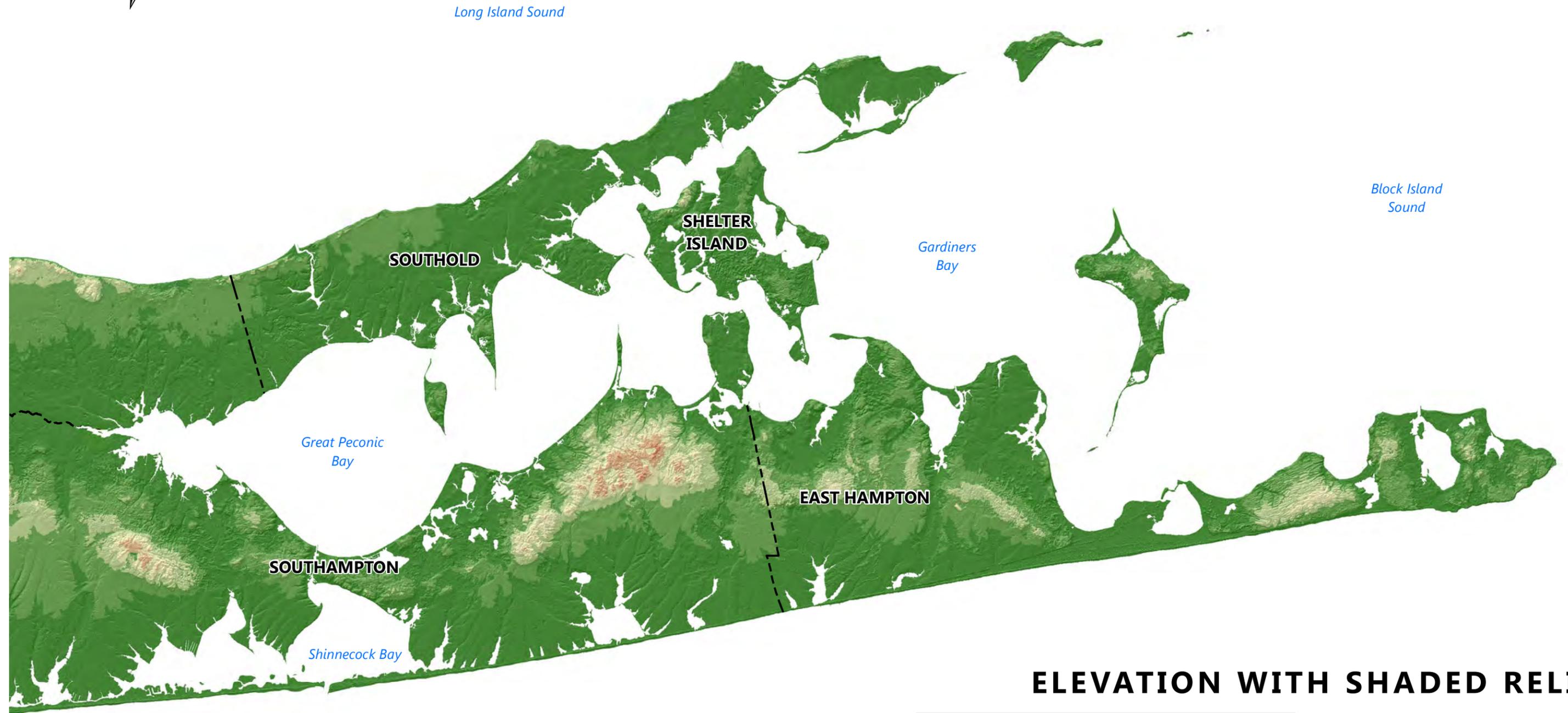


SUFFOLK COUNTY, NEW YORK



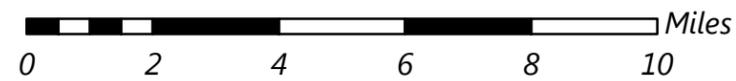
B - 4

1 in = 2.9 miles



B-5

ELEVATION WITH SHADED RELIEF

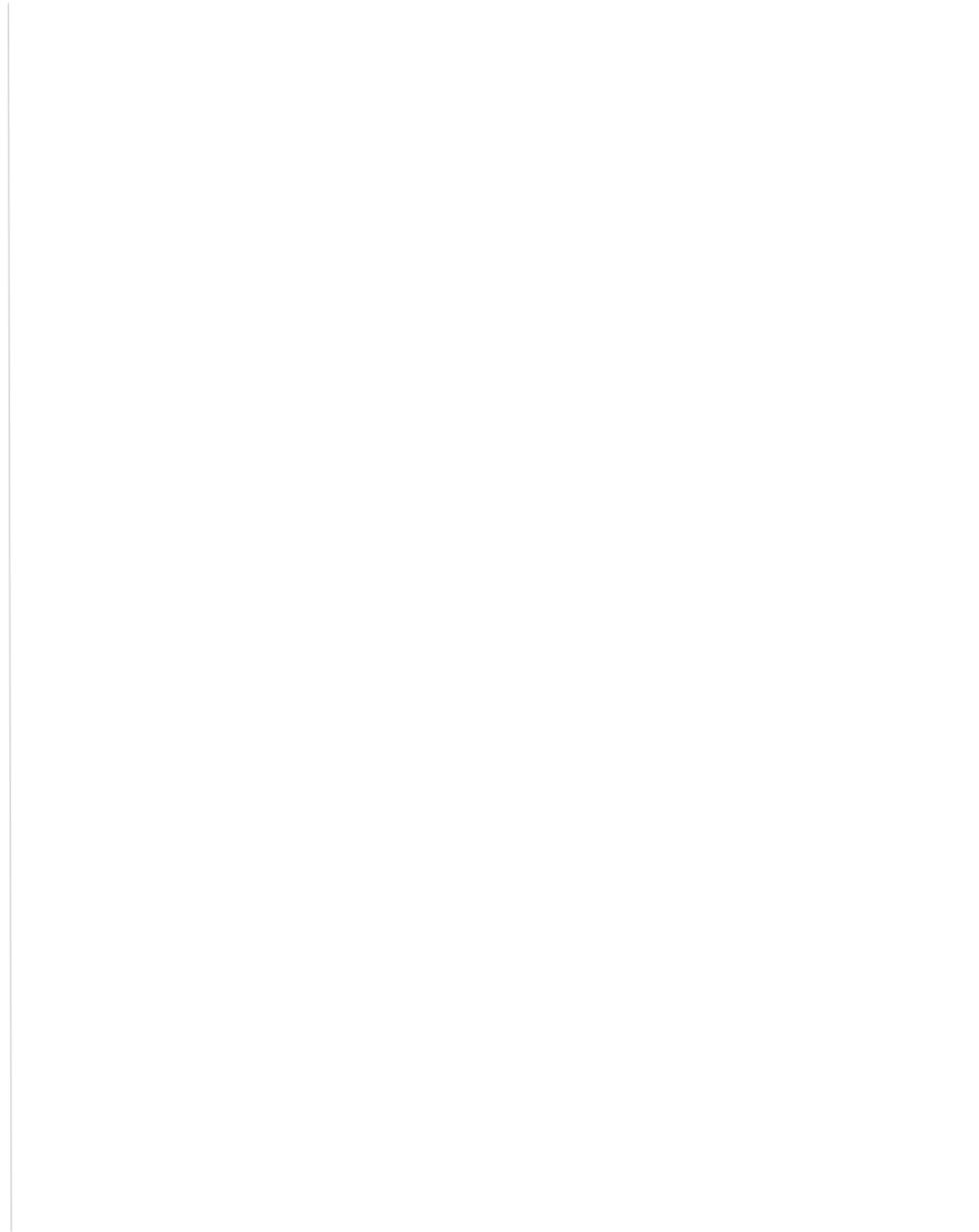


Legend				
Elevation, feet		100.1 - 150		250.1 - 300
		under 50		300.1 - 350
		50.1 - 100		200.1 - 250
		150.1 - 200		350.1 - 398

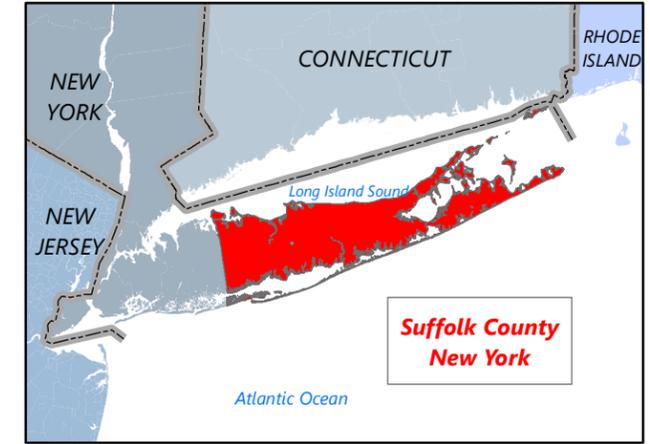
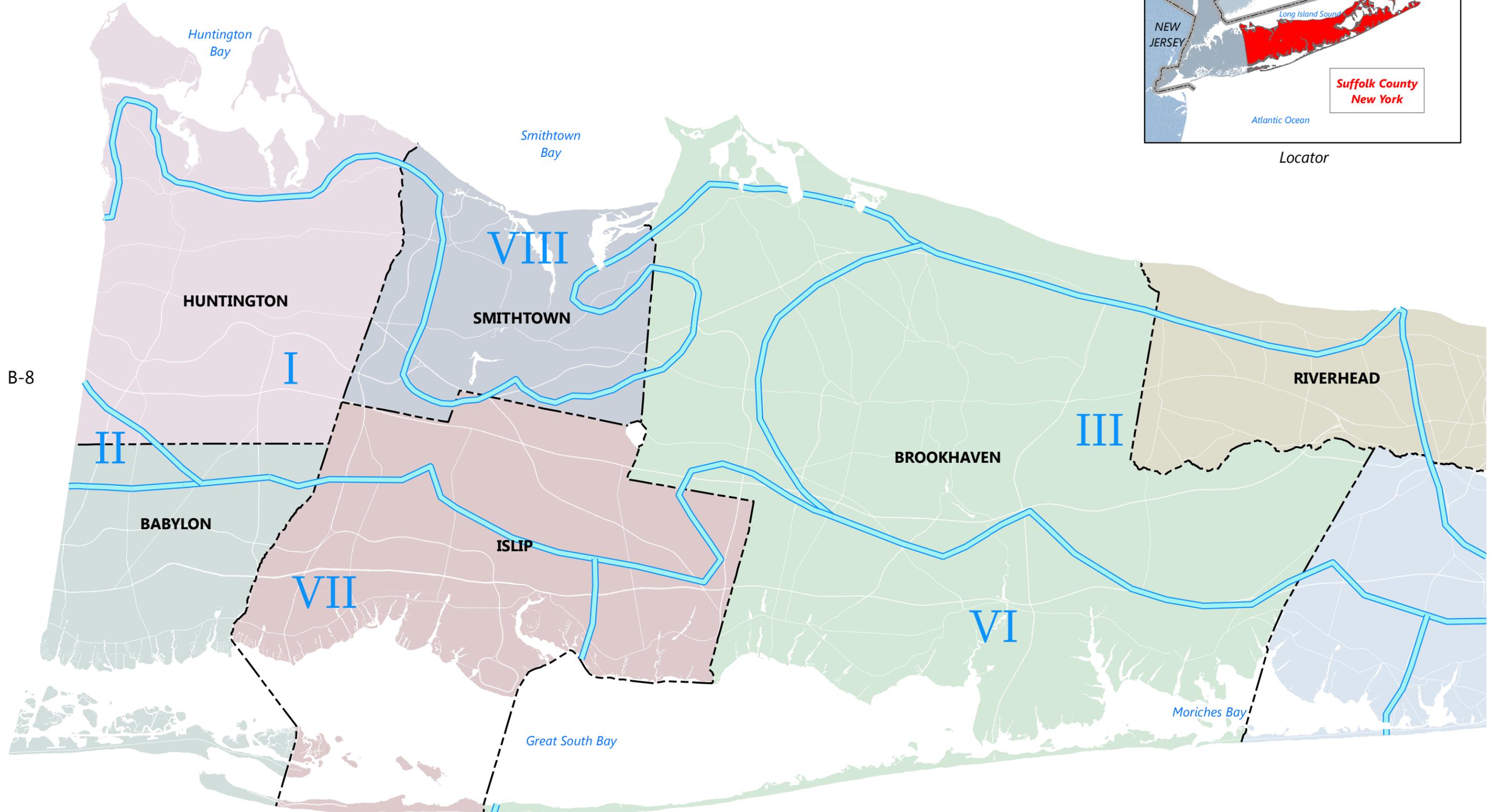




