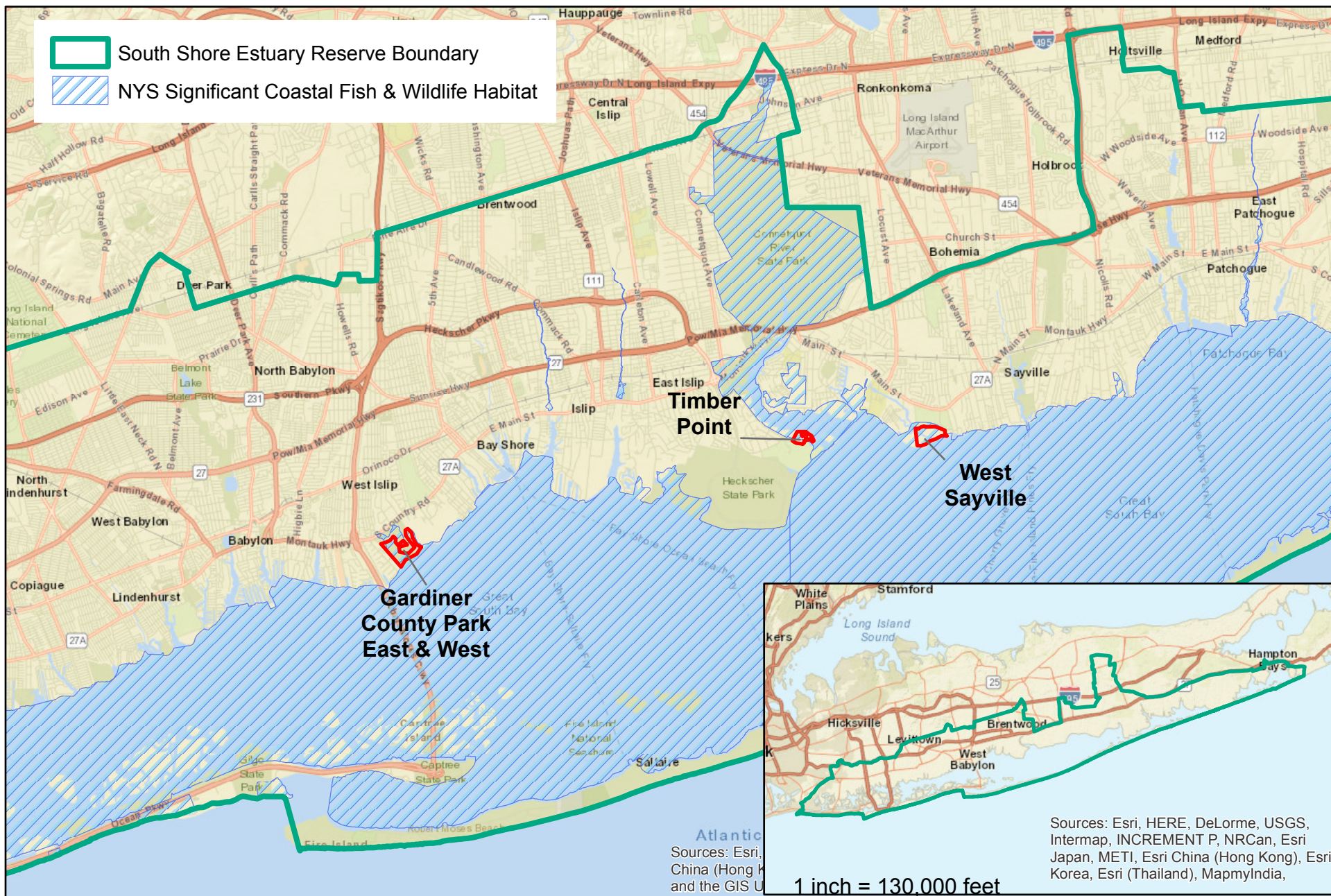


## **APPENDIX B**

### **Figures**



**FIGURE 1-1**

**SOUTH SHORE ESTUARY RESERVE BOUNDARY MAP AND  
SITE LOCATION MAP**

Source: ESRI wms; SSER commission; NYSDEC  
Scale: 1 inch = 12,000 feet



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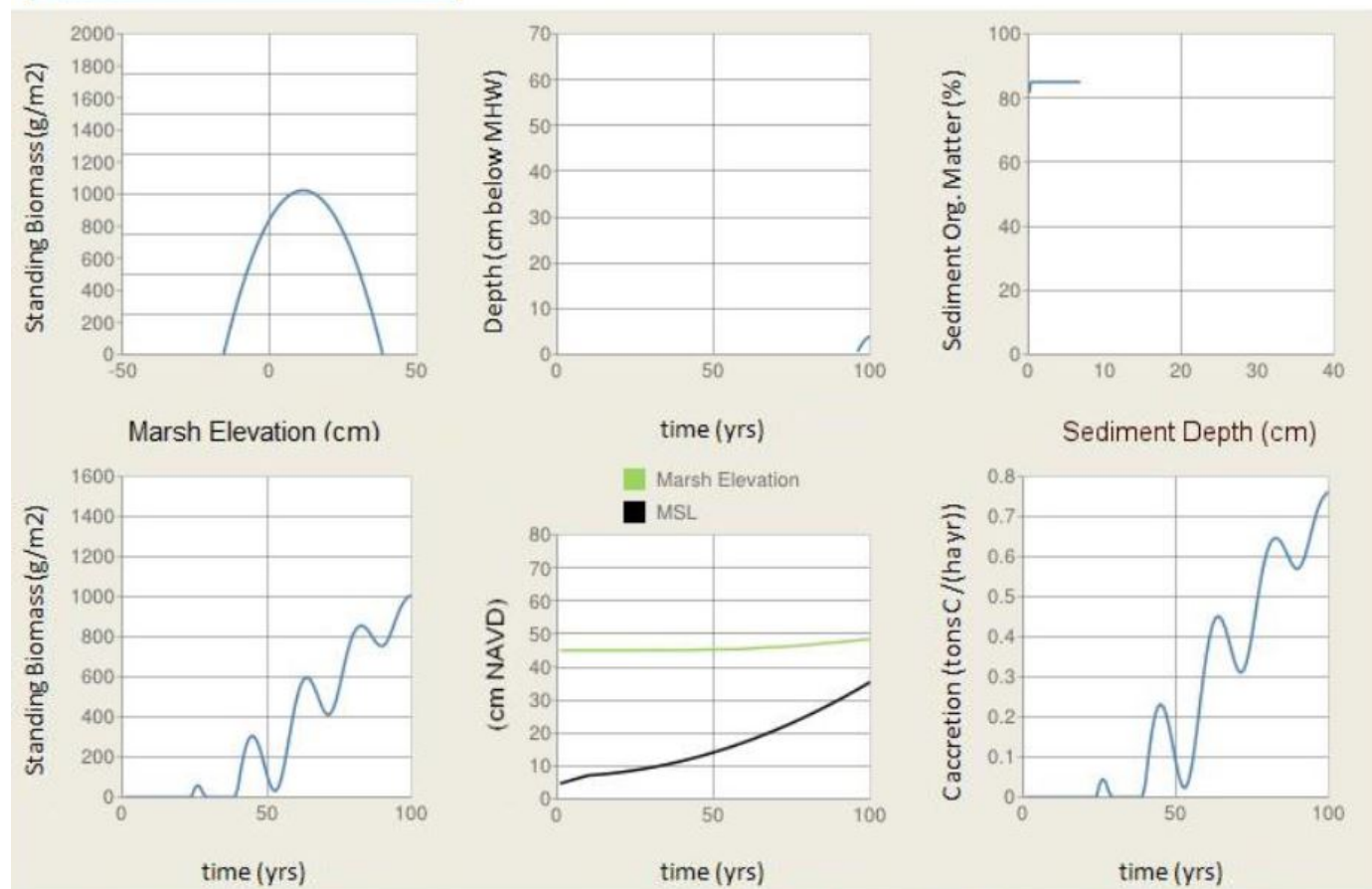




## The Marsh Equilibrium Model MEM 3.4

Computes C-Sequestration and Marsh Responses to Sea-Level Rise

Options		
<input checked="" type="checkbox"/>	Simulate Restoration	
<input type="checkbox"/>	Use My Biomass Profile	
<input checked="" type="checkbox"/>	Seasonal Biomass	
Physical Inputs		
Start	1991	year
Century Sea Level Rise	27.7	cm
Mean High Water	18.4	cm NAVD
Mean Sea Level	4.4	cm NAVD
Lunar Nodal Amp	3.1	cm
Initial Rate SLR	0.27	cm/yr
Suspended Sed. Conc.	20	mg/liter
Marsh Elevation	45	cm NAVD
Biological Inputs		
Max Veg Elev	38.4	cm
Min Veg Elev	-15.6	cm
Max Peak Biomass	1017	g/m <sup>2</sup>
OM Decay rate	-0.8	1/time
Root&Rhizome:Shoot Ratio	3	g/g
BG turnover rate	3	year <sup>-1</sup>
Refractory Fraction (fr)	0.02	g/g
Max (95%) Root Depth	10	cm
Trapping Coef & Settling Velocity		
ks	3.22E-02	cm <sup>-1</sup> yr <sup>-1</sup>
q	1.5E-03	g cm <sup>-2</sup> yr <sup>-1</sup>



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JT Morris 6-9-10



### FIGURE 1-2 - GARDINER COUNTY PARK MARSH EQUILIBRIUM MODEL

Source: MEM Model, Morris et al 2012.  
Scale: N/A



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**FIGURE 1-3  
GARDINER COUNTY PARK AERIAL MAP**

Source: NYS Orthophotography, 2013  
Scale: 1 inch = 750 feet



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**FIGURE 1-4  
TIMBER POINT AERIAL MAP**

Source: NYS Orthophotography, 2013  
Scale: 1 inch = 200 feet



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**FIGURE 1-5  
WEST SAYVILLE AERIAL MAP**

