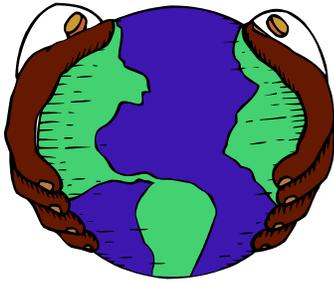


# NORTHERN MANHATTAN CARE COLLABORATIVE BRIEFING BOOKLET

Working together for a healthy & sustainable Northern Manhattan!!!



MONDAY, SEPTEMBER 14, 2009  
ADAM CLAYTON POWELL STATE OFFICE BUILDING  
SECOND FLOOR GALLERY



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# RISK RANKING MEETING AGENDA

- Opening and Overview
- Environmental Health and Northern Manhattan
- Orientation to Risk Ranking Process
- Risk Ranking in Groups
  - Today's meeting will have 3 breakout groups, and each group will complete a Risk Ranking Form for 3 Environmental Health Issues. If you registered in advance, then you have already selected a breakout group. Make sure you register at the beginning of the meeting for the group in which you would like to participate.
  - You will have 30 minutes for each issue – 10 minutes for a presentation on the issue, and 20 minutes to fill out the ranking form as a group. There will be one group risk ranking sheet for each issue.
- Report back from Groups
  - Each breakout group will have 10 minutes to present its Risk Ranking assessment for the 3 issues it tackled.
- Announcements and Closing



# NORTHERN MANHATTAN CARE COLLABORATIVE



Funded by the U.S. Environmental Protection Agency, the Northern Manhattan Community Action for a Renewed Environment (**CARE**) Collaborative is a broad-based partnership of stakeholders in Northern Manhattan working to identify toxic exposures in this community across all media, and working to set priorities and develop strategies for risk reduction.

The Northern Manhattan CARE Collaborative is funded by the EPA as a level 1 CARE project, which utilizes community-based participatory research to generate a list of environmental health priorities for Northern Manhattan communities. As the project draws to a close in September 2009, WE ACT is applying for funding as a level 2 CARE project, which will allow for implementation of strategies aimed at addressing the priority issues identified by the Collaborative during the level 1 CARE project period.

This booklet provides an overview of the environmental health issues identified by the Northern Manhattan CARE Collaborative and strategies for addressing the priority issues.



## WHAT IS RISK RANKING?

Risk Ranking is the process of associating a **high (H), medium (M) or low (L)** ranking to an environmental health issue.

Risk Ranking is a process that will help us identify the

environmental health issues impacting our community.

We will use public health data and community feedback to understand how these issues are impacting our community.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Indoor Air Quality

### Issue Description

We will examine the effects of environmental tobacco smoke (ETS), mold, and indoor exposures associated with endocrine disrupting compounds on the health outcomes of Northern Manhattan's most vulnerable populations.

### Environmental Health Concern

ETS, secondhand smoke from tobacco products, contains thousands of toxic chemicals, many of which are known to cause cancer. A 2006 Surgeon General report stated that exposing nonsmokers to ETS at home or work significantly increases the risk of developing heart disease and lung cancer. ETS can also lead to respiratory problems, ear infections, and asthma attacks in children.

Mold is an indoor environmental pollutant that can grow rapidly on many surfaces- food, paint, wood, fabric, and more. According to the Columbia Center for Children's Environmental Health (CCCEH), exposure to mold, through inhalation of spores, ingestion, or touch, can increase risk of asthma, skin irritation, and chronic fatigue syndrome.

Phthalates and polycyclic aromatic hydrocarbons (PAH) are chemicals that can disrupt the endocrine system, the body's system of regulating hormones. According to the CCCEH, Phthalates found in plastics may be linked to shorter gestation periods in pregnant women. PAHs, emitted by traffic pollution and common pesticides, can lead to asthma and delays in cognitive development.

### Populations Impacted

A study conducted by the CCCEH of 725 African-American and Latino pregnant women from Northern Manhattan and the South Bronx neighborhoods found that phthalates were detected in 99% to 100% of maternal personal air samples.

In the same study, developing children were proven to be highly susceptible to indoor air pollutants. Children prenatally exposed to ETS, especially those facing material hardship (unmet basic food, clothing, and housing needs), exhibited reduced scores on cognitive development tests at age 2. Newborns exposed to PAHs and ETS were shown to exhibit significantly lower birth weight and smaller head circumference than newborns without these combined exposures. Small head circumference may lead to poorer cognitive functioning and school performance in childhood, and may also cause social problems, such as stigmatization.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Outdoor Air Quality Issue Profile Summary

### Issue Profile

We will examine the overwhelming evidence linking outdoor air pollutants, caused primarily by the combustion of carbon-based fuels, and the overall health outcomes of vulnerable populations in Northern Manhattan. Black carbon and fine particulate matter (PM<sub>2.5</sub>), also known as fine particles or particles less than 2.5 micrometers in diameter or smaller, will be our primary focus.

### Environmental Health Concern

Black carbon is an air pollutant formed by the incomplete combustion of fossil fuels (gasoline, diesel, etc.). According to the Wisconsin Department of Health Services, inhalation of black carbon may irritate the lungs and cause coughing, while continued exposure may result in a chronic condition known as "obstructive pulmonary disease."

