

National Fish and Wildlife Foundation (NFWF) Hurricane Sandy Coastal Resiliency via Integrated Salt Marsh Management Grant

In 2014, the County of Suffolk was awarded \$1,310,000 under the Hurricane Sandy Coastal Resiliency Competitive Grant Program to conduct a coastal resilience project via Integrated Salt Marsh Management to improve marsh services such as nitrogen removal, resiliency of coastal ecosystems and communities and to adapt to rising sea levels and extreme storm events. The project aims to restore four marshes (marshes, tidal wetlands) within the South Shore Estuary Reserve watershed, Suffolk County. The Hurricane Sandy Coastal Resiliency Competitive Grant Program is administered by the National Fish and Wildlife Foundation (NFWF) through the Department of Interior (DOI) Hurricane Sandy disaster relief appropriation (Disaster Relief Appropriations Act of 2013).

Suffolk County's approach is the implementation of Integrated Marsh Management (IMM) to restore the marsh's environmental benefits. Goals are to (1) improve tidal regime and nitrogen uptake, (2) enhance sedimentation processes for marsh accretion and resilience to sea level rise, (3) enhance the marsh buffer action against high intensity storms and flooding, (4) provide habitat for salt marsh flora and fauna and enabling natural biological control of mosquito larvae and the invasive common reed *Phragmites australis*.

This project uses an Integrated Marsh Management approach to restore and enhance environmental and socioeconomic services from currently degraded salt marsh areas affected by large areas of invasive common reed (*Phragmites australis*), waterlogging, extensive mudflat and panne formations, shoreline erosion and high mosquito production. The project started in 2015 with the planning and permitting phase. During 2017, 2018, and 2019, the County conducted pre-restoration monitoring of the marsh sites in coordination with students from Suffolk County Community College and the School of Marine and Atmospheric Sciences from Stony Brook University.

The implementation of this project includes four marshes within the South Shore Estuary Reserve watershed: Suffolk County Gardiner Park East and West, Timber Point marsh, and West Sayville Marsh. The first successful round of restoration took place in 2018-2019 at the Gardiner Park East marsh, where vegetation recovery of mud flats is rapidly taking place. Reduction in mosquito production and need for aerial spraying the marsh by helicopter was also significantly reduced at the restored location this summer. Suffolk County Vector Control staff started working on the restoration of the west side of Gardiner Park marshlands on October 2019 and it will continue during the restoration season (October to April). The other two marsh sites are expected to be restored between January and April 2020.

Expected marsh acreage to be restored through this project: Suffolk County Gardiner Park West: 71 acres, Suffolk County Gardiner Park East: 26 acres, West Sayville: 113 acres. The last site may be postponed to the next restoration season depending on the weather and equipment, Timber Point: 51 acres.

On site images: Work Flow



Left: Tidal channels are being cleaned here, and the material being pulled out will be used to fill in ditches. Right: Coir logs being brought out to the marsh on the Rotary Ditcher with help from the Kobelco Excavator.



Coir logs placed in a ditch prior to having sediment placed on top of them.



Left: A finished ditch with coir logs covered with sediment. Right: Runnels being hand dug. These runnels help prevent stagnant water, preventing mosquito breeding

On site images: Features



Left: Runnels. Right: Filling Ditches:

Tidal Wetland Restoration at Smith Point County Park to Improve Protection Against Flooding and Storm Damage – HMGP Grant: On October 29, 2012, Hurricane Sandy caused storm damage to several areas of New York State. The Federal Emergency Management Agency (FEMA) authorized federal public assistance to affected communities and certain non-profit organizations per FEMA 4085-DR-NY, and in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.S. 5172) as amended; the Sandy Recovery Improvement Act (SRIA) of 2013, and the accompanying Disaster Relief Appropriations Act, 2013.

