



Environmental
Education
Advisory
Council of
New York City

EEAC

Summer/Fall 2016

Over the Horizon: The Birth of an Idea

In 1994, a USDA Forest Service official, Amahra Hicks, came to New York to meet with the EEAC board. She described a Forest Service initiative that had been successfully tested in Oakland, CA involving bringing inner-city children out to the forest. The Forest Service was interested in developing a pipeline for minority students to enter into forestry. They wanted to work with a collaborative of organizations in New York City to bring a large number of children to a rural forest, and had approximately \$1 million to do it.

By Marc Breslav
Part 2 of 2
(continued from
Spring issue)

The meeting was led by then EEAC chair Mike Zamm, of the Council on the Environment of New York City (now GrowNYC), and also attended by Dr. Mary Leou, then of the City Parks Foundation, the late Ken Kowald of Con Edison, Nancy A. Wolf, an environmental education consultant, and several others.

The EEAC members at the meeting were interested in the idea, but what had worked in Oakland would not work in NYC on the intended scale and with the funds available.

Wolf recollected, “Mary and I both remember staying on after Amahra left, saying we want to do a project, but not like that! As usual, our idea was to help urban kids learn about their own environment and celebrate it, not going to someplace out of the City and being sent home with the message that they are now leaving the ‘real’ environment and going back to ‘that place.’”

Leou remembered, “We talked a lot about career education and how guidance counselors do not offer or know much about green careers.... and then we conceptualized Green Horizons and the rest is history!”

Wolf recalled, “Soon after that meeting, I went to talk to

Con Ed folks about what they might like to fund and they said, ‘What does everyone want to do together?’ And I told them about the meeting. Con Ed said a big priority of theirs was science and math in middle schools. And DEC foresters had told me often that middle school was the right time to impress on kids that they needed science and math if they wanted most environmental careers. Plus, we had the two networks in place already: EEAC and the NY ReLeaf network for urban forestry. Later, we expanded the station offerings, but it started mostly with arboriculture and forestry.”

Green Horizons continues to be a sustainable program with a heavy component of role modeling. “Green Horizons is the most successful and long-lasting EEAC program, thanks to the hard work of Nancy,” said Lenore Miller, editor of the EEAC newsletter. Leou described Wolf’s efforts as, “tremendous,” and, “heroic.”

Always one to give credit where credit is due, Wolf responded, “Green Horizons is, above all, a collaborative project and would not have succeeded without all its many players.”

The Forest Service’s initial idea may not have come to pass, but the idea that it spawned and the accompanying cooperative effort have endured for 20 years and counting.

Now about that \$1 million in funding....

For further information visit goo.gl/VyCDgQ

Since 1983, Marc Breslav has managed an environmental public relations and marketing practice based in Cold Spring, NY. He is a long-standing member of EEAC.



EEAC NEWS

Steering Committee Meetings

Please visit the EEAC website at www.eeac-nyc.org for meeting locations or contact an EEAC Steering Committee member. Steering committee meetings are open to anyone interested in learning about environmental education in New York City and sharing information about special programs and projects.

Newsletter Deadlines

If you would like to submit an article for the newsletter, please email it as a Microsoft Word attachment to KimE@dep.nyc.gov.

The newsletter deadline is the first Monday of Feb., May, and September. We would love your ideas!

Newsletter Committee

Lynn Cole
Kim Estes-Fradis
Joy Garland

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The Environmental Education Advisory Council of New York City, EEAC-NYC, is the only nonprofit organization with the sole purpose of promoting and supporting outstanding environmental education in New York City Schools and other centers for learning.

ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

Judith Hutton
The New York Botanical Garden
Teacher Training
2900 Southern Boulevard
Bronx, NY 10458
www.eeac-nyc.org

This newsletter is a publication of the Environmental Education Advisory Council (EEAC), a voluntary organization of educators, classroom teachers, administrators and other professionals in active support of quality environmental education.

