



## BILLION OYSTER PROJECT RESTORATION IN PROGRESS

A site guide by the Billion Oyster Project in partnership with the NYS DEC.



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The Billion Oyster Project wishes to thank its partners at Soundview: New York City Department of Parks and Recreation Hudson River Foundation NY/NJ Baykeeper Rocking the Boat Bronx River Alliance

## FISH MIGRATION

Most of the Bronx River's migratory fish are born upstream, leave to spend their adult lives at sea, and then return home to spawn. American eels do the opposite. Born at sea, they migrate here and stay for as long as 20 years before heading back to the sea to spawn. Dams and weirs can create insurmountable barriers for migratory fish. For that reason, the Department of Environmental Conservation built a series of fish ladders on the Bronx River—small, stair-stepped sluiceways that allow fish to work their way around the dams.



Activity/reflection: What would be the best place to count migratory fish?



#### **HISTORY OF SOUNDVIEW**

400 years ago, Soundview Park was open water and tidal wetlands. With its mix of fresh water from the Bronx River and salt water from the East River and the Long Island Sound, the site was a vibrant estuarine habitat, teeming with birds, fish, crabs, and other invertebrates.

The European settlers who arrived in the 17th century quickly displaced the original Native American residents, filling in the tidal wetlands and intertidal habitat to create space for commerce and industry. By the early 20th century, the site was used as a landfill.

In 1937, the city opened a new park atop the landfill to create space for public recreation. In the 1990s, NYC Parks joined forces with other public agencies, non-profits, and local community groups to restore natural habitat, improve water quality, and expand public access to the shoreline along Soundview Park.

Activity/reflection: As you explore the park, ask yourself which restoration or improvement effort seems to have been the most successful? Why?

#### WATER QUALITY

Since the 1970s, the water quality at Soundview has improved due to the construction of modern wastewater treatment plants. However, challenges remain due to the city's combined sewer overflow (CSO) at Soundview: multiple CSOs along the Bronx River discharge up to 412.5 million gallons of combined sewage and stormwater near Soundview in an average year of rainfall. Today, the Bronx River Alliance and its volunteers test Soundview's waters twice per month from March to September for fecal indicator bacteria at Soundview and along the Bronx River.

Activity/reflection: What might be done to reduce the amount of sewage that overflows into the harbor?

### **OYSTER REEFS**

Prior to European colonization, the waters off of Soundview featured extensive oyster populations. Overfishing, dredging, and pollution depleted them. In the early 20th century, poor water quality closed all shellfish harvesting due to public health risks. In 2006, NYC Parks discovered wild oysters at Soundview; this led to NY/NJ Baykeeper and NYC Department of Environmental Protection to pilot two restoration projects from 2008-2012. In 2020, BOP and its partners built upon their successes

to create 5 acres of reef habitat and introduce an estimated 15 million oysters at Soundview.



Activity/reflection: Can you spot any wild oysters growing on the rocks along the shoreline?

# SALT MARSH

Salt marshes are critical, natural filtration systems for our waterways. In 2011, the \$9 million Soundview Park Salt Marsh Ecological Restoration Project restored approximately 3.5 acres of salt marsh and coastal shrublands. Contractors excavated up to 12 feet of contaminated landfill debris, added clean fill, and graded the shoreline to allow for regular tidal inundation. This created a working salt marsh capable of removing excess nutrients from the water, trapping sediment, and providing habitat for coastal and intertidal wildlife.

Activity/reflection: What kinds of animals would you expect to find living in the salt marsh?