

Natural Resources Protective Association

Coalition Against Water Disposal of Contaminated Sediments

Post Office Box 050328 • Staten Island, NY 10305



Established in 1977

In Memory of Edward "Kerry" Sullivan

Spring 2023

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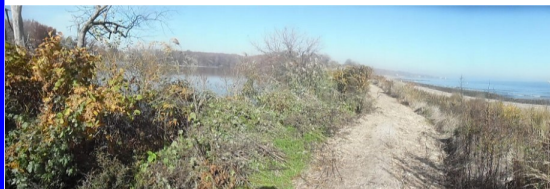
POST-SANDY RECONSTRUCTION AT WOLFE'S POND PARK

By Karen E. Lund

A History of Breaching Wolfe's Pond is perhaps the most peculiarly located body of fresh water on Staten Island. Along one portion of it a mere neck of land, less than fifty yards across at the narrowest point, separates it from the salt water of the ocean. An outlet at one end forms a creek which flows finally into Raritan Bay, but almost every spring there comes a storm that swells the pond until it overflows its banks and rushes out by the shortest route to join forces with the sea." (1)

As the above observation from 1910 points out, Wolfe's Pond had frequently joined with Raritan Bay during heavy rainstorms; but it was usually the rain-swelled pond that overtopped the narrow strip of land that separates the two. Hurricane Sandy did something different: the storm surge pushed the Bay through, not over, the land into the Pond, washing away the land that separated the two and draining Wolfe's Pond (with all its fish and other organisms) into the Bay. The Pond was left a muddy basin and remained so long enough for trees to grow there.

"A mere neck of land..." separates Wolfe's



Pond (left) from Raritan Bay (right).

Wolfe's Pond is one of Staten Island's oldest parks. It had previously been the site of farmland and the Island's peripatetic Quarantine. The land was purchased by New York City in 1928 for \$6,000 an acre, reduced from the scandalously high asking price of \$8,000 an acre. (3) Like the other parks along Staten Island's eastern and southern shores it has served as a buffer between storm surges and residential neighborhoods, but this was an incidental purpose; they were not designed for it and have proved an imperfect protection against storms and flooding.

Damaged, Repaired, Damaged, Repaired

Like much of the damage done by Sandy it ought never to have happened. Following a nor'easter in December 1992, New York City "funded three major capital projects, which were completed between 1995 and 1998. The \$1,200,000 construction of a pond embankment and beach protection included installing a planted berm and a new weir." Additional money was spent upgrading the lawns, plants, recreational equipment, and infrastructure. (2)

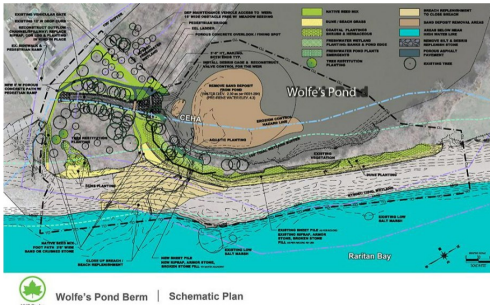
Yet the damage in 2012 was so extensive that Wolfe's Pond Park was closed to the public entirely until April 2013. The part east of Hylan Boulevard was closed until May 2013, and some of the recreation areas were still closed at the end of 2013. (Details are not available on the current NYC Parks website but snapshots were found via Archive.org.)

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Another capital project was put in place to restore the berm and repair the damage to the park, this time at a cost of nearly \$3 million. (4)



NYC Parks Department's plan for reconstruction. The new pedestrian bridge is on the left. (4)

Wolfe's Pond Park in 2022

The landscape reconstruction was completed in 2019 and the recreational areas have been rebuilt or repaired. New restrooms were constructed on the bluff above the beach. The Pond is again full of fresh water and the trees that grew there are dead, although a few snags can still be seen. Ten years after Hurricane Sandy, Wolfe's Pond Park is restored, which is not true of some other projects on Staten Island. Among other incomplete projects, there are still tarp-covered sand berms in places where seawalls are supposed to be built, old enough that the tarp is torn and fraying.



There is an interesting addition at Wolfe's Pond Park's south side, described on the Parks Department's Landscape Reconstruction Schematic as an "outflow channel/spillway" but designed for public use with plantings, walkways, and a pedestrian bridge. The map also mentions an "eel bridge," although I have never seen eels anywhere in the Park.

To visit the pedestrian bridge, enter

at the foot of Holton Avenue. A Parks Department sign marks the entrance.

