

# Volunteer Guide to Freshkills Park

[www.freshkillspark.org/volunteer](http://www.freshkillspark.org/volunteer)

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Welcome to Freshkills Park and thank you for volunteering your time and energy. Volunteers provide important support to the Freshkills Park team as we host special events and cleanups at the Park. With the help of volunteers like you, more people can enjoy and experience the beauty of the park and understand its transformation.

Volunteers are ambassadors of the park. When people see your excitement during events and cleanups, they will get excited, too. By serving as a friendly face and being willing to help others, you will make a visit to Freshkills Park a great experience. Staff will always be there to support your work and share in your enthusiasm.

This volunteer guide has been developed to give you some highlights about the Park, its history, and current projects, both for your own use and to help you in answering others' questions about the park project.

## Volunteer Opportunities at the Park

Freshkills Park  
Event Assistant

Schmul Park  
Weed Warrior

New Springville  
Greenway  
Beautification

Citizen Science  
Water Monitoring



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- Volunteer Opportunities
- Wildlife
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- History & Landscape
- Infrastructure & Design
- Completed & Upcoming Construction Projects

## Volunteer Opportunities

There are currently four different ways to volunteer at **Freshkills Park**. For each opportunity, you will be asked to sign up in advance. You will receive more detailed information before each activity.

### Freshkills Park Event Assistant

Help people explore the future park during public events. Assist with event setup/breakdown, visitor services, and activities when sections of the site are open for tours and recreation.

### Schmul Park Weed Warrior

Remove unwanted plant species from Schmul Park. Learn about native and invasive plants and preserve park plant diversity.

### New Springville Greenway Beautification

Remove litter along the New Springville Greenway, Staten Island's new bike and fitness path along Richmond Avenue. Help keep the Park's green spaces beautiful.

### Citizen Science Water Monitoring

Collect scientific data and contribute to monitoring research at the site. Ongoing research at Freshkills Park assesses the health and vibrancy of park flora and fauna.



## Volunteer Checklist

Bring a full water bottle.

Apply sunscreen before your volunteer shift. During the warmer months, remember to apply bug spray.

The park can be breezy. Bring a jacket in the cooler seasons.

Be sure to check your email beforehand for important details concerning your assignment.

Wear your Freshkills Park hat and t-shirt when participating in volunteer activities at the park.

Visit [freshkillspark.org](http://freshkillspark.org) for dates and more information.

## Wildlife is returning to Freshkills Park



The Park supports a variety of ecological habitats, including hundreds of acres of salt marsh, a network of tidal creeks, and on-mound grasslands that are attracting birds that have not been found on the east coast in years. The creeks and wetland habitats of Freshkills Park have been designated a Significant Coastal Fish and Wildlife Habitat by the Department of State.

Some birds that can be spotted at the park include glossy ibis, bald eagles, red-tailed hawks, and osprey. Mammals, including muskrats and rabbits, and several varieties of turtles are also present.



## Programs and Special Events

Freshkills Park offers public programs so people can experience and learn about the park as it is built in phases. The public programs include:

**Kayaking:** Paddle across creeks and waterways, seeing wildlife along the way.

**Hiking:** Head for the hills on a 1–2 mile trek with moderate-to-steep elevations.

**Bus Tours:** Learn about the past, present, and future of the park on a guided bus ride.

**Environmental Education:** In-class presentations and on-site tours are available for 3rd-12th grade classes.

**Art/Culture:** Projects include the NEST sculpture at the St. George Ferry Terminal, UnCommon Pages field notebook-making workshops, and the Capturing Change photography series.

**Science/Research:** active projects include a living shoreline study investigating the use of ribbed mussels to enhance biodiversity and strengthen the shoreline.

**In addition, the Park hosts larger public events every year:**

**Discovery Days:** An opportunity for visitors to explore the world's largest landfill-to-park project with over 700 acres and 8 miles of trails open for tours and recreation.

**Soaring Over Staten Island:** Visitors to North Mound can fly above the borough with kites, bird-watching, and panoramic views.