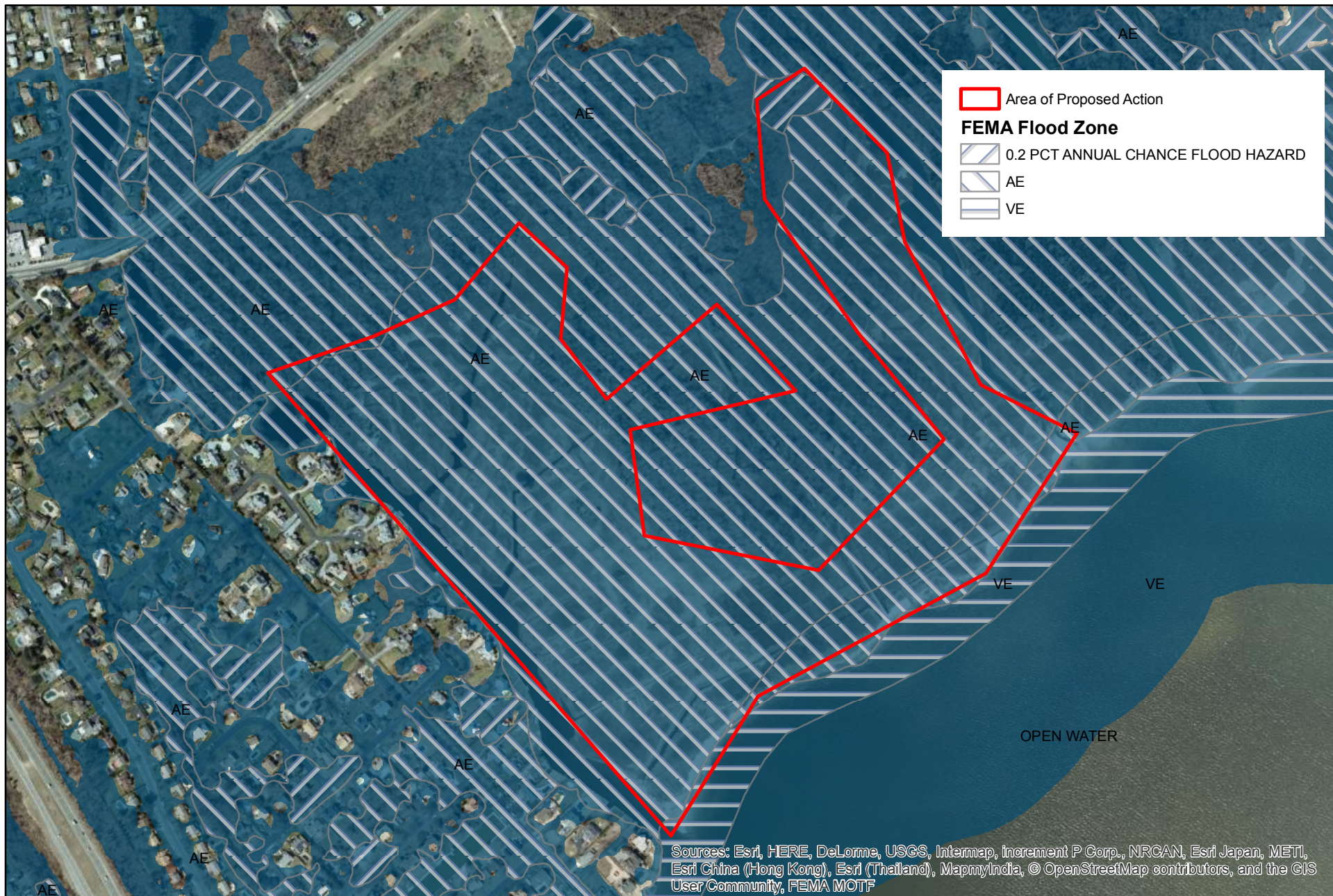
Source: NYS Orthophotography, 2013  
Scale: 1 inch = 400 feet



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**FIGURE 3-1 - GARDINER COUNTY PARK  
FLOOD ZONES AND HURRICANE SANDY SURGE BOUNDARY MAP**

Source: ESRI wms; FEMA 100yr layer, Suffolk Cty, 2013; FEMA Sandy wms  
Scale: 1 inch = 600 feet

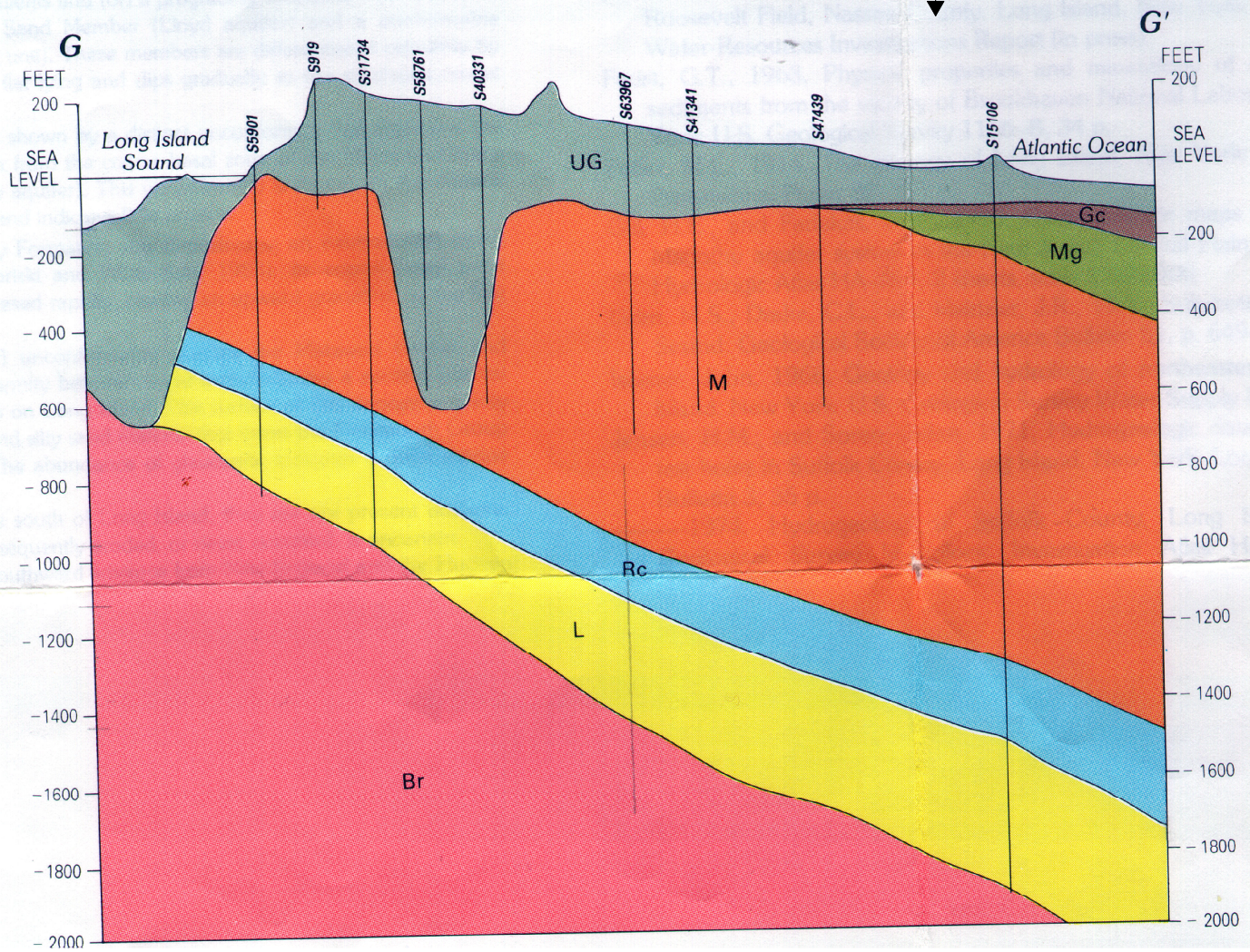


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Approximate location of project site



## FIGURE 3-10 - WEST SAYVILLE GEOLOGIC CROSS-SECTION

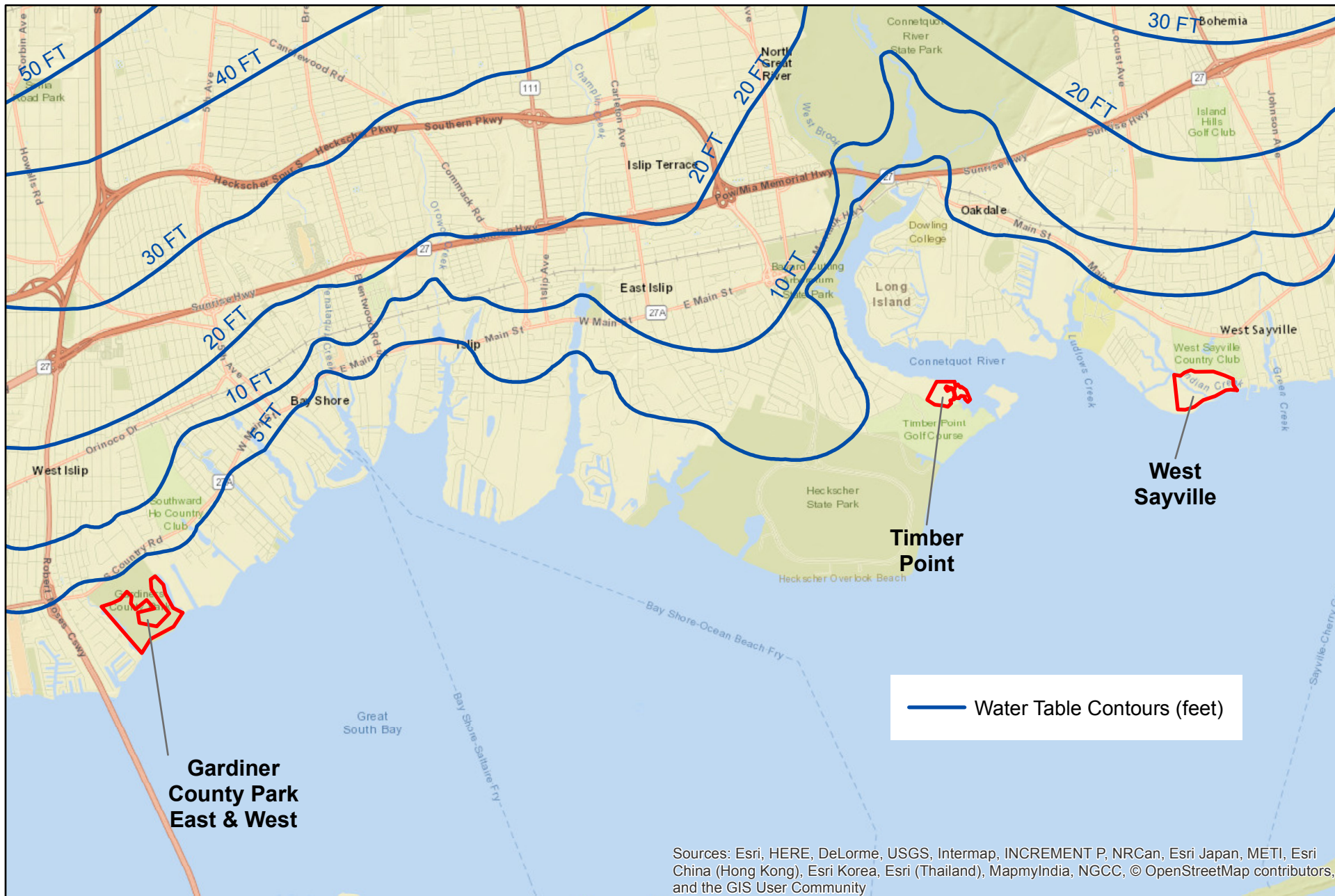
Source: section G from Smolensky, et. al; USGS  
Hydrologic Atlas:709, 1990  
Scale: NTS, Vertical exaggeration