Map -2 HYDROGEOLOGIC ZONES



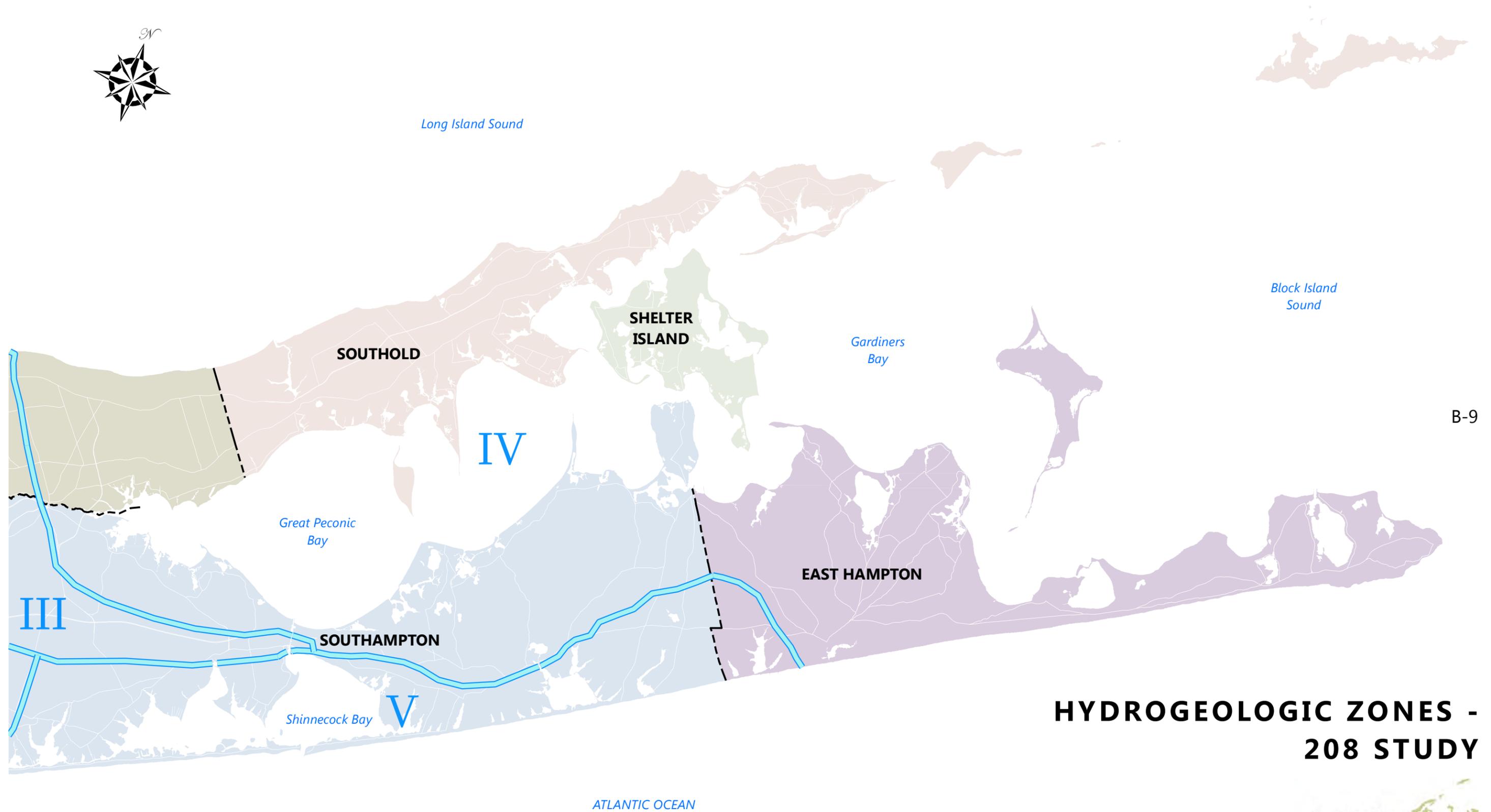
SUFFOLK COUNTY, NEW YORK



Locator

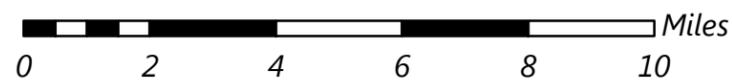
B-8

1 in = 2.9 miles



B-9

