Rural Voices

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LESSONS FROM DISASTERS

IN THIS ISSUE
Disaster Protection Advice • Lessons from Past Disasters • Rural Housing in the Campaigns
AND MORE . . .
Dear Friends,

Natural disasters remind us how little control we have over our world — homes and lives can be wiped out in seconds. One year ago, Hurricanes Dennis and Floyd devastated large sections of the eastern U.S., with heavy rains and flooding damaging communities far inland. This summer, news stories have focused on fires in the west. Less dramatic disasters happen all the time — a tornado strikes a single town or a river floods in one county.

This issue of Rural Voices addresses some of what can be learned from recent major disasters. Preparatory steps to guard against damage are summarized by staff of the Federal Emergency Management Agency's Project Impact, which helps to make communities disaster resistant. An experienced architect from Texas presents specific design and construction tips for wind resistance. A Kentucky state official describes her agency's role in recovering from serious flooding. A Minnesota rural infrastructure expert suggests elements of a manual to guide emergency procedures. And a North Carolina advocate examines the challenges and successes of that state's ongoing efforts to recover from last year's hurricanes.

A great deal of additional information is available for rural communities to prepare for and recover from these kinds of disasters and others. Most of the articles in this issue suggest sources of further advice, and most of it is available free.

A key theme running through all these articles is the importance of advance planning and preparation. Rural communities can exert some control after all, either to reduce damage or to hasten recovery after a disaster.

We wish all our readers a well planned, disaster-free future.

Sincerely,

William Powers, Chair
Charles B. Davis, President
Moises Loza, Executive Director
HUD Awards HAC $8.1 Million in New SHOP Funds

On September 14 the Department of Housing and Urban Development awarded $8,091,000 to HAC under the Self-Help Homeownership Opportunity Program (SHOP). The funds will be loaned and granted to local housing organizations using self-help or "sweat equity" methods. SHOP loans cover site development costs, up to $10,000 per home. Seventy-five percent of the SHOP loan becomes a grant for each group that meets its production target.

This award, along with a recently announced $250,000 investment from the Calvert Foundation, brings the total assets of HAC's loan funds to more than $50 million for the first time.

To give applicants ample time to plan their programs, HAC advertised this SHOP round before it knew how much funding HUD would provide. By the September 1 deadline, HAC had received 52 applications from groups in 22 states, requesting a total of $10.2 million. The applications are now under review. HAC expects to announce loan approvals in early December at the National Rural Housing Conference.

HAC and Topeka FHLB Help Midwestern Homebuyers

The Federal Home Loan Bank of Topeka has announced a $300,000 grant that will enable HAC to help 80 very low-income families in four Midwestern states to buy homes. The funds, which come from the Affordable Housing Program, will extend a Rural Homeownership Opportunity Partnership program developed last year.

Small grants help participating homebuyers cover downpayment or closing costs, or reduce the principal amount of their mortgage. Last year 60 participating homebuyers received up to $5,000 each, and this year the cap will be $3,750. Average income for the first 60 families was only $15,887, less than half the median income in their areas. Fourteen of them live on fixed incomes. They bought homes with an average purchase price of $62,647. All the families received homeownership training. Some obtained mortgages from commercial banks, while others have mortgages from the U.S. Department of Agriculture Section 502 program. Nineteen participated in USDA's self-help housing program.

The program involves a number of partners. HAC teamed with Commercial Federal Bank of Omaha to receive the AHP funds. Nonprofit agencies in each state help spread the word about the program, and work directly with homebuyers or with local housing groups to provide homeownership education and find affordable mortgages for the buyers. They are: Colorado Rural Housing Corp., Housing and Credit Counseling, Inc. in Kansas, REACH in Nebraska, and Little Dixie Community Action Agency in Oklahoma.

Conference Registration Now Underway

Registration is open for Strengthening Our Communities: National Rural Housing Conference 2000, to be held in Washington, D.C. on December 6-9. Registration details and forms are available at HAC's web site, www.ruralhome.org. To request a copy of the registration brochure, contact conference staff at 202-842-8600, ext. 108, or conference2000@ruralhome.org.

Rural Social Science Meetings Include HAC Presentations

Presentations by HAC's research staff at social science meetings in April and August covered a variety of important rural housing issues. In April, a panel at the Western Social Science Association's 42nd Annual Conference in San Diego summarized four rural housing papers developed by HAC staff. Their topics included farmworker housing, mobile homes, mortgage data, and the impacts of foundation grants to nonprofit housing developers.

The paper "Mobile Homes and the Rural Elderly: Trends, Characteristics and Consequences," co-authored by a HAC staffer, was selected for presentation at the 63rd annual meeting of the Rural Sociological Society. The researchers investigated mobile home occupancy among nonmetro seniors and the implications mobile homes hold for an aging society.
Building Safe Communities
From the Ground Up

by James Lee Witt

FEMA's Project Impact encourages local officials, businesses and residents to take responsibility for preparing their communities to weather a disaster.

Hurricanes, tornadoes, floods, wildfires, earthquakes — rural communities struck by natural disasters are often the hardest hit. The impact on individuals can be devastating, with significant loss of property and even lives.

Severe weather can affect all communities whether large or small, rural or urban. The fact is, regardless of what type of natural disaster threatens a community, creating a disaster-resistant community is possible by incorporating prevention as part of the planning process. Building new structures or enhancing existing structures is a key component in reducing the potential damage that may result when a disaster hits a community. And it's been proven — prevention works.

The Federal Emergency Management Agency (FEMA) estimates that every dollar spent on disaster prevention efforts yields two dollars saved in repairing damage caused when a disaster hits. Through FEMA's Project Impact, an initiative to make America's communities disaster-resistant, the agency encourages local community officials, businesses and residents — including developers — to take responsibility for preparing their communities to safely weather a disaster.

