Land Use

Ecological Services, Inc.

June 4, 2015

Suffolk County Department of Economic Development and Planning
H Lee Dennison Building
100 Veterans Memorial Highway
PO Box 6100
Hauppauge, NY 11788

Attn: Dr. DeWitt Davies

RE: Mud Creek Aquatic Ecosystem Restoration Feasibility Study
Task 10- SEQR Requirements

Dear Dr. Davies:

As requested, enclosed please find twenty (20) copies of the Suffolk County Full Environmental Assessment Form (EAF) and supporting materials for submission to the Suffolk County Council on Environmental Quality. The submission is intended to allow the County CEQ to review the proposed restoration project and objectives and make recommendations for mitigation of any potential adverse impacts to the environment prior to the finalization of the restoration plans. This submission package contains the following:

- County Full Environmental Assessment Form Part 1 and supporting materials
- Project Description and Site Photographs
- County Full Environmental Assessment Form Parts 2 and 3
- EAF Part 3 supporting narrative

As we discussed, copies of the 60% Completion Draft Construction Plans (completed in January 2015) have not been included with this submission. However, copies of these 60% Completion plans will be brought to the June 17, 2015 meeting and Land Use will present and discuss these plans at the meeting along with the SEQR documents.

If you have any questions regarding the submitted materials or require further information, please contact me at (631)727-2400 or wbowman@landuse.us

Sincerely,

William P. Bowman, PhD
Senior Scientist

enc

570 Expressway Drive South, Suite 2F • Medford, New York • 11763
631-727-2400 • Fax 631-727-2605

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 1 – Environment and Setting

Instructions: Part 1 is to be completed by the applicant or project sponsor. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information. If a question is not applicable to the proposed project indicate with "N/A".

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information

Name of Action/Project: Mud Creek Watershed Aquatic Ecosystem Restoration Project
Project Location (specify Town, Village, Hamlet and attach general location map*): Mud Creek County Park, East Patchogue (Town of Brookhaven). Refer to provided Location Map.
Street Address: Gazzola Drive (approximately 2,000 feet north of Montauk Highway); Refer to provided list of SCTM#'s for Mud Creek County Park properties.
Name of Property or Waterway: Mud Creek County Park

* Maps of Property and Project: Attach relevant available maps including a location map (note: use road map, Hagstrom Atlas, USGS topography map, tax map or equivalent) and preliminary site plans showing orientation, scale, buildings, roads, landmarks, drainage systems, area to be altered by project, etc.

Type of Project: New [x] Expansion [ ]

Capital Program: Item # CP# 8710.110 Date Adopted: 6/28/2005 Amount: $ 643,000
Water Quality Protection and Restoration

Brief Description of Proposed Action (include purpose or need/attach relevant design reports, plans, etc.): Please refer to provided Project Description.

Project Status:

	Start	Completion
Proposal	July 11, 2011	
Study	9/1/2012	3/31/2016
Preliminary Planning	12/3/2012	8/29/2014
Final Plans: Specs	8/29/2014	3/31/2016
Site Acquisition	6/12/2001	Ongoing
Construction	TBD	TBD
Other		

Departments Involved:

	Dept. Performing Design & Construction	Initiating Dept. (if different)
Name:	Dept. of Economic Development and Planning	
Street/PO:	100 Veterans Memorial Parkway, PO Box 6100	
City, State:	Hauppauge, NY	
Zip:	11788-0099	
Contact Person:	Dr. DeWitt Davies	
Business Phone:	(631)853-4865	
Email:	dewitt.davies@suffolkcountyny.gov	

B. Government Approvals, Funding or Sponsorship
("Funding" includes grants, loans, tax relief and any other forms of financial assistance)

Government Entity			If "Yes": Identify Agency and Approval(s) Required	Application Date (Actual or Projected)
i. City Council, Town Board or Village Board of Trustees	Yes ☐	No ☒		
ii. City, Town or Village Planning Board or Commission	Yes ☐	No ☒		
iii. City, Town or Village Zoning Board of Appeals	Yes ☐	No ☒		
iv. Other local agencies	Yes ☒	No ☐	Town of Brookhaven Authorization for work within Town Road Right-of-Way	
v. County agencies	Yes ☒	No ☐	SC Parks, Recreation, and Conservation; SC Public Works; SC Council on Envir. Quality	
vi. Regional agencies	Yes ☐	No ☒		
vii. State agencies	Yes ☒	No ☐	NYS Dept of Environmental Conservation Article 15 and 24, Section 401; NYSPDES	NYSDEC Art 15/24 Submitted 5/13/2015 SPDES NOI/SWPPP 7/30/2015
viii. Federal agencies	Yes ☒	No ☐	US Army Corps of Engineers, Section 10 and 404 of the CWA	Submitted 5/13/2015

ix. Coastal Resources
Is the project site within a Coastal Area or the waterfront area of a Designated Inland Waterway? Yes ☐ No ☒

If YES,

Is the project site located in a community with an approved Local Waterfront Revitalization Program?	Yes ☐ No ☒
Is the project site within a Coastal Erosion Hazard Area?	Yes ☐ No ☒

C. Planning and Zoning

C.1. Planning and Zoning Actions	
Will administrative or legislative adoption or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	Yes ☐ No ☒
C.2. Adopted Land Use Plans	
a. Do any municipally-adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? **If Yes:** Does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes ☐ No ☐	Yes ☐ No ☒
b. Is the site of the proposed action within any local or regional special planning district (i.e. Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; et. al)? **If Yes**, identify the plan(s):	Yes ☐ No ☒
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? **If Yes**, identify the plan(s): Mud Creek Watershed Assemblage Area	Yes ☒ No ☐
C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance? **If Yes**, what is the zoning classification(s) including any applicable overlay district? A Residence 1	Yes ☒ No ☐
b. Is the use permitted or allowed by a special or conditional use permit?	Yes ☒ No ☐
c. Is a zoning change requested as part of the proposed action? **If Yes**, what is the proposed new zoning for the site?	Yes ☐ No ☒
C.4. Existing Community Services	
a. In what school district is the project site located? South Country Central School District	
b. What police or other public protection forces serve the project site? Suffolk County Police 5th Precinct	
c. Which fire protection and emergency medical services serve the project site? Hagerman Fire District	
d. What parks serve the project site? Not applicable. The project site is Suffolk County parkland	

D. Project Details

D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action? (if mixed, include all components) Residential ☐; Industrial ☐; Commercial ☐; Recreational ☒; Other ☒: Aquatic and Terrestrial Habitat Restoration	
b. Total acreage of the site of the proposed action:	39.6 acres
c. Total acreage to be physically disturbed:	22.4 acres
d. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor:	100.5 acres
e. Is the proposed action an expansion of an existing project or use? **If Yes,** what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet, etc.)?	Yes ☐ No ☒
f. Is the proposed action a subdivision, or does it include a subdivision? **If Yes:** *i.* Purpose or type of subdivision? (if mixed, specify types) Residential ☐; Industrial ☐; Commercial ☐; Recreational ☐; Other ☐ *ii.* Is a cluster/conservation layout proposed? Yes ☐ No ☐ Number of lots proposed: Minimum and maximum proposed lot sizes:	Yes ☐ No ☒
g. Will proposed action be constructed in multiple phases? **If No,** What is the anticipated period of construction? **If Yes:** Total number of phases anticipated: Project will likely be constructed in multiple phases. Project phasing has not been determined at this time. Anticipated commencement date of phase I (including demolition): Not Known, Subject to Procurement of Funding Anticipated completion date of final phase: Not Known, Subject to Procurement of Funding Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: Proposed work under this comprehensive project may be conducted in separate phases due to the independent/discrete nature of individual restoration actions. Phased construction may also facilitate project funding and implementation. Removal of dilapidated buildings, debris, and abandoned equipment must occur prior to ecological restoration actions (invasive plant control, stream/floodplain restoration, and oak forest restoration) and could be implemented independently of these ecological restoration actions. Similarly, proposed stormwater improvements could be implemented independently of ecological restoration actions. However, Gazzola Drive stormwater improvements must be implemented before or in conjunction with floodplain restoration actions. Gazzola Drive culvert replacement must also be implemented before or in conjunction with stream/floodplain restoration. Construction of recreational amenities (parking facility and driveway, bare earth nature trail, timber boardwalks, interpretive signs, and benches) must occur in conjunction with ecological restoration actions.	Yes ☒ No ☐

h. Does the project include new residential uses?

If Yes, show number of units proposed.

	Single Family	Two Family	Three Family	Multi-Family (4+)
Initial Phase				
At Completion				

Yes ☐ No ☒

i. Does the proposed action include new non-residential construction (including expansions)?

If Yes:

Total Number of Structures:

Dimensions of largest proposed structure:

Approximate extent of building space to be heated or cooled:

Yes ☐ No ☒

j. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Project proposes to remove existing earthen berms constructed during duck farm operation that impound waters of Mud Creek.

If Yes:

Purpose of the impoundment:

If a water impoundment, the principal source of the water:
Ground Water ☐; Surface Water Streams ☐; Other ☐ (specify):

If other than water, identify the type of impounded/contained liquids and their source:

Approximate size of the proposed impoundment (include units):
Volume: Surface area:

Dimensions of the proposed dam or impounding structure:

Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock wood, concrete):

Yes ☐ No ☒

D.2. Project Operations

a. Does the proposed action include any excavation, mining or dredging, during construction, operations or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

What is the purpose of the excavation or dredging?
Remove fine sediments and organic matter deposited behind farm impoundments to improve water and sediment quality, restore natural floodplain elevation, and remove invasive plant rhizomes.

How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? 23,670 cubic yards of sediments from Mud Creek floodplain Floodplain earthwork duration to be determined, but estimated
Volume: Over what duration of time: at 6 months

Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them: Fine-grained sediments and moderate to highly decomposed organic matter overlying medium-grained sands. Sediment sampling results pending to document gain size composition and organic matter content. Sediment disposal options (either on-site or at landfill) shall be informed/dictated by pending sediment sampling results.

Yes ☒ No ☐

D.2.a (cont.) – only answer following if checked "Yes" above

Will there be onsite dewatering or processing of excavated materials?
If Yes, describe: Yes On-site dewatering is expected to occur in a designated de-watering area located at southwest corner of project site in a former duck farm settling basin.

What is the total area to be dredged or excavated? 6.7 acres

What is the maximum area to be worked at any one time?
Maximum area worked cannot be determined at this time as dependent on contractor equipment deployment and scheduling.

What would be the maximum depth of excavation or dredging? Maximum 3.0-7.0 feet

Will the excavation require blasting? No

Summarize site reclamation goals and plans:
Remove fine sediments and organic matter deposited behind farm impoundments to improve water and sediment quality, restore natural floodplain elevation, and remove invasive plant rhizomes.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, water body, shoreline, beach or adjacent area?

If Yes:

Identify the wetland or water body which would be affected (by name, water index number, wetland map number or geographic description):
East Branch of Mud Creek, NYSDEC FWW ID# B-4

Describe how the proposed action would affect that water body or wetland, e.g. excavation, fill, placement of structures or creation of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Floodplain restoration area is 6.7 acres. Please refer to provided project description for proposed in-wetland excavation, fill, and channel construction.

Will proposed action cause or result in disturbance to bottom sediments?
If Yes, describe: Excavation of 23,670 cu yds of organic sediments and Phragmites rhizomes and to construct new stream channel and remove existing earthen berms. Placement of 11,455 cubic yards of clean sand fill to create floodplain consistent with 1-2 year flood elevation.

Will proposed action cause or result in the destruction or removal of aquatic vegetation? Yes [x] No [ ]

If Yes:

Area of vegetation proposed to be removed:
5.2 acres of Phragmites australis marsh

Expected acreage of aquatic vegetation remaining after project completion:
Restored floodplain will have 6.2 acres of forested hardwood swamp bordering constructed stream channel

Purpose of proposed removal (e.g., beach clearing, invasive control, boat access):
Ecological habitat improvement through invasive plant removal.

Proposed method of plant removal:
Herbicide application followed by excavation of rhizomes and maintenance herbicide treatments until native plant establishment

If chemical/herbicide treatment will be used, specify product(s):
Herbicide application contractor shall specify product (subject to NYSDEC approval). However, AqauNeet is expected to be utilized for Phragmites control.

Describe any proposed reclamation/mitigation following disturbance:
Native tree and shrub plantings (along with native herbaceous plant seed mix) throughout 6.7 acre floodplain restoration.

c. Will the proposed action use or create a new demand for water?

Yes ☐ No ☒

If Yes:

Total anticipated water usage/demand per day:
Will the proposed action obtain water from an existing public water supply?

If Yes:

Name of district/service area:
Does the existing public water supply have capacity to serve the proposal? Yes ☐ No ☐
Is the project site in the existing district? Yes ☐ No ☐
Is expansion of the district needed? Yes ☐ No ☐
Do existing lines serve the project site? Yes ☐ No ☐

Will line extension within an existing district be necessary to supply the project?

If Yes:

Describe extensions or capacity expansions proposed to serve this project:
Source(s) of supply for the district:

Is a new water supply district or service area proposed to be formed to serve the project site?

If Yes:

Applicant/sponsor for new district:
Date application submitted or anticipated:
Proposed source(s) of supply for new district:

If a public water supply will not be used, describe plans to provide water supply for the project:
If water supply will be from wells (public or private), what will be the maximum pumping capacity?

d. Will the proposed action generate liquid wastes?

Yes ☐ No ☒

If Yes:

Total anticipated liquid waste generation per day:

Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):

If sanitary wastewater identify proposed disinfection technology and treatment goals for the following:

Disinfection technology:
Nitrogen:
Phosphorus:
Total Suspended Soilds (TSS):
Biological Oxygen Demand (BOD):

Will the proposed action use any existing public wastewater treatment facilities?

If Yes:

Name of wastewater treatment plant to be used:

Name of district:

Does the existing wastewater treatment plant have capacity to serve the project?
Yes ☐ No ☐

Is the project site in the existing district?
Yes ☐ No ☐

Is expansion of the district needed?
Yes ☐ No ☐

Do existing sewer lines serve the project site?
Yes ☐ No ☐

Will line extension within an existing district be necessary to serve the project?

If Yes:

Describe extensions or capacity expansions proposed to serve this project:

Will a new wastewater (sewage) treatment district be formed to serve the project site?

If Yes:

Applicant/Sponsor for new district:

Date application submitted or anticipated:

What is the receiving water for the wastewater discharge?

If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

Describe any plans or designs to capture, recycle or reuse liquid waste:

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? **If Yes:** How much impervious surface will the project create in relation to total size of project parcel? Area of Impervious Surface: 0.0 acres, No new impervious surfaces shall be created. Area of Parcel: 39.6 acres Describe types of new point sources: No new point sources proposed. Existing stormwater discharges shall be modified to reduce stormwater volume and/or improve water quality. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? Stormwater runoff during construction shall be managed with silt fence/haybales and other erosion and sediment control best practices. Existing road stormwater shall be directed into new drywells to reduce discharge to Mud Creek and its wetlands. If to surface waters, identify receiving water bodies or wetlands: East Branch of Mud Creek Will stormwater runoff flow to adjacent properties? Yes ☐ No ☒ Does proposed plan minimize impervious surfaces use pervious materials or collect and re-use stormwater? Yes ☒ No ☐	Yes ☒ No ☐
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? **If Yes,** identify: Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles): Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers): Stationary sources during operations (e.g., process emissions, large boilers, electric generation):	Yes ☐ No ☒
g. Will any air emission sources named in D.2.f (above) require a NY State Air Registration, Air Facility Permit or Federal Clean Air Act Title IV or Title V Permit? **If Yes:** Is the project site located in an Air Quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes ☐ No ☐ In addition to emissions as calculated in the application, the project will generate: - Tons/year (metric) of Carbon Dioxide (CO_2) - Tons/year (metric) of Nitrous Oxide (N_2O) - Tons/year (metric) of Perfluorocarbons (PFCs) - Tons/year (metric) of Sulfur Hexafluoride (SF_6) - Tons/year (metric) of Carbon Dioxide equivalent of Hydroflorocarbons (HFCS) - Tons/year (metric) of Hazardous Air Pollutants (HAPs)	Yes ☐ No ☒

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? **If Yes:** Estimate methane generation in tons/year (metric): Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring):	Yes ☐ No ☒
i. Will the proposed action result in the release of air pollutants from open-air operations or processes such as quarry or landfill operations? **If Yes,** describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):	Yes ☐ No ☒
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? **If Yes:** When is the peak traffic expected? (check all that apply) Morning ☐; Evening ☐; Weekend ☐; Randomly ☐ between the hours of to For commercial activities only, projected number of semi-trailer truck trips/day: Parking spaces: Existing: Proposed: Net Increase/Decrease: Does the proposed action include any shared use parking? Yes ☐ No ☐ If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? Yes ☐ No ☐ Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes ☐ No ☐ Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes ☐ No ☐	Yes ☐ No ☒
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? **If Yes:** Estimate annual electricity demand during operation of the proposed action: Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility or other): Will the proposed action require a new, or an upgrade to, an existing substation? Yes ☐ No ☐	Yes ☐ No ☒

l. Hours of operation (Answer all items which apply)

During Construction	During Operations
Monday-Friday:	Monday-Friday:
Saturday:	Saturday:
Sunday:	Sunday:
Holidays:	Holidays:

N/A ☐

m. Does the proposed action produce noise that will exceed existing ambient noise levels during construction, operation or both?

Yes ☒ No ☐

If Yes:

Provide details including sources, time of day and duration:
Construction equipment during 8 hour work day (7 AM - 4 PM) for building demolition, floodplain/upland restoration, and stormwater improvements.

Will proposed action remove existing natural barriers that could act as a noise barrier or screen?
Yes ☐ No ☒ Describe:

n. Will the proposed action have outdoor lighting?

Yes ☐ No ☒

If Yes:

Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Will proposed action remove existing natural barriers that could act as a light barrier or screen?
Yes ☐ No ☐ Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day?

Yes ☐ No ☒

If Yes:

Describe possible sources, potential frequency and duration of odor emissions and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (over 1,100 gallons) or chemical products (over 550 gallons)?

Yes ☐ No ☒

If Yes:

Product(s) to be stored:

Volume(s): per unit time: (e.g., month, year)

Generally describe proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?

Yes ☒ No ☐

If Yes:

Describe proposed treatment(s):
Herbicide treatment during construction and maintenance period of several species of aquatic and terrestrial invasive plants.

Will the proposed action use Integrated Pest Management Practices?
Yes ☐ No ☒

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? **If Yes:** Describe any solid waste(s) to be generated during construction or operation of the facility: Construction: tons per (unit of time) Operation: tons per (unit of time) Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: Construction: Operation: Proposed disposal methods/facilities for solid waste generated on-site: Construction: Operation:	Yes ☐ No ☒
s. Does the proposed action include construction or modification of a solid waste management facility? **If Yes:** Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill or other disposal activities): Anticipated rate of disposal/processing: tons/month, if transfer or other non-combustion/thermal treatment, or tons/hour, if combustion or thermal treatment If landfill, anticipated site life: years	Yes ☐ No ☒
t. Will proposed action at the site involve the commercial generation, treatment, storage or disposal of hazardous waste? **If Yes:** Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: Generally describe processes or activities involving hazardous wastes or constituents: Specify amount to be handled or generated: tons/month Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes ☐ No ☐ **If Yes:** Provide name and location of facility: **If No:** Describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:	Yes ☐ No ☒

u. Will proposed action adhere to Leadership in Energy and Environmental Design (LEED) or any other green building principals? **If Yes:** Describe proposed green building methods and attempted level of certification, if any:	Yes ☐ No ☒
v. Does the project sponsor propose the use of energy benchmarking to monitor and adjust project energy needs? **If Yes, explain:**	Yes ☐ No ☒
w. Will the proposed action use native plants for all landscaping needs? **Identify species to be used and method of irrigation:** 23 native trees and shrubs species proposed for planting and over 40 species of native grasses and wildflowers for seeding. Irrigation shall be contractor's responsibility under guarantee requirements. Irrigation will likely need to utilize a watering truck/hydroseeder.	Yes ☒ No ☐
x. Does the proposed action promote local tourism? **If Yes, explain:** The proposed action will provide additional recreational opportunities and, therefore, will promote local tourism.	Yes ☒ No ☐

E. Site and Setting of Proposed Action

E.1. Land Uses on and Surrounding the Project Site

a. Existing land uses (Check all uses the occur on, adjoining and near the project site): (include map) Site Ecological Communities Map Provided.

Urban ☐ Industrial ☐ Commercial ☒ Residential ☒ Rural ☐
Forest ☒ Agriculture ☒ Aquatic ☒ Other ☐ Specify:

If mix of uses, generally describe:

b. Land uses and cover types on the project site:

Land Use or Cover Type	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
Roads, buildings and other paved or impervious surfaces	3.0	0.5	-2.5
Forested (Excludes forested wetlands)	17.0	25.4	+8.4
Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	10.5	4.7	-5.8
Agricultural (includes active orchards, fields, greenhouse, etc.)	0.2	0.2	0.0
Surface water features (lakes, ponds, streams, rivers, etc.)	1.0	0.0	-1.0
Wetlands (Includes forested wetlands) (freshwater or tidal)	7.8	8.8	+1.0
Non-Vegetated (bare rock, earth or fill)	0.0	0.0	0.0
Other Describe:			
TOTAL:	39.6	39.6	

c. Is the project site presently used by members of the community for public recreation? **If Yes,** explain:	Yes ☐ No ☒
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers or group homes) within 1,500 feet of the project site? **If Yes,** identify facilities: Concern for Independent Living (East Patchogue): 270 Patchogue-Yaphank Road, East Patchogue NY 11772 Broookhaven Memorial Hospital: 101 Hospital Road, East Patchogue, NY 11772	Yes ☒ No ☐
e. Does the project site contain an existing dam? The site does not have any engineered dams, although the earthen duck farm berms serve as impoundments. **If Yes:** Dimensions of the dam and impoundment: - Dam height: feet - Dam length: feet - Surface area: acres - Volume impounded: gallons or acre-feet Dam's existing hazard classification: Provide date and summarize results of last inspection:	Yes ☐ No ☒
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? **If Yes:** Has the facility been formally closed? Yes ☐ No ☐ If Yes, cite sources/documentation: Describe the location of the project site relative to the boundaries of the solid waste management facility: Describe any development constraints due to the prior solid waste activities:	Yes ☐ No ☒
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? **If Yes:** Describe waste(s) handled and waste management activities, including approximate time when activities occurred:	Yes ☐ No ☒

h. Has there been a reported contamination spill at the proposed project site or have any remedial actions been conducted at or adjacent to the proposed site?

Yes [x] No [ ]

If Yes:

Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? (Check all that apply)

[x] Yes – Spills Incidents database — Provide DEC ID number(s): 8900843

[ ] Yes – Environmental Site Remediation database — Provide DEC ID number(s):

[ ] Neither database

If site has been subject to RCRA corrective activities, describe control measures:

Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes [ ] No [x]

If Yes:

DEC ID number(s):

Describe current status of site(s):

E.1.h. (cont.) – only answer following if checked "Yes" above

Is the project site subject to an institutional control limiting property uses? No

If Yes:

DEC site ID number(s):

Describe the type of institutional control (e.g., deed restriction or easement):

Describe any use limitations:

Describe any engineering controls:

Will the project affect the institutional or engineering controls in place? Yes [ ] No [ ]
Explain:

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site:
1700 feet

b. Are there bedrock outcroppings on the project site? No

Yes [ ] No [x]

If Yes:

What proportion of the site is comprised of bedrock outcroppings?
%

c. Predominant soil type(s) present on project site: (include map)

1. Riverhead Sandy Loam	36.9	% of site
2. Riverhead and Haven Soils	22.8	% of site
3. Carver and Plymouth Sands	17.8	% of site
4. Cut and Fill Land	13.3	% of site
5. Atinson Sand	8.7	% of site

d. What is the average depth to the water table on the project site? 0-19 feet below ground surface

e. Drainage status of project site soils:

1. [x] Well Drained	78	% of site
2. [ ] Moderately Well Drained		% of site
3. [x] Poorly Drained	9	% of site

Cut and fill lands with variable drainage characteristics account for 13.3% of the site

f. Approximate proportion of proposed action site with slopes: (include topographic map)

1. [x] 0-10%	<95	% of site
2. [ ] 11-15%		% of site
3. [x] 16% or greater	>5	% of site

Please refer to provided copy of site topographic map. Areas with greater than 15% slope result from historic grading, excavation, and berm construction.

g. Are there any unique geologic features on the project site? Yes [ ] No [x]

If Yes, describe:

h. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes [x] No [ ]

i. Do any wetlands or other waterbodies adjoin the project site? Yes [x] No [ ]

If Yes to either E.2.h or E.2.i, continue. If No, skip to E.2.m

j. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? (include map) Please refer to provided Ecological Communities Map Yes [x] No [ ]

k. For each identified wetland and waterbody on the project site, provide the following information:

Streams:	Name: East Branch of Mud Creek	Classification: Class C(TS)
Lakes or Ponds:	Name: Unnamed Ponds in Mud Ck Floodplain	Classification: N/A
Wetlands:	Name: Mud Creek	Approx. Size: 8.8 acres
Wetland No. (if regulated by DEC):	B-4	

l. Are any of the above waterbodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes [ ] No [x]

If Yes, name of impaired water body/bodies and basis for listing as impaired:

m. Is the project site in a designated floodway? Yes [ ] No [x]

n. Is the project site in the 100 year floodplain? Yes [x] No [ ]

o. Is the project site in the 500 year floodplain? Yes [x] No [ ]

p. Is the project site located over or immediately adjoining a primary, principal or sole source aquifer? Yes [x] No [ ]

If Yes:

Name of aquifer:	Nassau-Suffolk Sole Source Aquifer
Source of information:	USEPA- Region 2 Water

q. Identify the predominant wildlife species that occupy or use the project site:

A complete list of the wildlife species observed can be found in the Task 4 (Existing Conditions) Report in Appendix B	
(www.suffolkcountyny.gov/Departments/Planning/Divisions/EnvironmentalPlanning/ProjectsInitiatives/DuckFarms/MudCreek.aspx)	

r. Does the project site contain a designated significant natural community? Yes ☐ No ☒

If Yes:

Describe the habitat/community (composition, function and basis for designation:
Source(s) of description or evaluation:
Extent of community/habitat: - Currently: acres - Following completion of project as proposed: acres - Gain or loss (indicate + or –): acres

s. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? Yes ☐ No ☒

As per field inspections (described in Task 4-Existing Conditions report) and NYNHP correspondence dated November 19, 2013 (attached)

If Yes:

Species and listing (endangered or threatened):
Nature of use of site by the species (e.g., resident, seasonal, transient):

t. Does project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? Yes ☒ No ☐

If Yes:

Species and listing: Eastern box turtle (Terrapene carolina), Special Concern
Nature of use of site by the species (e.g., resident, seasonal, transient): Resident

u. Is the project site or adjoining area currently used for hunting, trapping, fishing or shellfishing? Yes ☐ No ☒

If Yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? Yes ☐ No ☒

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? Yes ☐ No ☒

If Yes:

Acreage(s) on project site:
Source(s) of soil rating(s):

c.	Does the project site contain all or part of, or is it substantially contiguous to a registered National Natural Landmark? **If Yes:** Nature of the natural landmark: ☐ Biological Community; ☐ Geological Feature Provide brief description of landmark, including values behind designation and approximate size/extent:	Yes ☐ No ☒
d.	Is the project site located in or does it adjoin a state listed Critical Environmental Area, including Special Groundwater Protection Areas? **If Yes:** CEA name: Basis for designation: Designating agency and date:	Yes ☐ No ☒
e.	Does the project site contain, or is it substantially contiguous to, a building, archeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places? No, please refer to provided correspondence from NYSHPO dated March 3, 2015. **If Yes:** Nature of historic/archaeological resource: ☐ Archaeological Site; ☐ Historic Building or district Name: Brief description of attributes on which listing is based:	Yes ☐ No ☒
f.	Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? No, please refer to provided correspondence from NYSHPO dated March 3, 2015.	Yes ☐ No ☒
g.	Have additional archaeological or historic site(s) or resources been identified on the project site? **If Yes:** Describe possible resource(s): Basis for identification:	Yes ☐ No ☒
h.	Would the project site be visible from any officially designated and publicly assessable federal, state or local scenic or aesthetic resource? **If Yes:** Identify resource: Nature of, or basis for designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Distance between project and resource:	Yes ☐ No ☒
i.	Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR Part 666? **If Yes:** Identify the name of the river and its designation: Is the activity consistent with development restrictions contained in 6 NYCRR Part 666? Yes ☐ No ☐	Yes ☐ No ☒

F. Additional Information

Attach any additional information which may be needed to clarify your project.
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name:

Date: June 2, 2015

Signature: _____

Title: Senior Scientist, Land Use Ecological Services as Preparer/Agent for Suffolk County Department of Economic Development and Planning

Mud Creek Watershed Aquatic Ecosystem Restoration Feasibility Study

Project Description for CEQ Review

Suffolk County Executive
Hon. Steven Bellone

Suffolk County Department of Economic Development and Planning
100 Veterans Memorial Highway
P.O. Box 6100
Hauppauge, NY 11788-0099

Joanne Minieri
Deputy County Executive and Commissioner

Division of Planning and Environment
Sarah Lansdale, AICP
Director

Prepared by:

Land Use Ecological Services, Inc.
570 Expressway Drive South, Ste. 2F
Medford, NY 11763
(T) 631-727-2400

H2M, Inc.
538 Broad Hollow Road, 4th Floor
Melville, NY 11747
(T) 631-756-8000

Inter-Fluve, Inc.
301 S. Livingston Street, Suite 200
Madison, WI 53703
(T) 608-271-6355

May 27, 2015

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Contents

1 Introduction 1
1.1 Project Location 1
1.2 Site History 2
2 Existing Conditions 2
2.1 East Branch Channel Morphology 2
2.2 Freshwater Fisheries 3
2.3 Stream Macroinvertebrates 4
2.4 Upland and Wetland Communities of Mud Creek 4
2.5 Endangered and Threatened Species 7
3 Dilapidated Building Demolition and Debris Removal 7
4 Proposed Ecological Restoration 7
4.1 Coastal Plain Stream Restoration 7
4.1.1 Channel Design and Dimensions 8
4.1.2 Floodplain Excavation, Construction Sequence, and Sediment/Water Management. 8
4.1.3 Floodplain Plantings 9
4.1.4 Culvert Improvements at Gazzola Drive 9
4.1.5 Phragmites Management 9
4.1.6 Floodplain Complexity 9
4.1.7 Sediment Disposal 10
4.2 Stormwater Improvements 10
4.3 Upland Restoration 11
4.3.1 Upland Forest Restoration 11
4.3.2 Preservation of Native Forest Areas 11
4.3.3 Forest Enhancement Areas 11
4.4 Site Re-Development 12
4.4.1 Nature Paths and Boardwalks 12
4.4.2 Parking Facilities 12
5 Literature Cited 12

1 Introduction

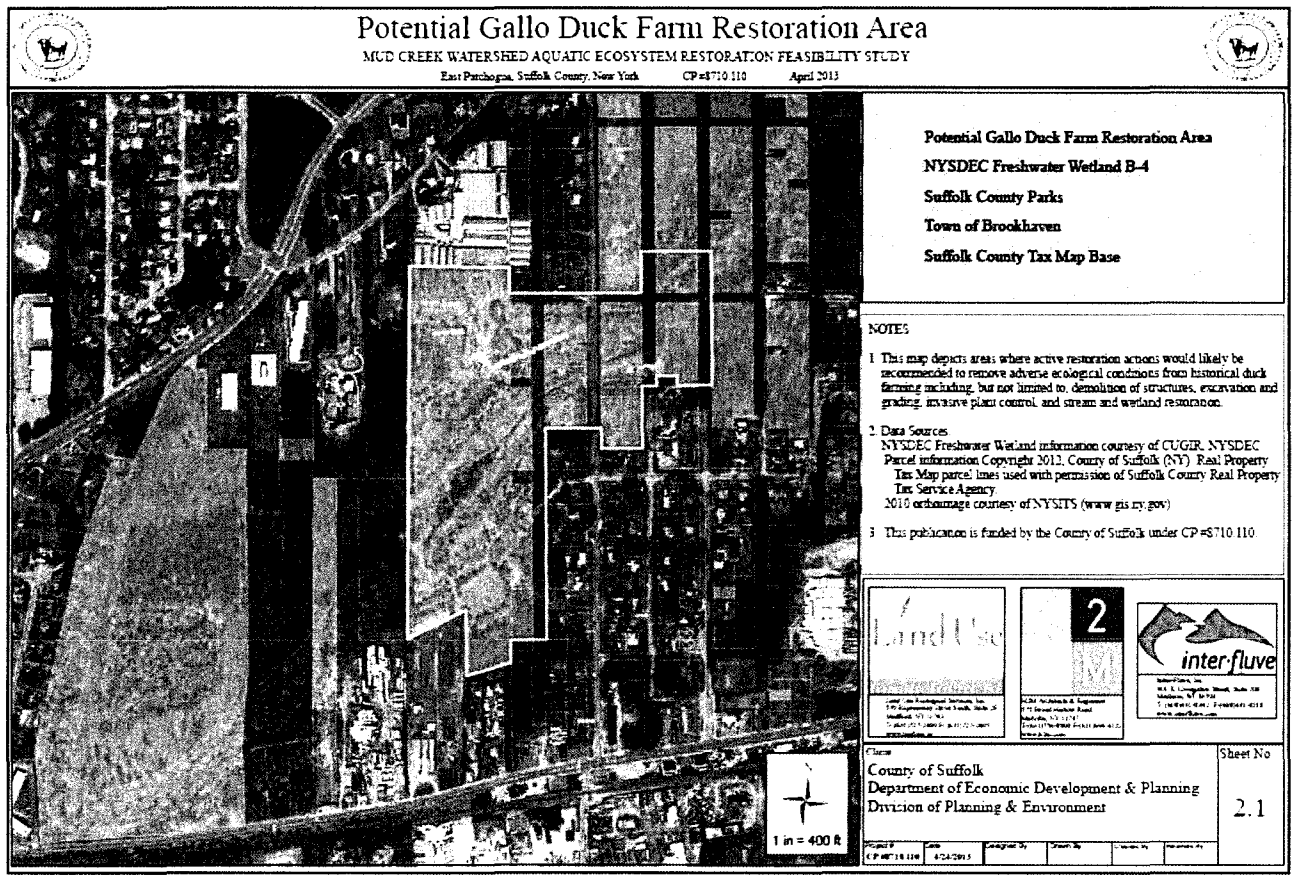
The project site consists of 39.6 acres of terrestrial and freshwater wetland habitats on the former Gallo duck farm, which operated between 1922 and 1987. The former Gallo duck farm site is situated on the East Branch of Mud Creek in East Patchogue. The duck farm property was acquired by Suffolk County through County tax lien procedures and transferred to the Suffolk County Department of Parks, Recreation, and Conservation in 2001. In late 2012, Suffolk County contracted with Land Use Ecological Services, H2M Architects and Engineers, and Inter-Fluve Inc. to develop an ecological restoration plan for the terrestrial and aquatic habitats on the former Gallo duck farm, produce final construction plans and specifications, construction cost estimates, and obtain regulatory permits for the implementation of recommended restoration actions. Studies and reports describing the completed site investigations can be obtained from Suffolk County's webpage for the project at http://www.suffolkcountyny.gov/Departments/Planning/Divisions/EnvironmentalPlanning/ProjectsInitiatives/DuckFarms/MudCreek.aspx. Copies of these reports are available upon from Land Use upon request.