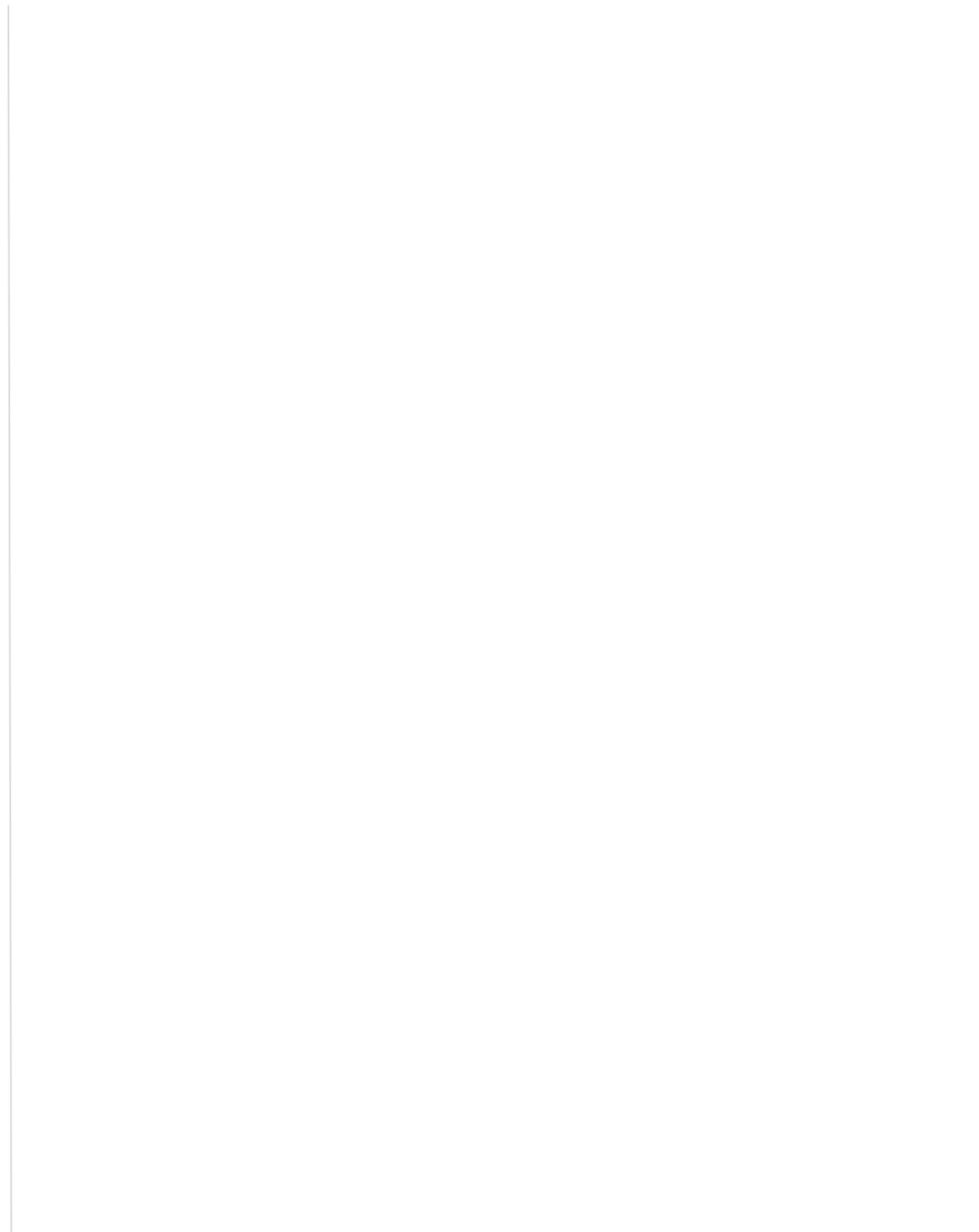
HYDROGEOLOGIC ZONES - 208 STUDY



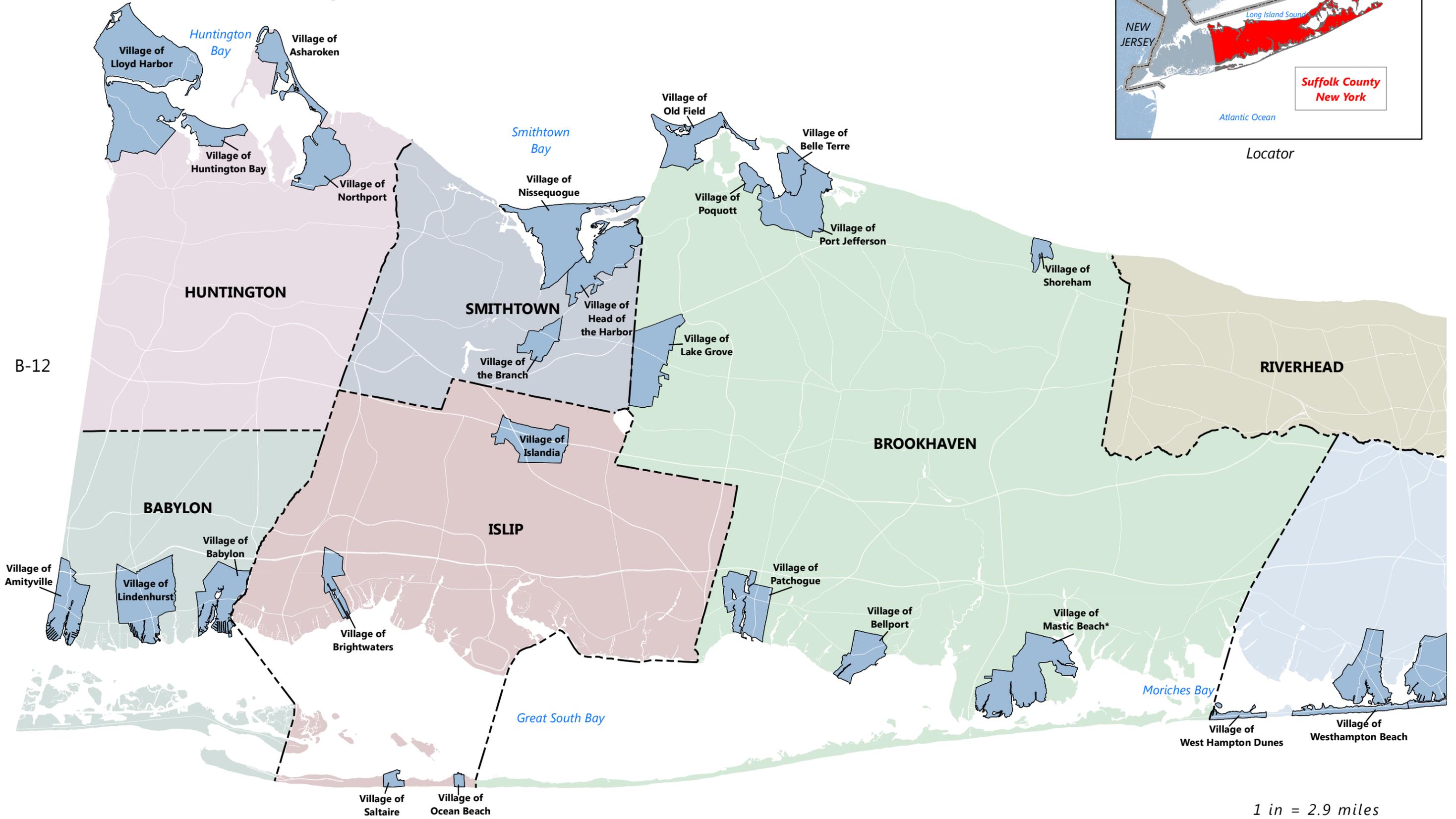


--	--

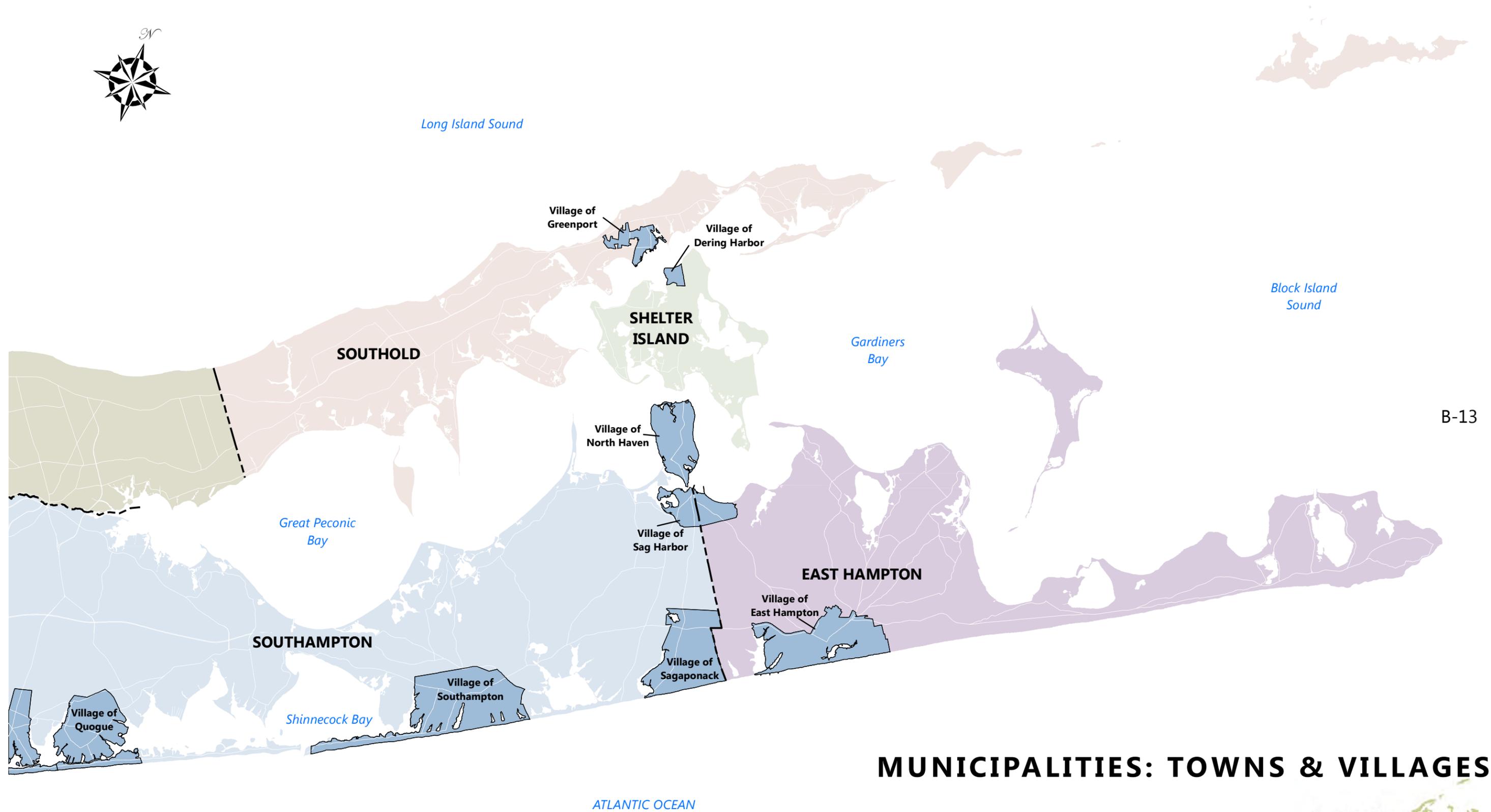
MAP -3 MUNICIPALITIES: TOWNS AND VILLAGES