EEAC OFFICERS

Judith Hutton, Chairperson
Brittany DiLeo, Treasurer and Membership Secretary
Shig Matsukawa, Secretary
Jacqueline Pilati, Program Chairperson

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Lynn Cole, Children's Library Discovery Center
Gail David, Elementary School Science Association
Brittany DiLeo, NYS Dept. of Environmental Conservation
Kim Estes-Fradis, NYC Dept. of Environmental Protection
Joy Garland, Stuyvesant Cove Park Association
Judith Hutton, New York Botanical Garden
Mary Leou, New York University
Shig Matsukawa, Food Waste Recycler
Jacqueline Pilati, Teachers College, Columbia University
Mike Zamm, GrowNYC

* affiliation for identification purposes only

STAY IN TOUCH!

Members, keep up with the latest EEAC news on EEAC-NYC@googlegroups.com
If you would like to join the listserv contact Carol Franken at carolfranken@gmail.com



CHAIR'S MESSAGE

As I think forward to the future of Environmental Education, I often consider the history of how we protect and provide access to the natural world. The National Park Service turns 100 on August 25 of this year, creating a platform to advocate for a second century of stewardship and engagement of communities nationally through recreation, conservation, and historic preservation. Environmental Education helps connect us nationally and locally.

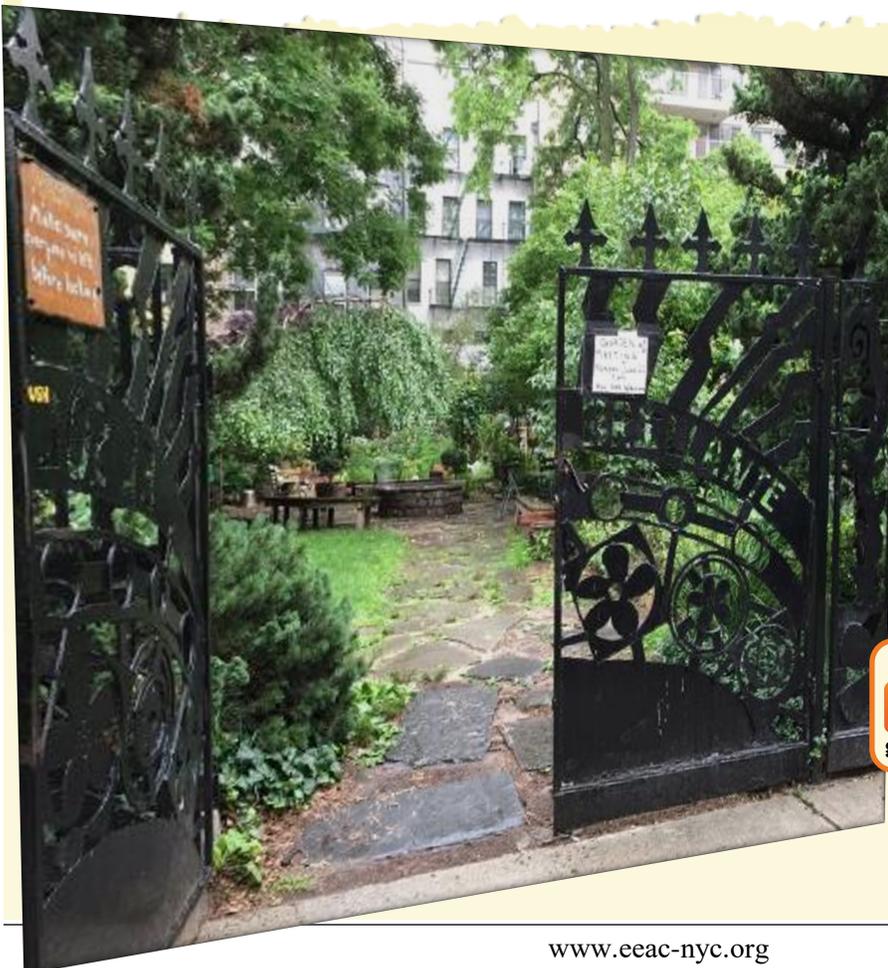
EEAC kicked off the summer with a tour along the High Bridge led by the Friends of the Old Croton Aqueduct, which focused on the history of New York City's water supply. The informative tour highlighted how the High Bridge has served as a point of utility and recreation for over 100 years! This issue focuses on the many opportunities youth have in NYC through EEAC partner organizations to not only learn about their local environment, but also consider how they can become professional stewards of national, state and local resources.

