



**Hearing before the New York City Council  
Committees Jointly on Parks & Recreation, Health & Mental Hygiene,  
Sanitation, and Environmental Protection  
Oversight: Recovery: Post-Storm Cleanup and the Effects on the City's  
Health and Infrastructure  
February 28, 2013**

**Testimony By: Veronica M. White, Commissioner**

Good afternoon Chairs Mark-Viverito, James, Arroyo, Gennaro, and members of the City Council Committees on Parks and Recreation, Sanitation and Solid Waste Management, Health and Environmental Protection. I am Veronica White, Commissioner for the New York City Department of Parks & Recreation. Thank you for allowing me to speak before you today about our response to Hurricane Sandy and its lasting impact.

New York has never experienced a storm of such enormous size and destructive power as Sandy. The damage left in Sandy's wake was staggering and our thoughts and prayers remain with those who lost family and friends, homes and businesses to the storm.

With jurisdiction over 152 miles of waterfront property, nearly 30% of the city's shoreline, 17,000 acres of waterfront parks, and 2.6 million trees the Parks Department has been front and center during the Sandy response and recovery efforts. Like City employees across all agencies, Parks Department employees worked diligently in the days leading up to the storm to protect our assets, responded to its impacts with skill and determination, and with the support of federal, state and local partners we are committed to restoring our parks, beaches, recreation facilities and public spaces as quickly as possible. I would now like to provide a summary of our work pre- and post-Sandy.

**Preparing for the Storm**

In the days leading up to the storm, the Parks Department took steps to minimize damage to our sites and infrastructure and put the resources in place to respond quickly to the damages the storm was likely to cause. We activated our emergency forestry contracts in advance of the storm so that crews could be deployed quickly during and after the storm. We rushed to build sand berms at beaches, and placed sandbags at vulnerable locations. We also focused on clearing roof drains and catch basins, checking pumps and tide gates and securing loose items to prevent them from becoming dangerous projectiles in severe winds. We moved many of our vehicles out of low-lying areas and computers and electronic equipment were relocated from basements and lower floors to upper floors to minimize damage.

Hundreds of staff rode out the storm overnight at Parks facilities so they would be ready to respond to emergency conditions and begin recovery work as soon as the storm passed.

All of our parks, beaches, playgrounds, recreation and nature centers were closed effective Sunday, October 28. Signs were placed at every park and playground informing the public of the closure due to the impending storm and reminding them to check 311 or the Parks website for further information about park status. We coordinated with our concessionaires to ensure that their facilities and operations were closed and protected, evacuated the marinas, cancelled all events and permits and used our extensive list of e-mail contacts to give thousands of individuals, friends groups, permit holders and partner organizations the most up-to-date information about the status of the City's parks.

### **Forestry Response**

The Parks Department is responsible for tree emergencies on a daily basis, but in major storm events like Sandy, the Office of Emergency Management convenes the Downed Tree Taskforce, consisting of Parks, Police, Fire, 311, Sanitation, Transportation, and representatives from the major utility companies. Following the storm the taskforce responded to more than 20,000 street tree emergencies received through 311. In addition, we estimate an additional 5,000 trees were destroyed in parks. This was by far the biggest storm in terms of tree damage the City has ever faced. To put it in perspective, a total of 3,444 street trees were lost during Hurricane Irene.

Newly implemented technologies truly proved their worth during Hurricane Sandy. Our Information Technology staff created the Storm Command Center, a mapping application for live storm data (service requests and work orders) that allow managers to identify those "hot spots" in the greatest need of resources. The Storm Command Center application is accessible from any computer connected to Citynet, whether at Parks or at OEM. We were also able to deploy a new mobile application, supported by the NYCWiN network, called Storm Mobile that was used in the field by inspectors and forestry crews to speed inspections and process work orders.

Our Forestry Management System (ForMS) is a computerized inventory and work management database for New York City's street and park trees that has been used for several years. Now coupled with Storm Mobile and the Storm Command Center, all three served as flexible and powerful tools for both field staff and management in responding to emergency forestry conditions and coordinating in-house, contract, mutual aid and volunteer resources. These technologies allowed us to share information on our progress with OEM and better coordinate with our sister agencies in the Downed Tree Task Force.

During storms of this magnitude, staff from all corners of the agency pitch in to tackle tree emergencies. Our response is led by the Climbers & Pruners in the borough Forestry units, supported by a network of Park Supervisors, Associate Park Service Workers, City Park Workers, Auto Mechanics and office staff. Central Forestry, Horticulture and Natural Resources also played a key role in organizing contract support, information flow and inspections. But managers, gardeners, construction engineers, landscape architects, PEP officers, Rangers, computer and telecom technicians all play important roles in handling the enormous volume of work generated by a storm of this scale. In addition to the tireless work of our own staff, we had, at peak, 115 additional forestry contract crews working with us in all five boroughs. We were also supported by mutual aid crews from State DOT, State DEC, NYC DEP, the National Forest Service and the National Guard.

Like all New Yorkers, we owe a special debt of gratitude to the men and women at the Department of Sanitation and thank them for helping to make all of New York City clean and safe following the hurricane. We would, literally, still be clearing tree debris from the streets without their invaluable assistance.

### **Post-Storm Clean-Up & Recovery**

In the immediate aftermath of Sandy, many of our parks were transformed into recovery centers, and Parkies joined the emergency humanitarian effort. Working side by side with community volunteers, non-profit groups and other city agencies, Parks staff participated in the immediate relief efforts handing out food, clothing and aid to residents in the hardest hit areas. The East 54th Street Recreation Center in Turtle Bay provided recreation and shower facilities to those children under the care of ACS from the Lower East Side. The Sunset Park Recreation Center offered shower facilities to displaced New Yorkers from Red Hook. In Crown Heights, the St. John's Recreation Center was able to offer recreation opportunities and shower facilities for children and their families being sheltered at P.S. 249. The Asser Levy Recreation Center in Kips Bay served as an alternative location for New Yorkers to cast their votes on Election Day.

In addition to assisting with the distribution of supplies and addressing forestry emergencies, Parks staff went to work inspecting our almost 2,000 parks and playgrounds to assess damage, clean and remove debris and quickly re-open as many sites as possible to the public. I am happy to report that 98% of our properties are open. To date, we have identified over \$725 million in damage to 392 Parks sites. In addition, more than 3 million cubic yards of sand was displaced.

One of our most arduous and immediate tasks was to move sand that had been carried away from the beaches. A good portion of this work had to be

done by hand, especially in areas, like playgrounds, where heavy equipment would have damaged benches, fences, and play equipment.

In Rockaway, working with the Department of Sanitation and the Economic Development Corporation, we gathered sand that was pushed into the streets, much of it mixed with debris, and brought it to Jacob Riis Park, where the Army Corps of Engineers used a sifting machine to separate more than 150,000 cubic yards of sand from debris. This cleaned sand is now being returned to the beach. Parks worked closely with the NYS Department of Environmental Conservation, the Department of Sanitation, FEMA, and the Army Corps of Engineers in this effort and we cannot thank our partners enough for their assistance.

Working with New York State Department of Labor and NYC Department of Small Business Services, and thanks to \$15 million in federal funding, we hired more than 800 temporary workers to support the storm clean-up effort, with many of these individuals coming from the very neighborhoods that were affected. We were able to supplement our staff with a massive volunteer effort. Managed by our Partnerships for Parks program and NYC Service, we facilitated 125 clean-up events bringing nearly 8,000 volunteers to our parks, playgrounds, beaches, and recreation centers. Our volunteers collected more than 22,000 bags of debris alone.

As you know, park properties in the Rockaways, Coney Island, and the eastern shore of Staten Island suffered the most severe impacts from Hurricane Sandy. For example, in Rockaway, 37 blocks or nearly 3 miles of boardwalk experienced severe damage. On Staten Island, we managed the removal of more than 60 derelict boats that had washed up on Parks properties. In Coney Island, Steeplechase Pier sustained considerable damage. This, of course, pales in comparison to the devastation inflicted on the adjoining communities and we remain committed to the on-going recovery and restoration efforts in those areas even as we begin to rebuild our own facilities.

### **Re-Opening our Beaches**

As you heard the Mayor announce in his State of the City address, our beaches will open as they traditionally do, on Memorial Day Weekend. As the agency entrusted with the care of the city's beaches we know how vital they are to countless New Yorkers, and how important it is to open them for the public to enjoy. We recognize that in addition to the recreational benefits our beaches provide, they also represent an important catalyst for business and economic activity in their communities, many of which have struggled after Sandy.

As we mentioned earlier in our testimony, we have begun and completed much of the initial clean-up work. Now, with the expertise of the Department

of Design & Construction, we will begin rehabilitating, and if necessary, replacing water-damaged public buildings. These structures include lifeguards stations, public restrooms, operation facilities, and beach concessions. In some cases we're using modular buildings to offer services and amenities and house our operations this summer. To protect these buildings from potential future storm damage and to make them more resilient, we are planning to elevate them to ensure that the buildings and their mechanical, electrical, and plumbing systems comply with new FEMA and Building Code standards.

Taken together, these projects represent an enormous investment in the City's 14 miles of beaches. We're projecting to spend about \$147 million for Rockaway Beach, \$51 million for Staten Island beaches, and \$68 million for Brooklyn beaches for a total of approximately \$266 million. This number represents the investment being made just to get our beaches ready for their May 24<sup>th</sup> opening.

### **Long-Term Strategies for Resiliency**

While the immediate task at hand is to get our beaches opened for the 2013 season, we continue to focus on long-term shoreline protection. Parks has had a long and successful history of coordinating with the U.S. Army Corp of Engineers on projects that protect New York City's beach communities. In fact, the Parks Department has worked with the Army Corps to construct more than \$92 million in federal shoreline projects on the City's beaches over the last 20 years, with major projects at Orchard Beach, Coney Island, Plumb Beach, and Rockaway.

We are working very closely with the Army Corps and FEMA to replace lost sand in Brooklyn, Queens, and Staten Island. We are also working with the Army Corps to develop long term shoreline protection strategies, which may include the use of reinforced dunes, trap bags, geogrids, off-shore breakwaters and the creation of shoreline wetland areas. Utilized together, these technologies can provide bank stabilization, allow recreational access, slow wave action, promote sand accretion and lessen shoreline loss, as well as create shoreline habitat.

Even with the enormous extent of the storm's damage, Hurricane Sandy demonstrated the resilience of our city's green infrastructure, and the vital role our city's natural areas play in the face of climate change and the extreme weather it brings. The PlaNYC Rockaway Park that opened last summer, for example, survived the storm virtually unscathed. When we designed the park, the amount of permeable surface was greatly increased with an expanded wetland area, beds of maritime grass, and plantings that helped to reduce erosion. This is even more striking because much of the park was formerly paved. Playgrounds with rain gardens and permeable surfaces survived the storm with little damage to play equipment. Salt

marshes, like a former landfill that was restored in Marine Park in 2012, not only survived Sandy intact, but also slowed tidal and storm forces, protecting adjacent properties. 10,000 of our 29,000 acres of property are natural areas, of those acres 1,500 acres are wetlands. Our Natural Resources Group has been working for decades to protect and restore wetland ecosystems throughout New York City and will continue to be at the forefront of this work. To date, we've restored more than 90 acres of salt marsh, and have worked to acquire and protect dozens of acres more. Sandy showed us, beyond any doubt, that green infrastructure works, and we are committed to incorporating sustainable design into all of our projects.

We have been working with the Mayor's Special Initiative for Resiliency and Recovery to develop a long term vision for our coastline and our City. We all have a role to play in protecting the future of the City's environment and my agency is proud to be doing its part.

This is just a snap shot of the work that we are doing to restore our parks, beaches and open spaces. I am extremely proud of the work of our agency, thankful to our friends in government for working with us and inspired by the countless displays of courage and generosity in communities throughout the city, as we move ahead. The leadership of our City's elected officials and the outpouring of volunteerism has been vital to the City's clean-up and restoration efforts and we look forward to continued collaboration. Thank you for the opportunity to testify and I would be happy to answer any questions that you may have.

**OPENING STATEMENT BY  
JOHN J. DOHERTY, COMMISSIONER  
NEW YORK CITY DEPARTMENT OF SANITATION**

**OVERSIGHT HEARING: POST-STORM CLEAN-UP AND  
THE EFFECTS ON THE CITY'S HEALTH AND INFRASTRUCTURE  
BEFORE THE NEW YORK CITY COUNCIL COMMITTEES ON  
SANITATION & SOLID WASTE MANAGEMENT, HEALTH,  
ENVIRONMENTAL PROTECTION AND PARKS & RECREATION**

**THURSDAY, FEBRUARY 28, 2013  
1:00 P.M., 250 BROADWAY, 14<sup>TH</sup> FLOOR HEARING ROOM**

Good afternoon Chair James, Chair Arroyo, Chair Gennaro, Chair Mark-Viverito, and members of the City Council Committees on Sanitation and Solid Waste Management, Health, Environmental Protection and Parks and Recreation. I am John Doherty, Commissioner for the New York City Department of Sanitation. With me today is Bernard Sullivan, First Deputy Commissioner for Operations.

Thank you for this opportunity today to explain the Department's response to Hurricane Sandy, the most devastating storm to hit the City in recent history. As Sanitation Commissioner and a City resident, I am very proud of the hard work and dedication that the men and women of the Department showed during this trying time. Many of these men and women are from the City's hardest-hit communities and lost everything due to Hurricane Sandy, but they still managed to report for duty to their assigned work locations, working twelve hour shifts seven days a week and providing an unprecedented level of service and compassion to their fellow New Yorkers and, in many cases, their own neighbors.

The response to Hurricane Sandy by the men and women of the Department was immediate. On the morning after the storm, the Department was fully mobilized and was clearing the streets in all five boroughs of all storm-related debris to ensure safe passage for emergency vehicles. The Department also coordinated with the Department of Parks for the removal of wood debris to open the flow of traffic on streets that were impeded by fallen trees and branches from the storm.

Department employees worked tirelessly 24 hours a day, seven (7) days a week, with Sanitation workers assigned to twelve-hour shifts that lasted from the end of Hurricane Sandy through the beginning of December, in the City's impacted communities to ensure that all storm-related debris was picked up expeditiously. It was important for the Department to ensure that the residents of these areas, reeling from the devastating impact of the storm, felt some comfort in knowing that the seemingly endless debris placed out at the curb would be removed quickly to create a safe and clean environment, which would aide them in the process of moving on and rebuilding their lives.

During this massive clean-up, the Department utilized collection trucks, front end loaders and dump trucks to facilitate the removal of storm debris. In addition, Department equipment from other districts was temporarily re-assigned to the impacted areas to expedite the removal of the storm debris. The Department also coordinated with the Department of Transportation and several branches of the military for assistance with debris removal. Extra collection service was provided to NYCHA sites that had their containerized systems damaged, and the Department also provided collection service to special needs sites that were distributing important supplies and operating as feeding centers. The Department also assisted the Parks Department by removing over 2,700 loads of sand which we also helped return to the City's beaches after the sand was properly sifted. Additionally, public use containers were placed out by the Department in the impacted areas to allow residents in those areas to discard storm-damaged materials. At the height of the storm clean-up, the Department placed out over 100 containers, with roughly 30 containers remaining on site today.

The enormity of the amount of debris, coupled with the City's desire to remove such debris as quickly as possible, led the City to open seven (7) temporary debris storage and reduction sites for non-wood storm debris. These storage sites were selected from a pre-surveyed list compiled in 2006 by a multi-agency team comprised of the Department, the Office of Emergency Management, Parks, the Economic Development Corporation and the New York State Department of Environmental Conservation (DEC). These sites were located at Riis Park, Beach 52<sup>nd</sup> Street, Wolfe's Pond Park, Cedar Grove Park, Fresh Kills Plant 1, Fresh Kills Plant 2 and Father Capodanno Boulevard. Five (5) of these sites were cleared and closed by November 19<sup>th</sup>. All subsequent loads of storm debris were delivered to the temporary sites at Riis Park and Father Capodanno Boulevard.

The DEC issued a general permit for operating these temporary sites. The sites were staffed and managed by the Department up until November 9<sup>th</sup> at which point the sites were taken over by a contractor for the United States Army Corp of Engineers. Currently only Riis Park (which accepts loads from affected areas in Brooklyn and Queens) and Father Capodanno Boulevard (which accepts loads from affected areas in Staten Island) continue to operate as temporary storage sites. Debris that is delivered to these two sites during the day is generally shipped out that night. Currently these sites are still needed for storm debris collection operations.

In addition to establishing the temporary waste sites, the City entered into special contracts for the debris clean-up and disposal. More specifically, the Department entered into two (2) emergency contracts for transfer station capacity of construction & demolition (C&D) material. The Department also utilized an existing contract with a C & D transfer station operator for C & D disposal capacity. These contracts were used to deliver storm debris directly from street operations as well as from temporary debris storage sites. The Department also entered into three (3) emergency contracts with operators of putrescible waste transfer stations. These contracts were necessary due to the impact of the storm on our export network, including rail disruptions, transfer trailers having difficulty getting fuel, and the temporary loss of the Covanta waste-to-energy plant which serves Sanitation Districts in Manhattan. The Department also contracted for piling and hauling equipment/operators through the use of an emergency contract.



This equipment was used for piling and hauling debris from the affected areas as well as piling and hauling at the temporary debris storage and reduction sites.

As of February 24<sup>th</sup>, the Department has collected over 420,000 tons of Hurricane Sandy storm debris and over 27,000 tons of woody debris throughout the City. Residents in all areas impacted by Hurricane Sandy were instructed by the Department to place out all materials at the curb for ongoing collection. The Department also deployed personnel specifically to remove CFCs from discarded refrigerators and air conditioners in these storm-hit areas. To date, the Department has removed CFCs from over 3,700 refrigerators, air conditioners and other CFC-containing appliances prior to their collection, and collected 1,178 tons of metal that was recycled, all of which was generated in the storm-hit areas. These numbers are in addition to the Department's regular refuse and recycling tonnage collected, and CFCs removed from the rest of the City. The Department resumed curbside recycling citywide on November 11<sup>th</sup> after a short interruption of service due to the re-assignment of personnel in response to the storm clean-up.

Additional collections in the impacted areas remain ongoing and will continue until March 18<sup>th</sup>. The Department continues to remove non-commercial waste from homeowners engaged in small restoration and repair projects. However, homeowners who are undertaking large demolition and reconstruction projects must arrange for their own dumpster by contacting a private rubbish removal service. Because bulk and construction debris generated by hired contractors or fee-for-service personnel on home repair or renovation projects is considered commercial waste, it is the responsibility of the contractor to arrange for appropriate private disposal.