SUFFOLK COUNTY, NEW YORK

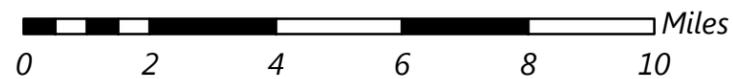


1 in = 2.9 miles



B-13

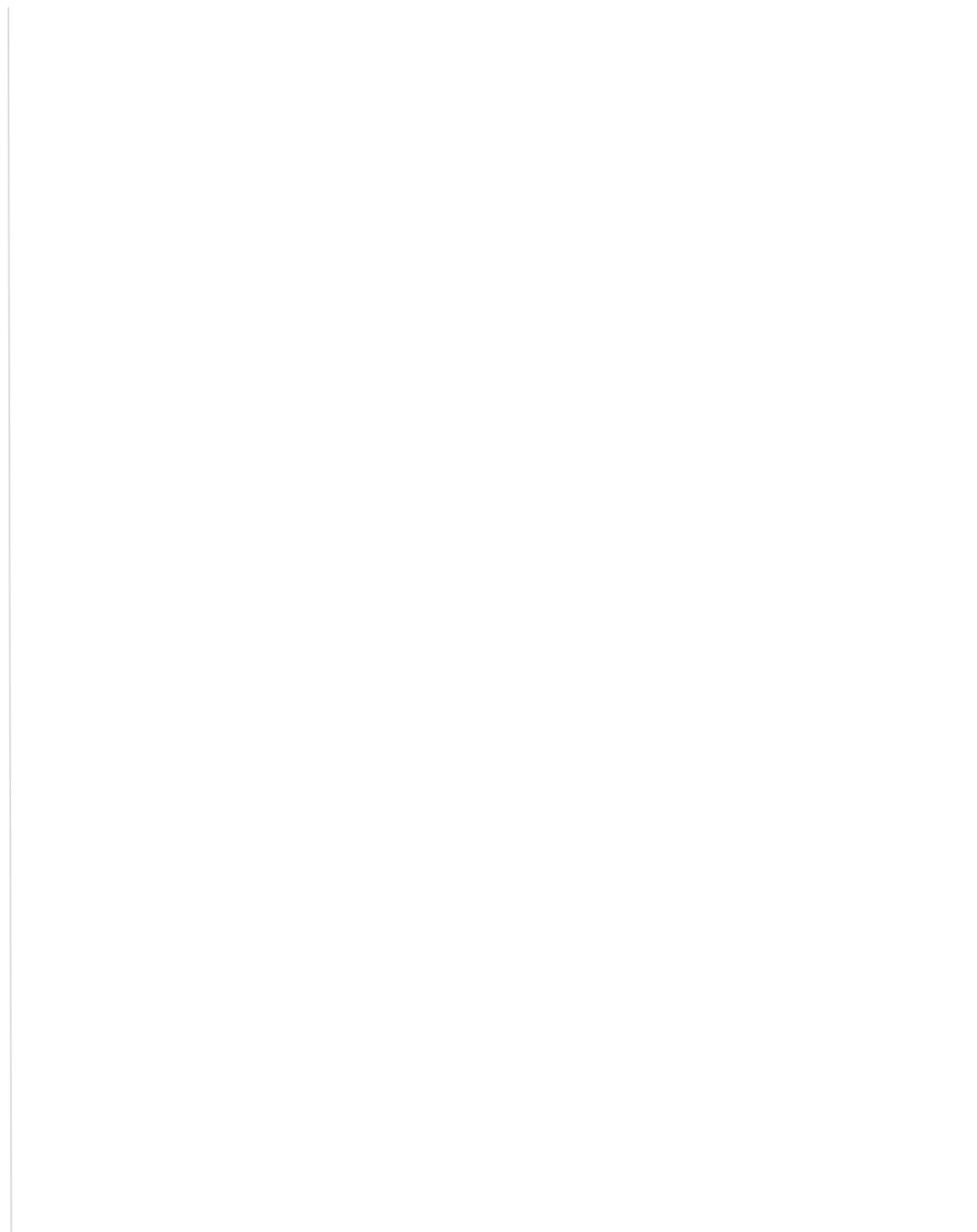
MUNICIPALITIES: TOWNS & VILLAGES



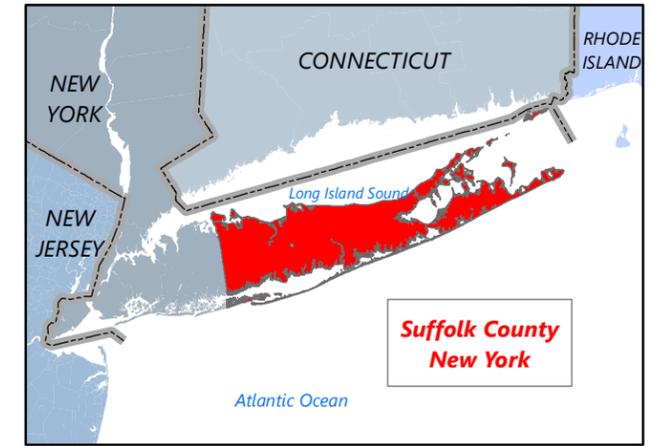


--	--

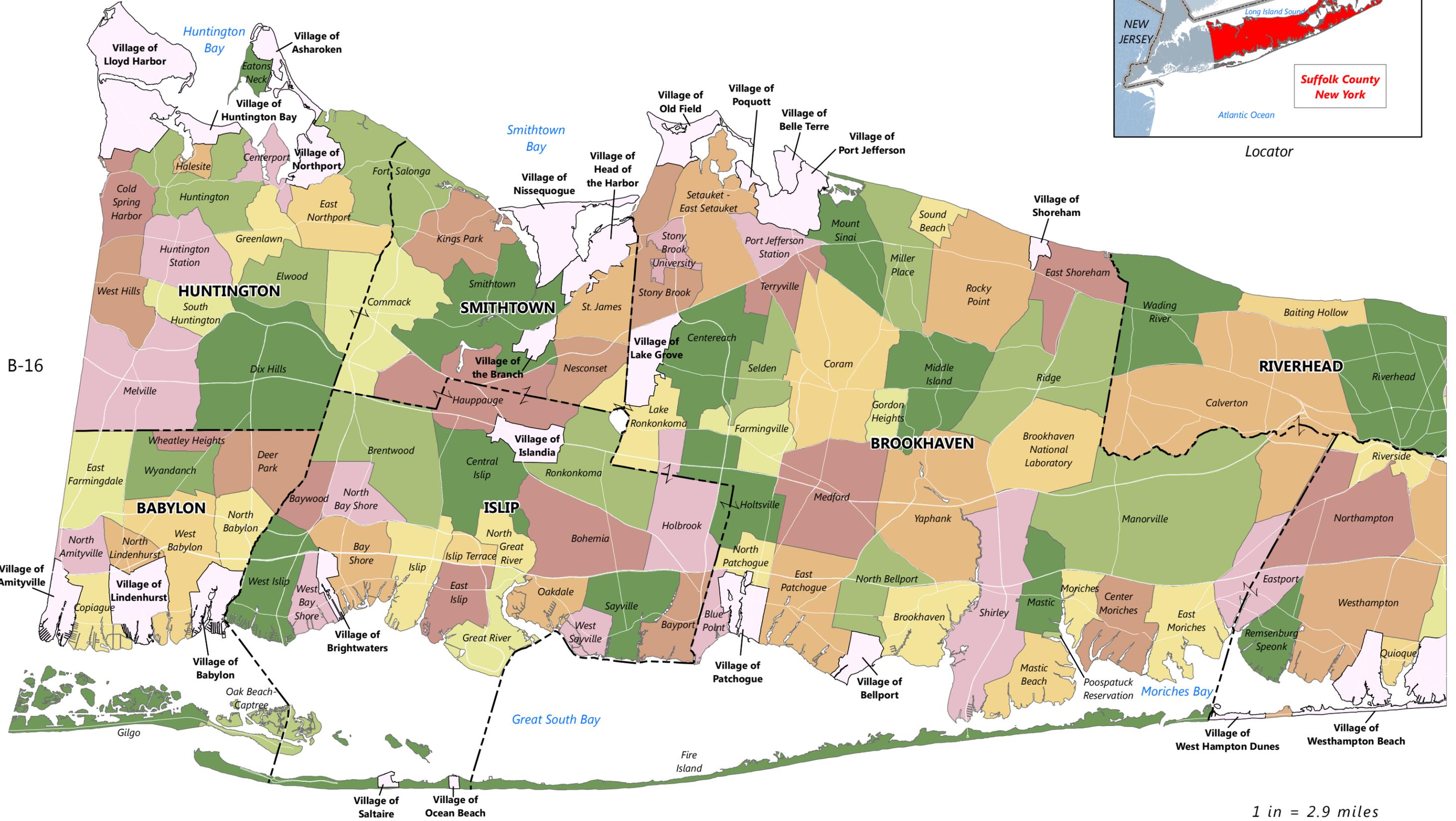
Map -4 CENSUS DESIGNATED PLACES, 2010



SUFFOLK COUNTY, NEW YORK

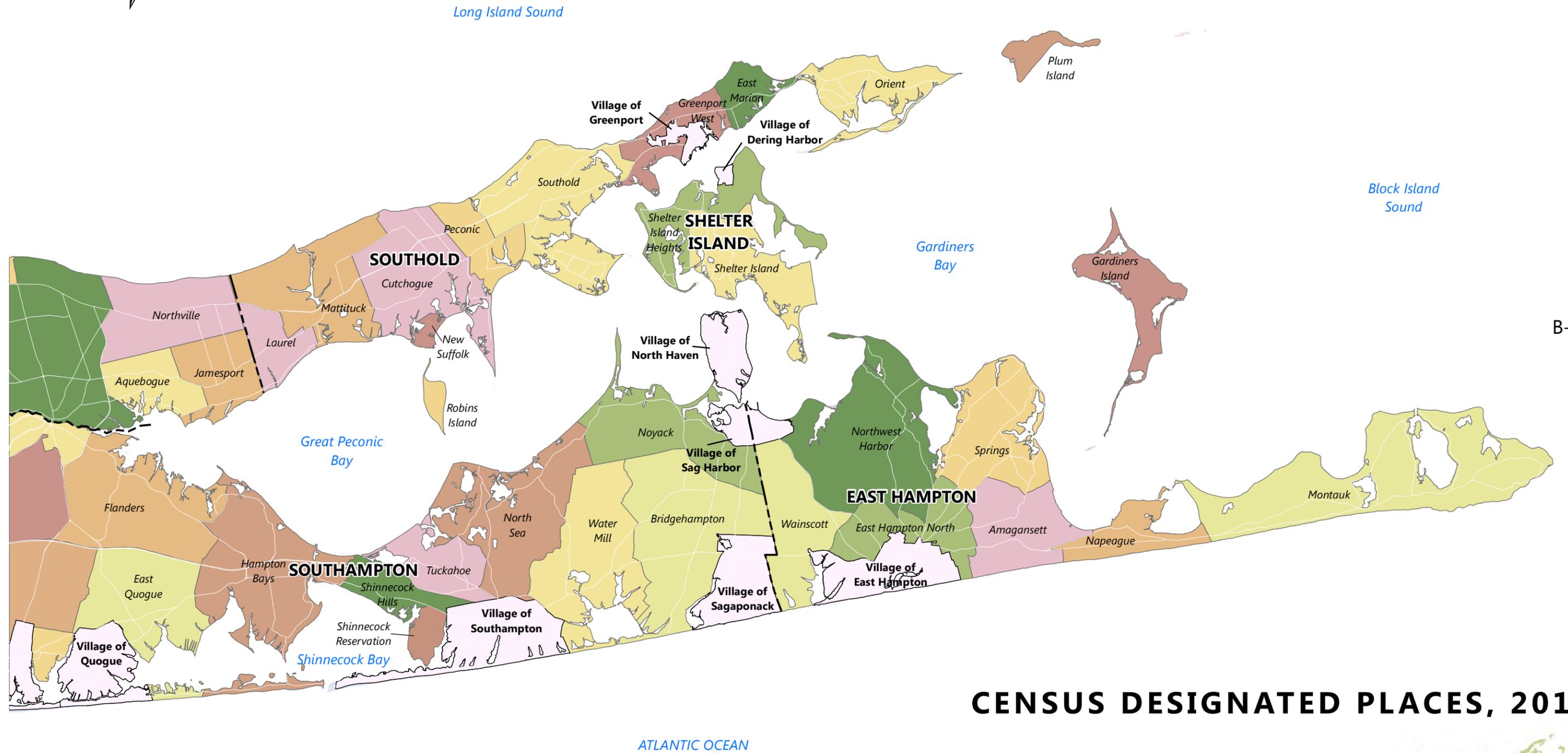


Locator



B-16

1 in = 2.9 miles



B-17