Special thanks to our Steering Committee and volunteers; their continued participation supports the important work of EEAC. Lenore Miller will be stepping down as our editor for the EEAC newsletter. She has supported this important initiative for 10 years to help the EE Community stay connected! If you want to advance Environmental Education in New York City, join EEAC now or volunteer your time to support a committee.

You can also stay connected through our upcoming programs! Check the EEAC NYC website for the most up to date information about programs and meetings. Sign up for our Google Group, like our Facebook page or follow us on Twitter to keep up with environmental education news, jobs and events.

Last but not least, get outside and enjoy summer in NYC!

Judith Hutton



EEAC Garden Tour & Meet and Greet!

Aug. 9th
5:00-8:00pm

Questions?

info@eeac-nyc.org

www.eeac-nyc.org

Join EEAC for an evening of networking at El Sol Brillante Community Garden.

Tour the garden. Learn about the garden's approach to sustainability.

Dress for the weather!

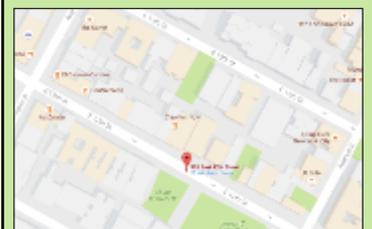
RSVP at goo.gl/bLWS3M

RSVP here

Eventbrite

goo.gl/bLWS3M

El Sol Brillante Community Garden
526 E12th St.
(between Avenue A & Avenue B)
New York, NY 10009



“We have an editor! I’m delighted.” I was thrilled when Lenore Miller accepted the invitation to serve as editor for the EEAC newsletter almost 10 years ago, on September 7, 2006.

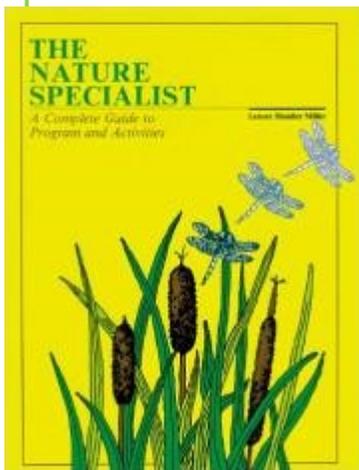
Lenore succeeded Rob Lieblein and myself. Since that time, Lenore has shared her environmental expertise, her involvement with local environmental issues in Staten Island where she lives, and her desire to reach many teachers.

Lenore’s involvement with Environmental Education started when she moved to Staten Island in 1968 and visited High Rock Park, where she was hired as a trail guide. She was trained by Harry Betros and Olivia Hansen, pioneers in the growing discipline of Environmental Education which formerly had been called Nature Study. She soon became a teacher on their staff, honing her skills as an interpreter of nature and conservation. Financial reasons necessitated a return to the NYC classroom in 1970, but what she saw and learned at High Rock remained with her and informed her work at other sites.

In 1972, she started a summer career as the Nature “specialist” in a children’s camp, bringing with her what she had learned at High Rock. The programs she created there were so well received by campers that she put them in writing and her first book, *The Nature Specialist: A Complete Guide to Programs and Activities*, was published by The American Camping Association in 1986. The book went to 2 printings and sold over 8,000 copies; it provides detailed suggestions for setting up and conducting a Nature/Environmental Education program in a camp setting. She also created an accompanying DVD. This book is still available on Amazon and at the American Camp Association bookstore.



Back in the classroom, Lenore worked closely with EEAC members Nancy Wolf and John Kominski to create an Outdoor Classroom on a 3-acre plot adjacent to her school, P.S. 54 in Staten Island. Out of that experience came a second book, *Using the Outdoors to Enrich Learning*, published by the UFT and distributed by the union. It is a month-by-month guide for classroom teachers of all grade levels, describing ways of looking at the natural world with students and ways to incorporate outdoor activities into regular classroom sessions. This book is out of print, but has been digitized by the ERIC online library.