Conceptual plans for the ecological restoration of the former Gallo duck farm were developed in April 2014 and preliminary meetings were held with Suffolk County Council on Environmental Quality, Suffolk County Department of Public Works, NYSDEC, Town of Brookhaven, Legislator Calarco's office, and the general public between May and August of 2014. Draft Construction Plans (60% Completion) have been prepared. Restoration of the terrestrial and aquatic habitats of the former Gallo duck farm is expected to involve the following restoration actions and site improvements:

- Creation of 2,300 linear feet of new coastal plain stream;
- Removal of 23,670 cubic yards of accumulated organic sediments and invasive plant rhizomes;
- Restoration of 6.7 acres of floodplain with forested wetlands;
- Restoration of 12.1 acres of upland oak forest and meadows;
- Installation of stormwater management structures at Gazzola Drive and Montauk Highway;
- Installation of an ecologically-friendly culvert at Gazzola Drive;
- Removal of all dilapidated buildings (including asbestos containing materials), non-hazardous debris, and abandoned equipment;
- Construction of new driveway and parking facility;
- Construction of bare earth nature trail, elevated timber boardwalks, interpretive signage, benches, and litter receptacles.

1.1 Project Location

The former Gallo duck farm is located on Gazzola Drive between Montauk Highway (to the south) and Patchogue-Yaphank Road/ County Route 101 (to the north).



1.2 Site History

The Gallo duck farm operated on the site for approximately 65 years. The Gallo duck farm started in 1922, and continued as a family-run business until cessation of duck production in 1987. The average number of ducks present on the farm at a given time was estimated at 70,000 ducks on 11.9 acres of duck pens in the early 1970s. At maximum production, 350,000 ducks were grown on the farm annually (Suffolk County Department of Planning, 2009). Duck wastes were discharged directly into the East Branch of Mud Creek with little or no treatment. Other environmental impacts resulting from the duck farm operation include the conversion of woodlands to pens and open feedlots; construction of various duck farm buildings (now dilapidated), many with asbestos-containing materials; extensive manipulation of the streambed and floodplain to create pond areas for duck use; installation of dikes in the 1970s to prevent runoff from duck pens and feedlots from discharging into the natural stream corridor; construction of waste disposal lagoons; and surface water quality degradation (Suffolk County Department of Planning, 2009). The duck farm property was acquired by Suffolk County through County tax lien procedures and transferred to the Suffolk County Department of Parks, Recreation, and Conservation in 2001.

2 Existing Conditions

2.1 East Branch Channel Morphology

The East Branch of Mud Creek has been extensively manipulated by human activities during the past century through the construction of impoundments, excavation and modification of the stream channel and

floodplain, construction of berms parallel and perpendicular to stream flow, construction of road crossings at Gazzola Drive and Montauk Highway, and excavation of ditches.

Three (3) in-stream structures and/or debris, such as berms and culvert crossings, were observed to impede stream flow on the former duck farm (other in-stream barriers are located downstream of the former duck farm and on the West Branch). The following is a list of these in-stream structures on the former duck farm:

- East Branch
  - Gazzola Drive Culvert
  - Duck Pond Berm Culvert
  - Culvert in Mowed Path Access Road at Downstream End of Duck Pond

The East Branch of Mud Creek begins to the northeast of Gazzola Drive in a wet meadow bordered by forested wetlands located at the upstream limit of the duck farm (Photo A). The emergent marsh is maintained in part by a low-elevation earthen dam to the east of an abandoned duck building. Water flows under this dam through a small, partially collapsed pipe and into a straight ditch (Photo B) before entering emergent marsh dominated by *Phragmites* (Photo C). This *Phragmites* marsh is created by the damming effects of Gazzola Drive. While culverts exist under Gazzola Drive, they are either wholly or partially blocked by sand and vegetation (Photo D). Due to the obstructed water flow under Gazzola Drive, no defined stream channel exists upstream of Gazzola Drive. Within the *Phragmites* marsh, the substrate consists of organics and loose sand over consolidated sand.

Downstream of Gazzola Drive, water flow consolidates into a single, straightened channel (Photo E) that flows through a series of in-channel ponds created for the duck farm (Photo F). Within the former duck farm, sediments consist of an organic layer approximately 0.3 to 0.6 feet in thickness overlaid on one or two sand or sand/gravel layers to a depth of refusal of 2.0 to 2.3 feet. The channel and ponds are separated from areas that historically held ducks by earthen berms, located on the north and south sides of the channels, intended to prevent the ducks from accessing the stream and to prevent duck waste being carried in via surface runoff into the stream. Prior to entering the ponds, the stream is about 10 feet wide with approximately 2-foot banks. It is a straightened ditch with about 2 feet of unconsolidated sand above consolidated sand. Overhanging vegetation and trees provide 60-80% cover.

The shallow ponds on the former duck farm property contain more than 1-7 feet of loose organics and mud. With no cover by tree canopy or overhanging shrubs, the water temperature increases substantially in these ponds above the incoming stream temperature. Berms with culverts separate the ponds before water flows through a culvert under an earthen dam and grass road about 1,200 feet downstream of Gazzola Drive. The upstream culvert at this grass road dam is at an elevation of 15.40 ft (NAVD 1988); the downstream culvert is at an elevation of 13.60 ft (Photo G). The different elevations of culvert inverts and the limited capacity of the culvert to convey flow cause streamwaters to be impounded and the water surface of the shallow ponds to be nearly 3 feet above the stream elevation downstream of the grass road dam.

Downstream of the grass road dam, the East Branch is a meandering stream through a thickly vegetated forested wetland. The channel flows along the east edge of the valley and consists of pools, riffles, and runs.

2.2 Freshwater Fisheries

Mud Creek contains a heritage strain of brook trout (*Salvelinus fontinalis*)--a population that has sustained itself by natural reproduction and is not known to have been genetically altered by the introduction of stocked fish. The genetic makeup of this strain was analyzed in a statewide study aimed at identifying

different strains of inland brook trout. The report summarizing those findings, (Perkins et al., 1993), recommended that the protection of the genetic diversity found among New York's heritage strain brook trout should be a high priority for all State fishery managers in order to maintain this substantial and irreplaceable portion of the total diversity within the species complex. Given the designation of the brook trout as New York's official state fish, and the unique status of the Mud Creek strain, a principal goal of the Mud Creek restoration project has been to create stream habitat suitable for brook trout at Mud Creek County Park.

Chart Guthrie, Regional Fisheries Manager for NYSDEC Region 1, and Inter-Fluve conducted a survey of the presence and abundance of fish species along both the East Branch and West Branch of Mud Creek on June 12, 2013. All species collected were measured, recorded, and reintroduced to the creek. Observed fish species included eastern mudminnow (*Umbra pygmaea*), American eel (*Anguilla rostrata*), brook trout (*Salvelinus fontinalis*), and goldfish (*Carassius auratus*). Sampling locations, number of each species observed, and length range for this fish survey are provided in the Task 4 (*Existing Conditions*) report. Species assemblages in Mud Creek have not changed since the last fish survey conducted by the USACE in 2005 (USACE, 2005). American eel was the most abundant fish species observed with lesser numbers of eastern mudminnow and goldfish. Three brook trout (103-183 mm in length) were observed in the East Branch downstream of the concrete rubble/tire impoundment and approximately 850 feet downstream of the former Gallo Duck Farm. The small population of brook trout exists within a short length of suitable habitat (approximately 1,000 linear feet) in both the East Branch and West Branch system that is subject to significant impairments, including stormwater discharge from Montauk Highway, contribution of warm waters from the former Gallo Duck Farm, and historic channel manipulations.

2.3 Stream Macroinvertebrates

Macroinvertebrate communities of the East Branch of Mud Creek were qualitatively assessed utilizing a D-frame net to gather invertebrates from various habitat types such as the stream channel bed, channel margins, and stream reaches with overhanging vegetation. Macroinvertebrate communities of the East Branch were dominated by species tolerant of pollution and poor water quality, such as chironomid (midge) larvae and scud amphipods, due to the effects of the former Gallo Duck Farm (East Branch). Data on macroinvertebrate community composition, sampled abundance, and tolerance value are presented in the Task 4 (*Existing Conditions*) report. Few macroinvertebrates classified as intolerant of poor water quality were observed in Mud Creek. No caddisflies, mayflies or stoneflies (three taxa indicative of high water quality) were observed on the East Branch.

2.4 Upland and Wetland Communities of Mud Creek

Upland and freshwater wetland ecological communities present at Mud Creek County Park include successional old fields (11.1 acres), successional hardwood forests (8.8 acres), successional red cedar woodlands (1.6 acres), coastal oak-heath forests (5.4 acres), *Phragmites* marshes (5.2 acres), shallow eutrophic ponds (1.0 acres), forested wetlands dominated by pussy willow (*Salix discolor*) and red maple (*Acer rubrum*) (2.2 acres), red maple-hardwood swamps (0.4 acres), and wet meadow (0.1 acres). The locations of these upland and wetland ecological communities are presented in Figure 1. All plant and wildlife species observed during field inspections conducted between May and September 2013 are listed in Appendix B of the Task 4 (*Existing Conditions*) report.

Phragmites Marshes: Historical clearing, grading and channel modification, nutrient loading, and stream impoundment have created highly favorable conditions for colonization and expansion of the invasive common reed (*Phragmites australis*), which dominates ground coverage in most of the freshwater wetlands

(5.2 acres). Substrate within the *Phragmites* stands typically consists of a layer of organic sediments between 0.3 to 0.6 feet thick underlain by sand. The rhizomatous roots of *Phragmites* extend to a depth of at least 2.0 feet.

Shallow Eutrophic Ponds: There are three shallow eutrophic ponds totaling 1.0 acres at Mud Creek County Park, located upstream of the earthen berm at the western border of the former Gallo Duck Farm. The ponds are approximately 3.0 feet deep with another 3.0 feet of loose organic matter and mud. These ponds support little emergent and submergent vegetation along the shorelines and shallow margins with only floating duckweeds (*Lemna sp.)* observed. *Phragmites* marshes and eutrophic ponds at Mud Creek County Park are often bordered/confined by earthen berms. These berms are vegetated by dense thickets of multiflora rose (*Rosa multiflora*), apple (*Malus sp.*), and glossy buckthorn (*Frangula alnus*), with occasional black cherry (*Prunus serotina*), white mulberry (*Morus alba*), and red maple (*Acer rubrum*) trees.

Forested Wetlands

The landward margins of the *Phragmites* marshes and shallow eutrophic ponds often feature narrow bands of forested wetlands. These stands typically form a 15 to 45 foot wide buffer along the landward edge of the marshes and comprise approximately 2.2 acres of Mud Creek County Park. These hardwood stands have re-grown since the cessation of duck farming activities. Pussy willow (*Salix discolor*) dominates the canopy of these forested wetlands with occasional large red maple (*Acer rubrum*) trees scattered throughout. The understory of pussy willow-dominated riparian wetlands is largely comprised of glossy buckthorn (*Frangula alnus*), with lesser abundance of native shrubs such as arrow-wood (*Viburnum dentatum*) and sweet pepperbush (*Clethra alnifolia*). Japanese honeysuckle (*Lonicera japonica*) and multiflora rose (*Rosa multiflora*) are abundant in the understory on the upper margins of these stands.

On the upstream margin of the former Gallo Duck Farm, there is a small earthen berm with a 12 inch diameter, partially obstructed, metal culvert that impounds the headwaters of the East Branch of Mud Creek. A small *Phragmites* stand (4,600 sq ft) is located just upstream of this impoundment. Glossy buckthorn, pussy willow, and brambles (*Rubus sp.*) dominate a small, moist shrub thicket located between the *Phragmites* stand and the nearby duck building. Upstream of the *Phragmites* stand, the freshwater wetlands are relatively unimpacted by the historic duck farm activities and are dominated by native wetland plant species. A small wet meadow (2,800 sq ft) is located in the stream channel and is dominated by lurid sedge (*Carex lurida*), wool grass (*Scripus cyperinus*), soft rush (*Juncus effusus*), spikerush (*Eleocharis sp.*), broom sedge (*Carex scoparia*), and swamp beggar's-tick (*Bidens connata*).

Upstream of this wet meadow, the freshwater wetlands consist entirely of a high quality red maple-hardwood swamp dominated by red maple (*Acer rubrum*) and black gum (*Nyssa sylvatica*), along with pitch pine (*Pinus rigida*) at the margins, and a shrub community comprised predominately by sweet pepperbush (*Clethra alnifolia*) with lesser abundance of glossy buckthorn (*Frangula alnus*), highbush blueberry (*Vaccinium corymbosum*), and arrow-wood (*Viburnum recognitum*). Upstream of the wet meadow, the ground layer in the red maple-hardwood swamp is relatively sparse with occasional cinnamon fern (*Osmundastrum cinnamomea*) and skunk cabbage (*Symplocarpus foetidus*).

Successional Old Fields

The successional old fields at Mud Creek County Park occur on former duck feedlots. Due to the extensive disturbance associated with duck farming, the large majority of old fields present at Mud Creek County Park, are dominated by invasive plants, principally mugwort (*Artemesia vulgaris*) (Photo H). However, there are also a number of small stands of Japanese knotweed (*Fallopia japonica*) located on piles of fill and dumped debris within the field and mile-a-minute vine (*Persicaria perfoliata*) at the margins of these

successional old fields. There are several small, old field patches (Photo I), totaling approximately 0.5 acres, that are dominated by native grasses and wildflowers such as little bluestem (*Schizachyrium scoparium*), rough-stemmed goldenrod (*Solidago rugosa*), gray goldenrod (*Solidago nemoralis*), and round headed bush clover (*Lespedeza capitata*). The old fields dominated by native herbaceous plants occur largely on sandy soils on the southern side of the freshwater wetlands.

Successional Redcedar Woodlands
Some portions of the feedlots on the former Gallo Duck Farm have developed into successional redcedar woodlands with dense stands of eastern redcedar trees (*Juniperus virginiana*) (Photo J). Approximately 1.6 acres of redcedar woodlands are located at Mud Creek County Park with large stands located on both the northern and southern side of the freshwater wetlands.

Successional Hardwood Forest
Since abandonment of the duck farm in 1980s, young successional forests have developed in areas surrounding the various duck buildings. These forests comprise approximately 8.8 acres of the site and are dominated by native and invasive, early successional, fast-growing trees such as black cherry (*Prunus serotina*), white mulberry (*Morus alba*), apple (*Malus sp.*), Norway maple (*Acer platanoides*), and black locust (*Robinia pseudoacacia*). The understory of these successional forests is typically dominated by invasive species such as mugwort (*Artemesia vulgaris*), garlic mustard (*Allaria petiolata*), Japanese honeysuckle (*Lonicera japonica*), multiflora rose (*Rosa multiflora*), and other invasive plants.

Many of these stands contain dense thickets with abundant growth of invasive shrubs and vines including multiflora rose, Asiatic bittersweet (*Celastrus orbiculatus*), Japanese honeysuckle, autumn olive, bush honeysuckle, and glossy buckthorn. Largely monospecific stands of Norway maple (*Acer platanoides*) are located at two locations at Mud Creek County Park, a 1.4-acre stand in the northwestern corner and a 0.5-acre stand in the southeastern corner on the east side of Gazzola Drive. The understory and ground layer is typically limited within Norway maple stands, often comprised of only garlic mustard, Japanese knotweed, and Norway maple seedlings.

Coastal Oak-Heath Forests
Coastal oak-heath forests with intact shrub and ground layers are only observed outside of the margins of the former duck farm in areas that were not cleared or disturbed by farm activities (Photo K). High quality examples of this forest type are comprised of various oaks including scarlet oak (*Quercus coccinea*), white oak (*Quercus alba*), black oak (*Quercus velutina*), and red oak (*Quercus rubra*) with a dense shrub layer of lowbush blueberry (*Vaccinium vacillans*) and black huckleberry (*Gaylussacia baccata*). The forest understory is dominated by black cherry with other trees such as sassafras (*Sassafras albidum*), flowering dogwood (*Cornus florida*), American holly (*Ilex opaca*), and shadbush (*Amelanchier canadensis*) observed. Other shrub species present within the lowbush blueberry-huckleberry shrub layer include catbriar (*Smilax rotundifolia*), highbush blueberry (*Vaccinium corymbosum*), staggerbush (*Lyonia mariana*), glossy buckthorn, inkberry (*Ilex glabra*), and Japanese holly (*Ilex crenata*). The groundlayer in these oak-heath forests is comprised of Canada mayflower (*Maianthemum canadense*), sheep laurel (*Kalmia latifolia*), common wintergreen (*Gaultheria procumbens*), and occasional starflower (*Trientalis borealis*) and wild sarsaparilla (*Aralia nudicaulis*). While native oaks have largely been removed from the duck farm property, large oak trees were maintained in five locations on the former duck farm property (Photo L), totaling 1.3 acres: (1) surrounding the asphalt driveway adjacent to the farm buildings on the north side of the site, (2) to the east and west of the slaughterhouse, (3) on the southern side of paved access road, (4) to the west of Gazzola Drive, and (5) along Gazzola Drive to the south of the freshwater wetlands. These mature trees are preserved in restoration plans.

2.5 Endangered and Threatened Species

No rare or Federal- or New York State-listed animals, plants, or ecological communities were observed at Mud Creek County Park. According to the New York Natural Heritage Program, there are no known records of rare or State-listed species or ecological communities at the site or in its immediate vicinity. Correspondence from the New York Natural Heritage Program (dated November 19, 2013) is provided with this submission. Eastern box turtle (*Terrapene carolina*) is a New York State Special Concern species and is present on the subject property.

3 Dilapidated Building Demolition and Debris Removal

As part of the Task 4 (*Existing Conditions*) report, structures and debris were inventoried and mapped and presence/absence of impacted media and/or hazardous substances was determined. Sheets SR 101 and SR 102 of the 60% Completion Draft Construction Plans provide the locations and descriptions of all dilapidated structures and identified debris on the restoration site. Three dilapidated buildings (Buildings 4, EG1, and EG2) and a pump house are located within 100 feet of the NYSDEC-regulated freshwater wetlands. Asbestos-containing materials were observed in transite board located in the buildings east of Gazzola Drive. Numerous pieces of debris and abandoned equipment must be removed from the project site, as shown on Sheets SR101 and SR 102. Most debris within wetland area consists of fencing and fence posts, although larger debris including utility poles, vehicles, and duck farm equipment (i.e. feed bins) are present. Debris located within tree protection areas identified on Sheet F101 will be removed by hand or with the assistance of a small skidsteer for larger/heavier debris. Please refer to the Section 8 of the Task 4 (*Existing Conditions*) for complete results of the geophysical survey, structure and debris inventory, soil investigation, asbestos survey, and hazardous material survey for the former duck farm at http://www.suffolkcountyny.gov/Departments/Planning/Divisions/EnvironmentalPlanning/ProjectsInitiatives/DuckFarms/MudCreek.aspx.

4 Proposed Ecological Restoration

Restoration of the terrestrial and aquatic habitats of the former Gallo duck farm will include the following restoration actions and site improvements:

- Creation of 2,300 linear feet of new coastal plain stream;
- Removal of 23,670 cubic yards of accumulated organic sediments and invasive plant rhizomes;
- Restoration of 6.7 acres of floodplain with forested wetlands;
- Restoration of 12.1 acres of upland forest and meadows;
- Installation of stormwater management structures at Gazzola Drive and Montauk Highway;
- Installation of an ecologically-friendly culvert at Gazzola Drive;
- Construction of new driveway and parking facility;
- Construction of bare earth nature trail, elevated timber boardwalks, interpretive signage, benches, and litter receptacles.

4.1 Coastal Plain Stream Restoration

This project aims to create a low-gradient meandering stream channel (2,300 linear feet in length) and completely restore its floodplain by:

- Removal of duck farm legacy sediments and *Phragmites* rhizomes by excavating upper 2 feet of sediments (17,865 cu yds) in floodplain, 2,690 cu yds from the existing eutrophic ponds, and 3,115 cu yds for channel construction including removal of earthen berms, pipes, and fences.
- *Phragmites* management through herbicide application for three years, including one year prior to floodplain excavation and two years subsequent to floodplain restoration and planting.
- Use of fabric-encapsulated soil lifts and surface fabric treatments (Sheet R 300) to construct channel banks and maintain banks until establishment of vegetation
- Creating ecological features to increase habitat diversity and complexity including stream side channels (in areas of groundwater seeps), vernal pools within floodplain (to provide amphibian habitat), and installation of woody debris in stream channel and floodplain. Roughly 10 pieces of woody debris shall be placed every 100 linear feet of stream (typical detail for woody debris placement is shown on Sheet R 300).
- On-site dewatering of excavated sediments in locations to be determined (either mugwort-dominated, former feedlots or former detention basins. Disposal location of excavated sediments will be based on results of sediment analytical tests, NYSDEC and landfill approval/acceptance, and Suffolk County objectives and priorities. Disposal options include off-site disposal at a licensed landfill facility and/or on-site disposal in the former detention basins.
- Establishment of forested floodplain wetland by planting 400 native trees and shrubs per acre (2-4 ft saplings in #2 or #3 containers) and seeding floodplain with native grass and wildflower mix. Planting and seeding schedules are provided on Sheet PL-101.

4.1.1 Channel Design and Dimensions

The proposed meandering stream channel width may range from 4 to 12 feet and depth may range from 1 to 3 feet through the length of the designed channel. Channel dimensions are provided on Sheets R 200-400 of the 60% Completion Draft Construction Plans. Proposed stream channel morphology and floodplain elevations are based on results of a one-dimensional hydraulic model used to determine stream volume and velocity in the East Branch of Mud Creek in 1, 2, 5, 10, 25, 50, and 100-year frequency flow events. The proposed Mud Creek channel meander wavelength (70 to 90 feet) and amplitude (30 to 50 feet) was designed based on nearby groundwater streams (Swan River and Hedges Creek). For further information on the modelling and data analysis to support stream and aquatic habitat restoration please refer to Section 3 of the Task 6 (*Alternative Concept Plan*) report at http://www.suffolkcountyny.gov/Departments/Planning/Divisions/EnvironmentalPlanning/ProjectsInitiatives/DuckFarms/MudCreek.aspx.

4.1.2 Floodplain Excavation, Construction Sequence, and Sediment/Water Management

Stream and aquatic habitat restoration at Mud Creek County Park requires extensive excavation within the 6.7 acre floodplain including removal of duck farm legacy sediments and *Phragmites* rhizomes by excavating the upper 2 feet of sediments (17,865 cu yds) in the floodplain, 2,690 cu yds from the existing eutrophic ponds, and 3,115 cu yds for channel construction including removal of earthen berms. The landward extent of this excavation is indicated on Sheet R100 60% Completion Draft Construction Plans by a line labeled "Limit of Clearing, Grading, and Ground Disturbance associated with Floodplain Restoration". The existing *Phragmites* marshes within the floodplain consist of an organic layer 0.3 to 0.6 feet deep overlying sand/gravel layers to a depth of refusal of 2.0 to 2.3 feet. The shallow ponds on the former duck farm property may contain more than three feet of loose organics and mud overlying sand/gravel layers. A longitudinal profile of the East Branch of Mud Creek is provided on Sheet E 103. This stream profile shows the channel bottom/surface of organic sediments and the depth of refusal indicating the sediment depths on the former Gallo duck farm.

After removal of organic sediments and *Phragmites* rhizomes from the former duck farm, 11,455 cubic yards of clean sand fill will be need to be added to the floodplain to provide a floodplain surface elevation that matches the 1 to 2 yr flood elevation, as informed by the hydraulic modelling and analysis. Excavation depths are expected to be between 0.3 feet and up to 3.25 feet within the former Gallo duck farm. Existing and proposed grades, cut depths, and channel-section dimensions are provided on section profiles presented on Sheet R200 of the 60% Completion Draft Construction Plans. It is expected that the 90% plans will be revised to include existing water surface elevation and proposed base flow elevations within the restored stream channel.

A preliminary construction sequence is provided on Sheet E 103 of the 60% Completion Draft Construction Plans. During construction within the floodplain, stream flow will be diverted into a dewatering pipe utilizing a temporary diversion dam constructed of sandbags and routed around the floodplain and channel construction. Location of the proposed dewatering pipe is provided on Sheet R 101. Environmental protection measures that shall be incorporated into floodplain and stream restoration include installation of a temporary sediment trap at the downstream end of the construction area, turbidity control measures for the work site and dewatering pipe outfall, and silt fencing. Details and locations for these water/sediment management and environmental protection measures shall be provided in the 90% construction plans.

The newly constructed channel banks will be comprised of fabric-encapsulated soil lifts and covered with biodegradable fabric treatments to prevent erosion of channel banks until establishment of vegetation. Details for fabric-encapsulated soil lifts and surface fabric treatments are provided on Sheet R 300 of the 60% Completion Draft Construction Plans .

4.1.3 Floodplain Plantings

After removal of *Phragmites* and establishment of target floodplain elevation (consistent with the 1 to 2 yr flood elevation), native trees and shrubs shall be planted throughout the 6.2 acre floodplain to allow the development of a red maple-hardwood swamp. Tree and shrub planting density shall be 400 plants per acre consisting of 2-4 ft saplings in #2 or #3 containers. The new sandy substrate will be seeded with a native seed mix comprised of more than twenty species of FACW to OBL grasses and wildflowers. Planting and seeding schedules are provided on Sheet PL-101 of the 60% Completion Draft Construction Plans.

4.1.4 Culvert Improvements at Gazzola Drive

The undersized pipes under Gazzola Drive will be replaced with 12 ft wide arch culvert that provides natural water and sediment transport, fish and aquatic organism passage, as well as terrestrial organism passage (Sheet G103 of the 60% Completion Draft Construction Plans). A 4 ft wide floodplain bench will be constructed inside the culvert. This floodplain bench will remain dry during most water flows and provide terrestrial passage for wildlife.

4.1.5 Phragmites Management

Control of *Phragmites* is expected to be attained through herbicide application for three years, including one year prior to floodplain excavation and two years subsequent to floodplain restoration and planting. Plan notes and details and herbicide application specifications have not been developed yet.

4.1.6 Floodplain Complexity

The following features shall be incorporated into the restored floodplain and stream channel to provide geomorphic and in-stream habitat complexity. Placement of large woody debris within the stream channel banks and floodplain (estimated 10 pieces for every 100 feet of stream channel) to provide habitat diversity and to create scour pools and downstream depositional areas as waters flow around large wood. Details for

large woody debris installation are provided on are provided on Sheet R 300 of the 60% Completion Draft Construction Plans. Future drafts of the construction plans shall also provide details or specifications for creating spring pools and tributary channels, off-channel ponds (vernal pools), and floodplain scrapes and mounds. Construction of small and deep spring pools along the margins of the alluvial valley with narrow tributary channels flowing from the spring pools to the main channel will be incorporated into stream construction to provide cold-water refugia during the warm summer months for brook trout and other species. Floodplain scrapes and mounds will consist of microtopography approximately one foot above or below the average floodplain elevation to provide habitat conditions suitable for different species of trees, shrubs, and herbaceous plants.

4.1.7 Sediment Disposal

Two primary options have been identified for the removal and disposal of the excavated material. The first option includes off-site removal of excavated material to a municipal landfill. The second option includes the disposal of the material in existing depressions that served as leaching basins for the former duck farm located outside of the Mud Creek floodplain (shown on Sheets SR 101 and PL 101 of the 60% Completion Draft Construction Plans). The material could be deposited in these depressions, capped with clean material, and planted with native herbaceous seeds, shrubs, and trees to blend into the surrounding vegetated habitats. Results of completed sediment sampling (pursuant to a sediment sampling plan approved by the NYSDEC Division of Materials Management and Bureau of Habitat) will inform NYSDEC restrictions on sediment disposal and the County's identification of a suitable disposal location.

4.2 Stormwater Improvements

Stormwater from roadway surfaces discharges into two locations on the East Branch of Mud Creek. These include the stream crossings on (1) Gazzola Drive, approximately 500 feet north of Atlantic Avenue, and (2) Montauk Highway, approximately 2,300 feet west of Gazzola Drive. At each of these locations, sediments and pollutants in stormwater from paved surfaces and developed sites is discharged directly into Mud Creek without treatment.

On Gazzola Drive, there are four existing catch basins in the roadway that collect runoff from a 12.6 acre watershed in the immediate vicinity of Mud Creek. There are no catch basins in upland locations to allow for the collection of stormwater and discharge to the ground. Restoration includes the proposed installation of a 36 drywells at upland locations on Gazzola Drive to collect the water before discharging into Mud Creek, remove sediment and debris, and maintain groundwater as the primary water source for Mud Creek. The series of drywells shall provide capacity to contain runoff from the 90% rainfall event of 1.2 inches (NYSDEC, 2010) for the entire contributing watershed. For storm events that produce more than 1.2 inches of rain, an overflow device will be included with the drywell system that allows excess stormwater to drain to the restored floodplain forest via a vegetated swale. Design and planting specification for the vegetated swale shall be included in the 90%-level construction plans.

On Montauk Highway, stormwater runoff is collected by a series of catch basins along Montauk Highway between Gazzola Drive and Mud Creek. These catch basins discharge untreated stormwater runoff into the side of the culvert that passes Mud Creek under Montauk Highway. A hydrodynamic separator will be installed within the existing stormwater conveyance system to treat runoff prior to discharge into Mud Creek. Plan Sheet M 101 of the 60% Completion Draft Construction Plans provides the distance from the proposed hydrodynamic separator to the freshwater wetlands associated with Mud Creek. Silt fence and haybales shall be installed to prevent deposition of sediment within the freshwater wetlands.

4.3 Upland Restoration

4.3.1 Upland Forest Restoration

Upland oak forest restoration (8.4 acres) will be implemented on the successional fields dominated by mugwort and in the footprints of the dilapidated buildings (Sheet PL 101 of the 60% Completion Draft Construction Plans). The ecological benefits of restoring native oak forests include 1) creating a habitat corridor connecting the existing oak forests downstream and upstream of the former duck farm, 2) providing food resources for wildlife, and 3) increasing structural complexity and improving habitat diversity.

