When it comes to studies in culture, history, science and economics, New York Harbor presents unparalleled opportunities for teachers and students. The educational potential of the regional waterways, however, is far from maximized:

- DAUNTING INSURANCE DEMANDS
- INADEQUATE RESOURCES FOR TEACHERS
- LACK OF PHYSICAL ACCESS TO THE WATERFRONT
- MARINE EDUCATION IS SEGMENTED AND FRAGMENTARY

Solutions? Turn the page...
HARBOR EDUCATION

What better way to learn environmental science, history, economics and literature than by studying at the shores of the region’s greatest natural resource: New York Harbor and its sprawling network of waterways and wetlands. Although obstacles such as limited waterfront access and daunting liability costs have inhibited educators from offering lessons at and on the water, the tide is changing; today in the metropolitan region more teachers are getting students to the water’s edge and a growing number of thematic schools are focused on environmentally based learning. Waterfront programs are expanding for people of all ages, from young children to retirees.

Harbor Education: A Short History

Almost 400 years ago, a tiny Dutch ship called the Half Moon, captained by Henry Hudson, made its way across the Atlantic in search of a shorter trading route to Asia. In September of 1609, the Half Moon sailed into what would become New York Harbor and Hudson dropped anchor in the river that now bears his name.

Though too few New Yorkers have a sense of the city’s waterfront origins or are familiar with the rich natural world around us, environmental awareness is growing, with particular momentum since the call to action of the first Earth Day in 1970. Since then, environmental study has become more common. A growing network of scientists, students and community advocates monitor the waterways. In 1986, Cathy Drew founded the renowned River Project at Pier 26 on the Hudson River to promote research and public awareness of the marine world. In the 1990s, waterfront advocates launched rowing and boat-building programs such as Floating the Apple and Rocking the Boat, whose goal was to teach children to appreciate maritime recreation. In 2003, the New York Harbor School opened its doors in inner Brooklyn and will reopen in 2010 on Governors Island. Also in 2009, New York’s quadri-centennial celebration will provide a timely context for pushing the subject of waterfront education into the forefront of political dialogue and public programming on both sides of Henry Hudson’s river and throughout the harbor estuary.
Harbor Education Today

New York and New Jersey schoolchildren can have a difficult time getting to the waterfront. A gamut of permits and insurance requirements can thwart a simple field trip to the river. Beyond the bureaucracy, administrators may hesitate to undertake such activities, uncertain about safety. Once at the water, physical obstructions like chain link fences or even railings can be a barrier. Many children don’t know how to swim, and many have never been in a boat.

We have an obligation as well as an opportunity to expand the educational potential of our waterfront and waterways, starting with support for New York City’s PlaNYC 2030 sustainability agenda. Department of Education policy across the region should be expanded to incorporate elements of the plan’s proposals that relate to our waterways.

From there, we can build upon the environmental programs and activities already offered by waterfront organizations throughout the metropolitan area. We can construct more schools at the waterfront, lead more field trips to the water, sponsor more community service projects at the shoreline – and make sure teachers know that more than 63 islands and many peninsulas make up our metropolitan area (plus the mainland Bronx). We can develop new curricula in disciplines that relate to the waterways, from biology, chemistry and physics to history, economics and geography tailored to local waterways.

Involving youth in decisions about the future of the waterfront can encourage lifelong responsibility for the environment; involving people of all ages in intergenerational learning opportunities encourages comprehensive stewardship of the waterways. Engage people with a public marketing campaign, perhaps in partnership with a corporate or private entity.

One of the benefits of a thorough maritime education, which would include outreach from afterschool, community and adult education programs, is that people will eventually learn that a traditional admonishment – “don’t touch the water!” – is outdated. The waterways are cleaner than they have been in a century. It’s not only safe to touch the water in many, many places, it can be downright fun and educational!
Teachers, historians, museum programmers, recreational boating club representatives, environmental advocates and others met in 2007 and 2008 to discuss integrating the science, history, economics and culture of New York Harbor into a wider array of educational offerings in public schools and beyond. The issues are complex and widespread, but as each was mentioned, a solution – and often more than one – was proposed and fine-tuned by the Harbor Education Task Force.

