AFTER THE FLOOD

AP PHOTO

Insuring Against Natural Disasters is Risky Business

BY BETTY JOYCE NASH

Henderson County, N.C., is balking at joining the nation's flood insurance program. By signing on to the program, the county would promise to set and enforce requirements, primarily elevating structures in flood-prone areas, in exchange for the ability to buy flood insurance guaranteed by the federal government.

But the county commissioners think that if developers could get insurance—and thus procure bank loans—they would build subdivisions dangerously near the county's picturesque western North Carolina rivers and streams. According to Rocky Hyder, the county's emergency management director, Henderson County has aimed to keep its floodplains agricultural to absorb water in heavy rains. Ninety-eight of North Carolina's 100 counties participate in the flood insurance plan, along with some 20,000 communities nationwide.

Hyder says that neighboring counties participate in the flood insurance program and the result shows. "It encourages development in the floodplain," he says.

Henderson County's dilemma highlights an ongoing debate about federal flood insurance, one that surfaces with each storm and recedes with the water as flood memories fade. As disaster assistance payouts climb after Hurricane Isabel, Federal Emergency Management Agency (FEMA) officials are working hard to sign up people for flood insurance. That way, the program builds premiums to fund claims. But some analysts think the program enjoys subsidization and is a net cost to taxpayers. Most troubling, the insurance could be stimulating development near beaches and rivers—places that arguably shouldn't be built up at all, especially at taxpayer expense.

"The availability of affordable federal flood insurance, even along eroding coasts, fosters the illusion that government will always underwrite the financial risks of building in areas of obvious hazard," writes Rutherford Platt, professor of geography and planning law at the University of Massachusetts.

While flood insurance and its regulations aim to protect structures and minimize disaster assistance, the rules have made it less risky for people to live next to the water.

"I'm a city and regional planner and I think the biggest policy issue is how to guide development so it stays out of the floodplains," says David Godschalk, a planning professor at the University of North Carolina at Chapel Hill.

Congress enacted the National Flood Insurance Program (NFIP) in 1968 in response to massive floods, the lack of available flood insurance, and rising taxpayer-funded flood assistance. The plan, administered by FEMA, aimed to shift the burden of flood losses away from taxpayers. Twice, in 1973 and 1994, congressional legislation has been passed to correct problems in the system. The 1994 legislation tightened the requirement that lenders refuse to make home loans in flood hazard areas unless their customers buy flood insurance.

An April 2003 General Accounting Office (GAO) report states the NFIP has paid about $12 billion in insurance claims since its inception in 1968, mostly from premiums collected from individual property owners. Under the program, flood insurance rate maps identify special flood areas, known as 100-year floodplains. Those are areas that have a one percent chance (or greater) of flooding in a given year. The idea was to regulate development and require insurance to cut flood losses. FEMA last year was absorbed into the new Department of Homeland Security.

FEMA spokesman Mark Stevens says the government, without a profit motive, can offer flood insurance at affordable rates while private firms can't. (Private firms sell federal flood insurance and receive administrative fees from FEMA.) The flood insurance program's only "catastrophic reserve" is the U.S. Treasury, from which the program borrowed heavily in the late 1990s after a rapid succession of floods. That money has been repaid.

"[We have] zero outstanding at the moment," Stevens notes. "If there's a multistate hurricane around the corner, that can change." The single most expensive flood in the history of the program was created by Hurricane Allison in 2001, which caused more than $1 billion in property damage.

FEMA says its policies reduce the costs of repairing flood-damaged buildings and further save $1 billion a year through floodplain management. (Buildings constructed to NFIP standards suffer 80 percent less damage annually than those not in compliance, according to FEMA.) And every $3 paid in flood insurance claims saves $1 in disaster assistance payments, according to FEMA. Today, nearly four-and-a-half million property owners have federal flood insurance, less than half the number eligible for it.

Beam Me Up, Uncle Sam

FEMA has paid 48,566 claims since 1978 in North Carolina alone, with payments totaling about $561 million, excluding claims for damage done by Hurricane Isabel.

Floods have become a way of life for folks in Belhaven, N.C. The town of about 2,000, about a mile square, sits three feet above sea level on the Pungo River as the river widens into the Pamlico Sound on North Carolina's coast. The town stayed dry for 40 years after Hurricanes Hazel and Diane hit in the mid-1950s.