Against the Wind

The high-speed winds and airborne debris that come with tornadoes and hurricanes can cause extensive damage to homes and buildings, and threaten the lives of those inside. The residents of Tulsa, Okla. know this all too well. The community has been hit by several powerful and damaging tornadoes. As a partner with FEMA's Project Impact, the Home Builders Association of Greater Tulsa (HBA) has played an instrumental role in planning for and installing safe rooms in Tulsa residences and informing the community about their importance.

Another community that recognizes the critical need for safe rooms in all housing is the Housing Authority of Racine County (HARC) in Racine, Wis. Working with the local Racine County Project Impact community, HARC kicked off construction on its first new home to be built with a safe room. The project represents the county's first effort at building a disaster-resistant room into low-income housing, and potentially the state's first for public or low-income housing as well.

"This is taking 'safe' to a higher level," explains Kevin Dunk of HARC. "This room in the basement of the homes we build will ensure that families will have a 'safe' home as well as an affordable home."

Safe rooms are hardened structures, often built of concrete, built within a home or public building that provide a 'safe place' people can go to during severe weather to survive with little or no injury. Safe rooms are designed to withstand winds of up to 250 miles per hour, particularly important in tornado prone areas where most building code requirements for high winds are set significantly lower than the wind speeds typically..."
associated with a tornado or hurricane.

Recognizing the importance of these structures, several of Tulsa's HBA members are incorporating prevention measures into the initial design of the homes and including safe rooms as a standard feature in housing communities under construction in that region.

FEMA estimates the cost of adding a safe room to a new home or retrofitting an existing home with a safe room at $2,000-$4,000. In subsidized housing developments, this additional cost can be funded in many ways. In Racine County, for example, Johnson Bank offers low interest loans for homeowners interested in retrofitting their homes with safe rooms. HARC funded the construction of the first safe room, and will seek state and federal funding for future safe rooms to avoid adding to the cost of the homes paid by the buyers.

FEMA, in cooperation with the Wind Engineering Research Center at Texas Tech University, has developed designs for wind-resistant safe rooms with these requirements:

- The shelter must be anchored adequately to resist overturning and uplift.
- The walls, ceiling and door of the shelter must withstand wind pressure and resist penetration by windborne missiles and falling debris.
- The connections between all parts of the shelter must be strong enough to resist the wind forces without failing.

FEMA offers two publications developed in conjunction with Texas Tech: Taking Shelter from the Storm, which provides construction plans and cost estimates for residential safe rooms, and Design and Construction Guidance for Community Shelters, for community shelters. Both publications can be obtained by calling FEMA Publications at 800-480-2520.

While safe rooms are primarily used in "tornado alley," residents living in hurricane prone areas of the U.S. are also constructing them to protect themselves. In addition to safe rooms, housing in hurricane prone areas should incorporate prevention measures to minimize damage from high winds. Roofs should be reinforced with hurricane straps and bracing, garage doors should be reinforced, and six nails should be used instead of four to secure roof shingles.

**RISING WATERS**

With wind speeds of at least 74 miles per hour and rapidly rising surf, hurricanes pound coastal areas with a one-two punch of damage. Kenny and Diane Gregory's Virginia Beach, Va. house stood up to the test — literally.

After Hurricane Bonnie dropped a tree through the roof of their home just three days before the closing date, the Gregories decided to start from scratch and build a new, disaster-resistant home. The Gregories' new house is an additional 16 inches off the ground for additional flood protection that proved valuable after Hurricane Floyd hit last September.

Innovations in design and the demands of homeowners encourage contractors to build homes like the Gregories'. In addition, the foresight of builders to offer safer, more disaster-resistant homes at the outset will help communities minimize the damage from a flood or rising waters from a hurricane.

Elevating structures in hurricane and flood prone areas is only one way builders and community planners can ensure homes are disaster resistant. Others include:

- Building homes and businesses on higher ground so they remain above the flood plain when inclement weather strikes.
- Constructing homes and public buildings on sturdy foundations and taking precautions to ensure that those foundations will not settle or sink if flooding occurs.
- Making provisions during the planning stages for fuse boxes, ventilating, heating, and cooling equipment to be elevated above ground level to reduce the risk of electrical failure and danger from electric circuits.

The foresight of builders to offer safer, more disaster-resistant homes at the outset will help communities minimize the damage from a flood or rising waters from a hurricane.

SAFE CONTINUED ON PAGE 4
Reviewing where a home or business will be located is one of the first steps to making a home disaster resistant. In recent years, there is a better understanding of the seismic threat in the U.S. Many parts of the country have recently been identified as having a higher seismic threat than previously thought, making earthquakes more than just a West Coast problem.

Whether rural or urban, the best protection for homes in earthquake-prone areas is bracing for seismic shifts that might occur. Bolting wood frame houses to concrete foundations can avoid their pulling apart if an earthquake hits. For structures with tile roofs, use of mechanical fastening ensures the tiles will not slide off and become falling debris.

Additionally, all major appliances and heavy objects should be securely attached to a supporting wall. Anchoring heavy furniture also eliminates the danger of shifting and falling objects. Shatter-resistant glass, especially when used in entranceways or other escape routes, protects residents from being injured by cracked and broken glass.

Finally, a thorough structural inspection of buildings and necessary repairs helps to ensure that safe buildings stay safe and can vastly reduce the amount of damage caused by earthquakes.

**SNUFFING OUT THE FLAMES**

After one of the worst wildfire seasons in history, people in rural areas are well aware of the massive destruction fires can wreak. Wildfires usually occur in areas with a high concentration of dry vegetation and areas that often have seasons of drought combined with high temperatures. While these are considered ideal conditions, wildfires can erupt under other conditions as well.