The Department of Homeland Security-Federal Emergency Management Agency (DHS-FEMA) is providing Federal financial assistance to New York State Division of Homeland Security and Emergency Services (NYSDHSES), as Recipient, and Suffolk County, as Sub-recipient, was awarded a coastal resiliency grant with the main purposes of restoring approximately 77 acres of marshland to improve natural protection against flooding, storm surge, intense wave action, and improve the marsh sustainability and resilience against sea level rise. The project site is the marshland at the Smith Point County Park in the southernmost portion of Shirley, NY.

The contract between the County of Suffolk and NYSDHSES started in July 2014. The Phase I, or planning and permitting phase was conducted between 2016 and 2019. The contract amendment for the implementation, Phase II, has been fully executed as of August 2019 and it is anticipated that the implementation phase will take place during the restoration season of 2020-2021.

Narrative for the 62 grant applications prepared by the County of Suffolk, Long Island, New York to acquire properties in the Mastic/Shirley Conservation Area with the assistance of funding through the NRCS under the Hurricane Sandy Emergency Watershed Protection Program – Floodplain Easements (EWPP-FPE)

Suffolk County is submitting 62 applications for funding through the US Department of Agriculture, Natural Resources Conservation Service, Hurricane Sandy Emergency Watershed Protection Program – Floodplain Easements (EWPP-FPE), to acquire flood prone properties that were inundated/damaged by Hurricane Sandy on the Mastic/Shirley peninsula located on the south shore of Long Island, New York, primarily in the Village of Mastic Beach, to provide coastal resiliency for future storm events.

There are numerous small parcels of land located within this low-lying, 100-year floodplain that were severely impacted by Hurricane Sandy last October 2012. This peninsula is situated between the Great South Bay and Moriches Bay. Narrow Bay is situated between this peninsula and the barrier beach of Fire Island where its width is only approximately ½ mile. Most of this shoreline is not hardened with bulkheading structures or groins. Rather, it is a natural shoreline adjacent to the natural shoreline of the William Floyd Estate, a significant environmental area of 600 acres to the east that is owned by the National Parks Service, and part of the Fire Island National Seashore holdings on the mainland. The US Fish and Wildlife's 2,250-acre Wertheim National Wildlife Refuge is not far to the west situated along the Carmans River which flows south into Great South Bay. A number of breaches occurred on the barrier beach during Hurricane Sandy and inundated this area significantly. We have identified the **FEMA Modeling Task Force (MOTF) Surge Water Depth Above Ground area, dated February 14, 2013, on the maps attached as well as the FIRMs V and A Zones**. Hundreds of parcels were flooded, both vacant and developed in the Mastic/Shirley peninsula. One of the breach areas where the ocean over-washed the barrier beach, located in the Fire Island National Seashore, continues to remain open.

The Mastic/Shirley peninsula includes significant areas of tidal and freshwater wetlands that are located along the southern, low-lying portion of the peninsula nearest to Fire Island and serve as a buffer to a densely developed residential area on the central and northern portions of the peninsula. The natural drainage pattern in the wetlands and transitional upland environments has been altered. This, in conjunction with high water table elevations, has exacerbated flooding problems. The predominant land use on the peninsula is single family residential homes on small lots that range in size from 4,000 to 10,000 square feet. Many of the structures that have been built within the 100-year floodplain pre-date the enactment of environmental protection regulations. Along the shore of Narrow Bay, undeveloped wetland areas have been subdivided into small lots, almost all of which are substandard for residential development, according to existing zoning.

Starting in the 1980s, Suffolk County has acquired a significant amount of wetlands and associated buffer area within an area identified as the Mastic/Shirley Conservation Area. The Mastic/Shirley Conservation Area was delineated in a report prepared by the Suffolk County Department of Planning entitled, "Narrow Bay Floodplain Protection and Hazard Mitigation Plan," dated April 1997.

The first step in developing recommendations outlined in this plan to support the strategy of curtailing development in the low-lying, flood-prone areas along Narrow Bay was to identify the environmentally sensitive area called the Coastal Environmental Hazard Zone. This boundary included: all tidal and freshwater wetlands; the area within the 100-year tidal floodplain; and the area where the depth to groundwater is less than 5 feet. The Coastal Environmental Hazard Zone boundary was drawn to include a 100-foot setback from the most landward boundary of these three areas. For ease of clarification, the nearest roadway or parcel line to the setback was utilized, as appropriate, to map the Coastal Environmental Hazard Zone boundary.