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**FIGURE 3-11  
WATER TABLE MAP**

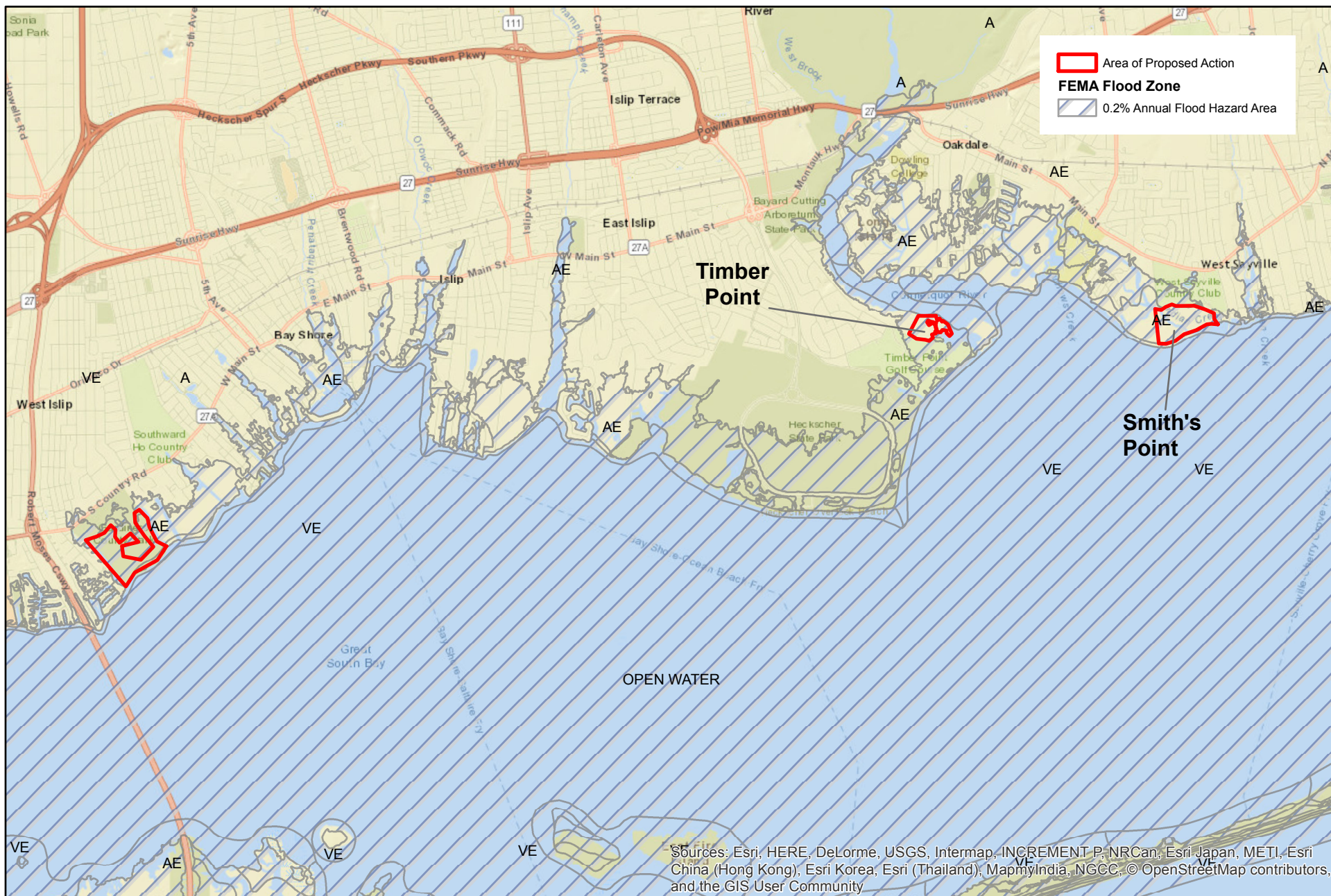
Source: ESRI wms; USGS Scientific Invest. Map 3326, 2013 data  
Scale: 1 inch = 6,000 feet




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 <p>NELSON, POPE &amp; VOORHIS, LLC ENVIRONMENTAL • PLANNING • CONSULTING</p>	<p align="center"><b>FIGURE 3-12</b> <b>FEMA 0.2% ANNUAL FLOOD BOUNDARY</b></p> <p>Source: ESRI wms; FEMA 100yr layer, Suffolk Cty, 2013; FEMA Sandy wms Scale: 1 inch = 6,000 feet</p>	<p align="center"><b>SCDPW Wetlands Restoration Project under NFWF Grant CP 8710.147</b></p> <p align="center"><b>Environmental Assessment</b></p>
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### FIGURE 3-13 - GARDINER COUNTY PARK NATIONAL WETLANDS INVENTORY MAP

Source: ESRI wms; USF&W nwi wetlands layer  
Scale: 1 inch = 1,000 feet



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**FIGURE 3-14 - TIMBER POINT  
NATIONAL WETLANDS INVENTORY MAP**

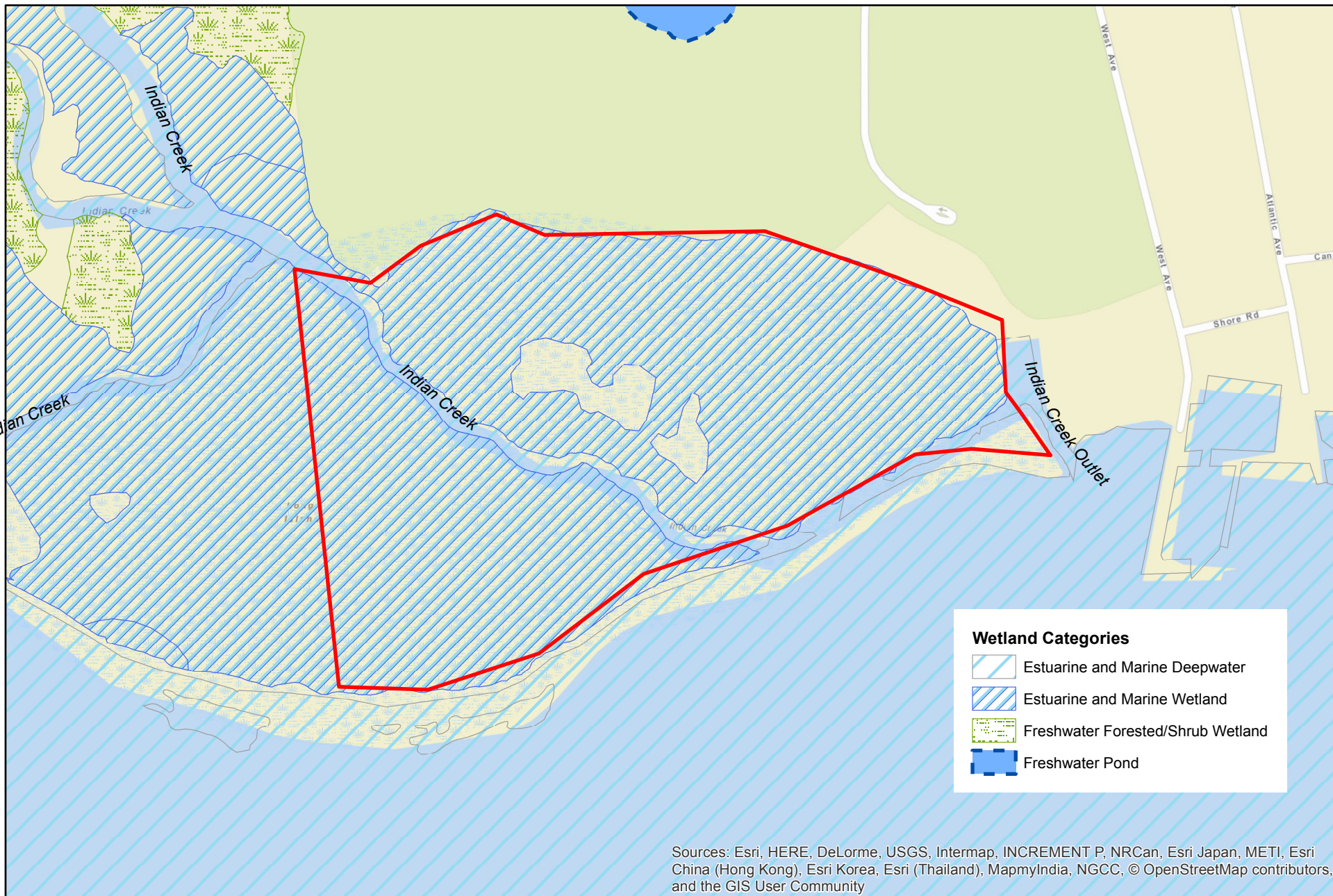
Source: ESRI wms; USF&WS NWI layer  
Scale: 1 inch = 300 feet