PM<sub>2.5</sub>, released in vehicle exhaust, is a mixture of soot, dust, and aerosol particles suspended in the air. According to the American Lung Association, PM<sub>2.5</sub> may worsen preexisting respiratory and cardiovascular conditions in individuals and increase related hospitalizations and deaths. It is also known to aggravate asthma symptoms in children.

### Populations Impacted

Children are particularly sensitive to traffic pollution. In the United States and Europe, children living or attending school near truck routes and highways show greater asthma symptoms, asthma hospitalizations, respiratory illness, allergic rhinitis, and reduced lung function.

In Central Harlem, 25% of children have asthma, compared to about 9% of all children in the U.S. (West Harlem Environmental Action [WE ACT], 2003). A study conducted by New York State SPARCS (2008) found that the 2007 asthma hospitalization rate in Harlem for children ages 5-14 was 89.2% (per 10,000 diagnosed cases) compared to 34.2% for all of New York City, reflecting the aggravation of asthma symptoms caused by air pollutants.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Pests and Pesticides

### Issue Profile Description

We will look at the various sources of exposures to pesticides within the indoor and outdoor environments. There will be some overlap with information presented in the Indoor Air Quality Issue Profile summary. We will examine issues related to Chlorpyrifos (an indoor pesticide banned in 2001 for residential use), the health impacts of commonly used outdoor rodenticides, and the effectiveness of Integrated Pest Management (IPM).

### Environmental Health Concern

Pesticides are used in and around the home to control insects, termites, rodents, fungi, and microbes. According to the EPA, exposure to pesticides can cause headaches, respiratory and skin irritation, dizziness, muscular weakness and nausea.

Despite the EPA's 2001 ban on indoor use of the pesticide chlorpyrifos, adverse health effects persist in individuals that were exposed as young children or prenatally (the chemical transfers easily from mother to fetus). Chlorpyrifos exposure, according to the CCCEH, can lead to delay in psychomotor and cognitive development, Attention-deficit/Hyperactivity Disorder (ADHD), and pervasive personality disorder. Prenatal exposure also results in a reduced birth weight by an average of 6.6 ounces.

Rodenticides are used to control mice and rat populations. The EPA has produced a list of 10 rodenticides (available on the EPA website) that require extra safety measures to prevent accidental exposure, which may result in respiratory distress and interference with blood clotting.

IPM is an approach to pest control that seeks to lessen dependency on pesticides by addressing the root cause of pests, often related to poor housing conditions.

### Populations Impacted

The conditions characteristic of old urban housing stock such as building disrepair, poor waste management, irregular garbage pick-up are known to promote pests and thus the use of pesticides. According to the EPA 90% for all U.S. households use pesticides. Furthermore, the EPA reports that accidental exposure to rodenticides occurs disproportionately to children in EJ communities.

Babies and children, because they are developing, are considered most susceptible to pesticides. According to the Columbia Center for Children's Environmental Health (CCCEH), chemical-based pesticides can impact children's nervous systems and cognitive development, and may increase cancer risk.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Built Environment and Land Use

### Issue Profile Description

We will examine the link between created “spaces” and health. We will explore the impact of planning and land use on air quality, which directly relates to asthma; the impact of access to open spaces (or lack thereof) on obesity; and exposure to a number of endocrine disrupting substances that are present everywhere in our daily lives.

### Environmental Health Concern

The land use planning decisions made by local governments affect the physical characteristics and layout of a community- the built environment. The development of transportation infrastructure, as determined by land use planning decisions, directly impacts traffic patterns and flow, and thus air quality and environmental health.

The built environment is also shown to strongly influence physical activity. A study by the Transportation Research Board Institute of America (2005) found that people are more likely to be physically active when they live in better neighborhoods with better resources for exercise, such as parks and walking or jogging trails; with less litter, vandalism and graffiti; and with street patterns that present fewer pedestrian obstacles. Meanwhile crime-ridden streets, littered sidewalks, and poorly maintained environments discourage out-door physical activity other than necessary trips. Physical activity is beneficial for decreasing risk of obesity, as well as cardiovascular diseases, colon cancer, osteoporosis, and depression.

To better understand the link between land-use planning and the built environment and health, researchers are using Health Impact Assessment (HIA), a systematized method of evaluating (by research and community engagement) the impact on health of policy not directly related to health.

### Populations Impacted

The built environment of a neighborhood tends to reflect economic and social status. Communities in Northern Manhattan are often zoned for noxious practices, such as garbage transfer stations or highways, leading to environmental health concerns. High crime rates in low-income neighborhoods also negatively impact the environment and health.

Obesity rates in Harlem reflect problems with the built environment and access to healthy, open spaces. According to the Harlem District Public Health Office, 31% of adults in East Harlem and 27% in Central Harlem are obese compared to 22% for all of New York City.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Solid Waste

### Issue Profile Description

The collection and management of solid waste within New York City is a complicated system to understand. We aim to examine some of the nuances of that system. We will address the generation of garbage, how it is picked up and processed, and where it is deposited. This will require an overall understanding of who the key players are and what regulations exist to manage waste within the city. We will also explore the public health cost of a broken solid waste system and the connection between waste and public health outcomes.