As of February 19<sup>th</sup>, the Department has submitted documentation for costs totaling \$95 million to FEMA. The total cost of the Department's Hurricane Sandy clean-up response is not yet available since our clean-up has not yet officially ended.

We will be happy to answer your questions after all of my colleagues have concluded their testimony.

FTR



**Oversight Hearing on post-Sandy Clean Up  
& the Effects on the City's Health and Infrastructure**

A joint hearing of the Committee on Sanitation, Committee on Environmental Protection,  
Committee on Parks and Recreation, & Committee on Health

February 28, 2013

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**Submitted testimony of New Yorkers for Parks**

New Yorkers for Parks is the citywide independent organization championing quality parks and open spaces for all New Yorkers in all neighborhoods.

**Assessing Damage & Reopening Parks**

In the days after Hurricane Sandy, with the entire park system closed to the public, DPR staff undertook the immense task of inspecting nearly 2,000 park properties, with the goal of reopening as many as possible by the weekend following the storm. Reopening New York City's parks was no small task. DPR maintains more than 29,000 acres of parkland across the five boroughs. The park system contains a stunning variety of spaces for play and leisure, including more than 1,700 parks and 1,000 playgrounds; more than 800 athletic fields and 550 tennis courts; 55 outdoor swimming pools and 12 indoor swimming pools; 33 indoor rec centers; and 14 miles of beach. DPR also manages zoos, nature centers, ice rinks, marinas, golf courses and sports stadiums. In addition to managing a vast property portfolio, ***DPR is also responsible for the maintenance of 2,000,000 trees within parks and approximately 650,000 street trees.***

**Tree Care: An Essential Service**

The damage to parks was extensive citywide – more than 14,000 downed or damaged trees and miles of boardwalk washed away on the Rockaway Peninsula. In the two weeks after Sandy, DPR received more

than 24,000 tree service requests from residents across the city. The proper care and prompt attention to tree health is essential to ensuring the safety of people on sidewalks and roadways, the structural integrity of public and private property, and the free flow of traffic. Given DPR's responsibility for maintaining public safety, ***it is clear DPR is providing an essential city service, and it should be funded accordingly.***

### **The Impact of Volunteers**

New Yorkers for Parks staff visited dozens of parks across the five boroughs in the aftermath of the storm, and with a few exceptions along the waterfront, we found them to be in good shape despite fairly extensive tree and limb damage, which DPR was quick to begin addressing. On a trip to Brooklyn's Sunset Park one week after the storm, we found raked lawns, clear pathways and no visible debris from damaged tree limbs. Flyers throughout the park announced a cleanup that had taken place earlier in the week, underscoring the critical role that volunteers played in park recovery citywide. More than 3,800 volunteers helped out the weekend after the storm. According to DPR, "volunteers collected more than 14,000 bags of debris, filled dozens of truck beds, front end loaders and dump trucks, cut up broken tree limbs and large trees, removed debris from trees and raked up leaves and compost." By mid-January the number of volunteers had nearly doubled, with Parks crediting 7,000 people, working at more than 50 sites across the city, for the removal of nearly 23,000 bags of storm debris.

New Yorkers for Parks staff conducted a block-by-block survey of the parks and open spaces across the Coney Island Peninsula on November 9 and created a priority list of clean-up needs to help match NYCService volunteers to appropriate sites. The force of the storm deposited sand and debris throughout Coney Island parks, including many playgrounds located within NYCHA sites, and caused extensive damage to play equipment, safety surfacing, and trees.

### **The Future**

While immediate issues like tree removal have been addressed, we are only beginning to understand the extent of other damage, such as the effect of sea water on plant life in waterfront parks. And DPR is still assessing how to address other post-storm maintenance concerns. For example, what will become of the tree stumps left behind after the removal of downed trees? With a limited stump removal budget, will the effects of the storm dot the park landscape for years to come?

We applaud DPR for its quick response to the storm's immediate cleanup needs, but we are eager to engage in discussions about long-term maintenance demands, as well as big-picture thinking about park planning and design. The two go hand-in-hand: the protective benefits of wetlands and natural areas on the waterfront have been widely recognized since the storm, but even those areas require monitoring and ongoing care. We're encouraged by the formation of the nascent Natural Areas Conservancy, created in partnership with the Parks Department, and hope the group will play a critical role in both drawing attention to the issue and convening stakeholders – the City, elected officials, civic organizations and community groups –to chart a way forward for a reliant post-Sandy parks system.



Testimony

of

**Daniel Kass, MSPH, Deputy Commissioner**

**New York City Department of Health and Mental Hygiene**

before the

**Committee on Sanitation and Solid Waste Management jointly with the Committee on  
Environmental Protection, the Committee on Parks and Recreation, and the Committee on  
Health**

on

**Post-Storm Cleanup and the Effects on the City's Health and Infrastructure**

February 28, 2013

250 Broadway  
New York, NY

Good afternoon Chairpersons James, Arroyo, Mark-Viverito, and Gennaro, and members of the Committees. I am Daniel Kass, Deputy Commissioner for Environmental Health at the New York City Department of Health and Mental Hygiene. I am joined today by Dr. Thomas Matte, Assistant Commissioner for Environmental Surveillance and Policy, and Christopher D'Andrea, the Acting Director of the Environmental and Occupational Disease Epidemiology Program. On behalf of Commissioner Farley, thank you for inviting me here today to discuss the impact of Hurricane Sandy on the City's environmental health.

We are here to discuss aspects of the City's preparation and response to several concerns related to the hurricane, and the Department's role in monitoring and responding to several conditions. And before I go any further, I want to thank the City Council for their partnership during and after the storm; this was a significant natural disaster, and we appreciate your leadership during this time of crisis.

Hurricanes have occurred with regularity in southern coastal states, and the lessons for environmental health have been instructive for our own preparation and response. New York City's Coastal Storm Plan anticipates a variety of potential health concerns and environmental threats, and our Department began its preparation to assess and respond to those once the national weather forecast predicted the potential for significant storm surges.

The Division of Environmental Health is responsible for oversight of several areas that were anticipated to be affected by Hurricane Sandy. These include: the prevention of poisonings and chemical exposures, the prevention of foodborne illness, the control of rodents, the prevention of hypothermia and the surveillance of ambient air quality conditions. In addition, the Division provides guidance on mold assessment and remediation.

The power outages that often accompany hurricanes have led, in other areas, to significant death and morbidity from carbon monoxide poisoning, usually from the improper and unsafe use of gasoline powered generators during power outages. Anticipating these concerns, the Department issued its first warnings and public alerts on the day of the storm to avoid using generators indoors and near windows. For this, and the other areas of environmental health concerns, it accelerated its surveillance of conditions, monitoring calls to the NYC Poison Control Center, and reasons for visits to emergency room visits and hospitalizations. These messages on how to prevent carbon monoxide exposure were regularly emphasized throughout the response to Hurricane Sandy, and were supplemented by the creation and dissemination of a variety of fact sheets. Carbon monoxide exposure continued to be a concern for homes affected for long periods of time by the loss of heat, even as power was restored to the grid in all of the affected areas. In many of these homes, people resorted to using gas ovens and stoves to heat their homes.

Carbon monoxide calls and emergency department visits increased after the storm and in early November there were several severe cases of carbon monoxide poisoning. However the overall rate of carbon monoxide calls and emergency department visits declined dramatically after that time. In New York City, just one carbon monoxide death in early November was related to using a stove for heat. This is in contrast to several carbon monoxide deaths reported in nearby states following Sandy and in southern states following hurricanes Katrina, Rita and Ike.

Hurricanes are also frequently associated with outbreaks of foodborne illness. These occur from the consumption of food that was not kept properly refrigerated, prepared in conditions that result in contamination from flood waters, or from the transmission of pathogens in congregate settings. The Department, anticipating these concerns, again issued notices to the public and to food service establishments on the day of the storm to refine our instructions and guidance. On the day after the storm, the Department posted a notice and distributed to restaurants in affected areas facts on how to properly dispose of food and how they may safely operate under conditions of limited power. Public health sanitarians were deployed to each of temporary shelters to supervise food service. They remained there until the shelters were closed. Sanitarians also were deployed to lower Manhattan, Staten Island, Brooklyn and Queens to offer assistance to restaurants that were cleaning up and restarting their operation. Graded inspections and notices of violation were suspended in these areas through the end of 2012. We are pleased to report that there were no known occurrences of foodborne illness outbreaks in New York City associated with Hurricane Sandy.

A day after the storm, we reassigned sanitarians and exterminators from our rodent control program to survey conditions in the flooded areas of the City. We did not initially find that there were significant changes in conditions – if anything there were fewer outward signs of rats, as storms often reduce the rodent population. While we suspended the issuance of notices of violations, we continued our work of notifying property owners when signs of rats were found, and we exterminated free of charge where appropriate. Our neighborhood surveys also helped to identify areas where there were significant accumulations of waste that had the potential to attract rats. We also saw an overall decline in pest control related complaints in the months after the storm. We will respond to complaints and assess whether neighborhood specific increases reflect a longer term trend. We continue to monitor 311 complaints and deploy our staff to respond.

Hurricanes have the potential to affect the respiratory health of the public in a variety of ways. Hurricane Sandy coincided with the expected seasonal increase in respiratory viral infections, which exacerbate asthma and other chronic respiratory conditions. At the same time, damage caused by the storm made it more difficult for some of these people to access healthcare and prescription medications. In addition, some people in heavily damaged areas were living without heat, which can exacerbate respiratory health problems. Some were exposed to irritants, including dust produced from home repairs, cleanup and debris removal, mold growth caused by wet and damaged building materials, fumes and gases from using stoves and portable gas heaters for heat, and strong cleaning products.

In the immediate aftermath of the storm, from October 30 through November 2, DOHMH analysis of emergency department visit data showed an increase in visits for asthma and other respiratory complaints in the storm inundated areas of the City, which within days returned to the level expected for the fall season. As the annual flu season arrived around mid-November, emergency department visits for influenza-like-illness increased across the City before peaking in January.

The City continues to respond to these concerns in a variety of ways. In the immediate aftermath of the storm, the City distributed fact sheets in neighborhoods letting people know where

pharmacies were open. It worked with chains and payers to waive co-pays to encourage timely refilling of prescriptions. Health Alerts were issued to providers throughout New York City on respiratory health concerns and the risks of living in cold. At the same time, the City worked to restore essential building systems in public housing damaged by the storm and in privately owned residential buildings.

As recovery efforts from Hurricane Sandy continued, some homes in the hardest hit areas remained without heat. As the winter months approached, the Mayor warned New Yorkers that prolonged time in apartments or homes without heat can cause hypothermia and exacerbate heart disease and other medical problems, especially infants, the elderly, people with chronic diseases and people with mental illness or substance abuse problems. Dust and air quality conditions outdoors in neighborhoods have been monitored since early after the storm. The New York City Department of Environmental Protection began air monitoring at debris piles to check dust levels and the presence of asbestos, a concern since basement materials were being cleared out and disposed of. Asbestos was rarely found in samples, and when it was, it was below levels of concern set by the federal government. Ambient air quality is routinely monitored by the New York State Department of Environmental Conservation through a network of air samplers, but few of those are located in areas directly impacted by the storm. New York City agencies worked with the state to place additional stations in Lower Manhattan, in the Rockaways, and Staten Island. Our Department deployed additional lamppost-mounted air sampling devices as part of Community Air Survey work into the Rockaways, Coney Island and Staten Island as well. We also sent teams of technicians into these areas to monitor particulate levels using handheld devices at various times after the storm.

All of the sampling results by city and state agencies are posted to the web, and we summarize all of the findings on our Hurricane Sandy Health portal. In general, we have found that outdoor air quality in residential areas was not adversely impacted by the storm or recovery operations. Higher traffic and construction activities can generate additional dust, and essential generators and boilers can create additional street-level emissions, but levels in impacted communities have been within the range of conditions found across the City.

As communities continue to rebuild, we remain concerned about the safety and efficacy of reconstruction. Floods leave behind extensive damage to homes long after the waters have receded. Wet building materials and household furnishings support the growth of mold in homes. As you may know, the Department of Health was the first in the nation to issue mold remediation guidelines, back in 1993. These guidelines continue to be models for other federal, state, and local agencies. The lessons learned over decades of guidance on mold demonstrated to us the importance of early warnings about how to respond to floods. Mold can be prevented and addressed best by ensuring that saturated porous building materials and belongings, such as sheetrock, insulation, carpeting, upholstered furniture, and clothing, are removed. Mold itself can be cleaned off from hard surfaces and structural wood components. Before reconstruction can occur, it is critical that all building components be entirely dry. We have also recommended the use of mild bleach solutions to help disinfect surfaces and materials that were wetted with flood waters.



The Department issued its first mold guidance for Hurricane Sandy on Sunday, October 28, the day before the storm, on the agency's website. Mold-safe guidance was distributed in print form in the days immediately following the storm at the FEMA centers and later at the restoration centers in all affected areas. Fact sheets were distributed in-person, or under the doors of tens of thousands of homes during the City's canvassing operations and posters with instructions for safe flood and mold cleanup were put up in gathering spots in the impacted areas. We met with volunteer organizations, such as Occupy Sandy, to train volunteers and began attending community meetings during the early recovery stage to share guidance. To date, DOHMH has participated in 25 community meetings to provide mold related information to residents in affected areas. Department of Health staff trained on mold prevention and remediation was available every day for more than two months to answer questions at the City's Recovery Centers.

The Department recommends the use of N-95 respirators or better for people involved in reconstruction and mold removal. To date, more than 286,000 respirators have been distributed in communities through volunteer organizations and to individuals. As I mentioned earlier, we continue to monitor health conditions that could be associated with Hurricane Sandy. Reconstruction activity is likely to continue to contribute to indoor dust exposure, but we have not seen unusual numbers of people with severe respiratory symptoms in emergency rooms or hospitals, either in the affected areas or elsewhere in the City.

Mold remediation will be ongoing. We have been working with the Mayor's Fund to make mold remediation training available throughout the affected areas. A contract was awarded to Hunter College and the University of Medicine and Dentistry of New Jersey to conduct more than 70 three-hour trainings to homeowners, volunteers and contractors on proper mold assessment and remediation using a curriculum based largely on the City's mold guidelines and approved by our Department. I'd like to thank the Council Members who have been helpful in identifying training locations and promoting them to your constituents. The Mayor's Fund, along with the Robin Hood Foundation and the Red Cross, are also supporting the direct remediation of homes through a contract with the Local Initiative Support Corporation. LISC is subcontracting with volunteer organizations and contractors to carry out this work. The Health Department will help monitor this activity and provide technical guidance as it begins.

The ongoing recovery will pose challenges, with many people still occupying residences without heat and undergoing construction. The lessons learned from other hurricanes helped inform New York City's preparation and rapid response to the storm, helping to reduce the potential for significant environmental health threats. We are happy to answer your questions. Thank you.

Dear Mr. Altman and participating committee members,

Thank you for inviting me to participate in this hearing to discuss the Post-Storm Cleanup of Hurricane Sandy and the effects on the city's health and infrastructure.

Time is limited and I would like to briefly introduce who I am and describe the small business I own, N.Y. Indoor Air Quality Solutions.

NY IAQ Solutions began when I felt there was critical need to responsibly diagnose the link between the increase in the rate of asthma over the past 40 years and our indoor air quality. I have an engineering background, an MBA in Health Care as well as many licenses which validate my business model of inspecting and diagnosing buildings for adverse indoor air quality. There has been an abundance of peer reviewed articles and university studies which implicate that elevated mold and damp buildings are responsible for exacerbating many harmful health conditions.

Why I have been chosen to participate in this hearing is not to debate the health effects of mold but to convey what I have seen firsthand in the field when inspecting and remediating the many buildings that were flooded during the hurricane and to offer guidance. From the very beginning, the media has been disseminating erroneous information to the public on best practices to prevent or eliminate mold. In fact, much of this information served only to put the many volunteers and building owners in further harm's way by suggesting bleach is an effective biocide or not properly explaining the health risks of performing demolition without the proper personal protection equipment. I have witnessed church group volunteers gutting homes with the bare minimum paper masks or no masks at all and pulling down what they did not understand to be dangerous asbestos insulation. I have seen square shovels and ice scrapers being used to scrape off the nine inch square asbestos floor tiles fracturing the tiles which then disperse asbestos fibers. Plaster walls, popcorn ceilings and ornamental moldings made with plaster post 1920's may have used asbestos fibers as a binding agent. Homes built prior to 1978 may have had lead in their paint and by demolishing these homes interiors without proper containment to protect unaffected areas; lead dust certainly has contaminated many of these residences.

The silence by our public officials to warn the public that by improperly demolishing these homes is akin to the many volunteers who worked post 9/11; we put many people at considerable risk for serious health years down the road. The initial frenzy after the storm was to gut the homes from the water line down. If the home stayed wet for more than 48 hours mold grew on the structural materials behind the sheetrock, in-between the subfloors and the hardwood floors, under the homes with crawlspaces and on the joists and foundations. Just go to the CDC web site and try to get information on how to remove/remediate mold and you will find that they advocate using bleach on hard surfaces only and discarding porous items. Yes that advice is correct but confusing to a lay person. My question is what is a wall stud behind the sheetrock? It is porous. What is a foundation wall, it is porous. I can go on but I believe I made my point. There is a vacuum of relevant and accurate information on how to properly treat mold in flood and storm damaged homes, primarily in the question of what is lurking behind all of the walls. Where on the CDC or EPA web site does it explain the proper way to remediate mold on the building's structure? I have been called in to remove mold after contractors with no experience buy box store "mold control" products or "mold killers" only to find out these products do not kill the root growth of fungi on porous items. Storm chasers as I call them; companies from out of state rush to disasters such as Hurricane Sandy and take advantage of those who

believe they are having a reputable mold service perform remediation. What they actually received was a company rushing from home to home to spray ineffective chemicals and then never adequately drying out the structure. The home owner believes all is good and begins to re-insulate and install new sheetrock. The walls and foundations unfortunately hold too much moisture and the mold will now flourish behind the walls of these homes.

To properly remediate, containment must be used to protect areas of the home which are not contaminated. Mold must be removed, not just sprayed. Viable and non-viable mold spores are equally allergenic and must be removed. Effective remediation involves hepa vacuums, proper biocides, manually scrubbing structural items and rinsing them with fresh water and a disinfectant. No rebuilding can occur until the structural materials have been properly dried out and verified with moisture meters.