Site preparation for forest restoration would involve demolition of buildings, removal of debris, and control of invasive mugwort through both mechanical methods (mowing and grubbing) and herbicide application. After site preparation, small caliper tree saplings (2-4' whips in #2 - #5 containers) shall be planted at a rate of 400 trees per acre (10 ft centers). Prior to tree planting, a native seed mix comprised of warm season grasses and herbaceous wildflowers shall be spread to stabilize soils and to improve habitat and aesthetics during the initial stages of forest development. Some upland meadow areas (comprised of warm season grasses and wildflowers) will be established surrounding the portions of the nature trail, parking area, and access road to increase road visibility and provide a more open view from the parking area. Planting and seeding schedules are provided on Sheet PL-101 of the 60% Completion Draft Construction Plans. Existing native trees located within or at the margins of the successional fields, such as black cherry, eastern redcedar, or various sumacs, will be maintained or integrated into the forest restoration design wherever possible. To prevent white-tailed deer browsing, an 8' tall woven wire fence will be temporarily installed around the perimeter of the forest restoration areas (Sheet F 101 of the 60% Completion Draft Construction Plans). This fencing would be removed after two complete growing seasons.

4.3.2 Preservation of Native Forest Areas

Existing stands of native mature trees in both upland and wetland habitats are preserved and incorporated into restoration designs including 1.6 acres of Eastern redcedar stands located on former duck feedlots and 1.3 acres of red maple and pussy willow trees located at the landward margins of the floodplain restoration area. These native tree stands shall be separated from work areas during construction by a tree protection fence; fence location shown on Sheet F 101 of the 60% Completion Draft Construction Plans.

4.3.3 Forest Enhancement Areas

The proposed restoration includes actions to improve habitat quality in degraded forest areas on the former duck farm including stands with large oak trees located 1) to the east and west of the slaughterhouse, (2) on the southern side of paved access road, and (3) to the west of Gazzola Drive. Restoration actions shall include removal of occasional small caliper, invasive trees and control of the invasive vines through cutting and herbicide application to the cut vine stems. Two monospecific stands of Norway maple (*Acer platanoides*) are located in the northwestern corner of the site and in the southeastern corner of the site on the east side of Gazzola Drive. A 0.7-acre successional forest stand dominated by black locust (*Robinia pseudoacacia*) and black cherry (*Prunus serotina*) is located directly west of the garage building. In these cases, the Norway maple and black locust trees are too large to be inexpensively cut and removed. Accordingly, the only restoration actions undertaken in these stands will be the removal of debris and abandoned equipment.

The site also includes approximately 8.8 acres of successional hardwood forest. These forests have re-

grown on previously cleared areas, largely open feed pens for ducks, adjacent to the various duck farm buildings. The stands consist of small, early successional, fast-growing, small trees generally ranging in size from 5-10 inches in diameter. Dominant tree species include black cherry (*Prunus serotina*), white mulberry (*Morus alba*), apple (*Malus sp.*), Norway maple (*Acer platanoides*), and black locust (*Robinia pseudoacacia*). The understory of these successional forests is typically dominated by invasive species such as mugwort (*Artemesia vulgaris*), garlic mustard (*Allaria petiolata*), Japanese honeysuckle (*Lonicera japonica*), multiflora rose (*Rosa multiflora*), and other invasive plants. Abandoned farm equipment, unconsolidated debris and refuse, and various fill (soil, sand, broken concrete, and bricks) are located throughout the successional forests. Restoration actions in these successional forests would include selective removal of co-dominant white mulberry and Norway maple to provide an advantage to the native black cherry trees to increase the likelihood that the future forest canopy is dominated by native black cherry. Removal of invasive trees and shrubs would involve cutting the stems as close to ground level as possible and removal of cut biomass from the project site. Herbicides would then be applied directly to the cut stumps, as many of these trees and shrubs will re-sprout from cut stems without herbicide application. All debris and abandoned equipment shall be removed from the successional forests and disposed of off-site.

4.4 Site Re-Development

4.4.1 Nature Paths and Boardwalks

Nature paths located in upland areas will consist of compacted, bare earth trails (approximately 5 ft in width). Nature paths are largely situated in successional old field habitats and locations of former duck farm buildings to minimize clearing of existing native trees (Sheet TR 101 of the 60% Completion Draft Construction Plans). It is anticipated that there will be four locations where the nature trail will cross the floodplain wetlands of Mud Creek via timber boardwalks and 1-2 wetland overlook platforms. The locations of the overlook platforms have not been determined. The downstream-most floodplain crossing will be located along the existing earthen berm at the western margin of the former duck farm. The elevation of the earthen berm will be cut back from El. 19 to El. 17 and two additional openings created in the berm to improve floodplain connectivity and function (Sheet R101 of the 60% Completion Draft Construction Plans). Timber boardwalks (4 feet in width with locations, details, and specifications to be added to site plans) will be constructed to allow pedestrian crossing of the restored stream and the two new openings in the berm. The nature trail shall feature approximately ten interpretive signs providing information about the terrestrial and aquatic ecosystems of Mud Creek County Park.

4.4.2 Parking Facilities

The proposed parking area (21,600± square feet) is located more than 100 feet from the freshwater wetlands and provides sufficient space for two school buses and ten passenger cars with driveway access from Gazzola Drive. To minimize new clearing, the existing driveway on Gazzola Drive has been maintained. The 60%-level construction plans provide for an asphalt parking surface. The proposed parking surface shall be changed to a pervious surface in the 90%-level construction plans.

5 Literature Cited

Perkins DL, Kreuger CC, and B May. 1993. Heritage Brook Trout Project: Summary Report to the New

York State Department of Environmental Conservation. Return a Gift to Wildlife Project 29-19-19.
NYSDEC. 2010. New York State Stormwater Design Manual. NYSDEC. Albany, NY 12232.
USACE. 2005. Mud Creek Watershed Fisheries Survey.
USACE and Suffolk County Department of Planning. 2009. Long Island Duck Farming History and Ecosystem Restoration Opportunities. Appendix C: Hazardous, Toxic, and Radioactive Waste Sampling Report. 23 pages.
Suffolk County Department of Planning. 2009a. Long Island Duck Farming History and Ecosystem Restoration Opportunities. Appendix A: Long Island Duck Farming History. 22 pages.

SITE PHOTOS A & B

Mud Creek Watershed Aquatic Ecosystem Restoration

NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo A (Top): Looking upstream at an emergent marsh from the earthen dam at the upstream limit of the former duck farm.
3. Photo B (Bottom): Looking downstream at an excavated ditch from the earthen dam at the upstream limit of the former duck farm.

SITE PHOTOS C & D

Mud Creek Watershed Aquatic Ecosystem Restoration

NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo C (Top): Looking downstream at *Phragmites* marsh east of Gazzola Dr.
3. Photo D (Bottom): Block culvert at Gazzola Drive

SITE PHOTOS E & F

Mud Creek Watershed Aquatic Ecosystem Restoration

NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo E (Top): Looking downstream at the straightened stream channel from Gazzola Dr.
3. Photo F(Bottom): Shallow, in-stream pond created by artificial impoundment.

SITE PHOTOS G & H

Mud Creek Watershed Aquatic Ecosystem Restoration

NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo G (Top): Looking upstream at grassy road berm and culvert at downstream end of former duck farm.
3. Photo H (Bottom): Mugwort stand on former duck feedlot.

SITE PHOTOS I & J

Mud Creek Watershed Aquatic Ecosystem Restoration

NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo I (Top): Successional old field dominated by native herbaceous plants
3. Photo J (Bottom): Successional redcedar stand on former duck feedlot

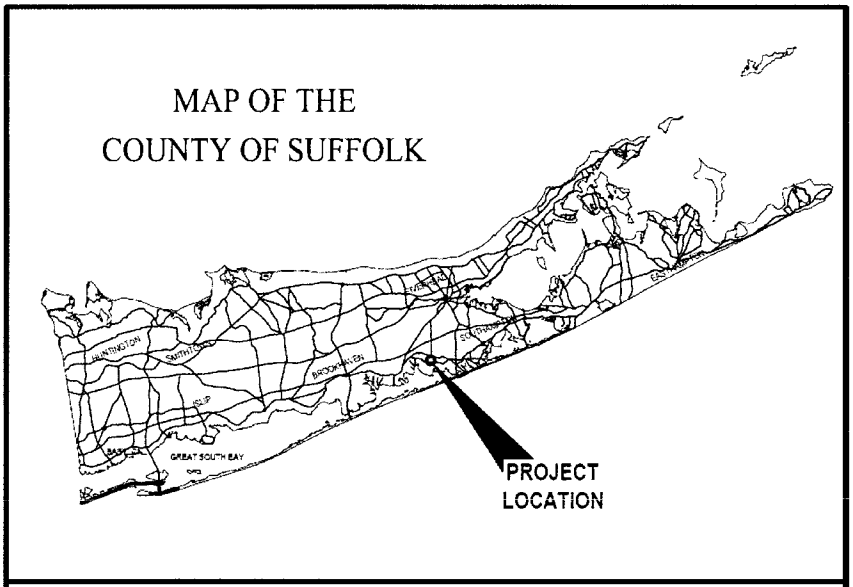
SITE PHOTOS K & L

Mud Creek Watershed Aquatic Ecosystem Restoration

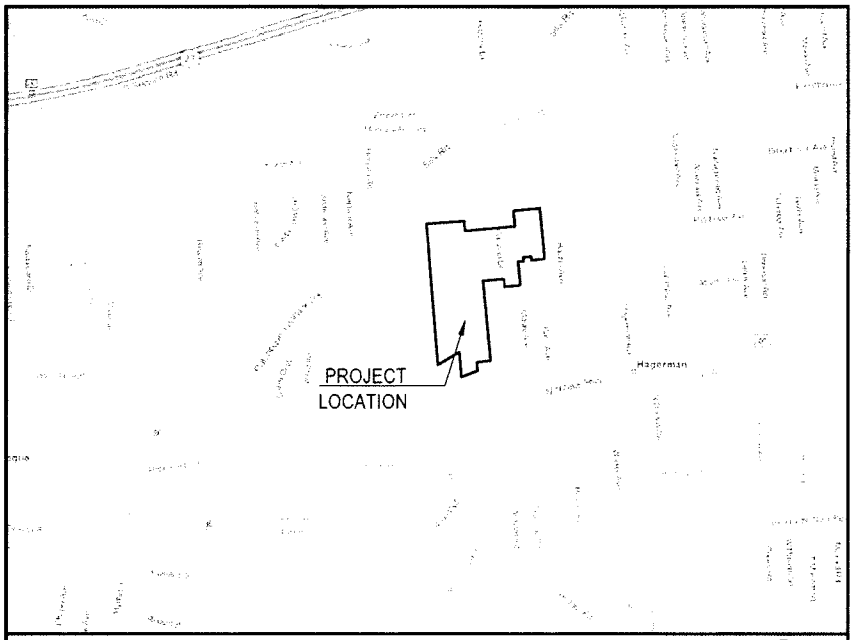
NOTES:

1. This publication is funded by the County of Suffolk under CP# 8710.110.
2. Photo K (Top): Oak-heath forest located upstream of former duck farm
3. Photo L (Bottom):Small stand of large oaks on former duck farm

LOCATION MAP



PROJECT LOCATION MAP
SCALE: N.T.S.



LOCATION MAP
SCALE: 1" = 1,000'±

© 2014 MAPQUEST MAP DATA

NOTES:
1. This publication is funded by the County of Suffolk under CP# 8710.110.

Suffolk County Tax Map ID#'s for Mud Creek Restoration Project Area:

0200-973.60-02-10, 52-82, 86, 87.1, 87.2, 88, 89.1, 89.2 & 92;
0200-975.70-01-7, 8 & 10-15; and
0200-975.70-02-1, 27-29, 48-50, 51.1, 51.2, 52, 53.1, 54.1, 54.2 & 55

NOTE:

1. REFER TO EXISTING CONDITIONS NOTES ON SHEET N 101

2M architects + engineers

PROJECT	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED BY
LUES 1201	11/26/14	MRM/BJL	BJL	MRM	

SEAL

ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL

MARK	DATE	DESCRIPTION

Land Use

Landscape Ecological Services, Inc.
170 Expressway Drive South, Suite 2F
Medford, NY 11763
T: 631-727-0425 F: 631-727-0426
www.landuse.us

2M architects + engineers
628 Broadway Road
P.O. Box 149
Monroe, NY 10950
T: 845-783-8100
F: 845-783-8102
www.m2m.com

inter-fluve
inter-fluve, inc.
167 E. Livingston Street, Suite 1JK
Maitland, FL 32751
T: 407-647-5252 F: 407-647-5319
www.interfluve.com

Client
County of Suffolk
Department of Economic Development & Planning
Division of Planning & Environment

MUD CREEK WATERSHED
AQUATIC ECOSYSTEM RESTORATION

Contract
CP = 8710.110

Status
NOT FOR CONSTRUCTION

Sheet Title
OVERALL SITE EXISTING TOPOGRAPHY AND CONDITIONS (NORTH SECTION)

Sheet No
E 101

NOTE:

1. REFER TO EXISTING CONDITIONS NOTES ON SHEET N 101

2M architects + engineers

PROJECT	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	REVIEWED
LUES 1201	11/26/14	MRM/BJL	BJL	MRM	

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Department of Economic Development & Planning
Division of Planning & Environment

MUD CREEK WATERSHED
AQUATIC ECOSYSTEM RESTORATION

Contract
CP = 8710.110

Status
NOT FOR CONSTRUCTION

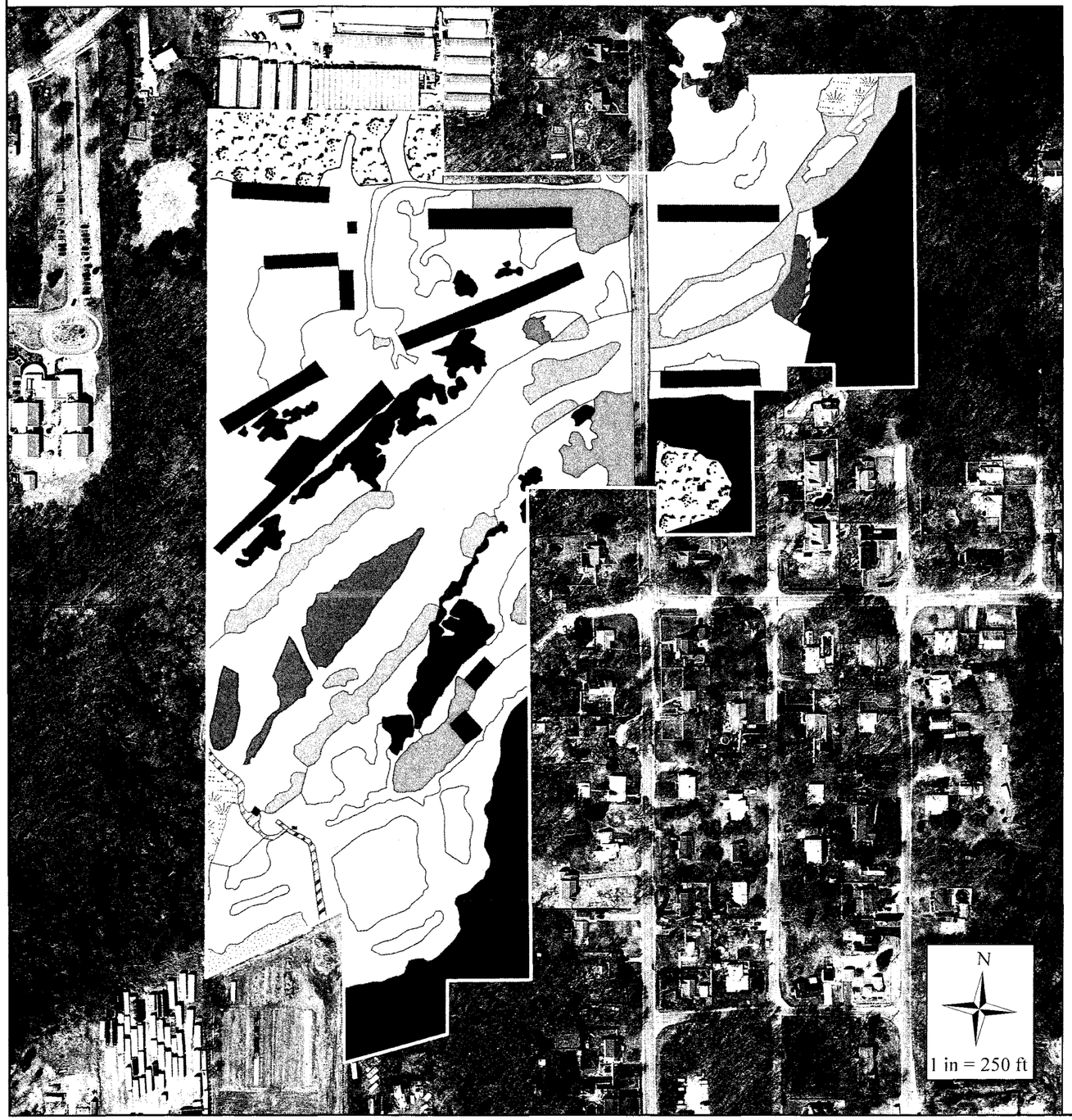
Sheet Title
OVERALL SITE EXISTING
TOPOGRAPHY AND CONDITIONS
(SOUTH SECTION)

Sheet No
E 102

Ecological Communities

MUD CREEK WATERSHED AQUATIC ECOSYSTEM RESTORATION FEASIBILITY STUDY

East Patchogue, Suffolk County, New York CP #8710.110 February 2014



Potential Gallo Duck Farm Restoration Area

- Wet Meadow
- Phragmites Marsh
- Red Maple Hardwood Swamp
- Forested Wetland (Pussy Willow - Red Maple)
- Shallow Eutrophic Pond
- Successional Field
- Coastal Oak-Heath Forest
- Successional Redcedar Woodland
- Oak-Cherry Forest
- Successional Forest
- Successional Forest (Aspen)
- Succ. Forest (Black Locust-Black Cherry)
- Successional Forest (Norway maple)
- Successional Forest (Oak-Cherry)
- Agricultural Land
- Maintained Path
- Building
- Driveway
- Driveway (Asphalt)

NOTES
1. Ecological data collected by Land Use Ecological Services, Inc.
2. Ecological communities mapped according to Edinger, et al. (2002).
3. 2013 orthoimage courtesy of NYS ITS (www.gis.ny.gov)
4. This publication is funded by the County of Suffolk under CP #8710.110.

Land Use Ecological Services, Inc
570 Expressway Drive South, Suite 2F
Medford, NY 11763
T- (631)727-2400 F- (631)727-2605
www.landuse.us

H2M Architects & Engineers
538 Broad Hollow Road, 4th Fl E
Melville, NY 11747
T-(631)756-8000 F-(631)694-4122
www.h2m.com

Inter-Fluve, Inc.
301 S. Livingston Street, Suite 200
Madison, WI 53703
T- (608)441-0342 F-(608)441-0218
www.interfluve.com

Client
County of Suffolk
Department of Economic Development & Planning
Division of Planning & Environment

Sheet No.
Figure 4.10

Project #	Date	Designed By	Drawn By	Checked By	Received By
CP #8710.110	2/20/2014	WB	KR	WB	

Soils Map

MUD CREEK WATERSHED AQUATIC ECOSYSTEM RESTORATION FEASIBILITY STUDY

East Patchogue, Suffolk County, New York CP #8710.110 May 2015

SOIL TYPES

At - 8.71% - Atsion sand
CpC - 15.32% - Carver and Plymouth sands, 3-15% slopes
CpE - 2.47% - Carver and Plymouth sands, 15-35% slopes
CuC - 13.29% - Cut and fill land, sloping
HaA - 0.61% - Haven loam, 0-3% slopes
RdA - 21.36% - Riverhead sandy loam, 0-3% slopes
RdB - 0.28% - Riverhead sandy loam, 3-15% slopes
RdC - 15.20% - Riverhead sandy loam, 15-35% slopes
RhB - 22.75% - Riverhead and Haven soils, graded, 0-8% slopes

Potential Gallo Duck Farm Restoration Area

NOTES

1. Data Sources:
   Soil data from USDA NRCS, Soil Survey Staff, accessed 5/27/2015
   (http://websoilsurvey.nrcs.usda.gov/)
   2013 Orthoimage courtesy of NYS ITS
   (http://gis.ny.gov)

2. This publication is funded by the County of Suffolk under CP #8710.110.

Land Use Ecological Services, Inc.
570 Expressway Drive South, Suite 2F
Medford, NY 11763
T- (631)727-2400 F- (631)727-2605
www.landuse.us

H2M Architects & Engineers
538 Broad Hollow Road, 4th Fl. E
Melville, NY 11747
T-(631)756-8000 F-(631)694-4122
www.h2m.com

Inter-Fluve, Inc.
301 S. Livingston Street, Suite 200
Madison, WI 53703
T- (608)441-0342 F-(608)441-0218
www.interfluve.com

Client

County of Suffolk
Department of Economic Development & Planning
Division of Planning & Environment

Sheet No.

Soils

Project #	Date	Designed By	Drawn By	Checked By	Received By
CP #8710.110	5/27/2015	KR	KR	WB	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov

Joe Martens
Commissioner

November 19, 2013

William P. Bowman, PhD
Land Use Ecological Services, Inc.
570 Expressway Drive South, Suite 2F
Medford, NY 11763

Re: Proposed Aquatic Ecosystem
Town/City: Brookhaven. County: Suffolk.

Dear William P. Bowman, PhD :

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

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

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Nancy A. Davis-Ricci

Nancy Davis-Ricci
Environmental Review Specialist
New York Natural Heritage Program

1035

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

March 03, 2015

Mr. William Bowman
Land Use Ecological Services
570 Expressway Drive South
Suite 2F
Medford, NY 11763

Re: CORPS PERMITS
Mud Creek Aquatic Ecosystem Restoration Feasibility Study
Mud Creek County Park, East Patchogue, NY
13PR00595

Dear Mr. Bowman:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon this review, the New York SHPO has determined that no historic properties will be affected by this undertaking.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Deputy Commissioner for Historic Preservation

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 2 – Identification of Potential Project Impacts

Instructions: Part 2 is to be completed by the lead agency. It is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**YES**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**NO**" to a numbered question, move on to the next numbered section.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "**Moderate to large impact may occur**."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action."
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land The proposed action may involve construction on, or physical alteration of the land surface of the proposed site. (See Part 1.D.1) *If "YES", answer questions a-h. If "NO", move on to Section 2.*	YES ☒ NO ☐		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E.2.d	☐	☒
b. The proposed actin may involve construction on slopes of 15% or greater.	E.2.f	☒	☐
c. The proposed actin may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E.2.a	☒	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D.2.a	☐	☒
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D.1.g	☐	☒
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D.2.e D.2.q	☐	☒
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B.*ix*	☒	☐

h. Other impacts:		☐	☐

2. Impact on Geological Features
The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1.E.2.g) YES ☐ NO ☒
If "YES", answer questions a-c. If "NO", move on to Section 3.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s):	E.2.g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature:	E.3.c	☐	☐
c. Other impacts:		☐	☐

3. Impact on Surface Water
The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1.D.2 & E.2.h) YES ☒ NO ☐
If "YES", answer questions a-l. If "NO", move on to Section 4.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body	D.1.j D.2.b	☐	☒
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D.2.b	☐	☒
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D.2.a	☐	☒
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E.2.h E.2.i	☐	☒
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D.2.a D.2.h	☐	☒
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D.2.c	☒	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D.2.d	☒	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D.2.e	☐	☒
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E.2.h – E.2.l	☒	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D.2.q E.2.h – E.2.l	☐	☒
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D.1.a D.2.d	☒	☐

l. Other impacts:		☐	☐

4. Impact on Groundwater The proposed action may result in new or additional use of groundwater, or may have the potential to introduce contaminants to groundwater or an aquifer. (See Part 1.D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) *If "YES", answer questions a-h. If "NO", move on to Section 5.*		YES ☐ NO ☒	
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D.2.c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source:	D.2.c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D.1.a D.2.c – D.2.d	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D.2.d E.2.p	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D.2.c E.1.f – E.1.h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D.2.p E.2.p	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	D.2.q E.2.h – E.2.l E.2.p D.2.c	☐	☐
h. Other impacts:		☐	☐

5. Impact on Flooding The proposed action may result in development on lands subject to flooding. (See Part 1.E.2) *If "YES", answer questions a-g. If "NO", move on to Section 6.*		YES ☐ NO ☒	
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may result in development in a designated floodway.	E.2.m	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E.2.n	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E.2.o	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D.2.b D.2.e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D.2.b E.2.m – E.2.o	☐	☐
f. If there is a dam located on the site of the proposed action, the dam has failed to meet one or more safety criteria on its most recent inspection.	E.1.e	☐	☐

g. Other impacts:		☐	☐

6. Impact on Air
The proposed action may include a state regulated air emission source. (See Part 1.D.2.f, D.2.h, D.2.g)
If "YES", answer questions a-f. If "NO", move on to Section 7.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO2)	D.2.g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N20)	D.2.g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D.2.g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF6)	D.2.g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflurocarbons (HCFCs) emissions	D.2.g	☐	☐
vi. 43 tons/year or more of methane	D.2.h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D.2.g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU=s per hour.	D.2.f D.3.g	☐	☐
d. The proposed action may reach 50% of any two or more of the thresholds in "a" through "c", above.	D.1.i D.2.k	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D.2.s	☐	☐
f. Other impacts:		☐	☐

7. Impact on Plants and Animals
The proposed action may result in a loss of flora or fauna. (See Part 1.E.2.q – E.2.u)
If "YES", answer questions a-j. If "NO", move on to Section 8.

YES ☒ NO ☐

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.s	☒	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E.2.s	☒	☐

c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.t	☐	☒
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E.2.t	☒	☐
e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E.3.c	☒	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source:	E.2.r	☒	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E.2.q	☐	☒
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source:	E.1.b	☒	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D.2.q	☐	☒
j. Other impacts:		☐	☐

8. Impact on Agricultural Resources
The proposed action may impact agricultural resources.
(See Part 1.E.3.a & E.3.b)
If "YES", answer questions a-h. If "NO", move on to Section 9.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E.2.c E.3.b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.).	E.1.a E.1.b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E.3.b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District or more than 10 acres if not within an Agricultural District.	E.1.b E.3.a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E.1.a E.1.b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C.2.c, C.3 D.2.c, D.2.d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C.2.c	☐	☐
h. Other impacts:		☐	☐

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (See Part 1.E.1.a, E.1.b, E.3.h) *If "YES", answer questions a-g and complete Appendix B - Visual EAF Addendum. If "NO", move on to Section 10.*	YES ☐ NO ☒		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E.3.h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	C.2.b E.3.h	☐	☐
c. The proposed action may be visible from publicly accessible vantage points:			
i. Seasonally (e.g., screened by summer foliage, but visible during other seasons)	E.3.h	☐	☐
ii. Year round	E.3.h	☐	☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is:	E.3.h		
i. Routine travel by residents, including travel to and from work	E.2.u	☐	☐
ii. Recreational or tourism based activities	E.1.c	☐	☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E.3.h	☐	☐
f. There are similar projects visible within the following distance of the proposed project:	D.1.a D.1.h D.1.i E.1.a		
0 – ½ mile		☐	☐
½ – 3 mile		☐	☐
3 – 5 mile		☐	☐
5+ mile		☐	☐
g. Other impacts:		☐	☐

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to an historic or archaeological resource. (See Part 1.E.3.e, E.3.f, E.3.g) *If "YES", answer questions a-e. If "NO", move on to Section 11.*	YES ☐ NO ☒ Please refer to provided correspondence from NYSHPO (dated March 3, 2015)		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E.3.e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E.3.f	☐	☐

c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source:	E.3.g	☐	☐
d. Other impacts:		☐	☐
e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E.3.e – E.3g	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E.1.a, E.1.b E.3.e – E.3.g	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	C2, C3 E.3.g, E.3.h	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1.C.2.c, E.1.c, E.2.u)

YES ☐ NO ☒

If "YES", answer questions a-e. If "NO", move on to Section 12.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, and wildlife habitat.	D.2.e, E.1.b E.2.h – E.2.l E.2.q – E.2.t	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C.2.c, E.1.c	☐	☐
e. Other impacts:		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1.E.3.d)

YES ☐ NO ☒

If "YES", answer questions a-c. If "NO", move on to Section 13.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
c. Other impacts:		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. (See Part 1.D.2.j) YES ☐ NO ☒
If "YES", answer questions a-f. If "NO", move on to Section 14.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D.2.j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D.2.j	☐	☐
c. The proposed action will degrade existing transit access.	D.2.j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D.2.j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D.2.j	☐	☐
f. Other impacts:		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy (See Part 1.D.2.k) YES ☐ NO ☒
If "YES", answer questions a-e. If "NO", move on to Section 15.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D.2.k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D.1.h D.1.i D.2.k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D.2.k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D.1.i	☐	☐
e. Other impacts:		☐	☐

15. Impact on Noise, Odor and Light
The proposed action may result in an increase in noise, odors or outdoor lighting (See Part 1.D.2.m, D.2.n, D.2.o) YES ☐ NO ☒
If "YES", answer questions a-f. If "NO", move on to Section 16.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D.2.m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D.2.m E.1.d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D.2.o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D.2.n	☐	☐
e. The proposed action may result in lighting that creates sky-glow brighter than existing-area conditions.	D.2.n E.1.a	☐	☐
f. Other impacts:		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants (See Part 1.D.2.q, E.1.d, E.1.f, E.1.g, E.1.h)

YES ☐ NO ☒

If "YES", answer questions a-m. If "NO", move on to Section 17.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E.1.d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E.1.g, E.1.h	☐	☐
c. There is a completed emergency spill remediation or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E.1.g E.1.h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g. easement, deed restriction)	E.1.g E.1.h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E.1.g E.1.h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D.2.t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D.2.q E.1.f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D.2.q E.1.f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D.2.r D.2.s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E.1.f – E.1.h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E.1.f E.1.g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D.2.r, D.2.s E.1.f	☐	☐
m. Other impacts:		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1.C.1, C.2, C.3)

YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 18.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur

a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C.2, C.3, D.1.a, E.1.a, E.1.b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C.2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C.2, C.3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C.2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C.3 D.1.e, D.1.f, D.1.h, E.1.b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C.4, D.2.c, D.2.d, D.2.j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C.2.a	☐	☐
h. Other impacts:		☐	☐

18. Consistency with Community Character
The proposed action is inconsistent with the existing community character (See Part 1.C.2, C.3, D.2, E.3) YES ☐ NO ☒
If "YES", answer questions a-g. If "NO", move on to Part 3.

	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E.3.e, E.3.f, E.3.g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C.4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C.2, C.3,D.1.h, D.1.i, E.1.a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C.2, E.3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C.2, C.3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C.2, C.3, E.1.a, E.1.b, E.2.g – E.2.l	☐	☐
g. Other impacts:		☐	☐

Determination of Significance
Type 1 and Unlisted Actions

SEQR Status: Type I [x] Unlisted [ ]

Identify portions of EAF completed for this project: Part 1 [x] Part 2 [x] Part 3 [x]

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of as lead agency that:

[x] A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

[ ] B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

[ ] C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Mud Creek Aquatic Ecosystem Restoration Project

Name of Lead Agency: Suffolk County Department of Economic Development and Planning

Name of Responsible Officer in Lead Agency: DeWitt Davies, PhD

Title of Responsible Officer in Lead Agency: Chief Environmental Analyst

Signature of Responsible Officer in Lead Agency: Date:

Signature of Preparer (if different from Responsible Officer) Date: 6/4/15
Prepared by William Bowman, PhD (Land Use Ecological Services)

For Further Information:

Contact Person: DeWitt Davies, PhD
Address: Suffolk County Department of Economic Development and Planning, PO Box 6100, Hauppauge NY 11788
Telephone Number: 631-853-4865
Email: dewitt.davies@suffolkcountyny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:
Chief Executive Officer of the political subdivision in which the action will be principally located (Town/City/Village)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 3 – Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:
To complete this section:

* Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
* Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
* The assessment should take into consideration any design element or project changes.
* Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
* Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
* For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
* Attach additional sheets, as needed.