Instituting safety precautions when building can reduce the danger of wildfires. Ideally, buildings developed in fire-prone areas would be built using flame-retardant materials. However, protecting homes and businesses can also mean building within, or creating, a 25-foot safety zone separating them from all combustible vegetation. This zone reduces the spread of fires by eliminating their fuel and keeping them away from buildings.

Carolyn and Ed Ostransky have proven that taking prevention measures can mean the difference between returning home after a wild fire and rebuilding from scratch. The couple lives outside of Loveland, Colo. — in the path of one of the devastating wildfires of summer 2000. Fortunately, when the Ostranskys attended a meeting with their fire chief several years ago, they took his warnings seriously and created a 30-foot defensible zone around their home free of debris and other fire fueling materials. These efforts saved the Ostranskys' home. While the flames were near enough to the home to warp aluminum siding, the buffer zone weakened the fire so that fire fighters could save the home.

**TAKING ACTION**

Acknowledging that natural disasters occur in all regions of the United States is the first step in creating disaster resistant communities. Determine what type of disaster poses the greatest risk to your community, then build smarter so that homes and buildings can withstand a variety of disasters. By thinking about disaster resistance in the planning stages, you have the power to make a difference.

**FOR MORE INFORMATION**

FEMA has printed brochures with specific instructions and blueprints geared directly toward each natural disaster. More information about these publications and FEMA's Project Impact can be found at [www.fema.gov/impact](http://www.fema.gov/impact). FEMA publications and construction plans can also be obtained by calling 800-480-2520.

James Lee Witt is Director of the Federal Emergency Management Agency.
In 1995 Hurricane Marilyn damaged or destroyed numerous homes in St. Thomas, Virgin Islands.

Design and Construction Can Help Rural Homes Avoid Wind Damage

by Charles Harper, FAIA

Design, construction, landscaping, and caution can go a long way towards protecting homes and people against wind storms.

Many rural and urban residents have lost much of their world and some of their family or friends to vicious tornadoes or wind storms that destroyed their homes. Fortunately, design, construction, landscaping, and caution can go a long way towards protecting homes and people against wind storms.

Many people labor under the misconception that they do not have to be concerned about tornadoes. On the contrary, in the United States and Canada we live in the most tornado-prone area in the world. Tornadoes have occurred in every one of the lower 48 states and in most of the populated Canadian provinces. Anyone living in these locations can be struck at any time of the year. The likelihood of a tornado strike is greater in the Central Plains, but one strike is all it takes in any area.

I started working with disaster recovery in 1970 while serving as Vice President of the Texas Society of Architects (TSA). During the late spring that year, a large part of the inner city and downtown of Lubbock was destroyed by a tornado classified as F5, the worst of the official categories, with winds over 260 mph. About three months later, Hurricane Celia buffeted Corpus Christi for three days. Both cities suffered damage to large areas that housed many lower-income residents. The cities called for help and the President of the TSA asked that I put together a committee of my fellow architects to see what could be done. From that came the TSA’s permanent committee to respond to an urban disaster. Also, by that time two of my classmates in Texas Tech’s Architecture and Civil Engineering Colleges were in positions of leadership at our alma mater in Lubbock. With their help, the Texas Tech Wind Engineering Research Center was started and has grown now to be the authority in building to withstand storm winds.

I was already making trips all over the country to help with responses to wind storms, tornadoes, and hurricanes by 1979 when my home city of Wichita Falls was hit by one of the largest tornadoes of our time. It destroyed about one fifth of the city, leaving nearly 25,000 people homeless and killing almost 50 people. All my firm’s employees lost their homes and my own home was badly damaged. The City Council asked me to head a committee to see that our city recovered and was reconstructed in the best way possible.

The tornado was from 1 to 1.5 miles wide, and a 13-mile-long strip of the city was gone. Most of the multi-vortexed storm was an F4 with some areas reaching F5 status. As the city rose to the challenge, I learned that I did not know as much about tornadoes as I had thought. I called on my friends at Texas Tech to use Wichita Falls as a laboratory to research just what happens in a wind storm. They spent over six

DESIGN CONTINUED ON PAGE 6
months climbing through the destroyed and damaged buildings to determine what happened.

The most important thing we learned was that buildings do not "blow up" when a tornado and the low pressure pass over. Instead, most of the damage is caused by the winds getting into the building through broken windows and doors. We learned that the old idea of "opening a downwind window" is not what you want to do. The remainder of this article comes from our findings then and in the 20 years since.

The three most important things that help a structure stay together in a wind storm are connections, connections, and connections.

The connections start with the connection to the ground. While a basement can be a good shelter in a wind storm, it can also be a death chamber if it is not constructed to prevent a cave-in of the house. The ground floor of any home should be well built, whether with a basement below or not. There should be as many walls and/or columns in the basement as you can afford or locate. These will help to keep the upper house from falling into the basement and crushing the occupants. Whatever your house's connection to the ground is, it should be well anchored. If it is concrete slab on grade, as all are in Texas, that is a good connection. If it is a "pier and beam" floor, that system must be well connected with metal tiedowns to large corkscrews that extend well into the earth.

The connection of the walls to the supporting foundation is also important. The connections most building codes require are usually enough to make the building walls stay in place, if they are done correctly. The codes usually require steel bolts to reinforce the wall properly, but will also protect against wind driven missiles.

The next important connection is the top wood plate joining the walls to the roof structure. Today, many homes are built with prefabricated wood joists that span the entire structure, but the connections for a rafter type roof system are also important. Not many codes now require "hurricane clips," small metal straps installed on each bearing location of the roof structure. All should. These clips are a low-cost insurance policy to keep the roof in place.

Many prefabricated wood trusses have large "gang" nail joint connections. While the plates may be enough to withstand the building code loads, they will not always hold the joist together in a tornado. Get the best connection plates your wood joist fabricator can use.