Another injustice that flood victims must endure is that FEMA flood insurance does not cover mold. How is it that the CDC states on its web site that mold will grow within 48 hours and yet, we know that Sandy victims had no electricity or resources to dry out their homes within that 48 hour time frame? It's inexcusable that FEMA will not cover one of the most crucial needs of the rebuilding process, namely mold remediation? The negligence of our government officials to protect the public health when they fully know the link between excessive mold and the exacerbation of asthma and many related medical conditions is reprehensible.

The last topic I would like to bring to your attention is the important need for all local government entities to consider the regulation and licensing of the mold remediation and mold testing industry. There is a great need to protect the many victims of unscrupulous mold remediators. Currently NY State has no requirements for licensing. Peruse many mold company web sites and you will find countless companies touting what appear to be genuine certificates that are obtained on the web by paying 350 dollars and taking what amounts to a mold course and test which no one can fail. Regulation and licensing of the mold remediation and testing industry would hold great value as long as the bar to pass an exam were held to the level of accredited college courses or thereof. Considering that our families' health is at risk if remediation is done improperly, it's imperative that properly trained people, with validly earned certification, be readily identifiable to each needy homeowner. Too many times I have seen or have been part of taking a licensing course or exam where the objectives of the municipality seem to focus more on the revenue side that the license generates, than making sure those who hold the license are adequately trained. Regulation is not easy since there are no government standards which define elevated or non-elevated interior airborne mold spore counts. What we need to address is that even if we don't have concrete metrics on what defines healthy mold spore standards, we can agree that there are proper ways to remediate what the EPA defines as visible mold or mold which you can smell. Mold is ubiquitous however the effects of Hurricane Sandy will allow mold to permeate our homes in dangerous, excessive and disproportionate levels to the outdoor environment. We as a community need to properly address the excessive mold that will structurally damage our buildings and increase many adverse health effects.

Thank you.



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## Oversight: Recovery: Post-Storm Cleanup and the Effects on the City's Health and Infrastructure

Testimony of Jessica Roff, Restore the Rock/YANA (You Are Never Alone)/Occupy Sandy; 2/28/13

Good afternoon, and thank you for this opportunity to testify. My name is Jessica Roff, I am from Brooklyn NY, and since the Thursday after Sandy, I have been a full-time volunteer in the Rockaways with Restore the Rock, YANA (You Are Never Alone), and Occupy Sandy. I also testified at the January 16, 2013 hearing on emergency preparedness, so I refer you all to that testimony as well.

There are so many issues and shortcomings, as you well know, with the City, State, and Federal responses to Superstorm Sandy. And, the fact that nearly four months later, dozens of us are still serving as full-time volunteers every day in the Rockaways, Staten Island, and New Jersey is a good indication of that fact.

There are three main issues I would like to address: first is the mold public health crisis that continues to wreak havoc on Sandy-affected communities. Mold is perhaps the biggest indicator of where the official emergency response broke down; and the fact that it took the city three months to acknowledge that the mold problem was significant enough to address is shameful – offering to address it for 2000 homes would be laughable if it didn't make you want to cry. A major factor contributing to the wide-spread mold problem in the Rockaways and other places is the fact that people have limited access to information and specifically that renters have no recourse to address storm damage or to seek repairs through any government program. The power is completely in the hands of property owners, and at least in the Rockaways, that includes a huge number of, at minimum, unresponsive landlords and at worst complete slumlords. Renters unable to get help with demolition, fixing boilers, hot water heaters, and electricity are forced to live in unhealthy and downright dangerous situations. The mold problem could be far less significant if more people knew that they had to take down their sheetrock and other saturated parts of their homes and if there were a concerted effort to remediate the mold. Of course, the preliminary step to all of that is accurate information, which was scarce at best throughout the affected areas. In fact, in most cases the completely wrong information was disseminated by all levels of government and organizations like the Red Cross, which has also compounded the public health crisis.

As volunteers we work with anyone who needs help, and we help as many people as we can. I highly encourage all levels of government and non-governmental organizations to provide resources to volunteer organizations like ours -- that emerged in direct response to the storm -- moving forward. It was because we were newly created and lacked bureaucracy and red tape that we were able to be so effective, and in future disasters I hope that other less nimble organizations will do a better job of supporting such actions and even following our/their lead.

The second issue I want to talk about is overall health and mental health, both in the clinical and the non-clinical sense. The actual government medical response was woefully lacking to this storm. We at Occupy Sandy had already set up an all-volunteer medical clinic, canvassed vast swaths of the peninsula, provided medical care, mental health care, and filled and distributed prescriptions before the Department of Health even arrived in the Rockaways. Even as we were doing it, we realized the insanity of that reality. I have no idea where the City, State, or Federal mobile medical response was, but it wasn't in the Rockaways. Mental health issues are even more sweeping and less frequently or comprehensively addressed. People in many of the affected communities like the Rockaways were underserved, underrepresented, and underfunded even before the storm. Sandy just compounded

those and many other issues. Plus, after Sandy, thousands of people were/are also dealing with Post Traumatic Stress Disorder, probably many of the relief workers were/are too. These issues generally need to be addressed, but I want to highlight another aspect of the problem: dislocation. I heard a lot about this issue after Katrina, and yet, it seemed to be completely ignored once again after Sandy. Survivors of this storm already had their lives ripped apart and then, government assistance programs revolved around moving people miles from their homes, their communities, their families, their kids' schools, and maybe their jobs. That is something that destroys communities and is a major stumbling block to rebuilding. So, people have to choose between isolation and dislocation or living in unsafe and unhealthy homes. It is a lose-lose situation, and we need to have a better solution. We had heard that RED HORSE (Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers) housing was available to deploy to the Rockaways and that the Mayor blocked it. That is not acceptable.

The third issue I would like to address is energy infrastructure. Our current systems continue to fail us in storm/crisis situations, in their lack of sustainability, and in adding to the climate crisis. The City's dependence on fossil fuel, an obsolete grid, and at least for the Rockaways – LIPA, will continue to put the City, the State, the Country, and not to overstate things, but the Planet, in a position of weakness and lack of preparedness. There are still people living in the Rockaways without electricity, heat, hot water, or some combination of the three. This is a critical fact about which much of the City is blissfully ignorant. And, this is not okay – it too is shameful. If we transition to a smart grid, we would be in a much more productive energy situation. A smart grid has greater built-in flexibility, is more responsive to use and need for energy, and allows for distributed energy (community generated energy such as solar and wind). In NY, distributed energy would require an amendment to New York State's Public Service Law, PSL 66., (or at a minimum an exemption for the Rockaways and other Sandy-affected communities). It would go a long way if the City Council would support such a change.

If we run educational programs about renewable energy and build out local distributed renewable energy systems, communities such as the Rockaways would generate their own power and feed some of that power back into the grid thereby generating resources for the community. If some of that energy came from off-shore wind farms, those turbines would also help cut down on the speed of wind reaching the shore by up to 30%, limiting on-shore damage. And most importantly the energy would be coming from clean, safe, local sources. In the event that the power went out, people from the community itself would go back to work literally rebuilding and repowering their own community, immediately. If the plan included large capacity storage, it would be even more effective. We cannot rebuild this city and not do it sustainably. If we continue to rely on an antiquated energy system that contributes daily to rising sea levels, and continue to build out an infrastructure that relies on fossil fuels, including toxic shale gas (greenwashed to be called "natural gas") like the Spectra and the Rockaway Pipelines (which, by the way, snuck through Congress literally under the cover of darkness when more than half the Rockaways still had no power) we are sealing our own fate. We must make those changes now by investing in renewables and we can transition our fossil fuel infrastructure to a renewables-based infrastructure in 20-40 years. See "A Plan to Power 100 Percent of the Planet With Renewables" in *Scientific American*; "Providing all global energy with wind, water, and solar power, Parts I & II" in *Energy Policy*, both by Mark Z. Jacobson & Mark A. Delucchi.

I truly hope that New York City will take this opportunity of rebuilding from Sandy to rebuild better stronger, smarter, and as a leader in sustainability and the world of renewable energy. Thank you for your time.



FTR

February 28, 2013

Madame Chairwoman/Mr Chairman, distinguished Council Members and colleagues:

My name is Amy Freitag and I am executive Director of New York Restoration Project, the only city wide greening conservancy focused on high need communities. On behalf of our staff, trustees and founder, Bette Midler, I am very honored to be here to testify today.

As many of you know, we have been in the business of supporting Parks, gardens and tree planting in high need neighborhoods for the past 18 years. For each of the past three years of my tenure with NYRP, New York City has been battered by record-breaking storms & severe weather events. In each case, NYC Parks has done an excellent job of not only responding to the emergency, but helping partners like NYRP to provide focused and quick support to the parts of the city that needed it most. For example, after the tornados of 2010, we asked Parks where they most needed our help, and they responded quickly and clearly. Only 90 days after the storm, NYRP raised the funds needed and restored Maria Hernandez Park in Brownsville, and six months later, MacDonald Park in Queens. Similarly, after Hurricane Irene, we worked with New York City Parks as their MillionTreesNYC partner to reforest parks like Cunningham where massive tree loss took place.

Hurricane Sandy radically impacted our work and underscored the vital importance of safe, healthy green space for all New Yorkers. The scale and force of Hurricane Sandy was a much greater test of our collaboration and partnership. Once again, Parks was a solid partner: opening critical roads, marshaling emergency contracts to re-open large parks including badly damaged Fort Tryon where we operate a vital park concession, the New Leaf Restaurant.

Under Parks's leadership, we provided crews and staff to open small parks like Landing Lights Park in Queens while Parks focused their resources on road opening and other street tree emergencies. Parks forestry staff were truly heroic in those days following the storm and did everything they could to keep people safe and parks accessible.

Over the past several months, Park staff in Rockaway, Staten Island and Brooklyn have been at the ready to join us to survey project sites where we can direct our storm recovery funding and corporate volunteers. The best private support in the world cannot be effective without a strong public partner and Parks has been exceptional in providing us guidance to ensure our efforts are well directed on park land.

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Similarly, our partners at the New York Housing Authority have been extremely receptive and supportive of our efforts to restore much needed trees on public housing sites. Through the MillionTreesNYC Initiative, we have planted 1,200 trees on NYCHA sites and we recognize many more trees are needed to restore the properties damaged by Sandy. These sites will also be a focus of our storm recovery efforts.

Moving forward, I believe our collaboration will need to be even more agile and widespread. NYRP is the only non-profit that works across all land jurisdictions to improve the public realm in high need communities. We seek partnerships with every city agency that holds and maintains open space in these neighborhoods. For example, we are partnering with DEP's green infrastructure program to ease storm water problems in the Gowanus Section of Brooklyn with our renovation of Gil Hodges Community Garden. This will be the first community garden in the city outfitted with storm water control systems, demonstrating there is much more that can and must be done to build a resilient NYC at the neighborhood scale. Together with our partners at the Parks Department, we have about 335,000 trees left to plant to meet our MillionTreesNYC goal – this is essential green infrastructure that will make our city more storm resilient. NYRP remains firmly committed to working alongside the Parks Department to complete this vital initiative.

Thank you for this opportunity to testify. We look forward to working with each of you in the coming weeks and months to help build a stronger, more resilient New York City.

Amy L. Freitag  
Executive Director  
New York Restoration Project

Oversight: Recovery: Post-Storm Cleanup and the Effects on the City's Health and Infrastructure,

February 28, 2013

Testimony of Terri Bennett, Co-Director, Respond & Rebuild/Occupy Sandy

Good afternoon Mr. Chairman and members of the City Council. Thank you for this opportunity to address these important issues in the Sandy clean up efforts.

My name is Terri Bennett. I live in Brooklyn, and I've been working as a disaster relief volunteer with Occupy Sandy since October 31st. I'm also a co-director of Respond & Rebuild, a disaster relief collective that pumped out and gutted homes, and now provides free mold remediation services in the Rockaways. We have also waged a public health campaign regarding the threats of mold and what residents can do to mitigate that threat.

We work closely with Sandy affected families in the Rockaways, and we've been in hundreds of homes that have been gutted to their core, where homeowners are waiting to rebuild from scratch. When we arrived it became clear that because our region has been spared extreme weather like this in the past, residents did not know what steps to take, and their state of shock was compounded by the lack of information available to them.

I know my time here is limited so I'm going to try to be quick in listing a few areas where information was nearly non-existent, and which contributed to residents' feeling of abandonment when Sandy hit. I want to talk about mold remediation first because this is the area of the recovery efforts I've worked in most closely since the storm. It's a big issue which, if not dealt with, will make many residents sick and will drive many residents from their homes. We know that the City is helping to fund remediation in 2000 homes, but we also know that more than 8200, or 73% of buildings were flooded in Rockaway alone, and that these efforts will not be enough to mitigate health effects or displacement.

1. In the world of disaster management, the fact that dangerous mold growth will accompany any severe flooding like this is well known. It's also well known that if a home is not pumped out and dried out in 48 hours, it will have to be gutted. We knew this going into the relief efforts, and we were shocked that reliable information for residents was completely lacking. The information that did exist was online, and this was useless to people living without power or internet. Surely most of us can remember the days of disseminating information in non-digital forms, whether that means flyering or canvassing, but this never happened in a timely way. For those who did have some internet access, there was also the issue that much of the information online was conflicting. Depending on what website you looked at, the EPA, DOH, FEMA, etc., the "facts" about what should be done were all different and or just wrong. To this day we are encountering homeowners who followed the instructions to wipe down surfaces with bleach, and who are seeing mold return AFTER spending thousands of dollars rebuilding. This causes unnecessary pain and costs people a lot of money.



Getting accurate information about this did not have to be hard. In our case we worked with CUNY School of Public Health and LIU professors, as well as the DOHMH, and flew in a specialist who worked on mold issues after Katrina. We did this as just a group of concerned citizens, with almost no resources other than what was in our pockets. The resources needed to provide accurate safety information about mold were readily available, but there seemed to be no official effort on the part of City agencies to deal with this for months. When at 5 weeks in we started holding public forums to get proper information out, we heard comments like, "Thank you guys for doing this. It's really helpful. But where the hell is the City?"

I'd like to add that the process of safely removing mold and preventing its regrowth requires that all areas of a home that were saturated be completely gutted down to the structural elements. Renters of course, many of whom had not been contacted by landlords even a month after the storm, had no recourse, as they don't have the legal right to make structural changes to their home. To my knowledge there was no awareness campaign geared toward renters or toward NYCHA residents, many of whom still have not had their mold addressed today. There are also a large number of homes in foreclosure in affected areas, and the people living in these homes, whether renters or owners, were at a loss when trying to figure out who "owned" their home and how to proceed with repairs.

Also, as homeowners DID begin to gut their homes, they were in need of information about asbestos: how to identify it, what to do with it, how to dispose of it. This information was not widely accessible for quite some time.

2. There was also no information about more immediate toxic threats. Some residents experienced oil spills in the basements of their homes or businesses. Groups like ours could not simply pump contaminated water into the nearest storm drain, but there was no information available about what we COULD do, or even who to call, if someone was lucky enough to have phone service. In one circumstance, the owner of a laundromat had experienced a large spill from his oil tank. I tried to get information from NYPD, FDNY, National Grid, the National Guard, DSNY, and no one on the ground had information about who to call. It ultimately took this man about two weeks to find the right agency to talk to. I'm not under any illusions that this one incident would have been anyone's priority HAD we been able to point him in the right direction, but not having any idea what to do, and having literally no where to turn made people like this feel entirely abandoned by their government, and in danger.

3. Some people could afford to hire contractors right away, but in many cases workers flooded in without basic knowledge about how to protect themselves in a flood zone. Many wore substandard masks, if they were wearing masks at all, and many had no idea that they were dealing with mold and other hazards and that they needed to protect themselves. It has not been a challenge for grassroots recovery groups to get access to proper personal protective equipment, even for free, from various sources throughout the City, and we've made great use of these tools to keep ourselves, our volunteers, and residents safe. But the workers were often left behind.

4. By now most of us are likely aware of the complaints about Rapid Repair, but it's necessary to re-examine these issues as well. Many residents experienced long wait times and work that was not up to code. On our end, we witnessed workers with Rapid Repairs doing work in places that presented a number of safety hazards, with little to no personal protective equipment. On more than one occasion, Rapid Repair crews saw our teams working with P100 respirators, goggles, and Tyvek suits, and asked to borrow some of our equipment, because they had none. While we were happy to share our resources to help protect workers, we were shocked that the companies contracted by the Rapid Repairs program did not provide these basic supplies, therefore jeopardizing workers' health.

5. We also know that residents feel like they are getting mixed messages from public officials. While on the one hand residents read about Cuomo's plan to buy out homes in coastal areas to encourage residents move off land that "belongs to mother nature," when the City-run Rapid Repairs workers re-install boilers, water heaters and electrical panels in the same exact places they were before the flood destroyed them, residents are left confused. On the one hand, government officials seem to be acknowledging that we can expect more storms like Sandy due to climate change. On the other, the City is pouring money into doing things the same old way. Residents ask why Rapid Repairs didn't raise their electrical panels up further. Why they couldn't raise their boilers up off the basement floor. While people are in desperate need for the kinds of things Rapid Repairs does, there was no effort made to do things in a more resilient way, and this has left those trying to rebuild, or deciding whether to rebuild, very confused. In the coming years, we may also see that this oversight wasted a huge amount of taxpayer dollars, as more destroyed appliances wind up in our landfills.

6. There was also confusion among Spanish-speaking residents who had services done that they did not understand, because no translation was available. I've spoken to these residents, and I've found out that they think they've had mold remediation done and that it's safe to rebuild because someone entered their home and sprayed something on the mold before they worked. While we know some contractors do this to reduce the amount of spores in the air as a safety mechanism, this does not mean that the mold has been abated, and it does not mean the home is safe to live in. There should be some level of accountability on the part of those doing work to be sure that residents understand what is being done, and to date there has not been. These leaves already vulnerable populations more vulnerable and it's dangerous.

Preparedness for future disasters will necessitate much greater coordination of information, and a plan to disseminate information in a coordinated and effective way. Various government agencies need to be on the same page about safety and other protocol BEFORE the next disaster, so that as communities struggle to rebuild, they can do so safely, with more trusted information, and do so in more sustainable, resilient ways. Here, many agencies can take the lead from grassroots groups, which, when the power went out, knew how to get information out the old fashioned way, by using our feet and talking to affected residents.