### Environmental Health Concern

New York City's Department of Sanitation is responsible for providing regularly scheduled curbside and containerized refuse collection service for every residence, public building, and many large institutions. Failures of the system to function, however, have resulted in the incorrect packaging of trash, longer-than-expected periods of time before trash collection, and pest and pesticide problems. In addition to the adverse health effects of pests and pesticides, trash in the streets can impact health by triggering or inflating stress and frustration in neighborhood residents.

A study by the Environmental Defense Fund (2004) reports that Manhattan's diesel garbage trucks travel 7.8 million miles every year. Diesel pollution is known to cause asthma attacks, heart disease, and cancer. Garbage trucks also contribute to noise pollution and traffic congestion, both environmental stressors.

New York City's solid waste laws are not easy to understand, resulting in confusion about proper trash disposal techniques among residents. Furthermore, commercial waste is collected by private companies, leading to uncertainty among residents as to which authorities to contact concerning solid waste.

### Populations Impacted

According to the Environmental Defense fund, land-based waste transfer stations are concentrated in four of the 59 community districts in New York City, all in the South Bronx and Brooklyn. Thus a small percentage of the population lives with the majority of the city's trash. Waste transfer stations are unsightly and noisy, and the pollution caused by the constant flux of trucks is a serious environmental health hazard. Residents of Northern Manhattan end up being impacted by poor service which leads to pest and pesticide use, poor air quality and gaps in service.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Access to Healthy Food

### Issue Profile Description

We will examine the lack of fresh and healthy food choices in Northern Manhattan. Our research will combine information about access to supermarkets, number of fast food restaurants in relation to “other” food establishments and the health outcomes associated with obesity within Northern Manhattan.

### Environmental Health Concern

Access to food is determined by availability, quality and price of healthy foods, forces within the economic system and the presence of supermarkets and advertising that influences the food choices of residents (Harlem District Public Health Office). Neighborhoods without proper access to healthy food thus promote unhealthy eating habits among residents. Unhealthy eating habits, often coupled with lack of physical activity, are the main cause of obesity. Obesity increases risk of diabetes, high blood pressure, high cholesterol, heart disease, and cancer.

### Populations Impacted

A study by the Harlem District Public Health Office (2007) found bodegas are more abundant and supermarkets less abundant in East and Central Harlem compared with the Upper East Side. Comparing the bodegas in both neighborhoods, those in the Upper East Side were more likely to sell healthy foods such as low-fat yogurt and leafy vegetables. Fast food restaurants are more common in East and Central Harlem. Similar statistics do not exist for West Harlem.

The same study reports that 31% of adults in East Harlem and 27% in Central Harlem are obese compared to 22% for all of New York City and 9% for the Upper East Side.

Children that receive meals through public school lunch programs are particularly susceptible to lack of access to healthy foods. A study conducted by the Robert Wood Johnson Foundation (2009) found that many school lunches do not provide proper nutrition to children, particularly in schools with a higher percentage of low-income students.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Stress

### Issue Profile Description

Usually not defined as an environmental health issue, stress was identified in all four community meetings as a factor contributing to adverse health outcomes in Northern Manhattan. We will explore the growing body of evidence that supports the link between stress and adverse health outcomes. We will also examine the overwhelming burden of environmental health hazard exposures that are felt within environmental justice communities and how people deal with cumulative exposures.

### Environmental Health Concern

Stress is a reaction to fear and uncertainty. It causes the heart to beat faster, blood pressure to rise, and glucose to enter the bloodstream. While stress is normal in small doses, persistent stress can lead to headaches, sleep disorders, difficulty concentrating, short-temper, upset stomach, job dissatisfaction, low morale, depression, and anxiety. Stress also increases risk of obesity, diabetes, heart and artery disease, and stroke.

### Populations Impacted

People living within environmentally impacted communities are vulnerable to a multitude of stressors- insecure and low-paying jobs, uncontrolled debt, capricious supervisors, unreliable transportation, poor childcare, lack of healthcare, and violent living conditions (Unnatural causes, 2008). These conditions coupled with an unhealthy environment filled with pollution, noise, traffic, and other hazards, often characteristic of poorer neighborhoods, are likely to lead to chronic stress.

Children growing up in stressful environments are particularly vulnerable to adverse health effects. Studies show that intense amounts of stress may impact brain development in children, increasing chances they will develop helplessness, anger and depression later in life and making them more susceptible to obesity and illness.



# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## Lead Poisoning

### Issue Profile Description

Through the exploration of lead poisoning rates in Northern Manhattan, we can begin to understand the overall burden of exposure to lead in housing stock within our four neighborhoods. We will explore the lead poisoning and screening rates while examining the health consequences of childhood and adult lead poisoning. This profile will also have some overlap with the Indoor Air Quality Issue Profile.

### Environmental Health Concern:

Before recent awareness of the dangerous effects of lead exposure, lead was commonly used in paint, gasoline, water pipes, and many other products. Though lead use today is highly regulated, people still face exposure to lead through deteriorating paint, contaminated soil, and dust. In children, lead exposure can result in the delayed development of the brain, learning difficulties, and behavioral problems. In adults, lead exposure can result in reproductive problems, high blood pressure, and nerve disorders.