Many codes allow a 1/4" thick plywood roof deck, but it really should be thicker to withstand the missiles of a storm. A thickness of 3/8" is preferable and 1/2" is even better. The spacing of the wood trusses may be increased somewhat with the thicker decks.

Windows should be small and there should not be too...
many on the west and south sides of the house. All should have good storm windows in place. These seem to help as much as anything to keep the window breakage down. We all like a lot of glass in our houses, but a storm sheltering wall should be considered when large glass openings are used. Overhangs wider than 24" should be avoided.

A well braced chimney will stand in a storm but, if it is not correctly constructed and tied together, it can fall into the structure, damaging the building and even killing the occupants. Any fireplace should have a good damper and a front fire screen. Stay away from the fireplace in a wind storm.

The most likely piece that can give way and allow wind into the house is not windows, but the garage door. I do not know of a commercially manufactured door that will withstand a wind storm, but most can be reinforced on the job. Fasten the rails well with large screws into the garage door jambs.

At this time, the Disaster Response Committee of the American Institute of Architects is working on some other items that may help protect a building during a wind storm. The landscaping and type of trees and shrubs seem to play a large part in determining the severity of wind damage. We are now checking landscaping as a deterrent in greater detail than in past storm examinations. There will be more on this in the future.

Every house should have an in-house shelter. People get injured trying to reach outside shelters. It is relatively simple to construct an in-house shelter in a closet, a bathroom, or another space. The Texas Tech Wind Engineering Research Center has developed several ways to construct one. Each wall section type has been tested in the Tech labs. Free construction plans are available on my architectural firm's web site, www.uf.net/~hparch, and a great deal of other information is on the Research Center's site, www.wind.ttu.edu.

This covers the most important items to watch when constructing a home in the country. They are the same for urban homes, except that rural neighbors' buildings are less likely to furnish missiles to attack your home.

Charles Harper is a principal with Harper Perkins Architects in Wichita Falls, Texas and Chair of the American Institute of Architects' Disaster Response Committee.

HAC was also represented on a Rural Sociological Society panel addressing trends and predictions for low-income housing programs and policy. Points made included the increase in HUD's attention to rural housing, the potential effects of smart growth policies on rural housing, and the necessity of preserving assisted housing and providing assistance for renters.

One of these presentations was based on a published HAC report, *An Assessment of the Impact of Grant Funds from the Benedum Foundation on Nonprofit Housing Development in West Virginia*, available from HAC for $5. Reports on the other topics will be published in the future.
Residents of a temporary mobile home park in rural Kentucky attend a cookout to meet each other as well as staff of agencies providing assistance after serious flooding.

Kentucky Agency Learns Disaster Recovery on the Job

by Saundra Jones

Without a model to guide it, KHC had the freedom to be flexible and establish its own policies and procedures to best serve the flood victims, while still following Federal Emergency Management Agency guidelines.

In March 1997, torrential rains and severe floods swept across Kentucky, heavily damaging 114 of the state's 120 counties. More than 14,000 homes were rendered uninhabitable. President Clinton officially declared the affected counties to be disaster areas. All statewide and local agencies joined the state and federal emergency management agencies in response and recovery efforts.

Kentucky Housing Corporation, the Commonwealth's housing finance agency, assisted flood victims in securing temporary housing and, ultimately, permanent housing. This marked the first time a state was asked to take on such an initiative. Without a model to guide it, KHC had the freedom to be flexible and establish its own policies and procedures to best serve the flood victims, while still following Federal Emergency Management Agency (FEMA) guidelines. The entire process had to be completed by September 4, 1998, exactly 18 months after the federal disaster declaration.

Immediately after the flood, most of the victims were able to find temporary housing on their own with family members, friends, or neighbors. However, not everyone had such resources available. Federally funded disaster assistance was provided to 253 families and individuals. The Federal Emergency Management Agency (FEMA) brought in a fleet of mobile homes and travel trailers. The Army Corps of Engineers assisted in establishing mobile home group parks on industrial sites in the two most devastated areas, Cynthiana in Harrison County and Falmouth in Pendleton County. These parks served 179 families. Another 74 lived in individual units scattered throughout the state to assist victims in remote areas.

In June 1997, FEMA turned the temporary housing program over to KHC's Field Services Department. Field Services staff members managed the temporary leasing process, conducted monthly recertifications, and assisted the residents in returning to permanent housing, through repairing damaged homes or securing new residences. When the families moved out of their temporary homes, Field Services staff members coordinated removal of vacant units.

The Field Services staff members faced some tasks they knew well and others they had never tried. They provided housing expertise and resources to the overall recovery effort. They worked with rental property owners, managers, contractors, and developers to find replacement homes for flood victims. They provided educational programs and counseling to former renters to assist them in becoming homeowners.

Disaster Assistance Employees, trained by FEMA, supplemented Field Services staff as temporary employees until the
end of the 18-month disaster declaration period.

KHC earmarked funds for the rehabilitation and reconstruction of flood-damaged units as part of its allocation from the U.S. Department of Housing and Urban Development’s HOME Investment Partnership Program. Special rate construction financing was also made available from KHC’s Housing Development Fund, and below-market interest rate single-family mortgages were provided by KHC’s Homeownership Department for qualified borrowers.

KHC knew that communication was an essential part of accomplishing its mission. In fact, the Field Services staff came to know each client individually. Among other initiatives, the Corporation:

- set up an answering service dedicated to the mobile home residents so they could call after hours if necessary;
- printed cards to help residents remember recertification appointments;
- created and distributed fliers to remind residents of upcoming and overdue appointments;
- scheduled evening and weekend appointments for residents’ convenience;
- asked residents to document in writing their progress in securing permanent housing, verified and assisted by a housing resource coordinator;
- worked closely with local housing authorities to monitor the status of the housing waiting list as well as to provide public housing and Section 8 applications to clients;
- worked with local real estate agents, volunteer coordinators, and city and county officials to stay abreast of local issues and developments, and attended town meetings;
- established policies and procedures for the Commonwealth’s Mobile Home Sales Program;
- conducted “Yes You Can ... Own A Home” workshops in Cynthiana and Falmouth; and
- held a barbecue and cookout at each mobile home park.