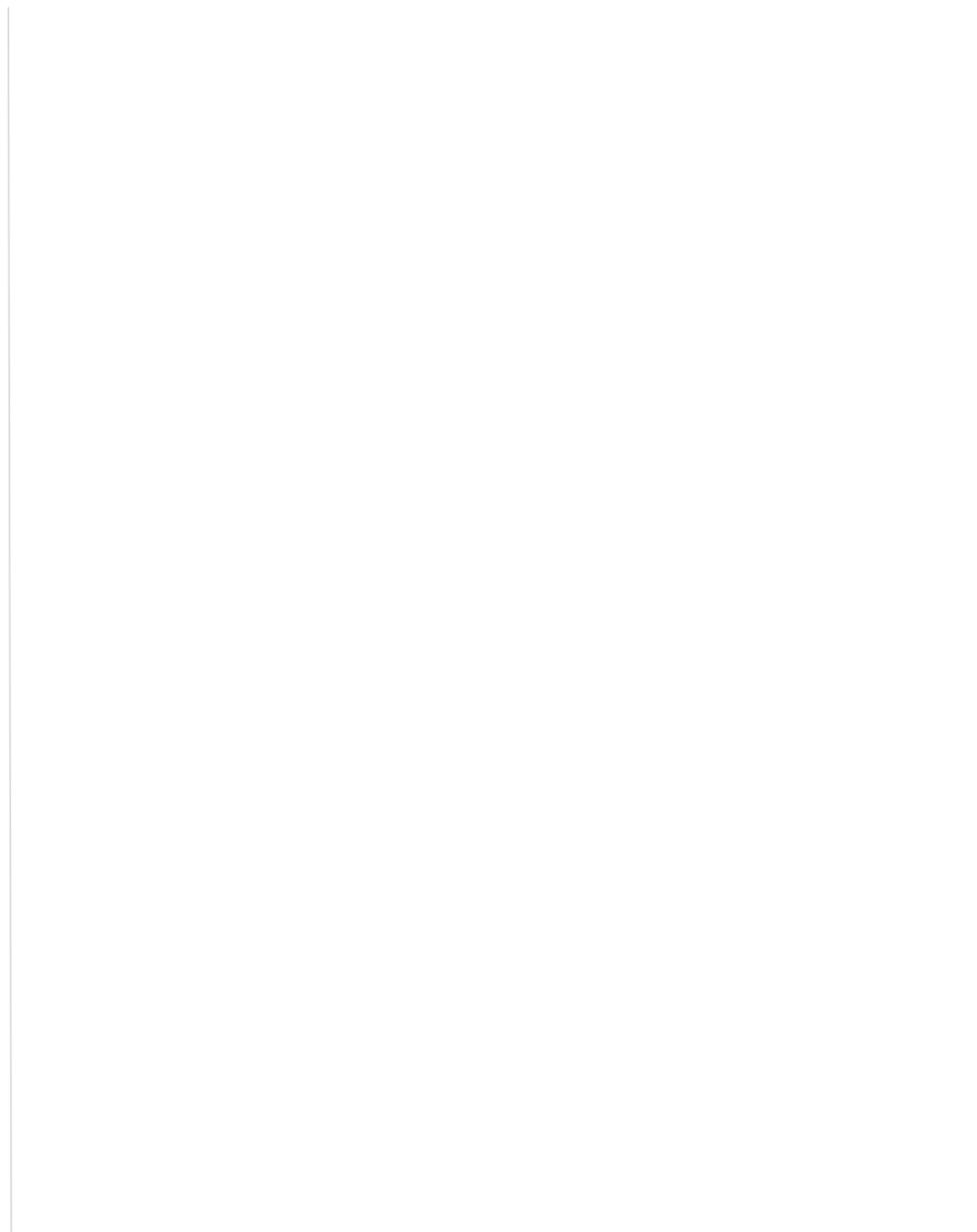
CENSUS DESIGNATED PLACES, 2010



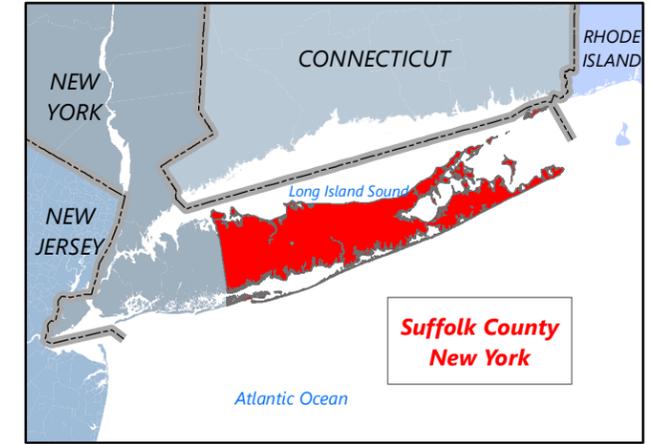


--	--

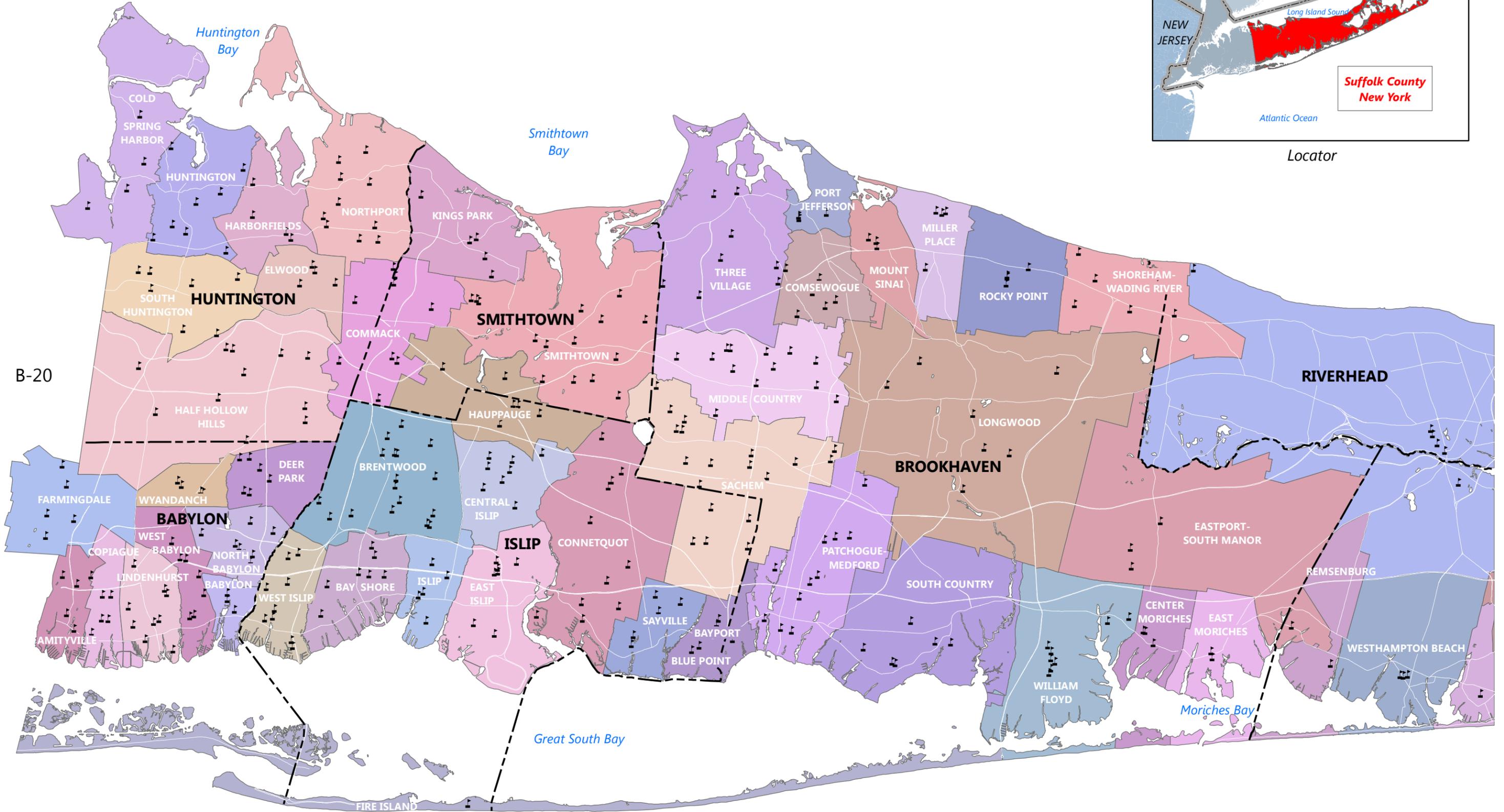
Map -5 SCHOOLS AND SCHOOL DISTRICTS



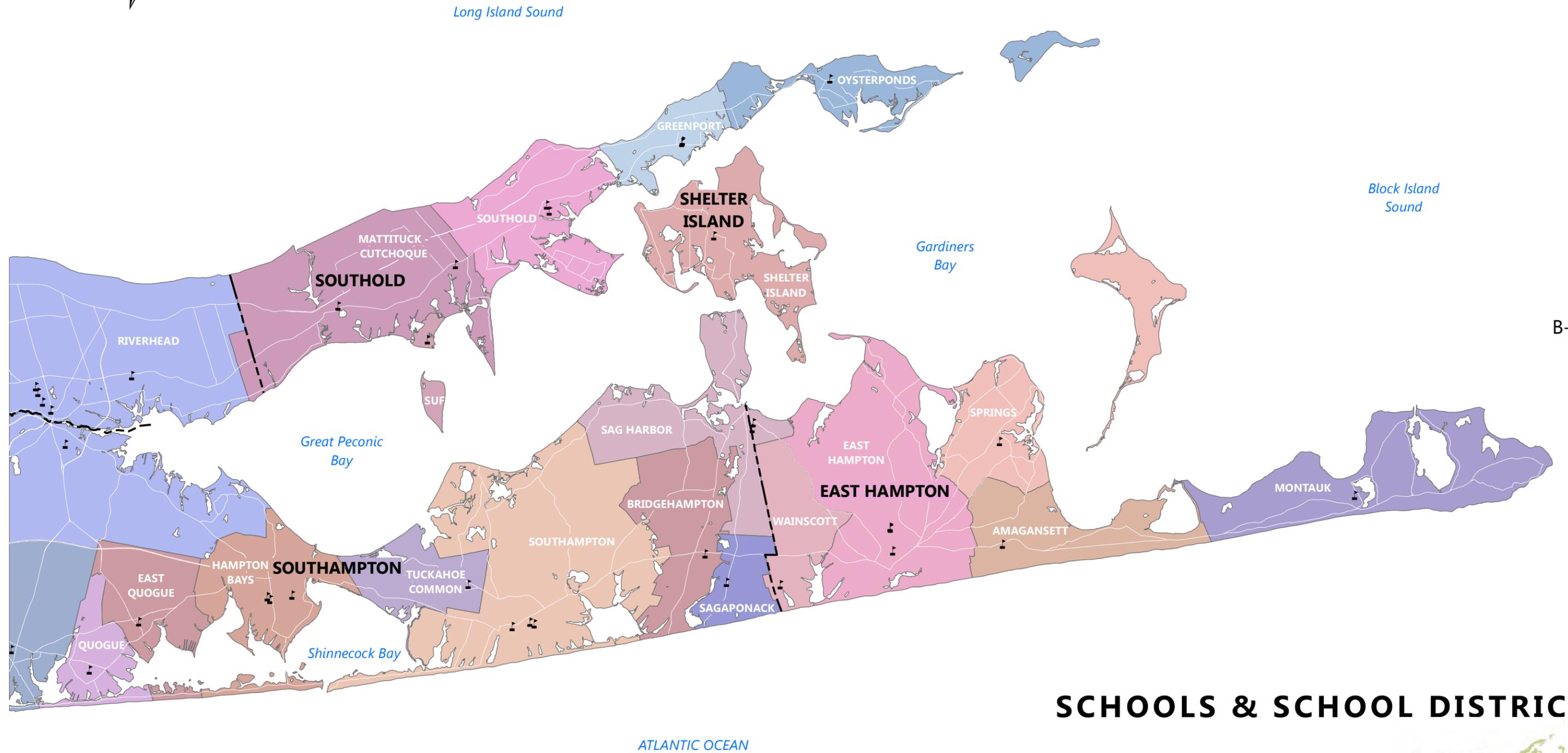
SUFFOLK COUNTY, NEW YORK



Locator

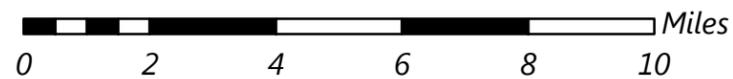


1 in = 2.9 miles



B-21

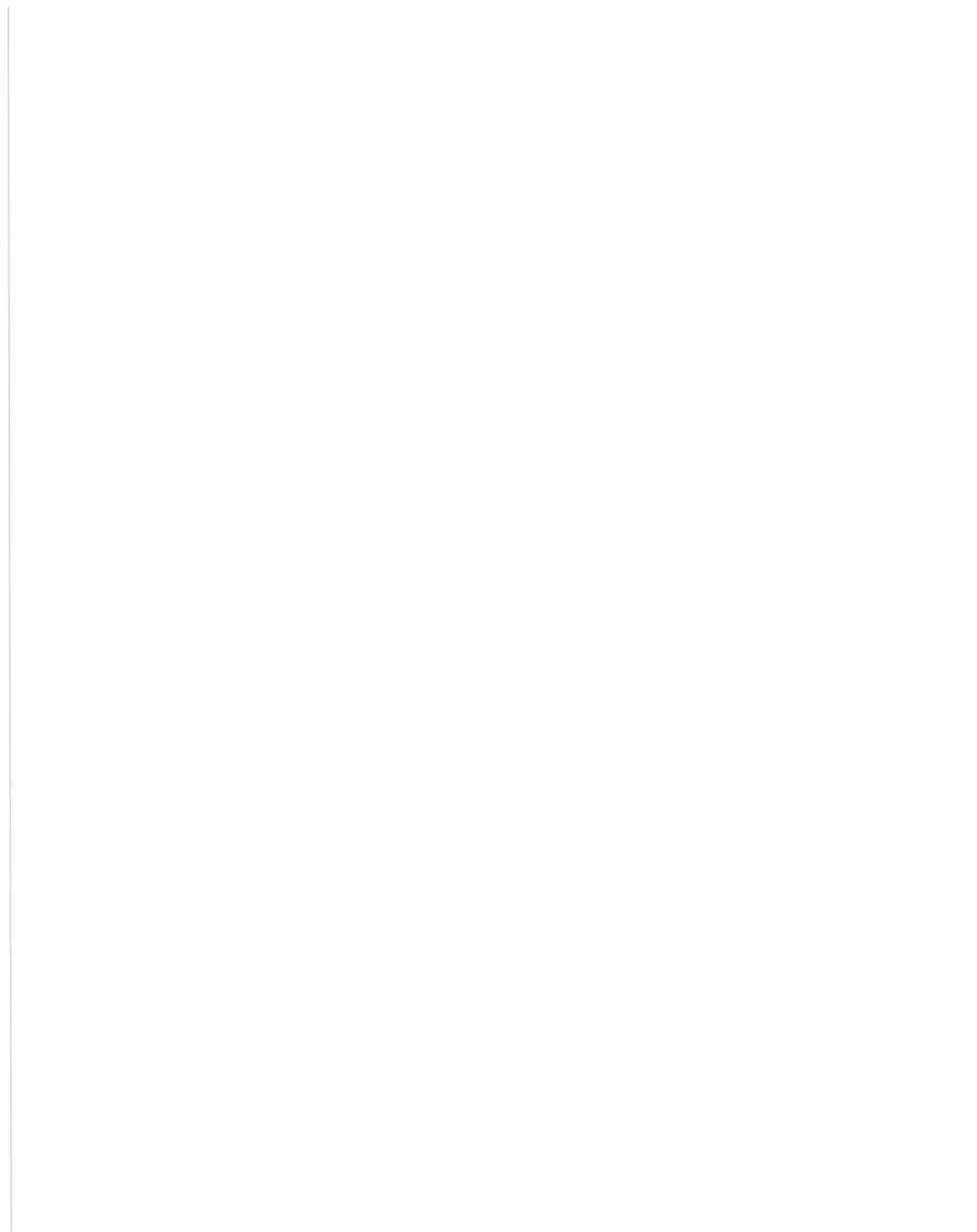
SCHOOLS & SCHOOL DISTRICTS