In 1990, Lenore organized the 20th anniversary Earth Day celebration in Staten Island, and for the next five years, she led the event with students from all of the Staten Island high schools.

Lenore’s most recent book (not yet published), *Inspiration on a Hill; How High Rock Park Conservation Center Transformed Lives, 1965-89* is part history and part tribute to this remarkable institution on Staten Island. Under the administration of the Staten Island Museum, the expert naturalists at the High Rock Park Conservation Center taught a generation of adults and children. The Center also played an important role in fostering conservation of green spaces in New York City.

Lenore remains active with Protectors of Pine Oak Woods, the land conservation group of Staten Island, which has preserved many of the island’s green places.

On behalf of all of us at EEAC, we want to shout out a big, “THANK YOU” to Lenore for sharing her time, environmental expertise, and generous spirit with us as she concludes almost 10 years as Editor of the EEAC newsletter. As a former Staten Islander myself, I’m hoping for an autographed copy of Lenore’s *Inspiration on a Hill* when it becomes available. Enjoy your well-earned trip to Alaska this summer, Lenore, and I wouldn’t be surprised if you come back filled with inspiration for another book to share with us. Bon Voyage and please keep in touch, dear friend and

by Joy Garland

Thank you

T

he Children’s Museum of Manhattan recently opened *Dynamic H₂O*, a new outdoor water exhibit offering children of all ages and their families a fun place to chill while they explore water’s importance to a healthy lifestyle and learn about its role in our New York City environment. The wet and wonderful exhibit in the Sussman Environmental Center at the [Children’s Museum](#) (212 West 83rd Street), featuring hands-on interactives and cool, colorful graphics, will open May 28, and run through September, weather permitting.

Dynamic H₂O dives into NYC’s water supply system, which delivers about 1.1 billion gallons per day to 9.5 million New Yorkers, and whose world-class drinking water travels downhill from upstate watersheds extending more than 125 miles from the city in what is widely considered an engineering marvel.

The exhibit features a 16-foot interactive water table that will enable children to investigate the path of NYC’s water as they play and explore. The experience begins with the water cycle up in the clouds. With the press of a button, kids become rainmakers. Small floating droplets allow them to follow the currents as they progress downstream, flowing past lily pads and an area where kids can pretend to fish. Continuing along the stream, there are many hands-on opportunities for fun and discovery. Children can experiment with flow, pressure, and even plumbing! As the water reaches the city, kids can build their own hi-rise towers from Duplo Lego Blocks on mini-NYC’s priceless waterfront property!

“Our municipal water system is one of New York City’s greatest treasures,” said Andrew Ackerman, the Children’s Museum’s executive director. “*Dynamic H₂O* offers our guests a chance to have fun and stay cool while learning about the important role water plays in the city and our lives.”

Additional highlights of the 800-square-foot, three-level exhibit include:

An interactive of NYC buildings designed to help children understand how gravity and pumps are essential in providing water to houses and skyscrapers across the city.

Magnetic tubes that can carry water allow visitors to create the aqueducts and tunnels that transport the water from upstate to NYC. Children will be challenged to piece together enough pipes to span the “100 miles” from the Catskills to the city.

Outdoor laboratories, where children can enjoy inquiry-based exploration, assuming the roles of some of the people involved in maintaining NYC’s water supply including marine biologists, ecologists and other scientists.

A wide range of educator-led workshops will take place throughout the exhibit’s run. Participation is free with admission.

Drip The exhibit was made possible by Carolyn Tisch Blodgett and Will Blodgett and the Institute of Museum and Library Services. Additional support for education programs was provided by the Catskill Watershed Corporation and the New York City Department of Environmental Protection.