Local merchants donated all food and associated items. At the cookouts residents met KHC staff and had the opportunity to meet with local banks, legal aid services, and other service providers. The events also helped bring the residents together as a community.

By the end of January 1998, more than 60 percent of the families living in temporary disaster housing had been returned to permanent housing. By the 18-month mark in September 1998, all were in permanent homes.

Twenty-seven families purchased their mobile homes through the Commonwealth Mobile Home Sales Program, administered by KHC. Most of them paid only $1, based on their income and their demonstrated ability to maintain the unit. Only three of them had been homeowners before the flood. In other words, 24 new homeownership opportunities were created.

KHC is proud of the results of its efforts. Both FEMA and the Commonwealth of Kentucky commended the agency, and other states have studied KHC’s methods for administering the disaster housing program. Some of the important lessons learned from Kentucky’s experience are:

- Interagency relationships are key to disaster recovery, since government, nonprofit, and private sector agencies must work together.
- While it is not always possible to plan specifics for every disaster, it is important to know what steps to take when a disaster occurs. State housing finance agencies (HFAs) should draft a disaster plan and designate a lead person. HFAs should know what resources are available to handle a disaster and what types of assistance can be provided.
- As part of the advance planning process, federal and state agencies should meet with voluntary and private sector organizations to share management information and assessments, identify needs involving potential disasters, discuss resource allocation issues, and discuss timing issues.
- Before a disaster strikes, an HFA should meet with other HFAs in the region to share information and discuss ways to work together.

Anyone with questions about disaster response and recovery may wish to visit the FEMA website at www.fema.gov. Questions about KHC’s work with the 1997-1998 flood recovery process may be referred to Saundra Jones at 502-564-7630, extension 408.

Saundra Jones is Director of Kentucky Housing Corporation’s Field Services Department.
The 1997 “Flood of the Century” caused significant infrastructure damage to small rural communities in Minnesota, North Dakota, and South Dakota.

Lessons for Rural Infrastructure From the Flood of the Century

by Paula Liepold

“I would recommend any city that even thinks they may be subjected to a flood have a Flood Emergency Action Procedures manual available to their community.”

The winter blizzards and spring floods of 1997 were among the worst in history. Snowfall records were broken across the state, setting the foundation for flooding, at times, of historical proportions,” wrote David Sprynczynatyk, North Dakota State Engineer. In a special report by the North Dakota State Water Commission, he noted that “John McCormick of Newsweek magazine summed up [that] weather season most appropriately, ‘On the northern plains, nature is less an enemy than a sparring partner, trading rounds in a grudge bout that never ends.’”

For days, the flood waters wouldn’t stop rising in both the Red River Valley of the North and the Minnesota River Valley, where the 1997 spring flood is called the “Flood of the Century.” The devastation it left behind dominated the lives of many people in Minnesota, North Dakota, and South Dakota for months. “Nowhere else in the country have communities had to be totally evacuated,” said Senator Byron Dorgan (D-N.D.).

The rivers set new flood records and caused significant damage to the vital infrastructure in many small rural communities in Minnesota, North Dakota, and South Dakota within or near the river valleys. Many communities were able to protect themselves and their potable water supplies, sanitary sewer systems, and other critical services through planning and massive community efforts. Others did not fare as well. Federal, state, and local emergency response organizations led recovery and mitigation efforts.

As part of those efforts, the Midwest Assistance Program (MAP) sought long-term assistance directed at small communities to help reduce or prevent future damage during major flood events. Generally, small communities do not document flood protection methods used in previous floods and residents rely on one or two people to operate and maintain the infrastructure systems. At a time of crisis, these community leaders are overwhelmed with necessary tasks to protect their own personal property as well as the community’s systems.

Site visits with agencies and local officials indicated that documenting flood protection measures, and recognizing the need to implement those measures, would allow small communities to be more self-sufficient in the next major flood event. Planning for a flood can significantly reduce losses in flood-prone communities. Developing a flood preparedness planning method that was easy to implement and understand became the goal of a new MAP program in response to the 1997 flood.

DEVELOPMENT OF ACTION PROCEDURES MANUAL

With grant support from the Bush and St. Paul Foundations, MAP prepared a Flood Emergency Action Procedures (FEAP) instructional manual to aid small rural communities in preparing and protecting themselves from the threat of recurring floods. MAP also worked with communities as a technical
advisor and facilitator to prepare community-specific plans. The completed plans allow for flood protection by teams of volunteers with minimal guidance.

MAP helped several communities complete the Flood Emergency Action Procedures. In the procedure usually followed, a task force of community leaders gathers information and knowledge about past flood events, the community, and its residents, and dedicates time to making decisions, assembling data, and editing the plan.

One city clerk wrote in a letter to MAP, "A flood is very devastating for a small community with limited financial and labor resources. This manual will make the steps necessary to prepare for a flood clearer and will be a valuable tool for anyone who has to fight a flood in the future. I know our residents will feel more confident when we are faced with another flood of any magnitude. With the numerous tasks facing any city preparing for a flood or even just preparing for winter in this region of the country, it's beneficial to have a manual to determine what should be done and when. We all know that half the battle of fighting a flood is being prepared from the beginning, which really means the Fall of the previous year.

"As a representative of our community, I would recommend any city that even thinks they may be subjected to a flood have a Flood Emergency Action Procedures manual available to their community. That one manual could save many homes and lives. It could also save private citizens, cities and the federal government countless dollars in personal losses and aid."