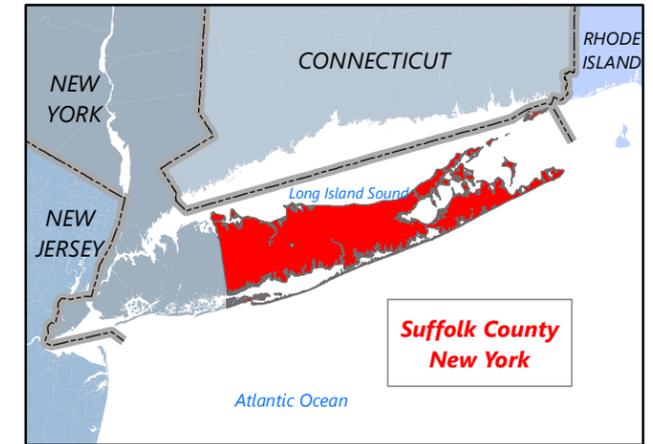


--	--

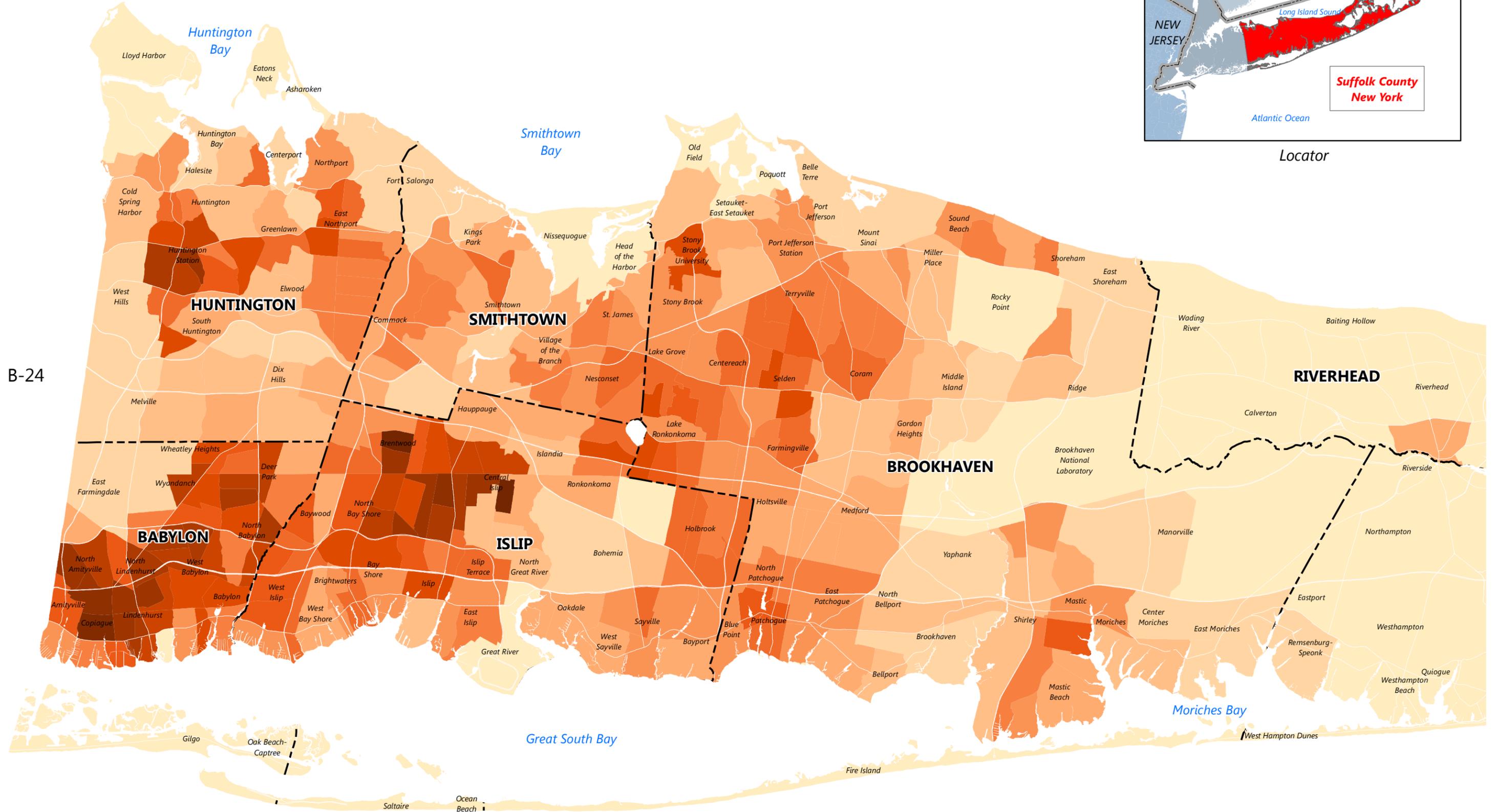
Map -6 POPULATION DENSITY- 2010



SUFFOLK COUNTY, NEW YORK



Locator



B-24

1 in = 2.9 miles



B-25

Legend					
Population Density	◆ 3.01 - 4	◆ 8.01 - 9	◆ 13.01 - 14		
People per Acre	◆ 4.01 - 5	◆ 9.01 - 10	◆ 14.01 - 15		
	◆ 5.01 - 6	◆ 10.01 - 11	◆ > 15		
	◆ 1.01 - 2	◆ 6.01 - 7	◆ 11.01 - 12		
	◆ 2.01 - 3	◆ 7.01 - 8	◆ 12.01 - 13		