Drip, Drop, Splash, Flow: Dynamic H₂O Exhibit @



VISIT CMOM
212 W 83rd St.
New York, NY 10024
212-721-1223

HOURS
Sunday – Friday 10am – 5pm
Saturday 10am – 7pm

By the numbers:

1,800 student participants (grades 2-12) from NYC and Watershed communities

Over 1,600 original pieces of artwork and poetry submitted

100 participating public, charter, independent, and parochial schools

66 entries selected as contest winners, representing 184 students including individual and group projects

235 principals, teachers, and parent coordinators from participating schools



The New York City Department of Environmental Protection (DEP) held its 30th Annual Water Resources Art and Poetry Contest from January through May 2016. This year 1,800 students (grades 2-12) from New York City and Watershed communities created more than 1,600 original pieces of artwork and poetry.

Submitted entries reflected an appreciation for New York's water resources, wastewater treatment systems, and the importance of water conservation. In addition, through the art and poetry submitted, students expressed themselves creatively about healthy marine ecosystems and their role in protecting and enhancing harbor water quality.

"The *Water Resources Art and Poetry Contest* allows students to exhibit their wonderful talents by creating original art that demonstrates their knowledge of New York City's essential drinking water and wastewater systems," said DEP Acting Commissioner Steven Lawitts. "Once again this contest had record-breaking participation, which demonstrates that our creative young people are genuinely curious and concerned about the environment around them and are well-poised to become future stewards of our waterways."

From the more than 1,600 submissions, a group of judges selected 66 winning entries, created by 184 students (working individually and in groups), as this year's DEP Water Champions. Winning art and poetry entries were selected based on originality, artistic ability, and understanding of one or more contest themes. The five central contest themes included: Water—A Precious Resource; The New York City Water Supply System; The New York City Wastewater Treatment System; Harbor Water Quality and Healthy Marine Ecosystems; and Climate Change and Water Stewardship.

On May 19, Water Ambassadors and Water Champions were honored at DEP's 30th Annual Water Resources Art and Poetry Celebration. Held at Manhattan Community College's Tribeca Performing Arts Center, the celebration included remarks from Patrick Dougher, Program Director at Groundswell and special performances by Tem Blessed, multi-talented musician, artist and poet, and Mahogany L. Browne, slam poet and author. Additionally, featured were dance and rap performances by two student groups.



Book Buzz

Review by
Mary Blieka,
Children's
Librarian,
Queens Library

The Lowdown on the High Bridge – *The Story of How New York City Got It's Water* by Sonia Manzano, Illustrated by Noelle S. Gibbons, Bronx Children's Museum, PO Box 1381, Bx, NY 10451, 2015, 48pp., ISBN 9780991424511, Special Commemorative Gift Edition provided by NYC DEP.

"Everybody and Everything Has a Story!! Meet the High Bridge, the oldest walking bridge in New York City," proclaims the back cover. *The Lowdown on the High Bridge - The Story of How New York City Got It's Water*, a picture book written by Sonia Manzano (Maria of Sesame Street fame), and sponsored by the Bronx Children's Museum, is the story of the High

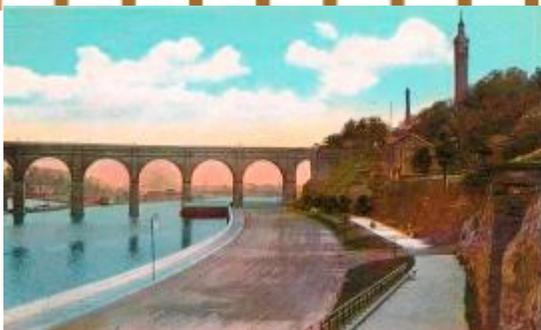
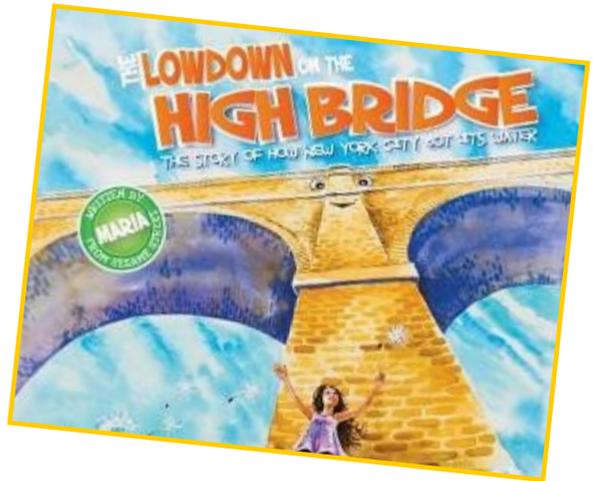
Bridge, the oldest bridge in America, which made clean water accessible to a city of millions.