**Testimony of Angela Licata, Deputy Commissioner for Sustainability, and  
Kathryn Garcia, Chief Operating Officer  
New York City Department of Environmental Protection**

**Committees on Sanitation and Solid Waste Management, Health and Mental  
Hygiene, Environmental Protection, and Parks and Recreation  
Council of the City of New York**

**Oversight - Recovery: Post-Storm Cleanup and the Effects on the City's  
Health and Infrastructure.**

**Thursday, February 28, 2013  
250 Broadway**

Good afternoon, Chairpersons James, Arroyo, Gennaro, Mark-Viverito, and Members. I am Angela Licata of the New York City Department of Environmental Protection (DEP), and I am joined by my colleague Kathryn Garcia, our Chief Operating Officer. Thank you for the opportunity to testify today on DEP's role in the City's recovery from Hurricane Sandy.

One of our main concerns prior to the storm was our wastewater treatment plants and infrastructure. Beginning on October 26, three days before the storm, DEP took measures to prepare for storm impacts. These included sandbagging plants and pumping stations, fueling emergency generators, topping off all fuels, chemicals, and supplies, tying down loose equipment, releasing water from certain dams, and suspending construction activities. We scheduled staff for double shifts, pre-positioned mobile generators and pumping equipment, made arrangements with contractors to provide as-needed services, and performed training drills on power-down, evacuation, and sheltering procedures in the event of flooding, and prepared additional communications capabilities. Finally, we moved our in-City Emergency Communications Center to higher ground.

We are all familiar with the devastating impacts of the storm, which brought surprisingly little rain but fierce winds and an unprecedented tidal storm surge. At its peak of nearly 14 feet at the Battery, the surge was nearly four feet higher than the previous record. Our wastewater treatment plants are located on the waterfront for the discharge of treated effluent into the harbor, so we knew a good number of them would be affected. Ten of the 14 treatment plants had some degree of damage, with Rockaway being the most affected. Forty-two of our 96 pumping stations, which help deliver wastewater in the sewer system to the plants, were also damaged. Of those 42, the Manhattan Pumping Station at 13th Street

seawater out. Ultimately, 200,000 linear feet of sewers throughout the City were cleaned.

Many residents were concerned about hazardous waste. To identify any impact on our waterways from Superfund sites, local federal officials assessed 142 remedial sites in the New York/New Jersey area that are under federal jurisdiction and concluded that none of the sites were affected in ways that would pose a threat to nearby communities. Of specific interest to DEP was U.S. Environmental Protection Agency (EPA) Region II's sampling at flooded areas near Newtown Creek and the Gowanus Canal. On October 31, EPA took four samples from the Canal and from the ground floors of two buildings that had been flooded. One of the buildings is located at the head of the canal, and the other near the 3rd Street turning basin. The results showed high levels of bacteria, and EPA recommended that residents take precautions when cleaning up after flood waters. EPA also tested for a broad array of chemicals, which were below levels of concern or not detected. On November 9, EPA took two samples from the basement of a building on Eagle Street near Newtown Creek that had been flooded, as well as directly from the Creek. Again, there were high bacterial levels but the results showed chemical contamination to be below levels of concern or undetectable.

For our part, DEP took action under Local Law 26 of 1988, commonly known as the NYC Right to Know (RTK) Law, which requires businesses that store specified quantities of hazardous substances to file an annual report. DEP has approximately 8,000 filings in the RTK database and inspects each facility regularly. The information in the RTK database can be accessed by other first-response agencies. After the storm, DEP staff began inspecting facilities in flooded areas that were part of the RTK database. DEP was able to identify approximately 366 businesses in flooded areas that had submitted a RTK filing. DEP visited all of these facilities, but failed to gain access to 53 such facilities.

Of the 313 facilities where DEP gained access, we found that there had been no injuries and that there were no active spills, leaks or discharges. The 313 facilities and the RTK database in general comprise many types of businesses, including auto repair shops, commercial buildings, gas stations, hotels, hardware stores, health clubs, fuel depots, shipping yards, nursing homes, and funeral homes. Some of these businesses indicated that there had been some chemical spills that had been mitigated prior to our inspection. Owners or operators of seven reported that the hazardous substances were no longer present at the site because the storm had washed them away. These seven facilities consisted of two health clubs (containing cleaning products or water treatment chemicals), one communication

compliance. Inspectors revisited the sites approximately a week later, issued 30 notices of violation and found a number of the pieces of equipment had already been removed. DEP received 45 registrations in response to the three-day notice. By early February almost all of the units had been removed.

DEP also monitored and regulated the burning of woody debris at Floyd Bennett Field. Among the many impacts of this unprecedented storm, over 20,000 trees were felled or damaged. The total amount of such tree debris was approximately 160,000 cubic yards. Typically managed by composting or other reuse, the vast quantity of tree debris generated by Hurricane Sandy meant that typical disposal methods would not allow for the clearing of the City's streets, sidewalks, and parks, or timely disposal. Large amounts of tree debris were stockpiled at Floyd Bennett Field (FBF) in Brooklyn, Cunningham Park in Queens, and other locations. Such stockpiling posed certain public safety risks, most significant of which is the potential spread of the Asian long-horned beetle as well as spontaneous combustion.

Under assignment from FEMA, the Army Corps undertook to assist New York City with the disposal of debris related to Sandy. After reviewing the costs and benefits of the available options for managing wood debris, the Army Corps and their contractor requested from the City and the State the variances that would allow for burning of wood debris at Floyd Bennett Field in Canarsie. At the same time, the Army Corps was continuing to seek contractors to chip and export wood debris.

Combustion of wood debris after a severe storm is a common practice, often used in National Parks. Because it is not a common practice in a dense urban environment, the City and DEC authorized the Army Corps to proceed on a pilot basis with a single burner to see if actual monitoring would confirm the modeling, which suggested there would be no significant air quality problems if the burn were managed closely. The pilot project for the burning of whole wood was successful, while the burning of wood chips was not successful. Therefore, the Army Corps contractor was authorized to continue burning whole (unchipped) wood and they used two burners to dispose of approximately 31,000 cubic yards of tree debris.

DEP audited the contractor's opacity reader by having inspectors at FBF every day and night taking opacity readings. Opacity is a measure of the amount of light blocked by a plume which in this case would be any smoke issuing from the burners. In addition, air monitoring stations at Floyd Bennett field were placed

Going forward, the City is in the process of undertaking an after-action review of its response to Hurricane Sandy. The need for additional environmental monitoring will be one of the discussion points. Preliminary discussions have taken place regarding adding additional environmental monitoring capabilities to the citywide contracts that deal with large scale emergencies.

For its part in an effort to be better positioned to deploy environmental monitoring for air quality as quickly as possible, DEP is developing an emergency laboratory contract to address such situations. This contract will allow DEP to call upon a certified contractor to deploy air monitoring equipment for such constituents as asbestos and PM<sub>2.5</sub> in a timely manner.

Thank you for the opportunity to testify. We would be glad to answer any questions.

TESTIMONY OF HARRY NESPOLI

PRESIDENT UNIFORMED SANITATIONMEN'S ASSOCIATION,  
LOCAL 831, INTERNATIONAL BROTHERHOOD OF TEAMSTERS

JOINT CITY COUNCIL COMMITTEES HEARING ON SANITATION  
AND SOLID WASTE MANAGEMENT

HON. LETITIA JAMES  
CHAIRPERSON

ENVIRONMENTAL PROTECTION  
HON. JAMES F. GENNARO  
CHAIRPERSON

PARKS AND RECREATION  
HON. MELISSA MARK-VIVERITO  
CHAIRPERSON

AND COMMITTEE ON HEALTH  
MARIA DEL CARMEN ARROYO  
CHAIRPERSON

FEBRUARY 28, 2013

GOOD AFTERNOON, I WOULD LIKE TO THANK THE MEMBERS OF THE COUNCIL FOR YOUR PRESENCE HERE TODAY AND ESPECIALLY EACH OF THE COMMITTEE CHAIRPERSONS – MS. JAMES; MR. GENNARO; MS. MARK-VIVERITO; AND MS. DEL CARMEN ARROYO FOR INVITING ME TO SPEAK BEFORE THESE COMMITTEES.

I KNOW WE ARE HERE TODAY TO TALK ABOUT THE PREPAREDNESS, RESPONSE, EFFECTS AND CLEAN-UP IN THE WAKE OF SUPERSTORM SANDY, A DEVASTATING STORM THAT WREAKED HAVOC ACROSS OUR CITY AND OUR ENTIRE REGION LAST OCTOBER.

IN THE COURSE OF MY CAREER I HAVE WITNESSED BLIZZARDS, HURRICANES, NOR'EASTERS AND COUNTLESS OTHER DISASTERS BOTH NATURAL AND MANMADE, NONE HAVE LEFT THE TYPE OF WIDE-SPREAD DAMAGE AND DESTRUCTION WE SAW FROM SANDY; DAMAGE AND DESTRUCTION WHICH IS STILL BEING FELT TODAY AND WILL REMAIN FOR MONTHS AND YEARS TO COME.

THE EFFECTS OF THE STORM WERE SUCH THAT OUR MEMBERS WERE CALLED UPON TO WORK 12-HOURS SHIFTS FOR MORE THAN TWO MONTHS.

WE ALL UNDERSTAND THERE IS NO WAY TO STOP A STORM. BUT EVEN WITH SEVERAL DAYS OF WARNINGS WE WERE STILL UNPREPARED TO RESPOND PROPERLY, AND I'M AFRAID IF WE DON'T MOVE QUICKLY WE WILL BE UNPREPARED THE NEXT TIME WE TAKE A HIT LIKE THAT.

PREPAREDNESS GOES BEYOND CREATING POWERPOINT PRESENTATIONS, DRAWING UP PLANS AND AS WE RECENTLY LEARNED FOOLISHLY SPENDING VALUABLE TAX DOLLARS ON PROMISES AND SPECULATION.

ALLOW ME TO EXPLAIN: DURING THE RECENT SNOWSTORM WE SAW WHAT CAN HAPPEN, OR MORE CORRECTLY WHAT WON'T HAPPEN WHEN AFTER THE CITY PAID PRIVATE CONTRACTORS IN ADVANCE ON THE PROMISED THEY WOULD CLEAR SNOW ON TERTIARY STREETS.

IN THE BOROUGHES OUTSIDE MANHATTAN, ESPECIALLY IN STATEN ISLAND AND PARTS OF BROOKLYN, COMPANIES WHO WERE PAID FOR THEIR PROMISE TO REMOVE SNOW, WERE EITHER UNPREPARED, HAD IMPROPER INSURANCE, RESPONDED WITH THE WRONG EQUIPMENT OR IN SOME CASES FAILED TO SHOW UP AT ALL.



PROMISING TO CLEAR THE STREETS WITH FRONT LOADERS, SOME SHOWED UP WITH LITTLE BOBCATS OR OTHER EQUIPMENT UNSUITED FOR THE TASK. OTHERS FAILED TO HAVE PROPER INSURANCE OR SENT PEOPLE WHO WERE NOT PROPERLY TRAINED TO DO THE JOB.

AND IN THE BRONX, A TOW TRUCK COMPANY HIRED AND PAID TO REMOVE CARS ALSO FAILED TO EVEN SHOW UP. YET, THE IDEA OF CONTRACTING AND PAYING PRIVATE COMPANIES IN ADVANCE WAS DEVELOPED AS A KEY PORTION OF THE RESPONSE PLAN DEVELOPED AS A RESULT OF THE CHRISTMAS BLIZZARD OF 2010.

AND WHEN THE PAID-IN-ADVANCE PRIVATES DIDN'T SHOW -- FRANKLY, I STILL CAN'T UNDERSTAND HOW IT'S A GOOD IDEA TO PAY OUTSIDERS IN ADVANCE FOR SERVICES -- IT WAS MY MEMBERS, -- WHO AS WE HAVE DONE FOR THE PAST 100 YEARS -- GOT THE JOB DONE!

NOW LET'S SEE IF THE CITY CAN GET OUR MONEY BACK.

I KNOW WE'RE HERE TO TALK ABOUT SANDY, SO THANK YOU FOR LETTING ME GET THAT OFF MY CHEST. BUT LET'S ALSO USE THAT AS A CAUTIONARY TALE IN DEVELOPING RESPONSE PLANS.

SO LET'S TALK ABOUT SANDY. AND LETS ENSURE WE'RE BETTER PREPARED THE NEXT TIME WE'RE HIT BY ANOTHER MONSTER STORM. AS WE SIT HERE TODAY, WE ALL KNOW WE WILL BE HIT AGAIN.

LET'S START BY LOOKING AT WHAT WE FACED:

BEYOND THE DAMAGE TO OUR HOMES AND COMMUNITIES OUR MEMBERS NEVER HESITATED IN THEIR RESPONSE. OBVIOUSLY, REMOVING THE DEBRIS WAS A MATTER OF PUBLIC SAFETY AND THE FIRST STEP IN HELPING PEOPLE REBUILD.

BUT ALONG WITH THE DESTRUCTION, FLOODING AND POWER OUTAGES WAS A GAS CRISIS. FOR NEARLY TWO WEEKS MY MEMBERS -- WHO ARE FIRST-RESPONDERS WERE TURNED AWAY AT GAS STATIONS TRYING TO FILL THEIR VEHICLES SO THEY COULD TRAVEL TO AND FROM WORK.

DAY AFTER DAY FOR NEARLY TWO WEEKS WE WERE CAUGHT IN THE BUREAUCRATIC GAME OF HOT POTATO BUT COULD NOT GET A RESOLUTION TO THE PROBLEM. GOING FORWARD WE MUST HAVE A PLAN IN PLACE WHERE SANITATION MEN AND WOMEN AND OTHER DESIGNATED FIRST RESPONDERS CAN GET THE FUEL WE NEED SO WE CAN RESPOND.

PROPER EQUIPMENT AND SUPPLIES: HEALTH AND SAFETY REQUIRED RAPID CLEANUP OF THE DEBRIS. THIS WAS A DIFFICULT AND OFTEN HEARTBREAKING JOB, AS HEIRLOOMS AND LIFETIMES OF MEMORIES WERE WASHED AWAY.

BUT IT IS VITAL, IMPORTANT, AND OFTEN DANGEROUS WORK. TOO OFTEN WE WERE NOT EQUIPPED WITH ENOUGH PROTECTIVE MASKS, HEAVY-DUTY GLOVES, BOOTS AND TYVEK COVERALLS NEEDED TO ENSURE THE HEALTH AND SAFETY OF OUR MEMBERS.

JUST AS IN THE WAKE OF 9-11, WE MUST MONITOR THE HEALTH OF OUR MEMBERS WHO RESPONDED TO THE DISASTER AND ENSURE THEY HAVE ACCESS TO ANY NECESSARY COVERAGE.

WE NEED TO ENSURE OUR GARAGES AND FACILITIES HAVE A STORAGE AREA SO THAT OUR MEMBERS ARE PROPERLY OUTFITTED WITH THE NECESSARY PROTECTIVE CLOTHING AND EQUIPMENT TO BE READY WHEN DISASTER DOES STRIKE.

THE LOSS OF FACILITIES: AT LEAST SEVEN GARAGES WERE DAMAGED BY THE STORM AND WERE CLOSED FOR WEEKS; ONE GARAGE IN MANHATTAN WILL NEVER REOPEN.

THE DAMAGE TO GARAGES IN GRAVESEND AND CONEY ISLAND FORCED THE MEN AND WOMEN TO BE REASSIGNED TO A GARAGE IN BOROUGH PARK. A FACILITY DESIGNED FOR 120 WORKERS WAS SUDDENLY HOUSING MORE THAN 300.

THERE WERE NOT ENOUGH LOCKERS OR SHOWERS; NOT TO MENTION TRYING TO FIND ADDITIONAL PARKING IN BOROUGH PARK.

GOING FORWARD, WE MUST LOOK AT ALL DEPARTMENT FACILITIES IN LOCATED IN LOW-LYING AREAS AND FIND SUITABLE BACK-UP LOCATIONS. FACILITIES LARGE ENOUGH TO HOUSE OUR DISPLACED MEMBERS, WITH DECENT SHOWERS, SECURE LOCKER FACILITIES AND PARKING.

FINALLY, WE NEED TO MAKE SURE WE CAN DISPOSE OF DEBRIS: THE DESTRUCTION WAS SO OVERWHELMING WE REACHED A POINT WHERE THERE WAS NO PLACE TO PUT THE DEBRIS.

AFTER WEEKS OF CARRYING DEBRIS TO THE TRANSFER STATIONS THEY SIMPLY COULD NOT TAKE ANY MORE. EVENTUALLY WE TOOK DEBRIS TO SEVERAL LARGE CONCRETE LOTS WHERE WE DUMPED THE DEBRIS FOR REMOVAL.

PART OF OUR RESPONSE PLAN SHOULD INCLUDE THE EMERGENCY REINTRODUCTION OF BARGES. CLEARLY, ONCE WE HAVE CARRIED AWAY THE DEBRIS IT IS IN THE BEST INTERESTS OF EVERYONE TO MOVE IT OUT AS QUICKLY AS POSSIBLE.

AS OUR MEMBERS HAVE DEMONSTRATED WE ARE READY, WILLING AND ABLE TO DO THE JOB NO MATTER HOW DAUNTING THE TASK. BUT WE MUST ALSO HAVE THE NECESSARY FACILITIES, EQUIPMENT, AND SUPPORT TO DO THE JOB.

THANK YOU. AND, I'LL BE HAPPY TO ANSWER ANY QUESTIONS.

**Testimony of Joan S. Levine, Morningside Heights/West Harlem Sanitation Coalition before the Committee on Sanitation, the Committee on Environmental Protection and the Committee on Parks & Recreation Hearing to assess the Post-Storm Cleanup and its effects on the City's health and infrastructure.**

**Thursday, February 28th, 2013, 1:00 PM**

Good afternoon Chairpersons James, Gennaro, and Mark-Viverito and Members of the committees. Thank you for the opportunity to provide testimony today. My name is Joan S. Levine. I'm a resident of Northern Manhattan and I am a co-chair of the Morningside Heights/West Harlem Sanitation Coalition. Formed in 1994, the Coalition fights for environmental justice and educates residents about the importance of solid waste issues to our health and well-being.. Our coalition is also a member of the Organization of Waterfront Neighborhoods and the New York City Environmental Justice Alliance. I am here today to address the recently unfounded claims that, in light of the impacts from hurricane Sandy, the City should reconsider its plans to complete the East 91<sup>st</sup> Street Marine Transfer Station. Unlike the old, dirty truck-based transfer stations that it will help replace, the East 91<sup>st</sup> MTS will have state-of-the-art controls and will be designed to withstand future storms and flooding. In addition it is a key piece of the 2006 Solid Waste Management Plan.