Comparing the Coastal Environmental Hazard Zone with the location of the majority of vacant lands led to the identification of the **Mastic/Shirley Conservation Area**. This area is located along the southern low-lying portion of the study area along Narrow Bay, and includes extensive tidal and freshwater wetlands where numerous vacant substandard-sized lots exist.

Acquisitions within the Mastic/Shirley Conservation Area were made by the County by various means including the transfer of properties to the County's Department of Parks, Recreation and Conservation, which were obtained by Suffolk through tax lien procedures; full fee acquisitions; donations; and Transfer of Development Rights procedures. To date, the County has acquired about 60 acres totaling 322 parcels in the Mastic/Shirley Conservation Area. Additionally, New York State owns 90 acres and the Town of Brookhaven owns almost 20 acres. Altogether, over 170 acres are protected to date of the 625 acres within the Mastic/Shirley Conservation Area.

The County would like to acquire the remaining privately owned lands within the Mastic/Shirley Conservation Area. To that end, we would like to work in partnership with the NRCS through the use of funds from the EWPP-FPE program wherein NRCS would acquire the Floodplain Warranty Easement Deeds on the 62 parcels provided in this application with the County acquiring their underlying fee title. This would provide the ultimate protection of this low-lying 100-year floodplain and provide a critical buffer to a densely developed residential area to the north. The County identified 62 parcels totaling about 40 acres within the Mastic/Shirley Conservation Area that we would like to acquire through the help of the funding available under the Hurricane Sandy EWPP-FPE Program. There are approximately 36 owners of these parcels that we have contacted and have signed Form AD-1153 indicating that they are interested in having their property appraised. Once approved by NRCS, the County would be able to start the appraisal process and buy the underlying fee title with funds from the County's ¼% sales tax proceeds, known as the Suffolk County ¼% Drinking Water Protection Program, along with the NRCS acquiring the Floodplain Warranty Easements.

These are properties that are adjacent or near to other county, town and state holdings that we want to acquire to start to connect the "dots" of public ownership to complete our preservation goals in this area. Further acquisitions would continue under subsequent phases to complete our long term goal of creating a public floodplain protection area in order to undertake wetland and floodplain restoration. This will ultimately create an important buffer area to help protect the heavily developed residential areas to the north, provide and improve the scenic and recreational value of this area and significantly reduce future development in this vulnerable floodplain.

We have enclosed two large-scale maps in a separate folder along with this narrative. One aerial map depicts the portion of the Mastic/Shirley Peninsula that we are concentrating our acquisition efforts. It shows the boundary of the Mastic/Shirley Conservation Area, the Federal, State, County, and Town-owned properties, the FEMA FIRMs V and A Zone boundaries, tidal and freshwater wetland boundaries, and the properties proposed for acquisition under the EWPP-FPE Phase II grant. We have also identified properties listed on Suffolk County's Comprehensive Master List Update – 2012 of which the County is continuing its acquisition efforts through various County land acquisition programs for open space preservation. The second overall map depicts the FEMA MOTF Sandy Surge Depth in feet in relation to the parcels identified in the aerial map described above.

Another folder was prepared that provides photographs with footnotes and news articles describing the results of damage caused by Hurricane Sandy in the Mastic/Shirley Conservation Area.

The third folder consists of all the individual folders and files for each of the 62 parcels with the information that was required by NRCS by April 18, 2014. It includes a copy of the checklist with the section required highlighted in yellow, the letter of interest sent to each land owner, an AD-1153 Form signed by the land owner, a deed, and an aerial map of each property.

