

SANDY

RESPONDING TO A SUPERSTORM AND WEIGHING IN ON A POST-SANDY NEW YORK

By Yvonne King, John Lipscomb, and Phillip Musegaas



In NY Harbor and the lower Estuary, Superstorm Sandy resulted in unprecedented tidal surges and flooding that led to a loss of life, widespread power outages, and billions of dollars in property damage throughout the New York Tri-State Area. Here's how Riverkeeper responded:

On the River

John Lipscomb spent the night of the storm aboard the Riverkeeper patrol boat at Westerly Marina in Ossining to protect it. Hundreds of boats were lost in the Harbor, Tappan Zee, and Haverstraw Bay, but the R. Ian Fletcher made it through without a scratch. Four days after Sandy, Riverkeeper patrolled NY Harbor, including Newtown Creek and the Gowanus Canal. The port was officially closed, but we were able to obtain clearance from the Coast Guard to conduct an environmental conditions assessment. We had expected to find the Harbor full of floating garbage and plastic, as well as severe sewage contamination because many sewer plants had been flooded and were off-line.

Surprisingly we found neither – there was almost no plastic trash (significantly less than usual) and our water sampling turned up BETTER than normal levels of sewage contamination, not worse. Why? As Lipscomb explains, “I think that all the trash that floated off all the flooded parts of the city was swept across the harbor to the leeward shorelines. That’s because the wind was from the southeast and blew hard enough and long

enough throughout the high tide cycles to sweep the harbor clean of debris. And although a lot of sewage was released due to damaged sewer plants, there was an unimaginable amount of clean ocean water brought in during each of the three high tides which FLUSHED the harbor. We saw the same surprising result after Irene in 2011, but then the flushing was from heavy rains instead of tidal flooding. I guess we won’t be surprised the next time!”

In Newtown Creek, we found that the oil containment boom at the Exxon-Mobil spill site had come adrift and a shipping container had floated off the shore and sunk. We reported both. There were a number of floating oil drums and debris farther up the Creek.

In the Gowanus, we found a lot of floating garbage, oil and sewage – this was the only place we saw in the Harbor that was really filthy. There was an active sewage discharge from a damaged pump station and sewage counts were off the charts.

A week after Sandy – and also after the “Nor’easter” – Lipscomb went out on patrol again. This time with Riverkeeper’s water quality program partner



Photos By: John Libscomb



Photos By: John Libscomb

Photo By: Dan Shapley

Dr. Andy Juhl, a microbiologist at Columbia University's Lamont-Doherty Earth Observatory. We sampled the Harbor again and found much worse sewage contamination this time than immediately after Sandy. Three quarters of the samples taken failed. "That's because this was a rain event which triggered Combined Sewer Overflows (CSOs) and released lots of raw sewage," said Lipscomb. "But this time, there was neither tidal flooding with clean ocean water or heavy runoff from massive rainfall to dilute the sewage so the contamination was much higher. We've seen this many times before. Unfortunately, it's what happens every time there is a significant rain. The rain overloads the system and triggers CSOs, leading to widespread contamination."

Riverkeeper also learned about a fuel spill caused by Superstorm Sandy on the tidal Rondout Creek in Kingston. The crew of the yacht Belle Aventure spotted it first and called Riverkeeper. It affected a long stretch of shoreline, from the mouth of the creek all the way upstream to the Kingston public docks at the 9W Bridge. Riverkeeper reported the spill to the DEC and began a cleanup with the crews of the Belle Aventure and the Lynx until a spill response team arrived on scene.

This incident illustrates that while the Riverkeeper patrol boat is an invaluable resource in helping to protect the Hudson River and New York's waterways, the public is often in the best position to identify pollution early. If you witness pollution affecting our water, visit the Riverkeeper website to find out how you can report it: www.riverkeeper.org/get-involved/violations/ or call us at 914-478-4501.

Awareness

In the wake of the storm, Riverkeeper joined with other local Waterkeepers to alert the public about the potential for dangerous levels of sewage contamination in some areas, including flooded basements. Sandy knocked out power to wastewater treatment plants in New York and New Jersey causing billions of gallons of raw sewage to be dumped in the Passaic, Hudson, Raritan, and Hackensack Rivers, Newark and Raritan Bays, Arthur Kill and Kill van Kull.

Contaminated flood waters infiltrated streets, homes and businesses. Riverkeeper called for state officials to provide the public with critical information on how to safely cleanup flooded areas, and released cleanup tips.

While the days and weeks after the storm were a challenge, Riverkeeper worked to keep the public up-to-date on the status of the river and our waterways.

Future Storm Preparedness

In the aftermath of Irene and Sandy, these storms can no longer be considered isolated incidents. To address the impact of climate change and future storms, Riverkeeper is participating in initiatives designed to explore and develop solutions on how to protect New York and its citizens from the type of devastation wrought by Superstorm Sandy.

Riverkeeper Hudson River Program Director Phillip Musegaas joined the Advisory Committee for the Open Industrial Uses Study (OIUS), being conducted by the NYC Economic Development Corporation and NYC Department of City Planning. The basic goal is to develop a list of recommendations for making certain types of waterfront industrial sites less polluting (air, water and noise pollution) and more climate resilient including better safeguarding of hazardous materials, flood proofing, etc. The study is focused on six industrial areas around the city. The Advisory Committee also includes representatives of environmental justice groups and other community based organizations working around the city, from Staten Island to the Bronx. The final report and recommendations are due from OIUS in July 2013.

Musegaas is also representing Riverkeeper in the Mayor's Office's Special Initiative for Resiliency and Response (SIRR), which is a broad citywide effort to look at how the most vulnerable areas of the city can be better prepared for flooding and future storms – this effort includes assessments of public transit, energy and wastewater infrastructure. SIRR is supposed to issue its initial report and recommendations by May 2013.

As these committees and efforts on how to address a post-Sandy New York move forward, Riverkeeper will continue to be an integral part of the proceedings and a voice for the river, clean water, and safety.