

Advertisement

69°
Local weather
National Weather Service

Local ▾ Blogs ▾ AP ▾ News ▾ Sports ▾ Business ▾ Features ▾ Food ▾ Ent ▾ Opinion ▾ Multimedia ▾ Contact ▾ Calendar Data

Corrections Health ▾ Indiana Lotteries National Ohio Science Weather ▾ World ▾ Worth a click

FortWayne.com

Subscribe Jobs Cars Homes Apartments Classifieds Shopping Celebrations Obituaries

Home « News « National

Mobile | RSS Search archive

Published: November 18, 2012 3:00 a.m.

Flood protection touted for NYC

Experts say barriers could mitigate surge

Ken Wells | Bloomberg News

NEW YORK – Could a surge-protection barrier have saved New York City from much of the flood ravages of superstorm Sandy?

Malcolm Bowman and other hydrologists are convinced it could have.

Bowman, an oceanographer who has spent much of a 40-year career warily watching the tidal flows in and around New York Harbor, recalls being on the construction site of Manhattan's South Ferry subway station a few years ago.

"It was just a concrete box underground then," said Bowman, then an observer filming a documentary. He looked up a long stairway leading to blue sky and asked a construction official, "Would you mind telling us how far above sea level is the entrance there at street level?"

Eleven feet, the official said – an elevation designed to withstand possible floods from a storm that occurs once in 100 years.

"I said, 'That sounds awfully low to me and, by the way, that storm could come next week,' " said Bowman, a professor at the Marine Sciences

Advertisement

WANT TO KNOW RIGHT NOW?



Your daily customized newsletter: journalgazette.net/newsletter
jgmobile.net journalgazette.net

National

■ **Girl, 16, takes to ask.fm after deadly abduction by family friend**

SAN DIEGO – The 16-year-old California girl abducted by a close family friend suspected of killing her mother and 8-year-old brother says he threatened to kill her if she tried to escape and got what he deserved when he died in a [Today 2:43 pm](#)

■ **Ex-Rep. Jesse Jackson Jr. sentenced to prison**

WASHINGTON – A federal judge has sentenced former Rep. Jesse Jackson Jr. to 30 months in prison, following his guilty plea that he engaged in a scheme to spend \$750,000 in campaign funds on personal items. [Today 1:05 pm](#)

■ **2 die when UPS cargo jet crashes**

BIRMINGHAM, Ala. – A UPS cargo plane crashed and burned Wednesday morning on the outskirts of an Alabama airport, killing two crew members and scattering boxes and charred debris across a grassy field, officials said. [Today 12:53 pm](#)

Advertisement

The Journal Gazette
CALENDAR
Things to do,
places to go,
people to meet...
[CLICK HERE](#)

Advertisement

LOCAL BUSINESS SEARCH
SEARCH FIND

Popular Categories:

- Restaurants
- Hospitals, Clinics & Medical Centers
- Hotels, Motels, & Lodging
- Hair Salons & Barbers
- Legal Services
- View all »



Sponsor

DAILY Deal
Good Feet
67% off!
BUY NOW!!

STOCK SUMMARY		
Dow	15518.74	-93.39
Nasdaq	3665.77	-27.18
S&P 500	1697.37	-9.77
AEP	45.79	-0.60
Comcast	44.99	-0.64
GE	24.31	-0.21
ITT Exelis	15.17	-0.28
LNC	43.40	-0.47
Navistar	34.27	-1.39
Raytheon	75.79	-0.29
SDI	15.57	-0.25
Verizon	50.09	-0.12

Stock Sponsor
[Click here for full stock listings](#)

GREAT JOBS/COMPANIES



Bloomberg News

Some hydrologists believe a surge-protection barrier could have saved New York City from much of the flooding in its subway tunnel in lower Manhattan.

Research Center of State University of New York at Stony Brook, Long Island.

The South Ferry station, a \$530 million jewel in New York's subway system, opened in March 2009. On Oct. 29, Hurricane Sandy slammed into the New York metropolitan area, bringing a record storm surge of 13.88 feet into Battery Park, which abuts South Ferry. The station flooded floor to ceiling, destroying equipment and turning escalator wells and tunnels into caverns deep enough to scuba dive in.

Sandy's relentless, wind-driven tides inundated seven subway tunnels under the East River, immersed electrical substations, and shut down the financial district and power south of 35th Street. It flooded parts of all five boroughs in the city of 8 million and killed more than 100 people in the United States, 42 in New York City.

Bowman says a storm surge barrier to slow and disperse Sandy's floodwaters could have mitigated much of Manhattan's flooding. He's not alone.

A 2009 engineering study by Mahwah, N.J.-based HydroQual estimated that a barrier system involving massive floodgates at key points such as the East River and the Verrazano Narrows would reduce the flooded area of the New York metropolitan region by 25 percent, the population affected by 20 percent, submerged property 35 percent, and cut storm damage to sewage plants and other hazardous waste facilities by half. Conceptual designs of several such systems were floated at a 2009 conference at the Polytechnic Institute of New York University.

While such a system is expensive – estimates range to \$17 billion – Sandy's damage and economic losses to the region may reach \$50 billion, \$33 billion of that in New York state alone, Gov. Andrew Cuomo said at a news briefing a week ago. That's comparable with the \$15 billion the federal government spent to rebuild New Orleans levees after Hurricane Katrina in 2005.

With most scientists suggesting climate change is increasing the frequency of such storms, the cost-benefit ratio of building a surge-protection system may make sense.

"Think about it this way," Bowman said. "Including Hurricane Irene last year, we've had two 100-year storms in two years."

The experiences of London, St. Petersburg, Russia, and Venice, Italy, each of which built

Featured jobs

Teacher

Account Manager

Quality Analyst

Automotive
Technician, Service

[View all Jobs](#)

Jobs.
FortWayne.com
monster

such projects, show the systems can protect dense urban populations and infrastructure. In August, new levees kept New Orleans dry from Hurricane Isaac's flooding.

"This is all proven technology," says Jeroen Aerts, a water risk-management expert with the Institute for Environmental Studies in Amsterdam who is developing estimates on strategies for averting future floods for New York City's Office of Long-Term Planning and Sustainability.

The question is money, political will and a general skepticism in some quarters, including the office of Mayor Michael Bloomberg, that big engineering solutions are the answer.

Cuomo says that a levee system or storm-surge barriers ought to be considered.

"The construction of this city did not anticipate these kinds of situations," Cuomo said in an Oct. 30 radio interview on WGDJ in Albany. "We are only a few feet above sea level.

"As soon as you breach the sides of Manhattan, you now have a whole infrastructure under the city that fills: the subway system, the foundations for buildings."

[+](#) Share | [f](#) [t](#)

 E-mail  Printer friendly

Advertisement

Copyright © 2013, www.journalgazette.net | [Terms of use/privacy policy](#)