The Plan requires communities to handle their fair share of the waste we all create and will eliminate millions of miles of diesel truck traffic in the City each year. Without the MTS, Upper East Side waste is incinerated in Newark or trucked to transfer stations clustered in the South Bronx, North Brooklyn, Sunset Park and Jamaica, Queens. Many of these land-based transfer stations sit in flood-prone areas and lack the elevation and control standards for withstanding future floods. These outer borough communities alone handle about 70% of waste in New York City. Unlike the Upper East Side, they are also home to power plants, Superfund sites, sewage treatment plants and other noxious facilities putting them at risk of exposure to hazardous contamination from the impacts of a massive storm.

Those opposed to the facility have claimed that Sandy raises additional concerns about the Marine Transfer Station, including the possibility of waste getting out of the facility in the event of future flooding. Despite these claims, there's no chance of loose waste ending up

outside of the facility. The lowest level of the MTS is the pier level and any waste at that level will be in enclosed containers. If the City can expect to withstand and recover from extreme weather events like Sandy, and because our communities host a disproportionate amount of the City's polluting infrastructure, they deserve all the protection that our elected officials and government agencies can give them. I urge the committees to strongly oppose any efforts that weaken the Solid Waste Management Plan's goals of borough equity and environmental justice, such as those to delay or prevent the opening of the East 91<sup>st</sup> Street MTS. The enclosed state of the art Marine Transfer Stations that will be built as part of the SWMP, which includes the East 91<sup>st</sup> Street Transfer Station, will ensure that the environmental impacts of handling waste will be distributed fairly throughout the City.

Thank you.



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**Testimony of Michael McCann  
at the February 28, 2013  
New York City Council Committee on Environmental Protection  
Hearing:  
Oversight - Recovery: Post-Storm Cleanup and the Effects on the  
City's Health and Infrastructure**

My name is Michael McCann, and I am testifying on behalf of NYCOSH, the New York Committee for Occupational Safety and Health. I have a PhD in Chemistry and, until I retired last year, was Director of Safety Research for CPWR – The Center for Construction Research and Training, a non-profit organization which conducts research on behalf of the nation's construction trade unions. After 9/11, I helped prepare the training program for the World Trade Center recovery workers.

NYCOSH is a coalition of labor unions and health and safety professionals. NYCOSH has a 34 year history of providing workers, community-based organizations, employers and government agencies with quality safety and health training. The mission of NYCOSH is to extend and defend every person's human right to a safe and healthful work environment. As such, we are concerned about the health and safety of workers and volunteers involved in the Sandy cleanup and about the health of residents of houses affected by Sandy flooding of homes and other buildings. In particular, we are concerned about exposures to mold. Exposure to airborne mold can cause wheezing, respiratory distress, allergic reactions, and severe nasal, eye, and skin irritation.

Mold needs water and a food source to grow. It grows best in damp, warm environments. Mold can begin to grow in wet building materials and household items if they are not completely dry within 48 hours of getting wet. Mold grows on wet sheetrock, ceiling tiles, paint, wallpaper, carpeting, wood, clothing, furniture, insulation, and other materials. Although much mold is visible on surfaces, it can also be found inside walls and HVAC systems.

There are several problems with current recommendations for mold remediation.

**Who is Doing the Cleanup**

Mold remediation in New York City after Sandy is being done by four main groups: 1) experienced mold remediation contractors; 2) volunteers, unemployed workers hired by New York City, and inexperienced contractors; 3) immigrant day laborers; and 4) home owners and occupants.

Neither the Occupational Safety and Health Administration (OSHA), New York State, nor New York City has a process by which either contractors or workers are certified to engage in mold remediation. Contractors who have virtually no experience in field are proffering their services. The consequence is that work done for homeowners and businesses is often shoddy, and done in way that exposes workers, home owners, renters, and office workers to unnecessary and hazardous exposures.

New York needs to develop regulations requiring that workers, contractors and volunteers engaged in mold remediation are provided with appropriate training, that contractors are certified as proficient in mold removal, and procedures are specified as to how the health of those re-occupying the space is protect. While OSHA governs safety and health protection for workers, we need legislation comparable to the New York City Asbestos Law which protects by-standers and the public at large.

New York City needs to require contractors and volunteer organizations to provide appropriate warnings about the hazards of mold remediation activities.

### **Training**

News reports indicate that many people are doing the cleanup without any training on the health and safety hazards involved. New York City should have guidelines for training, and ensure that training is carried out. New York City should work with OSHA to develop a curriculum to ensure that the workers and volunteers are provided with appropriate training.

### **Respirator Use**

To prevent exposure to mold, respiratory protection is needed. New York City is recommending N95 respirators for cleanup when dust exposure is present<sup>1,2</sup>. N95 respirators are easily available in hardware stores and OSHA and New York City has been making them available free. However, prior to Sandy, New York City recommended a higher level of protection than N95 respirators for areas of large mold infestation (greater than 100 sq. ft.)<sup>3</sup>. This recommendation is in line with OSHA and Center for Disease Control (CDC) guidelines. New York City needs to re-institute its guidelines for respirator protection which were more protective. The City's guidelines should be based on the type of job being undertaken and the amount of mold being disturbed.

Currently the NYC guidelines only recommend seal checks for those wearing a respirator<sup>4</sup>. This is insufficient to protect workers, volunteers and homeowners. The guidelines should be amended to require fit testing and training on the proper use and care for respirators.

### **Other Hazards**

In addition to the hazards of mold inhalation, much of the flooding involved untreated sewage from flooding of sewage plants and pollutants from the Gowanus Canal and Newton Creek Superfund sites. These pollutants include polycyclic aromatic hydrocarbons (PAHs), volatile organic contaminants (VOCs), polychlorinated biphenyls (PCBs), pesticides, and heavy metals. Some of these chemicals can cause cancer. There are also a variety of safety hazards, including building collapses or shifts, unstable debris piles, electrocutions from live power lines, explosions, and asphyxiation from working in poorly ventilated enclosed areas. Furthermore, mold clean up often results in the disturbance of lead and cancer-causing substances such as asbestos and silica.

Where other pollutants are suspected, there is a need for evaluation by an expert. NYC needs to provide more guidance on these problems. New York City needs to develop health-based re-occupancy standards.

### **Evaluation of cleanup**

Currently, New York City re-occupancy standards only deal with structural integrity. There are no standards dealing with the health conditions of either the work or the living environments which are being re-occupied. A major issue is evaluating whether the cleanup is effective. One problem has been that mold remediation done by non-qualified persons might get rid of the visible mold on walls, furniture, etc., but not mold growth hidden inside the walls or HVAC system. This might not become apparent until late spring or summer when warmer temperatures allow mold growth which can affect occupants. There should be guidelines for allowing re-occupancy of homes and offices that have been mold infested. These guidelines should include the structural integrity of the building in addition to evaluating whether the mold and other contaminants have been completely removed.

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# NEW YORK ENVIRONMENTAL LAW AND JUSTICE PROJECT

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*Testimony of Rajiv Jaswa on behalf of New York Environmental Law & Justice Project before the Committees on Sanitation and Solid Waste Management, Environmental Protection, Parks and Recreation, and Health regarding health effects of post-Sandy cleanup activities*

*February 28, 2013*

My name is Rajiv Jaswa. I am a Law Clerk at New York Environmental Law & Justice Project ("NYELJP" or "Law Project"). I would like to thank the Committees on Sanitation and Solid Waste Management, Environmental Protection, Parks and Recreation, and Health for holding this hearing and for allowing the Law Project an opportunity to discuss our concerns about the health effects of post-Sandy cleanup activities.

We are all quite aware that Superstorm Sandy left, in its wake, a staggering waste and debris-management problem. Seemingly everything Sandy touched turned to waste: buildings became rubble; household possessions became sources of bacterial and mold contamination; and over 15,000 of this City's trees became hundreds of thousands of cubic yards of vegetative waste debris, piled up at Floyd Bennett Field.

My remarks today focus specifically on the decision-making process whereby the City Department of Environmental Protection ("DEP") granted a Variance from the Air Pollution Control Code, allowing vegetative debris piled at Floyd Bennett Field to be incinerated on-site, by a private contractor, from December 28, 2012 to February 14, 2013. Before proceeding, however, I would like to first acknowledge the sheer difficulty of cleaning up after Sandy. It is a monumental task which has required the combined resources, expertise, and efforts of numerous agencies, at all levels of government. The narrow and somewhat critical perspective I offer in these remarks is not meant to diminish the efforts of anyone involved. Instead, I merely hope to provide a few observations salient to the ongoing public discussion of an important question: How do we minimize the adverse health effects of disaster recovery operations in areas already suffering from the disaster itself?

Since I am focusing on DEP's decision to issue a Variance from the City's air code, I will make a brief nod to the extensive scholarship addressing the topic of "regulatory flexibility," much of which reflects the ongoing public concern over the proper role of "waivers" in administrative law. Colin Diver's seminal work, *The Optimal Precision of Administrative Rules*, begins with the following statement on the matter, from a 1969 federal court decision: "a system where regulations are maintained inflexibly without any procedure for waivers poses legal difficulties."

The importance of regulatory flexibility is magnified during an emergency. In responding to a disaster of Superstorm Sandy's magnitude, government officials had to act quickly and decisively to minimize public suffering. It was simply not in anyone's interest to proceed at a rigid, "bureaucratic pace".

However, the picture was a bit more muddled when, late last year, DEP was asked to accommodate the United States Army Corps of Engineers and its private contractor ECC, who sought to incinerate

Sandy-related vegetative waste debris at Floyd Bennett Field. In essence, DEP had to quickly decide whether to relax regulations designed to protect public health, in the interest of facilitating a timely and effective response to a public health emergency.

As we all know, DEP did decide to issue the Variance, and did allow the burning at Floyd Bennett Field, subject to certain conditions which included operational restrictions, air monitoring, and reporting requirements. My organization, as part of a coalition of public interest groups including the American Lung Association of the Northeast, the Sierra Club Atlantic Chapter, and the New York Public Interest Research Group, publicly criticized DEP's decision. However, since the Army Corps and ECC ceased operating the incinerators on February 14, 2013, I think it is more important today to address DEP's decision-making process, rather than the decision itself.

Through Freedom of Information Act/Law requests to EPA, the Army Corps, DEC and DEP, the Law Project obtained emails and other records which provide some insight into the process leading up to DEP's issuance of the Variance. Upon reviewing these materials, I have two basic concerns about the way in which DEP made use of the regulatory flexibility rightly afforded under current laws.

First, DEP appears to have blurred the line between post-hoc rationalization and substantive regulatory review. Correspondence records reveal that the Army Corps, ECC, and City officials had already decided to proceed with the use of "Air Curtain Burners" or "ACBs" to incinerate vegetative waste at Floyd Bennett Field before any kind of meaningful assessment of air quality impacts could be performed. Based on the records we obtained, DEP appears to have been first consulted about the use of ACBs on November 11, 2012. In an email correspondence that day, Ms. Angela Licata, DEP Deputy Commissioner of Sustainability, stated the agency's "preference for practical alternatives" but noted: "if the Army Corp [sic.] still feels that this is the best way forward, I'll support it." In the same email, Ms. Licata also apparently encouraged the Army Corps to look for ways to circumvent DEP's regulatory authority under the Air Code, writing: "Does the Army Corp [sic.] have the ability to preempt our local codes under emergency provisions? It seems this would resolve some timing and procedural issues."

By November 12th, four ACB units were already "on order". On November 18th, the first ACB unit had arrived onsite, and the Army Corps sent out an email asking, "how is the NYCDEP variance progressing? . . . We are ready to start the incinerator now." Yet it was not until later on, that same day, that City and State regulators got together and developed an analysis of the fine particulate (PM 2.5) emissions potential of incineration as compared to other beneficial reuse alternatives. Towards the end of the day, on November 18th, DEP Commissioner Carter Strickland wrote: "The City has determined that it will be able to gather other material by that deadline sufficient to render a decision on an initial variance at a minimum by tomorrow night."

The timing of DEP's efforts to gather relevant information and develop a full air quality assessment, combined with early indications of their willingness to "support" the use of incinerators, suggest that the analysis supporting DEP's Variance was undertaken more as a post-hoc rationalization of their decision, rather than a meaningful, substantive review of air quality impacts from ACBs. This is troubling given the public health implications of adding new sources of PM 2.5 emissions to an area already burdened from other disaster recovery operations.

My second concern about DEP's decision-making process has to do with the agency's response to EPA's repeated objections to the use of incinerators at Floyd Bennett Field. In an emergency, when there are time restrictions or other external constraints on regulatory decision-makers, it is important to rely upon credible

experts and technical resources. Here, EPA provided all parties with detailed information about alternative options for beneficial reuse of the vegetative debris, and also provided past studies on the air quality impacts of ACBs that were relied upon in the aftermath of Hurricane Katrina, when it was decided not to use these incinerators. Yet, when DEP assessed the potential air quality impacts of the ACB operations at Floyd Bennett Field, the agency appears to have instead relied upon figures provided by ECC and the manufacturer of the ACB. ECC's Petition for a Variance cites a study comparing the emissions of ACBs and wood grinders that is found on woodwasteburner.com. The takeaway is simply that EPA studies should be taken much more seriously than studies available on woodwasteburner.com. In reviewing the email exchanges between EPA, DEP, DEC, and the Army Corps, it is distressing to find that EPA's objections to the use of incinerators were not taken more seriously than the air pollution claims of ECC and the ACB's manufacturer. According to an email from Steven Flint, from DEC's Air Resources, dated December 11, 2012, when DEC eventually vetted ECC's original analysis of particulate emissions from the incinerators, they found "that some factors were mis applied, and that the actual numbers indicate that burning is as much as 10 times higher than chipping (which makes more sense from a gut level)." Such vetting should have taken place before Variances were issued, rather than afterwards.

In conclusion, the ACBs were deemed inappropriate for use in New Orleans after Katrina. I believe that if DEP had avoided post-hoc rationalization, and given more credence to EPA's objections, the agency would have found ACBs to also be inappropriate for New York after Sandy.

Thank you very much for this opportunity to testify.

# EXHIBITS

"Strickland Jr., Carter H."  
<CStrickland@dep.nyc.gov>  
11/12/2012 09:03 PM

To 'Joe Martens', Judith Enck, "pscully@gw.dec.state.ny.us"  
cc Marc Gerstman, Venetia Lannon, "Licata, Angela"  
bcc  
Subject RE: Air curtain incinerators

1 attachment



USEPA\_Paper\_ACD\_VegDebris\_080307.pdf

Joe:

My understanding is that the document provided by the Corps is more akin to EH&S for workers and doesn't address emissions limits, predicted concentrations or efficiency ratings of the curtains. Perhaps that was provided in today's call. Angela can provide missing details. However, our research did find the attached document, an EPA study. The summary is that there are concerns, concentrations depend upon a lot of factors (size of unit, type, method of operation, excess air, etc.). The document notes that ACDs were not used after Hurricane Katrina because of these concerns, and ultimately alternative methods were used.

If the Corps has specs for the specific ACDs coming to NYC that would be great, and I'd also appreciate any technical data, studies or specs that your air team used to assess the impacts. Floyd Bennett Field is better than the other locations but a plume could still affect NY communities. At a minimum, air monitoring would provide a level of control.

Regards, Carter

---

**Carter H. Strickland, Jr. | Commissioner | NYC Environmental Protection**  
(O) 718 595 6565 | (M) 347 844 2544 | [cstrickland@dep.nyc.gov](mailto:cstrickland@dep.nyc.gov)

**From:** Joe Martens [<mailto:jmartens@gw.dec.state.ny.us>]  
**Sent:** Monday, November 12, 2012 8:33 PM  
**To:** Strickland Jr., Carter H.; Enck.Judith@epamail.epa.gov; pscully@gw.dec.state.ny.us  
**Cc:** Marc Gerstman; Venetia Lannon  
**Subject:** Re: Air curtain Incinerators

judith: i don't think you have the full story. The Corp proposes to use mobile ("air curtain") incinerators to handle the huge quantities of wood waste generated by Sandy. The four sites where wood waste is currently being stockpiled and chipped are Aqueduct (Queens, State New York Racing Authority), Cunningham Park (Queens, NYC Parks), Floyd Bennett Field (Queens, National Parks Service) and Fresh Kills (SI, DSNY). According to Venetia, City Parks Dept is in favor of burning as they maintain that there is more material than they can use, the private market can bear, and they are concerned about spontaneous combustion with stockpiles longterm.

Four air curtain units are on order by the Corps and are anticipated to be used at Floyd Bennett Field ONLY (not at NYC Park)s, with chipping ops continuing at the other Queens sites and transport to Floyd Bennett for burning (pending confirmation of FEMA reimbursement of burning wood that has already been chipped). All the wood waste generated from Staten Island and parts of Brooklyn will go Freshkills for

composting and recycling .

This afternoon, a conference call with DEP, the Corp and DEC laid out the regulatory pathway forward to facilitate controlled burning.

The Corp has shared tech specs and emissions monitoring protocol re the proposed units with us and DAR has reviewed. DEC has authorized the use of these units in R1 at the Brookhaven Landfill to deal with storm debris there. Peter S tells me there is a little smoke, but generally clean.

I talked to Carter earlier tonight and we agreed to have a conference call tomorrow afternoon.

>>> <Enck.Judith@epamail.epa.gov> 11/12/12 7:45 PM >>>

I understand that army corps of engineers is intending to use small incinerators in nyc parks to address wood waste instead of chipping and composting the wood. Bad idea. These "air curtains" have major opacity problems and for that reason were not used during katrina. I have expressed my concerns to army corps a few days ago and will do so again tomorrow. Peter scully has had a negative experience with this type of device on long island and I wanted to make sure he shared it with you joe. Take care.

Sent by EPA Wireless E-Mail Services

Judith Enck/R2/USEPA/US

11/19/2012 10:20 AM

To "Strickland Jr., Carter H."

cc "Licata, Angela", Cas Holloway, "Diggins, Dennis", Dave Shaw, Eugene Leff, "Kelpin, Gerry", "Robb, James T SPK", Joe Martens, "Davis, Joseph M LTC NWO", "Scrivani, John", "Merenda, Kevin J NAN02", "Gilsenan, Michael", "Graham, Nicholas B SPK", Prashant Khanna, "Rosemarie.Bradley@fema.dhs.gov", Sal Ervolina, "Gouger, Timothy P NWO (First Responder)", "Jordan, Trey COL NAB", Venetia Lannon

bcc

Subject RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Carter: Thanks for your update.

