

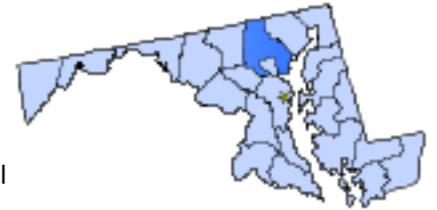


A Tall Order After Isabel

Full Mitigation Best Practice Story

Baltimore County, Maryland

Bowleys Quarters, MD - Standing in her front yard, her back to the Chesapeake Bay, Brenda Tucker gazed at the collapsed roof marking the spot where Hurricane Isabel's waves crashed through her house, carrying away her 40-year-old cottage's Florida room and a 30-foot deck. "I don't know if there will be enough money to fix it. I don't know if it will be condemned," said Tucker.



Her more immediate concern was whether her flood insurance or homeowner's insurance - or both - would cover the costs. Because of building codes adopted in the 1970s, anyone rebuilding within the State's official flood plains - or making "substantial" repairs or renovations - must elevate his or her first floor above the 100-year flood level.

The storm story ended far more happily for Steve Moody. His bay-side house was built in 1992 under current flood insurance rules. The first floor stands just above the 100-year flood level, and it stayed dry. "We didn't have any damage, really," he said. His circuit breakers, central vacuum controls, some ductwork, and belongings he had stored in the crawl space beneath the first floor got wet. Compared with the devastation visited on most of his neighbors, he got off easy.

"All the new construction we saw that met the requirements of the county did not have damage," said Roger Benson, a natural hazards specialist with FEMA. And now, "all the new construction that's going to be built in the future is going to have a greatly reduced risk of flooding."

The Maryland Department of the Environment said 78,000 improved properties are within Maryland's 100-year flood plains. Of those, more than 51,000 (about two-thirds) have flood insurance policies. John M. Joyce, the department's flood insurance coordinator, said insured homeowners whose houses were destroyed or "substantially damaged" (more than 50 percent of fair market value), may receive up to \$30,000 to cover the costs of raising their homes above the flood line.

Those without flood insurance may be eligible for other grants under Federal, State and local programs. Many homeowners will simply lift their homes onto new pilings. "You just jack it up; the technology to do that is out here, and it's well known," Benson said. Others will raze their damaged homes and build from scratch.

These new or rebuilt homes will have no basements. Owners also sign "nonconversion" agreements promising not to convert the ground floor space to a living area. The agreements become part of their deeds. Homeowners can use ground floor storage as a garage, but it must include "flood venting." These are ports that pop open in a flood and allow the water to flow through without causing structural damage. Any outbuildings larger than 100 square feet must meet the same flood codes as the house.

New construction in floodplains has had to meet these codes for decades, FEMA officials said. Their effect is most noticeable along Maryland's Atlantic beaches, where every new "cottage" has been built on tall pilings.

In his tours of Baltimore and Carroll Counties, part of FEMA's preliminary damage assessments, Benson said people who once objected to elevating their homes had changed their tunes. "In the future," Benson said, "I don't think you're going to have a lot of people say, 'I don't want to elevate it; it will never flood.' You've sold the entire building community [on the reality] that this can happen."

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region III**

State: **Maryland**

County: **Baltimore County**

City/Community: **Bowleys Quarters**

Key Activity/Project Information

Sector: **Private**

Hazard Type: **Flooding; Hurricane/Tropical Storm**

Activity/Project Type: **Elevation, Structural; Floodplain Management**

Activity/Project Start Date: **01/1994**

Activity/Project End Date: **Ongoing**

Funding Source: **National Flood Insurance Program (NFIP)**

Activity/Project Economic Analysis

Cost: **Amount Not Available**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Unknown**

Value Tested By Disaster? **Unknown**

Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.floodsmart.gov>

Reference URL 2: <http://www.maryland.gov/>

Main Points

- Because of building codes adopted in the 1970s, anyone rebuilding within the State's official flood plains - or making "substantial" repairs or renovations - must elevate his or her first floor above the 100-year flood level.
- The Maryland Department of the Environment said 78,000 improved properties are within Maryland's 100-year flood plains. Of those, more than 51,000 (about two-thirds) have flood insurance policies.
- Those without flood insurance may be eligible for other grants under Federal, State and local programs. Many homeowners will simply lift their homes onto new pilings.