Prepared by:

Suffolk County Department of Economic Development and Planning

Division of Planning and Environment

Contact: Laretta R. Fischer, Supervisor, Open Space and Farmland Protection
H. Lee Dennison Bldg. – 4th Floor
100 Veterans Memorial Highway
Hauppauge, New York 11788-0099
631-853-6044
631-853-4044 (fax)
laretta.fischer@sufflokcountyny.gov

Updated June 12, 2014

COUNTY OF SUFFOLK
 DIVISION OF REAL PROPERTY ACQUISITION AND MANAGEMENT
NEW ENHANCED DRINKING WATER PROTECTION PROGRAM-OPEN SPACE
 CLOSING ADJUSTMENTS AND MEMORANDA

PRESENT:

FOR THE PURCHASER:

COUNTY OF SUFFOLK by:
 ROBERT BRAUN, Bureau Chief,
 Municipal Law Bureau, Real Estate/Condemnation
 Department of Law

CHRISTINA HILLMAN, Div. of Real Property
 Acquisition and Management

FOR THE SELLER:

SELLER: Sonia Sgroi and Angela Manfredini as tenants-in-common

ATTORNEY: NONE

TITLE COMPANY: STEWART TITLE INSURANCE CO.

TITLE # ST17-29412 & ST17-29413

CLOSER: Robin Curran

CLOSING DATE: 6/19/2019

PREMISES: VIOLET ROAD, MASTIC BEACH, NY

PINE BARRENS CORE AREA: No

TAX MAP #: 0200-983.40-18.00-038.000, f/k/a 0209-033.00-09.00-038.000 and 0200-983.40-18.00-041.000, f/k/a 0209-033.00-09.00-041.000

	<u>Credit to Purchaser</u>	<u>Credit to Seller</u>
Purchase Price \$5,000.00		\$5,000.00

ACREAGE:

Total 0.4591 Acres

Land Acquisition Costs

Pro-rata real estate tax adjustment

2018/19 taxes = \$435.38 (Lot 038)
 165 days x \$1.19 per day rate = \$198.00

2018/19 taxes = \$435.38 (Lot 041)
 165 days x \$1.19 per day rate = \$198.00

Total credit due *\$396.00

DISBURSEMENTS BY PURCHASER

BALANCE DUE SELLER PAID AS FOLLOWS

<u>Recording Deed</u> <u>N/A</u>	<u>CHECK NO.</u>	<u>AMOUNT</u>	<u>PAYABLE TO</u>
Title Company Fee _____	003947116	\$2,500.00	Sonia Sgroi
	003947117	\$2,500.00	Angela Manfredini

*To be paid by separate voucher/check at a later date.

- cc: Natalie Wright, Acting Commissioner, Department of Economic Development & Planning
 Sarah Lansdale, Director, Division of Planning
 Janet Longo, Supervisor, Division of Real Property Acquisition & Mgmt.
 Elyse Jay, Director, Administration Financial/Personnel, Economic Development & Planning
 Laretta Fischer, Chief Environmental Analyst, Division of Planning
 Andrew Amakawa, Division of Planning
 Melissa Kangas, Division of Planning
 Peggy DeKams, Division of Real Property Acquisition & Mgmt.

COUNTY OF SUFFOLK
DIVISION OF REAL PROPERTY ACQUISITION AND MANAGEMENT
NEW ENHANCED SUFFOLK COUNTY DRINKING WATER PROTECTION PROGRAM
CLOSING ADJUSTMENTS AND MEMORANDA

PRESENT:

FOR THE PURCHASER:

COUNTY OF SUFFOLK by:
ROBERT BRAUN, Bureau Chief,
Municipal Law

CHRISTINA HILLMAN, Div. of Real Property
Acquisition and Management

FOR THE SELLER:

SELLER: ELLEN BELLO

ATTORNEY: N/A

TITLE COMPANY: STEWART TITLE INSURANCE CO.