Freshkills Park is the largest landfill-to-park project in the world.

## Landfill-to-Park Timeline

**1948:** Fresh Kills Landfill is established by Robert Moses and the City of New York.

**1991:** Fresh Kills accepts all of NYC's residential garbage.

**1996:** New York State passes law to close landfill.

**2001:** Fresh Kills closes in March, opening one section again in September for the 9/11 recovery effort.

**2006:** Draft Master Plan for Freshkills Park is released. NYC Parks Department begins offering tours.

**2010:** NYC Parks Department begins holding annual events at the site.

**2012:** Schmul Park reopens.

**2013:** Owl Hollow Soccer Fields open. Main Creek Wetland Restoration project complete.

**2015:** New Springville Greenway opens. Art, research, education, volunteer, and recreation programs invite people to visit and learn about the site's transformation.

## How Did We Get from a Landfill to a Park?

"Fresh Kills" was originally named by Dutch settlers who came to Staten Island in the early 1600s. The name means "fresh water," for the tidal creeks and wetlands that it comprised at the time. In 1948, Robert Moses established Fresh Kills Landfill on the site in order to accept waste from highway construction.

At the time, wetlands were considered an unprofitable nuisance, and Moses' plan was to fill in the wetlands and develop the area for residential use. However, as the city's population expanded, it needed a place to dispose of its household garbage. As a result, Fresh Kills, originally planned to be open for three years, operated as a solid waste landfill for over fifty years. By 1986, Fresh Kills was the largest landfill in the world and the principal landfill for the city's municipal waste.

In 1996, after many years of activism on the part of Staten Islanders, Mayor Guiliani and Governor Pataki announced that the landfill would be shut down. By 1997, two of the four mounds were closed and covered with a thick, impermeable cap. The landfill received its last barge of garbage on March 22, 2001. New York City's garbage is now shipped to landfills in Pennsylvania, South Carolina and Virginia.

## What are the Mounds and Creeks at the Park?

There are four mounds at the park, referred to as North, South, East, and West, which range in height from 90 feet to 225 feet. For the time being, most of the Park activities take place on North, South, and East mounds. The mounds comprise about 45% of the site, and the remaining 55% is made up of creeks, wetlands, and dry lowland.

Located on the west shore of Staten Island, the Park is bounded on the west by the Arthur Kill, a major shipping lane that separates New York and New Jersey. Three creeks bisect the Park itself: Fresh Kills, Main Creek, and Richmond Creek. Main Creek also connects the Park to the William T. Davis Wildlife Refuge.



## Landfill Cap

The **Planting Soil Layer** is made up of a minimum of 6 inches of soil planted to combat erosion, protect the final cover, and create a grassland habitat.