Mud Creek Watershed Aquatic Ecosystem Restoration Feasibility Study

EAF Part 3 Narrative

Suffolk County Executive
Hon. Steven Bellone

Suffolk County Department of Economic Development and Planning
100 Veterans Memorial Highway
P.O. Box 6100
Hauppauge, NY 11788-0099

Joanne Minieri
Deputy County Executive and Commissioner

Division of Planning and Environment
Sarah Lansdale, AICP
Director

Prepared by:

Land Use Ecological Services, Inc.
570 Expressway Drive South, Ste. 2F
Medford, NY 11763
(T) 631-727-2400

H2M, Inc.
538 Broad Hollow Road, 4th Floor
Melville, NY 11747
(T) 631-756-8000

Inter-Fluve, Inc.
301 S. Livingston Street, Suite 200
Madison, WI 53703
(T) 608-271-6355

June 4, 2015

Funding for this report was provided under the Suffolk County Water Quality Protection and Restoration Program pursuant to Capital Project # 8710.110

Name of Action: Mud Creek Watershed Aquatic Ecosystem Restoration

SEQRA Status: Type I

Description of Action: Suffolk County proposes comprehensive restoration actions to 1) restore coastal plain stream and riparian habitat destroyed by historic duck farm operations; 2) provide high quality aquatic habitat for brook trout and native fish throughout the former duck farm property; 3) provide diverse riparian and upland habitats for native plants and wildlife; 4) remove dilapidated structures, abandoned equipment, and debris; and 5) provide recreational and educational opportunities. Specific restoration actions include:

- Creation of 2,300 linear feet of new coastal plain stream;
- Removal of 23,670 cubic yards of accumulated organic sediments and invasive plant rhizomes;
- Restoration of 6.2 acres of floodplain with forested wetlands;
- Restoration of 12.1 acres of upland oak forest and meadows;
- Installation of stormwater management structures at Gazzola Drive and Montauk Highway;
- Installation of an ecologically-friendly culvert at Gazzola Drive;
- Removal of all dilapidated buildings (including asbestos containing materials), non-hazardous debris, and abandoned equipment;
- Construction of new driveway and parking facility;
- Construction of bare earth nature trail, elevated timber boardwalks, interpretive signage, benches, and litter receptacles.

Reasons Supporting This Determination: Based on the information contained in the Suffolk County Full Environmental Assessment Form Parts 1 and 2 and associated site plans, documents, and materials, Suffolk County Department of Economic Development and Planning, as lead agency for the action contemplated herein, and after due review and analysis, and review of the criteria set forth in 6 NYCRR §617.4(c), hereby determines that the proposed action will not result in significant adverse impacts to the environment. This determination is supported by the following analysis of potential project impacts identified in Part 2:

1. Potential moderate to large impacts identified in Part 2 of the County Full Environmental Assessment Form are largely related to the proposed physical alteration and restoration of the existing degraded conditions at Mud Creek County Park and its wetlands. Specifically, responses to Part 2 Section 1 a, d, e, and f (Impact on Land) and Section 3 a-e, h, and j (Impact of Surface Water) are associated with the proposed physical alternation of the degraded lands, wetlands, and surface waters of Mud Creek County Park.

   The terrestrial and aquatic habitats of Mud Creek County Park are ecologically degraded due to the site's previous use as a duck farm between 1922 and 1987. The average number of ducks present on the farm at a given time was estimated at 70,000 ducks on 11.9 acres of duck pens in the early 1970s (Suffolk County Department of Planning, 2009). Duck wastes were discharged directly into the East Branch of Mud Creek with little or no treatment. Other environmental impacts resulting from the duck farm operation included the conversion of woodlands to pens and open feedlots; construction of various duck farm buildings (now dilapidated) many with asbestos-containing materials; abandonment of equipment and disposal of debris and fill stockpiles throughout the site; straightening of the streambed and extensive manipulation of the floodplain to create impounded pond areas for duck use; installation of dikes in the 1970s to prevent runoff from duck pens and

feedlots from discharging into the natural stream corridor; construction of waste disposal lagoons; accumulation of organic matter and sediments in impounded waters; surface water quality degradation; and proliferation of terrestrial and aquatic invasive plants (Suffolk County Department of Planning, 2009). Due to extensive manipulation by duck farming and other activities, the meandering groundwater stream, riparian forested wetlands, and upland oak forests that predated European colonization in Mud Creek are no longer present throughout much of the former duck farm.

Although duck farming operations have ceased, many of the environmental impacts and stressors of the duck farm persist to the present. While significant re-growth of vegetation has occurred on the former duck farm, the aquatic and terrestrial habitats are still poor quality, dominated by invasive species, and exhibit only limited indications of natural succession toward the high quality ecosystems of the past.

Proposed restoration of 6.7 acres of floodplain forested wetlands at Mud Creek County Park will include the creation of 2,300 linear feet of meandering coastal plain stream channel (width from 4 to 12 feet and depth from 1 to 3 feet) and removal of duck farm legacy sediments and *Phragmites* rhizomes by excavating up to 2 feet of sediments (17,865 cu yds) in floodplain, 2,690 cu yds from the existing eutrophic ponds, and 3,115 cu yds for channel construction including removal of earthen berms, pipes, and fences. After removal of organic sediments and *Phragmites* rhizomes from the former duck farm, 11,455 cubic yards of clean sand fill will be need to be added to the floodplain to provide a floodplain surface elevation that matches the 1 to 2 yr flood elevation, as informed by the hydraulic modelling and analysis.

The 6.7 acres of ground disturbance in the site's floodplain is necessary to correct the extensive manipulations undertaken during the duck farm operations including the construction of impoundments, excavation and modification of the stream channel and floodplain, construction of berms parallel and perpendicular to stream flow, and excavation of ditches.

The proposed floodplain restoration also includes creation of ecological features to increase habitat diversity and complexity including stream side channels (in areas of groundwater seeps), vernal pools within floodplain (to provide amphibian habitat), installation of woody debris in stream channel and floodplain, and establishment of a forested floodplain wetland by planting 400 native trees and shrubs per acre (2-4 ft saplings) and seeding the floodplain with a native grass and wildflower mix.

The proposed earthwork associated with floodplain restoration will result in a coastal plain stream system typical of eastern Long Island that is well-connected with its floodplain thereby helping to dissipate flood energy (rather than impound floodwaters as occurs under current conditions), providing for an exchange of nutrients and sediment between the channel and wetland, and enhancing aquatic and terrestrial habitat quality. The proposed restoration actions include the removal or modification of existing earthen berm barriers to allow daily and seasonal movement of aquatic organisms through the connected reaches of Mud Creek to ensure access to optimal feeding and spawning habitat. Removal of the organic matter and legacy sediments that have accumulated upstream of the former duck farms earthen berms will remove concentrated nutrients, biological oxygen demand, and contaminants that contribute to the degradation of the water quality of the system.

The *Phragmites*-dominated marshes and shallow eutrophic ponds present on the former duck farm are commonplace and abundant habitats on Long Island. Unfortunately, many of Long Island's coastal plain streams have been degraded by damming, channel straightening and excavation, and floodplain and watershed development. This project aims to restore a groundwater-fed, low-gradient meandering stream channel with densely forested floodplain. The creation of cold, swift, and infertile stream is necessary to provide habitat for brook trout (*Salvelinus fontinalis*). Mud Creek contains a heritage strain of brook trout, a population that has sustained itself by natural reproduction and is not known to have been genetically altered by the introduction of stocked fish. The genetic makeup of this strain was analyzed in a statewide study aimed at identifying different strains of inland brook trout. The report summarizing those findings, (Perkins et al, 1993), recommended that the protection of the genetic diversity found among New York's heritage strain brook trout should be a high priority for all State fishery managers in order to maintain this substantial and irreplaceable portion of the total diversity within the species complex. Given the designation of the brook trout as New York's official state fish, and the unique status of the Mud Creek strain, a principal goal of the Mud Creek restoration project has been to create stream habitat suitable for brook trout at Mud Creek County Park. The shallow eutrophic ponds on the former duck farm are warming the stream waters and making the downstream reaches of Mud Creel less habitable for brook trout. Accordingly, ecological restoration of Mud Creek County Park must include removal of impoundments, shallow ponds, and the accumulated sediments to provide cool, oxygen-rich, flowing stream conditions suitable for brook trout.

The proposed earthwork within the Mud Creek County Park floodplain will allow the re-establishment of a red maple-hardwood swamp through the planting of native trees, shrubs, and herbaceous plants and after the control of the existing invasive *Phragmites*. Red maple-hardwood swamps were the likely riparian ecological community prior to duck farming on the property and currently occur both upstream and downstream of the project site. The establishment of native forests on the site will connect forested wetlands located upstream and downstream of the former Gallo Duck Farm, thereby creating a continuous riparian corridor for wildlife from the headwaters of the East Branch to Montauk Highway. In addition, establishment of forested riparian habitats surrounding Mud Creek will also provide long-term benefits to aquatic habitats of the East Branch of Mud Creek by increasing shade thereby decreasing the potential for re-colonization by *Phragmites* and decreasing water temperature to the benefit of brook trout and other aquatic organisms.

The ecological benefits of the proposed groundwater stream and forested wetland floodplain are expected to greatly outweigh the loss of the degraded wetland habitats currently present at Mud Creek County Park and the temporary impacts resulting from construction in wetland and floodplain areas. Accordingly, the project will not result in a significant adverse impact on the environment and, instead, will yield important environmental benefits to the former duck farm site and downstream reaches of Mud Creek and Mud Creek County Park.

2. As indicated in Part 2 Section 1e (Impact on Land), the proposed work may involve construction that continues for more than one year or is conducted in a multiple phases. Proposed work under this comprehensive project may be conducted in separate phases due to the independent/discrete nature of individual restoration actions. For example, removal of dilapidated buildings, debris, and abandoned equipment could occur independently of and prior to ecological restoration actions. Phased construction may also facilitate project funding and implementation. Long-term construction or phased implementation would not be expected to have significant adverse environmental impacts, as re-vegetation of areas of earthwork or ground disturbance with native plant species would be

expected to commence immediately after completion of earthwork or temporary stabilization measures implemented.

3. Potential moderate to large impacts identified in Part 2 Section 1f (Impact on Land) due to increased erosion will not be realized as a Stormwater Pollution Prevention Plan (SWPPP) shall be prepared in compliance with New York SPDES requirements. It is anticipated that the project SWPPP will be prepared and submitted in July 2015. The selected best management practices for sediment and water management and erosion and sediment control shall serve to prevent any significant environmental impacts during construction. Environmental protection measures that shall be incorporated into floodplain and stream restoration include installation of a temporary sediment trap at the downstream end of the construction area, turbidity control measures for the work site and dewatering pipe outfall, and silt fencing. Details and locations for these water/sediment management and environmental protection measures shall be provided in the 90% Completion Draft Construction Plans.

   The proposed restoration project also involves invasive vegetation removal through mechanical and chemical methods including 5.2 acres of *Phragmites*-dominated marshes and 10.1 acres of successional fields that are largely dominated by mugwort (*Artemesia vulgaris*). Native trees and shrubs shall be planted throughout the re-constructed floodplain after *Phragmites* control to allow the development of a red maple-hardwood swamp. The new sandy substrate will be seeded with a native seed mix comprised of more than twenty species of wetland grasses and wildflowers. After control of invasive mugwort through both mechanical methods (mowing and grubbing) and herbicide application, native upland trees and shrubs shall be planted to facilitate the development of an upland oak forest. Prior to upland tree planting, a native seed mix comprised of warm season grasses and herbaceous wildflowers shall be spread to stabilize soils and to improve habitat and aesthetics during the initial stages of forest development. For both wetland and upland planting areas, tree and shrub planting density shall be 400 plants per acre consisting of 2-4 ft saplings.

   The comprehensive planting and seeding schedules for both wetland and upland restoration areas will serve to prevent adverse impacts from erosion associated with the removal of the existing invasive vegetation. In addition, the ecological benefits of native oak forest and red maple-hardwood swamp restoration include 1) creating a habitat corridor connecting the existing upland and wetland forests downstream and upstream of the former duck farm, 2) providing greater food resource and habitat diversity for wildlife, 3) increasing structural complexity, and 4) enhancing plant diversity. In comparison the dense monospecific stands of *Phragmites* and mugwort exclude nearly all native vegetation through shading and competition for aboveground and belowground space and alter or degrade wildlife habitat. In this context, the replacement of invasive vegetation stands with native plant assemblages is a significant environmental benefit.

4. The potential moderate to large impacts identified in Part 2 Section 3 c-e and h (Impact on Surface Waters) will not be realized as discussed in Response #'s 1 and 3 above and are necessary to realize the ecological benefits associated with stream and floodplain wetland restoration. With regard to Part 2 Section 3b (Impact on Surface Waters), the proposed floodplain restoration involves the conversion of 1.0 acres of shallow eutrophic pond habitat to forested wetlands. Although these ponds do provide limited habitat to wildlife including waterfowl and herpetiles, the preservation of these ponds (and the earthen berms that create them) are not conducive to the goals of removing accumulated organic matter and legacy sediments from the aquatic system or with providing cool, shaded aquatic habitat for brook trout. Incorporation of these ponds into the floodplain of a restored stream channel will result in the discharge of a small volume of water to the restored stream channel.

The pondwater that does enter the restored stream will be warmer during the summer months and this will decrease the water quality of Mud Creek (to what extent is unknown). In order to create a high quality and diverse floodplain habitat and mitigate for loss of pond habitat, floodplain restoration shall include creation of spring pools and tributary channels, off-channel ponds (vernal pools), and floodplain scrapes and mounds. Construction of small and deep spring pools along the margins of the alluvial valley with narrow tributary channels flowing from the spring pools to the main channel will be incorporated into stream construction to provide cold-water refugia during the warm summer months for brook trout and other species. Floodplain scrapes and mounds will consist of microtopography approximately one foot above or below the average floodplain elevation to provide habitat conditions suitable for different species of trees, shrubs, and herbaceous plants. The restoration of a diverse and high-quality forested floodplain is a significant environmental benefit and mitigates for the environmental impact associated with the loss of eutrophic pond habitat.

5. Herbicide applications will be necessary to effectively control *Phragmites*, mugwort, and other invasive plant species during the restoration of degraded habitats at Mud Creek County Park. Due to potential adverse impacts to native plants and aquatic wildlife, potential moderate to large impacts were noted in Part 2 Section 1f (Impact on Land), 3j (Impact on Surface Water), and 7i (Impact on Plants and Animals). In order to minimize the potential for adverse environmental impacts, all herbicide applications shall be conducted by a New York State-licensed herbicide contractor under the appropriate NYSDEC Aquatic Pesticide and Freshwater Wetlands permits and in accordance with manufacturers specifications for product use. The construction specifications prepared for this project will include specifications and details regarding target plant species, requirements to avoid mortality and damage to non-target native plants, environmental protection measures, and restrictions on herbicide application related to weather conditions.

6. Eastern box turtle (*Terrapene carolina*), a New York State Species of Special Concern, have been observed in upland habitats at Mud Creek County Park. As indicated in Part 2 Section 7c (Impact on Plants and Animals), mortality or loss of individuals may occur during construction actions at Mud Creek County Park. The completed restoration project is expected to benefit eastern box turtles over the long term, as the proposed oak forest restoration areas shall provide better habitat than the mugwort-dominated successional fields and dilapidated building areas. In addition, field investigations at Mud Creek County Park resulted in the identification of several small patches of exposed sandy substrate with sparse ground cover and an open tree canopy that likely serve as nesting habitat for box turtles. Box turtles nest in open canopy areas with exposed sand or gravel with well-drained soils. These 90% Completion Draft Construction Plans will provide for the maintenance and/or improvement these sites for nesting box turtles following recommendations put forth by the Massachusetts Division of Fisheries and Wildlife (Massachusetts Division of Fisheries and Wildlife, 2009). Accordingly, the long-term habitat improvements associated with the restoration project will mitigate for the potential impacts to Eastern box turtle during construction.

Literature Cited

Massachusetts Division of Fisheries and Wildlife. 2009. Advisory guidelines for creating turtle nesting habitat. 2 pgs. http://www.mass.gov/eea/docs/dfg/nhesp/species-and-conservation/creating-turtle-nesting-sites.pdf

Perkins DL, Kreuger CC, and B May. 1993. Heritage Brook Trout Project: Summary Report to the New York State Department of Environmental Conservation. Return a Gift to Wildlife Project 29-19-19.

Suffolk County Department of Planning. 2009. Long Island Duck Farming History and Ecosystem Restoration Opportunities. Appendix A: Long Island Duck Farming History. 22 pages.

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF
PARKS, RECREATION AND CONSERVATION

Greg Dawson
Commissioner

May 26, 2015

Gloria G. Russo, Chairwoman
Council on Environmental Quality
H. Lee Dennison Building
100 Veterans Memorial Hwy.
Hauppauge, NY 11788

Re.: Old Field Farm Equestrian Sand Ring Construction Project

Dear Ms. Russo

Old field Farm, Ltd. has asked the Suffolk County Parks Dept. to approve the installation of a new sand based ring to replace the existing pony course. The new ring will provide an additional professional designed footing that is now required for the horse shows that are sponsored at Old Field Farm County Park by Old Field Farm, Ltd. The design of this ring/footing will be similar to the main ring that was previously approved by the CEQ/Historic Trust.

Please review this project at the next CEQ meeting on June 17, 2015.

Sincerely,

Richard C. Martin
Director of Historic Services

RCM/cm

Attch: Full Environmental Assessment Form
Proposal to install Sand based footing by Old Field Farm Ltd.

MONTAUK HIGHWAY – P.O. BOX 144 WEST SAYVILLE, NEW YORK 11796-0144 (631) 854-4949 FAX: (631) 854-4977

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 1 – Environment and Setting

Instructions: Part 1 is to be completed by the applicant or project sponsor. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information. If a question is not applicable to the proposed project indicate with "N/A".

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information

Name of Action/Project: Old Field Farm County Park - Equestrian Sand Ring Construction Project
Project Location (specify Town, Village, Hamlet and attach general location map*): Old Field Farm County Park, Old Field, Brookhaven
Street Address: 92 West Meadow Road
Name of Property or Waterway: Old Field Farm County Park

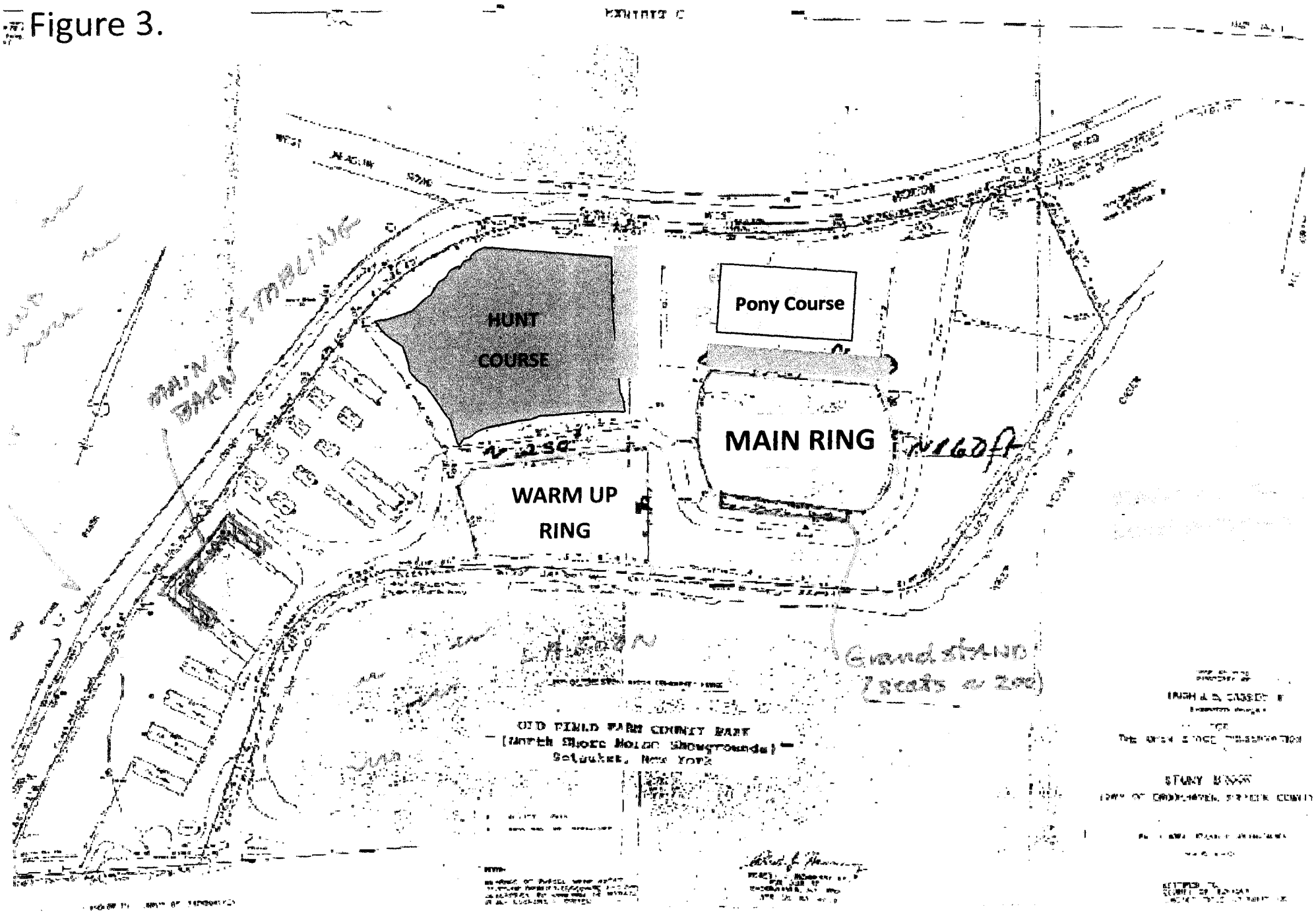
* Maps of Property and Project: Attach relevant available maps including a location map (note: use road map, Hagstrom Atlas, USGS topography map, tax map or equivalent) and preliminary site plans showing orientation, scale, buildings, roads, landmarks, drainage systems, area to be altered by project, etc.

Type of Project: New ☒ Expansion ☐

Capital Program: Item # Date Adopted: Amount: $

FRENCH DRAIN

Figure 3.



Brief Description of Proposed Action (include purpose or need/attach relevant design reports, plans, etc.): The proposed work consists of installing a sand-based footing on the pony course at Old Field Farm County Park. (see attached proposal from Old Field Farm, Ltd.)

Project Status:

	Start	Completion
Proposal	5/15	6/15
Study	5/15	6/15
Preliminary Planning	5/15	6/15
Final Plans: Specs	6/15	6/15
Site Acquisition	N/A	N/A
Construction	7/15	11/15
Other		

Departments Involved:

	Dept. Performing Design & Construction	Initiating Dept. (if different)
Name:	Robert Jolicoeur Intl. Equestrian	Suffolk County Parks Dept.
Street/PO:	5130 St. Laurent Blvd.	PO Box 144
City, State:	Montreal, Quebec, Canada	West Sayville, NY
Zip:		11796
Contact Person:		Greg Dawson, Commissioner
Business Phone:	514-277-6772	631-854-4984
Email:		greg.dawson@suffolkcountyny.gov

B. <u>Government Approvals, Funding or Sponsorship</u>
("Funding" includes grants, loans, tax relief and any other forms of financial assistance)

	Government Entity			**If "Yes": Identify Agency and Approval(s) Required**	**Application Date (Actual or Projected)**
i.	City Council, Town Board or Village Board of Trustees	Yes ☐	No ☒		
ii.	City, Town or Village Planning Board or Commission	Yes ☐	No ☒		
iii.	City, Town or Village Zoning Board of Appeals	Yes ☐	No ☒		
iv.	Other local agencies	Yes ☐	No ☒		
v.	County agencies	Yes ☒	No ☐	CEQ/Historic Trust review/approval	6/17/2015

vi.	Regional agencies	Yes ☐	No ☒		
vii.	State agencies	Yes ☐	No ☒		
viii.	Federal agencies	Yes ☐	No ☒		

ix.	Coastal Resources Is the project site within a Coastal Area or the waterfront area of a Designated Inland Waterway? **If YES,** Is the project site located in a community with an approved Local Waterfront Revitalization Program? Yes ☐ No ☒ Is the project site within a Coastal Erosion Hazard Area? Yes ☐ No ☒	Yes ☒ No ☐

C. Planning and Zoning

C.1. Planning and Zoning Actions	
Will administrative or legislative adoption or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed?	Yes ☒ No ☐
C.2. Adopted Land Use Plans	
a. Do any municipally-adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? **If Yes:** Does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes ☐ No ☐	Yes ☐ No ☒
b. Is the site of the proposed action within any local or regional special planning district (i.e. Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; et. al)? **If Yes**, identify the plan(s): Suffolk County Historic Trust	Yes ☒ No ☐
c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? **If Yes**, identify the plan(s):	Yes ☐ No ☒
C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance? **If Yes**, what is the zoning classification(s) including any applicable overlay district?	Yes ☐ No ☒
b. Is the use permitted or allowed by a special or conditional use permit?	Yes ☒ No ☐
c. Is a zoning change requested as part of the proposed action?	Yes ☐ No ☒

If Yes, what is the proposed new zoning for the site?	

C.4. Existing Community Services
a. In what school district is the project site located? Old Field
b. What police or other public protection forces serve the project site? Suffolk County Police/Suffolk County Park Rangers
c. Which fire protection and emergency medical services serve the project site? Old field
d. What parks serve the project site? Old Field Farm County Park

D. Project Details

D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action? (if mixed, include all components) Residential ☐; Industrial ☐; Commercial ☐; Recreational☒; Other ☐:	
b. Total acreage of the site of the proposed action:	13.2 acres
c. Total acreage to be physically disturbed:	28,125 Sq. Ft. acres
d. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor:	13.2 acres
e. Is the proposed action an expansion of an existing project or use? **If Yes,** what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet, etc.)? 28,125 Square Feet	Yes ☒ No ☐
f. Is the proposed action a subdivision, or does it include a subdivision? **If Yes:** *i.* Purpose or type of subdivision? (if mixed, specify types) Residential ☐; Industrial ☐; Commercial ☐; Recreational ☐; Other ☐ *ii.*	Yes ☐ No ☒

Is a cluster/conservation layout proposed?	Yes ☐ No ☐
Number of lots proposed:	
Minimum and maximum proposed lot sizes:	

g. Will proposed action be constructed in multiple phases?

If No, What is the anticipated period of construction?

4 months

If Yes:

Total number of phases anticipated:
Anticipated commencement date of phase I (including demolition):
Anticipated completion date of final phase:
Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:

Yes ☐ No ☒

h. Does the project include new residential uses?

If Yes, show number of units proposed.

	Single Family	Two Family	Three Family	Multi-Family (4+)
Initial Phase				
At Completion				

Yes ☐ No ☒

i. Does the proposed action include new non-residential construction (including expansions)?

If Yes:

Total Number of Structures:
Dimensions of largest proposed structure:
Approximate extent of building space to be heated or cooled:

Yes ☐ No ☒

j. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? **If Yes:** Purpose of the impoundment: If a water impoundment, the principal source of the water: Ground Water ☐; Surface Water Streams ☐; Other ☐ (specify): If other than water, identify the type of impounded/contained liquids and their source: Approximate size of the proposed impoundment (include units): Volume: Surface area: Dimensions of the proposed dam or impounding structure: Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock wood, concrete):	Yes ☐ No ☒
D.2. Project Operations	
a. Does the proposed action include any excavation, mining or dredging, during construction, operations or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) **If Yes:** What is the purpose of the excavation or dredging? To install sand ring How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? Volume: 850 cubic yards Over what duration of time: 4 months Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them: topsoil - stored on site	Yes ☒ No ☐

D.2.a (cont.) – only answer following if checked "Yes" above	
Will there be onsite dewatering or processing of excavated materials? **If Yes**, describe: No What is the total area to be dredged or excavated? 28,125 Sq. Ft. What is the maximum area to be worked at any one time? 28,125 sq. ft. What would be the maximum depth of excavation or dredging? 18 inches Will the excavation require blasting? no Summarize site reclamation goals and plans: Install sand ring material	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, water body, shoreline, beach or adjacent area? **If Yes:** Identify the wetland or water body which would be affected (by name, water index number, wetland map number or geographic description): Describe how the proposed action would affect that water body or wetland, e.g. excavation, fill, placement of structures or creation of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres: Will proposed action cause or result in disturbance to bottom sediments? **If Yes**, describe: Will proposed action cause or result in the destruction or removal of aquatic vegetation? **If Yes:** Area of vegetation proposed to be removed: Expected acreage of aquatic vegetation remaining after project completion: Purpose of proposed removal (e.g., beach clearing, invasive control, boat access): Proposed method of plant removal: If chemical/herbicide treatment will be used, specify product(s): Describe any proposed reclamation/mitigation following disturbance:	Yes ☐ No ☒

c. Will the proposed action use or create a new demand for water?

If Yes:

Total anticipated water usage/demand per day:
Will the proposed action obtain water from an existing public water supply?

If Yes:

Name of district/service area:
Does the existing public water supply have capacity to serve the proposal? Yes ☐ No ☐
Is the project site in the existing district? Yes ☐ No ☐
Is expansion of the district needed? Yes ☐ No ☐
Do existing lines serve the project site? Yes ☐ No ☐

Will line extension within an existing district be necessary to supply the project?

Yes ☐ No ☒

If Yes:

Describe extensions or capacity expansions proposed to serve this project:
Source(s) of supply for the district:

Is a new water supply district or service area proposed to be formed to serve the project site?

If Yes:

Applicant/sponsor for new district:
Date application submitted or anticipated:
Proposed source(s) of supply for new district:

If a public water supply will not be used, describe plans to provide water supply for the project:
If water supply will be from wells (public or private), what will be the maximum pumping capacity?

d. Will the proposed action generate liquid wastes?

If Yes:

Total anticipated liquid waste generation per day:

Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):

If sanitary wastewater identify proposed disinfection technology and treatment goals for the following:

Disinfection technology:
Nitrogen:
Phosphorus:
Total Suspended Soilds (TSS):
Biological Oxygen Demand (BOD):

Will the proposed action use any existing public wastewater treatment facilities?

If Yes:

Name of wastewater treatment plant to be used:

Name of district:

Does the existing wastewater treatment plant have capacity to serve the project?
Yes ☐ No ☐

Is the project site in the existing district?
Yes ☐ No ☐

Is expansion of the district needed?
Yes ☐ No ☐

Do existing sewer lines serve the project site?
Yes ☐ No ☐

Will line extension within an existing district be necessary to serve the project?

If Yes:

Describe extensions or capacity expansions proposed to serve this project:

Will a new wastewater (sewage) treatment district be formed to serve the project site?

If Yes:

Applicant/Sponsor for new district:

Date application submitted or anticipated:

What is the receiving water for the wastewater discharge?