- (1) "Two Seasons; Photographic Work with Sandpipers at Wolfe's Pond," Howard H. Cleaves Proceedings, Staten Island Association of Arts and Sciences, Vol. III January-May 1910 Part II
- (2) <https://www.nycgovparks.org/parks/wolfes-pond-park/highlights/120>
- (3) Staten Island and Its People: A History, 1609-1929, Charles W. Leng, B.Sc. and William T. Davis
- (4) <https://www.nycgovparks.org/planning-and-building/capital-project-tracker/project/5963>

MARTIN LUTHER KING JR. DAY OF SERVICE, 2023

By Jim Scarcella

On January 16, Kayak Staten Island teamed up with NRPA and Borough President Fossella to clean a quarter mile of Front Street shoreline, Stapleton. It was quite windy. We had organized the event as a tribute to Dr Martin Luther King, Jr. Annette and TJ, along with James, Chris and Henri all showed up, along with Tiffany, Howie, Jack, Vince, Marlene, and Chuck Perry of NRPA. The kids had off from school, too.

The severe storms of Christmas weekend further eroded the fill underneath the asphalt, and there were hundreds of stones up on the pavement. I brought out the super sweeper and attempted to push the rocks back towards the water. So many people use this area for fishing, meditation, relaxation, but it's ruined by a few that carelessly dump their garbage out the window and doors of their cars and trucks. There was some construction debris, gypsum wallboard, steel runners, plaster mixed in, also vape products, fast food containers, Taco Bell, Burger King, Dunkin Donuts and Starbucks thrown around. In addition, someone discarded three pieces of trident metal sculptures with axes and guillotine symbols. A person at the cleanup became intrigued with these objects and



stated they would get creative with the tridents. Oh really? Chris from Kayak Staten Island put on a wetsuit and unloaded his kayak, and bravely went in for a wild paddle. On the geology side, I found a piece of serpentine rock that had been smoothed over by the pounding surf. The serpentine contains asbestos and is plentiful by Sunnyside and Todt Hill, you can see it from I 278 expressways.

It was a great cleanup and special thanks to Annette, TJ, Tiffany, Jack, Marlene, Henri, Howie, and Chuck for making it happen.

For the second half of Martin Luther King Jr. Day, Swimmers of Anarchy, with Diane Matyas, John Kilcullen, and Kristen, all met up at the Beach House at Great Kills Park, Gateway. It was a beautiful sunny day. Joining us again were Howie, Tiffany, her mom Mercedes, Chris Bauer, Jack Bolembach, Linda Cohen, Roy Fishman, Joey and Ron Abenante, John Scarcella with Kaitlyn and John Jr, Seth Wollney, and at least a dozen others. The Christmas storm pushed plastic, Spartina hay, driftwood and more about 100 feet up the beach. Swimmers of Anarchy leader Diane Matyas filmed an educational reel with Seth speaking about birds and mammals ingesting



microplastics, with deadly consequences. And did you know each of us has about a credit card's worth of plastic in us bodies? Jim Scarcella spoke about the nearshore ocean, which is about to be transformed mechanically by construction of cables footings, foundations of legs for wind turbines and related equipment. Jim also spoke of Combined Sewage Overflow (CSO) which destroys water quality by adding bacteria and Enterococcus.

Gail and Kristen spoke of documenting the plastics debris to the NOAA website, to attempt to stop plastic pollution at its source. Well, Starbucks, Dunkin and 7-11 Slurpy cups and straws are all over. There Was a 12' by 6' ladder crate that swam over from Jersey, we placed it against the building.

Overall, the team collected over 600 lbs. of trash from a half mile of Great Kills beach.

An incredible effort, the shoreline was restored by people who care and fight for our marine environment. Afterwards one brave man went swimming! Special thanks to Diane, John, Chris Jack, Tiffany, Mercedes, Linda, Roy, Howie, Vince, and everyone who helped!

MOUNT LORETTO

By Jim Scarcella

In February some friends decided to get together at Mount Loretto State Park. The park is next to Lemon Creek (NYC) Park at Sharrott Avenue fishing pier.

Clay, Joseph and I gathered a few refreshments and walked south



toward Mount Loretto. It was low tide and some Herring Gulls and Brandt were around.



I found a plastic bag and we started to collect more plastic. The serious storm of December 27 caused some erosion under the bluffs of the park. We crossed the creek by a 2" x 3" board, and soon found the 70-foot-tall Raritan Reach Light. It's a beacon to keep oil tankers moving safely to and from the refineries like Port Mobil on the Arthur Kill.