**MAKE HARBOR EDUCATION A PRIORITY FOR EVERY DEPARTMENT OF EDUCATION**

Only the most determined and creative teachers in New York and New Jersey take advantage of educational opportunities at the waterfront. The reasons are varied. Some teachers and administrators resist getting children to and on the water, citing safety issues even though programs are certified. Some say insurance or travel costs of a field trip are too high. Some feel they are simply too far from a waterfront facility. In many cases, teachers say, support from their principals, their school districts or their departments would go a long way in allowing them to tap into the rich resources of the waterfront.

**SOLUTION**

**DESIGNATE AN ASSISTANT COMMISSIONER FOR WATERFRONT EDUCATION**

In this case, change occurs from the top down.

**START WITH NEW GOVERNMENT POSITIONS**

- Appoint an Assistant Commissioner for Waterfront Education.
- Name city and state officials within education departments who would foster maritime and environmental education by facilitating access to funding and updating policies that embrace harbor-related education.

**CREATE MORE HARBOR-THEMED SCHOOLS AND PROGRAMS**

- Disseminate information about waterfront access to teachers.
- Create maritime-focused programming to enrich curricula (see page 7).
- Develop more multi-lingual resources.
DAUNTING INSURANCE DEMANDS
The process of insuring a program that meets government requirements can be confusing and costly. The cost for liability insurance is often beyond what small organizations can pay. Coverage limits of agencies and landlords may vary widely.

MEETING INSURANCE REQUIREMENTS CAN BE AN EXPENSIVE PROBLEM, ESPECIALLY FOR SMALL ORGANIZATIONS ARRANGING TO BRING GROUPS OF PEOPLE TO THE WATERFRONT.

- Re-examine the range of liability for activities at and on the water and clarify appropriate coverage – both to insurance companies and to groups large and small that sponsor waterfront events.
- Focus on the insurance needs of small groups in particular. An umbrella insurance policy sponsored by the Metropolitan Waterfront Alliance for community programs is being discussed.
- Indemnify private property owners who provide public access to the waterfront against legal action resulting from accidents on their property that are not caused by neglect or carelessness.

SOLUTION
ADDRESS LIABILITY CONCERNS
Meeting insurance requirements can be an expensive problem, especially for small organizations arranging to bring groups of people to the waterfront.

Above and left, pint-size paddlers explore the Gowanus Canal.

PHOTO FROM THE GREEN ADVENTURE SUMMER PROGRAM SPONSORED BY THE BATTERY PARK CITY PARKS CONSERVANCY AND HOSTED IN PART BY THE GOWANUS DREDGERS.
LACK OF PHYSICAL ACCESS TO THE WATERFRONT AND WATER

Stroll over to the waterfront and you’ll find occasional pockets of lively maritime activity. Fenced off for decades, the rivers’ edges today may be opening up here and there to host avid school groups, scientists conducting research and people learning how to sail – but many children and adults still have a hard time getting to the waterfront.

Few mass transit routes today extend to the water. MetroCards cannot be used on ferries. Because of the physical logistics of getting large groups of students to and onto the water nearby, teachers are reluctant to coordinate field trips although the waterfront presents a rich opportunity for outdoor lessons.

SOLUTION

EXPAND ACCESS TO THE WATERFRONT

New York and New Jersey need more public waterfront facilities and programs. With only modest capital investments in docks, piers, boathouses, schools, community centers and science stations, programming can begin and the community can become involved.

• Every school and park agency should give all children the opportunity to touch water.
• Teach children to swim, to boat, to fish; to appreciate the estuary; to understand the word “estuary.”
• Introduce educational courses as well as volunteer opportunities for all ages so that everyone can have enhanced understanding of the waterfront.
• Companies located at the water’s edge should sponsor science projects; waterfront community centers and shops should host discussions of marine-related art and literature.
• The iconic idea of a restored oyster reef should become a partnership building effort amongst various public agencies such as Departments of Education, Health, and Parks and Recreation.

Good information from the Coast Guard.
THE RESOURCES OF NEW YORK HARBOR ARE GENERALLY IGNORED BY EDUCATORS

Rich as it is in so many ways, New York Harbor is generally not perceived as an educational resource. This perception is belied by the successful, precedent-setting NY Harbor School, only four years old, which prepares high school students for college education and vocational training through the study of the maritime culture, history and environment of New York City. There are a few other small, focused schools in the area – dedicated to the “Environmental Sciences,” for example, or “Urban Planning” – but in a region that is home to almost two million school children, dozens of such schools with similar educational missions are needed. Moreover, waterfront programs for all ages need to be expanded. The waterways of New York and New Jersey may indeed be laboratories for scientists, but as natural classrooms they are so much more, offering stimulating resources for students of history, inspiration for artists and case studies in global trade for budding economists.