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**FIGURE 3-15 - WEST SAYVILLE  
NATIONAL WETLANDS INVENTORY MAP**

Source: ESRI wms; USF&W NWI layer  
Scale: 1 inch = 500 feet



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**FIGURE 3-16 - GARDINER COUNTY PARK  
NYSDEC FRESHWATER AND TIDAL WETLANDS MAP**

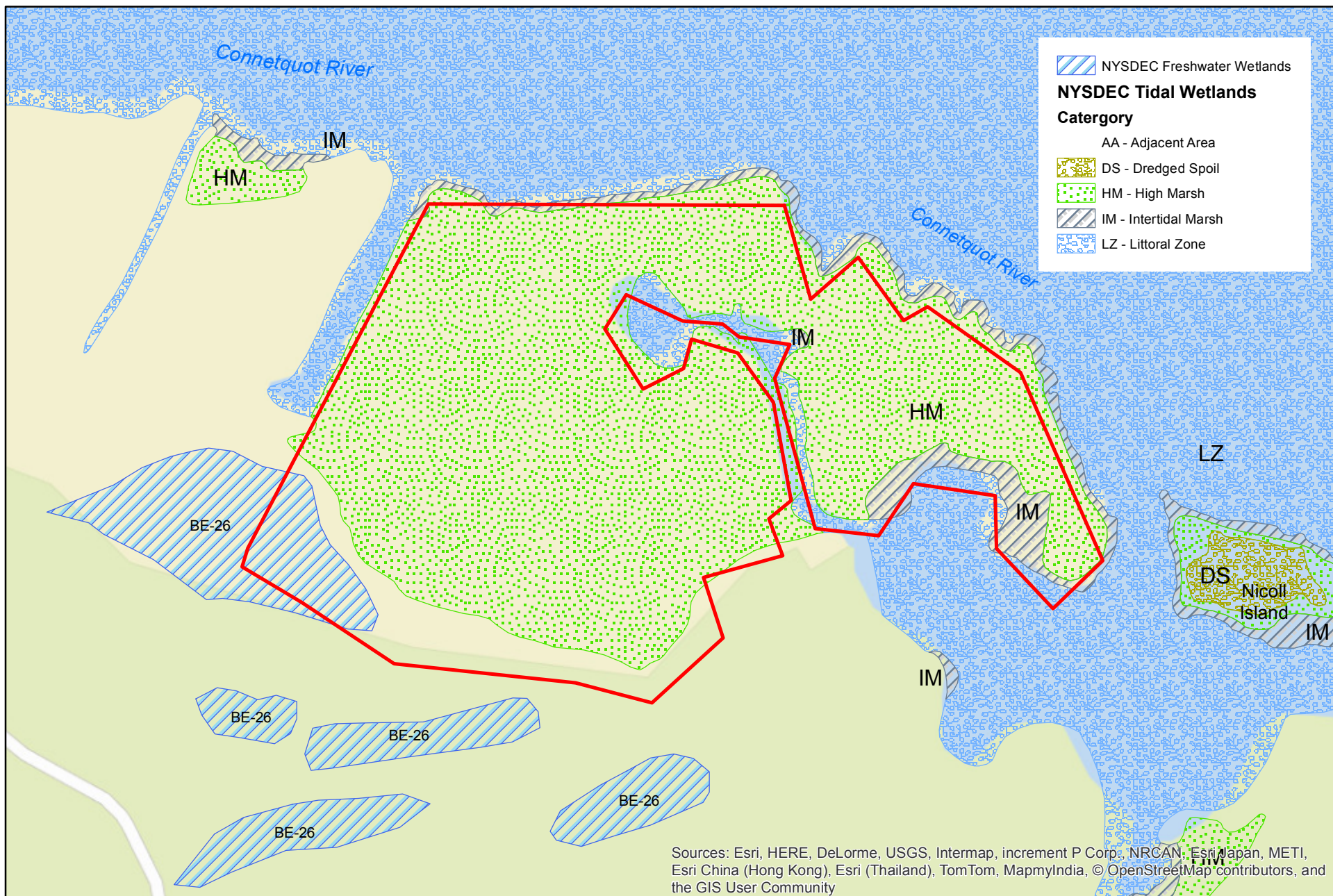
Source: ESRI wms; NYSDEC Freshwater & Tidal Wetlands  
Scale: 1 inch = 600 feet



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**FIGURE 3-17 - TIMBER POINT  
NYSDEC FRESH AND TIDAL WETLANDS MAP**

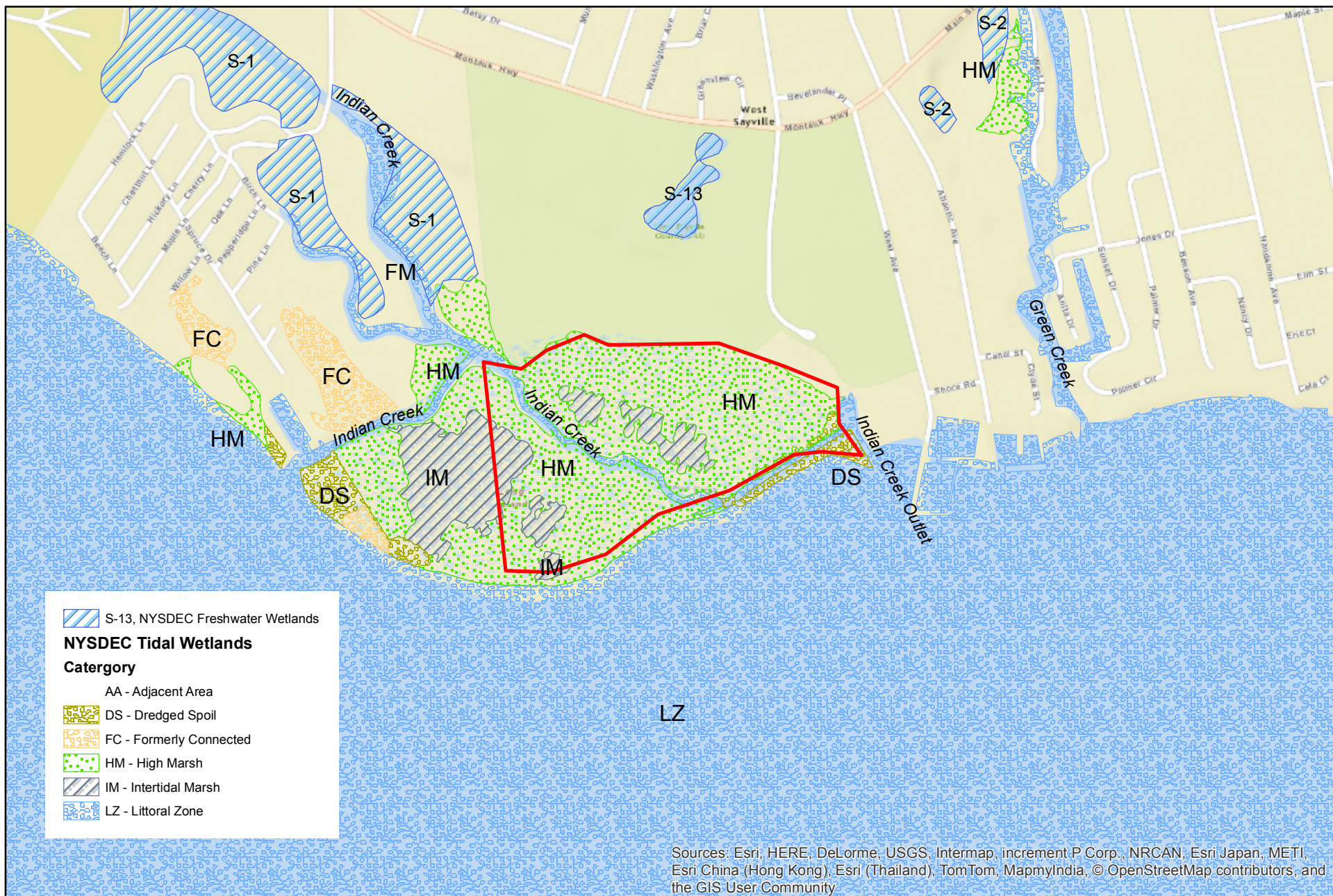
Source: ESRI wms; NYSDEC Fresh & Tidal Wetlands  
Scale: 1 inch = 300 feet



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**FIGURE 3-18 WEST SAYVILLE**  
**NYSDEC FRESHWATER AND TIDAL WETLANDS MAP**