We rested and looked up; an immature Bald Eagle was looking down on us. A little further down the beach we saw a quartet of Bufflehead Ducks, two males and two females. And then, offshore about 300 feet, two Harbor Seals were resting on a flat surface rock, just taking in the sunset. Also, another seal was on a fish hunt, when it swam, we were in awe of its agility and speed in the water. We gathered together some anthracite and granite, and found a scoured piece of ceramic electrical resistor. On the way back, the seal was even closer to us, with a watchful set of eyes. Pure muscle.

Some of us collected aluminum cans for recycling, there was a ten-foot length of PVC piping and a snow shovel. And to keep pace with Bone Collector, we found a mammal (dog) tibia. After some more adventures,

we went back to Lemon Creek Sharrott to watch the feral cat colony.

Join us when we clean-up Lemon Creek Park at Sharrott Avenue on Saturday March 18 with NYCH2O and Councilman Borelli. Thank you.

NEW LAMPPOSTS AT WOLFE'S POND PARK

By Karen E. Lund

During the Summer of 2022 the New York City Parks Department installed six new lampposts at Wolfe's Pond Park between the parking lot and the beach.

These renewable-energy lampposts, known as Remote Power Units or RPUs, not only have solar panels (which I've seen before), but also small wind turbines on top of the pole. The turbines look a little like a box fan, but the casing is circular instead of square and instead of drawing energy they spin in the breeze and generate electricity.

But look closer: near the base of the lamppost there is a plastic enclosure that protects two USB charging ports from the weather. These lights can store electricity from solar energy during daylight hours, generate wind energy whenever the wind blows, provide light after dark, and charge your mobile phone or other portable device when their batteries are sufficiently charged.





I haven't seen their like in any other New York City park, so Wolfe's Pond Park seems to be leading the way. According to the manufacturer's website (ArisWind.com) they have also been installed at King's County Hospital and Jacobi Medical Center and at a few other locations outside New York City.

OAKWOOD TARLTON 2023

By Jim Scarcella

We had a hardy group when NRPA and Protectors of Pine Oak Woods teamed up to clean and hike Oakwood Beach in winter. Well, it felt more like early spring weather with a brisk wind and bright skies. We set up, signed in, and found construction debris, fast food containers, empty packs of Parliament and Marlboro, Coca Cola cans, a discarded Georgi vodka bottle, busted tile, an electronic keyboard and more garbage. Then we paused for a moment of silence to remember those killed by Hurricane Sandy. It's been over 10



years and very little has been done to prevent more damage.

We climbed up over the berm and walked north to the geotextile berm bags filled with sand from Delaware Bay. The geotextile bags were placed after the Nor'easter of 1992.

At the Kissam Avenue Street end, we noticed the remains of the Sea Turtle Interactive Center, where there were illustrations of Kemps Ridley, Leatherback and other sea turtles. Off the berm, to our left, was a field of phragmites.... swaying in the wind. The Canada Geese were honking over possible mates and territory. Israel saw an immature Red-tailed Hawk, and there were some Field Sparrows around.



At Cedar Grove, we claimed the sand and looked out on Lower NY Bay towards the Bight, between the Rockaways and Sandy Hook. Bright blue sky, shimmering ocean.

On the beach, we found a Knobbed Whelk egg case, a Moon Snail shell, Razor Clam shell, and much more. By this time, we had reached a rock jetty at the three embayment's of Cedar Grove. We collected some aluminum cans, straws, and birthday balloons.

Along the trail, heading back, we came across the mullein plant. The absorbent leaf petals were used to help heal wounds, and can also be used to make a calming tea.

I found a deceased Black Backed Gull with beautiful feathers and markings. And, to bottom things out (so to speak) Karen Lund and Janice found a ground squirrel excavation, with a 10-inch diameter entrance.

Back at Tarlton Street, we reconvened and spoke to the Federal Park Police about the possibility of the levee of the Line of Protection being constructed in our lifetime. No one is sure unless someone agrees to remove the radium soil.

Thanks to Marlene, Karen, Janice, Chuck, Cheryl, Israel, Johnny Benedetto, and Ken.

So, join us for more action and adventure!

Car Corner 2019 Nissan Leaf SV Plus

By Tony Rose

Welcome to the Car Corner. This month, as a change of pace, we'll be discussing a USED car; specifically, the 2019 Nissan Leaf. Car reviews usually detail the specs and highlights of newly released models, but this column is headed in a different direction. The reason for that is the advent of electric vehicles.