Three companies have been contacted to submit proposals to NYC Parks. Waste Management and Taylor propose using the vegetative debris for mulch and composting, and the third, Evergreen, will use the material for biomass. Please note that there are more than three companies that can do this work. See attached spreadsheet for the additional options.

It has come to my attention that JW Walsh Mulch is already working in NYC, collecting construction and demolition debris from the storm. They already have the permits and crews in place, and have the capacity to haul all vegetative debris to their facility in CT to mulch. They can work around the clock. Jim Walsh can be contacted at 203-948-1830.

Finally, to our friends with the Army Corps, when you are doing the cost comparison, it is important that the cost of ash disposal from the incinerators also be included.

Thank you for your efforts on this. Please contact me, Jim Daloia ([daloia.james@epa.gov](mailto:daloia.james@epa.gov)), or Annette Poliwka ([poliwka.annette@epa.gov](mailto:poliwka.annette@epa.gov), 212-637-3884) if we can provide assistance today.

Sincerely,  
Judith Enck



Veg Reuse Firms.xls

Judith Enck  
Regional Administrator  
U.S. Environmental Protection Agency  
290 Broadway  
New York, N.Y. 10007-1866  
(212) 637-5000

"Strickland Jr., Carter H."

All: Thank you for participating in the inter...

11/18/2012 07:01:33 PM

From: "Strickland Jr., Carter H." <[CStrickland@dep.nyc.gov](mailto:CStrickland@dep.nyc.gov)>  
To: "Gouger, Timothy P NWO (First Responder)" <[Timothy.P.Gouger@usace.army.mil](mailto:Timothy.P.Gouger@usace.army.mil)>, Venetia Lannon <[valannon@gw.dec.state.ny.us](mailto:valannon@gw.dec.state.ny.us)>, Cas Holloway <[cholloway@cityhall.nyc.gov](mailto:cholloway@cityhall.nyc.gov)>, "Licata, Angela" <[AngelaL@dep.nyc.gov](mailto:AngelaL@dep.nyc.gov)>, Judith Enck/R2/USEPA/US@EPA, Dave Shaw <[djshaw@gw.dec.state.ny.us](mailto:djshaw@gw.dec.state.ny.us)>, Eugene Leff <[ejleff@gw.dec.state.ny.us](mailto:ejleff@gw.dec.state.ny.us)>, Joe Martens <[jmartens@gw.dec.state.ny.us](mailto:jmartens@gw.dec.state.ny.us)>, Sal Ervolina <[sxervoli@gw.dec.state.ny.us](mailto:sxervoli@gw.dec.state.ny.us)>, "Robb, James T SPK" <[James.T.Robb@usace.army.mil](mailto:James.T.Robb@usace.army.mil)>, "Jordan, Trey COL NAB" <[trey.jordan@usace.army.mil](mailto:trey.jordan@usace.army.mil)>, "Diggins, Dennis" <[ddiggins@dsny.nyc.gov](mailto:ddiggins@dsny.nyc.gov)>, "Scrivani, John" <[jscrivani@OEM.NYC.GOV](mailto:jscrivani@OEM.NYC.GOV)>  
Cc: "Kelpin, Gerry" <[Gerryk@dep.nyc.gov](mailto:Gerryk@dep.nyc.gov)>, "Gilsenan, Michael" <[michaelgi@dep.nyc.gov](mailto:michaelgi@dep.nyc.gov)>, "Rosemarie.Bradley@fema.dhs.gov" <[Rosemarie.Bradley@fema.dhs.gov](mailto:Rosemarie.Bradley@fema.dhs.gov)>, "Merenda, Kevin J

NAN02" <Kevin.J.Merenda@usace.army.mil>, "Graham, Nicholas B SPK"  
<Nick.Graham@usace.army.mil>, "Davis, Joseph M LTC NWO"  
<Joseph.M.Davis@usace.army.mil>, Prashant Khanna <PKhanna@ecc.net>  
Date: 11/18/2012 07:01 PM  
Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

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All:

Thank you for participating in the inter-agency call today, in which it was agreed that the Corps would take the lead on beneficial use and will develop a spreadsheet of alternatives and pricing by COB tomorrow. The City has determined that it will be able to gather other material by that deadline sufficient to render a decision on an initial variance at a minimum by tomorrow night. We may determine that any initial variance will be for installation and pilot operation. In any event, we will seek to publish the notice of having received an application for variance in the City Record on Tuesday if possible.

This course of action means, however, that no pilot burning may occur tomorrow, and the Corps and its contractor should plan for any pilot burn on Tuesday at the earliest. The NYC Air Code does not contain an exception for pilot testing and a variance would be required for it to occur.

Regards, Carter

---

Carter H. Strickland, Jr. | Commissioner | NYC Environmental Protection  
(O) 718 595 6565 | (M) 347 844 2544 | cstrickland@dep.nyc.gov

-----Original Message-----

From: Gouger, Timothy P NWO (First Responder) [  
mailto:Timothy.P.Gouger@usace.army.mil]  
Sent: Sunday, November 18, 2012 9:57 AM  
To: Venetia Lannon; Cas Holloway; Licata, Angela; Strickland Jr., Carter H.;  
Enck.Judith@epamail.epa.gov; Dave Shaw; Eugene Leff; Joe Martens; Sal  
Ervolina; Robb, James T SPK; Jordan, Trey COL NAB; Diggins, Dennis; Scrivani,  
John  
Cc: Kelpin, Gerry; Gilsenan, Michael; Rosemarie.Bradley@fema.dhs.gov; Merenda,  
Kevin J NAN02; Graham, Nicholas B SPK; Davis, Joseph M LTC NWO; Prashant  
Khanna  
Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Folks

While we understand the variance for air curtain incineration (ACI) is being resolved and needed before ACI Operations commence, please be advised of our tentative schedule for this reduction method is as follows:

1. Mobilize Air Curtain Incinerators to Floyd Bennett Field: One is on site, three others are en route.
2. Site Preparation: Sunday, November, 18, 2012.
3. Shake Down of equipment (e.g. includes firing up equipment to ensure proper operation): Sunday, November, 18, 2012
4. Pilot Test: (e.g. burn load of veg debris and monitor emission and operations): 0700 Monday, November 19, 2012.



5. ACI Operations: Pending results of Pilot test, Monday November 19, 2012.

If there are concerns or needs, please advise ASAP.

Regards

Tim

-----Original Message-----

From: Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]  
Sent: Sunday, November 18, 2012 8:47 AM  
To: cholloway@cityhall.nyc.gov; AngelaL@dep.nyc.gov; cstrickland@dep.nyc.gov; Enck.Judith@epamail.epa.gov; Dave Shaw; Eugene Leff; Joe Martens; Sal Ervolina; Robb, James T SPK; Jordan, Trey COL NAB  
Cc: Gerryk@dep.nyc.gov; michaelgi@dep.nyc.gov; Rosemarie.Bradley@fema.dhs.gov; Merenda, Kevin J NAN02; Graham, Nicholas B SPK; Gouger, Timothy P NWO (First Responder)  
Subject: Re: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

What we collectively need to develop asap today (FEMA, USACE, EPA, DEC, DEP and Parks) is a veg debris management plan that defines the universe of material and the capacity at all available and practical local outlets for reuse. Reuse outlets that involve longer-distance hauling need to be roughly compared for emissions (PM 2.5 at a minimum) against incineration, recognizing analytical limitations. Once we have consensus on the total amount of debris that can be reused, then we will be in a position to develop the variance required to use the air curtain incinerators. As discussed, incineration is currently illegal in New York City and these units should not be started until the variance is in place. The reuse/transportation analysis needs to be done today and many pieces are in place thanks to research by EPA, DEC and DEP. Jamie - can you set up a conference call with you, me, Rosemarie and Bo (FEMA), Angela (DEP), Liam Kavanagh (City Parks), Karen (NPS) and James Daloia (EPA - or designee). This group will frame the analysis this morning and plug in as many gaps as possible and circulate to principals later today for review. Thanks all.

>>> "Robb, James T SPK" <James.T.Robb@usace.army.mil> 11/18/2012 8:11:45  
>>> AM >>>  
Classification: UNCLASSIFIED  
Caveats: NONE

Angela, how is the NYCDEP variance progressing? Do you have a time when we should expect to receive this? One incinerator arrived yesterday afternoon and we have begun hauling veg debris to FBF. We are ready to start the incinerator now. We can meet with you any time today either in person or by phone or webex.

James T. Robb  
NEPA Compliance Officer  
US Army Corps of Engineers  
New York Recovery Field Office  
1434 110th Street  
Queens, NY 11356  
James.T.Robb@usace.army.mil  
Cell: 916-397-9421

-----Original Message-----

From: Robb, James T SPK  
Sent: Saturday, November 17, 2012 2:33 PM  
To: Licata, Angela; 'valannon@gw.dec.state.ny.us'  
Cc: Gouger, Timothy P NWO (First Responder); Graham, Nicholas B SPK; Gilsenan, Michael; Kelpin, Gerry; Merenda, Kevin J NAN02  
Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Thank you. Let me know if you get a solid lead, and of course there's no reason why we cannot continue to look for beneficial reuse alternatives for the vegetative debris even after we begin the reduction process. The reduction process will take several weeks. We have learned that there is already considerable beneficial reuse occurring with Waste Management taking 100 tons per day of storm generated vegetation debris (per Venetia Lannon, NYSDEC) and with all vegetative debris from Staten Island going to the mulch operation at Fresh Kills.

Concerning the meeting. We would be happy to meet with you. I'll work with our contract officer to see get someone there who can speak to the orientation of the equipment and answer specific questions about its operation. Would you need to do this before your authorization, or is that something we can do after the equipment is set up and running? Let me know when you would like this meeting to occur.

James T. Robb  
NEPA Compliance Officer  
US Army Corps of Engineers  
New York Recovery Field Office  
1434 110th Street  
Queens, NY 11356  
James.T.Robb@usace.army.mil  
Cell: 916-397-9421

-----Original Message-----

From: Licata, Angela [mailto:AngelaL@dep.nyc.gov]  
Sent: Saturday, November 17, 2012 1:44 PM  
To: Robb, James T SPK; 'valannon@gw.dec.state.ny.us'  
Cc: Gouger, Timothy P NWO (First Responder); Graham, Nicholas B SPK; Gilsenan, Michael; Kelpin, Gerry  
Subject: Re: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

I prepared a briefing for the Mayor last night and my hope is he'll be briefed on Monday and that our Parks Dept will know if they have a viable alternative for at least a portion of material. Not sure if their prospects can become a firm deal.

That said, if we proceed, we should convene a meeting of the regulatory agencies to discuss the air monitoring. I'm certain this will be necessary. Also, we need someone to participate that clearly understands the orientation of the equipment, especially the blowers to develop the air monitoring protocol.

Angela Licata Deputy Commissioner of Sustainability NYC Environmental  
Protection Alicata@dep.nyc.gov office#(718)595-4398 cell#(917)856-2154

----- Original Message -----

From: Robb, James T SPK [mailto:James.T.Robb@usace.army.mil]  
Sent: Saturday, November 17, 2012 10:06 AM  
To: Licata, Angela; 'valannon@gw.dec.state.ny.us'  
<valannon@gw.dec.state.ny.us>  
Cc: Gouger, Timothy P NWO (First Responder) <Timothy.P.Gouger@usace.army.mil>;  
Graham, Nicholas B SPK <Nick.Graham@usace.army.mil>  
Subject: Re: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Thank you Angela. When do you expect a decision?

-----

James T. Robb, Senior Project Manager, Sacramento District, U.S. Army Corps of  
Engineers  
916-557-7610

Message sent via my BlackBerry Wireless Device

----- Original Message -----

From: Licata, Angela [mailto:AngelaL@dep.nyc.gov]  
Sent: Friday, November 16, 2012 06:14 PM  
To: Robb, James T SPK; Gilsenan, Michael <michaelgi@dep.nyc.gov>; 'Michael  
Klosky' <MKlosky@ecc.net>; Chan, Chung <ChungC2@dep.nyc.gov>; Kelpin, Gerry  
<Gerryk@dep.nyc.gov>; Gerry, Kelpin <KGerryforUM@dep.nyc.gov>; Liang, Kit Y.  
<KLiang@dep.nyc.gov>; Radhakrishnan, Krish <KrishR@dep.nyc.gov>; Blaise  
Constantakes <bwconsta@gw.dec.state.ny.us>; Dave Shaw  
<djshaw@gw.dec.state.ny.us>; Khai Gibbs <khgibbs@gw.dec.state.ny.us>; Steven  
Flint <seflint@gw.dec.state.ny.us>; Venetia Lannon  
<valannon@gw.dec.state.ny.us>

Cc: Wilhite, Coralie P SPK; Beltran, Edward D SPK; Merenda, Kevin J NAN02;  
Graham, Nicholas B SPK; Shankle, Stephen P MVM; Gouger, Timothy P NWO (First  
Responder)  
Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Great, got it and thank you. We're progressing with the regulatory process as  
well.

Angela Licata | Deputy Commissioner | NYC Environmental Protection  
Sustainability  
(O) 718 595 4398 | (C) 917 856 2154 | angelal@dep.nyc.gov

-----Original Message-----

From: Robb, James T SPK [mailto:James.T.Robb@usace.army.mil]  
Sent: Friday, November 16, 2012 6:05 PM  
To: Gilsenan, Michael; 'Michael Klosky'; Licata, Angela; Chan, Chung; Kelpin,  
Gerry; Gerry, Kelpin; Liang, Kit Y.; Radhakrishnan, Krish; Blaise  
Constantakes; Dave Shaw; Khai Gibbs; Steven Flint; Venetia Lannon  
Cc: Wilhite, Coralie P SPK; Beltran, Edward D SPK; Merenda, Kevin J NAN02;  
Graham, Nicholas B SPK; Shankle, Stephen P MVM; Gouger, Timothy P NWO (First  
Responder)  
Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Emailed this out earlier, but did not hit everyone on this list. Please find  
the completed operational plan.

-----Original Message-----

From: Gilsenan, Michael [mailto:michaelgi@dep.nyc.gov]

Sent: Friday, November 16, 2012 1:01 PM  
To: 'Michael Klosky'; Licata, Angela; Chan, Chung; Kelpin, Gerry; Gerry, Kelpin; Liang, Kit Y.; Radhakrishnan, Krish; Blaise Constantakes; Dave Shaw; Khai Gibbs; Steven Flint; Venetia Lannon; Robb, James T SPK  
Cc: Wilhite, Coralie P SPK; Beltran, Edward D SPK; Merenda, Kevin J NAN02; Graham, Nicholas B SPK; Shankle, Stephen P MVM; Gouger, Timothy P NWO (First Responder)  
Subject: RE: FW: Air Curtain Incinerator Management Plan

Thanks for the update, please keep in mind that we will need to see a completed operational plan to move forward.

From: Michael Klosky [mailto:MKlosky@ecc.net]  
Sent: Thursday, November 15, 2012 9:29 PM  
To: Licata, Angela; Chan, Chung; Kelpin, Gerry; Gerry, Kelpin; Liang, Kit Y.; Radhakrishnan, Krish; Gilsenan, Michael; Blaise Constantakes; Dave Shaw; Khai Gibbs; Steven Flint; Venetia Lannon; James T SPK Robb  
Cc: Coralie P SPK Wilhite; Edward D SPK Beltran; Kevin J NAN02 Merenda; Nicholas B SPK Graham; Stephen P MVM Shankle; Timothy P NWO (First Responder) Gouger  
Subject: Re: FW: Air Curtain Incinerator Management Plan

Evening Folks,

Thank you all for the excellent comments on the Air Curtain Burner Management Plan (Rev 1) for Floyd Bennett Field. Attached please find the combined comment

not responded with sufficient information and will explore any and all new possibilities.

Best regards,

Trey

From: Enck.Judith@epamail.epa.gov [mailto:Enck.Judith@epamail.epa.gov]  
Sent: Wednesday, November 21, 2012 01:33 PM  
To: Jordan, Trey COL NAB  
Cc: 'AngelaL@dep.nyc.gov' <AngelaL@dep.nyc.gov>; Cas Holloway <CHolloway@cityhall.nyc.gov>; 'CStrickland@dep.nyc.gov' <CStrickland@dep.nyc.gov>; 'ddiggins@dsny.nyc.gov' <ddiggins@dsny.nyc.gov>; 'djshaw@gw.dec.state.ny.us' <djshaw@gw.dec.state.ny.us>; 'ejleff@gw.dec.state.ny.us' <ejleff@gw.dec.state.ny.us>; 'Gerryk@dep.nyc.gov' <Gerryk@dep.nyc.gov>; Dalola, James@epamail.epa.gov <Dalola.James@epamail.epa.gov>; Robb, James T SPK; [REDACTED]; Davis, Joseph M LTC NWO; 'jscrivani@OEM.NYC.GOV' <jscrivani@OEM.NYC.GOV>; Merenda, Kevin J NAN02; 'michaelgi@dep.nyc.gov' <michaelgi@dep.nyc.gov>; Graham, Nicholas B SPK; 'PKhanna@ecc.net' <PKhanna@ecc.net>; 'Rosemarie.Bradley@fema.dhs.gov' <Rosemarie.Bradley@fema.dhs.gov>; 'sxervoll@gw.dec.state.ny.us' <sxervoll@gw.dec.state.ny.us>; Gouger, Timothy P NWO (First Responder); 'valannon@gw.dec.state.ny.us' <valannon@gw.dec.state.ny.us>  
Subject: Re: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Thank you. We have identified 10 companies that can use the material for mulch and compost. And 8 that can use the material as alternate daily cover. Can you expand beyond the 3 companies noted in your email? Let us know how we can help. Tx and happy thanksgiving to all

Sent by EPA Wireless E-Mail Services

---

From: "Jordan, Trey COL NAB" [trey.jordan@usace.army.mil]  
Sent: 11/21/2012 07:39 PM GMT  
To: Judith Enck  
Cc: "AngelaL@dep.nyc.gov" <AngelaL@dep.nyc.gov>; "cholloway@cityhall.nyc.gov" <cholloway@cityhall.nyc.gov>; "CStrickland@dep.nyc.gov" <CStrickland@dep.nyc.gov>; "ddiggins@dsny.nyc.gov" <ddiggins@dsny.nyc.gov>; "djshaw@gw.dec.state.ny.us" <djshaw@gw.dec.state.ny.us>; "ejleff@gw.dec.state.ny.us" <ejleff@gw.dec.state.ny.us>; "Gerryk@dep.nyc.gov" <Gerryk@dep.nyc.gov>; James Dalola; "Robb, James T SPK" <James.T.Robb@usace.army.mil>; [REDACTED]; "Davis, Joseph M LTC NWO" <Joseph.M.Davis@usace.army.mil>; "jscrivani@OEM.NYC.GOV" <jscrivani@OEM.NYC.GOV>; "Merenda, Kevin J NAN02" <Kevin.J.Merenda@usace.army.mil>; "michaelgi@dep.nyc.gov" <michaelgi@dep.nyc.gov>; "Graham, Nicholas B SPK" <Nick.Graham@usace.army.mil>; "PKhanna@ecc.net" <PKhanna@ecc.net>; "Rosemarie.Bradley@fema.dhs.gov" <Rosemarie.Bradley@fema.dhs.gov>; "sxervoll@gw.dec.state.ny.us" <sxervoll@gw.dec.state.ny.us>; "Gouger, Timothy P NWO (First Responder)" <Timothy.P.Gouger@usace.army.mil>; "valannon@gw.dec.state.ny.us" <valannon@gw.dec.state.ny.us>  
Subject: Re: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

Ma'am,

I regret to report that NY Wood Recycling has decided that our wood chips are not clean enough for their purposes. I believe they found bits of plastic amongst the wood chips.