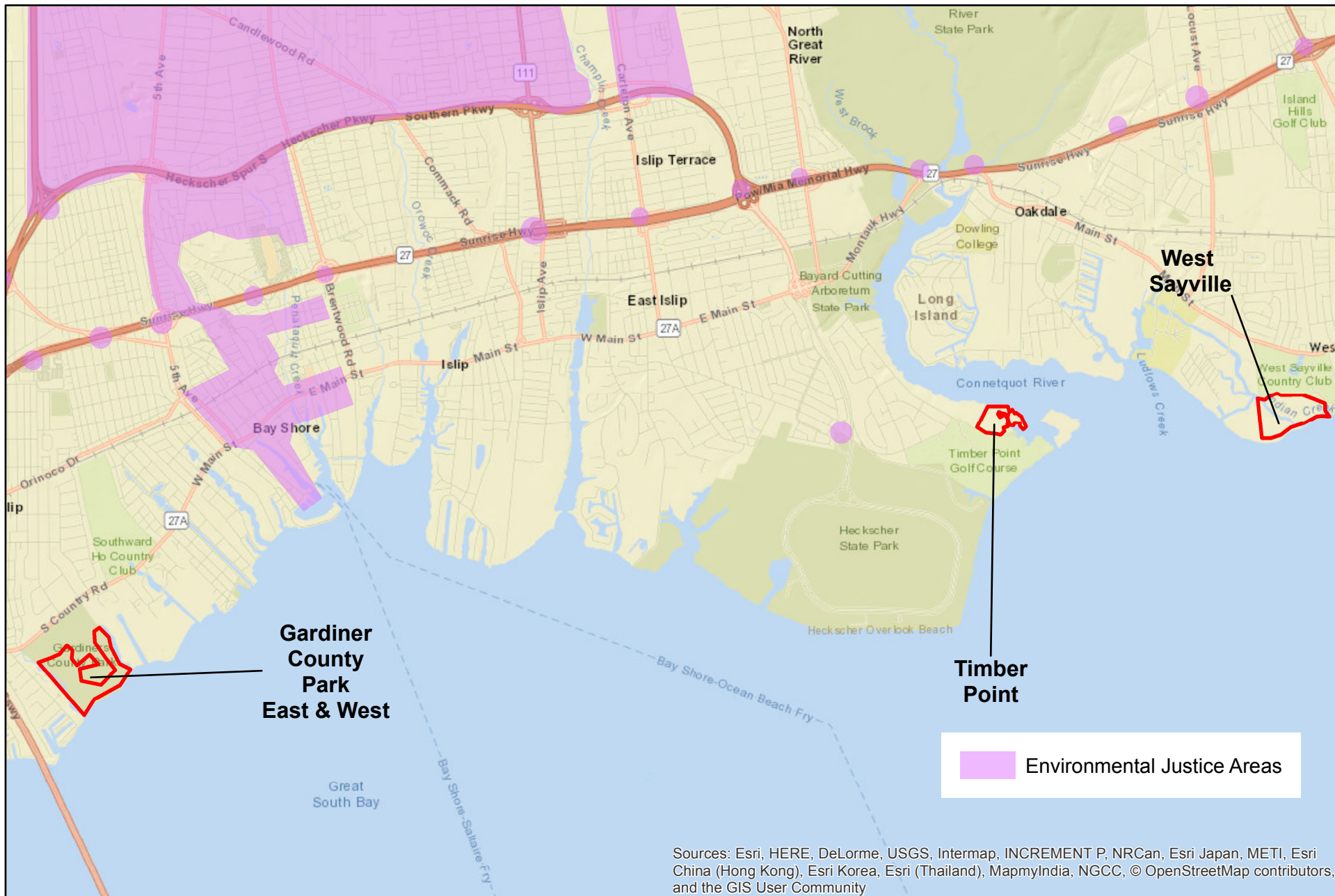
Source: ESRI wms; NYSDEC Freshwater & Tidal Wetlands  
Scale: 1 inch = 1,000 feet



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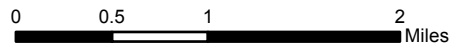


**FIGURE 3-19**

**POTENTIAL ENVIRONMENTAL JUSTICE AREA MAP**

Source: ESRI wms; NYSDEC office of Environmental Justice

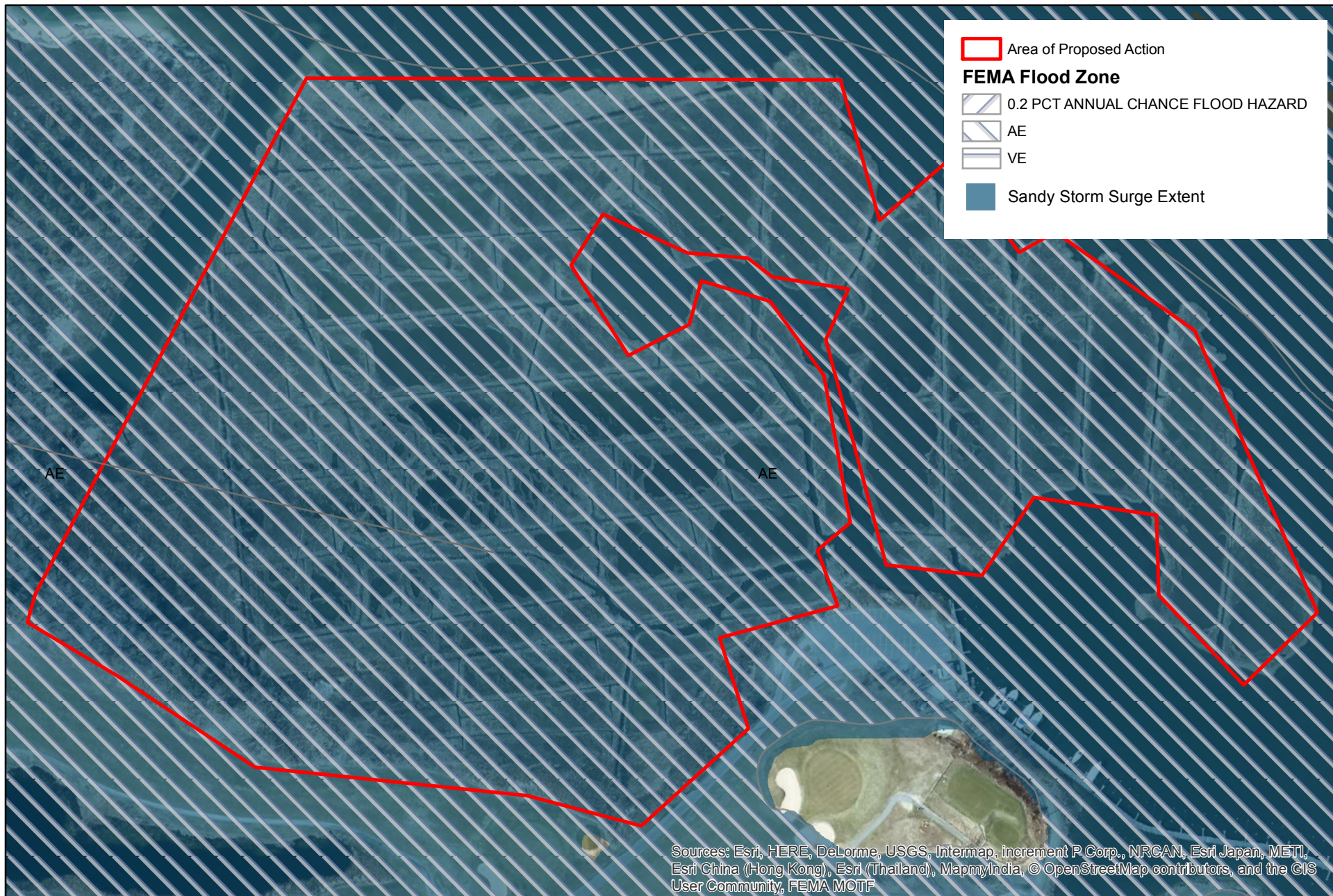
Scale: 1 in = 1 miles



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**FIGURE 3-2 - TIMBER POINT  
FLOOD ZONES AND HURRICANE SANDY SURGE BOUNDARY MAP**

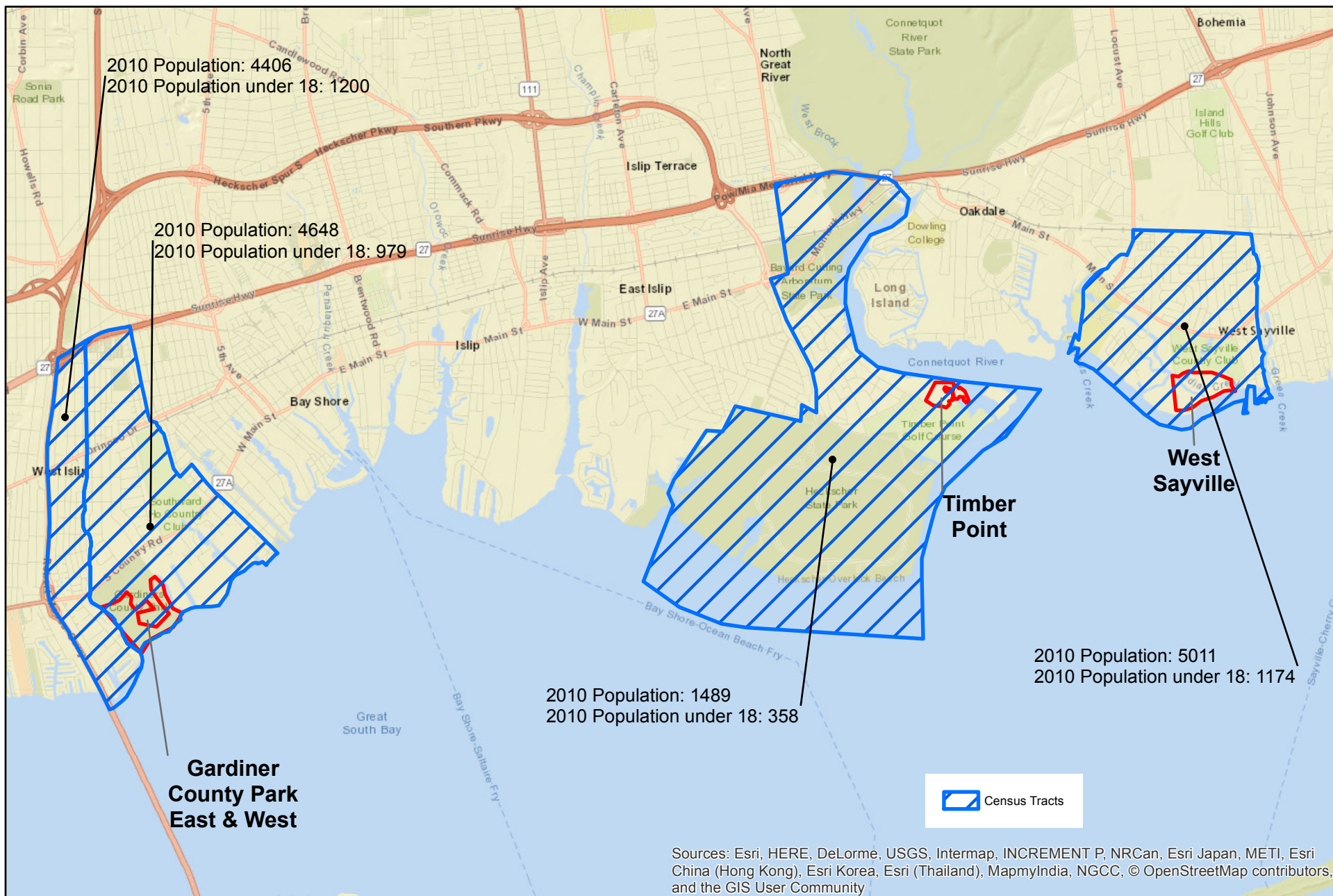
Source: ESRI wms; FEMA 100yr layer, Suffolk Cty, 2013; FEMA Sandy wms  
Scale: 1 inch = 200 feet