EV's are not for everyone. That said, they are for almost everyone. As the market matures and becomes more competitive, mileage ranges will improve, cheaper models will be introduced and people will realize they actually don't need a car that can go 300 miles or more before charging. The prices of new EV's are sky high which keeps them the domain of rich, white, urban elites, many say. Some buyers have been people with too much money looking



2019 Nissan Leaf

for a new toy. Some are early adopters who MUST have the newest phone, the latest big-screen TV or fashionable sneaker. Other owners are evangelistic environmentalists who will put up with EV limitations to have a car in line with their kale burgers and faux leather shoes.

There are, however, some buyers who simply want to stop burning fossil fuels and experience the elation of flying this new, exciting magic carpet. Electric Vehicles are a minuscule portion of the car market, right now, but the trend is up. Total new car sales dropped 22 per cent in 2022, but EV sales increased by 65 per cent. In the US, EV sales totaled 5.8 percent last year, up from 3.2 in '21. More models come on the market nearly every day.



2022 Ford F-150 Lightning

And, they ARE a lot of fun. There will be many 'unintentional environmentalists' who will be buying the F-150 Lightning simply because this conventional-looking pickup truck can run their power tools, light their work site or even their house as well as steal their breath as it rockets from 0-60 in four seconds; faster than some Porsches. There are economic advantages, too. A LEAF 'fill-up'; charging from 20% to 80%, which can last a week or two, depending on usage costs me \$4.81, compared to \$45 for the average fill up on my last car, a 2 liter Hyundai Tucson. Periodic maintenance will not include an oil change, air filter or a transmission tune-up. I don't have any of those. With regenerative braking, using the momentum of the electric motor to slow the vehicle, I may never need to replace my brakes. My 40,000 mile recommendation: "Rotate your tires."

A recent magazine article prompted me to consider EV ownership. It remarked that these cars have been

on the market long enough that attractive used models are available. Late model used cars still have a lot of life left in them. As competition increases in the marketplace, cars have become more dependable and long lasting. The average age of a car on the road in America is 12 years old. Used cars can be an attractive option.

I have not bought a new car in decades. The most economical way to buy a car is to pick up a two or three year old vehicle that has just come off a lease. It has been well maintained because the leaseholder fears being billed when it is turned in. Lemon issues have already been addressed and the most severe depreciation occurs as an automobile is driven off the dealer's lot. Leasing is the most expensive option to obtain a vehicle and that new car smell costs a lot of money. A good-looking car with 80% of its life ahead of it can be gotten at nearly half the original price. A \$3 bottle of Armor-All will restore that sheen and smell you might be missing in a used car.

The Nissan Leaf is the longest successful production Electric Vehicle in America. It arrived in 2009 for the 2010 model year. LEAF is an acronym. The Nissan project that led to this car was looking for a 'Leading, Environmentally friendly, Affordable, Family' car. They have been successful.



2023 Nissan Leaf

Early LEAFs had a small, 24 kilowatt-hour (kWh) battery. They had limited power and a range of only 84 miles. They were wildly impractical for anything but as an urban, get-around-town commuter car. Their body was bulbous, George Jetson-looking with a blue and white dashboard. Their original target market was geeky environmentalists

seeking freedom from a gas pump. Many were sold. Until recently being eclipsed by Tesla's Model 3, they were the most common EV in the world. The battery was progressively improved over time as well as performance. The car recently received a major upgrade in 2018. A 40 kWh battery was employed, raising the range to an EPA 150 miles.

For most people, that is more than adequate. The average commute in America is 20 miles. Public chargers are not yet commonplace. That is because they haven't been needed. Most owners leisurely charge their vehicle at work or overnight at home. This has limited ownership. That is about to change.

The recently adopted Inflation Reduction Act has allotted large sums for station construction. One proviso of the bill insists that federally-supported stations offer universal access. Tesla wisely built an expansive support system which prompted buyers to purchase a Tesla because there were charging options available. But, only to Tesla owners. That will now change.

In the 2018 overhaul, Nissan introduced an upper-level trim, The LEAF SV Plus. The standard S model with 150 rated range has the 40 kWh battery, 147 horsepower, with a 0-60 time of 7.4 seconds, fairly impressive for a family hatchback. The SV Plus comes standard with a 60 kWh battery. The Plus boasts 212 horses and an EPA range of 225 miles.