In 1996, Hurricanes Bertha, Fran, and Josephine marched in, says town manager Tim Johnson. After the town cleaned up from those three storms, Bonnie whacked it in 1998, and then Dennis passed through and turned around to hit twice. And everybody remembers Hurricane Floyd in 1999. Most recently, the town braced for Isabel last September.

But this time, the town was prepared. Most of the flood-prone properties, about 320 in total, had been elevated. The project cost $16 million.

Belhaven is the poster child for FEMA's "hazard mitigation," an effort that stems from the 1994 congressional legislation to reform the flood insurance program. The idea is to shed properties that repeatedly flood and overtax the system. The program relocates or elevates structures to avoid future losses. A combination of flood insurance, state and FEMA grants, as well as crisis housing assistance funded Belhaven's mitigation plan, said to be the biggest in the United States.

FEMA hopes projects like Belhaven's will eventually stanch its repetitive losses. In North Carolina alone, there are about 5,500 repetitive loss properties. Nationwide, such properties represent 38 percent of claims, but account for only 2 percent of insured properties. The GAO reports that about 29 percent of the flood insurance program's policies are subsidized without appropriations to cover them.

The problem stems from policyholders whose structures were built before their communities' flood insurance rate maps were drawn. They are grandfathered into the plan and pay reduced premiums that represent only a part of the risk. The GAO reports the average annual premium for a subsidized policy is $637, about 35 percent to 40 percent of the true risk premium for these properties. The GAO also points out that the plan's cash-based budgeting method hides the costs of the program and "does not provide information necessary to signal emerging problems, such as shortfalls in funds to cover the program's risk exposure."

Scott Harrington, a professor at the University of South Carolina's Moore School of Business, says that calculating the costs and benefits of the program is tough. "There are some overall subsidy and cross-subsidies from properties that aren't grandfathered," he says. "They also say the floodplain management has saved $1 billion on average in damage. I don't know of any academic research that has tried to add it all up and see whether this on average is a net benefit. You have to be concerned."

High Density, High Costs

Escalating costs have also been attributed to intensified use of flood-prone areas, according to a report issued in 2000 by the Association of State Flood Plain Managers. The report blames conflicting local, state, and national policies that encourage floodplain development.

An underlying perception that a government bailout will come in after a disaster has encouraged construction in risky areas—a tendency that economists call "moral hazard."

Some people, flood insurance or not, disregard risk and build near water, according to Tabby Shelton, hazard mitigation coordinator for Horry County, S.C. The coastal county, about seven to 15 feet above sea level, lies at the mouth of the Waccamaw River. Repeated flooding after Hurricanes Dennis, Floyd, and Irene in 1999 logged enough damage to spark a full FEMA hazard mitigation program. Between city and county, almost 100 structures were demolished or acquired to prevent future claims at a total cost of about $8 million. But home ties remain too strong for some to leave.

"We have a lot of river rats," Shelton says. "They don't care how many times it floods—they just fix it and go on." And as NFIP comes to grips with its repetitive loss problem, future flood assistance will be unavailable for those who don't floodproof their properties and maintain insurance.

In North Carolina, Hurricane Floyd revealed weaknesses in the flood insurance system. For example, two-thirds of disaster claims for individual assistance after Floyd were for homes outside the special hazard flood areas identified on FEMA's rate maps. Floyd's damage mostly came from flooding, yet most flood-damaged homes were not covered by flood insurance.

Floyd prompted North Carolina to mount a massive flood insurance rate map update, funded partly by $23 million of Floyd's disaster assistance. FEMA has likewise embarked on digitizing and re-mapping flood zones nationwide, with funds appropriated by Congress.

Still, some communities—especially those with narrow floodplains—may want to follow Henderson County's lead and elect to stay out of the flood insurance program in order to discourage private development in risky areas. **RF**

READINGS

Association of State Floodplain Managers, "National Flood Programs in Review—2000."

Burby, Raymond J. "Flood Insurance and Floodplain Management: The U.S. Experience," *Journal of Environmental Hazards*, forthcoming.

U. S. General Accounting Office. "Challenges Facing the National Flood Insurance Program." April 2003.

Visit **www.rich.frb.org/pubs/regionfocus** for links to relevant Web sites.