The initial FEAP guide is the most difficult to prepare. It must take into account the factors unique to each community, such as where the floodwaters originate, the community infrastructure, and the community's permanent flood protection measures. Once a FEAP has been prepared, it is important to update the plan periodically to reflect personnel changes, infrastructure improvements, improved flood protection measures, and other factors involved in a flood fight.

**CONTENTS OF ACTION PROCEDURES**

Flood Emergency Action Procedures provide narrative general instructions and forms for completion by a community. Flood preparations are reduced to tasks that are completed in a specific order as floodwaters rise and the need for greater protection levels increases. Personnel organization, flood threat recognition data, materials and equipment, emergency contacts, utilities contacts, hazardous materials, and evacuation are all addressed in the FEAP guide. The Flood Emergency Action Procedures can become an annex to an all-disaster plan.

The contents of a Flood Emergency Action Procedures manual are entirely at the community's discretion. MAP's methodology includes help for the following areas of concern:

- key personnel organization;
- flood emergency contacts outside the community;
- preparatory actions and identification of critical flood stages or elevations;
- tasks that need to be completed at various flood stages;
- location map of tasks within and around the community;
- task description list;
- step-by-step directions for task completion with materials and equipment lists;
- hazardous materials sites for notification purposes;
- private and public utilities contacts such as power, telephone, etc.;
- other community-specific information or concerns; and
- procedures for raising permanent flood devices if overtopping is threatened.

A plan should include the following brief information for the flood response teams:

- a comprehensive list of contacts for flood response assistance or notification including local, county, regional, state, federal, and charitable agencies and organizations;
- designation of local flood emergency supervisors;
- designation of local flood response team leaders;
- map of the locations to be protected with brief description of the task or objective for each location;
- task or objective general descriptions;
- location and description of the materials to accomplish each task or objective;
- step by step directions to accomplish each task or objective;
- directions for reporting questions or completion of each task or objective;
- directions for monitoring or operating the protection measures; and
- review of the preliminary plan by outside agencies described in the initial contact section.

To obtain a free copy of the Flood Emergency Action Procedures, contact MAP at 952-758-4334.

Paula Liepold is the Communication Specialist at the Midwest Assistance Program in New Prague, Minn.
North Carolina Disaster Recovery: Lessons Learned

by Edwin F. Moran, Jr.

Despite the efforts of our federal, state, and local governments, community agencies, volunteers, and emergency management personnel, disaster recovery is not an easy business.

Unprecedented devastation from Hurricanes Floyd, Dennis, and Irene touched the lives of over two million residents throughout eastern North Carolina in 1999. A year later, recovery efforts continue. Floyd was the worst natural disaster in North Carolina's history. Despite the efforts of our federal, state, and local governments, our courageous community agencies and volunteers, as well as our emergency management personnel, disaster recovery is not an easy or user-friendly business. As disaster survivors, we North Carolinians have learned many lessons.

THE DISASTER

Floodwaters damaged more than 55,000 homes, left another 17,000 uninhabitable, and destroyed 7,000, with 56 deaths attributed directly to Hurricane Floyd. Some 12,000 businesses reported losses. Floodwaters closed more than 1,000 roads. Farm losses in livestock, buildings, and equipment exceeded $800 million. More than 1.2 million customers were without power after the storm. Some 50,000 people were living in 235 temporary emergency shelters at the height of need. Even today, more than 1,000 travel trailers and mobile homes serve as temporary disaster housing for flood victims. Total insured and uninsured losses are estimated at up to $6 billion.

Sixty-six counties — two thirds of the state — were declared disaster areas. In the 34-county region served by the Eastern North Carolina Sustainable Community Economic Development Center, 12 counties were declared "severely impacted," with another 11 designated as "moderately impacted."

The Sustainable Center's service area is predominantly rural and covers over 17,000 square miles, one third of the state. Two thirds of those counties were designated as "economically distressed" prior to the flooding. Within our 34 counties there are 175 units of local government, with 135 serving populations less than 2,500 persons. Of the 135 small municipalities, 59 have populations under 500.

Like many other places in rural America, our region struggles with a stubborn cycle of deep, systemic poverty, which pervades many of our small rural communities. It leaves our area disproportionately burdened with problems of deteriorating housing and infrastructure, joblessness, impaired health, welfare dependency, and disinvestment of capital. So, when a disaster of the magnitude of Floyd, Irene, and Dennis adds further devastation to our very fragile economy and infrastructure, we multiply the effects of one disaster upon another.

Governments' ability and capacity to address our relief and recovery issues is clearly impacted by the size of local governments and their resources. In addition, participation in disaster recovery assumes that relationships have previously been established between communities and units of government. In many
Hurricane Floyd was not an “equal opportunity” disaster. Ethnic and racial minorities, and particularly lower socioeconomic groups, were impacted more severely than others. Of our rural communities this is not the case.

Many of our rural communities are remote and, when the flooding devastated our highway network, travel throughout the region was problematic. Transportation to and from these communities is difficult generally but for our rural residents, especially after such devastation, getting to disaster recovery centers was a chore. This is where our faith-based communities played a considerable role. In many cases, without our faith-based community agencies and less formal church groups, relief and recovery efforts would not have had even the limited success we have achieved.

Hurricane Floyd was not an “equal opportunity” disaster. Ethnic and racial minorities, and particularly lower socioeconomic groups, were impacted more severely than others. Our storm damage disproportionately impacted the poor, those in rural and remote areas, our most vulnerable populations such as women single heads of households with children, challenged persons, and our seniors. Although the new technology makes it possible for some to get updated information by computer, these groups are the least likely to have access to such technology.

Renters and low-income persons generally were hardest hit by the disaster. Unfortunately, much of the limited affordable rental housing stock in this region was on land deemed “undesirable” by those developing market-rate housing. Over 12,000 rental units were lost in the region due to the flooding. Many will not be repaired or replaced. As of May 2000, the U.S. Department of Housing and Urban Development reported that our region needed more than 60,000 units of rental housing to meet current demand. That is in addition to over 48,000 units of single-family housing need.