For comparison, a new Hyundai Elantra sporting a 2.0 liter, turbo-booster engine goes 0-60 in 6.8 seconds. The little Plus does it in 6.4 seconds. Not only will it get to 60mph sooner, it will cover more ground getting there because electric vehicles have instant torque. They don't have the many engine parts of an internal combustion engine that have to get up top speed. The car pushes you back into your seat with no effort and no roar. There is only the sound of air rushing past you.

An owner who drives very little might keep their car in a public garage and visit a charge station once or twice

each month, if that. Stopping at a light or in traffic burns little energy, other than, perhaps, the radio. Unlike a gas vehicle, EVs get better mileage in stop-and-go city traffic than at highway speeds. Regenerative braking uses energy from the inertia of the motor's rotor to slow the vehicle and this returns charge to the battery, increasing available miles.

The battery is the most important component of an EV and the seat of a potential owner's deepest fears. Tesla's make the news because battery fires are the flavor of the week on TV news. Comics joke that Tesla's come standard with metal skewers and a bag of marshmallows. Research shows that car fires are more common in gas-powered vehicles, but that isn't newsworthy.



2023 Tesla

Battery life is the next boogie man that keeps owners up at night. Every type of battery loses charging capacity over its lifetime. Lithium ion batteries are no exception. Without a useful battery, a vehicle is useless. A replacement battery might cost more than the value of a car.

EV batteries though have proven to be remarkable durable. They have outperformed manufacturer's expectation. Nissan estimates the useful life of a LEAF to be 8-10 years. They anticipate the battery will outlast the car. A LEAF battery is warranted to retain at least 75% of its original charging capacity 8 years or 100,000 miles or it will be replaced at no charge. They underestimated their own product. A 2023 LEAF will now come with a 10 year, 150,000 mile battery warranty.

Battery recycling is now beginning since there are finally batteries that need to be refurbished. This will



2023 Nissan Leaf

reduce the environmental impact of lithium mining and its carbon cost. 95% of the of the Nissan Leaf can be recycled. It was designed to be recyclable.

Let's address range anxiety. It is a real fear for many potential buyers. The first reality of EV ownership is that EPA numbers are a fantasy. Buyers must enter the arena with open eyes. What is the small print underneath mileage estimates?

"Professional driver on a closed course. Your mileage may vary." Indeed.

Many factors effect actual, practical mileage. Extreme temperatures impact mileage. Li Ion batteries are like people. They like it when temps are around 70. Batteries heat up under use. Hot batteries are inefficient. That will reduce your mileage. Phoenix will probably not become an EV Mecca. Cold weather reduces the amount of energy batteries can produce. The vehicle estimates projected mileage based on ambient conditions and recent driving patterns. My LEAF projected that a full charge when the temperature was in the low 40's would yield 180 miles, a 20% reduction from EPA estimates.

Additionally, miles aren't miles. City traffic yields the best mileage. Stop-and-go sends energy back to the battery. Idling uses no energy. Research in gas-powered vehicles demonstrated the most efficient speed is 50 mph. 60 is a reasonable compromise. After that, you are just pushing air. In a gas powered car, that just costs more money. In an EV, mileage is key.

Car and Driver obtained a 237 mile result in their testing, but that describes a 100% charge driven to battery depletion. That should never happen. Professionals recommend operating in a 20% to 80% range. Trying to jam more electrons into a battery near full charge heats the battery and can reduce its life. The only thing worse is to run a battery to empty which is even more stressful and can lead to trouble. Once empty, an EV cannot be jump-started. The only recourse is to tow the vehicle to a charger.

That said, a thoughtful driver can drive quite reasonable distances without grief. It does, however, take forethought and planning. Starting with a 90% charge and planning to not go below 10 per cent, the LEAF yields, about two hours or 120 miles. After two hours on the road, one needs a break. Chargers are placed near developed areas. Plug in, get some food or shop, empty one's bladder and get back on the road.

One owner of an original LEAF with an 84 mile range described traveling from Arkansas to Vancouver, across Canada and down through the Midwest to return home.

Careful consideration must replace spontaneity. It is worth it.

Price is a real consideration for EV buyers. The average price of a new Electric Vehicle is mid-\$60,000; out of reach of the average car buyer. The Tesla crossover is \$65-70 thousand. Their model X and roadster open up at \$120,000 and can go to \$140,000. The cheapest Tesla is a Model 3 which opens up at about forty five thousand.