We tend to take plentiful, clean water for granted, but it was not always so. 165 years ago, to harness the clean water of the Croton River, a great aqueduct was built spanning the Harlem River, connecting the Bronx and Manhattan. Great pipes carried clean water from north of the city through the High Bridge aqueduct, down into the city. When that wasn't enough, a water tower was built to hold additional water as well. In addition to carrying water, the High Bridge also served as a popular promenade and walkway between the two boroughs.

Time passed and the High Bridge was no longer needed. It wasn't high enough for ships to pass under, but the people loved it, and saved it by tearing down 5 of its 15 arches and replacing them with high steel arches that could accommodate ships. Over time it fell into disrepair and was in danger of being torn down, but again, the people loved it and fought to keep it. Through the efforts of many, it was repaired and restored to its former glory. Today it is again a popular walkway connecting the Bronx and Manhattan, enjoyed by all.

This is a great story, well told, of the oldest bridge in America and the efforts to save it for future generations. A playful, conversational tone makes the story fun and engaging for young children. Colorful illustrations draw the reader into the story and reflect New York's cultural diversity. The book includes a glossary of terms, a chronological timeline of the High Bridge, colorful maps of the Croton watershed, archival photographs of reservoirs past and present, and a "History Hunt" game, where readers are invited to scan the pages to find clues to famous people. An answer key is included. The book also contains a bibliography, a guide to further reading, and links to online videos and websites.

Highly recommended for children ages 5-8.



Visit Highbridge Park.
nycgovparks.org/parks/highbridge-park

Take a historic walk from Manhattan to the Bronx and back, or vice versa.

Get directions here:
goo.gl/5iykA6



Water Use Calculation

Record how much water you use in one week. Use this information to answer the questions on the other side. Note that all measurements are approximate. Make a checkmark every time you do each activity.



SUN	MON	TUES	WED	THURS	FRI	SAT	Weekly Total
							How many showers did you take? _____ How long are your showers? _____ How many baths? _____

A non-water-saving showerhead uses 5 gallons per minute. Water conserving showerheads use 2 gallons per minute. A full tub uses 36 gallons.



SUN	MON	TUES	WED	THURS	FRI	SAT	Weekly Total
							How many times did you flush the toilet? _____

Most toilets use 5 gallons a flush. Water-saving, high efficiency, toilets use 1.28 gallons per flush.



SUN	MON	TUES	WED	THURS	FRI	SAT	Weekly Total
							How many times did you brush your teeth? _____

Brushing your teeth with the water running uses about 4 gallons. Turning the water off when you're not rinsing uses less than a quarter or .25 gallons.



SUN	MON	TUES	WED	THURS	FRI	SAT	Weekly Total
							How many times did you wash your hands or face? _____

Washing your hands or face with the water running uses about 4 gallons. Turning the water off saves 3 gallons, using only 1 gallon each time you wash up.



SUN	MON	TUES	WED	THURS	FRI	SAT	Weekly Total
							How many times did you do the dishes? _____

Washing dishes with the water running uses about 15 gallons in 5 minutes. Filling the sink/ washing dishes without water running uses only 5 gallons.

Using the information from your weekly water use report card on the other side, figure out how much water you use on average every day.

Multiply the number of showers you took _____ by the number of minutes per shower _____ by the amount of water your showerhead uses per minute _____ (5 or 2 gallons) = _____ gallons.
 Multiply the number of baths you took _____ by 36 gallons = _____ gallons. Add your shower and bath totals = _____ gallons.
 Divide by 7 and put your answer in the box to the right.