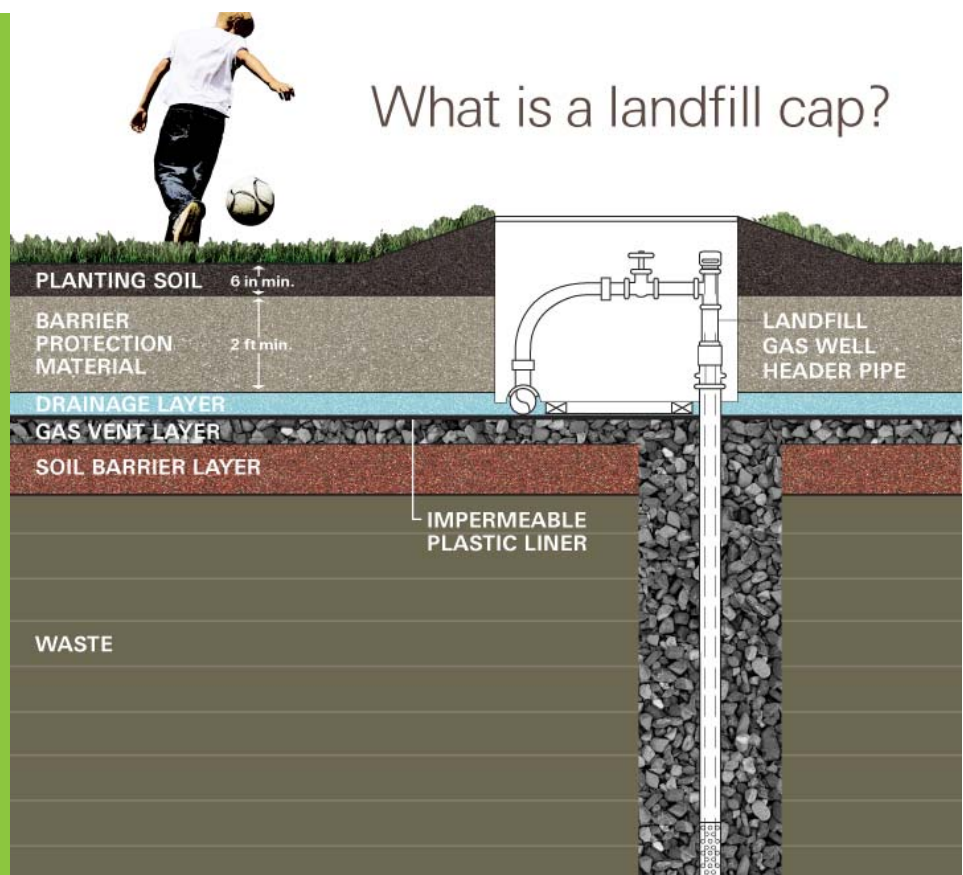
The **Barrier Protection Layer** is a minimum of 2 feet of clean soil placed on top of the drainage layer to protect underlying layers that could be compromised by weather extremes.

The **Drainage Layer** directs rain water to flow away from the cover system and off of the mounds.

The **Impermeable Plastic Liner** prevents water from entering the waste and prevents the upward flow of gas into the atmosphere.

The **Gas Vent Layer** is a permeable material that facilitates the movement of landfill gas toward the landfill gas extraction wells.

The **Soil Barrier Layer** is laid over the solid waste, then graded and compacted to the appropriate angles to maintain slope stability and promote proper drainage.



Landfill Cap Diagram, illustrating the six layers above the solid waste.

## What is a landfill cap?

## What Keeps the Public Safe: Landfill Closure and Infrastructure

We are often asked if the park is safe for the public, and the answer is **yes**.

The landfill is being closed by the Department of Sanitation (DSNY) with stringent oversight by the New York State Department of Environmental Conservation (NYSDEC). Closure is the process by which all of the garbage is sealed into mounds under a highly engineered Landfill Cap. DSNY must carefully follow detailed guidelines formulated by NYSDEC for safely closing landfills.

Once all of the closure systems are in place, DSNY will conduct post-closure maintenance and monitoring for a minimum of 30 years. This also includes maintaining the landfill systems and testing the water and air in and around Freshkills Park. DSNY monitors landfill gas, ground water, and surface water around the site to ensure that there is no leakage of landfill byproducts.

The major components of the landfill closure system are:

- A cap that minimizes surface water infiltration, prevents erosion, promotes proper surface water drainage, and separates the waste layer from the environment to ensure public health.
- A landfill gas collection and treatment system
- A leachate collection and treatment system.



Landfill gas well

## Landfill Gas Collection System

Landfill gas is released from decomposing organic material in the mound. It is composed of approximately 50% carbon dioxide and 50% methane. The gas is collected via 175,000 feet of underground pipes and sent to an on-site purification plant where the methane is extracted and piped by National Grid for use as energy in Staten Island Homes.



Leachate Treatment Plant

## Leachate Collection System

Leachate is created as water percolates through decomposing garbage. It is contained, collected via underground piping, and sent to an on-site plant for treatment. Clean water is released into the Arthur Kill and remaining solids are formed into a leachate cake that gets transported to another landfill.