Entry level vehicles include the LEAF and Chevy Bolt. These economy EVs begin under \$30,000, still a burden. The cheapest mainstream EV is the LEAF. Nissan designed the vehicle to resemble the average family hatchback. There is no burled walnut or tropical hardwood from some endangered rainforest. The info screen doesn't dwarf your home entertainment system. That is for a reason. This is why it has been the most common EV purchase over the past decade.



Chevrolet Bolt

And, now that EV's have proliferated recently, some buyers want the latest and greatest. More range, quicker charging, potential self-driving options are driving the top of the market. Even the entry level vehicles have lane alerts, blind spot warnings and intelligent cruise control. The LEAF equipped with lidar and radar can tell you when the car IN FRONT OF the car in front of you slows down quickly. So, aggressive buyers are upgrading and leaving behind used EVs with plenty of meat on the bone.

Used car apps like Car Guru, Edmonds and usedcars.com reveal a number of EV's for under twenty thousand dollars. My 2019 with 30,000 miles; a certified used car with two years power train warranty added to the manufacturer's one year of the original five remaining, cost 24,990. Coming in under \$25,000, which was my goal, the vehicle was entitled to the \$4,000 federal tax credit. I won't get it till I file my taxes next year, but it is a no-interest loan to me. I trust myself.

The last concern many people have is how the power grid will respond to the expected rise in the number of cars connected to the aging, already stressed grid.

In fact, the wave of EVs expected in the future may save the grid as well as saving their owners money.

Tiered pricing will add cost to peak-period electricity usage. Drivers will charge their cars during the cheaper overnight period. After their average twenty mile commute, they will have a huge, nearly fully charged battery in their driveway. This begins the peak, expensive usage interval as everyone comes home from school or work and turns on their AC, TV, computers, and electric ranges. Car

owners can disengage from the grid, use the cheaper energy they obtained last night and replace it while they sleep.

There's not enough room in the newsletter to describe how much fun the car is to drive. Google 'e-pedal' to see how an EV drives using only one pedal.

I'm at nobends@aol.com if you have questions or want to discuss the matter.

HARBOR AND TRIBUTARIES STORM SURGE STUDY

By Jim Scarcella

The US Army Corps of Engineers, duly authorized to protect lives and property, has made a series of recommendations in a tentative selection to build Storm surge barriers in the Arthur Kill and the Kill van Kull rivers, amongst other actions.

The selected plan, Alternative 3B, would involve flood gates, motors, electrical generation systems, levees, revetments, dredge, and fill, and much more.

The initial cost estimate is over \$52 billion, that's right, billion dollars! At present, there is no plan for covering cost of operating and maintenance. Supposedly each state will create an agency to provide M and O. In this time of scarce funding, not likely.

Also the plan does not cover the possibility of flooding behind these structures and related equipment.

The Army Corps has done extensive public outreach, and we've been in on Zoom meetings. There was a meeting at Bowling Green, American Museum of the Native Americans, and Community Boards and Staten Island Borough Hall.

Unfortunately no one has mentioned retreat from the shoreline as a possible solution to damage from storm surge and flooding. NRPA, Baykeeper, Riverkeeper, and SWIM (Stormwater Infrastructure Matters) are urging the Corps to recommend natural beaches and salt marshes to absorb storm surge.

Comments can be sent to Bryce Wisemiller at: NYNJHarbor.Tribstudy@usace.army.gov

WINTER OF 2022 TO 2023

By Jim Scarcella

The winter of 2022 to 2023 has been mild overall, with some exceptions. This has enabled a few of us to get out almost every day, to get an assessment of the East Coast of Staten Island.

Working from north to south, the beach at Fort Wadsworth suffered some damage during the storm of December 24 to 26, the Christmas Eve storm. Timbers were lifted off the tidal zone and brought up the beach and one timber and wave action broke the post holding the NYS DEC Sturgeon reporting sign.

The Ocean Breeze Jack Latanzio Fishing pier has attracted some hardy fishermen at dusk some days, and they are occasionally catching herring. East of the pier, at the beautiful New Creek Bluebelt, I saw a mottled white tail deer, with white and black markings on its rump.

Further down the coast, Miller Field Beach lost some sand and looked windswept.

Oakwood Beach had damage to the geotextile sandbags.

Meanwhile, the same storm had removed floating dock assemblies from the marina at Port Regalle in Great Kills Harbor and deposited them on the rip rap stone of Gateway Great Kills Park. To their

**ALL DUES HAVE EXPIRED ON
DECEMBER 31st.**

**PLEASE SEND IN YOUR 2023
MEMBERSHIP DUES IF YOU HAVE
NOT DONE SO.**

**RENEWAL FORM ON PAGE 10
THANK YOU FOR YOUR SUPPORT!**

credit, National Park Service secured an excavator, dumpster, and flatbed truck to remove the wayward assemblies and recycle the rectangular black plastic air filled dock floats.