Average daily bath/shower water use:
 _____ gallons



Multiply the number of times you flushed the toilet _____ by the amount of water your toilet uses with each flush _____ (5 or 1.28 gallons) = _____ gallons.
 Divide by 7 and put your answer in the box to the right.

Average daily toilet water use:
 _____ gallons



Multiply the number of times you brushed your teeth _____ by the amount of water you used with each brushing _____ (4 or .25 gallons) = _____ gallons.
 Divide by 7 and put your answer in the box to the right.

Average daily teeth-brushing water use:
 _____ gallons



Multiply the number of times you washed your hands or face _____ by the amount of water you used with each washing _____ (4 or 1 gallons) = _____ gallons.
 Divide by 7 and put your answer in the box to the right.

Average daily hand/face washing water use:
 _____ gallons



Multiply the number of times you did the dishes _____ by the amount of water you used _____ (15 or 5 gallons) = _____ gallons.
 Divide by 7 and put your answer in the box to the right.

Average daily dishwashing water use:
 _____ gallons



Add your average daily totals to find out approximately how much water you use every day at home.

Total Average daily water use:
 _____ gallons

Is your average daily total more or less than the New York City average of 75 gallons a day? _____

Is it more or less than the Canadian average of 50-60 gallons a day? _____

What are some ways to reduce your water consumption?



New York City Watersheds Manual and Classroom Activity Package

GrowNYC is proud to announce the availability of "New York City Watersheds." This manual addresses the state of water worldwide and in New York City, and includes activities for students. A brief history and description of the NYC Water Supply System and of coastal watersheds within the city is included. Classroom activities are geared towards grades 5-12, and guide students in learning about watersheds, building model watersheds, and service learning projects in school neighborhoods or in city parks.

The NYC Watershed
Comprises 1.2 millions acres
Provides water for 9 million people
With 1 billion gallons of water each day



Dynamic H2O exhibit, Children's Museum of Manhattan, article page 5

Sustainability Week NYC

by Pamela Peeters

From May 23rd through May 27th, I produced the third annual [Sustainability Week NYC](#), inviting the local community to discover the possibilities and opportunities of the green and social economy. The mission is to inspire and motivate attendees to work toward a sustainable planet. During the past five editions (3 in the USA, 2 in Belgium) an array of partners led activities and events in art, business, clean energy, resiliency, sustainable lifestyle transition, nature preservation, ethical and fair trade fashion, environmental education, green buildings, and biomimicry.

The 2016 theme was HARMONY. The week kicked off with an event on Biomimicry with Architect Chris Garvin and **Professor Mary Leou**, Director of the Environmental Conservation Education Program at NYU and former Chair of EEAC. A Biomimicry film by Treemedia (Leonardo Di Caprio's production house) was screened and much admired by the audience. Colombian artist **Patricia Ortega** (Bogota) received the Sustainable Steward Award for her work representative of the Indigenous Spirit. Sustainable Stewards are visionary agents of change who drive sustainable development through a product, a project or a service. Past laureates include **Dr Jamie Lerner**, former Mayor of Curitiba, Brazil; **HRH Princess Basma bint Ali** (Jordan); **Gaelin Rosenwaks**, Ocean Explorer (USA); **Paul De Knop**, Dean of the Vrije Universiteit Brussels (Belgium), and **Dr. Martin Nweeia** (USA).

The second 2016 event focused on carbon mitigation. Guests gathered at Interface to hear Professor Arnaud Brohe, Managing Director of [CO2 Logic](#) and Lesley Faulkner, founder and CEO of [Emerald Advisors & Consultants](#).

Pamela Peeters is an Environmental Economist /Eco Consultant / Sustainability Strategist Producer/Television Host
www.pamelapeeters.com

I visited the DeWitt Clinton High School Eco Expo in the Bronx to begin work on a video with sustainability teacher and EEAC member, Raymond Pultinas and his students. Another school related highlight was presentation of the Eco Hero workshop to the Hamilton Grange Middle School After-School All-Stars. Students took the Fashion Challenge, brainstorming the redesign of our current economic structure.