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**FIGURE 3-20**  
**CENSUS TRACTS MAP**

Source: ESRI Web Mapping Service, US Census 2010  
 Scale: 1 inch = 6,000 feet



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**FIGURE 3-21 - GARDINER COUNTY PARK  
LAND USE MAP**

Source: NYS Orthophotography, 2013  
Scale: 1 inch = 600 feet



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**FIGURE 3-22 - TIMBER POINT  
LAND USE MAP**

Source: NYS Orthophotography, 2013  
Scale: 1 inch = 400 feet







**FIGURE 3-24 - WEST SAYVILLE  
LAND USE MAP**

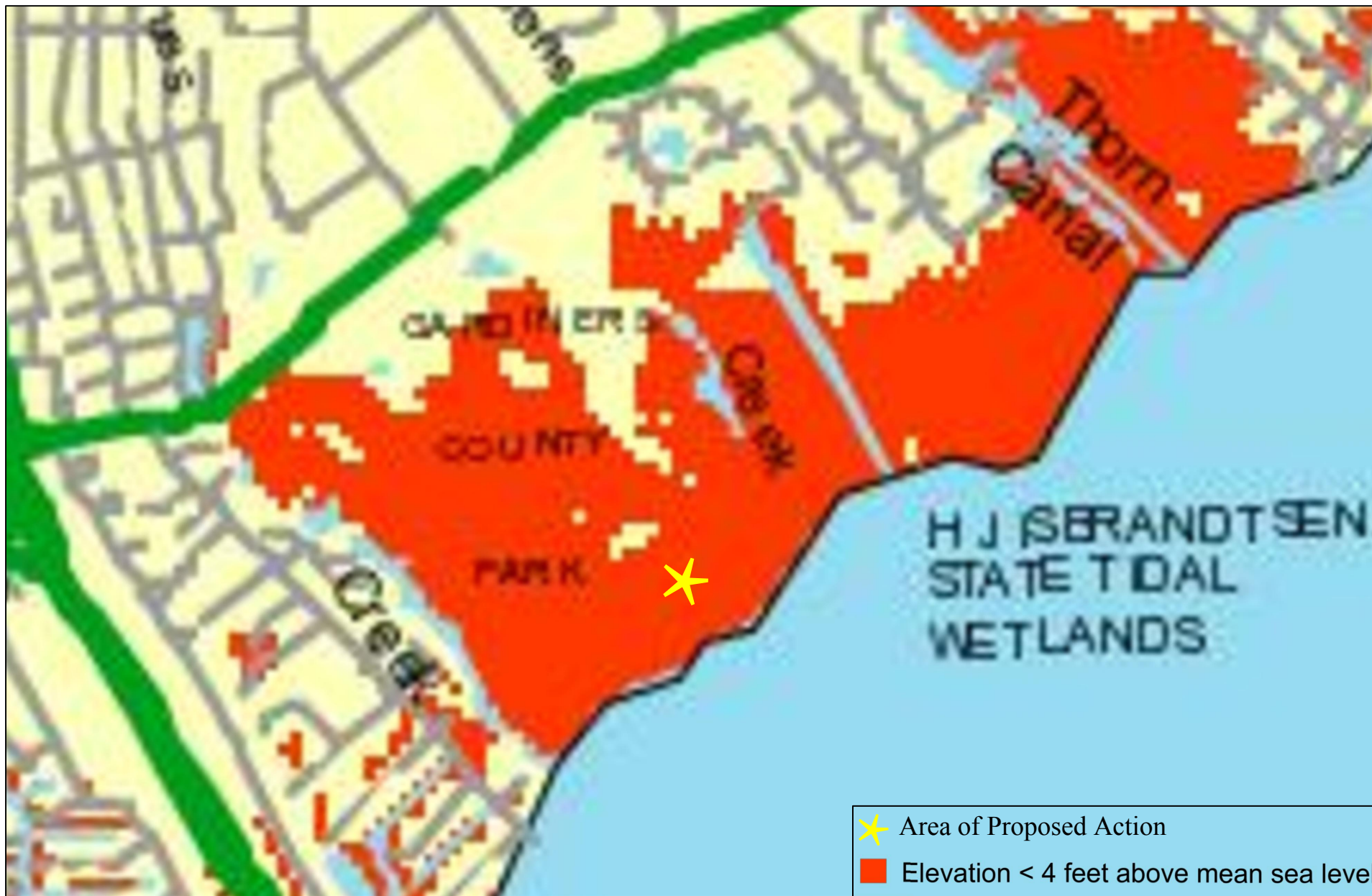
Source: NYS Orthophotography, 2013  
Scale: 1 inch = 500 feet



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**FIGURE 3-24- GARDINER'S POINT**  
**AREAS AT RISK TO STATIC SEA LEVEL RISE**

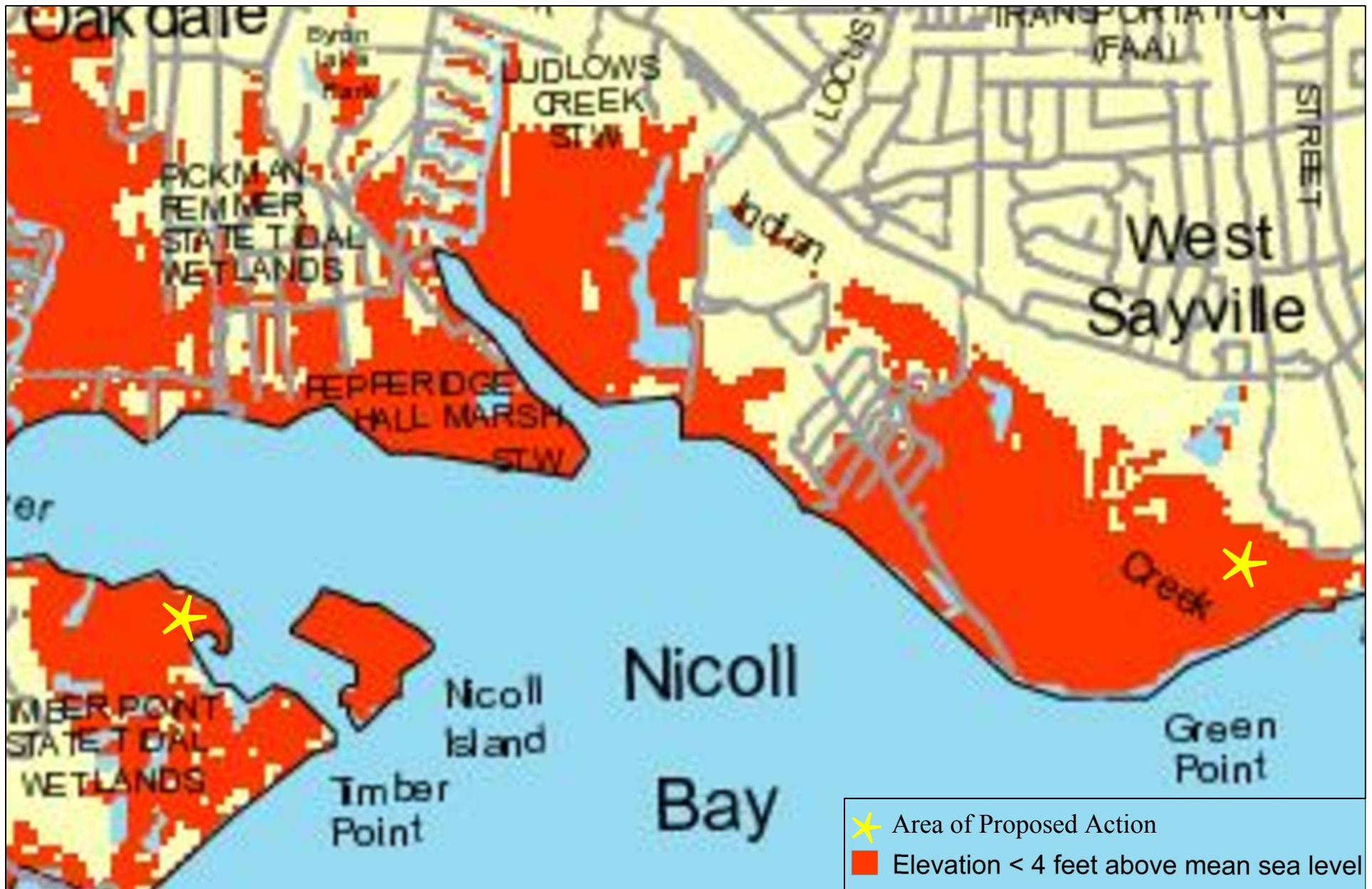
Source: NYSEMO GIS, March 2009  
 Scale: 1" = 1,000'