We continue to work with three more companies which appear to be economically feasible, but our prime contractor is awaiting bids to lock in prices. One of these companies has visited Floyd Bennett and says the chips are suitable for their needs.

Will continue to keep you updated. Have a happy Thanksgiving.

Best regards,

Trey

From: Enck.Judith@epamail.epa.gov [mailto:Enck.Judith@epamail.epa.gov]

Sent: Tuesday, November 20, 2012 03:55 PM

To: Jordan, Trey COL NAB

Cc: 'Licata, Angela' <AngelaL@dep.nyc.gov>; 'Cas Holloway' <cholloway@cityhall.nyc.gov>; 'Strickland Jr., Carter H.' <CStrickland@dep.nyc.gov>; 'Diggins, Dennis' <ddiggins@dsny.nyc.gov>; 'Dave Shaw' <dshaw@gw.dec.state.ny.us>; 'Eugene Leff' <ejleff@gw.dec.state.ny.us>; 'Kelpin, Gerry' <Gerryk@dep.nyc.gov>; Dalola.James@epamail.epa.gov <Dalola.James@epamail.epa.gov>; Robb, James T SPK; [REDACTED] Davis, Joseph M LTC NWO; 'Scrivani, John' <jscrivani@OEM.NYC.GOV>; Merenda, Kevin J NAN02; 'Gilsenan, Michael' <michaelgi@dep.nyc.gov>; Graham, Nicholas B SPK; 'Prashant Khanna' <PKhanna@ecc.net>; 'Rosemarie.Bradley@fema.dhs.gov' <Rosemarie.Bradley@fema.dhs.gov>; 'Sal Ervolina' <sxervoli@gw.dec.state.ny.us>; Gouger, Timothy P NWO (First Responder); 'Venetia Lannon' <valannon@gw.dec.state.ny.us>

Subject: RE: FW: Air Curtain Incinerator Management Plan (UNCLASSIFIED)

thank you for the update colonel Jordan. We appreciate you engaging with multiple composting and mulch companies and there are a number of others that are interested in "chipping away" at the piles. If you need additional outlets, please let EPA know and we are happy keep working to identify markets for mulch and compost.

best,

Judith Enck

Regional Administrator

U.S. Environmental Protection Agency

290 Broadway

New York, N.Y. 10007-1866

(212) 637-5000

From: "Jordan, Trey COL NAB" <trey.jordan@usace.army.mil>

To: "Jordan, Trey COL NAB" <trey.jordan@usace.army.mil>; Judith Enck/R2/USEPA/US@EPA, "Strickland Jr., Carter H." <CStrickland@dep.nyc.gov>

Cc: "Licata, Angela" <AngelaL@dep.nyc.gov>; 'Cas Holloway' <cholloway@cityhall.nyc.gov>; "Diggins, Dennis" <ddiggins@dsny.nyc.gov>; 'Dave Shaw' <dshaw@gw.dec.state.ny.us>; 'Eugene Leff' <ejleff@gw.dec.state.ny.us>; "Kelpin, Gerry" <Gerryk@dep.nyc.gov>; "Robb, James T SPK" <James.T.Robb@usace.army.mil>; [REDACTED]; "Davis, Joseph M LTC NWO" <Joseph.M.Davis@usace.army.mil>; "Scrivani, John" <jscrivani@OEM.NYC.GOV>; "Merenda, Kevin J NAN02" <Kevin.J.Merenda@usace.army.mil>; "Gilsenan, Michael" <michaelgi@dep.nyc.gov>; James Dalola/R2/USEPA/US@EPA, "Graham, Nicholas B SPK" <Nick.Graham@usace.army.mil>; 'Prashant Khanna' <PKhanna@ecc.net>;

>>> "Gouger, Timothy P NWO (First Responder)" <Timothy.P.Gouger@usace.army.mil> 11/11/2012 3:23:32 PM >>>  
Angela

Not an open burn but a controlled burn with engineering controls to reduce and manage emissions. Air curtain over open top to capture particulates and retain in box

Regards

Tim

---

**From:** Licata, Angela [mailto:AngelaL@dep.nyc.gov]  
**Sent:** Sunday, November 11, 2012 12:06 PM  
**To:** 'valannon@gw.dec.state.ny.us' <valannon@gw.dec.state.ny.us>; Graham, Nicholas B SPK; Robb, James T SPK  
**Cc:** Gouger, Timothy P NWO (First Responder); Stormant, Gregory A SAJ  
**Subject:** Re: Air Curtain units

If these incinerators are an "open fire", then they would be prohibited, as this use does not fall into any of the exceptions. We could issue a variance to a private contractor but the Air Code does not allow us to issue variances to government agencies. Is the Army planning to contract out the services to a private entity?

Does the Army Corp have the ability to preempt our local codes under emergency provisions? It seems this would resolve some timing and procedural issues.

Thank you for your coordination and for your acknowledgment of our preference for practical alternatives,

However, if the Army Corp still feels that this is the best way forward, I'll support it. What is meant by work would begin ASAP, e.g. today, tomorrow?

Feel free to call me with any questions

Thank you

---

Angela Licata Deputy Commissioner of Sustainability NYC Environmental Protection Alicata@dep.nyc.gov office#(718) 595-4398 cell#(917)856-2154

---

**From:** Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]  
**Sent:** Sunday, November 11, 2012 12:25 PM  
**To:** Graham, Nicholas B SPK <Nick.Graham@usace.army.mil>; Robb, James T SPK <James.T.Robb@usace.army.mil>; Licata, Angela  
**Cc:** Gouger, Timothy P NWO (First Responder) <Timothy.P.Gouger@usace.army.mil>; Stormant, Gregory A SAJ  
City Council Hearing 000012

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<Gregory.A.Stormant@usace.army.mil>  
**Subject:** Air Curtain units



Nick and James (if I may),

I'm copying Angela Licata Dep Commissioner at NYC Dept. of Environmental Protection, which along with FDNY has oversight for the air curtains in the City. She has questions on emissions, etc and I let her ask them directly. We're working on getting FDNY looped in as well.

Thanks all,



**Venetia Lannon** Regional Director  
New York State Department of Environmental Conservation  
47-40 21st Street Long Island City, NY 11101

 : 718.482-4949 |  : 718.482-4026

[website](#) | [directions](#) | [email](#) |

>>> "Graham, Nicholas B SPK" <Nick.Graham@usace.army.mil> 11/11/2012 8:37 AM >>>  
Classification: UNCLASSIFIED  
Caveats: NONE

Venetia-

See attached specs. We would like to start up this operation ASAP so please let me know of any issues.

Thanks,

Nick Graham  
USACE Debris AO  
New York RFO  
916-335-6163

-----Original Message-----

From: Robb, James T SPK  
Sent: Saturday, November 10, 2012 4:03 PM  
To: Graham, Nicholas B SPK  
Cc: Beltran, Edward D SPK  
Subject: FW: Debris environment issue, asian longhorn beetle (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Here are the specs that I've received from Matt Tate concerning the air curtain incinerator.

-----Original Message-----

From: Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]  
Sent: Saturday, November 10, 2012 5:31 PM  
To: Robb, James T SPK; Graham, Nicholas B SPK  
Cc: Rosemarie.Bradley@fema.dhs.gov; Dave Shaw; Eugene Leff; Joe Martens; Robert Davies; Steve Zahn; Beltran, Edward D SPK; Roth, James L CIV FEST@LRD  
Subject: Re: Debris environment issue, asian longhorn beetle (UNCLASSIFIED)

James,

These questions can run through me with no need of the rest of the cc list. ALB quarantine wood can go through air curtain incineration. However, it is our and NYC DEP's strong preference to not use air curtain incinerators in NYC. That  
City Council Hearing 000011



**Kupferman 12-3846 FOIL - Fw: Air Curtain units**

---

**From:** Dave Shaw  
**To:** Flint, Steven <seflint@gw.dec.state.ny.us>; Constantakes, Blaise <bwcons...>  
**Date:** 11/11/2012 3:36 PM  
**Subject:** Fw: Air Curtain units

---

Eyl. Might be a bit before we get an application

>>> Venetia Lannon 11/11/2012 3:26:56 PM >>>  
FYI

>>> "Gouger, Timothy P NWO (First Responder)" <Timothy.P.Gouger@usace.army.mil> 11/11/2012 3:23:32 PM >>>  
Angela

Not an open burn but a controlled burn with engineering controls to reduce and manage emissions. Air curtain over open top to capture particulates and retain in box

Regards

Tim

**From:** Licata, Angela [mailto:AngelaL@dep.nyc.gov]  
**Sent:** Sunday, November 11, 2012 12:06 PM  
**To:** 'valannon@gw.dec.state.ny.us' <valannon@gw.dec.state.ny.us>; Graham, Nicholas B SPK; Robb, James T SPK  
**Cc:** Gouger, Timothy P NWO (First Responder); Stormant, Gregory A SAJ  
**Subject:** Re: Air Curtain units

If these incinerators are an "open fire", then they would be prohibited, as this use does not fall into any of the exceptions. We could issue a variance to a private contractor but the Air Code does not allow us to issue variances to government agencies. Is the Army planning to contract out the services to a private entity?

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However, if the Army Corp still feels that this is the best way forward, I'll support it. What is meant by work would begin ASAP, e.g. today, tomorrow?

Feel free to call me with any questions

Thank you

---

Angela Licata Deputy Commissioner of Sustainability NYC Environmental Protection Alicata@dep.nyc.gov office#(718) 595-4398 cell#(917) [REDACTED]

**From:** Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]  
**Sent:** Sunday, November 11, 2012 12:25 PM  
**To:** Graham, Nicholas B SPK <Nick.Graham@usace.army.mil>; Robb, James T SPK <James.T.Robb@usace.army.mil>; Licata, Angela  
**Cc:** Gouger, Timothy P NWO (First Responder) <Timothy.P.Gouger@usace.army.mil>; Stormant, Gregory A SAJ  
City Council Hearing 000000

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said, I asked one of your colleagues on the Emergency Debris Management Task Force today to send us technical specs on the proposed equipment for our further consideration of this method. How are you coordinated with USACE staff on that Task Force under Col Jordan's command? Thanks.

>>> "Robb, James T SPK" <James.T.Robb@usace.army.mil> 11/10/2012 5:24:07 PM >>>

Classification: UNCLASSIFIED

Caveats: NONE

Any developments on the Asian Longhorn Beetle issue and woody material reduction through air curtain burning?

-----Original Message-----

From: Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]

Sent: Saturday, November 10, 2012 11:14 AM

To: Robb, James T SPK; Graham, Nicholas B SPK

Cc: Rosemarie.Bradley@fema.dhs.gov; Dave Shaw; Eugene Leff; Joe Martens; Robert Davies; Steve Zahn; Beltran, Edward D SPK; Roth, James L CIV FEST@LRD

Subject: Re: Debris environment issue, asian longhorn beetle (UNCLASSIFIED)

Definitely. I plan to be at 3pm meeting at NYC OEM and we hope to have as many answers by then as possible. All relevant DEC Programs have staff engaged this morning on these questions, as well as the larger FEMA FAQ effort on debris management. Thanks.

>>> "Graham, Nicholas B SPK" <Nick.Graham@usace.army.mil> 11/10/2012 11:10:21 AM >>>

Classification: UNCLASSIFIED

Caveats: NONE

Thanks to everybody's help. If we could have a status update regarding the incinerators by 3pm that would be great. I know FEMA/City will be expecting an update.

Nick Graham  
USACE Debris AO  
New York RFO  
916-335-6163

-----Original Message-----

From: Venetia Lannon [mailto:valannon@gw.dec.state.ny.us]

Sent: Saturday, November 10, 2012 7:26 AM

To: Robb, James T SPK

Cc: Rosemarie.Bradley@fema.dhs.gov; Dave Shaw; Eugene Leff; Robert Davies; Steve Zahn; Beltran, Edward D SPK; Roth, James L CIV FEST@LRD; Graham, Nicholas B SPK

Subject: Re: Debris environment issue, asian longhorn beetle (UNCLASSIFIED)

For the air curtain incineration question, I am copying Dave Shaw, who runs NYSDEC's Division of Air to advise. As to the ALB quarantine, I'm copying Rob Davies, who runs NYSDEC's Lands and Forest Division and Steve Zahn, who is our Natural Resources Supervisor for NYC. I'm also copying Rosemarie at FEMA, as we are working this morning to develop an FAQ sheet on Emergency Debris management and these issues are included.

>>> "Robb, James T SPK" <James.T.Robb@usace.army.mil> 11/10/2012 10:17:42 AM >>>

Classification: UNCLASSIFIED

Caveats: NONE

Ms. Lannon,

Following up on my ycomail from a few minutes ago, I am looking into an environmental issue concerning debris

removal and reduction following Hurricane Sandy. It's come to our attention that there are areas within the recovery area that have been designated quarantined zones due to the Asian Longhorn Beetle. We would like to coordinate with you concerning debris removal and reduction from these areas. Specifically we are looking into a recommendation to reduce woody debris within these quarantined zones using air curtain incinerators. Could you please advise on any regulatory or statutory restrictions governing this type of action or direct me to the appropriate person.

Respectfully,

James T. Robb  
NEPA Compliance Officer  
US Army Corps of Engineers  
New York Recovery Field Office  
1434 110th Street  
Queens, NY 11356  
James.T.Robb@usace.army.mil  
Cell: 916-397-9421

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE



## **FLOYD BENNETT FIELD TEMPORARY STORAGE SITE AIR CURTAIN BURNER MANAGEMENT PLAN SYNOPSIS**

This synopsis summarizes the more detailed Air Curtain Management Plan that describes the means and methods that will be utilized to provide safe and efficient management of green debris at Floyd Bennett Field (FBF).

**General Site Description:** The FBF debris pile is located on the southwest corner of the airfield at the junction of Runways #6, #12 & #15. The debris pile consists of approximately 10,000 CY of shredded and unshredded wood debris. The debris pile is located on the concrete runways and is surrounded by various storm water controls. Additional green debris is anticipated to be transported to FBF from other temporary storage sites throughout the area.

**Air Curtain Burner Operation:** The air curtain burner is a self-contained refractory walled system that is manufactured as an over-the road transportable combustion system that will reduce wood debris to ash without excessive particulate emissions. Using a diesel engine fan, the air curtain burner generates a curtain of air with a specific mass flow and velocity that prevents embers and ash from escaping the ceramic lined firebox. The green debris is periodically dumped into the operating firebox to sustain the fire. The air curtain traps most of the smoke particles and causes them to re-burn under the air curtain. The air curtain burners do not inject any fuels into the fire and the only fuel used in the continuous operation is that of the diesel engine driven fan. Ash will be removed daily from the air curtain burner by reaching through the rear doors with an excavator and scooping out a portion of the accumulated ash. Once removed, the ash will be placed on the ground adjacent to the air curtain burner, quenched with a water spray and loaded into roll-offs for off-site disposal. Four air curtain burns are planned to manage the anticipated volume of green debris (100,000 cubic yards).

**Operational Hours:** Air curtain burner operations at FBF are anticipated to be 24-hours per day and 7 days per week. The air curtain burners are anticipated to operate less than 16 weeks.

**Air Permitting:** Per 40 CFR §60.2969, air curtain burners are excluded from Federal permitting requirements if used for less than 16 weeks to combust debris from a designated disaster area. Part 215 of NYSDEC and Section 307.1 of NYC Fire Code prohibit burning in an open fire. NYSDEC and NYCDEP will provide a written exemption for the air curtain burners through their authority for deferred enforcement. Although not required by Federal Regulation, the air curtain burners will be operated with less than 10% opacity (6-minute average). Opacity will be verified as required by NYSDEC or NYCDEP written permission.

**Site Preparation:** Figure 1 depicts the site plan for FBF. Four (4) air curtain burners will be located at FBF. The closest residential areas are approximately 0.8 miles to the northwest. Figure 2 depicts the closest residential areas.

**Site Security:** The ingress/egress to FBF is controlled by NYPD and the military.

**Fire Protection:** The fire protection provisions of the Accident Prevention Plan will be followed. The air curtain burner operation will be discontinued with wind speeds greater than 20 miles per hour (as determined at the top lip of the air curtain burner) to avoid spurious embers outside the 500-ft protection radius. Engineering controls (e.g. wind screens constructed of stacked ISO containers) will be used as needed to create a wind screen. A fire watch patrol will be conducted every 30-minutes within a 500-ft radius of the operating air curtain burners. Operations will be coordinated with NYFD for pre-staged firefighting equipment as needed.

**Segregation of Debris:** MSW will not be accepted, although minor amounts (less than 0.5%) may be incidental and part of the collected wood debris. Any large and segregatable quantities of MSW or household hazardous waste will be removed from the debris, and disposed off-site.



Figure 1: Site Layout for Air Curtain Burner Operations at Floyd Bennett Field Debris Temporary Storage Site.