TITLE # ST-29432

CLOSER: ROBIN CURRAN

CLOSING DATE: 6/19/2019

PREMISES: 798 RIVIERA DRIVE, MASTIC BEACH, NY

PINE BARRENS CORE AREA: NO

TAX MAP #: 0200-984.60-08.00-042.000, F/K/A 0209-036.00-03.00-042.000

	<u>Credit to Purchaser</u>	<u>Credit to Seller</u>
Purchase Price \$948.25		\$948.25

ACREAGE:

Total 0.0871 Acres

Land Acquisition Costs

Pro-rata real estate tax adjustment

\$4,2264.86 ÷ 365 days @ \$11.57 per day rate

165 days x \$11.57 = \$1,909.05

\$1,909.05

DISBURSEMENTS BY PURCHASER

BALANCE DUE SELLER PAID AS FOLLOWS

Recording Deed N/A

Title Company Fee _____

CHECK NO.

3990797

AMOUNT

\$948.25

PAYABLE TO

Ellen Bello

*To be paid by separate voucher/check at a later date.

cc: Natalie Wright, Acting Commissioner, Department of Economic Development & Planning
Sarah Lansdale, Director, Division of Planning
Janet Longo, Supervisor, Division of Real Property Acquisition & Mgmt.
Elyse Jay, Director, Administration / Financial & Personnel, Economic Development & Planning
Lauretta Fischer, Chief Environmental Analyst, Division of Planning
Andrew Amakawa, Division of Planning
Melissa Kangas, Division of Planning
Peggy DeKams, Division of Real Property Acquisition & Mgmt.

COUNTY OF SUFFOLK
 DIVISION OF REAL PROPERTY ACQUISITION AND MANAGEMENT
NEW ENHANCED SUFFOLK COUNTY DRINKING WATER PROTECTION PROGRAM-OPEN SPACE
 CLOSING ADJUSTMENTS AND MEMORANDA

PRESENT:

FOR THE PURCHASER:

COUNTY OF SUFFOLK by:
 ROBERT BRAUN, Bureau Chief,
 Municipal Law Bureau, Real Estate/Condemnation
 Department of Law

CHRISTINA HILLMAN, Div. of Real Property
 Acquisition and Management

FOR THE SELLER:

SELLER: SAMUEL B. PLETENIK

ATTORNEY: N/A

TITLE COMPANY: STEWART TITLE INSURANCE CO.

TITLE # ST17-29416 & ST17-29417

CLOSER: CHERYL KRAUT

CLOSING DATE: JULY 24, 2019

PREMISES: CRANBERRY DRIVE, MASTIC BEACH, NY

PINE BARRENS CORE AREA: No

TAX MAP #: 0200-983.40-16.00-025.000, F/K/A 0209-033.00-07.00-025.000 & 0200-983.40-16.00-026.000, F/K/A 0209-033.00-07.00-026.000

	<u>Credit to Purchaser</u>	<u>Credit to Seller</u>
Purchase Price \$2,000.00		\$2,000.00

ACREAGE:

Total 0.1837 Acres

Land Acquisition Costs

Pro-rata real estate tax adjustment

365 days x \$0.95 per day rate (2 Lots) = \$348.30

130 days x \$0.95 per day rate Lot 25 = \$123.50

130 days x \$0.95 per day rate Lot 26 = \$123.50

*\$247.00 (both lots)

DISBURSEMENTS BY PURCHASER

BALANCE DUE SELLER PAID AS FOLLOWS

Recording Deed N/A
 Title Company Fee _____

<u>CHECK NO.</u>	<u>AMOUNT</u>	<u>PAYABLE TO</u>
003947119	\$2,000.00	Samuel B. Pletenik

*To be paid to seller at a later date.

- cc: Natalie Wright, Acting Commissioner, Department of Economic Development & Planning
 Sarah Lansdale, Director, Division of Planning
 Janet Longo, Supervisor, Division of Real Property Acquisition & Mgmt.
 Elyse Jay, Director, Administration/ Financial & Personnel
 Lauretta Fischer, Chief Environmental Analyst, Division of Planning
 Andrew Amakawa, Division of Planning
 Melissa Kangas, Division of Planning
 Peggy DeKams, Division of Real Property Acquisition & Mgmt.