Compounding our problem, almost 12 months after the disaster, many residents still have not received funds for damages, and are still in temporary housing. Others continue to deal with the emotional scars left by the storm.

Already the impact of the lack of available state and federal assistance for renters, particularly those with low incomes, is being felt in the region. The state Department of Health and Human Services’ Office of Economic Opportunity reports that during 1999 and early 2000 there was almost a ten-fold increase in the number of persons served in “bona fide” homeless shelters who reported the primary cause for their homelessness was loss of housing due to natural disaster.

THE RESOURCES AND THE RECOVERY PROCESS
During the period immediately following the flooding, the Federal Emergency Management Agency (FEMA) established Disaster Recovery Centers in all the impacted counties in the eastern portion of our state. Other disaster response and recovery organizations (such as the Red Cross) also immediately staffed relief centers and began distributing aid.

Through the work of Governor Hunt, the General Assembly, and the state’s congressional delegation, North Carolina has received commitments from the federal government for $2.2 billion in emergency assistance, with about $1.5 billion in grants and nearly $700 million in loans. The funds will partially cover the costs of temporary shelter, flood damage to homes and businesses, and lost crops and livestock. But this aid will not be enough to put eastern North Carolina on the track to full recovery.

Our state’s Hurricane Floyd Recovery Act of 1999 has made $836 million available and created the largest state-funded
By some estimates, that means as many as 20,000 households that suffered property or economic losses failed to register for any assistance.

did not dispatch knowledgeable professionals to radio and television studios from both state and federal departments concerned with relief and recovery. We relied on newscasters to find and present information to the general public. Much, if not all, of the preliminary information going out to our residents was at the very least inaccurate and misleading.

Once misinformation is out, it is extremely difficult to correct. This was a major problem within our rural communities. Personnel from various state and federal agencies must be available to provide information directly to residents with sensitivity to their special needs and circumstances. We were not sensitive to persons with special needs and challenges, those who do not speak English, or those with literacy issues.

Strong rural outreach is necessary on a year-round basis and not just as a disaster response. We must identify primary persons or institutions by community, and not always a unit of government, to be assigned to each area that can be responsible for disseminating correct information before, during, and after a disaster.

Some other lessons we have learned are:

- Appropriate assistance to non-English-speaking victims must be provided. The Spanish-speaking population in the rural communities of eastern North Carolina was substantially harmed by the lack of such aid. For the most part neither the North Carolina Division of Emergency Management nor FEMA had Spanish interpreters. Initially, all disaster-related information was available only in English.

- Federal and state relief and recovery teams must be ethnically diverse, reflecting the composition of the impacted communities. This is particularly important in remote rural areas and in those areas within migrant streams. In such areas, the workers staffing Disaster Recovery Centers must be bilingual.

- Demographic counseling should be provided, or a demographic liaison from a local unit of government should work with federal and state employees to determine what staff are best suited to address certain geographic areas or those with special circumstances and needs.

- Thousands of children were out of school in many areas for as long as several weeks and these prolonged periods were not healthy for them. Teachers, who are already being paid, should...
be deployed to various shelters, which for the most part are in our local school buildings. While a continuation of a near normal school schedule would be healthier for our children, it would also allow parents to handle the details of recovery and return to work.

The Division of Mental Health should provide counseling in Disaster Recovery Centers. Many disaster victims were facing life-altering decisions and needed someone to talk to about their situation.

For remote rural areas more mobile disaster recovery centers should be deployed. Many residents in these areas typically have low incomes and usually do not have transportation available. While mobile centers were tried to an extent during the Hurricane Floyd recovery, the scale of the effort did not match the rural needs.

CONCLUSION

Our rural landscape certainly complicated the recovery. Key issues that must be addressed include rurality, lack of rural governmental infrastructure and capacity, low population density, and the character of our rural residents. Our lack of understanding of the importance of our rural roots, the rural family land that has descended through generations, our ethnic diversity coupled with residual racial prejudice, and a fundamental mistrust of government all add to our challenges.

The issues of relief and recovery are complicated and fraught with regulatory constraints. Clearly we have accomplished a great deal in our state over the past year. Government did what government should do — look after residents by making resources available to them. But government is ill prepared and unequipped to administer recovery.

More than $2 billion has been committed to the state of North Carolina, and over $800 million committed by the state, but very few dollars have been released to Floyd victims. Dollars can be obligated, but without an established connection to financial institutions and other businesses, homes do not get built. Many of our financial institutions were ready to advance mortgage monies to our residents and yet, without a partnership with government, obligated dollars do not benefit those who need them. Recovery dollars are not effectively administered until they are in the hands of the victims.

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Rural Housing Slivers in the Party Planks

by Joe Belden

An interesting point is that the platforms of the two major parties sound a good deal alike when it comes to housing and communities.

In a presidential election year housing advocates often look toward the national political campaigns and parties in hopeful expectation of some sliver of interest in “our issues.” Often we are disappointed. But in 2000 there has been more than a sliver. There are actually some interesting and useful issues being discussed by the campaigns themselves and in the party platforms.

Supporters of rural communities also look for slivers within the slivers in an election year. Those of us interested in rural housing will seek out anything rural within a housing discussion and anything on housing or economic development within a rural discussion. Here too there actually has been some limited coverage of rural communities in the campaigns.

An interesting point is that the platforms of the two major parties sound a good deal alike when it comes to housing and communities. For example, both strongly favor homeownership.