SOLUTION

ESTABLISH A WIDE RANGE OF MARITIME-FOCUSED CURRICULA

TOOLS FOR EDUCATORS

• Develop a Needs Assessment for teachers and city/state officials that addresses the expansion of marine environmental education at all learning levels.
• Develop maritime-related curricula for the Department of Education in a range of subjects from biology, chemistry, geography and physics to history, humanities, math and economics.
• Create topical lesson packages for teachers that would provide links to existing waterfront programs to help develop interesting student assignments.
• Target pre-service educators, the “new generation” of educators.
• Educate teachers and policy makers by hosting them on narrated “Hidden Harbor” boat tours of New York and New Jersey’s working waterfront, visiting places like the Brooklyn Navy Yard, tugboat berths in Erie Basin, the Kill Van Kull shipping channel and ports in Newark, Elizabeth, Staten Island and Brooklyn.

RESOURCES FOR STUDENTS

• Allow students in aquatic programs to leave the campus early, so that they can get to the waterfront and complete their activities before the end of the day.
• Require New York Harbor-related courses for elementary school and continue the programs through middle and high school.
• Foster the continuity of water study projects as students mature.
INADEQUATE RESOURCES FOR TEACHERS

Faced with little support from school districts and education departments and disconnected from the waterfront themselves, teachers do not have the time, resources or motivation to prepare maritime-related lessons. Countless opportunities to teach the science, history and culture of New York Harbor are lost each year.

PRODUCE INFORMATIONAL MATERIALS FOR EDUCATORS AND THE GENERAL PUBLIC

TOOLS

• Host an annual tour of waterfront education facilities and resources for teachers, policy makers and elected officials.
• Link public health topics to an appreciation of the waterfront.
• Identify existing waterfront parks, public spaces, community and education centers, and ways to get to them.

INFORMATION RESOURCES

• Create a searchable database of waterfront access routes, maritime education experiences and water-related recreation options.
• Develop a network of water-related educational organizations and encourage them to share information. Use this network for presenting content and marketing programs.
• Create a “how-to” guide for new water-related education programs and organizations.

Marine Technology teacher Brendan Malone leads students in a boat building project aboard the Peking at the South Street Seaport Museum. They learn dory restoration as well as construction techniques.
LOW LEVEL OF PUBLIC AWARENESS

Though many of the residents of the metropolitan area live on islands, the tendency is to be disassociated from the waterfront. Some believe the water is polluted and inaccessible. Some simply don’t know how to get to the shoreline. Which bus or subway can take you to a beach? Where is free kayaking available? Very few have heard of the Public Trust Doctrine, a common law in western culture based on principles established in the sixth century in ancient Rome. Dating even farther back in eastern culture, the Doctrine states that the right to access, use and enjoy the waterfront and waterways is guaranteed to all people, regardless of property ownership or wealth.

SOLUTION BETTER MARKETING, SIGNAGE AND MAPS

CAMPAIGN MESSAGES

• Make the Hudson-Fulton-Champlain Quadricentennial Celebration in 2009 an intensive public education effort.
• Expand awareness of the waterfront and its educational opportunities with a marketing campaign targeted to teachers and policy makers.
• Link this to a general public marketing campaign.

ACTIONS

• Improve signage to more clearly direct people to waterfront parks and marinas.
• Create new maps showing water trails, ferry landings, marinas and all other access points.
• Develop a set of unified themes – environmental conservation, water recreation, history of the harbor and others – to embed in educational programs.
• Target teachers when planning the next “City of Water Day” and other public events.
MARITIME EDUCATION IS SEGMENTED AND FRAGMENTARY

Children are not encouraged to get immersed, in more ways than one. A lack of continuity in the few maritime-related lessons offered by regional schools means that students do not often have the opportunity to monitor ongoing multi-year projects. Opportunities to build on valuable experiences and promote appreciation of the waterfront and waterways are wasted.