COUNTY OF SUFFOLK
 DIVISION OF REAL PROPERTY ACQUISITION AND MANAGEMENT
 NEW ENHANCED SUFFOLK COUNTY DRINKING WATER PROTECTION PROGRAM-OPEN SPACE
 CLOSING ADJUSTMENTS AND MEMORANDA

PRESENT:

FOR THE PURCHASER:
 COUNTY OF SUFFOLK by:
 ROBERT BRAUN, Bureau Chief,
 Municipal Law Bureau, Real Estate/Condemnation
 Department of Law

CHRISTINA HILLMAN, Div. of Real Property
 Acquisition and Management

FOR THE SELLER:

SELLER: Albert Rivela and Jeanette Rivela, his wife

ATTORNEY: NONE

TITLE COMPANY: Stewart Title Insurance Company

TITLE # ST17-29414 & ST17-29415

CLOSER: Cheryl Kraut

CLOSING DATE: July 25, 2019

PREMISES: Washington Drive, Mastic Beach, NY

PINE BARRENS CORE AREA: No

TAX MAP #: 0200-980.70-15.00-057.000, f/k/a 0209-027.00-07.00-057.000 & 0200-980.70-15.00-058.000, f/k/a 0209-027.00-07.00-058.000

	<u>Credit to Purchaser</u>	<u>Credit to Seller</u>
Purchase Price \$2,000.00		\$2,000.00

ACREAGE:
 Total 0.1837 Acres

Land Acquisition Costs
 Pro-rata real estate tax adjustment
 (Lot 57) 365 days x \$0.95 per day = \$348.30
 129 days x \$0.95 per day rate = \$122.55
 (Lot 58) 365 days x \$0.95 per day = \$348.30
 129 days x \$0.95 per day rate = \$122.55

*\$245.10 (Total 2 Lots)

DISBURSEMENTS BY PURCHASER

BALANCE DUE SELLER PAID AS FOLLOWS

Recording Deed <u>N/A</u>	<u>CHECK NO.</u>	<u>AMOUNT</u>	<u>PAYABLE TO</u>
Title Company Fee <u>\$650.00</u>	003947118	\$2,000.00	Albert Rivela and Jeanette Rivela

cc: Natalie Wright, Acting Commissioner, Department of Economic Development & Planning
 Sarah Lansdale, Director, Division of Planning
 Janet Longo, Supervisor, Division of Real Property Acquisition & Mgmt.
 Elyse Jay, Director, Administration/ Financial & Personnel
 Laretta Fischer, Chief Environmental Analyst, Division of Planning
 Andrew Amakawa, Division of Planning
 Melissa Kangas, Division of Planning
 Peggy DeKams, Division of Real Property Acquisition & Mgmt.

COUNTY OF SUFFOLK
 DIVISION OF REAL PROPERTY ACQUISITION AND MANAGEMENT
NEW ENHANCED SUFFOLK COUNTY DRINKING WATER PROTECTION PROGRAM
 CLOSING ADJUSTMENTS AND MEMORANDA

PRESENT:

FOR THE PURCHASER:

COUNTY OF SUFFOLK by:
 ROBERT BRAUN, Bureau Chief,
 Municipal Law Bureau, Real Estate/Condemnation
 Department of Law

CHRISTINA HILLMAN Div. of Real Property
 Acquisition and Management

FOR THE SELLER:

SELLER: ROBERT GEULA AND JOAN GEULA, HIS WIFE

ATTORNEY: RICHARD LONGWORTH

TITLE COMPANY: STEWART TITLE INSURANCE COMPANY

TITLE # ST17-29420

CLOSER: CHERLY KRAUT

CLOSING DATE: 7/25/2019

PREMISES: PECONIC DRIVE, MASTIC BEACH, NY

PINE BARRENS CORE AREA: No

TAX MAP #: 0200-984.60-06.00-027.000, F/K/A 0209-036.00-01.00-027.000

	<u>Credit to Purchaser</u>	<u>Credit to Seller</u>
Purchase Price \$975.00		\$975.00