### Population Impacted:

Although New York City has made considerable progress in reducing lead poisoning cases, lead exposure remains a reality in many homes, particularly in low-income neighborhoods. According to statistics from the New York City Department of Health and Mental Hygiene, 3,490 NYC children under age 6 were identified with elevated blood lead levels in 2003. Approximately half of the children identified lived in just 10 of the 42 neighborhoods in NYC. These neighborhoods include Washington Heights/Inwood, East Harlem, Central Harlem and West Harlem. Of these children, 33% lived below the poverty line. The statistics also show that children of color are significantly more affected by elevated blood lead levels than white children.



## 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

### Environmental Health Service Delivery

**Issue Profile Description:** Who receives my call when I dial 311? What is the processing time for a complaint? What agency do I need to contact if I am having problems with my landlord or if I need to find a lead safe house? The aforementioned questions and many others came up in a number of our community meetings. We will examine the different agencies within New York City that meet the needs of our growing population. The aim of this profile is to understand what and how services related to environmental public health are delivered to the people of Northern Manhattan.

### NYC Agencies

#### Department of Buildings

Mission: The Department of Buildings (DOB) ensures the safe and lawful use of over 900,000 buildings and properties by enforcing the Building Code, Zoning Resolution, and other applicable laws. Each year it reviews over 60,000 construction plans, issues over 110,000 new and renewed permits, performs over 300,000 inspections, and issues 12 types of licenses, registrations, and certificates. It facilitates construction by continually streamlining the permit application process, and delivers services with integrity and professionalism.

#### Department of City Planning

Mission: The Department of City Planning (DCP) conducts planning and zoning studies to promote strategic development in communities throughout the City. It also supports the City Planning Commission's review each year of approximately 500 land use applications for actions such as zoning changes and disposition of City property. The Department assists both government agencies and the public by providing policy analysis and technical assistance relating to housing, transportation, community facilities, demography, and public space.

#### Department of Design and Construction

Mission: The Department of Design and Construction (DDC) currently manages a design and construction portfolio of over \$4.6 billion of the City's capital construction projects. Projects range from streets, highways, sewers and water mains to public safety, health and human service facilities, as well as cultural institutions and libraries. Through a combination of in-house staff and private consultants and contractors, the Department delivers quality, cost-effective projects in a safe and efficient manner.

#### Department of Education

Mission: The Department of Education (DOE) provides primary and secondary education to over 1 million pre-kindergarten to grade 12 students in school districts within 10 regions and over 1,400 schools, and employs approximately 77,000 teachers. DOE prepares students to meet grade level standards in reading, writing and math, and prepares high school students to pass Regents exams and to meet graduation requirements. The School Construction Authority (SCA) coordinates the development of DOE's Five-Year Capital Plan, selects and acquires sites for new schools, leases buildings for schools, and supervises conversion of administrative space for classroom use.

# 10 ISSUES TO WATCH IN NORTHERN MANHATTAN

## **Office of Environmental Coordination**

Mission: The Office of Environmental Coordination (OEC) assists City agencies in carrying out their environmental review responsibilities. OEC also serves as the repository for City Environmental Quality Review (CEQR) documents, coordinates the City's brownfields efforts, serves as the City's liaison to state and federal agencies on environmental matters, and advises the Mayor on matters of environmental policy.

## **Department of Environmental Protection**

Mission: The Department of Environmental Protection (DEP) protects the environmental health, welfare and natural resources of the City and its residents. The Department manages the City's water supply, which provides over one billion gallons of quality drinking water daily, serving over half the population of New York State, and manages 14 in-City wastewater treatment plants, as well as nine treatment plants upstate. DEP also carries out federal Clean Water Act rules and regulations, handles hazardous materials emergencies and toxic site remediation, oversees asbestos monitoring and removal, enforces the City's air and noise codes, bills and collects on almost one million water and sewer accounts, and manages Citywide water conservation programs.

## **Housing Authority**

Mission: The New York City Housing Authority (NYCHA) provides affordable housing to nearly 420,000 low- and moderate-income City residents in 345 housing developments with 180,000 apartments in the five boroughs. Through federal rent subsidies (Section 8 Leased Housing Program), the Authority assists over 87,500 families in locating and renting housing in privately owned buildings. In addition, the Authority provides social services for its residents through 112 community centers, 42 senior centers, and a variety of programs.

## **Department of Housing Preservation and Development**

Mission: Using a variety of preservation, development, and enforcement strategies, the Department of Housing Preservation and Development (HPD) strives to improve the availability, affordability, and quality of housing in New York City. As the nation's largest municipal housing agency, HPD works with private, public, and community partners to strengthen neighborhoods and enable more New Yorkers to become homeowners or to rent well-maintained, affordable housing.

## **Landmarks Preservation Commission**

Mission: The Landmarks Preservation Commission (LPC) designates, regulates and protects the City's architectural, historic and cultural resources, which now number 1,128 individual landmarks and more than 22,000 properties in 83 historic districts and 11 extensions to existing historic districts. The Agency annually reviews more than 9,000 applications to alter landmark structures. Enforcement staff investigate complaints of illegal work and initiate action to compel compliance with the Landmarks Law.

## ENVIRONMENTAL HEALTH SERVICE DELIVERY CONTD.

### **Department of Parks and Recreation**

Mission: The Department of Parks & Recreation (DPR) maintains a municipal park system of more than 28,800 acres including nearly 1,700 parks, approximately 2,100 Greenstreet sites, more than 990 playgrounds, over 800 athletic fields, more than 550 tennis courts, 52 outdoor swimming pools, 11 indoor swimming pools, 36 recreation centers, over 600 comfort stations, 14 miles of beaches, 13 golf courses, six ice rinks, five major stadia, 15 nature centers, 13 marinas, and four zoos. The Department is also responsible for more than 500,000 street trees and two million park trees; 22 historic house museums; and over 1,100 monuments, sculptures, and historical markers.