SOLUTION
DEVELOP CONTINUITY IN MARITIME EDUCATION

**ACCTIONS**

- Create maritime-related service learning programs in middle school and continue them through high school. Allow children to delve deeper into study projects. Encourage civic responsibility.
- Be ready to guide high school graduates eager for further maritime-related study or careers, whether in science such as marine biology or ocean engineering, vocational work such as vessel maintenance and repair, or professional careers as ship officers, marina managers or engineers.
- Connect all ages in intergenerational activities, enlisting retirees who participate in programs such as Elderhostel.
- Develop informal maritime activities such as fishing programs.
- Maximize the potential of waterfront school buildings by expanding them into community centers and waterfront education centers. To increase awareness of a local stretch of shoreline, invite residents and workers to waterfront school programs.

**GOALS**

- Encourage lifelong learning.
- Cultivate young experts in maritime issues and involve them in decisions about the waterfront.
- Foster diverse alliances among schools, science organizations, cultural groups and others that can lead to creative educational opportunities as well as greater collective influence on government and society.
Harbor Recreation Task Force Members

CO-CHAIRS
Jaimie Cloud
Founder and President, Cloud Institute for Sustainability Education
Murray Fisher
Founder and Program Director, New York Harbor School
Emlyn Koster
President and CEO, Liberty Science Center

Helena Andreyko
Hudson River Foundation
Roy Arezzo
City As School
Sarah Aucoin
Urban Park Rangers
Bill Bahen
Hudson River Community Sailing
Scott Baker
Hudson River Estuary Program, New York State Department of Environmental Conservation

Hugh Carola
Hackensack Riverkeeper
Kerry Dawson
Hudson River Park Trust
Claudia DeMegret
City Parks Foundation
Tara Deporte
Lower East Side Ecology Center
Maggie Flanagan
South Street Seaport Museum
Anne Fraoli
New York Harbor School

Lisa Garrison
New York City Environmental Fund, Hudson River Foundation
Lori Garth
Liberty State Park
Chris Gasiorek
United States Merchant Marine Academy
Amy Gavaris
New York Restoration Project
Tori Gilbert
East River CREW
Damian Griffin
Bronx River Alliance
Sara Hanna
New York Sun Works Center for Sustainable Engineering
Thorner Harris
Fireboat John J. Harvey
Mary Nell Hawk
East River CREW
Minona Heaviland
New York City Department of Parks and Recreation

Lucinda Kalin
New York City Soil & Water Conservation District
Chris Kennedy
Solar One
Veronique Lambert
Cornell University Cooperative Extension
Sarah Manley
Solar One
Carlos Martinez
Green Map System
Lisa Mielke
New York Aquarium

Cynthia Mount
Downtown Boathouse
Tanya Oznovich
New Jersey Department of Environmental Protection
Gina Provenzano
Liberty State Park
Jack Putnam
South Street Seaport Museum
Geri Robyn-Blatter
National Park Service
Jeff Rumpf
Clearwater
Manuel Russ
Concerned Citizens of Bensonhurst
Bill Schultz
Raritan Riverkeeper
Rosalie Siegel
Port Authority of New York & New Jersey, Office of Environmental Policy, Programs and Compliance
Steve Stanne
Department of Environmental Conservation, Hudson River Estuary Program
Shino Tanikawa
New York City Soil & Water Conservation District

Betsy Ukeritis
New York State Department of Environmental Conservation, Region 2
John Watts
Metropolitan Waterfront Alliance
John Wright
Sebago Canoe Club

A Letter from the President of the MWA

In an unprecedented series of meetings, hundreds of leaders of maritime organizations, government agencies and businesses came together over the course of a year to address issues relating to the stewardship and redevelopment of the New York and New Jersey waterfront. This is the Metropolitan Waterfront Alliance.

Divided into six Task Forces, they shared their expertise and collaborated across boundaries, recognizing that timing is crucial. Critical land use, regulatory, and environmental decisions made now will determine the success or failure of efforts to reclaim the waterfront for public use, preserve the water-dependent businesses that underlie our quality of life, and nurture the recovery and health of our harbor estuary.

This is one of six policy papers drawn from hundreds of hours of discussion and debate and informed by a wide range of practical knowledge. These papers provide background on key issues and offer a series of challenges and solutions. Together they led to the Waterfront Action Agenda, which is forward-looking, as well as socially, environmentally and commercially responsible. Civic and political leaders take note: our waterfront is not what it could be. Following the prescriptions set forth in the MWA Waterfront Action Agenda, we can begin to realize our Harbor’s potential.

- Roland Lewis
  President and CEO
  Metropolitan Waterfront Alliance