ACREAGE:

Total 0.0895 Acres

Land Acquisition Costs

Pro-rata real estate tax adjustment

\$0.95 X 365 DAYS = \$348.30

129 DAYS X \$0.95 = \$122.55

*\$122.55

DISBURSEMENTS BY PURCHASER

BALANCE DUE SELLER PAID AS FOLLOWS

	<u>CHECK NO.</u>	<u>AMOUNT</u>	<u>PAYABLE TO</u>
Recording Deed <u>N/A</u>	003979022	\$975.00	Robert Geula & Joan Geula
Title Company Fee _____			

*To be paid by separate voucher/check at a later date.

- cc: Natalie Wright, Acting Commissioner, Department of Economic Development & Planning
 Sarah Lansdale, Director, Division of Planning
 Janet Longo, Supervisor, Division of Real Property Acquisition & Mgmt.
 Elyse Jay, Director, Administration / Financial & Personnel Economic Development & Planning
 Laretta Fischer, Chief Environmental Analyst, Division of Planning
 Andrew Amakawa, Division of Planning
 Melissa Kangas, Division of Planning
 Peggy DeKams, Division of Real Property Acquisition & Mgmt.

Suffolk County Mud Creek Watershed Aquatic Ecosystem Restoration Project Summary

The primary focus of the Mud Creek Watershed Aquatic Ecosystem Restoration Project is the restoration of fish and wildlife habitat within the riparian (stream floodplain) corridor of the East Branch of Mud Creek, including freshwater wetland and upland habitats that were extensively degraded by the operation of the former Gallo Duck Farm. The aquatic habitat restoration work is focused on a 45.8 acre site located in a Suffolk County park at the headwaters of Mud Creek, which is an important tributary to Great South Bay in East Patchogue, NY. A description of the overall project follows.

The Mud Creek Watershed Aquatic Ecosystem Restoration Project addresses the following objectives: 1) remove dilapidated structures, abandoned equipment, and debris; 2) restore coastal plain stream and riparian habitat destroyed by historic duck farm operations; 3) provide high quality aquatic habitat for native brook trout; 4) establish diverse riparian and upland habitats for native plants and wildlife; and 5) enable safe public access to an improved park for passive recreational use that also offers educational opportunities for students in the South Country and Patchogue-Medford School Districts.

Specific restoration actions to occur in Mud Creek County Park include:

- Removal of all dilapidated buildings, debris, and abandoned equipment;
- Removal of +/- 16,000 cubic yards (cy) of accumulated organic sediments and invasive plant rhizomes from the floodplain area;
- Creation of +/- 2,300 linear feet (lf) of new coastal plain stream;
- Restoration of 6.4 acres of floodplain with forested wetlands and 14.4 acres of oak forests 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, parking facility, and 650 lf of ADA compliant trail; and
- Construction of 1.3 miles of nature trail, elevated boardwalks, signage and benches.

The floodplain and freshwater stream restoration actions and Stormwater Best Management Practices undertaken in this project will improve water quality in Mud Creek. The *Phragmites* marsh and eutrophic pond sediments on the site contain an estimated 6.2 tons of nitrogen (N). The removal of these sediments will reduce the N concentration found in stream water discharge, and the subsequent creation of a high biomass ecosystem (forested wetland) will result in greater uptake and sequestration of carbon and nitrogen found in groundwater recharging the stream, as compared to that occurring now in the existing (mostly marsh) ecosystem. Given the above, the project will contribute to the improvement of surface water quality downstream in Mud Creek, Robinson Pond and the Great South Bay, which will advance Suffolk County's Reclaim Our Water initiative.

When this project is completed, hazardous conditions at the site will no longer pose a liability threat to the County; stream channel hydraulic connections will be restored to support expansion of the heritage brook trout population in the East Branch of Mud Creek; native vegetation plantings will enhance wetland and upland habitats and increase biodiversity; and a community park with trails meandering through open space and improved freshwater habitats will be established for the public to enjoy and learn about our natural resources and the legacy of Long Island duck farming.