Sustainability Week was sponsored by Duvel & Omme-gang beer and Guylian Chocolates. For further information, please visit our website, www.sustainable-planet.net. Video-clips coming soon. If you are interested in becoming a partner or would like to nominate a Sustainable Steward, please email me at ask@pamelapeeters.com.

Photo Gallery



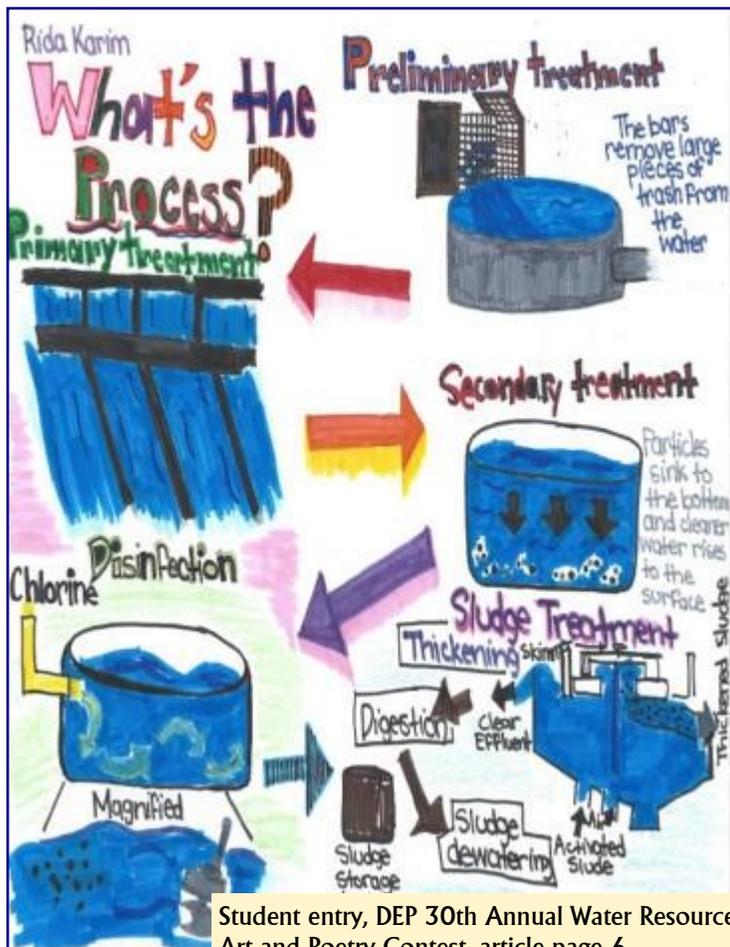
Dr. Mary Leou and Tonia Goichecha Sustainability Week NYC, article, page 10



Eco Hero workshop, Pamela Peeters with students from Hamilton Grange Middle School, Sustainability Week NYC, article page 10



De Witt Clinton teachers and Pamela Peeters, article, page 10



Student entry, DEP 30th Annual Water Resources Art and Poetry Contest, article page 6



Dynamic H2O exhibit, Children's Museum of Manhattan, article page 5

MEMBERSHIP APPLICATION



New member Renewal Date _____

MEMBERSHIP CATEGORY

Name _____

\$30 Individual \$75 Organization

Title _____

\$250 Individual Life Membership

Organizational Affiliation _____

Please make checks payable to "EEAC."

Home Address _____

City _____ State _____ Zip _____

Organization Address _____

City _____ State _____ Zip _____

Home phone _____

Business phone _____

Email _____

Mail completed form and check to:
Attn: Judith Hutton
The New York Botanical Garden
Teacher Training
2900 Southern Boulevard
Bronx, NY 10458

Members are welcome at EEAC Steering Committee meetings, held every 3rd Wednesday of the month. Check our website for these and other events.

www.eeac-nyc.org
EEAC is a 501-(c)3 organization.



ENVIRONMENTAL EDUCATION ADVISORY COUNCIL

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