If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

Describe any plans or designs to capture, recycle or reuse liquid waste:

Yes ☐ No ☒

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? **If Yes:** How much impervious surface will the project create in relation to total size of project parcel? Area of Impervious Surface: Area of Parcel: Describe types of new point sources: Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? If to surface waters, identify receiving water bodies or wetlands: Will stormwater runoff flow to adjacent properties? Yes ☐ No ☐ Does proposed plan minimize impervious surfaces use pervious materials or collect and re-use stormwater? Yes ☐ No ☐	Yes ☐ No ☒
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? **If Yes,** identify: Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles): Heavy Equipment Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers): N/A Stationary sources during operations (e.g., process emissions, large boilers, electric generation): N/A	Yes ☒ No ☐
g. Will any air emission sources named in D.2.f (above) require a NY State Air Registration, Air Facility Permit or Federal Clean Air Act Title IV or Title V Permit? **If Yes:** Is the project site located in an Air Quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes ☐ No ☐ In addition to emissions as calculated in the application, the project will generate: - Tons/year (metric) of Carbon Dioxide (CO_2) - Tons/year (metric) of Nitrous Oxide (N_2O) - Tons/year (metric) of Perfluorocarbons (PFCs) - Tons/year (metric) of Sulfur Hexafluoride (SF_6) - Tons/year (metric) of Carbon Dioxide equivalent of Hydroflorocarbons (HFCS) - Tons/year (metric) of Hazardous Air Pollutants (HAPs)	Yes ☐ No ☒

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? **If Yes:** Estimate methane generation in tons/year (metric): Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring):	Yes ☐ No ☒
i. Will the proposed action result in the release of air pollutants from open-air operations or processes such as quarry or landfill operations? **If Yes,** describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):	Yes ☐ No ☒
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? **If Yes:** When is the peak traffic expected? (check all that apply) Morning ☐; Evening ☐; Weekend ☐; Randomly ☐ between the hours of to For commercial activities only, projected number of semi-trailer truck trips/day: Parking spaces: Existing: Proposed: Net Increase/Decrease: Does the proposed action include any shared use parking? Yes ☐ No ☐ If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? Yes ☐ No ☐ Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes ☐ No ☐ Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes ☐ No ☐	Yes ☐ No ☒
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? **If Yes:** Estimate annual electricity demand during operation of the proposed action: Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility or other): Will the proposed action require a new, or an upgrade to, an existing substation? Yes ☐ No ☐	Yes ☐ No ☒

l. Hours of operation (Answer all items which apply) During Construction / During Operations Monday-Friday: / Monday-Friday: Saturday: / Saturday: Sunday: / Sunday: Holidays: / Holidays:	N/A ☒
m. Does the proposed action produce noise that will exceed existing ambient noise levels during construction, operation or both? **If Yes:** Provide details including sources, time of day and duration: Will proposed action remove existing natural barriers that could act as a noise barrier or screen? Yes ☐ No ☐ Describe:	Yes ☐ No ☒
n. Will the proposed action have outdoor lighting? **If Yes:** Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: Will proposed action remove existing natural barriers that could act as a light barrier or screen? Yes ☐ No ☐ Describe:	Yes ☐ No ☒
o. Does the proposed action have the potential to produce odors for more than one hour per day? **If Yes:** Describe possible sources, potential frequency and duration of odor emissions and proximity to nearest occupied structures:	Yes ☐ No ☒
p. Will the proposed action include any bulk storage of petroleum (over 1,100 gallons) or chemical products (over 550 gallons)? **If Yes:** Product(s) to be stored: Volume(s): per unit time: (e.g., month, year) Generally describe proposed storage facilities:	Yes ☐ No ☒
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? **If Yes:** Describe proposed treatment(s): Will the proposed action use Integrated Pest Management Practices? Yes ☐ No ☐	Yes ☐ No ☒

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? **If Yes:** Describe any solid waste(s) to be generated during construction or operation of the facility: Construction: tons per (unit of time) Operation: tons per (unit of time) Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: Construction: Operation: Proposed disposal methods/facilities for solid waste generated on-site: Construction: Operation:	Yes ☐ No ☒
s. Does the proposed action include construction or modification of a solid waste management facility? **If Yes:** Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill or other disposal activities): Anticipated rate of disposal/processing: tons/month, if transfer or other non-combustion/thermal treatment, or tons/hour, if combustion or thermal treatment If landfill, anticipated site life: years	Yes ☐ No ☒
t. Will proposed action at the site involve the commercial generation, treatment, storage or disposal of hazardous waste? **If Yes:** Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: Generally describe processes or activities involving hazardous wastes or constituents: Specify amount to be handled or generated: tons/month Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes ☐ No ☐ **If Yes:** Provide name and location of facility: **If No:** Describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:	Yes ☐ No ☒

u. Will proposed action adhere to Leadership in Energy and Environmental Design (LEED) or any other green building principals? **If Yes:** Describe proposed green building methods and attempted level of certification, if any:	Yes ☐ No ☒
v. Does the project sponsor propose the use of energy benchmarking to monitor and adjust project energy needs? **If Yes, explain:**	Yes ☐ No ☒
w. Will the proposed action use native plants for all landscaping needs? **Identify species to be used and method of irrigation:**	Yes ☐ No ☒
x. Does the proposed action promote local tourism? **If Yes, explain:** Horse Shows are conducted at Old Field Farm are open to the public	Yes ☒ No ☐

E. Site and Setting of Proposed Action

E.1. Land Uses on and Surrounding the Project Site

a. Existing land uses (Check all uses the occur on, adjoining and near the project site): (include map)

Urban ☐ Industrial ☐ Commercial ☐ Residential ☒ Rural ☐
Forest ☐ Agriculture ☐ Aquatic ☐ Other ☒ Specify:

If mix of uses, generally describe: County Parkland - Town of Brookhaven Parkland

b. Land uses and cover types on the project site:

Land Use or Cover Type	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
Roads, buildings and other paved or impervious surfaces	.25 Acre	.25 Acre	None
Forested	N/A		
Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	13	12.5 acre	.5 acre
Agricultural (includes active orchards, fields, greenhouse, etc.)	N/A		
Surface water features (lakes, ponds, streams, rivers, etc.)	N/A		
Wetlands (freshwater or tidal)	not known	same	none
Non-Vegetated (bare rock, earth or fill)	N/A		
Other Describe:			
TOTAL:	13.25 acre		

c. Is the project site presently used by members of the community for public recreation? **If Yes,** explain: Horse Shows	Yes ☒ No ☐
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers or group homes) within 1,500 feet of the project site? **If Yes,** identify facilities:	Yes ☐ No ☒
e. Does the project site contain an existing dam? **If Yes:** Dimensions of the dam and impoundment: - Dam height: feet - Dam length: feet - Surface area: acres - Volume impounded: gallons or acre-feet Dam's existing hazard classification: Provide date and summarize results of last inspection:	Yes ☐ No ☒
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? **If Yes:** Has the facility been formally closed? Yes ☐ No ☐ If Yes, cite sources/documentation: Describe the location of the project site relative to the boundaries of the solid waste management facility: Describe any development constraints due to the prior solid waste activities:	Yes ☐ No ☒
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? **If Yes:** Describe waste(s) handled and waste management activities, including approximate time when activities occurred:	Yes ☐ No ☒

h. Has there been a reported contamination spill at the proposed project site or have any remedial actions been conducted at or adjacent to the proposed site?

Yes ☐ No ☒

If Yes:

Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? (Check all that apply)

☐ Yes – Spills Incidents database Provide DEC ID number(s):

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s):

☐ Neither database

If site has been subject to RCRA corrective activities, describe control measures:

Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes ☐ No ☐

If Yes:

DEC ID number(s):

Describe current status of site(s):

E.1.h. (cont.) – only answer following if checked "Yes" above

Is the project site subject to an institutional control limiting property uses?

If Yes:

DEC site ID number(s):

Describe the type of institutional control (e.g., deed restriction or easement):

Describe any use limitations:

Describe any engineering controls:

Will the project affect the institutional or engineering controls in place? Yes ☐ No ☐
Explain:

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site:
N/A feet

b. Are there bedrock outcroppings on the project site?

Yes ☐ No ☒

If Yes:

What proportion of the site is comprised of bedrock outcroppings?
%

c. Predominant soil type(s) present on project site: (include map)

1. Top soil	100% of site
2.	% of site
3.	% of site
4.	% of site

d. What is the average depth to the water table on the project site?
3 - 8 Feet

e. Drainage status of project site soils:

1.	☐ Well Drained	% of site
2.	☒ Moderately Well Drained	100% of site
3.	☐ Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes: (include topographic map)

1.	☒ 0-10%	100% of site
2.	☐ 11-15%	% of site
3.	☐ 16% or greater	% of site

g. Are there any unique geologic features on the project site? Yes ☐ No ☒

If Yes, describe:

h. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes ☐ No ☒

i. Do any wetlands or other waterbodies adjoin the project site? Yes ☒ No ☐

If Yes to either E.2.h or E.2.i, continue. If No, skip to E.2.m

j. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? (include map) Yes ☒ No ☐

k. For each identified wetland and waterbody on the project site, provide the following information:

Streams:	Name:	Classification:
Lakes or Ponds:	Name:	Classification:
Wetlands:	Name: West Meadow Creek	Approx. Size: see map
Wetland No. (if regulated by DEC):		

l. Are any of the above waterbodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes ☐ No ☒

If Yes, name of impaired water body/bodies and basis for listing as impaired:

m. Is the project site in a designated floodway? Yes ☒ No ☐

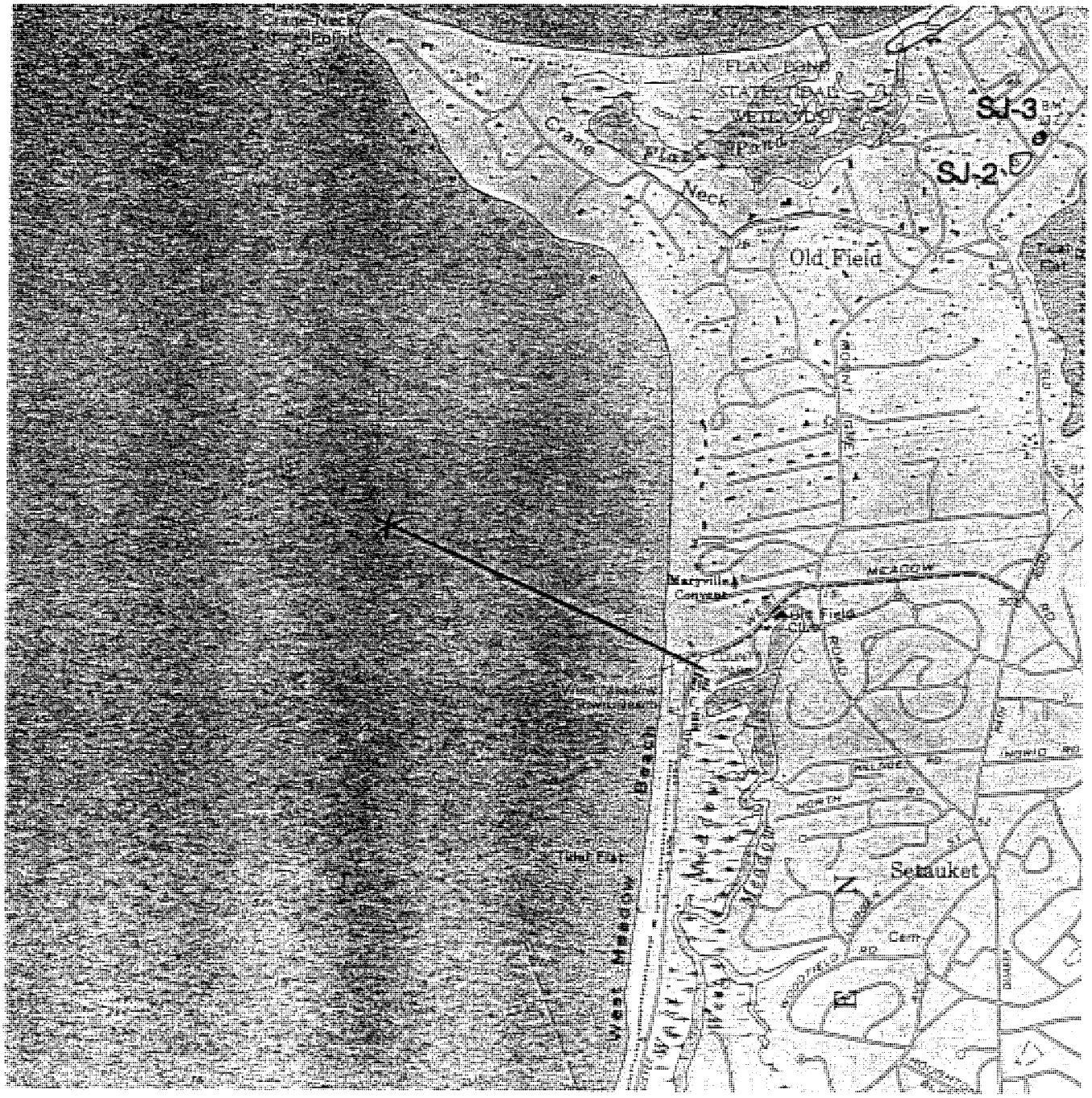
n. Is the project site in the 100 year floodplain? Yes ☒ No ☐

o. Is the project site in the 500 year floodplain? Yes ☒ No ☐

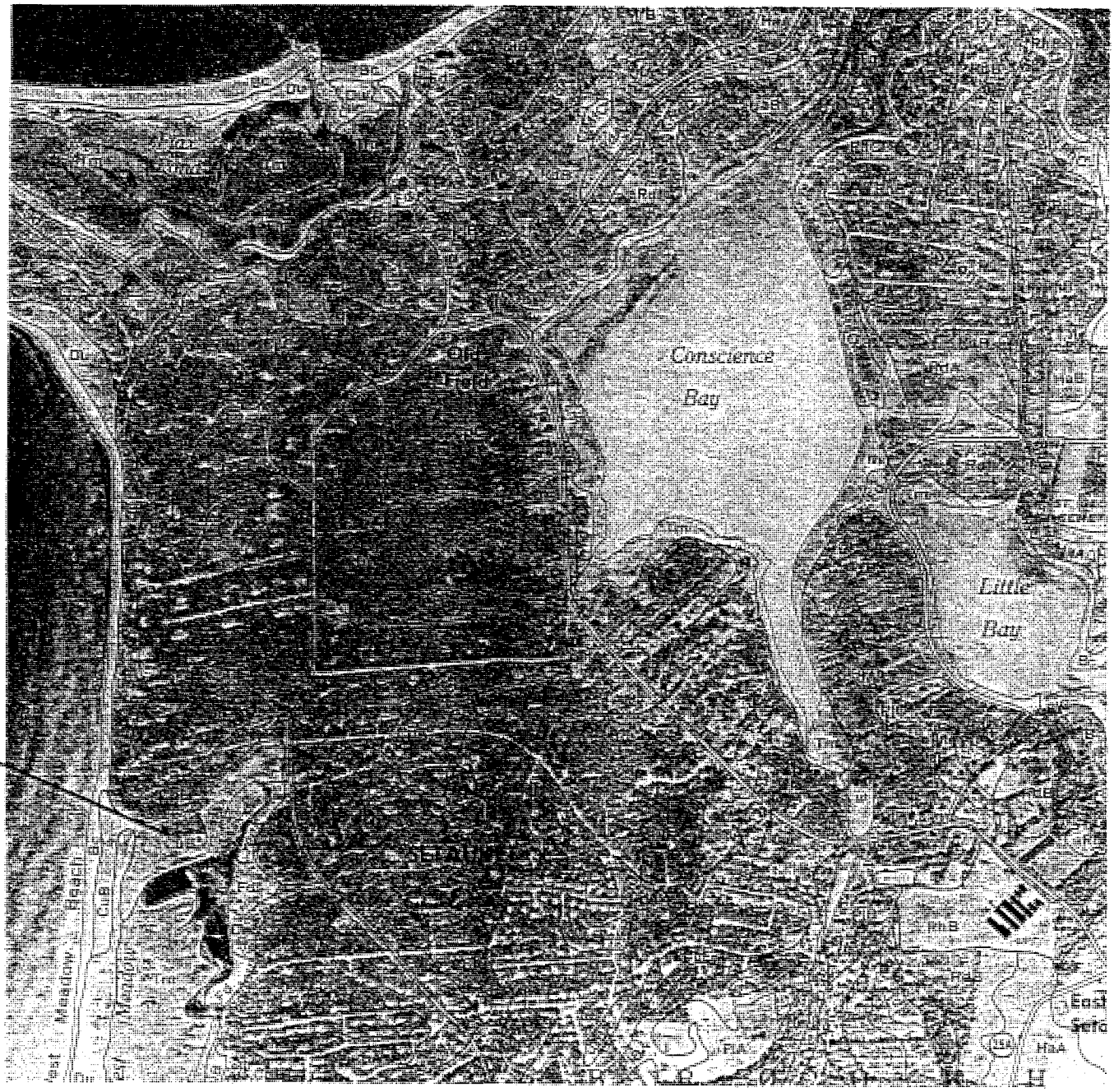
p. Is the project site located over or immediately adjoining a primary, principal or sole source aquifer? Yes ☐ No ☒

If Yes:

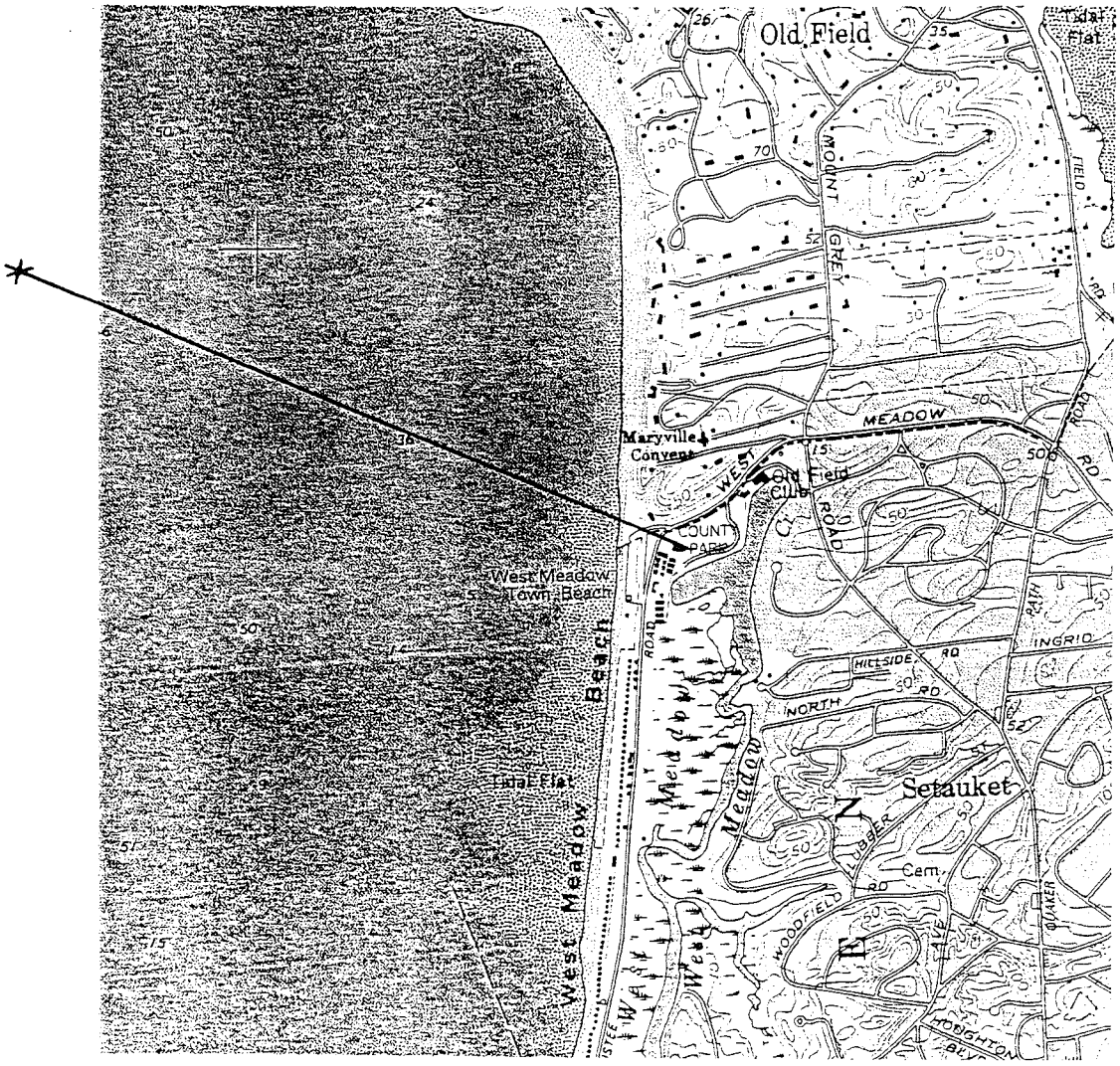
Name of aquifer:
Source of information:



Old Field County Park – Wetland Map



Old Field County Park – Soils Map



Old Field County Park – Topographical Map

q. Identify the predominant wildlife species that occupy or use the project site:

Songbirds	raccoon	
Rabbit	oppossum	

r. Does the project site contain a designated significant natural community?

If Yes:

Describe the habitat/community (composition, function and basis for designation:

Source(s) of description or evaluation:

Extent of community/habitat:
- Currently: acres
- Following completion of project as proposed: acres
- Gain or loss (indicate + or –): acres

Yes ☐ No ☒

s. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species?

If Yes:

Species and listing (endangered or threatened):

Nature of use of site by the species (e.g., resident, seasonal, transient):

Yes ☐ No ☒

t. Does project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?

If Yes:

Species and listing:

Nature of use of site by the species (e.g., resident, seasonal, transient):

Yes ☐ No ☒

u. Is the project site or adjoining area currently used for hunting, trapping, fishing or shellfishing?

If Yes, give a brief description of how the proposed action may affect that use:

No affect

Yes ☒ No ☐

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?

If Yes, provide county plus district name/number:

Yes ☐ No ☒

b. Are agricultural lands consisting of highly productive soils present?

If Yes:

Acreage(s) on project site:

Source(s) of soil rating(s):

Yes ☐ No ☒

c. Does the project site contain all or part of, or is it substantially contiguous to a registered National Natural Landmark? **If Yes:** Nature of the natural landmark: ☐ Biological Community; ☐ Geological Feature Provide brief description of landmark, including values behind designation and approximate size/extent:	Yes ☐ No ☒
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area, including Special Groundwater Protection Areas? **If Yes:** CEA name: Basis for designation: Designating agency and date:	Yes ☐ No ☒
e. Does the project site contain, or is it substantially contiguous to, a building, archeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places? **If Yes:** Nature of historic/archaeological resource: ☐ Archaeological Site; ☒ Historic Building or district Name: Old Field Farm Brief description of attributes on which listing is based: Early L.I. Horse Show Grounds	Yes ☒ No ☐
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	Yes ☐ No ☒
g. Have additional archaeological or historic site(s) or resources been identified on the project site? **If Yes:** Describe possible resource(s): Basis for identification:	Yes ☐ No ☒
h. Would the project site be visible from any officially designated and publicly assessable federal, state or local scenic or aesthetic resource? **If Yes:** Identify resource: Nature of, or basis for designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Distance between project and resource:	Yes ☐ No ☒
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR Part 666? **If Yes:** Identify the name of the river and its designation: Is the activity consistent with development restrictions contained in 6 NYCRR Part 666? Yes ☐ No ☐	Yes ☐ No ☒

F. Additional Information

Attach any additional information which may be needed to clarify your project.
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name: Richard C. Martin

Date: 5/26/2015

Signature: _____

Title: Director of Historic Services

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 2 – Identification of Potential Project Impacts

Instructions: Part 2 is to be completed by the lead agency. It is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

Tips for completing Part 2:

- _____ Review all of the information provided in Part 1.
- _____ Review any application, maps, supporting materials and the Full EAF Workbook.
- _____ Answer each of the 18 questions in Part 2.
- _____ If you answer "**YES**" to a numbered question, please complete all the questions that follow in that section.
- _____ If you answer "**NO**" to a numbered question, move on to the next numbered section.
- _____ Check appropriate column to indicate the anticipated size of the impact.
- _____ Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "**Moderate to large impact may occur**."
- _____ The reviewer is not expected to be an expert in environmental analysis.
- _____ If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- _____ When answering a question consider all components of the proposed activity, that is, the "whole action."
- _____ Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- _____ Answer the question in a reasonable manner considering the scale and context of the project.

1._____ **Impact on Land** The proposed action may involve construction on, or physical alteration of the land surface of the proposed site. (See Part 1.D.1) *If "YES", answer questions a-h. If "NO", move on to Section 2.*	YES ☒ NO ☐		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a._____ The proposed action may involve construction on land where depth to water table is less than 3 feet.	E.2.d	☒	☐
b._____ The proposed actin may involve construction on slopes of 15% or greater.	E.2.f	☒	☐
c._____ The proposed actin may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E.2.a	☒	☐
d._____ The proposed action may involve the excavation and removal of more than 1,000 tons of natural	D.2.a	☒	☐

material.			
e. _____ The proposed action may involve construction that continues for more than one year or in multiple phases.	D.1.g	☒	☐
f. _____ The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D.2.e D.2.q	☒	☐
g. _____ The proposed action is, or may be, located within a Coastal Erosion hazard area.	B.*ix*	☒	☐
h. _____ Other impacts:		☐	☐

2. _____ Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1.E.2.g)

YES ☐ NO ☒

If "YES", answer questions a-c. If "NO", move on to Section 3.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Identify the specific land form(s):	E.2.g	☐	☐
b. _____ The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature:	E.3.c	☐	☐
c. _____ Other impacts:		☐	☐

3. _____ Impact on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes).
(See Part 1.D.2 & E.2.h)

YES ☐ NO ☒

If "YES", answer questions a-l. If "NO", move on to Section 4.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may create a new water body	D.1.j D.2.b	☐	☐
b. _____ The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D.2.b	☐	☐
c. _____ The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D.2.a	☐	☐
d. _____ The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E.2.h E.2.i	☐	☐
e. _____ The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by	D.2.a D.2.h	☐	☐

disturbing bottom sediments.			
f. _____ The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D.2.c	☐	☐
g. _____ The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D.2.d	☐	☐
h. _____ The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D.2.e	☐	☐
i. _____ The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E.2.h – E.2.l	☐	☐
j. _____ The proposed action may involve the application of pesticides or herbicides in or around any water body.	D.2.q E.2.h – E.2.l	☐	☐
k. _____ The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D.1.a D.2.d	☐	☐
l. _____ Other impacts:		☐	☐

4. _____ Impact on Groundwater

The proposed action may result in new or additional use of groundwater, or may have the potential to introduce contaminants to groundwater or an aquifer. (See Part 1.D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 5.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D.2.c	☐	☐
b. _____ Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source:	D.2.c	☐	☐
c. _____ The proposed action may allow or result in residential uses in areas without water and sewer services.	D.1.a D.2.c – D.2.d	☐	☐
d. _____ The proposed action may include or require wastewater discharged to groundwater.	D.2.d E.2.p	☐	☐
e. _____ The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D.2.c E.1.f – E.1.h	☐	☐
f. _____ The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D.2.p E.2.p	☐	☐
g. _____ The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	D.2.q E.2.h – E.2.l E.2.p D.2.c	☐	☐

h. _____ Other impacts:		☐	☐

5. _____ Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1.E.2) YES ☐ NO ☒

If "YES", answer questions a-g. If "NO", move on to Section 6.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may result in development in a designated floodway.	E.2.m	☐	☐
b. _____ The proposed action may result in development within a 100 year floodplain.	E.2.n	☐	☐
c. _____ The proposed action may result in development within a 500 year floodplain.	E.2.o	☐	☐
d. _____ The proposed action may result in, or require, modification of existing drainage patterns.	D.2.b D.2.e	☐	☐
e. _____ The proposed action may change flood water flows that contribute to flooding.	D.2.b E.2.m – E.2.o	☐	☐
f. _____ If there is a dam located on the site of the proposed action, the dam has failed to meet one or more safety criteria on its most recent inspection.	E.1.e	☐	☐
g. _____ Other impacts:		☐	☐

6. _____ Impact on Air

The proposed action may include a state regulated air emission source. (See Part 1.D.2.f, D.2.h, D.2.g) YES ☐ NO ☒

If "YES", answer questions a-f. If "NO", move on to Section 7.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. _____ More than 1000 tons/year of carbon dioxide (CO2)	D.2.g	☐	☐
ii. _____ More than 3.5 tons/year of nitrous oxide (N20)	D.2.g	☐	☐
iii. _____ More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D.2.g	☐	☐
iv. _____ More than .045 tons/year of sulfur hexafluoride (SF6)	D.2.g	☐	☐
v. _____ More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflurocarbons (HCFCs) emissions	D.2.g	☐	☐
vi. 43 tons/year or more of methane	D.2.h	☐	☐
b. _____ The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous	D.2.g	☐	☐

air pollutants.			
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU=s per hour.	D.2.f D.3.g	☐	☐
d. _____ The proposed action may reach 50% of any two or more of the thresholds in "a" through "c", above.	D.1.i D.2.k	☐	☐
e. _____ The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D.2.s	☐	☐
f. _____ Other impacts:		☐	☐

7. _____ **Impact on Plants and Animals**

The proposed action may result in a loss of flora or fauna. YES ☐ NO ☒

(See Part 1.E.2.q – E.2.u)

If "YES", answer questions a-j. If "NO", move on to Section 8.

	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.s	☐	☐
b. _____ The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E.2.s	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.t	☐	☐
d. _____ The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E.2.t	☐	☐
e. _____ The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E.3.c	☐	☐
f. _____ The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source:	E.2.r	☐	☐
g. _____ The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E.2.q	☐	☐
h. _____ The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source:	E.1.b	☐	☐
i. _____ Proposed action (commercial, industrial or recreational projects, only) involves use of	D.2.q	☐	☐

herbicides or pesticides.			
j. _____ Other impacts:	☒	☐	☐

8. _____ **Impact on Agricultural Resources**

The proposed action may impact agricultural resources. (See Part 1.E.3.a & E.3.b) YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 9.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E.2.c E.3.b	☐	☐
b. _____ The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.).	E.1.a E.1.b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E.3.b	☐	☐
d. _____ The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District or more than 10 acres if not within an Agricultural District.	E.1.b E.3.a	☐	☐
e. _____ The proposed action may disrupt or prevent installation of an agricultural land management system.	E.1.a E.1.b	☐	☐
f. _____ The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C.2.c, C.3 D.2.c, D.2.d	☐	☐
g. _____ The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C.2.c	☐	☐
h. _____ Other impacts:	☒	☐	☐

9. _____ **Impact on Aesthetic Resources**

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (See Part 1.E.1.a, E.1.b, E.3.h) YES ☐ NO ☒

If "YES", answer questions a-g and complete Appendix B - Visual EAF Addendum. If "NO", move on to Section 10.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E.3.h	☐	☐
b. _____ The proposed action may	C.2.b	☐	☐

result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E.3.h		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	 E.3.h E.3.h	 ☐ ☐	 ☐ ☐
d. _____ The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	 E.3.h E.2.u E.1.c	 ☐ ☐	 ☐ ☐
e. _____ The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E.3.h	☐	☐
f. _____ There are similar projects visible within the following distance of the proposed project: 0 – ½ mile ½ – 3 mile 3 – 5 mile 5+ mile	 D.1.a D.1.h D.1.i E.1.a	 ☐ ☐ ☐ ☐	 ☐ ☐ ☐ ☐
g. _____ Other impacts:		☐	☐

10. _____ Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to an historic or archaeological resource. (See Part 1.E.3.e, E.3.f, E.3.g) *If "YES", answer questions a-e. If "NO", move on to Section 11.*	YES ☒ NO ☐		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E.3.e	☒	☐
b. _____ The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E.3.f	☒	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source:	E.3.g	☒	☐
d. _____ Other impacts:		☐	☐
e. _____ If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3: i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E.3.e – E.3g	☐	☐

ii. The proposed action may result in the alteration of the property's setting or integrity. iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E.1.a, E.1.b E.3.e – E.3.g C2, C3 E.3.g, E.3.h	☐ ☐	☐ ☐

11. _____ Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1.C.2.c, E.1.c, E.2.u)

If "YES", answer questions a-e. If "NO", move on to Section 12.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, and wildlife habitat.	D.2.e, E.1.b E.2.h – E.2.l E.2.q – E.2.t	☐	☐
b. _____ The proposed action may result in the loss of a current or future recreational resource.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C.2.c, E.1.c	☐	☐
e. _____ Other impacts:		☐	☐

12. _____ Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1.E.3.d)

If "YES", answer questions a-c. If "NO", move on to Section 13.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
c. _____ Other impacts:		☐	☐

13. _____ Impact on Transportation

The proposed action may result in a change to existing transportation systems. (See Part 1.D.2.j)

If "YES", answer questions a-f. If "NO", move on to Section 14.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Projected traffic increase	D.2.j	☐	☐

may exceed capacity of existing road network.			
b. _____ The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D.2.j	☐	☐
c. _____ The proposed action will degrade existing transit access.	D.2.j	☐	☐
d. _____ The proposed action will degrade existing pedestrian or bicycle accommodations.	D.2.j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D.2.j	☐	☐
f. _____ Other impacts:		☐	☐

14. _____ Impact on Energy

The proposed action may cause an increase in the use of any form of energy (See Part 1.D.2.k) YES ☐ NO ☒

If "YES", answer questions a-e. If "NO", move on to Section 15.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action will require a new, or an upgrade to an existing, substation.	D.2.k	☐	☐
b. _____ The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D.1.h D.1.i D.2.k	☐	☐
c. _____ The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D.2.k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D.1.i	☐	☐
e. _____ Other impacts:		☐	☐

15. _____ Impact on Noise, Odor and Light

The proposed action may result in an increase in noise, odors or outdoor lighting (See Part 1.D.2.m, D.2.n, D.2.o) YES ☐ NO ☒

If "YES", answer questions a-f. If "NO", move on to Section 16.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may produce sound above noise levels established by local regulation.	D.2.m	☐	☐
b. _____ The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D.2.m E.1.d	☐	☐
c. _____ The proposed action may result in routine odors for more than one hour per day.	D.2.o	☐	☐
d. _____ The proposed action may result in light shining onto adjoining properties.	D.2.n	☐	☐
e. The proposed action may result in lighting that creates sky-glow brighter than existing-area conditions.	D.2.n E.1.a	☐	☐

f. _____ Other impacts:		☐	☐

16. _____ Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants (See Part 1.D.2.q, E.1.d, E.1.f, E.1.g, E.1.h) YES ☐ NO ☒

If "YES", answer questions a-m. If "NO", move on to Section 17.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E.1.d	☐	☐
b. _____ The site of the proposed action is currently undergoing remediation.	E.1.g, E.1.h	☐	☐
c. _____ There is a completed emergency spill remediation or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E.1.g E.1.h	☐	☐
d. _____ The site of the action is subject to an institutional control limiting the use of the property (e.g. easement, deed restriction)	E.1.g E.1.h	☐	☐
e. _____ The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E.1.g E.1.h	☐	☐
f. _____ The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D.2.t	☐	☐
g. _____ The proposed action involves construction or modification of a solid waste management facility.	D.2.q E.1.f	☐	☐
h. _____ The proposed action may result in the unearthing of solid or hazardous waste.	D.2.q E.1.f	☐	☐
i. _____ The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D.2.r D.2.s	☐	☐
j. _____ The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E.1.f – E.1.h	☐	☐
k. _____ The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E.1.f E.1.g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D.2.r, D.2.s E.1.f	☐	☐
m. _____ Other impacts:		☐	☐

17. _____ Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1.C.1, C.2, C.3) YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 18.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C.2, C.3, D.1.a, E.1.a, E.1.b	☐	☐
b. _____ The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C.2	☐	☐
c. _____ The proposed action is inconsistent with local land use plans or zoning regulations.	C.2, C.3	☐	☐
d. _____ The proposed action is inconsistent with any County plans, or other regional land use plans.	C.2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C.3 D.1.e, D.1.f, D.1.h, E.1.b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C.4, D.2.c, D.2.d, D.2.j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C.2.a	☐	☐
h. _____ Other impacts:		☐	☐

18. _____ **Consistency with Community Character**

The proposed action is inconsistent with the existing community character (See Part 1.C.2, C.3, D.2, E.3) YES ☐ NO ☒

If "YES", answer questions a-g. If "NO", move on to Part 3.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E.3.e, E.3.f, E.3.g	☐	☐
b. _____ The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C.4	☐	☐
c. _____ The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C.2, C.3,D.1.h, D.1.i, E.1.a	☐	☐
d. _____ The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C.2, E.3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C.2, C.3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C.2, C.3, E.1.a, E.1.b, E.2.g – E.2.l	☐	☐
g. _____ Other impacts:		☐	☐

SUFFOLK COUNTY
ENVIRONMENTAL ASSESSMENT FORM

Appendix A
Suffolk County Historic Trust

Application for Determination of Appropriateness for Alteration to Suffolk County Historic Trust Landmark or Site

1. APPLICANT
   Agency: Suffolk County Parks Dept.
   Contact Person: Richard C. Martin
   Address: PO Box 144, Montauk Hwy, West Sayville, NY
   Telephone: 854-4604

2. PROPERTY
   Structure Name: Old Field Farm County Park
   Location: Old Field
   Historic Trust Status: ☒ Designated; ☐ Eligible
   Use Category: Functional
   Current Use: Horse Show grounds
   Proposed Use: Improve horse shows
   Is the structure listed on or eligible for the National Register of Historic Places? ☒ Yes; ☐ No

3. PROPOSED WORK
   Scope of Work: Install new sand ring
   Reason for Work: Improve horse shows
   Architect/Engineer:
   Contractor:
   Construction Schedule: Fall 2015

4. FUNDING
   Estimated Cost of Project: Installation of sand ring to be provided by Old Field Farm, Ltd.
   Source(s) of Funding:

5. PROPERTY HISTORY
   Date of Original Construction: c. 1930's
   Original Architect/Builder: Richard Haviland Smythe
   History of Use: Horse Show Grounds
   History of Alterations:

6. SUBMISSIONS (check all that apply)

☒ Map	☐ Specifications	☐ Samples
☐ Drawings	☒ Environmental Assessment Form	☐ Other:
☐ HP-1 Form	☐ Photographs	

7. RELATED INFORMATION AND COMMENT:

The Suffolk County Historic Trust is hereby requested to review the scope of work proposed for the above mentioned landmark structure, owned by the County of Suffolk, New York, to determine the appropriateness of design and/or use as regulated by the Suffolk County Charter. Design review guidelines have been made available for reference and it is understood that submission or approval of this application does not relieve applicant's responsibility for securing any and all other permits and approvals as required by law.