MASTIC/SHIRLEY CONSERVATION AREA - NRCS PROPERTIES

25 Parcels

New Enhanced Suffolk County Drinking Water Protection Program, Section C12-2 (B)(1) (a) and (d)
Open Space Preservation
6.26 ± acres - Village of Mastic Beach, Town of Brookhaven



DSBL
0209 02100 0500 032000
0209 02500 0700 001000
0209 02500 0700 002000
0209 02500 0700 003000
0209 02500 0700 004000
0209 02500 0700 013002
0209 02700 0700 057000
0209 02700 0700 058000
0209 03300 0700 025000
0209 03300 0700 026000
0209 03300 0800 003000
0209 03300 0900 038000
0209 03300 0900 041000
0209 03600 0100 019000
0209 03600 0100 025000
0209 03600 0100 027000
0209 03600 0100 038000
0209 03600 0100 040000
0209 03600 0200 023000
0209 03600 0200 024000
0209 03600 0300 002000
0209 03600 0300 004000
0209 03600 0300 041000
0209 03600 0300 042000
0209 03700 0100 021000

- Proposed Acquisition
- County of Suffolk
- SC Master List
- Town of Brookhaven
- State of New York
- Proposed for EWPP-FPE Phase II
- FEMA FIRM, 100-year Floodplain
- NYS Freshwater Wetlands
- NYS DEC Tidal Wetlands
- HM - High Marsh
- IM - Intertidal Marsh
- LZ - Littoral Zone
- Mastic/Shirley Conservation Area Boundary

Parcels are entirely within the Mastic/Shirley Conservation Area and the FEMA FIRM, 100-year Floodplain.



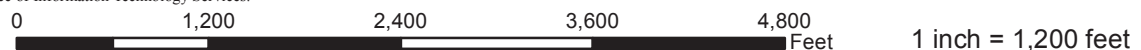
Locator



COPYRIGHT 2016, COUNTY OF SUFFOLK, N.Y. Real Property Taxmap parcel linework used with permission of Suffolk County Real Property Tax Service Agency (R.P.T.S.A.). This rendering is a DRAFT MAP in that 1) the data displayed is an interagency or intra agency work produced for the purpose of identifying and correcting data. It is not a final agency determination. It is not statistical or factual compilation of data. In some cases correct data has been left out or questionable or inaccurate data has been exaggerated to help identify errors. In short, this is a DRAFT MAP produced in an effort to aid in the correction of data and is not held out as being complete or accurate in any way.

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November 1, 2017 - CD-17-03



*excerpted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g

Document Path: \\plano3\gis\data\arcsvr\Map_P\Projects_2017\CD_17_03_EPA\Intr_MasticShirleyConsArea_NRCS\NRCS\parcels_ib\MasticShr_8x11_17cd003.mxd - Date Saved: 11/3/2017 8:33:42 AM - Author: MSeig

Smith Point County Beach - Summary

Field work recently started to restore approximately 77 acres of tidal salt marsh that protect both private homes and public infrastructure from waves and storm surge at Smith Point County Beach.

The Project will restore approximately 77 acres of tidal salt marsh using the integrated marsh management approach. Restoration will include conversion of tidal ditches that proceed in an east-west direction into tidal channels; strategic filling of ditches by coir logs and tidal channel berm sediments; creation of runnels targeting areas where water logging has occurred; and the creation of micro-ponds connected to tidal channels in areas of high mosquito larval production. Some of the ditches will be filled by a combination of coir logs and sediments from the same tidal ditch berm where coir logs are being deployed.

The Project consists of four main components: (1) remove material from the existing man-made berms, (2) use of berm material to fill historical grid ditches, (3) create narrow channels to convey water and (4) establish micropools in the marsh. The Project is expected to improve the tidal regime; conditions for proper marsh accretion and resilience to sea level rise; and marsh services such as wave energy attenuation and buffering against storm and flood surges.