

Taking Stock of... Storm Barrier Research

"Respect for nature" is an Earth Day credo worth heeding. But containing nature—that is something else. Stony Brook Storm Surge Research Group collaborators **Malcolm Bowman, Frank Buonaiuto, Brian Colle, Roger Flood, Douglas Hill** and **Robert Wilson** and their marine science students are suggesting just that. The group's NYSG-funded project used storm surge models to determine the feasibility of using barriers positioned at strategic "choke" points around metropolitan NY to ward off nature's wrath and prevent storm surge flooding (see Spring '05 *Coastlines*). The combination of high tides and a storm surge during an intense storm would be devastating, given the vulnerability of lower Manhattan tenuously situated at just 10 feet above sea level. Storm barriers could effectively prevent potentially catastrophic flooding and loss of property and life in the event of a 100-year storm. "What gives urgency to the project is the acceleration of sea level rise associated with global climate change," says Bowman.

NYSG got the word out about this project on a brisk, bright, wind-swept day in April at EarthStock 2005, when it was among the 55 organizations and sponsors demonstrating ways to ensure a safe, healthy environment for the future. Over 3,500 attended the free open-air festivities hosted by Stony Brook University.



"Storm buster" Dr. Malcolm Bowman, Chair of the EarthStock 2005 organizing committee (kneeling), with NYSG's Susan Hamill and Paul Focazio at EarthStock 2005. Photo by George Carroll

NYSG's colorful display included photos of what some downtown landmarks might look like under flood conditions. "Goddard Institute of Space Studies scientists in Manhattan predict up to a two-foot sea level rise by 2050. Thus a modest 5-year storm event in 2050 will do as much damage as a rare 100-year storm event would do today," says Bowman. The images brought many curious visitors to the booth, generating interest in the potential use of protective barriers as a way to counter storm surge destruction in our vital city.

"Celebrate, respect and protect mother Earth and her environment." That was the challenge and the theme that swelled in the hearts of all who enjoyed Earth Day at this year's EarthStock 2005. But protecting and maintaining a habitable environment for the future may take some cooperation with the forces of nature.

— Susan Hamill

~~Brown Tide: The Final Chapter~~

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~~A laymen's version of the to-be-published *Estuaries* article will constitute the ninth and final issue of BTRI's report series, scheduled for publication by this October. Synthesis information will also be presented at the final informational public symposium, to be held later this fall. "We look forward to sharing the synthesis of the research results in a format that will be easily understandable for all," says Schlenk.~~

~~"All the BTRI investigators worked very well together to help put all the brown tide pieces in place," adds Patrick Dooley, NYSG's BTRI Outreach Specialist. "Our better understanding of brown tide is due to their insightful research and dedication. BTRI is a successful example of a coordinated research and outreach~~

~~effort that can serve as a model to approach other environmental issues."~~

~~Adds Gobler, "While I believe we accomplished what we set out to do, brown tide research continues today, so the story is not truly over. Perhaps another synthesis paper will be needed in another 20 years."~~

~~For more information on brown tide and the future public symposium, visit the BTRI web site: www.nyseagrant.org/BTRI.~~

— Patrick Dooley and Paul C. Focazio