### **Department of Sanitation**

Mission: The Department of Sanitation (DSNY) promotes a healthy environment through the efficient management of solid waste and the development of environmentally sound long-range plans for handling refuse. The Department operates 59 district garages and manages a fleet of 2,040 rear-loading collection trucks and 450 mechanical brooms. Each day approximately 11,900 tons of household and institutional waste are collected. The Department clears litter, snow, and ice from approximately 6,000 City street miles, and removes debris from vacant lots as well as abandoned vehicles from City streets.

### **Department of Transportation**

Mission: The Department of Transportation (DOT) is responsible for the condition of approximately 5,800 miles of streets and highways and 790 bridge structures, including six tunnels. DOT ensures traffic safety and mobility by mitigating the effect of construction on traffic; implementing engineering improvements; and installing and maintaining traffic signals at more than 11,800 signalized intersections, over 1.3 million signs, over 300,000 streetlights, 69 million linear feet of markings and approximately 63,000 parking meters. The Department encourages the use of mass transit by overseeing the operation of four subsidized franchise bus companies, operating the Staten Island Ferry and promoting new private ferry routes. DOT also encourages the use of alternative modes of transportation, and administers a Citywide program advancing the use of alternative fuels.

### **Water Board**

Mission: Like many large cities, the entirety of New York's water and sewer infrastructure is funded by revenue it collects through water and sewer rates. The Water Board is responsible for setting these rates, and must ensure that they are able to fund the entirety of the water and sewer system's operating and capital needs, enabling the City to provide clean, safe water to New Yorkers for decades to come and to ensure that the health of the City's waterways continues to improve.

### **NYC Municipal Water Finance Authority**

The New York City Municipal Water Finance Authority provides funding through the issuance of bonds, bond anticipation notes, and other obligations to finance capital projects related to supplying and purifying the City's high-quality drinking water and maintain safe wastewater collection and treatment.

# ENVIRONMENTAL HEALTH SERVICE DELIVERY CONTD.

## New York State Agencies

### Emergency Management Office

The mission of the New York State Emergency Management Office (SEMO) is to protect the lives and property of the citizens of New York State from threats posed by natural or man-made events. To fulfill this mission, SEMO coordinates emergency management services with other federal and State agencies to support county and local governments. SEMO routinely assists local government, volunteer organizations, and private industry through a variety of emergency management programs. These programs involve hazard identification, loss prevention, planning, training, operational response to emergencies, technical support, and disaster recovery assistance.

### Department of Environmental Conservation

Mission: To conserve, improve and protect New York's natural resources and environment and to prevent, abate and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being.

### Environmental Facilities Corporation

The Environmental Facilities Corporation's mission is to promote environmental quality by providing low-cost capital and expert technical assistance to municipalities, businesses and State agencies for environmental projects in New York State. Its purpose is to help public and private entities comply with federal and State environmental requirements.

### Department of Health

The Department of Health protects and promotes the health of the people of New York by preventing and reducing threats to public health and by assuring access to affordable, high-quality health services.

### Division of Housing and Community Renewal

Mission: To make New York State a better place to live by supporting community efforts to preserve and expand affordable housing, home ownership and economic opportunities, and by providing equal access to safe, decent and affordable housing.

### Department of Transportation

It is the mission of the New York State Department of Transportation to ensure our customers - those who live, work and travel in New York State -- have a safe, efficient, balanced and environmentally sound transportation system.

# GREEN CLEANING GUIDE



## What is green cleaning?

“Green” cleaning means using products that are non-toxic, are inexpensive, and that really work to clean your house.

## Why clean green?

The EPA estimates that Americans spend 90% of their

time indoors. Indoor air pollutants are 2-5 times higher than those of outdoor air, and most come from cleaning products!

**Green cleaning saves you money, makes your home healthier, and protects our water and nature from harmful chemicals.**

## Getting started!

These recipes offer ways to make household cleaning products that are safe for you, your loved ones, and the earth.

Please read on to find out what you'll need, and see warnings.

*This guide was adopted from The Kent County Health Department and West Michigan Environmental Action Council*



## WHAT YOU NEED TO CLEAN GREEN!

**\*White distilled vinegar**, a cleaner that cuts grease. Found in the salad dressing aisle.

**\*Lemon juice**, a mildly acid-forming fruit juice that will help fight germs, fungus, and grease.

**\*Baking soda**, a cleanser that gets rid of smells, scours, and increases soap's power. Found in the baking aisle.

**\*Borax**, a powder that cleans, deodorizes, and disinfects. Found in laundry section.

**\*Vegetable oil-based liquid castile soap**, a soap that is good for the earth and gets things clean! Substitute vegetable oil-based dish soap in half quantity. Found in cleaning products section.

**\*Olive oil**, a safe product to use in place of wood polish.

**\*Salt**, a non-scratching abrasive cleanser that fights germs.

**\*Distilled water**, instead of tap water. Because it does not contain the minerals found in tap water, it will improve the power of your cleanser.