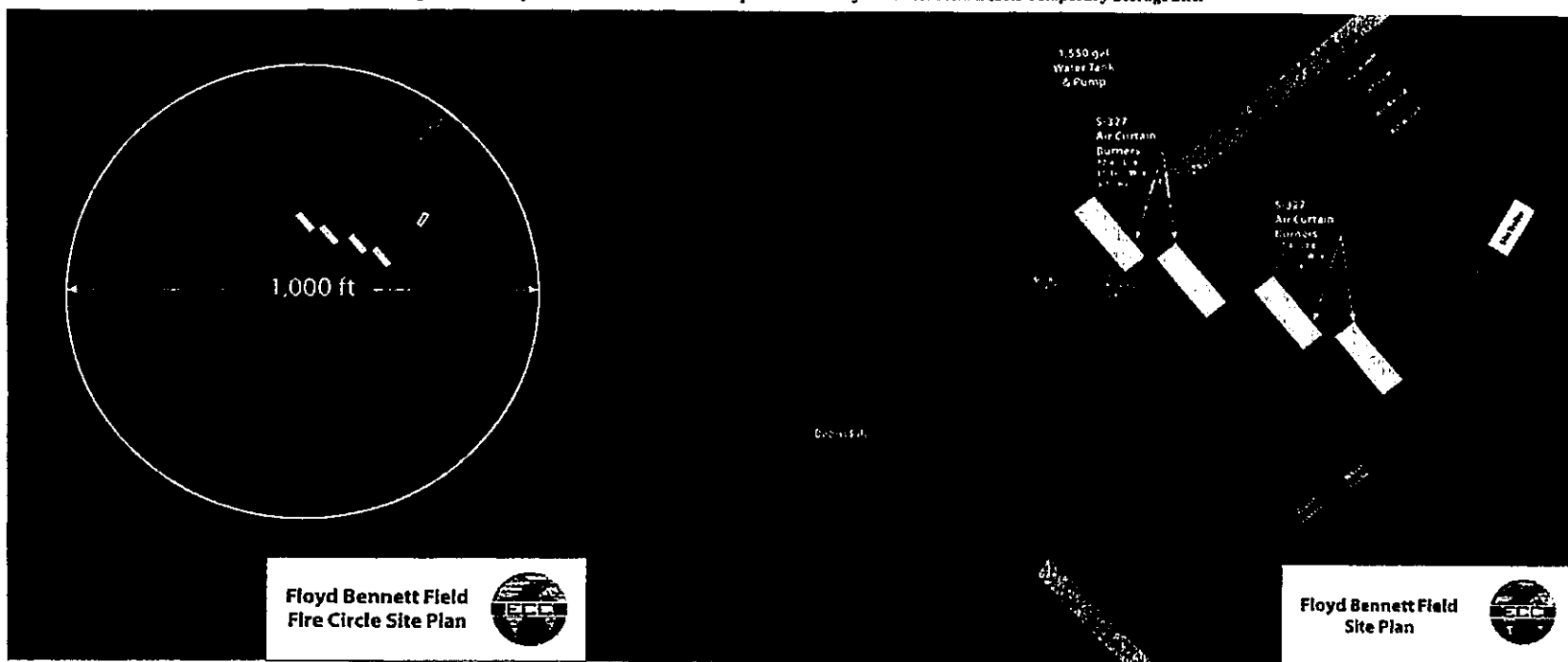
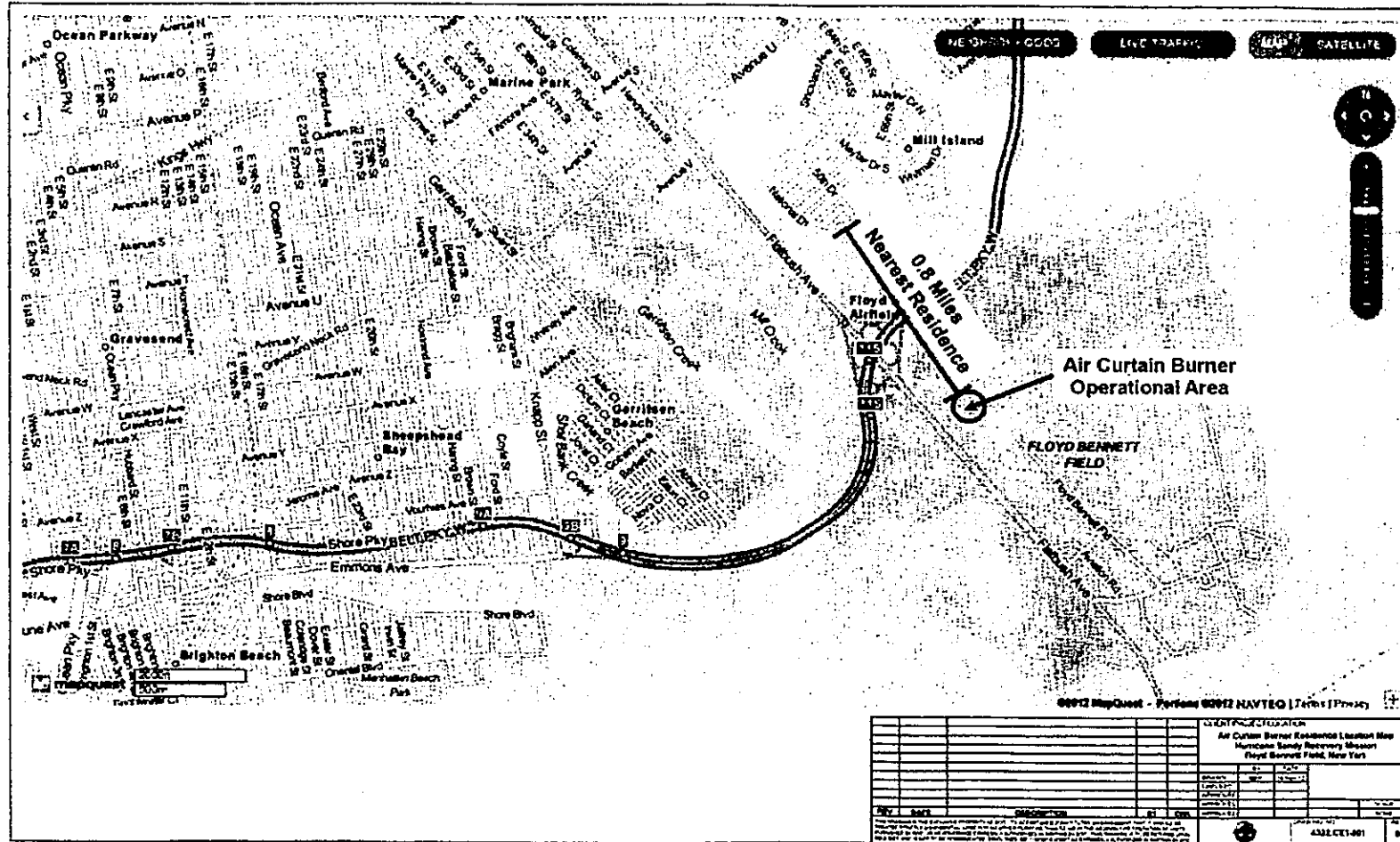




Figure 2: Residential Area Location Map at Floyd Bennett Field Debris Temporary Storage Site.



## **Kupferman 12-3846 FOIL - Veg management**

---

**From:** Steven Flint  
**To:** James.T.Robb@usace.army.mil  
**Date:** 12/11/2012 8:36 AM  
**Subject:** Veg management  
**CC:** mklosky@ecc.net

---

Jamie- We are continuing to go through the process of prelim review of plans for burning at FBF. I have a couple of questions related to non-burn options.

ECC did a quick analysis of emissions from the ACB as opposed to chipping of the material. People here have given that a look and believe that some factors were mis applied, and that the actual numbers indicate that burning is as much as 10 times higher than chipping (which makes more sense from a gut level). Its not that we necessarily have to take the lowest emissions approach, but we have to look at the various factors in the decision making process.

The recent history on chipping is that the material has been processed twice, and may require a third processing before it can be moved. If chipping were to be the removal option (putting aside for now a taker for the material) would multiple processing be needed, or would a different approach be employed so that a single pass through the equipment would suffice? (ie- different management practice, different equipment, etc) If different equipment will give a once though (acceptable) result, what is that equipment, and is it available to you?

On a separate path- I believe that the material you supplied relative to the various conditions on DEC's authorization will suffice. Its it your intention to revise the Debris Management Plan to reflect the proposed operation?

Thanks

Steven Flint  
Division of Air Resources  
NYS DEC  
625 Broadway  
Albany, NY 12233  
(518) 402-8451  
Fax (518) 402-9035



**Regional Office**

110 Fieldcrest Ave.  
Suite 31, 2<sup>nd</sup> Fl.  
Edison, NJ 08837

Phone: (908) 595-1777  
Fax: (908) 595-1776

**Corporate Office**

1240 Bayshore Highway  
Burlingame, CA 94010

Phone: (650) 347-1555  
Fax: (650) 347-8789

www.ecc.net

10 December 2012

**To:** Commissioner Carter Strickland *via email* [cstrickland@dep.nyc.gov](mailto:cstrickland@dep.nyc.gov)  
New York City, Department of Environmental Protection (NYCDEP)  
59 -17 Junction Blvd, 19<sup>th</sup> Floor  
Flushing, NY 111373

**To:** Commissioner Joe Martens *via email* [joemartens@gw.dec.state.ny.us](mailto:joemartens@gw.dec.state.ny.us)  
New York State Department of Environmental Conservation (NYSDEC)  
625 Broadway  
Albany NY, 12233

**Re: PETITION FOR VARIANCE**  
Floyd Bennett Field (FBF) Air Curtain Burner (ACB) Full-Scale Operations  
20 Aviation Road, Brooklyn, NY 11234-7018

On October 26, 2012, Governor Cuomo declared a State of Emergency in New York and on October 30, 2012, NYSDEC Commissioner Martens authorized the issuance of Emergency Authorizations for certain situations in which action is necessary to protect the public health and safety and to re-establish normal, safe living conditions.

Environmental Chemical Company (ECC) is the primary contractor for the U.S. Army Corps of Engineers (USACE) as part of its Superstorm Sandy Recovery Mission. The USACE has received a mission assignment from the Federal Emergency Management Agency (FEMA) to remove and dispose of storm related green waste debris. In this capacity, ECC submits this petition for variance to operate up to four ACBs for up to sixteen weeks starting 17 Dec 2012.

Therefore, pursuant to New York Environmental Conservation Law (ECL) §70-0116, 6 New York Codes, Rules and Regulations (NYCRR) §621.12, New York City (NYC) Administrative Code Sections 24-110, 118, and 149, ECC is submitting this petition for variance for the temporary storage and burning of storm-related green waste debris due to the effects of Superstorm Sandy. This request excludes any construction and demolition debris, electronics, municipal solid waste, household hazardous waste and similar wastes. The proposed green waste debris will include trees, trunks, limbs, branches, and root balls that may be up to 40-inches in diameter and greater than 8-ft in length. The green waste debris was generated from within the Asian Longhorned Beetle (ALB) quarantine zone.

The current volume of green waste debris is estimated at approximately 170,000 cubic yards (CY) of whole wood debris and 110,000 CY of shredded debris, and will likely grow larger as several agencies continue to collect woody debris. Due to the large volume of green waste debris from Superstorm Sandy, ECC plans to employ ACBs for the whole wood debris as a means to safely and quickly eliminate excess green waste debris at Floyd Bennett Field (FBF).



### DESCRIPTION OF THE PROPOSED ACTION

The ACB is a self-contained refractory walled system that is manufactured as an over-the-road transportable combustion system that will reduce green waste debris to ash without excessive particulate emissions. Using a diesel engine fan, the ACB generates a curtain of air that prevents embers and ash from escaping the ceramic lined firebox. The green waste debris is periodically dumped into the operating firebox to sustain the fire. The air curtain acts as a pollution control device, traps the smoke particles, and causes them to re-burn under the air curtain. The ACB does not inject any fuels into the fire and the only fuel used in the continuous operation is that of the diesel engine driven fan. Ash will be removed periodically from the unit. Once removed, the ash will be placed on the ground adjacent to the ACB, quenched with a water spray and loaded into roll-offs for off-site disposal in compliance with appropriate laws.

The FBF green waste debris piles are located on the southwest corner of the airfield at the junction of Runways #6, #12 & #15 (see attached figures). The nearest residential areas are approximately 0.8 miles to the northwest (see attached figure). The green waste debris piles are located on concrete runways and are surrounded by various storm water controls. Additional green waste debris is anticipated to be transported to FBF from other temporary storage sites throughout the area.

Per 40 CFR §60.2969, ACBs are excluded from Federal permitting requirements if used for less than 16 weeks to combust debris from a designated disaster area. Part 215 of NYSDEC and Section 307.1 of NYC Fire Code prohibit burning in an open fire. Part 215.3a also prohibits open burning of debris greater than 6-inches in diameter, 8-feet long and during the periods of March 16 through May 14. With this petition, ECC requests that NYSDEC and NYCDEP provide a written exemption for the ACBs through their authority for deferred enforcement, including the size and timeframe restrictions of Part 215.3a.

ECC proposes to operate up to four ACBs, depending on the final volume of green waste debris collected. The ACBs will be operated 24 hours per day and seven days per week. In order to scale up operations safely with verifiable air quality data, ECC proposes to initiate operations with one ACB from 08:00 on 17 Dec 2012 to 18:00 on 24 Dec 2012. A second ACB unit will be mobilized and then start operations 08:00 on 26 Dec 2012. A third ACB unit will be mobilized and start operations 08:00 on 07 Jan 2013 for a total disposal capacity of approximately 2,700 CY per day. With three operational units, an additional 63 operational days or 9 weeks (accounting for some downtime) will be required to dispose of the remaining 170,000 CY of the woody green waste debris. It is anticipated that ACB operations will cease on approximately 08 Mar 2013. A fourth ACB will be mobilized if needed as a contingency to manage any growth in volumes, ACB maintenance issues (if any), or air quality restrictions, and in order to remain below the 16 week window allowed per Federal regulations for operation of ACBs in emergency disasters. Moreover, this proposed schedule will be completed well before the 01 May 2013 deadline required by New York Department of Agriculture and Materials (NYDAM) to destroy all woody debris due to the ALB quarantine.

ECC will notify the Department 24-hours prior to the operation for each ACB unit. ECC will notify the Department if shredded green waste debris will be used in the ACBs.

Ash will be removed from the ACB during burning as necessary to maintain efficient combustion. Ash will be removed from the ACBs in such a manner as to minimize the ash becoming airborne. All material removed from the ACB will be completely extinguished before being disposed of and will be stored in a manner which does not constitute a fire hazard or allow material to smolder or burn outside of the ACB. Ash will be disposed of in accordance with applicable laws and regulations, and best efforts will be made to utilize the ash in a beneficial way.

Records of all opacity measurements and hours of operation will be maintained, and will be provided to NYCDEP and by electronic mail on a daily basis, and upon request. Records of the amount of material handled, the ratio of chipped to unchipped woody debris, the amount of ash generated will be maintained on a daily basis. Records of any complaints received and any responsive action will be maintained for each occurrence, and notification of any such complaints will be provided to NYCDEP on a daily basis via electronic mail. Once all green waste debris is destroyed, ECC will submit a written report detailing the results of the ACB operations.

Your immediate attention to this issue is greatly appreciated. Should you have any questions, please do not hesitate to contact me directly at (770) 846-2864 or [mklosky@ecc.net](mailto:mklosky@ecc.net).

Sincerely,



Michael Klosky, P.E.  
Lead Remediation Engineer  
New York P.E. License No. 084737-1 (Expires 12/31/2012)

***CC via email:***

Ms. Venetian Lannon  
NYSDEC  
47-40 21<sup>st</sup> Street  
Long Island City, NY 11101  
[valannon@gw.dec.state.ny.us](mailto:valannon@gw.dec.state.ny.us)

Mr. James T. Robb  
USACE, Recovery Field Office  
14-34 110<sup>th</sup> Street  
Queens, NY 11356  
[James.T.Robb@usace.army.mil](mailto:James.T.Robb@usace.army.mil)

Ms. Rosemarie Bradley  
FEMA, Joint Field Office  
118-35 Queens Blvd  
Queens, NY 11375  
[Rosemarie.Bradley@fema.dhs.gov](mailto:Rosemarie.Bradley@fema.dhs.gov)

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: DR. Thomas Matte

Address: \_\_\_\_\_

I represent: Department of Health's Mental Hygiene

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Daniel Kay

Address: DOHMH

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: Feb 28, 2013

(PLEASE PRINT)

Name: Joan Levine

Address: 100 La Salle St. 19F, NY 10027

I represent: Morningside Heights West

Address: Harlem Sanitation Coalition

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name: Angela Cicata

Address: 59-17 Junction Blvd

I represent: DEP

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/2013

(PLEASE PRINT)

Name: MICHAEL SHAIN

Address: 80 OLD BROOK RD DIX HILLS NY 11746

I represent: NY Jason Air Quality Solutions

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Greg Haag

Address: 59-17 Junction Blvd

I represent: DEP

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name: Commissioner Veronica White

Address: NYC Parks Department

I represent: The Arsenal - 830 5<sup>th</sup> Avenue

Address: NY, NY 10065

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Kathryn Garcia

Address: 55-17 Jackson Blvd

I represent: DSB

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name: Commissioner John J. Doherty

Address: 125 Worth St - Rm 710 - NY, NY 10013

I represent: DSNY

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name: Harry Vespoli, GMA USA Local 831

Address: 25 Cliff St.

I represent: USA Local 831

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☒ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: Joel Kuperman

Address: 351 BNY

I represent: NY CLT Project

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: \_\_\_\_\_

(PLEASE PRINT)

Name: JESSICA ROFF

Address: 595 President St BKlyn NY 11215

I represent: Restore the Rock / YANA / Occupy Sandy

Address: \_\_\_\_\_

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name: Terri Bennett

Address: 225 Dekalb Ave #2 Brooklyn NY 11205

I represent: Respond & Rebuild

Address: 74-16 Beach Channel Dr, Armonk NY

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/2013

(PLEASE PRINT)

Name: Lily Kelly

Address: 380 7th Ave, 17th floor, NY NY 10001

I represent: Global Green USA

Address: see above

Please complete this card and return to the Sergeant-at-Arms

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THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name:

RAJIV JASNI

Address:

351 Broadway 3rd FL

I represent:

New York Environmental Law And Justice Project

Address:

Please complete this card and return to the Sergeant-at-Arms

**THE COUNCIL  
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☐ in favor ☐ in opposition

Date: 2/28/13

(PLEASE PRINT)

Name:

Michael McCann

Address:

200 Riverside Drive #2C

I represent:

NYEUSH

Address:

61 Broadway 4th 1710

Please complete this card and return to the Sergeant-at-Arms