Proposal to Install Sand-based footing on the Pony Course at Old Field Farm County Parkland

Old Field Farm is one of the oldest horse show grounds in America hosting the North Shore Horse Show since 1929. It is well known across the Country as one of America's great horse show grounds.

Old Field Farm, Ltd., a nonprofit organization recognized as 501 (c) (3), has worked with Suffolk County Department of Parks to revitalize the Farm and re-establish it for select equestrian and community events consistent with Old Field Farm's past. Old Field Farm, Ltd. has been successful in restoring five United States Equestrian Federation (USEF) dates and a complimentary program of events all tailored to consider the natural location and conditions. Great care is taken as to not overuse or misuse this important piece of American Horse Show history and architecture showcasing Long Island's equestrian culture-past, present and future.

The Current State of Horse Shows in the United States and on Long Island.

Like so many things in life, horse shows had changed substantially from the time that Old Field Farm was built. After the war, there was emerging working class that looked for involvement in leisure time pursuits such as riding. Extensive suburban sprawl made riding pursuits such as cross country and fox hunting more difficult and led to massive increase in interests in horse shows. As a result, the horse show competition evolved and now required more education (since newly interested riders were not strictly associated with a leisure class and were not "born in boots") and a better horse.

Early photographs of shows at Old Field in the 30s depict horses and riders traversing a course of four identical jumps equally spaced and a rider simply went twice around on a turf surface (**Figure 1**). By comparison, todays courses over fences as they are known are more technically challenging with defined competition criteria for specific divisions. Today's horse show competition course is composed of a variety of challenging obstacles and various twists and turns in the course, changes in direction, with more complex obstacles and variable distances between them (**Figure 2**). These changes require a more educated technically adept rider that will try to find a horse to match their skill set and possess the required athleticism to compete. Most people worked full time in order to facilitate their Horse Show habits. This left a new generation of riders with limited leisure time to improve their riding skills and mandatory fitness level required for the sport. Participants in these competitions now needed to have a professional trainer by their side for competition which is now common practice. The new riders riding competing over more rigorous course designs required horses that could not only do a more complex job, but also be more tolerant and "rideble" for a rider. This led to the practice of importing "Warm Bloods" as they are known which are larger, sturdier, easier to maneuver which has become standard business in the industry. They are much more expensive than the previously popular Throughbred that was not suitable for racing but could be suitable for horse showing. This raises the bar for horse show facilities since these competitors want to insure they are bringing their more expensive Warm Blood horse to a facility with the best footing. More expensive horses, more complicated competition courses and a better understanding of safety have focused riders on the quality of footing. Good footing affords the rider with a consistent surface providing a competitive edge, a safer surface that is free of divets,

soft spots and other inconsistencies and a more consistent surface under various weather conditions. Horse owners, whether they own an expensive investment level horse or a beloved rescue horse, all want the best footing to protect their animals well-being and minimize the risk of injury. Above all, professionally designed sand blend-based footing provides a safer competition surface for the horse and rider thereby reducing the risk of injury in our society with ever increasing understanding and concerns for safety.

Current State of the Facility and the need adapt a competition area (The Pony Course) to composite sand blend footing.

The farm's competition areas consist of one well-designed sand based Main Ring, a sand-based warm up ring and two grass fields (The Hunt Course and the Pony Course- **Figure 3 and 3B**).

Creation of the sand based Main Ring in 2004 had a major impact on restoring the reputation of the facility and enabled us to retain the one United States Equestrian Federation registered horse show dates that was in danger of leaving for another destination due to the footing (**Figure 4**). Prior to this ring improvement, we risked loosing the only horse show date we had due to the condition of the turf which was inconsistent, difficult to manage and difficult to host specific horse show competition classes in due to the unreliable nature of turf. Other horse show and riding establishments, barns, racetracks, etc. have now adopted sand blend composite footing as a riding surface. Riding on these predictable surfaces is a key concern among riders and often determines whether one will attend an event or not.

The benefits of installing a professionally designed sand blend based riding surface:

Overcomes the limited use of grass (it becomes worn out very quickly with regular use and is difficult to manage).

Turf surfaces are inconsistent: they can be too hard packed and uneven (causing strain, higher risk for injury and unsoundness to the horse) or too soft or slippery (representing more risk of injury or strain). Turf surfaces can indeed be used under very specific well managed conditions but in a limited manner for specific competition divisions.

Turf surfaces require extensive maintenance, fertilizer (in our case only specified organic fertilizer may be used under strict specifications under the Athletic Field exemption) and substantial water usage and mowing in order to cultivate an acceptable riding substrate. It is virtually impossible to combat crabgrass since we are prohibited from using a deterrent, thereby making it difficult to achieve a turf surface more that is consistent.

The pony course is a competition area that hosts a variety of intermediate and introductory competition classes. It is where the majority of the junior riders (under 18 years of age) and special needs riders compete. Installation of the footing would directly benefit these groups of riders.

The use of engineered sand blend footing (Figure 5):

Provides a consistent riding surface improving safety, requires no mowing, no water or fertilizer.

They are attractive and almost maintenance free.

They attract good caliber competition to a show if the footing is known to be of good quality.

Riders demand good footing.

"Good Footing" prevents unnecessary wear and tear on the horse's delicate joints, tendons and muscle.

"Good Footing" can be composed of a variety of materials ranging from sand, textile, rubber and wax or biodegradable vaseline (used in the food and cosmetic industry). There are a variety of products in the market.

Since our installation of sand based Main Ring in 2004, which remains in good condition; a long standing track record has been established for Travel Right footing (a sand blend) that has further improved the footing quality that can be offered to a rider and represents the "state of the art." It has taken the industry to a new level.

Similar to our sand ring, the sand blend footing is installed on a stone dust base. It does not move or drift or leach into the soil. Professional specifications are available and these materials have been extensively installed in environmentally sensitive areas with strict requirements.

Area of installation: The Pony Course

We propose installing donated Travel Right footing on the pony course- an area that typically includes competition divisions for children and special needs riders (**Figure 3 and 3B**).

We have improved this field over the years and excess water is diverted off the turf via sand channels into a blind French drain away from the lagoon. The area is over 250 feet from the shorefront of the lagoon. The area benefits from a large French drain and was professionally designed (McClave Engineering) and approved by the County and created in 2013.

The area will encompass a foot print of approximately 125 by 225 ft. It will be surrounded by a grass turf border to match the Main Ring.

Material will be excavated from the footprint (and stored on site for future use) and large ¾" stone will be installed to a depth of 12 inches. Fine stone dust will be installed over the larger stone with a crown not exceeding 1 % slope. The sand based footing will be installed on top of the stone base. A wood edger or railroad tie may be placed as a border and would make for a consistent appearance as the Main Ring has a wood tie border.

Benefits of Implementation:

Successful implementation of this project with enable the following:

- Reduce water usage.
- Reduce amount of organic fertilizer to a small amount needed to maintain grass border.

- Reduce mowing activity.
- Will attract a broader range of competitors and support for the Parkland.
- Most of all, provide a vastly improved riding surface that is safer and more durable to remain viable as a horse show grounds.

We sincerely thank you for the opportunity to present this proposal. We will continue to work hard to insure that Old Field Farm County Parkland remains a unique and important horse show grounds that meets the conditions required for today's competitions but always reflects its elegant gracious past.

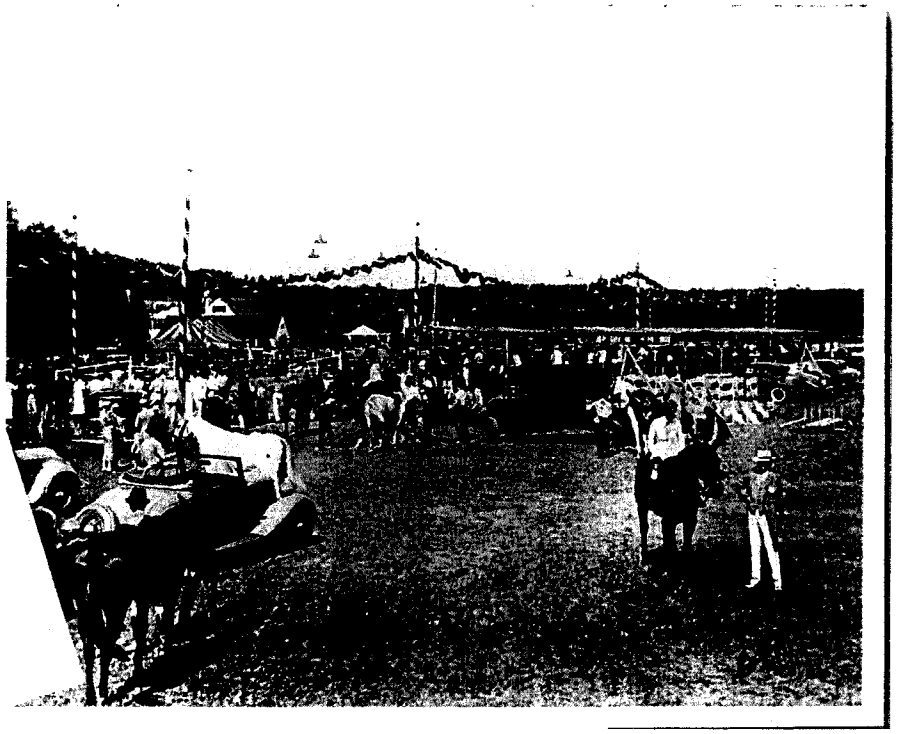
Outside Technical expertise and consultation:

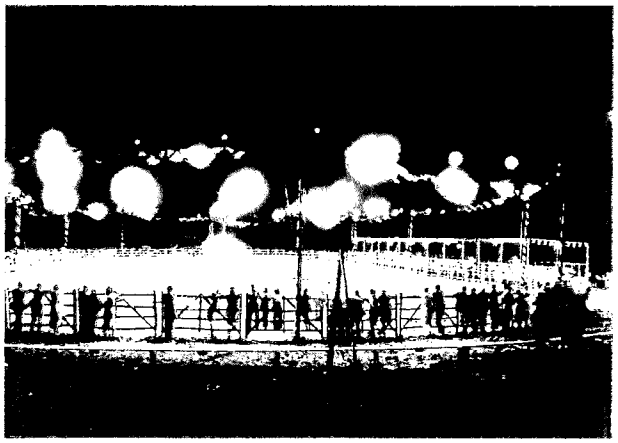
Footings First, LLC

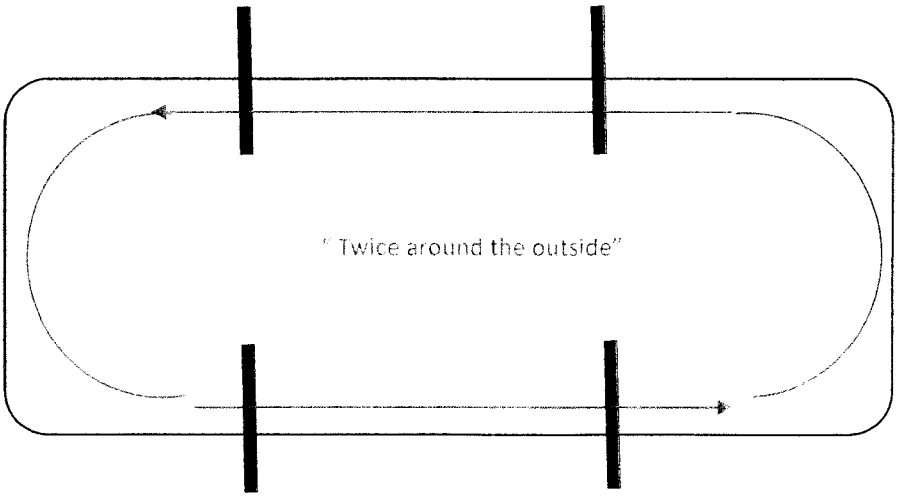
Westchester, NY

Principals: Lawton Adams and Karen Leeming

Figure 1: Early Horse Show Days at Old Field Farm.







Some courses are described in the early Horse Show Catalog (or prize lise) as two laps around a circle of four identical jumps.

Figure 3.

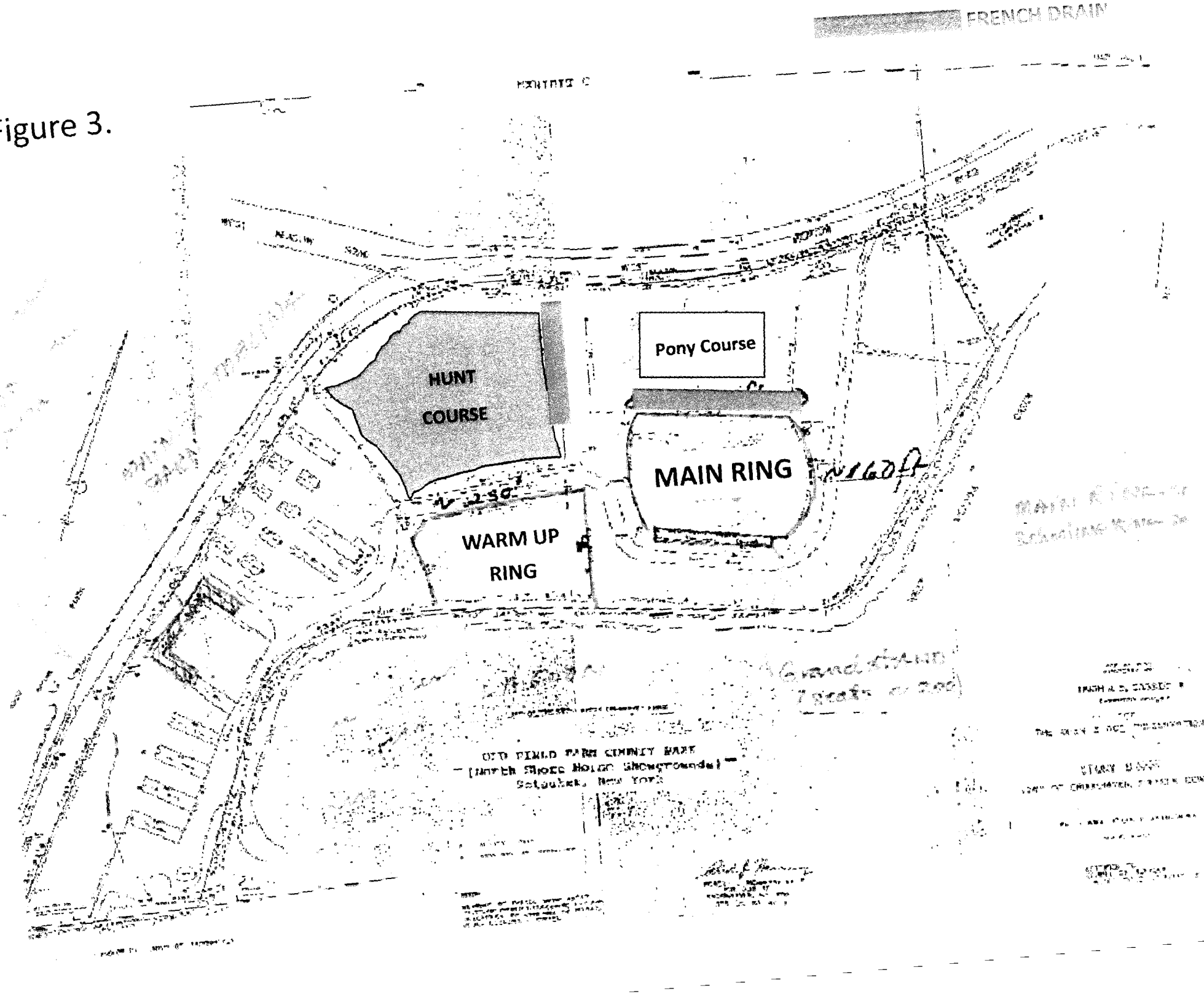

FRENCH DRAIN
HUNT
COURSE
Pony Course
MAIN RING
~160ft
WARM UP
RING
~250'
OLD FIELD FARM COUNTY PARK
(North Shore Hotel Showgrounds)
Setauket, New York

Figure 3B

View of the Pony Course at Old Field Farm County Parkland

Looking East

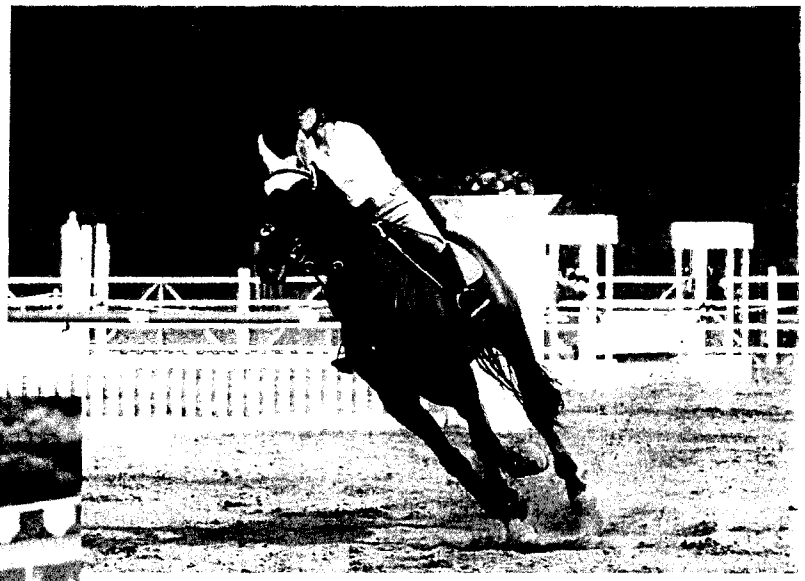
Looking North

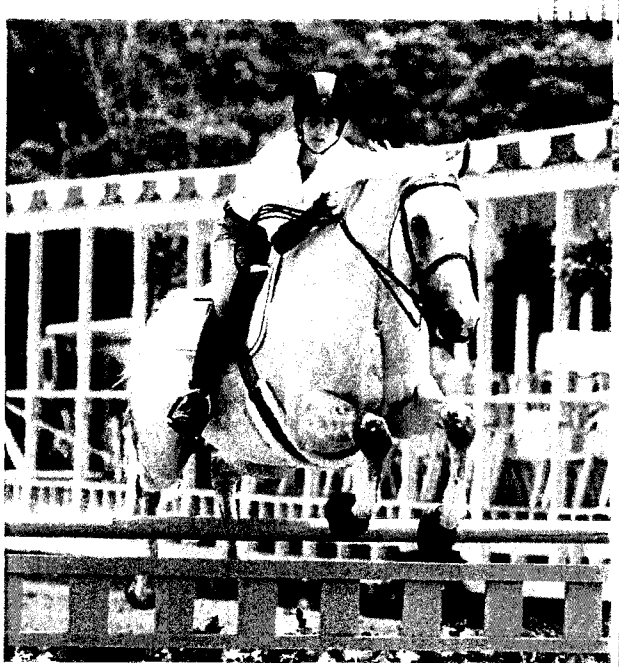
Figure 4:

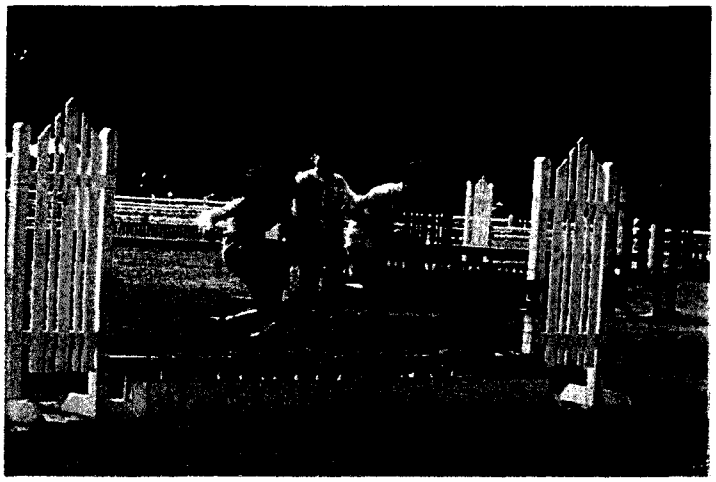
Scenes from the improved

MAIN RING

At Old Field Farm







Good footing has become paramount to all equestrian disciplines and key to preserving a good healthy sound horse.

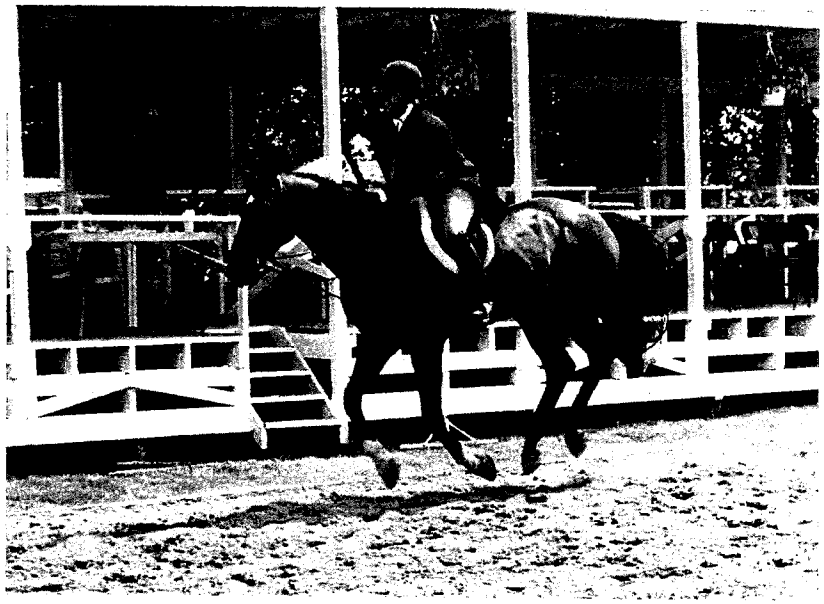
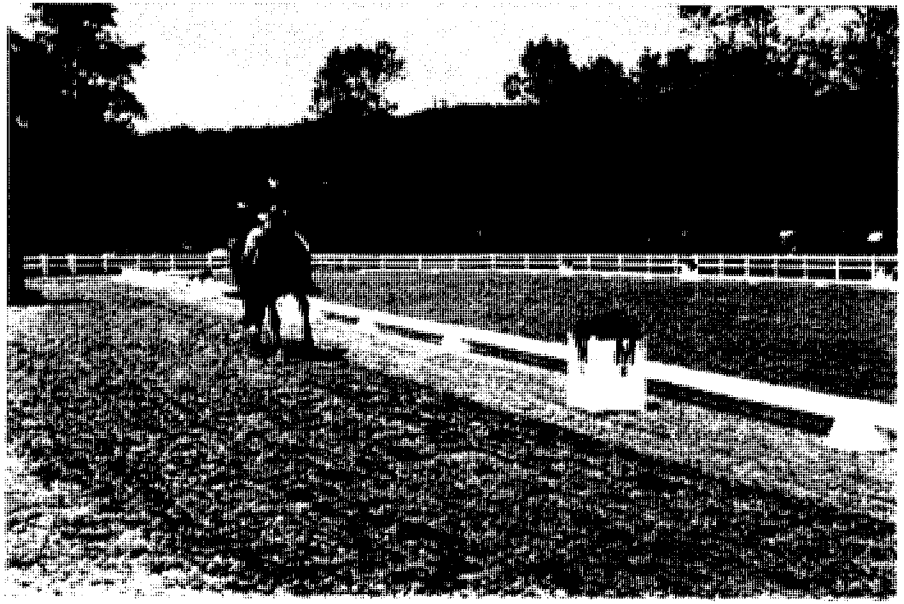


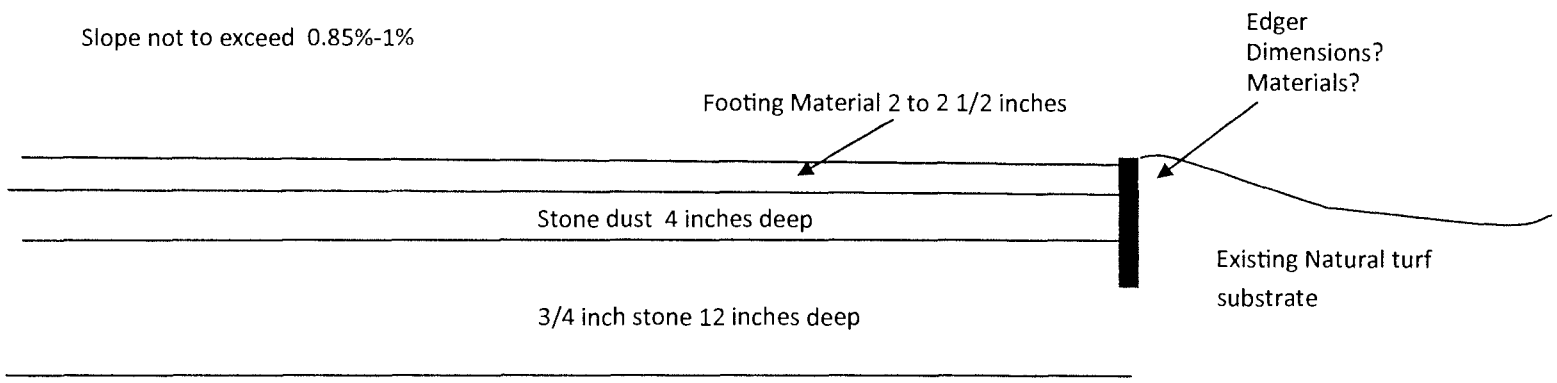
Photo of the Main Ring a grass border at Old Field Farm County Parkland.



Old Field Farm County Parkland will host Dressage Shows which broadens our offering beyond strictly Hunter/Jumper Events. While there is no jumping in Dressage competition, competitors are extremely demanding of good footing.

Photo of Silver Oak Stables who donated the material. Photo depicts similar footing installed at Silver Oak Stables.

Cross sectional detail of footing installation plan.



Drainage Plan:

The field has received the following treatment:

Sand channel drains directly water to catch basin located away from wetland shoreline

Two large French Drains service the general area.

Materials List:

- ¾ inch stone for base.
- Fine Stone Dust
- Wood edger/rail road tie.
- Sand composite footing: The information below has been obtained from the company that manufactures this blend of sand based materials.

"All of our products are environmentally friendly, manufactured with longevity in mind, and excellent for both the shod and barefoot horse." *Footings First, LLC*

TravelRight: Our Signature Blend: TravelRight Footing is a proven superior blend consisting of 2 different high-quality silica sands, 100% clean virgin rubber, European Geo Textile fibers, and a biodegradableVaseline (used in the Food and Cosmetic industry). TravelRight is low maintenance, dust-free, and does not require an irrigation system. It does not leach into the soil and remains in place.

After over 15 years of success in private and commercial facilities throughout the country, TravelRight arena footing has been a consistent and dependable performer and has been used in environmentally sensitive areas. Footing First continues to manufacture TravelRight arena footing under strict guidelines in order to maintain the outstanding aspects of this dust-free riding arena footing blend.

Footing First, LLC

260 NY-100, Somers, NY 10589
(914) 980-0123

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

PHILIP A. BERDOLT
DEPUTY COMMISSIONER

GILBERT ANDERSON, P.E.
COMMISSIONER

DARNELL TYSON, P.E.
DEPUTY COMMISSIONER

June 3, 2015

Mr. John Corral, Planner
Suffolk County Department of Economic Development and Planning
H. Lee Dennison Building
Hauppauge, NY 11788

RE: Improvements to CR 12, Oak St. from CR 1, County Line Road to Garfield Avenue Amityville/Copiague, Town of Babylon, Suffolk County, NewYork

Dear Mr. Corral:

Enclosed herein please find 15 copies of the Environmental Assessment Form for the above referenced project. We would appreciate a project review to be scheduled for the June 17, 2015 meeting of the Council for Environmental Quality. Also, included with this package are the following attachments:

Attachment 1 – Aerial Map
Attachment 2 – Location Map
Attachment 3 – Topographic Map
Attachment 4 – Soils Classification Map
Attachment 5 – Town Zoning Map
Attachment 6 – Freshwater Wetlands Map
Attachment 7 – Letter from NYS Heritage
Attachment 8 – Letter to SC Parks Department
Attachment 9 – Project Photos

If you have any questions or require additional information concerning this matter, please feel free to contact either myself or Joni Rivera, Civil Engineer, Suffolk County Department of Public Works, Highway Design Division, at 631-852-5518.

Very truly yours,

William Hillman, P.E.
Chief Engineer

WH:jr

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 1 – Environment and Setting

Instructions: Part 1 is to be completed by the applicant or project sponsor. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information. If a question is not applicable to the proposed project indicate with "N/A".

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information

Name of Action/Project: Improvements to County Road 12, Oak Street from CR 1, County Line Road to Garfield Ave
Project Location (specify Town, Village, Hamlet and attach general location map*): Amityville, Village of Amityville/ Copiague, Town of Babylon
Street Address: County Road 12, Oak Street from CR 1, County Line Road to Garfield Ave
Name of Property or Waterway: County Road 12, Oak Street

* Maps of Property and Project: Attach relevant available maps including a location map (note: use road map, Hagstrom Atlas, USGS topography map, tax map or equivalent) and preliminary site plans showing orientation, scale, buildings, roads, landmarks, drainage systems, area to be altered by project, etc.