**\*Essential oils**, which are strong plant fragrances. They smell nice, and some fight germs and fungus, and repel bugs.

**\*Washing soda** boosts the power of detergent. Found in laundry detergent section.

# GREEN CLEANING GUIDE

## All-Purpose Spray Cleaner No. 1

1-16 oz. spray bottle  
1 teaspoon Borax  
2 tablespoons vinegar  
¼ cup vegetable-oil based soap  
Hot water  
A few drops essential oil (optional)

How to make: Add Borax to hot water in 16 oz. spray bottle, cap, and shake until Borax is dissolved. Add vinegar and shake. Then add soap and oil.

## All-Purpose Spray Cleaner No. 2

1 tablespoon vegetable-oil based soap (½ tablespoon if using vegetable-based dish soap)  
Warm water

How to make: Dilute soap with warm water

Tip- If there is a film left after using, wipe surface with vinegar-water mixture.

## Scouring Powder

1 cup baking soda  
1 cup Borax  
1 cup salt

How to make: Mix well and put in a jar with a tight-fitting lid and punch holes in the top. Cover with plastic wrap when not using. Use as any other scouring powder.

Tip- If this leaves a film, wipe surface with vinegar-water mixture.

## Oven Cleaner

Baking Soda  
Water

How to make: Using spray bottle, coat oven with water. Sprinkle bottom of oven with baking soda to cover, then dampen bottom of oven with more water from the spray bottle. Let sit overnight and scrub out stains. For the sides of the oven, make a paste with baking soda and water and spread all over.

Tip- For a really dirty oven, sprinkle with baking soda and wet the soda down with a spray bottle filled with 50/50 vinegar and water. Use a scrub pad to remove build-up. (The mixture will fizzle.)

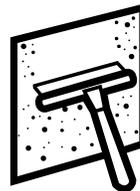
## Window/Glass Cleaner No. 1

1 part water  
1 part vinegar

How to make: Fill a spray bottle one quarter of the way with

warm water. Pour vinegar in until bottle is three-quarters of the way full, cap, and shake. Finish filling with warm water, cap, and shake again.

Tip- Use a dry cloth or a paper rag to avoid streaks.



## Toilet Cleaner No. 1

½ cup unscented castile soap  
2 cups baking soda  
¼ cup water  
2 tablespoons vinegar

How to make: Mix unscented castile soap and baking soda together. Dilute with ¼ cup water and two tablespoons vinegar. Mixture will begin to foam. Mix and pour

into a squirt bottle. Squirt inside the toilet bowl, under the rim and scrub with a toilet brush. Rinse and deodorize bowl with vinegar.



## All-Purpose Laundry Soap

½ cup baking soda  
½ cup powdered castile soap  
¼ cup washing soda  
¼ cup Borax  
4 drops of essential oil of choice

How to make: Mix all items listed above. Use ¼ - ½ cup per load.

## CREATING HEALTHY HOMES THROUGH INTEGRATED PEST MANAGEMENT

### *Neglected Maintenance is the Main Cause of Indoor Pest Problems*

Low-income and public housing in the United States have been under-funded and neglected for decades. As a result, these facilities are in a state of disrepair, which means millions of low-income Americans live in physically **substandard housing**. Many landlords, including government entities who are responsible for upkeep of public housing, fail to make the necessary repairs in order to maintain healthy living environments for residents and their families.

As we all know, building disrepair leads to, among other things, cracked walls and leaky pipes, conditions that provide access for pests including rodents (e.g., rats and mice) and insects (e.g., roaches and flies) to enter into dwellings. Moreover, poor waste management and irregular garbage pick-up create prime habitat for pests to remain inside buildings.



Pests have **three** survival requirements: **food, water, and shelter (FWS)**. You might ask how they gain access to these three things. First, they can obtain food through poor garbage management practices. To deny them this access, garbage must be bagged, tied tightly, and placed in cans with secured lids. Garbage should also be “put out” for collection just before pickup in order to avoid attracting outside pests into the building. Second, pests can gain access to shelter by entering a dwelling and/or building through breaches of the building envelope such as broken windows and holes in walls. Third, they can get water through leaks in the building’s plumbing systems. These ideal habitat conditions are present as long as maintenance needs are neglected.

### *Rodent and Insect Pests Are Public Health Risks to Our Community*

Pests seriously interfere with residents’ enjoyment of their home environments, and they pose a major health risk to people. For example, roach frass and flaked cuticles are major asthma and allergic triggers, as are rodent dander and hairs. Moreover, rodents are also carriers of parasites such as ticks – which are disease agents – and bacteria – which can contaminate food. However, the biggest health risks associated with pest is in the methods people use to control them – through the application of pesticides, legal and otherwise. Pesticides can cause cancer, birth defects, and damage the nervous and immune systems.

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In addition to the physical health risks associated with pest infestations, living with pests also cause mental health risks. Stress and depression can result in residents who must endure long-term outbreaks. This is because pests, especially rodents, can cause structural and electrical damage to a dwelling place as they chew through material in search of food, water, and shelter.