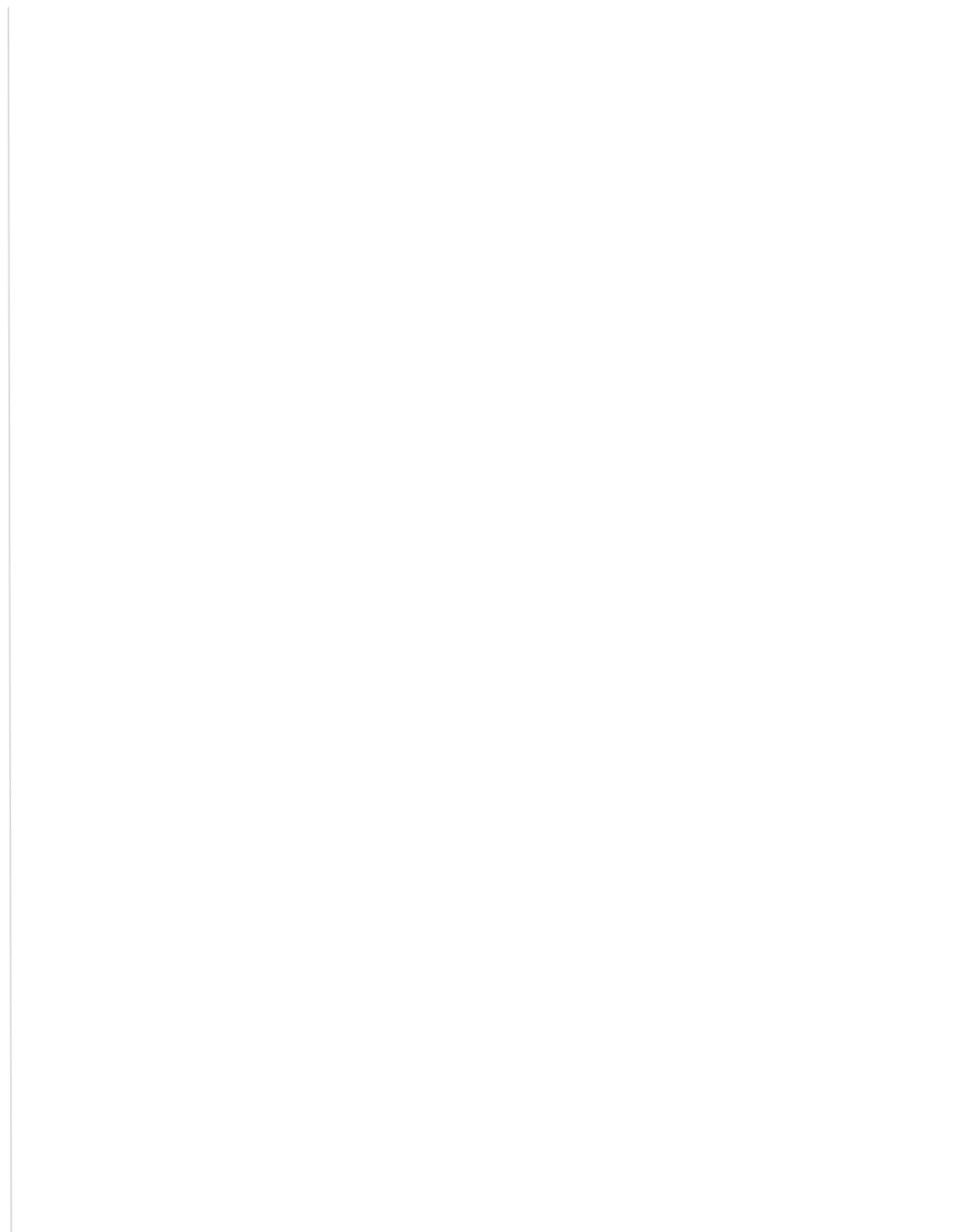
POPULATION DENSITY 2010



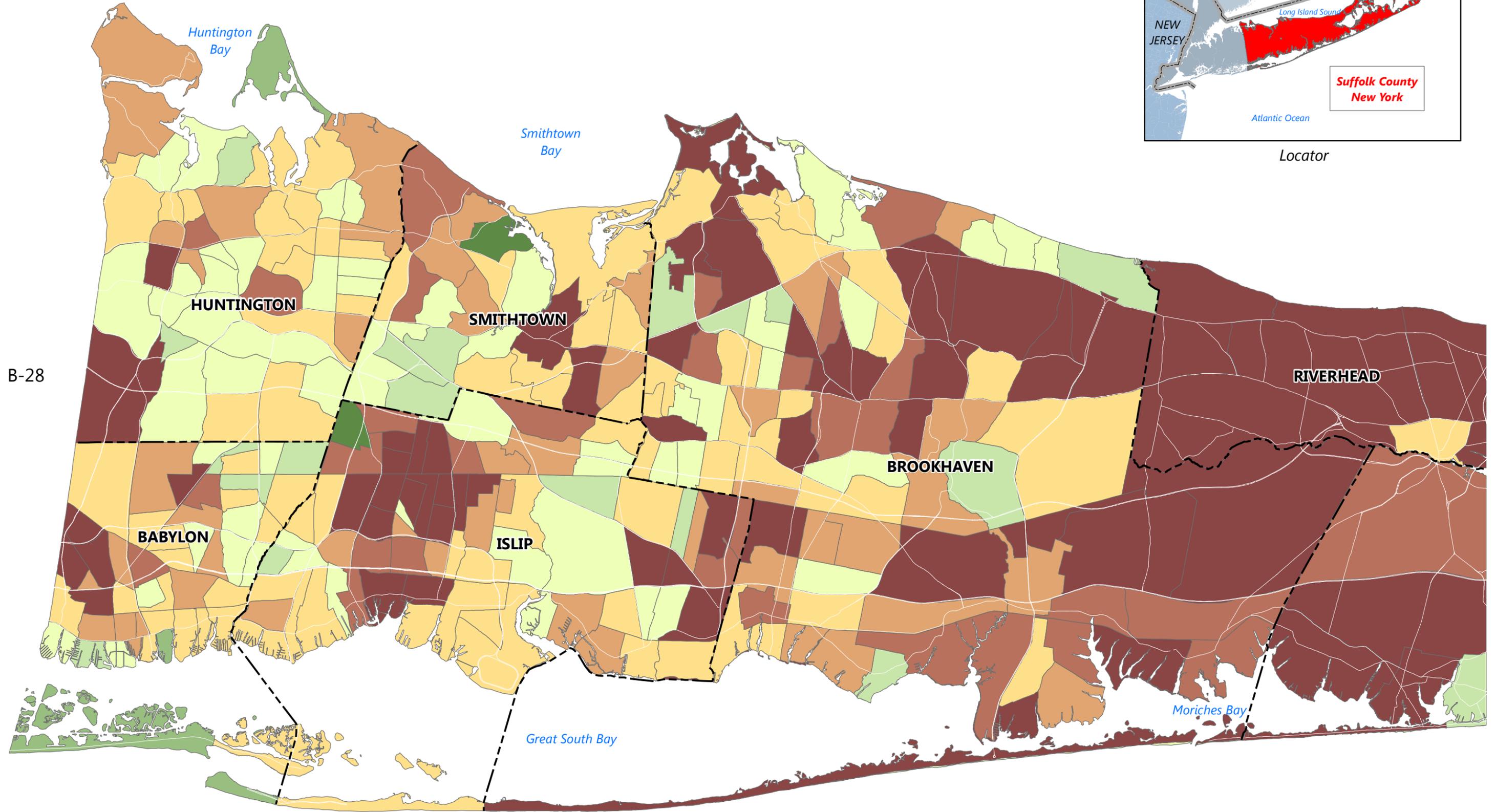


--	--

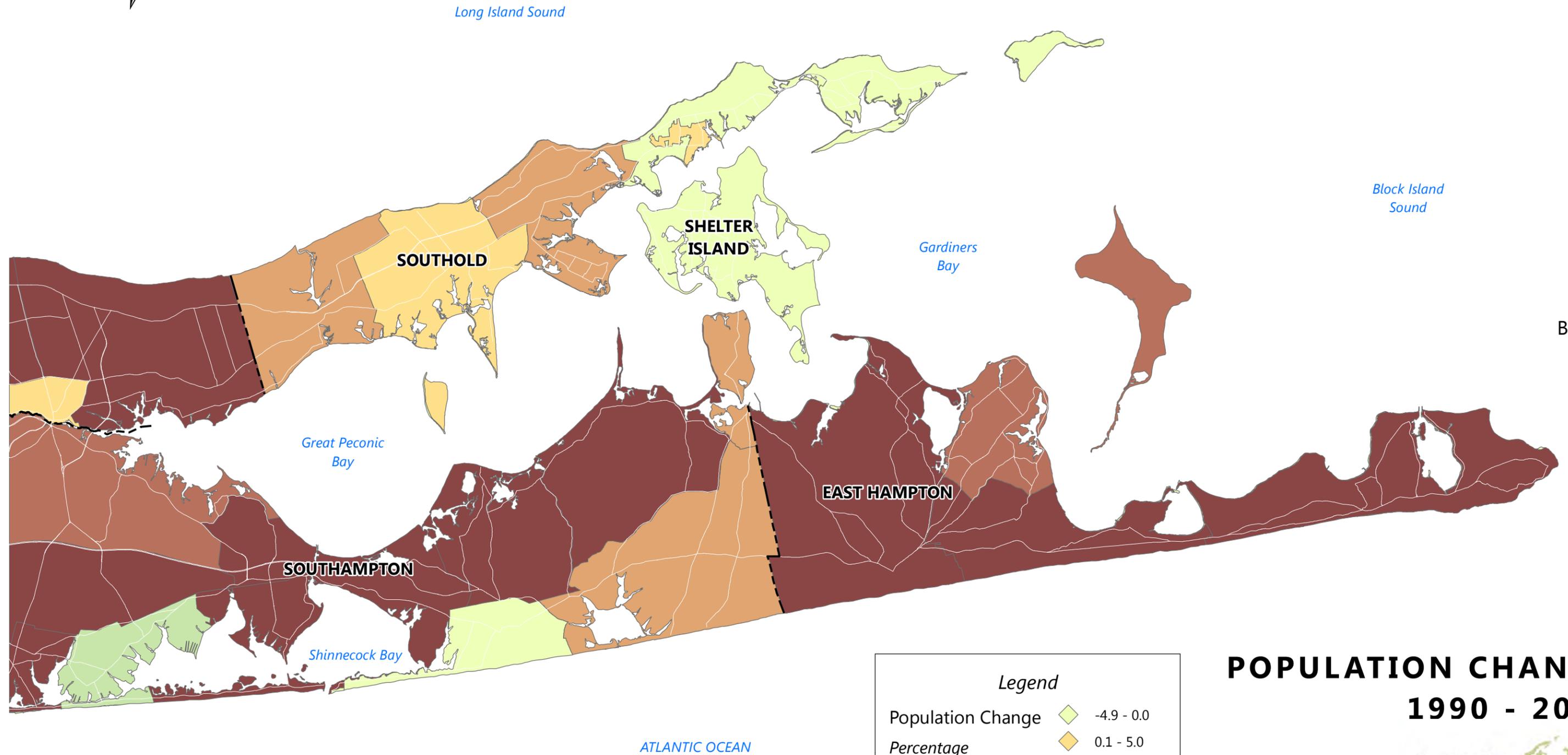
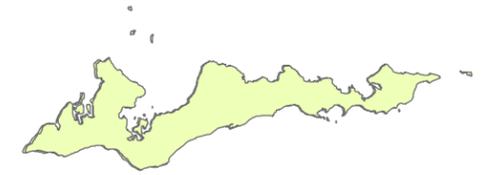
Map -7 POPULATION CHANGE 1990- 2000



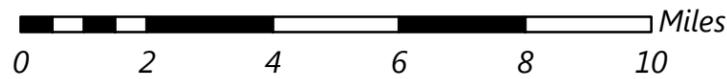
SUFFOLK COUNTY, NEW YORK



1 in = 2.9 miles



B-29



Legend	
Population Change	◆ -4.9 - 0.0
Percentage	◆ 0.1 - 5.0
◆ -91.9 - -15.0	◆ 5.1 - 10.0
◆ -14.9 - -10.0	◆ 10.1 - 15.0
◆ -9.9 - -5.0	◆ 15.1 - 108.6