~~Type of Project: New ☐ Expansion ☒~~

Capital Program: Item # 5575 Date Adopted: N/A Amount: $7,500,000.00

Brief Description of Proposed Action (include purpose or need/attach relevant design reports, plans, etc.):

This project will include drainage system replacement and repair, replacement of failing culvert, full depth pavement patching, resurfacing, curb and sidewalk replacement, pavement marking and the necessary traffic signal modifications. Also, includes an implemention of a comprehensive stormwater remediation effort on Amityville Creek and Great Neck Creek which are tributary to Great South Bay by installing precast concrete stormwater treatment systems (STS) at each locations that discharge highway stormwater runoff from CR 12, Oak Street. The proposed treatment units function as floatable and sediment removal devices.

During construction, all required erosion and sediment control devices will be employed in accordance with NYS Erosion and Sediment Control Guidelines. These controls will be installed prior to soil disturbance and will be monitored and maintained throughout construction.

This project also includes restoration of any areas disturbed during construction.

Project Status:

	Start	Completion
Proposal		Oct. 2011
Study	Dec. 2011	June 2012
Preliminary Planning	July 2012	March 2015
Final Plans: Specs	April 2014	July 2015
Site Acquisition	N/A	N/A
Construction	March 2016	March 2017
Other		

Departments Involved:

	Dept. Performing Design & Construction	Initiating Dept. (if different)
Name:	Suffolk County Department of Public Works	
Street/PO:	335 Yaphank Avenue	
City, State:	Yaphank, NY	
Zip:	11980	
Contact Person:	William Hillman, P.E., Chief Engineer	
Business Phone:	631 – 852 - 4002	
Email:	william.hillman@suffolkcountyny.gov	

B. <u>Government Approvals, Funding or Sponsorship</u>
("Funding" includes grants, loans, tax relief and any other forms of financial assistance)

Government Entity			If "Yes": Identify Agency and Approval(s) Required	Application Date (Actual or Projected)
i. City Council, Town Board or Village Board of Trustees	Yes ☐	No ☒		
ii. City, Town or Village Planning Board or	Yes ☐	No ☒		

	Commission				
iii.	City, Town or Village Zoning Board of Appeals	Yes ☐	No ☒		
iv.	Other local agencies	Yes ☐	No ☒		
v.	County agencies	Yes ☒	No ☐	Suffolk County CEQ & County Legislature, SCDPW	2015
vi.	Regional agencies	Yes ☐	No ☒		
vii.	State agencies	Yes ☐	No ☒		
viii.	Federal agencies	Yes ☐	No ☒		

ix. Coastal Resources
Is the project site within a Coastal Area or the waterfront area of a Designated Inland Waterway? Yes ☐ No ☒

If YES,

Is the project site located in a community with an approved Local Waterfront Revitalization Program?	Yes ☐ No ☐
Is the project site within a Coastal Erosion Hazard Area?	Yes ☐ No ☐

C. Planning and Zoning

C.1. Planning and Zoning Actions

Will administrative or legislative adoption or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes ☐ No ☒

C.2. Adopted Land Use Plans

a. Do any municipally-adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes ☐ No ☒

If Yes:
Does the comprehensive plan include specific recommendations for the site where the proposed action would be located?
Yes ☐ No ☐

b. Is the site of the proposed action within any local or regional special planning district (i.e. Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; et. al)? Yes ☐ No ☒

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes ☐ No ☒

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance? Yes ☐ No ☒

If Yes, what is the zoning classification(s) including any applicable overlay district?	
b. Is the use permitted or allowed by a special or conditional use permit?	Yes ☐ No ☒
c. Is a zoning change requested as part of the proposed action? **If Yes**, what is the proposed new zoning for the site?	Yes ☐ No ☒

C.4. Existing Community Services
a. In what school district is the project site located? Amityville UFSD and Copiague UFSD
b. What police or other public protection forces serve the project site? Amityville Police Department and Suffolk County Police Department Precinct No. 1
c. Which fire protection and emergency medical services serve the project site? Amityville Fire Department and Copiague Fire Deapartment
d. What parks serve the project site? Peterkin Park, Village of Amityville

D. Project Details

D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action? (if mixed, include all components) Residential ☒; Industrial ☐; Commercial ☒; Recreational☒; Other ☐:	
b. Total acreage of the site of the proposed action:	11.50 acres
c. Total acreage to be physically disturbed:	4.0 acres
d. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor:	11.50 acres
~~e. Is the proposed action an expansion of an existing project or use?~~	
If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet, etc.)?	Yes ☐ No ☒
f. Is the proposed action a subdivision, or does it include a subdivision? **If Yes:** *i.* Purpose or type of subdivision? (if mixed, specify types) Residential ☐; Industrial ☐; Commercial ☐; Recreational ☐; Other ☐ *ii.*	Yes ☐ No ☒

Is a cluster/conservation layout proposed?	Yes ☐ No ☐
Number of lots proposed:	
Minimum and maximum proposed lot sizes:	

g. Will proposed action be constructed in multiple phases?

If No, What is the anticipated period of construction?

12 months

If Yes:

Total number of phases anticipated: N/A
Anticipated commencement date of phase I (including demolition): N/A
Anticipated completion date of final phase: N/A
Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: N/A

Yes ☐ No ☒

h. Does the project include new residential uses?

If Yes, show number of units proposed.

	Single Family	Two Family	Three Family	Multi-Family (4+)
Initial Phase				
At Completion				

Yes ☐ No ☒

i. Does the proposed action include new non-residential construction (including expansions)?

If Yes:

Total Number of Structures:
Dimensions of largest proposed structure:
~~Approximate extent of building space to be heated or cooled:~~

Yes ☐ No ☒

j. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? **If Yes:** Purpose of the impoundment: If a water impoundment, the principal source of the water: Ground Water ☐; Surface Water Streams ☐; Other ☐ (specify): If other than water, identify the type of impounded/contained liquids and their source: Approximate size of the proposed impoundment (include units): Volume: Surface area: Dimensions of the proposed dam or impounding structure: Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock wood, concrete):	Yes ☐ No ☒
D.2. Project Operations	
a. Does the proposed action include any excavation, mining or dredging, during construction, operations or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) **If Yes:** What is the purpose of the excavation or dredging? How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site? Volume: Over what duration of time: Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them:	Yes ☐ No ☒

D.2.a (cont.) – only answer following if checked "Yes" above

Will there be onsite dewatering or processing of excavated materials? **If Yes**, describe: Dewatering will be utilized during installation of Stormwater Treatment Unit and replacement of concrete culvert.
What is the total area to be dredged or excavated? 3.9 Acres
What is the maximum area to be worked at any one time? 0.5 Acre
What would be the maximum depth of excavation or dredging? 8 feet
Will the excavation require blasting? No
Summarize site reclamation goals and plans: Seed and topsoil where applicable. All disturbed areas will be restored.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, water body, shoreline, beach or adjacent area?

If Yes:

Identify the wetland or water body which would be affected (by name, water index number, wetland map number or geographic description):
Describe how the proposed action would affect that water body or wetland, e.g. excavation, fill, placement of structures or creation of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
Will proposed action cause or result in disturbance to bottom sediments? **If Yes**, describe:
Will proposed action cause or result in the destruction or removal of aquatic vegetation?
If Yes:
Area of vegetation proposed to be removed:
Expected acreage of aquatic vegetation remaining after project completion:
Purpose of proposed removal (e.g., beach clearing, invasive control, boat access):
Proposed method of plant removal:
If chemical/herbicide treatment will be used, specify product(s):
Describe any proposed reclamation/mitigation following disturbance:

Yes ☐ No ☒

c. Will the proposed action use or create a new demand for water?

Yes ☐ No ☒

If Yes:

Total anticipated water usage/demand per day: N/A

Will the proposed action obtain water from an existing public water supply?

If Yes:

Name of district/service area: N/A

Does the existing public water supply have capacity to serve the proposal?
Yes ☐ No ☐

Is the project site in the existing district?
Yes ☐ No ☐

Is expansion of the district needed?
Yes ☐ No ☐

Do existing lines serve the project site?
Yes ☐ No ☐

Will line extension within an existing district be necessary to supply the project?

If Yes:

Describe extensions or capacity expansions proposed to serve this project: N/A

Source(s) of supply for the district: N/A

Is a new water supply district or service area proposed to be formed to serve the project site?

If Yes:

Applicant/sponsor for new district: N/A

Date application submitted or anticipated: N/A

~~Proposed source(s) of supply for new district: N/A~~

If a public water supply will not be used, describe plans to provide water supply for the project: N/A

If water supply will be from wells (public or private), what will be the maximum pumping capacity? N/A

d. Will the proposed action generate liquid wastes?

If Yes:

Total anticipated liquid waste generation per day: N/A

Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): N/A

If sanitary wastewater identify proposed disinfection technology and treatment goals for the following:

Disinfection technology: N/A
Nitrogen: N/A
Phosphorus: N/A
Total Suspended Soilds (TSS): N/A
Biological Oxygen Demand (BOD): N/A

Will the proposed action use any existing public wastewater treatment facilities?

If Yes:

Name of wastewater treatment plant to be used: N/A

Name of district: N/A

Does the existing wastewater treatment plant have capacity to serve the project?
Yes ☐ No ☐

Is the project site in the existing district?
Yes ☐ No ☐

Is expansion of the district needed?
Yes ☐ No ☐

Do existing sewer lines serve the project site?
Yes ☐ No ☐

Will line extension within an existing district be necessary to serve the project?

If Yes:

~~Describe extensions or capacity expansions proposed to serve this project: N/A~~

Will a new wastewater (sewage) treatment district be formed to serve the project site?

If Yes:

Applicant/Sponsor for new district: N/A

Date application submitted or anticipated: N/A

What is the receiving water for the wastewater discharge? N/A

If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans): N/A

Describe any plans or designs to capture, recycle or reuse liquid waste: N/A

Yes ☐ No ☒

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? **If Yes:** How much impervious surface will the project create in relation to total size of project parcel? Area of Impervious Surface: Area of Parcel: Describe types of new point sources: Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)? If to surface waters, identify receiving water bodies or wetlands: Will stormwater runoff flow to adjacent properties? Yes ☐ No ☐ Does proposed plan minimize impervious surfaces use pervious materials or collect and re-use stormwater? Yes ☐ No ☐	Yes ☐ No ☒
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? **If Yes,** identify: Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles): Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers): Stationary sources during operations (e.g., process emissions, large boilers, electric generation):	Yes ☐ No ☒
~~g. Will any air emission sources named in D.2.f (above) require a NY State Air Registration, Air~~ Facility Permit or Federal Clean Air Act Title IV or Title V Permit? **If Yes:** Is the project site located in an Air Quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes ☐ No ☐ In addition to emissions as calculated in the application, the project will generate: - Tons/year (metric) of Carbon Dioxide (CO_2) - Tons/year (metric) of Nitrous Oxide (N_2O) - Tons/year (metric) of Perfluorocarbons (PFCs) - Tons/year (metric) of Sulfur Hexafluoride (SF_6) - Tons/year (metric) of Carbon Dioxide equivalent of Hydroflorocarbons (HFCS) - Tons/year (metric) of Hazardous Air Pollutants (HAPs)	Yes ☐ No ☒

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? **If Yes:** Estimate methane generation in tons/year (metric): Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring):	Yes ☐ No ☒
i. Will the proposed action result in the release of air pollutants from open-air operations or processes such as quarry or landfill operations? **If Yes,** describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):	Yes ☐ No ☒
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? **If Yes:** When is the peak traffic expected? (check all that apply) Morning ☐; Evening ☐; Weekend ☐; Randomly ☐ between the hours of to For commercial activities only, projected number of semi-trailer truck trips/day: Parking spaces: Existing: Proposed: Net Increase/Decrease: Does the proposed action include any shared use parking? Yes ☐ No ☐ If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? Yes ☐ No ☐ ~~Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?~~ Yes ☐ No ☐ Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes ☐ No ☐	Yes ☐ No ☒
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? **If Yes:** Estimate annual electricity demand during operation of the proposed action: Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility or other): Will the proposed action require a new, or an upgrade to, an existing substation? Yes ☐ No ☐	Yes ☐ No ☒

l. Hours of operation (Answer all items which apply)

During Construction	During Operations
Monday-Friday: 8:00 am - 4:00 pm	Monday-Friday:
Saturday: N/A	Saturday:
Sunday: N/A	Sunday:
Holidays: N/A	Holidays:

N/A ☐

m. Does the proposed action produce noise that will exceed existing ambient noise levels during construction, operation or both?

If Yes:

Provide details including sources, time of day and duration:

Will proposed action remove existing natural barriers that could act as a noise barrier or screen?
Yes ☐ No ☐ Describe:

Yes ☐ No ☒

n. Will the proposed action have outdoor lighting?

If Yes:

Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Will proposed action remove existing natural barriers that could act as a light barrier or screen?
Yes ☐ No ☐ Describe:

Yes ☐ No ☒

o. Does the proposed action have the potential to produce odors for more than one hour per day?

If Yes:

Describe possible sources, potential frequency and duration of odor emissions and proximity to nearest occupied structures:

Yes ☐ No ☒

p. Will the proposed action include any bulk storage of petroleum (over 1,100 gallons) or chemical products (over 550 gallons)?

If Yes:

~~Product(s) to be stored:~~

Volume(s): per unit time: (e.g., month, year)

Generally describe proposed storage facilities:

Yes ☐ No ☒

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?

If Yes:

Describe proposed treatment(s):

Will the proposed action use Integrated Pest Management Practices?
Yes ☐ No ☐

Yes ☐ No ☒

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? **If Yes:** Describe any solid waste(s) to be generated during construction or operation of the facility: Construction: tons per (unit of time) Operation: tons per (unit of time) Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: Construction: Operation: Proposed disposal methods/facilities for solid waste generated on-site: Construction: Operation:	Yes ☐ No ☒
s. Does the proposed action include construction or modification of a solid waste management facility? **If Yes:** Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill or other disposal activities): Anticipated rate of disposal/processing: tons/month, if transfer or other non-combustion/thermal treatment, or tons/hour, if combustion or thermal treatment If landfill, anticipated site life: years	Yes ☐ No ☒
t. Will proposed action at the site involve the commercial generation, treatment, storage or disposal of hazardous waste? **If Yes:** Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: Generally describe processes or activities involving hazardous wastes or constituents: Specify amount to be handled or generated: tons/month Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes ☐ No ☐ **If Yes:** Provide name and location of facility: **If No:** Describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:	Yes ☐ No ☒

u. Will proposed action adhere to Leadership in Energy and Environmental Design (LEED) or any other green building principals? **If Yes:** Describe proposed green building methods and attempted level of certification, if any:	Yes ☐ No ☒
v. Does the project sponsor propose the use of energy benchmarking to monitor and adjust project energy needs? **If Yes, explain:**	Yes ☐ No ☒
w. Will the proposed action use native plants for all landscaping needs? **Identify species to be used and method of irrigation:**	Yes ☐ No ☒
x. Does the proposed action promote local tourism? **If Yes, explain:**	Yes ☐ No ☒

E. Site and Setting of Proposed Action

E.1. Land Uses on and Surrounding the Project Site

a. Existing land uses (Check all uses the occur on, adjoining and near the project site): (include map)

Urban ☒ Industrial ☐ Commercial ☒ Residential ☒ Rural ☐
Forest ☐ Agriculture ☐ Aquatic ☐ Other ☐ Specify:

If mix of uses, generally describe:

b. Land uses and cover types on the project site:

Land Use or Cover Type	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
Roads, buildings and other paved or impervious surfaces	11.50	11.50	0
Forested	0	0	0
Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
Agricultural (includes active orchards, fields, greenhouse, etc.)	0	0	0
Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
Wetlands (freshwater or tidal)	0	0	0
Non-Vegetated (bare rock, earth or fill)	0	0	0
Other Describe:	0	0	0
TOTAL:	11.50	11.50	0

c. Is the project site presently used by members of the community for public recreation? **If Yes,** explain:	Yes ☐ No ☒
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers or group homes) within 1,500 feet of the project site? **If Yes,** identify facilities: St, Martin of Tours School, Federation Employment and Guidance Services (FEGS), Great Neck Elementary School, Susan E. Wiley Elementary School	Yes ☒ No ☐
e. Does the project site contain an existing dam? **If Yes:** Dimensions of the dam and impoundment: - Dam height: feet - Dam length: feet - Surface area: acres - Volume impounded: gallons or acre-feet Dam's existing hazard classification: Provide date and summarize results of last inspection:	Yes ☐ No ☒
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? **If Yes:** Has the facility been formally closed? Yes ☐ No ☐ ~~If Yes, cite sources/documentation:~~ ~~Describe the location of the project site relative to the boundaries of the solid waste management~~ facility: Describe any development constraints due to the prior solid waste activities:	Yes ☐ No ☒
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? **If Yes:** Describe waste(s) handled and waste management activities, including approximate time when activities occurred:	Yes ☐ No ☒

h. Has there been a reported contamination spill at the proposed project site or have any remedial actions been conducted at or adjacent to the proposed site?

Yes ☐ No ☒

If Yes:

Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? (Check all that apply)

☐ Yes – Spills Incidents database Provide DEC ID number(s):

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s):

☐ Neither database

If site has been subject to RCRA corrective activities, describe control measures:

Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes ☐ No ☐

If Yes:

DEC ID number(s):

Describe current status of site(s):

E.1.h. (cont.) – only answer following if checked "Yes" above

Is the project site subject to an institutional control limiting property uses?

If Yes:

DEC site ID number(s):

Describe the type of institutional control (e.g., deed restriction or easement):

Describe any use limitations:

Describe any engineering controls:

Will the project affect the institutional or engineering controls in place? Yes ☐ No ☐

Explain:

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site:

feet

b. Are there bedrock outcroppings on the project site?

Yes ☐ No ☒

If Yes:

What proportion of the site is comprised of bedrock outcroppings?

%

c. Predominant soil type(s) present on project site: (include map)

1. Riverhead and Haven soils (RhB)	54.2 % of site
2. Urban Land (Ur)	42.1 % of site
3. Fill Land, dredged material	3.3 % of site
4. Riverhead sandy loam (RdA)	0.3 % of site

d. What is the average depth to the water table on the project site?
20' except at Amityville Creek is 6'

e. Drainage status of project site soils:

1.	☒ Well Drained	90	% of site
2.	☐ Moderately Well Drained	10	% of site
3.	☐ Poorly Drained	0	% of site

f. Approximate proportion of proposed action site with slopes: (include topographic map)

1.	☐ 0-10%	100	% of site
2.	☐ 11-15%		% of site
3.	☐ 16% or greater		% of site

g. Are there any unique geologic features on the project site? Yes ☐ No ☒

If Yes, describe:

h. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes ☒ No ☐

i. Do any wetlands or other waterbodies adjoin the project site? Yes ☒ No ☐

If Yes to either E.2.h or E.2.i, continue. If No, skip to E.2.m

j. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? (include map) Yes ☒ No ☐

k. For each identified wetland and waterbody on the project site, provide the following information:

Streams:	Name: Amityville Creek	Classification:
Lakes or Ponds:	Name: Peterkin Park Pond	Classification:
Wetlands:	Name:	Approx. Size:
Wetland No. (if regulated by DEC):	A-4	

l. Are any of the above waterbodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes ☐ No ☒

If Yes, name of impaired water body/bodies and basis for listing as impaired:

m. Is the project site in a designated floodway? Yes ☐ No ☒

n. Is the project site in the 100 year floodplain? Yes ☒ No ☐

o. Is the project site in the 500 year floodplain? Yes ☐ No ☒

p. Is the project site located over or immediately adjoining a primary, principal or sole source aquifer? Yes ☒ No ☐

If Yes:

Name of aquifer: Magothy Aquifer
Source of information: NYSDEC, USEPA

q. Identify the predominant wildlife species that occupy or use the project site:

common indigenous land animals		
common indigenous land birds		

r. Does the project site contain a designated significant natural community? Yes ☐ No ☒

If Yes:

Describe the habitat/community (composition, function and basis for designation:
Source(s) of description or evaluation:
Extent of community/habitat: - Currently: acres - Following completion of project as proposed: acres - Gain or loss (indicate + or –): acres

s. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? Yes ☐ No ☒

If Yes:

Species and listing (endangered or threatened):
Nature of use of site by the species (e.g., resident, seasonal, transient):

t. Does project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? Yes ☐ No ☒

If Yes:

Species and listing:
Nature of use of site by the species (e.g., resident, seasonal, transient):

u. Is the project site or adjoining area currently used for hunting, trapping, fishing or shellfishing? Yes ☐ No ☒

If Yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? Yes ☐ No ☒

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? Yes ☐ No ☒

If Yes:

Acreage(s) on project site:
Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to a registered National Natural Landmark? **If Yes:** Nature of the natural landmark: ☐ Biological Community; ☐ Geological Feature Provide brief description of landmark, including values behind designation and approximate size/extent:	Yes ☐ No ☒
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area, including Special Groundwater Protection Areas? **If Yes:** CEA name: Basis for designation: Designating agency and date:	Yes ☐ No ☒
e. Does the project site contain, or is it substantially contiguous to, a building, archeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places? **If Yes:** Nature of historic/archaeological resource: ☐ Archaeological Site; ☐ Historic Building or district Name: Brief description of attributes on which listing is based:	Yes ☐ No ☒
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	Yes ☐ No ☒
g. Have additional archaeological or historic site(s) or resources been identified on the project site? **If Yes:** Describe possible resource(s): Basis for identification:	Yes ☐ No ☒
h. Would the project site be visible from any officially designated and publicly assessable federal, state or local scenic or aesthetic resource? **If Yes:** Identify resource: Nature of, or basis for designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Distance between project and resource:	Yes ☐ No ☒
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR Part 666? **If Yes:** Identify the name of the river and its designation: Is the activity consistent with development restrictions contained in 6 NYCRR Part 666? Yes ☐ No ☐	Yes ☐ No ☒

F. Additional Information

Attach any additional information which may be needed to clarify your project.
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name: William Hillman, P.E. Date: 6/3/15

Signature: FOR Title: Chief Engineer

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 2 – Identification of Potential Project Impacts

Instructions: Part 2 is to be completed by the lead agency. It is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

Tips for completing Part 2:

- _____ Review all of the information provided in Part 1.
- _____ Review any application, maps, supporting materials and the Full EAF Workbook.
- _____ Answer each of the 18 questions in Part 2.
- _____ If you answer "**YES**" to a numbered question, please complete all the questions that follow in that section.
- _____ If you answer "**NO**" to a numbered question, move on to the next numbered section.
- _____ Check appropriate column to indicate the anticipated size of the impact.
- _____ Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "**Moderate to large impact may occur**."
- _____ The reviewer is not expected to be an expert in environmental analysis.
- _____ If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- _____ When answering a question consider all components of the proposed activity, that is, the "whole action."
- _____ Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- _____ Answer the question in a reasonable manner considering the scale and context of the project.

1. _____ **Impact on Land**
The proposed action may involve construction on, or physical alteration of the land surface of the proposed site. (See Part 1.D.1) YES ☐ NO ☒
If "YES", answer questions a-h. If "NO", move on to Section 2.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may involve construction on land where depth to water table is less than 3 feet.	E.2.d	☐	☐
b. _____ The proposed actin may involve construction on slopes of 15% or greater.	E.2.f	☐	☐
c. _____ The proposed actin may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E.2.a	☐	☐
d. _____ The proposed action may involve the excavation and removal of more than 1,000 tons of natural	D.2.a	☐	☐

material.			
e. _____ The proposed action may involve construction that continues for more than one year or in multiple phases.	D.1.g	☐	☐
f. _____ The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D.2.e D.2.q	☐	☐
g. _____ The proposed action is, or may be, located within a Coastal Erosion hazard area.	B.*ix*	☐	☐
h. _____ Other impacts: None		☐	☐

2. _____ Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1.E.2.g)

YES ☐ NO ☒

If "YES", answer questions a-c. If "NO", move on to Section 3.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Identify the specific land form(s):	E.2.g	☐	☐
b. _____ The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature:	E.3.c	☐	☐
c. _____ Other impacts:		☐	☐

3. _____ Impact on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes).

YES ☐ NO ☒

~~(See Part 1.D.2 & E.2.h)~~

~~*If "YES", answer questions a-l. If "NO", move on to Section 4.*~~

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may create a new water body	D.1.j D.2.b	☐	☐
b. _____ The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D.2.b	☐	☐
c. _____ The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D.2.a	☐	☐
d. _____ The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E.2.h E.2.i	☐	☐
e. _____ The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by	D.2.a D.2.h	☐	☐

disturbing bottom sediments.			
f. _____ The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D.2.c	☐	☐
g. _____ The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D.2.d	☐	☐
h. _____ The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D.2.e	☐	☐
i. _____ The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E.2.h – E.2.l	☐	☐
j. _____ The proposed action may involve the application of pesticides or herbicides in or around any water body.	D.2.q E.2.h – E.2.l	☐	☐
k. _____ The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D.1.a D.2.d	☐	☐
l. _____ Other impacts:		☐	☐

4. _____ Impact on Groundwater The proposed action may result in new or additional use of groundwater, or may have the potential to introduce contaminants to groundwater or an aquifer. (See Part 1.D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) *If "YES", answer questions a-h. If "NO", move on to Section 5.*	YES ☐ NO ☒		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D.2.c	☐	☐
b. _____ Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source:	D.2.c	☐	☐
c. _____ The proposed action may allow or result in residential uses in areas without water and sewer services.	D.1.a D.2.c – D.2.d	☐	☐
d. _____ The proposed action may include or require wastewater discharged to groundwater.	D.2.d E.2.p	☐	☐
e. _____ The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D.2.c E.1.f – E.1.h	☐	☐
f. _____ The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D.2.p E.2.p	☐	☐
g. _____ The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	D.2.q E.2.h – E.2.l E.2.p D.2.c	☐	☐

h. _____ Other impacts:	☒	☐	☐

5. _____ **Impact on Flooding** The proposed action may result in development on lands subject to flooding. (See Part 1.E.2) *If "YES", answer questions a-g. If "NO", move on to Section 6.*	YES ☐ NO ☒		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ The proposed action may result in development in a designated floodway.	E.2.m	☐	☐
b. _____ The proposed action may result in development within a 100 year floodplain.	E.2.n	☐	☐
c. _____ The proposed action may result in development within a 500 year floodplain.	E.2.o	☐	☐
d. _____ The proposed action may result in, or require, modification of existing drainage patterns.	D.2.b D.2.e	☐	☐
e. _____ The proposed action may change flood water flows that contribute to flooding.	D.2.b E.2.m – E.2.o	☐	☐
f. _____ If there is a dam located on the site of the proposed action, the dam has failed to meet one or more safety criteria on its most recent inspection.	E.1.e	☐	☐
g. _____ Other impacts:	☒	☐	☐

6. _____ **Impact on Air** The proposed action may include a state regulated air emission source. (See Part 1.D.2.f, D.2.h, D.2.g) *If "YES", answer questions a-f. If "NO", move on to Section 7.*	YES ☐ NO ☒		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. _____ More than 1000 tons/year of carbon dioxide (CO2)	D.2.g	☐	☐
ii. _____ More than 3.5 tons/year of nitrous oxide (N20)	D.2.g	☐	☐
iii. _____ More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D.2.g	☐	☐
iv. _____ More than .045 tons/year of sulfur hexafluoride (SF6)	D.2.g	☐	☐
v. _____ More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflurocarbons (HCFCs) emissions	D.2.g	☐	☐
vi. 43 tons/year or more of methane	D.2.h	☐	☐
b. _____ The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous	D.2.g	☐	☐

air pollutants.			
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU=s per hour.	D.2.f D.3.g	☐	☐
d. _____ The proposed action may reach 50% of any two or more of the thresholds in "a" through "c", above.	D.1.i D.2.k	☐	☐
e. _____ The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D.2.s	☐	☐
f. _____ Other impacts:		☐	☐

7. _____ Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. YES ☐ NO ☒

(See Part 1.E.2.q – E.2.u)

If "YES", answer questions a-j. If "NO", move on to Section 8.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.s	☐	☐
b. _____ The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E.2.s	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E.2.t	☐	☐
d. _____ The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E.2.t	☐	☐
e. _____ The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E.3.c	☐	☐
f. _____ The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source:	E.2.r	☐	☐
g. _____ The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E.2.q	☐	☐
h. _____ The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source:	E.1.b	☐	☐
i. _____ Proposed action (commercial, industrial or recreational projects, only) involves use of	D.2.q	☐	☐

herbicides or pesticides.			
j. _____ Other impacts:	☒	☐	☐

8. _____ Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1.E.3.a & E.3.b) YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 9.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E.2.c E.3.b	☐	☐
b. _____ The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.).	E.1.a E.1.b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E.3.b	☐	☐
d. _____ The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District or more than 10 acres if not within an Agricultural District.	E.1.b E.3.a	☐	☐
e. _____ The proposed action may disrupt or prevent installation of an agricultural land management system.	E.1.a E.1.b	☐	☐
f. _____ The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C.2.c, C.3 D.2.c, D.2.d	☐	☐
g. _____ The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C.2.c	☐	☐
h. _____ Other impacts:	☒	☐	☐

9. _____ Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (See Part 1.E.1.a, E.1.b, E.3.h) YES ☐ NO ☒

If "YES", answer questions a-g and complete Appendix B - Visual EAF Addendum. If "NO", move on to Section 10.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E.3.h	☐	☐
b. _____ The proposed action may	C.2.b	☐	☐

result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E.3.h		
c. The proposed action may be visible from publicly accessible vantage points:			
i. Seasonally (e.g., screened by summer foliage, but visible during other seasons)	E.3.h	☐	☐
ii. Year round	E.3.h	☐	☐
d. _____ The situation or activity in which viewers are engaged while viewing the proposed action is:	E.3.h		
i. Routine travel by residents, including travel to and from work	E.2.u	☐	☐
ii. Recreational or tourism based activities	E.1.c	☐	☐
e. _____ The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E.3.h	☐	☐
f. _____ There are similar projects visible within the following distance of the proposed project:	D.1.a		
0 – ½ mile	D.1.h	☐	☐
½ – 3 mile	D.1.i	☐	☐
3 – 5 mile	E.1.a	☐	☐
5+ mile		☐	☐
g. _____ Other impacts:		☐	☐

10. _____ Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to an historic or archaeological resource. (See Part 1.E.3.e, E.3.f, E.3.g) *If "YES", answer questions a-e. If "NO", move on to Section 11.*	YES ☐ NO ☒		
	Relevant Part 1 Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. _____ The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E.3.e	☐	☐
b. _____ The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E.3.f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source:	E.3.g	☐	☐
d. _____ Other impacts:		☐	☐
e. _____ If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E.3.e – E.3g	☐	☐

ii. The proposed action may result in the alteration of the property's setting or integrity.	E.1.a, E.1.b E.3.e – E.3.g	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	C2, C3 E.3.g, E.3.h	☐	☐

11. _____ Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1.C.2.c, E.1.c, E.2.u)

If "YES", answer questions a-e. If "NO", move on to Section 12.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, and wildlife habitat.	D.2.e, E.1.b E.2.h – E.2.l E.2.q – E.2.t	☐	☐
b. _____ The proposed action may result in the loss of a current or future recreational resource.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C.2.a, C.2.c E.1.c, E.2.u	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C.2.c, E.1.c	☐	☐
e. _____ Other impacts:		☐	☐

12. _____ Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1.E.3.d)

If "YES", answer questions a-c. If "NO", move on to Section 13.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E.3.d	☐	☐
c. _____ Other impacts:		☐	☐

13. _____ Impact on Transportation

The proposed action may result in a change to existing transportation systems. (See Part 1.D.2.j)

If "YES", answer questions a-f. If "NO", move on to Section 14.