### *Household Pests, Pesticides, and Integrative Pest Management*

In the urban environment of Northern Manhattan, the overwhelming majority of households has a problem of one kind or another with pests. This condition is not the result of poor housekeeping and personal hygiene habits but a fact of life because of the heavy density of our neighborhoods. How do our residents manage their pest problems? According to the United States Environmental Protection Agency (US EPA), 85% - 90% of U.S. households use pesticides. In New York State, New York City reports the highest rate of use, with over 93% of NYC public housing residents reporting some pesticide use in a typical year.

Although agricultural use of pesticides have been known since the times of the ancient Greeks and Chinese, widespread use of indoor, residential applications are more recent. Since World War II, the use of household pesticides has become pervasive and the weapon of choice in controlling indoor pests. According to the US EPA, “[a] pesticide is any substance used for the purpose of preventing, destroying [or] repelling ... pests”. In Northern Manhattan, the most frequently used formulations are boric acid, Raid®, Tres Pasitos, and Tempo. Both Tres Pasitos and Tempo have actually been banned by the State of New York because of their toxicity but remain in use through underground import mechanisms.

In fact, all synthetic pesticides are dangerous to human health. The US EPA has determined that “[b]y their nature, pesticides are toxic and most create some risk to humans, animals or the environment.” This conclusion is supported by numerous studies showing that pesticides can cause cancer, birth defects and damage to the immune system.

As big a threat as they are to human health, why do we continue to use pesticides? How effective are they at controlling pests? There is no doubt that some more potent pesticide formulations kill pests. However, because some pests are naturally resistant to some chemicals, not all pests are killed. The ones that survive can quickly repopulate an area



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because rodents and insects are prolific breeders. Furthermore, pest populations are evolving resistance to some of the more commonly used pesticides setting up a perverse arms race between chemical companies and pests – and the only losers are the children and families whose health continues to deteriorate with increasing chemical toxicity.

Even when chemicals are able to kill pests, spraying toxic chemicals does not remove built up pest allergen; they can actually increase allergen build-up. Because they kill pests where they live, behind walls, under floor boards, and inside cabinetry, chemical pesticides can actually contribute to the hidden build-up of pest allergens that can trigger asthma and contribute to other respiratory problems.

### *Integrated Pest Management (IPM)*



**IPM** is a safer, more effective method of controlling pests, often without using harmful chemical pesticides. IPM explicit aims to reduce pests by addressing the root cause of the problem. The IPM methodology emphasizes proactive action over reactive responses, management over extermination, and low toxicity over quick results. Proactive action means that the IPM professional works with the unit's resident to identify specific sites of pest infestation in order to take appropriate steps to control the problem. The IPM professional then works with the unit's resident to manage the infestation by resolving existing infestations with short-term controls and reduce or eliminate the causes of infestation with long-term resolutions rather than prioritizing extermination with chemical applications. Finally, when pesticides must be use, the IPM professional works with the resident to identify appropriate products and scheduling in order to maximize the treatment's efficacy and minimize toxicity.

# CREATING HEALTHY HOMES THROUGH INTEGRATED PEST MANAGEMENT

## The 5 Essential Steps of an IPM Protocol

### STEP 1

Identify where the roaches and rodents (e.g., mice, rats) are mostly located

### STEP 2

Remove the pest’s food sources

### STEP 3

Close up the Roach and Mouse Shop

- Purchase or ask your superintendent and/or building manager for some caulk and plug up the areas where there are cracks and holes in the walls
- Seal mice holes with Steel wool and spackling
- Report big holes to super and make sure they properly sealed

### STEP 4

Purchase the less Harmful Pesticides- baits and gels

### STEP 5

Always keep all counters clean and free of food crumbs by wiping them down nightly with cleanser

Store all food in plastic containers with tight lids

Sweep and mop kitchen floor nightly

Take out all the garbage at night

Clean walls to remove grease buildup at least twice a year

## **Outdoor Pests – What Features of My Neighborhoods Encourage Pests?**

Think of pest control as a river running from **Neighborhood** → **Building** → **Apartment**. A pest problem in our streets and alleyways will find its way into our homes unless we take action to stop it.



## CREATING HEALTHY HOMES THROUGH INTEGRATED PEST MANAGEMENT

**T**ake a look around our community. Do you see a litter and garbage problem? Where are they? What is the cause of this problem? Who do you think is responsible? These are all important questions to ask, but the most important question is “How can I be part of the solution?” During the spring and summer of 2009, WE ACT surveyed the Northern Manhattan community in order to learn about what community members thought the answer of these questions were. Here are the results of those surveys.

*Do you see a litter and garbage problem in our community? And where were these problems?* The overwhelming majority of our respondents answered this question affirmatively. Our respondents also felt the waste management problems were pervasive, identifying areas dispersed over Harlem and Washington Heights.

What is the cause of our garbage problem? Respondents felt that our problems arise from the following issues: Lack of community spirit; Few trash cans/carelessness and laziness; Workers neglecting their jobs; Poor garbage disposal AND solid waste management

*Who do you think is responsible?* Our respondents felt basically that every community member, elected official, business owner, and visitor should be held accountable for the pervasive solid waste problems in our neighborhoods: Residents, landlords, and management companies; Commercial Businesses; Tourist and Visitors; Government Agencies

*What are your concerns around the garbage problem?* Our respondents felt the garbage problem detracted from the attractiveness of our neighborhoods and negatively impacted our health and quality of life; they identified the following specific problems: Associated Health Issues; Exposure to Pesticides; Child Safety; Aesthetics of the Community; Community Pride; and Feeling Neglected.