## The Draft Master Plan

James Corner Field Operations (JCFO) and the City of New York released a Draft Master Plan for Freshkills Park in 2006. It was the culmination of three years of site evaluation, community planning, and conversations with a multitude of NYC agencies. JCFO's framework for site development preserved the natural character of the four mounds and concentrated commercial activities at the Confluence in the center of the park along the waterfront.



## Freshkills Park Near-term Construction Projects 2016



Schmul Park Reconstruction

Main Creek Wetland Restoration



North Park Arc Path

East Park Early Access



South Park Ballfields

Kayak Launch

Proposed Vehicular Access Point



Owl Hollow Soccer Fields

Wetland Boardwalk

Proposed Pedestrian Access Point



New Springville Greenway

Map of Completed and Ongoing Projects at Freshkills Park

## Completed Projects

**Schmul Park**, previously a blacktop playground in the Travis neighborhood, was redesigned by James Corner Field Operations and the Parks Department. The asphalt was replaced with colorful rubber-clad play mounds, plantings, and water features. The park features handball and basketball courts, and the existing ball fields will be renovated in the summer of 2016.

The **Owl Hollow Soccer Fields** off of Arthur Kill Road include four synthetic turf soccer fields (two full-size and two practice-size), a loop pedestrian path, parking, landscaped lawn areas, and nighttime lighting. These fields, covering 21 acres, were completed in 2013 and have been busy ever since.

The 3.1 acre **North Mound Wetland Restoration** was completed in 2013, creating new salt marsh and coastal habitat. The shoreline was stabilized to provide additional protection for habitat under threat by climate change, and water quality was improved by reintroduction of native coastal plants. Goats were also brought to the park to help with the restoration.

Our most recent project, the 3.2-mile **New Springville Greenway**, was completed in the summer of 2015. This path along the eastern edge of Freshkills Park creates bike access along Richmond Avenue by providing new asphalt pavement, concrete sidewalk reconstruction, and associated drainage systems, incorporating sustainable modern construction techniques.



# Upcoming Projects

The Owl Hollow Park House will be built adjacent to the new soccer fields on Arthur Kill Road. Once complete, the Owl Hollow Park House will be a LEED-certified building with a green roof and geothermal heating and will house public restrooms, an office for Parks Maintenance & Operations personnel, and a covered outdoor area with seating and picnicking.

**North Park Phase 1** will be a 21-acre swath of land connecting visitors to spectacular views of Main Creek and the adjacent William T. Davis Wildlife Refuge via divided walking and high speed paths. Visitors will stroll along seven acres of native seed plots operated by the Greenbelt Native Plant Center.



The 482-acre **East Park** sits along Richmond Avenue, Staten Island’s major commercial corridor, and is bordered by the New Springville Greenway. The East Park early access plan, which will open up a large acreage of park space for passive recreation, is currently in design. The plans include a permanent kayak launch, pathway connections for the six miles of walking trails, and a wetland boardwalk.

**South Park Phase 1**, the initial phase of development in the 425-acre South Park, will build on the Owl Hollow Soccer Fields and Park House to create a recreational corridor at the park. The design for South Park Phase 1 includes two new ballfields, a parking area, and a pedestrian connection to the Owl Hollow Soccer Fields.

A publicly accessible **Road System** will be a major feature of Freshkills Park. Roads will provide access to the different areas of the park and create a connection between the West Shore Expressway (Route 440) and Richmond Avenue to open the park, provide site access, and address transportation needs of the community.





View from the top of North Mound

## At 2,200 acres, Freshkills Park will be almost three times the size of Central Park and the largest park developed in New York City in over 100 years.

The transformation of what was formerly the world's largest landfill into a productive and beautiful cultural destination makes the park a symbol of renewal and an expression of how our society can restore balance to its landscape. In addition to providing a wide range of recreational opportunities, including many uncommon in the city, the park's design, ecological restoration, and cultural and educational programming emphasize environmental sustainability and a renewed public concern for our human impact on the earth.

For more details about volunteer opportunities and information, visit Freshkills Park on the web:

[www.freshkillspark.org/volunteer](http://www.freshkillspark.org/volunteer)

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