YES ☐ NO ☒

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ Projected traffic increase	D.2.j	☐	☐

may exceed capacity of existing road network.			
b. _____ The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D.2.j	☐	☐
c. _____ The proposed action will degrade existing transit access.	D.2.j	☐	☐
d. _____ The proposed action will degrade existing pedestrian or bicycle accommodations.	D.2.j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D.2.j	☐	☐
f. _____ Other impacts:	☒	☐	☐

14. _____ Impact on Energy

The proposed action may cause an increase in the use of any form of energy (See Part 1.D.2.k) YES ☐ NO ☒

If "YES", answer questions a-e. If "NO", move on to Section 15.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action will require a new, or an upgrade to an existing, substation.	D.2.k	☐	☐
b. _____ The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D.1.h D.1.i D.2.k	☐	☐
c. _____ The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D.2.k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D.1.i	☐	☐
e. _____ Other impacts:	☒	☐	☐

15. _____ Impact on Noise, Odor and Light

The proposed action may result in an increase in noise, odors or outdoor lighting (See Part 1.D.2.m, D.2.n, D.2.o) YES ☐ NO ☒

If "YES", answer questions a-f. If "NO", move on to Section 16.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action may produce sound above noise levels established by local regulation.	D.2.m	☐	☐
b. _____ The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D.2.m E.1.d	☐	☐
c. _____ The proposed action may result in routine odors for more than one hour per day.	D.2.o	☐	☐
d. _____ The proposed action may result in light shining onto adjoining properties.	D.2.n	☐	☐
e. The proposed action may result in lighting that creates sky-glow brighter than existing-area conditions.	D.2.n E.1.a	☐	☐

f. _____ Other impacts:	☒	☐	☐

16. _____ Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants (See Part 1.D.2.q, E.1.d, E.1.f, E.1.g, E.1.h) YES ☐ NO ☒

If "YES", answer questions a-m. If "NO", move on to Section 17.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E.1.d	☐	☐
b. _____ The site of the proposed action is currently undergoing remediation.	E.1.g, E.1.h	☐	☐
c. _____ There is a completed emergency spill remediation or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E.1.g E.1.h	☐	☐
d. _____ The site of the action is subject to an institutional control limiting the use of the property (e.g. easement, deed restriction)	E.1.g E.1.h	☐	☐
e. _____ The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E.1.g E.1.h	☐	☐
f. _____ The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D.2.t	☐	☐
g. _____ The proposed action involves construction or modification of a solid waste management facility.	D.2.q E.1.f	☐	☐
h. _____ The proposed action may result in the unearthing of solid or hazardous waste.	D.2.q E.1.f	☐	☐
i. _____ The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D.2.r D.2.s	☐	☐
j. _____ The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E.1.f – E.1.h	☐	☐
k. _____ The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E.1.f E.1.g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D.2.r, D.2.s E.1.f	☐	☐
m. _____ Other impacts:	☒	☐	☐

17. _____ Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1.C.1, C.2, C.3) YES ☐ NO ☒

If "YES", answer questions a-h. If "NO", move on to Section 18.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. _____ The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C.2, C.3, D.1.a, E.1.a, E.1.b	☐	☐
b. _____ The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C.2	☐	☐
c. _____ The proposed action is inconsistent with local land use plans or zoning regulations.	C.2, C.3	☐	☐
d. _____ The proposed action is inconsistent with any County plans, or other regional land use plans.	C.2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C.3 D.1.e, D.1.f, D.1.h, E.1.b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C.4, D.2.c, D.2.d, D.2.j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C.2.a	☐	☐
h. _____ Other impacts:		☐	☐

18. _____ Consistency with Community Character

The proposed action is inconsistent with the existing community character (See Part 1.C.2, C.3, D.2, E.3) YES ☐ NO ☒

If "YES", answer questions a-g. If "NO", move on to Part 3.

	Relevant Part 1 Question(s)	No, or small impact may occur	Moderate to large impact may occur
~~a. _____ The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.~~	~~E.3.e, E.3.f, E.3.g~~	~~☐~~	~~☐~~
b. _____ The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C.4	☐	☐
c. _____ The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C.2, C.3,D.1.h, D.1.i, E.1.a	☐	☐
d. _____ The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C.2, E.3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C.2, C.3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C.2, C.3, E.1.a, E.1.b, E.2.g – E.2.l	☐	☐
g. _____ Other impacts:		☐	☐

SUFFOLK COUNTY
FULL ENVIRONMENTAL ASSESSMENT FORM
6 NYCRR Part 617
State Environmental Quality Review

Part 3 – Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:
To complete this section:

* _____ Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
* _____ Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
* _____ The assessment should take into consideration any design element or project changes.
* _____ Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
* _____ Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
* _____ For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
* _____ Attach additional sheets, as needed.

Determination of Significance
Type 1 and Unlisted Actions

SEQR Status: Type I ☐ Unlisted ☒

Identify portions of EAF completed for this project: Part 1 ☐ Part 2 ☐ Part 3 ☐

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of as lead agency that:

☒ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

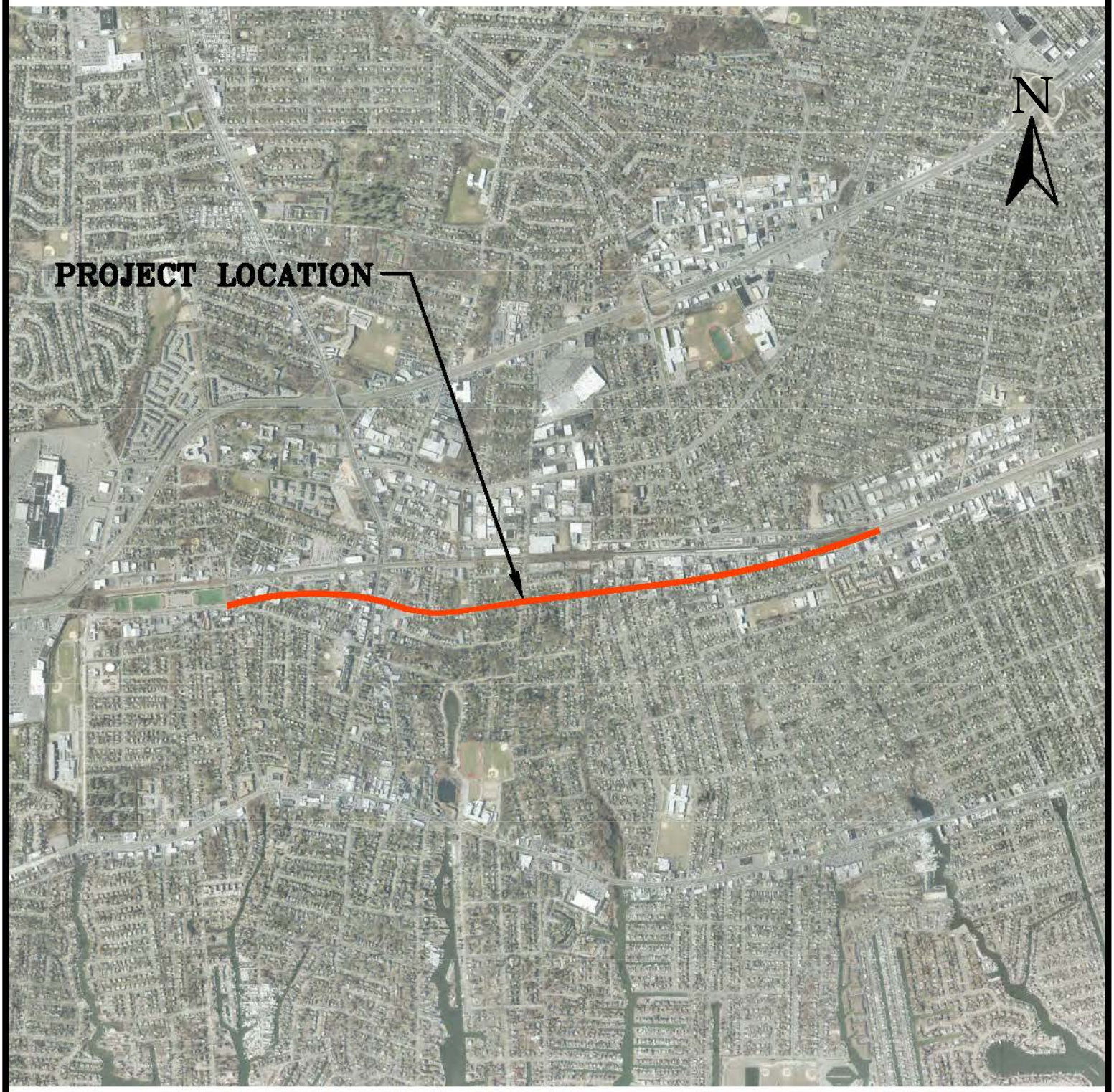
☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Unlisted
Name of Lead Agency: Suffolk County Department Of Public Works
Name of Responsible Officer in Lead Agency: William Hillman, P.E.
Title of Responsible Officer in Lead Agency: Chief Engineer
Signature of Responsible Officer in Lead Agency: AK Date: 6/5/15
~~Signature of Preparer (if different from Responsible Officer)~~ Date:

For Further Information:
Contact Person:
Address:
Telephone Number:
Email:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:
Chief Executive Officer of the political subdivision in which the action will be principally located (Town/City/Village)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

Attachment #1: Aerial Map

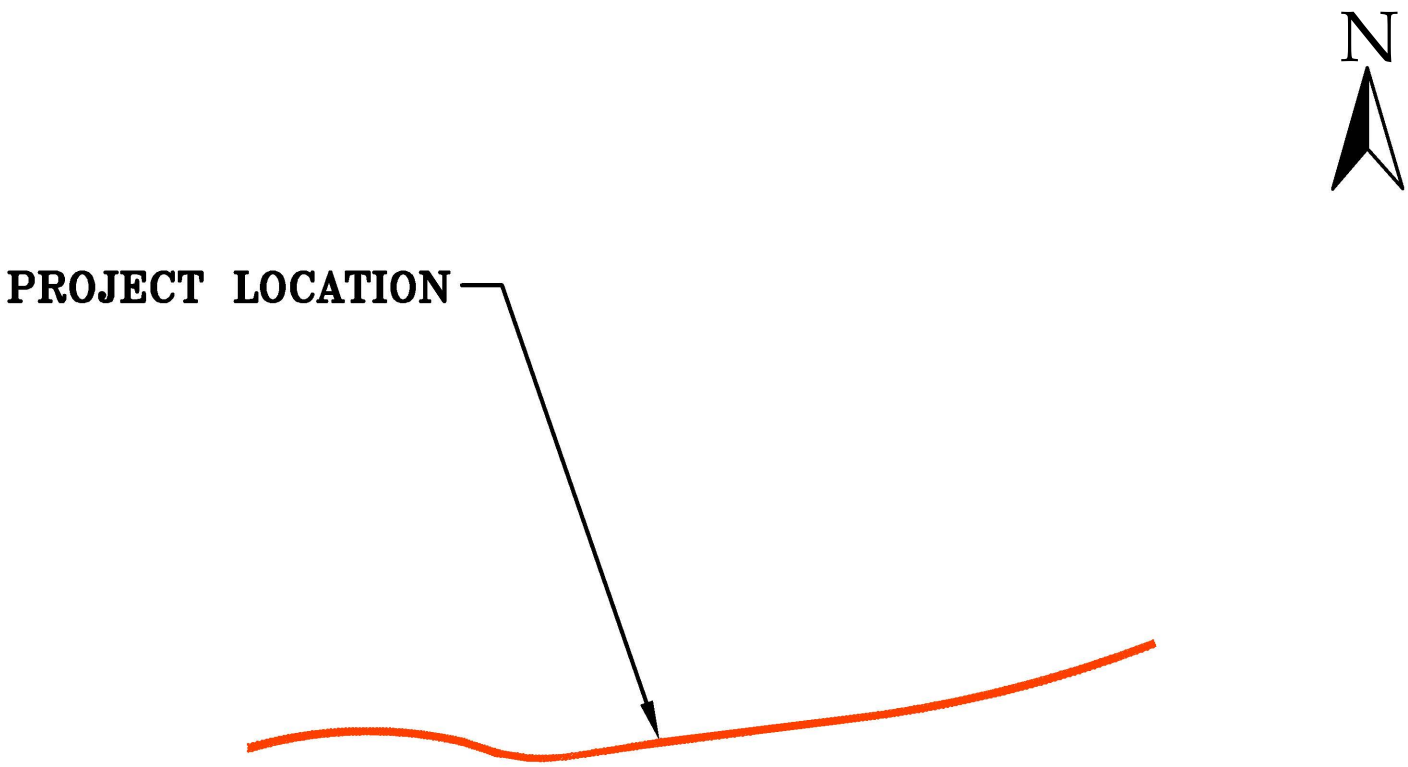


IMPROVEMENTS TO C.R. 12, OAK STREET
CAPITAL PROJECT 5575

2013
AERIAL PHOTO

Scale: 1"=2,000'

Attachment #2: Location Map

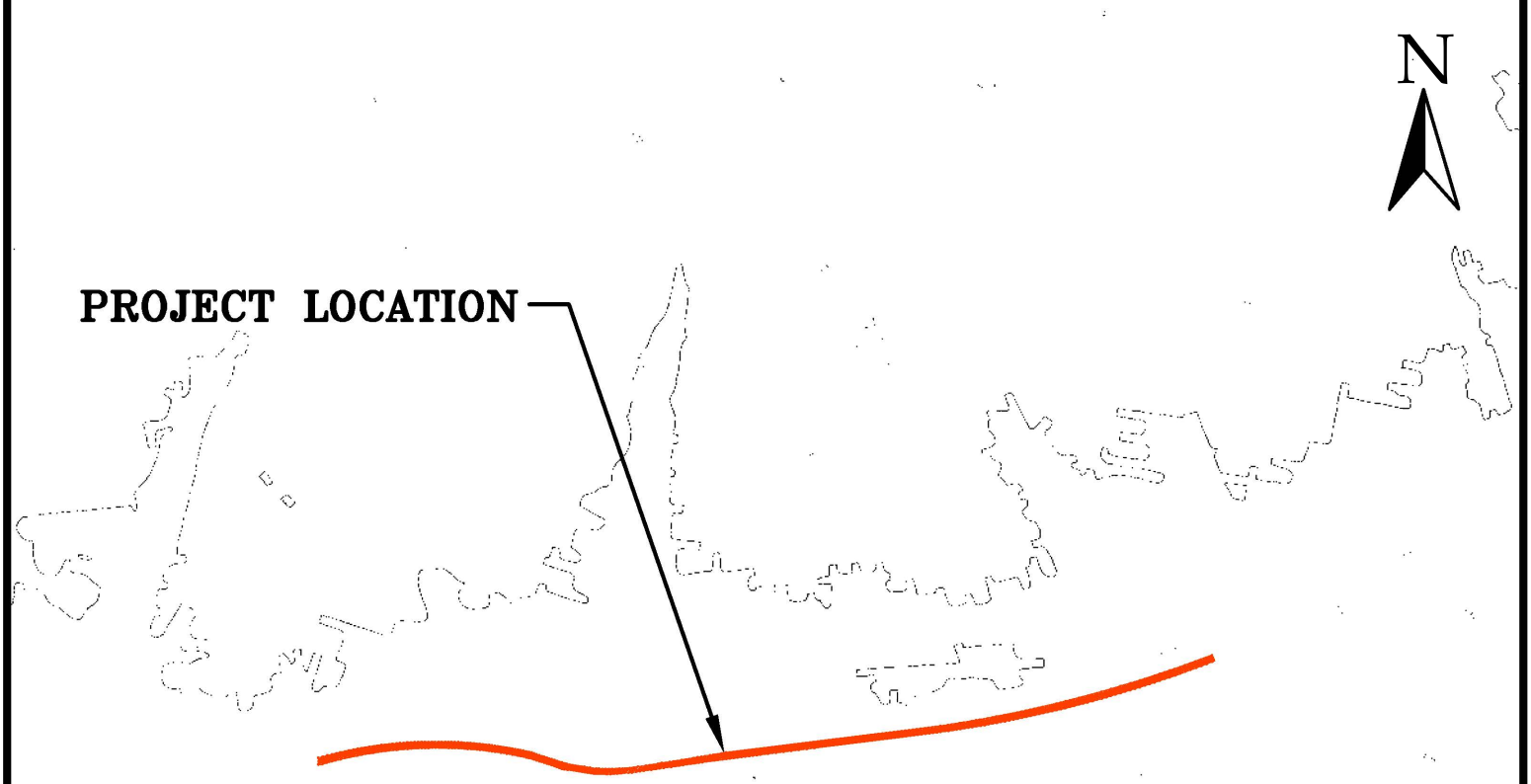


IMPROVEMENTS TO C.R. 12, OAK STREET
CAPITAL PROJECT 5575

AMITYVILLE QUADRANGLE
New York–Suffolk County
7.5 Minute Series

Published by the New York State Department of Transportation in cooperation with the U.S. Department of Transportation, Federal Highway Administration
Map Base from U.S. Geological Survey 7.5 minute quadrangle. Revisions made in 1990.
Scale: 1"=2,000'

Attachment #3: Topographical Map

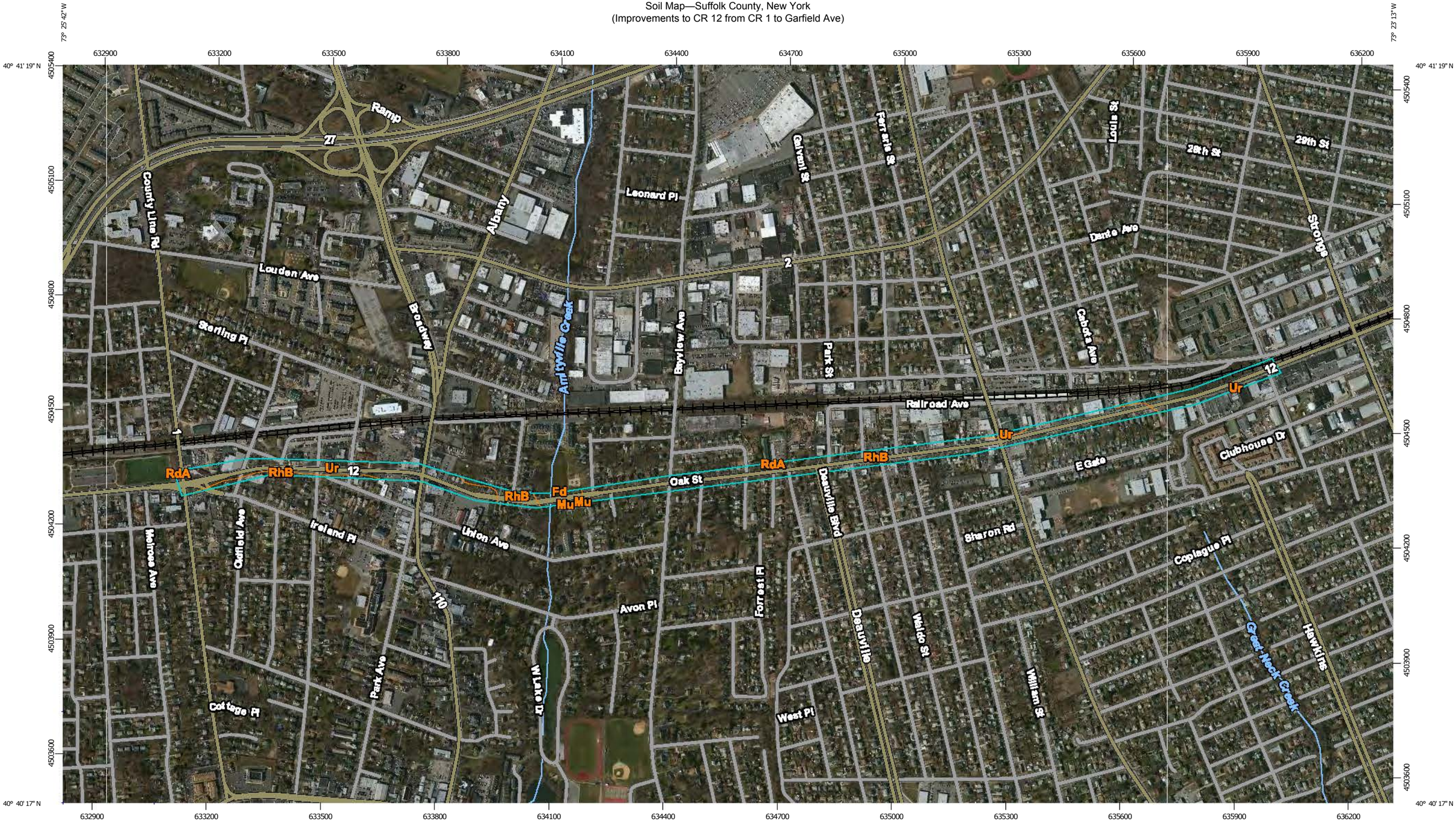


IMPROVEMENTS TO C.R. 12, OAK STREET
CAPITAL PROJECT 5575

AMITYVILLE QUADRANGLE
New York–Suffolk County
7.5 Minute Series

Published by the New York State Department of Transportation in cooperation with the U.S. Department of Transportation, Federal Highway Administration
Map Base from U.S. Geological Survey 7.5 minute quadrangle. Revisions made in 1990.
Scale: 1"=2,000'

Soil Map—Suffolk County, New York
(Improvements to CR 12 from CR 1 to Garfield Ave)



Map Scale: 1:9,410 if printed on B landscape (17" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Suffolk County, New York
Survey Area Data: Version 12, Sep 16, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

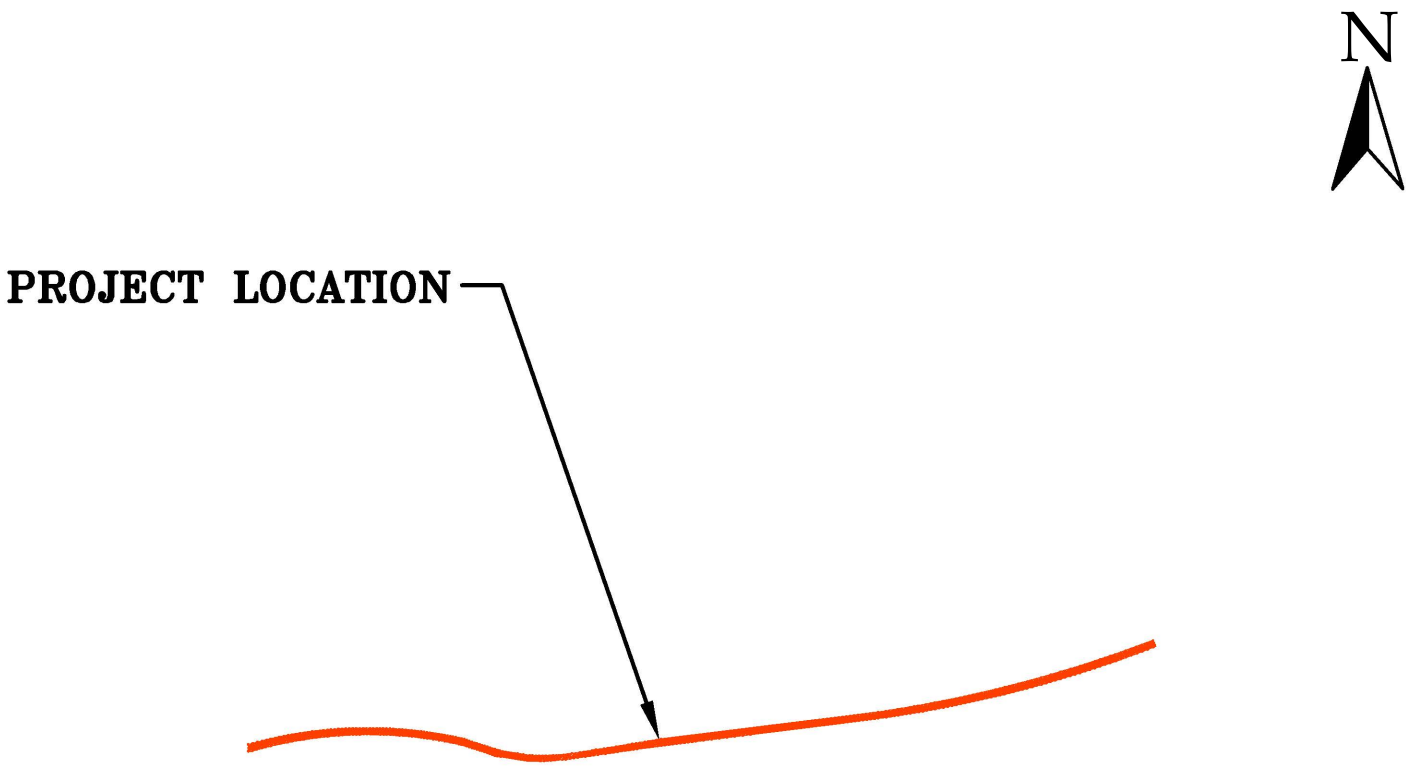
Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Suffolk County, New York (NY103)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Fd	Fill land, dredged material	1.0	3.3%
Mu	Swansea muck, 0 to 1 percent slopes, coastal lowland	0.0	0.0%
RdA	Riverhead sandy loam, 0 to 3 percent slopes	0.1	0.3%
RhB	Riverhead and Haven soils, graded, 0 to 8 percent slopes	16.6	54.2%
Ur	Urban land	12.9	42.1%
Totals for Area of Interest		**30.7**	**100.0%**

Attachment #5: Zoning Map



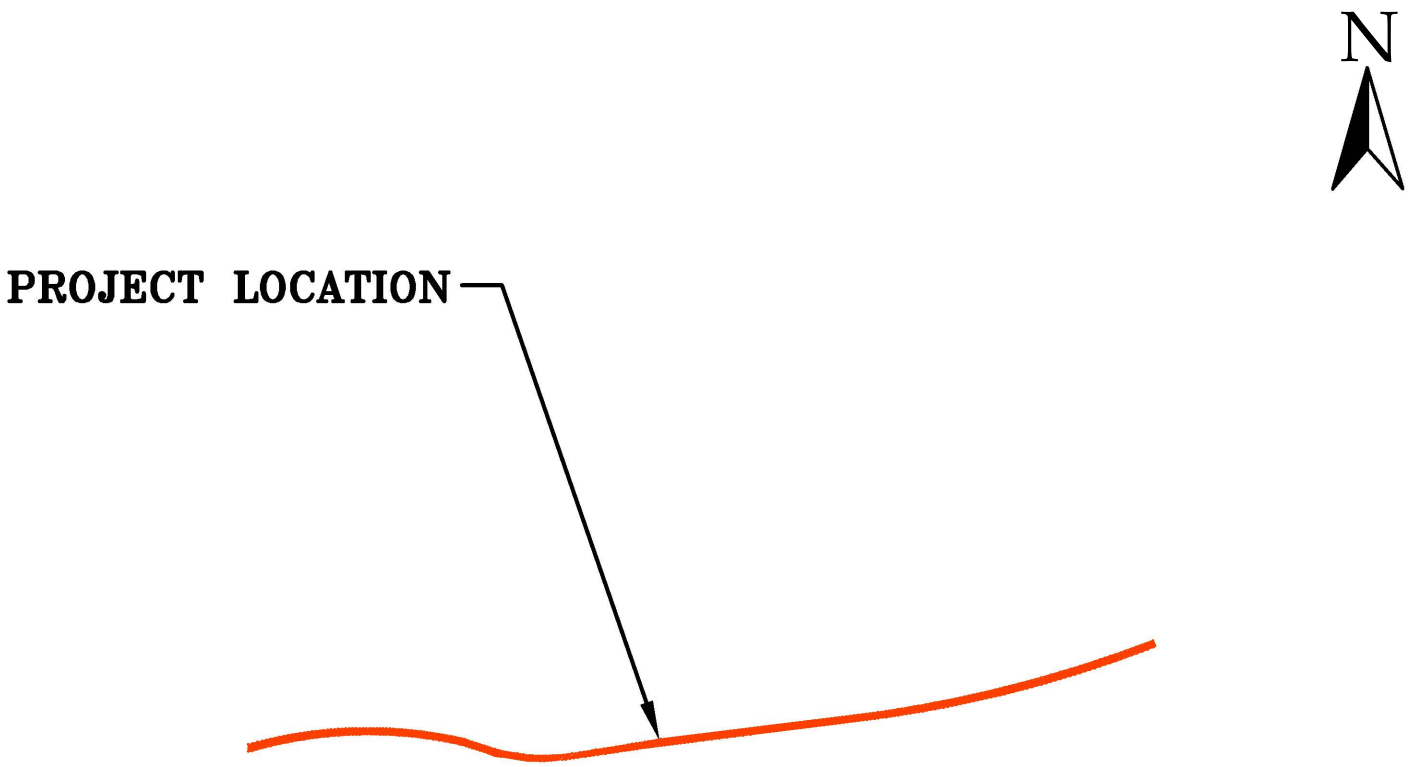
IMPROVEMENTS TO C.R. 12, OAK STREET
CAPITAL PROJECT 5575

TOWN OF BABYLON
ZONING USE DISTRICTS

Suffolk County, New York
Last Updated Sept. 29, 1987

Scale: 1"=2,000'

Attachment #6: Freshwater Wetland Map



IMPROVEMENTS TO C.R. 12, OAK STREET
CAPITAL PROJECT 5575

New York State Freshwater Wetlands Map
Suffolk County Map 33 of 39

This map was promulgated pursuant to Article 24 of the Environmental Conservation Law (The Freshwater Wetlands Act on May 26, 1993 by the Commissioner of the NYS Department of Environmental Conservation. Map information other than the wetland boundaries was prepared by the NYS Dept. of Transportation and the United States Geological Survey
Scale: 1"=2,000'

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

GILBERT ANDERSON, P.E.
COMMISSIONER

PHILIP A. BERDOLT
DEPUTY COMMISSIONER

January 6, 2014

Mr. Richard Martin
Suffolk County Parks
Historical Information
PO BOX 144 Montauk Hwy
West Sayville, New York 11796

RE: Reconstruction of County Road 12, Oak Street from CR 1, County Line Road to Garfield Ave.
Town of Babylon
Capital Project No. 5575

Dear Mr. Martin:

Suffolk County Department of Public Works will be presenting a project proposal to Suffolk County's Council for Environmental Quality (CEQ). CEQ requires the applicant to complete an Environmental Assessment Form (EAF) before they will consider the project. Included in the EAF are questions as to whether or not there are any buildings or sites of historic, pre-historic or paleontological importance located within the project limits.

The above referenced project is situated in Suffolk County in the Town of Babylon, beginning from County Line Road to Garfield Avenue (see attached map). In the proposal, the County is planning to replace existing curb and sidewalk, install a new drainage system, milling and resurfacing of existing asphalt pavement, rebuild existing traffic signals and place new pavement markings. The County will replace the vegetation in the areas that it disturbs within the project limits.

If you have any questions, or need additional information concerning this matter, you can contact either myself or Michael Lamberti, Sr. Civil Engineer at 631-852-5353.

Very truly yours,

William J. Colavito

William J. Colavito, P.E.
Director of Highway Design

WJC:ML:jar

COUNTY OF SUFFOLK

STEVEN BELLONE
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

GILBERT ANDERSON, P.E.
COMMISSIONER

PHILIP A. BERDOLT
DEPUTY COMMISSIONER

January 6, 2014

Ms. Jeane Pietrusiak
Information Services
New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, New York 12233-4757

RE: Reconstruction of County Road 12, Oak Street from CR 1, County Line Road to Garfield Ave
Town of Babylon
Capital Project No. 5575

Dear Ms. Pietrusiak:

Suffolk County Department of Public Works will be presenting a project proposal to Suffolk County's Council for Environmental Quality (CEQ). CEQ requires the applicant to complete an Environmental Assessment Form (EAF) before they will consider the project. Included in the EAF are questions as to whether or not there are any threatened or endangered species of plant or animals located within the project limits.

The above referenced project is situated in Suffolk County in the Town of Babylon, beginning from County Line Road to Garfield Avenue (see attached map). In the proposal, the County is planning to replace existing curb and sidewalk, install a new drainage system, milling and resurfacing of existing asphalt pavement, rebuild existing traffic signals and place new pavement markings. The County will replace the vegetation in the areas that it disturbs within the project limits.

If you have any questions, or need additional information concerning this matter, you can contact either myself or Michael Lamberti, Sr. Civil Engineer at 631-852-5353.

Very truly yours,

William J. Colavito

William J. Colavito, P.E.
Director of Highway Design

WJC:ML:jar

Suffolk County Department of Public Works
Highway Design and Construction Division

Photo 1
CR 12, Oak Street at Amityville Creek
Imrpovements to C.R. 12, Oak St from C.R. 1, County Line Rd to Garfield Ave.
Amityville, Town of Babylon, New York

Suffolk County Department of Public Works
Highway Design and Construction Division

Photo 2
Intersection of CR 1, County Line Road and CR 12, Oak Street
Imrpovements to C.R. 12, Oak St from C.R. 1, County Line Rd to Garfield Ave.
Amityville, Town of Babylon, New York

Suffolk County Department of Public Works
Highway Design and Construction Division

Photo 3
Existing Culvert at Amityville Creek on CR 12, Oak Street
Imrpovements to C.R. 12, Oak St from C.R. 1, County Line Rd to Garfield Ave.
Amityville, Town of Babylon, New York

Suffolk County Department of Public Works
Highway Design and Construction Division

Photo 4
Intersection at CR 12, Oak Street and Bayview Avenue
Imrpovements to C.R. 12, Oak St from C.R. 1, County Line Rd to Garfield Ave.
Amityville, Town of Babylon, New York