Join us on March 18th for the cleanup of Lemon Creek Park at 10:00 AM.

AMMOPHILA: THE GRASS THAT PROTECTS OUR BEACHES

By Karen Lund

There is a little-known farm on Staten Island that grows plants not for food or ornament, but for their seed—to collect it, store it, and sometimes to grow those seeds into new plants for parks in New York City. The farm is operated by the New York City Parks Department, but it's not a park and it's not open to the public. To get there by public transit you take the S62 bus appropriately destined for "Wild Avenue" almost to the southern end of Victory Boulevard.

It's called the Greenbelt Native Plant Center (GNPC) and for years it taunted me, mentioned occasionally on the Parks Department website but never hosting a public event or tour. And then two years ago I discovered the secret: you have to volunteer. And so, I did.

"Processing Beach Grass" is what the event description said. Processing? Of course, I pounced on it, even if I wasn't quite sure what the task was. It wasn't the first time I traded a bit of elbow grease (as my Grandfather called it) for access, and I doubt it will be the last.



The Greenbelt Native Plant Center has their own "dune" where Beach Grass collected from New York City's beaches is grown. It's kind of a mess, but that's what Beach Grass

looks like in its native habitat; the tangle of roots and grass holds sand in place and prevents erosion, which is why some of our beaches need more grass. With 520 miles of coastline, New York City needs to plan for resiliency against flooding and plants play their role.

Processing *Ammophila breviligulata*, (<https://plantfinder.nativeplanttrust.org/plant/Ammophila-breviligulata>) or "American Beach Grass"—one of several species known as "Beach Grass"—turned out to mean stripping the dry, brown leaves from clumps of grass to leave the fresh green stems and roots ready for planting at various beaches in the City. It was fairly easy work; we could even sit down. Best of all, after we'd stripped grass for a couple of hours one of the GNPC staff offered to take us for a tour of the facility.

Grass is harvested as needed, usually in the Spring. Then volunteers get to work, stripping it down to fresh greenish-white stems with roots attached. There's usually more brown than green, but don't worry—those dry leaves will be composted. Nothing goes to waste.



Beach Grass before "processing."



The same clump of Beach Grass after processing. The green shoots

that will be planted are on the left and the dead leaves that were removed are on the right.



An individual plant selected from the clump. The dry leaves are stripped, yielding (in this case) three fresh grass plants and a lot of waste. An individual plant, stripped of its dry leaves, can yield more than one fresh plant. I've gotten from one to five new plants from one harvested plant. Two or three is most common.



Up close you can see the roots attached to the stripped grass plants.



Beach Grass multiplies by spreading at the roots. Occasionally, when stripping grass, there will be a baby plant (or two) developing at the base of a mature plant. Leave these attached and they'll grow into full-size plants that spread across the beach and help to prevent erosion by forming a network of roots under the sand. It's not perfect—a heavy storm surge can displace those roots—but it does help.

Each bundle in the photo is 50 plants. They will be stored in damp



sand until they're ready to go to a beach in New York City to be planted by other volunteers. At the end of the morning, about a dozen volunteers (and a couple of GNPC staff who pitched in) had processed a milk crate full of Beach Grass.

Planting!

After a few volunteer shifts stripping Beach Grass I was, naturally, curious to see what happens next. Again, the answer was to volunteer. So, in March 2022 I trekked to Coney Island Beach Park in Brooklyn to plant Beach Grass.



This must be the place!



There was already some Beach Grass at the planting site, but more was needed to protect the beach.

This beach looks rather bare, except for a little grass on the dunes. And that bridge in the background looks awfully familiar... and very far away!



About a dozen volunteers and Parks Department staff got down to planting, marking out a rough grid that followed as much as possible the contours of the beach. We planted a lot of Beach Grass that morning, but there was still more to be done. A high school group was scheduled to do some planting during the week, providing some education along with exercise and fresh air.

To learn more about the Greenbelt Native Plant Center visit <https://www.nycgovparks.org/greening/greenbelt-native-plant-center/>
To find and register for volunteer events with the New York City Parks' Stewardship program visit <https://www.nycgovparks.org/reg/stewardship> and click on the **Staten Island** tab.