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**FIGURE 3-25**  
**AREAS AT RISK TO STATIC SEA LEVEL RISE**

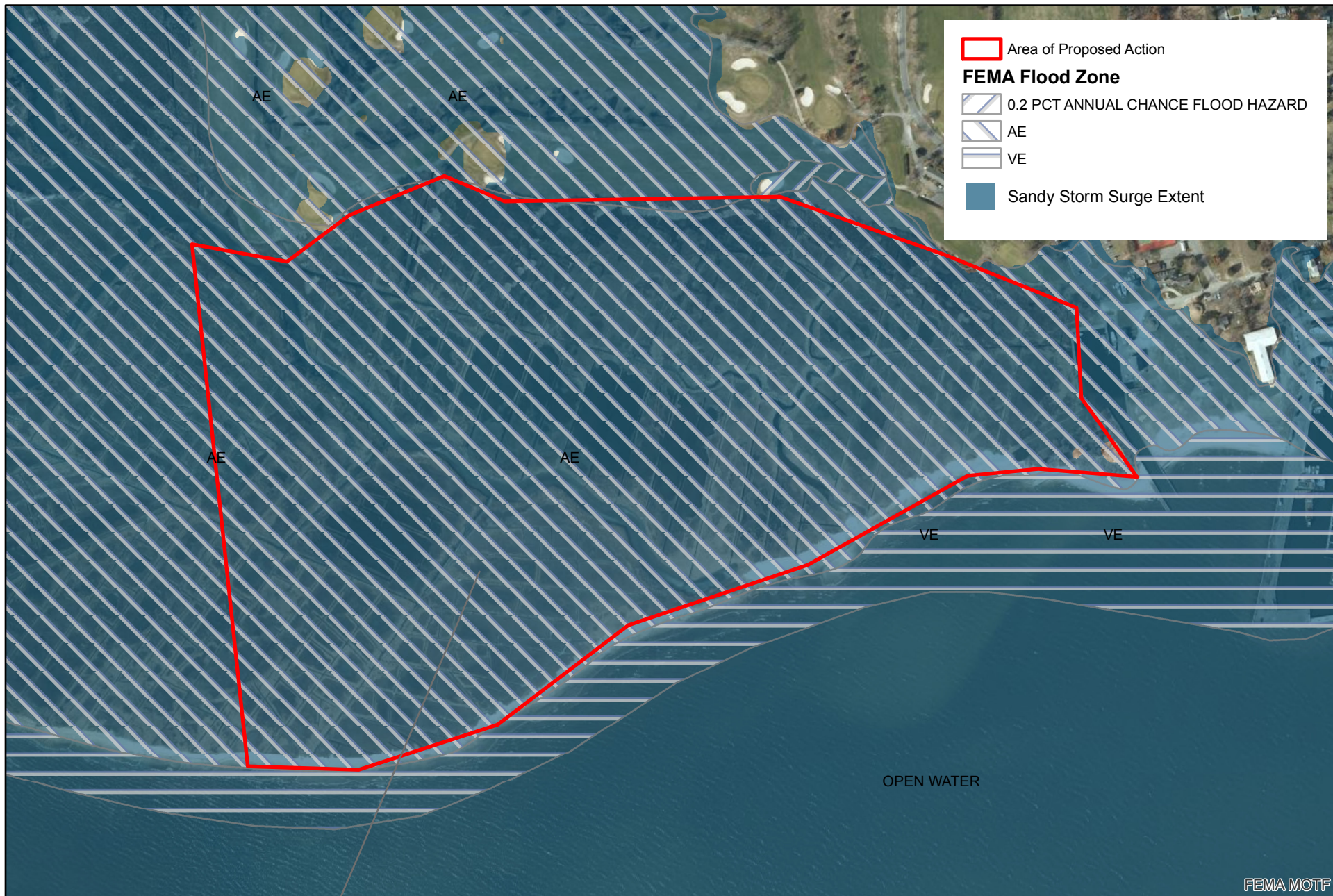
Source: NYSEMO GIS, March 2009  
 Scale: 1" = 1,500'



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**FIGURE 3-3 - WEST SAYVILLE  
FLOOD ZONES AND HURRICANE SANDY SURGE BOUNDARY MAP**

Source: ESRI wms; FEMA 100yr layer, Suffolk Cty, 2013; FEMA Sandy wms  
Scale: 1 inch = 400 feet



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**FIGURE 3-4 - GARDINER COUNTY PARK  
SOIL MAP**

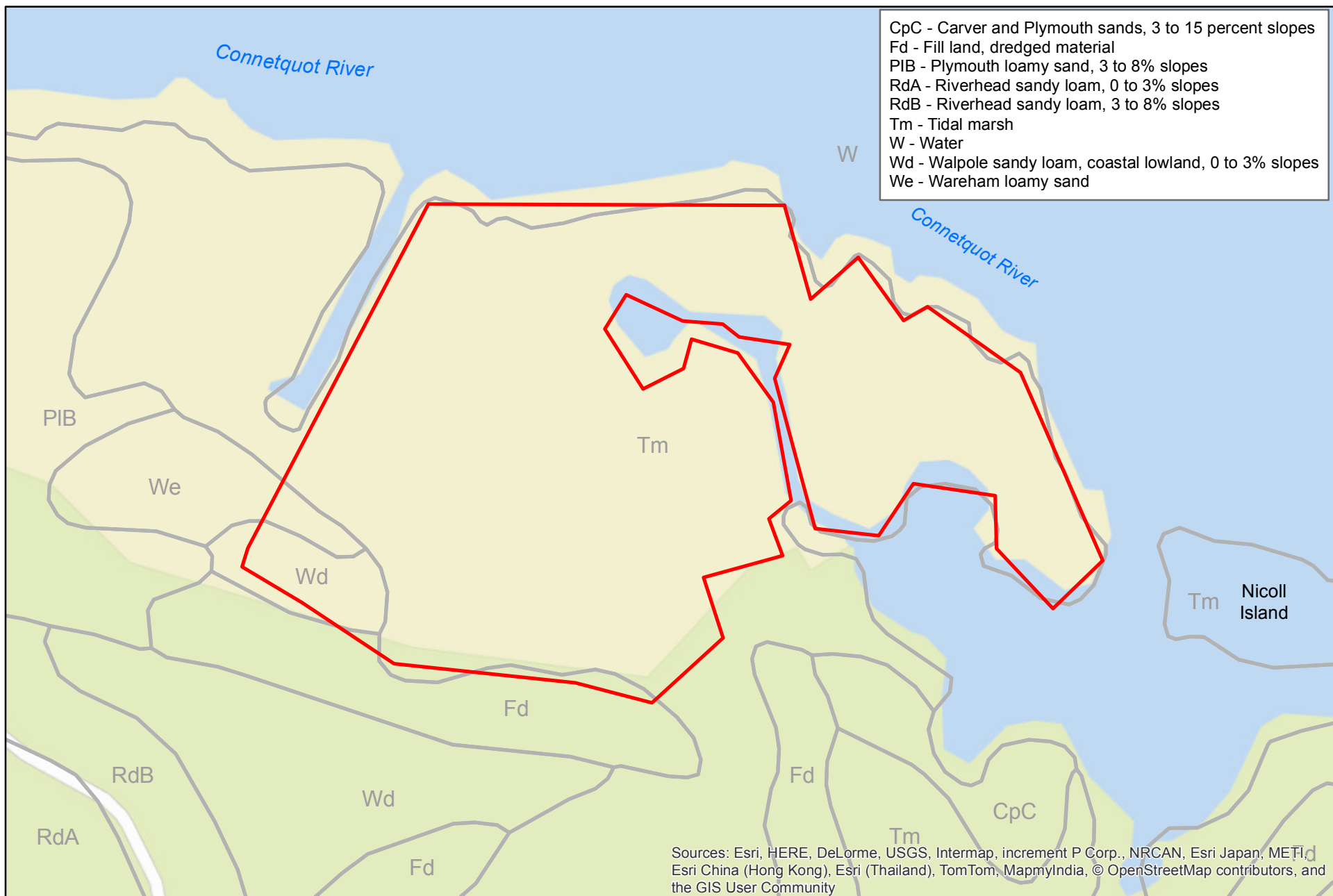
Source: ESRI wms; USDA, NRCS soil, 2013  
 Scale: 1 inch = 600 feet



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**FIGURE 3-5  
TIMBER POINT SOIL MAP**

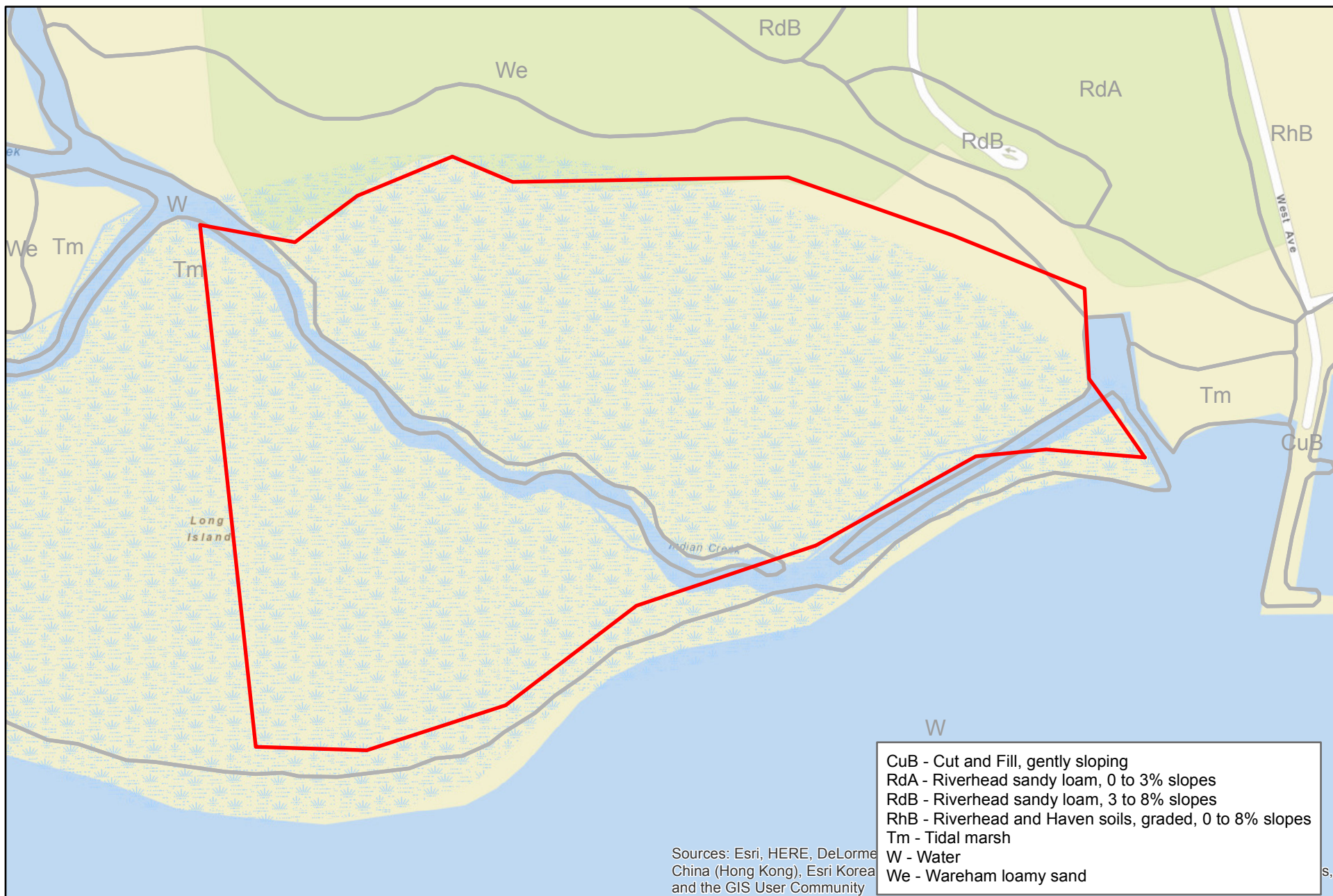
Source: ESRI wms; NRCS Soil, 2013  
Scale: 1 inch = 300 feet