REPUBLICANS
Governor George W. Bush, the Republican nominee, in April released a fairly detailed housing plan for urban and rural areas. This plan focuses on increasing homeownership through downpayment assistance, applying Section 8 vouchers to ownership, funding Individual Development Accounts, removing regulatory barriers, and providing tax credits for investors who construct or rehabilitate units. For details, contact his campaign at 512-637-2000 or visit www.GeorgeWBush.com.

The Republican platform also has some housing coverage, touching on homeownership, the mortgage interest deduction, rental housing, urban homesteading, fair housing, and the burden of regulations. The campaign is particularly interested in promoting homeownership for low-income families. The platform’s housing sections are as follows:

Homeownership is central to the American dream, and Republicans want to make it more accessible for everyone.

That starts with access to capital for entrepreneurs and access to credit for consumers. Our proposals for helping millions of low-income families move from renting to owning are... major elements in Governor Bush’s program for a New Prosperity. For those families, and for all other potential homebuyers, low interest rates make mortgages affordable and open up more housing opportunities than any government program.

Affordable housing is in the national interest. That is why the mortgage interest deduction for primary residences was put into the federal tax code, and why tax reform of any kind should continue to encourage homeownership. At the same time, a balanced national housing policy must recognize that decent housing includes apartments, and addresses the needs of all citizens, including renters.

We will turn over to local communities foreclosed and abandoned HUD properties for urban homesteading, a citizen renovation effort that has been remarkably successful in revitalizing neighborhoods. We affirm our commitment to open housing, without quotas or controls, and we applaud the proactive efforts by the realty and housing industries to assure access for everyone.

In many areas, housing prices are higher than they need to be because of regulations that drive up building costs. Some regulation is of course necessary, and so is sensible zoning. But we urge states and localities to work with local builders and lenders to eliminate unnecessary burdens that price many families out of the market. We see no role for any federal regulation of homebuilding, but we do foresee a larger role for State and local governments in controlling the federally assisted housing that has been so poorly managed from Washington. We also encourage the modification of restrictions that inhibit the rehabilitation of existing distressed properties.
DEMOCRATS

The Democrats have some specifics on rural housing. The Gore-Lieberman campaign web site has a small section called “Providing Better, Affordable Housing to Rural Americans.” It says, “Like their city and suburban counterparts, rural Americans need high quality, affordable places to live.” Al Gore, the site promises, will work to expand “USDA's rural housing programs and HUD's rural housing efforts to further build upon the highest rural homeownership rate in history and ensure that rural residents have affordable housing”; increase HOME and CDBG funds; provide easier access to homeownership through FHA single-family mortgage insurance; and fight to expand the Low Income Housing Tax Credit.

The lengthy economic plan released on September 6 by the Gore campaign has two very attention-grabbing and record-setting goals (among many): “[E]mpowering 7 of 10 Americans to own their own homes,” and reducing the poverty rate to below 10 percent. Specifics on how to achieve this are less clear. On homeownership the strategy is to “work with the nation’s homebuilders [to] build one million new homes in urban America over . . . ten years.”

The Democratic platform includes a section on “Investing in Communities”:

Under Democratic leadership, we have achieved an all-time high in home ownership, including among groups that have historically been left out. We are committed to continuing this progress, because home ownership is a foundation for building wealth and economic security for families, and it provides a vital anchor enabling neighborhoods to thrive.

In too many communities, however, owning or renting an affordable home seems an impossible dream. As Governor and Democrats have long defended the mortgage interest deduction and the Home Ownership Tax Credit, and believe we must reinvigorate our communities and support our families through partnerships and targeted investments and eliminating community redlining by lenders that will better harness the power of markets to create the housing we need. We must pay down the debt to keep interest rates low. We need to create a continuum of care for homeless people so that they get help in getting themselves off the streets and back on their feet. We must ensure that housing costs in thriving communities do not outpace the income of middle class families. We must expand the supply of life cycle housing. We must encourage the renovation and construction of affordable housing closer to places of work and to mass transit so workers can get to their jobs without being tied up in traffic for hours.


CAMPAIGN 2000

It may be that some of this renewed interest in housing has been sparked by the Housing and Community Development Campaign 2000 described in the summer 2000 issue of Rural Voices. Organized and led by the National Low Income Housing Coalition, Campaign 2000 is an alliance of 28 national organizations. The Campaign is striving to have housing and community economic development for low income people included as a topic of discussion in this year’s presidential and other electoral campaigns.

Campaign 2000 has developed an issues platform. It points out that in “this period of remarkable and sustained prosperity, Americans have a renewed opportunity to fulfill our nation’s 50-year old policy goal of a decent home in a suitable environment for everyone. This goal — rooted in the Housing Act of 1949 — is an achievable goal. It means that we, as a nation, are committed to assuring that our citizens have decent and affordable housing choices in economically viable communities.”

Reaching this goal will require “leaders who believe that it is both necessary and possible to solve America’s housing and community problems, and who have the will to act on their belief. Reaching the goal will require national leaders who recognize that public policy has a role in assuring adequate and sustained public and private investment in affordable housing and community development.”

The Campaign set out six principles for achieving this housing goal: interdependence, comprehensiveness, fair housing and equal opportunity, universally beneficial fiscal policy, community-based solutions, and asset-based solutions. At the Campaign’s web page, www.nlhch.org/c2k, there are detailed statements of each of the principles. For example, with regard to fair housing, the Campaign says that “resistance to siting of housing for low income people or people with disabilities, is detrimental to economic and social well being of all Americans and to our civil society. Assuring choice of and access to housing opportunities is a civic responsibility that can only be assured by an unrelenting public policy commitment.”

The Campaign deserves credit for getting housing on the radar screen of national candidates and policymakers. But affordable housing — and particularly rural low-income housing — is like other concerns of the poor. They don’t rank high with focus groups and may never get into the key catch phrases of a national campaign. Education, health care, Social Security and the environment are the issues. Still, the excerpts above show that there is at least some attention this year.

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