### Take Action to Beautify Our Community!

So, the garbage problem is pervasive. What can you (of for that matter, anybody) do about it? As an action-oriented advocacy organization, we have the following suggestion:

**Make** a complaint.

Call 311, NYC Dept. of sanitation, store owners

**Write** letters

Tell the Mayor and other elected officials these conditions are unacceptable

**Follow** garbage regulations

**Lead** by example

**DON'T** feed the animals



SCHEDULE OF EVENTS

- **Wednesday, September 16**—Mother Clara Hale Bus Depot, A. Phillip Randolph Senior Center, 10 am
- **Thursday, September 17** Faith Leaders for EJ Meeting Interchurch Center 120th & Claremont, 8:30 am
- **Saturday, September 26**—3333 Broadway Housing Rally 135th and Broadway, 1 pm
- **Tuesday, September 29**—Northern Manhattan CARE Collaborative Issue Prioritization Meeting Harlem State Office Building, 6 pm
- **Thursday, October 1**—Mother Clara Hale Bus Depot Task Force Meeting, A Phillip Randolph Senior Center, 10 am

| September |     |     |     |     |     |     |
|-----------|-----|-----|-----|-----|-----|-----|
| SUN       | MON | TUE | WED | THU | FRI | SAT |
|           |     | 1   | 2   | 3   | 4   | 5   |
| 6         | 7   | 8   | 9   | 10  | 11  | 12  |
| 13        | 14  | 15  | 16  | 17  | 18  | 19  |
| 20        | 21  | 22  | 23  | 24  | 25  | 26  |
| 27        | 28  | 29  | 30  |     |     |     |

## CREATING HEALTHY HOMES THROUGH INTEGRATED PEST MANAGEMENT

Finally, we invite you to work with us to develop the Infrastructure for Public Policy Development and Government Accountability in order to ensure we identify the right solution and put in place the appropriate monitoring to make them work. One way of doing so is to join the WE ACT Street Team Resident Patrol. **The Healthy Homes STREET Team** is a dynamic organizing project comprised of community leaders from across Northern Manhattan, who are committed to creating healthier communities through direct action. The Healthy Homes Street Team uses research, investigation, and peer-to-peer communication to find solutions to community problems.

### JOIN THE WE ACT GARBAGE PESTS AND PESTICIDES CAMPAIGN!

Visit us on the web at [www.weact.org](http://www.weact.org). And if you would like to join our campaign contact Charles Callaway today **(347)-465-8492** or email [charles@WEACT.org](mailto:charles@WEACT.org)

# THANK YOU TO OUR NORTHERN MANHATTAN CARE COLLABORATIVE PARTNERS

Abyssinian Development Corporation  
 AK House Tenants Association, Inc  
 American Cancer Society  
 Broadway Housing Communities  
 Columbia Mailman School of Public Health  
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 Mount Sinai Medical Center  
 The Earth Institute at Columbia University  
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 Harlem Congregations for Community Improvement  
 New York City Department of Housing Preservation and Development  
 Lamont-Doherty Earth Observatory of Columbia University  
 The Planning Center at the Municipal Arts Society  
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 Morningside Heights/West Harlem Sanitation Coalition  
 Lower Washington Heights Neighborhood Association  
 Manhattan Community Board 9  
 Manhattan Community Board 10  
 Manhattan Community Board 11  
 Manhattan Community Board 12  
 American Lung Association  
 Northern Manhattan Perinatal Partnership  
 Northern Manhattan Improvement Corporation  
 Harlem Children's Zone—Community Pride Program  
 WE ACT for Environmental Justice  
 United States Environmental Protection Agency  
 Harlem Community Development Corporation  
 Museo Del Barrio  
 Assembly Member Daniel O'Donnell  
 Assembly Member Adam Clayton Powell, IV  
 Council Member Melissa Mark-Viverito  
 Studio Museum of Harlem  
 Abyssinian Development Corporation  
 New York Committee for Occupational Health and Safety  
 Project Harmony, Inc.  
 Harlem Independent Living Center  
 Children's Aid Society  
 The Colin Powell Center for Policy Studies  
 Riverstone Senior Life Services



**What does it mean to “Go Green?”**

**Where can I get treatment for my asthma?**

**How do I change poor environmental conditions in my community?**

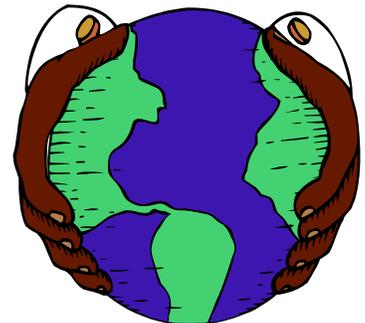
**How can my business become environmentally friendly?**

# **MAKE YOUR VOICE HEARD! HELP IDENTIFY SOLUTIONS FOR A HEALTHY COMMUNITY!**

**What: Community Environmental Health Meeting**

**When: Tuesday, September 29, 2009 6 - 9 pm**

**Where: Adam Clayton Powell State Office Building  
163 W 125th Street, Second Floor Gallery**



Childcare and light refreshments will be provided

To RSVP or for more information please contact Ogonnaya Dotson-Newman  
[ogonnaya@weact.org](mailto:ogonnaya@weact.org) or call 347-465-8483