**Join NRPA
Today**

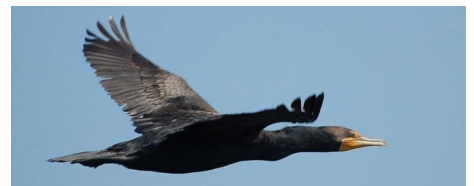
CORMORANTS

There are six types of cormorants native to North America. The most abundant and widespread is the Double-crested Cormorant, which can be found throughout the continent in freshwater and in seawater along the coasts into Northern Quebec and up into the far reaches of Alaska.



The Great Cormorant lives along the shores of the Atlantic Ocean from Labrador down to the tip of Florida.

The Pelagic Cormorant and the Brandt's Cormorant can be seen along North American coastlines. The Red-faced Cormorant lives in the southern regions of Alaska out into the Aleutian Islands. The most southern is the Neotropic Cormorant and is found along the southeast areas of Texas down into Mexico.



The cormorants are excellent at catching fish which is their main diet. These birds have long serrated bills with the shape of a hook at the end perfect for catching and holding their prey. These birds are also excellent swimmers with strong stubby legs. The cormorant has the ability to submerge its body into the water where all that is seen is its head.



Schedule of Events:

NRPA Calendar All events, including *face to face* monthly meetings are **TENATIVE** due to **COVID-19**, please call to confirm Jim Scarcella to confirm - 718-873-4291

Tuesday, March 7, 2023, NRPA monthly meeting by **Zoom** call in at **7:30 PM to 8:30 PM**. For more info, call Jim at (718) 873-4291.

Saturday, March 18, 2023, Lemon Creek Park, Sharrott pier clean up with NYCH2O, from **10:00 AM to 12:00 PM**. Gloves, bags, refreshments provided, community service certified. For more info call Matt at (917) 656-2984 or Jim at (718) 873-4291.

Tuesday, April 4, 2023, NRPA monthly meeting by **Zoom** call in at **7:30 PM to 8:30 PM**. For more info call Jim at (718) 873-4291

Saturday, April 8, 2023, Lemon Creek Park at Segune Avenue beach cleanup, **10:00 AM to 12:00 PM**, gloves, bags, refreshments provided, community service certified, For more info, call Jim at (718) 873-4291.

Sunday, April 22, 2023, Earth Day clean up at Gateway Fort Wadsworth in conjunction with National Park Service from **11:00 AM to 1:00 PM**. For more info, call Kathy Garofalo at (718) 354-4655. Help remove plastics from our environment and find out how our daily choices affect our ecology.

Thursday, April 27, 2023, Student Summit at Gateway Great Kills Park in conjunction with National Park Service and Clean Ocean Action from **8:00 AM to 12:30 PM**. For more info, call Kathy Garofalo (718) 354-4655.

Tuesday, May 3, 2023, NRPA monthly meeting by **Zoom** call in at **7:30 PM to 8:30 PM**. For more info, call Jim at (718) 873-4291.

Saturday, May 6, 2023, Coastal Clean Up River sweeps at Buono Beach, Rosebank. Gloves, bags refreshments provided, Community Service certified. From **9:00 AM to 12:00 PM**. For more info, call Jim at (718) 873-4291.

Saturday, May 20, 2023, Conference House Park clean up with NYCH2O, meet at Saterlee Street and Hylan Boulevard, Tottenville from **10:00 AM to 12:00 PM**. For more info, call Jim at (718) 873-4291.

Tuesday, June 6, 2023, NRPA monthly meeting by **Zoom** call in **7:30 PM to 8:30 PM**. For more info, call Jim at (718) 873-4291.

Dedicated to preserving the marine environment, the Natural Resources Protective Association is a 501 (c) (3) non-profit organization. All contributions are tax deductible.

All memberships expire on December 31, so please renew NOW!

(All **NEW** memberships paid after October 1 will also receive credit for the upcoming year)

Are You A Member? Have You Renewed? Please Join Us NOW!

- ☐ **\$15.00 Individual**
☐ **\$25.00 Organization**
☐ **\$500.00 Lifetime Member**

- ☐ **\$20.00 Family**
☐ **\$100.00 Sponsor** (after 5 payments
you become a Lifetime member)

YES! I/We want to join the fight!

Name: _____

Address: _____

Phone: _____ Email: _____

Mail to: Natural Resources Protective Association
C/O Richard Chan, Treasurer
Post Office Box 050328
Staten Island, NY 10305

Join NRPA today