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**FIGURE 3-6  
WEST SAYVILLE SOIL MAP**

Source: ESRI wms; USDA, NRCS soil, 2013  
 Scale: 1 inch = 400 feet



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**FIGURE 3-7  
TOP OF BEDROCK MAP**

Source: ESRI wms; USGS WRIR 86-4318  
Scale: 1 inch = 6,000 feet

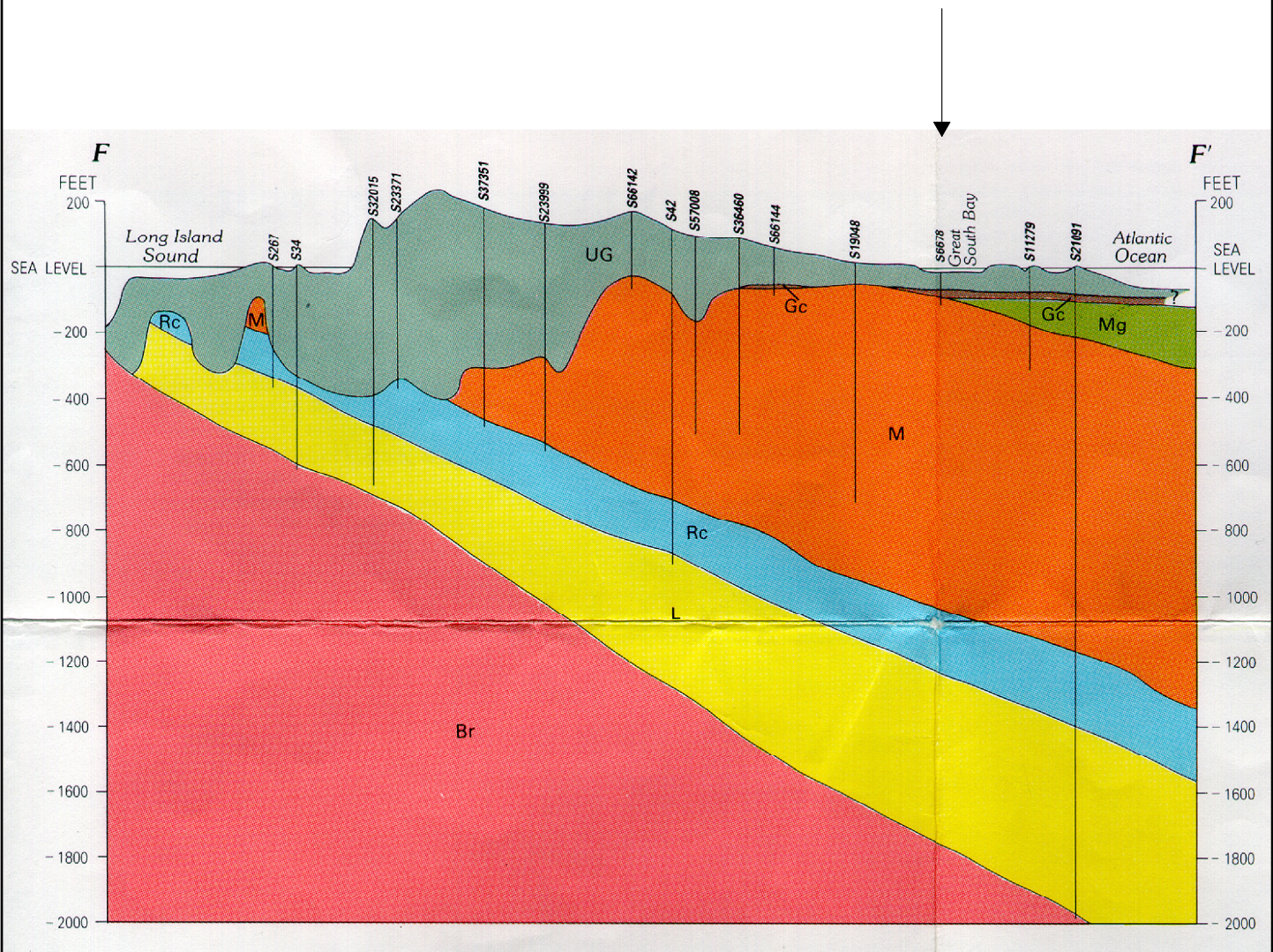


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Approximate location of project site



**FIGURE 3-8 - GARDINER  
COUNTY PARK  
GEOLOGIC CROSS-SECTION**

Source: section F from Smolensky, et. al; USGS  
Hydrologic Atlas:709, 1990  
Scale: NTS, Vertical exaggeration

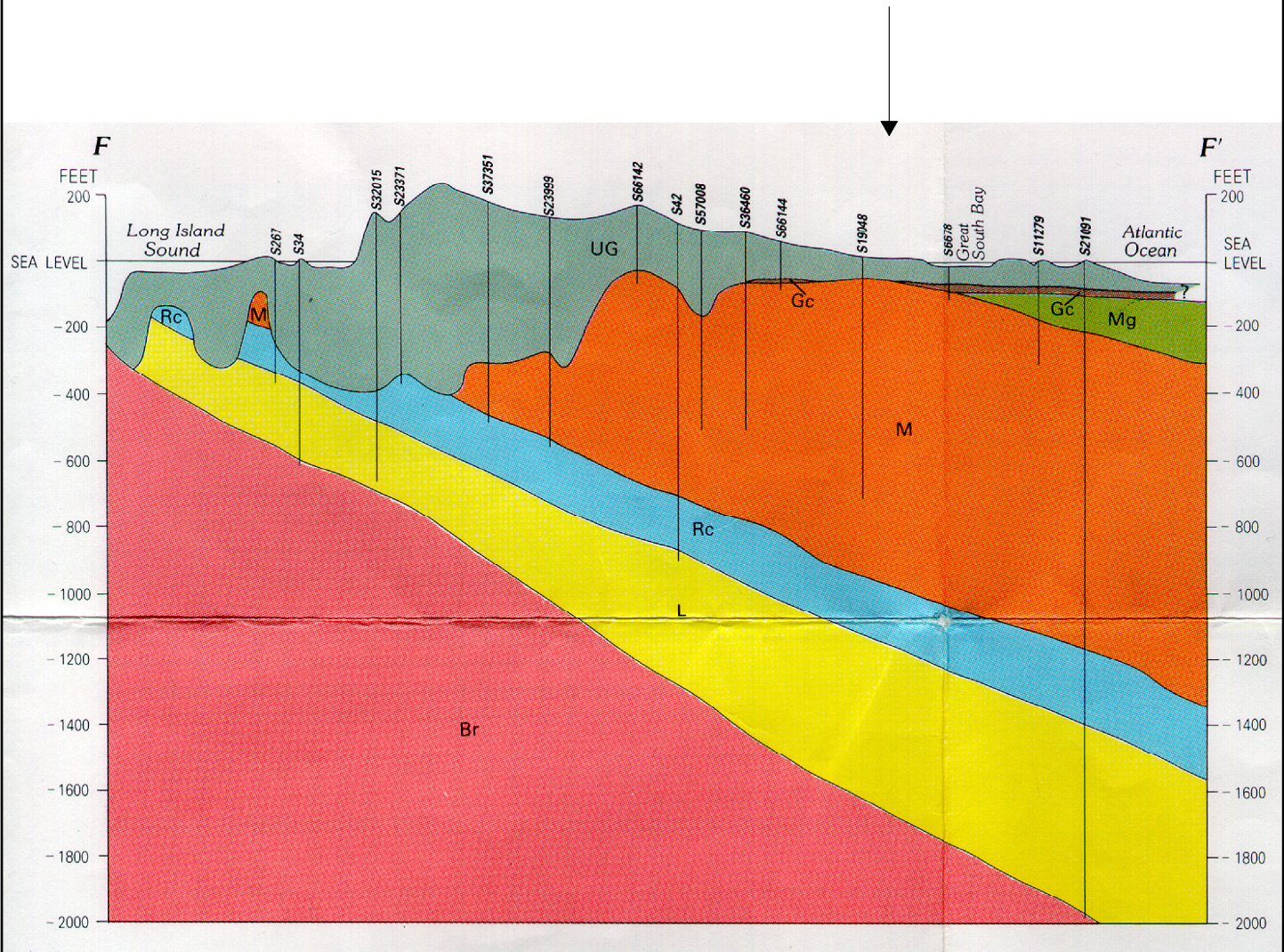


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Approximate location of project site



### FIGURE 3-9 - TIMBER POINT GEOLOGIC CROSS-SECTION

Source: section F from Smolensky, et. al; USGS  
Hydrologic Atlas:709, 1990  
Scale: NTS, Vertical exaggeration



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