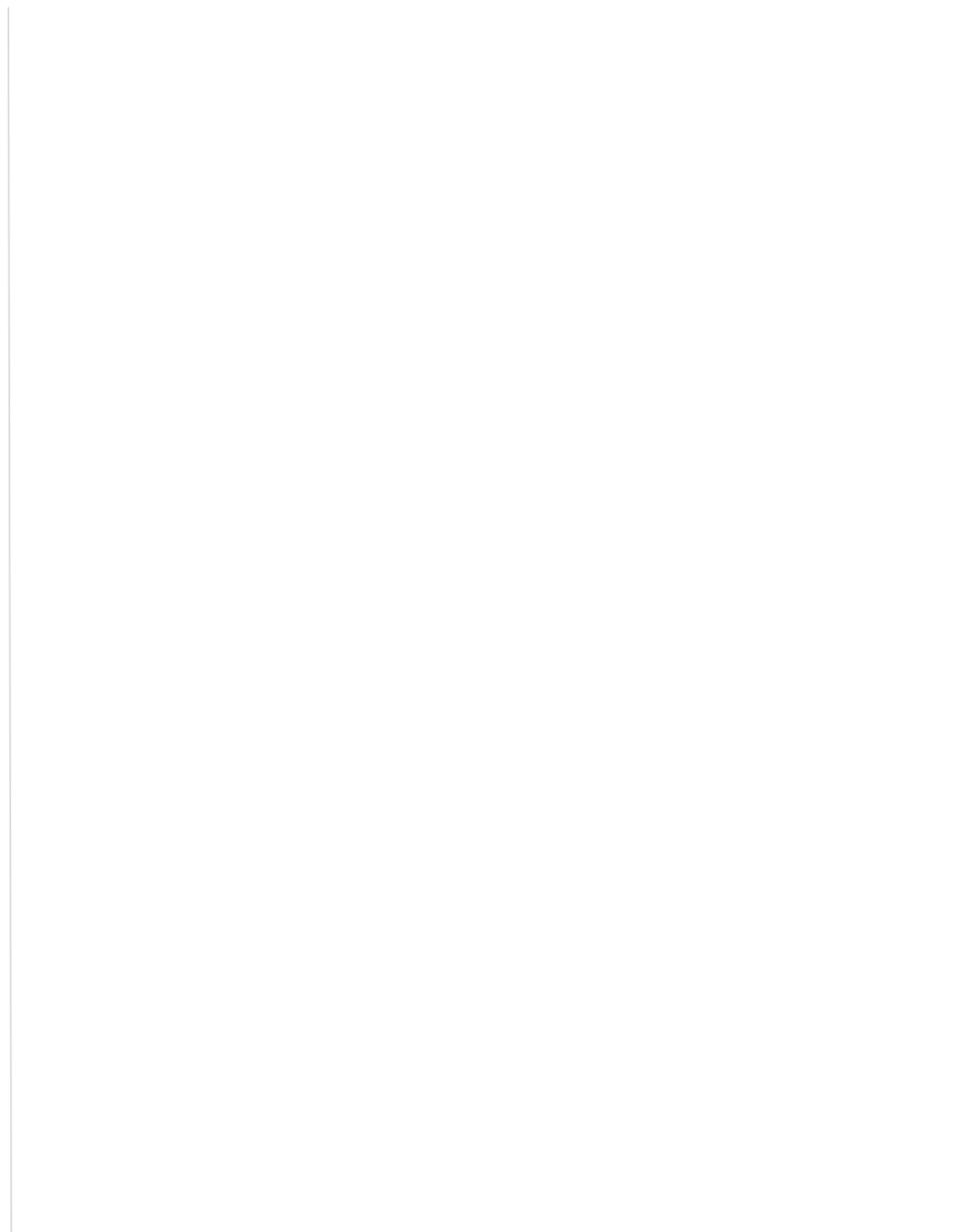
POPULATION CHANGE 1990 - 2000



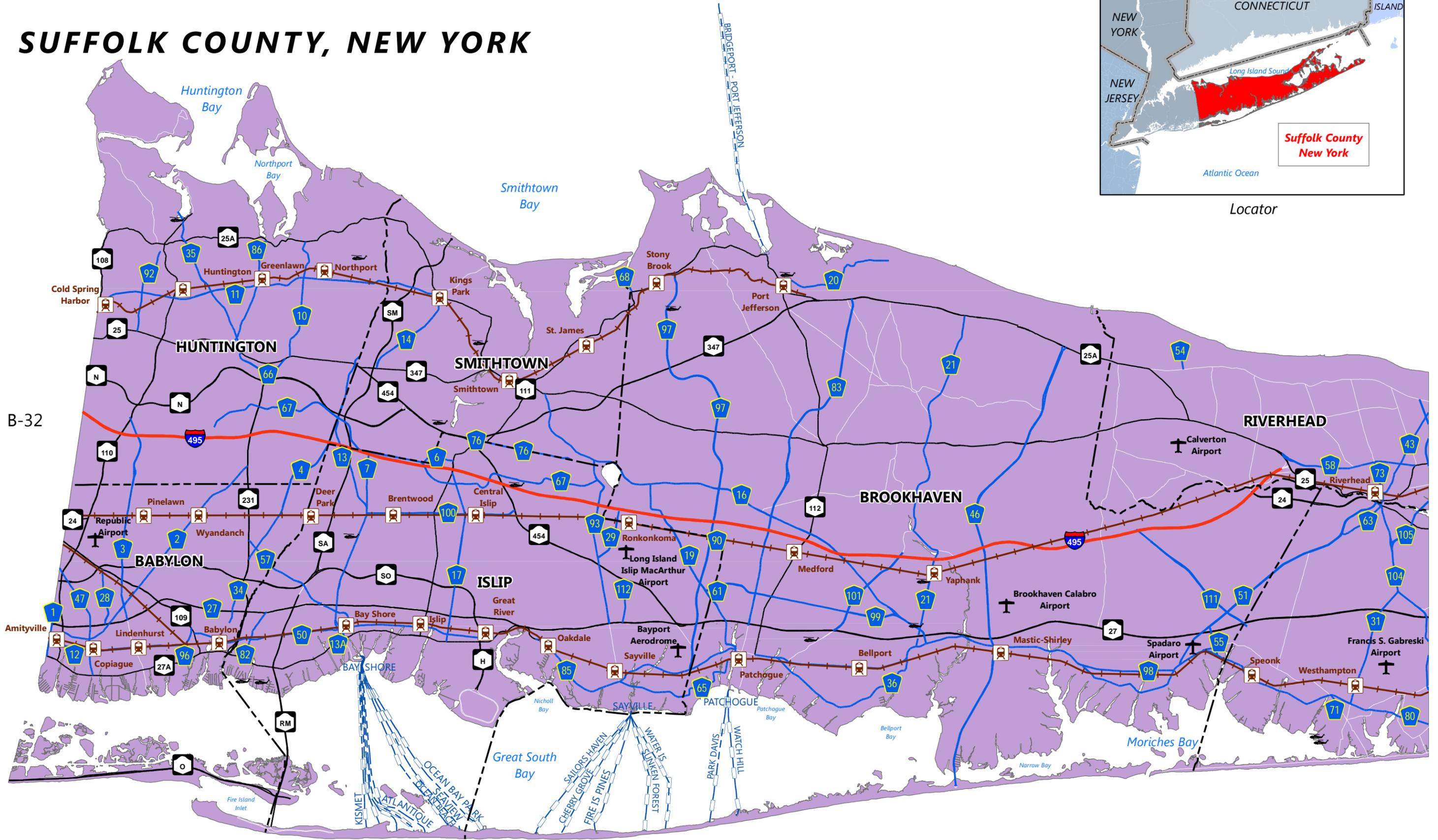


--	--

Map -8 TRANSPORTATION

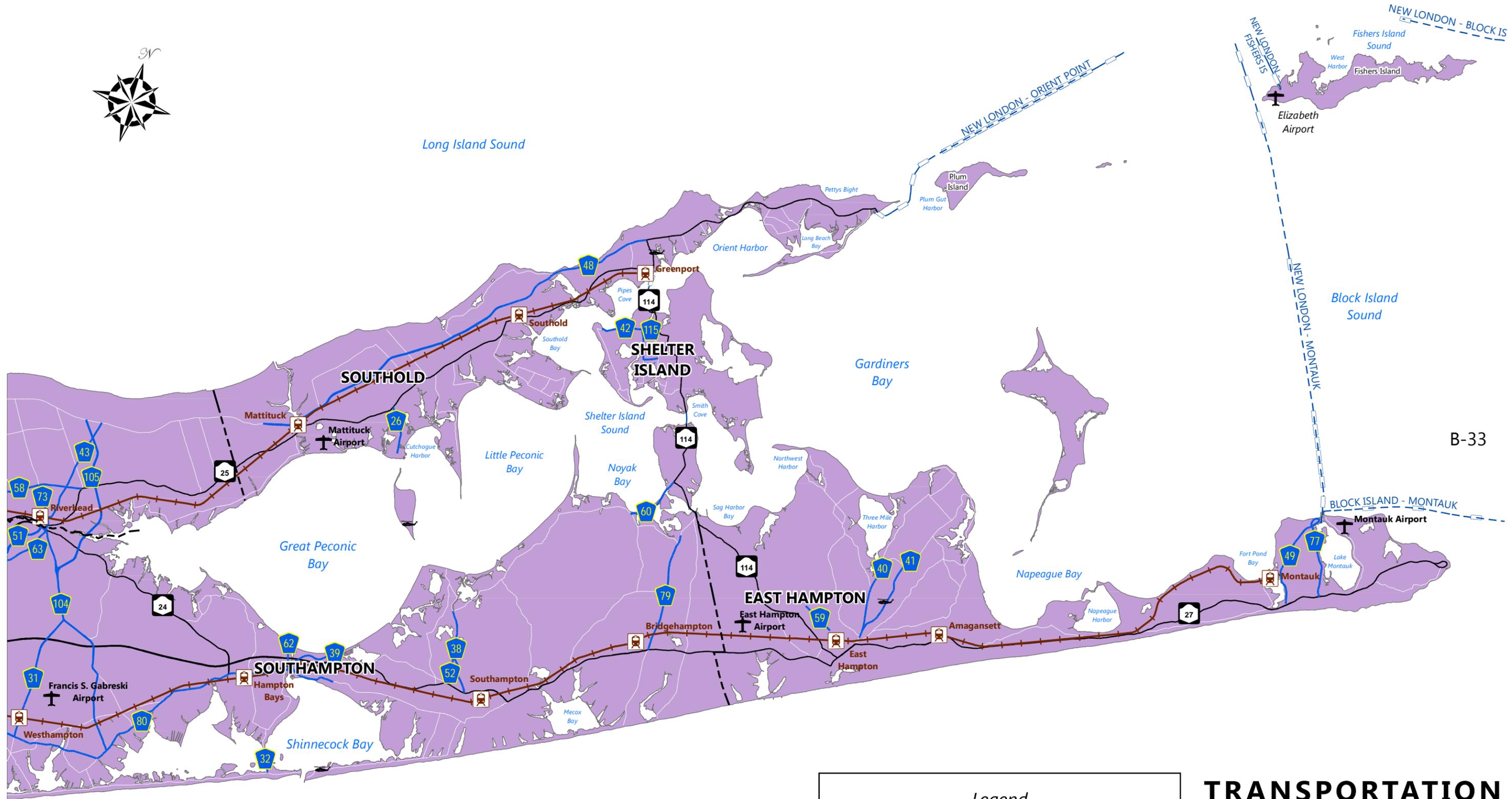


SUFFOLK COUNTY, NEW YORK

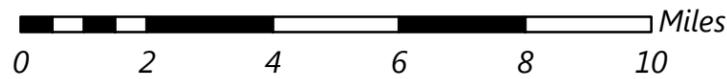


B-32

1 in = 2.9 miles



B-33



Legend

	Heliports		Interstate Highway
	Airport		Suffolk County Road
	Ferry Route		New York State Road
	Long Island Rail Road		

TRANSPORTATION





--	--