THE FLOOD CURRENT

29 Counties Slated for Disaster Aid

On June 26, President Clinton approved federal disaster aid for 10 Oklahoma counties which were hit hardest by severe storms and flooding in late May and much of June. One week later, after further assessment of the damage, 19 counties were added to the federal disaster declaration list.

James Lee Witt, director of the Federal Emergency Management Agency, said the President's major disaster declaration makes federal funds available to supplement the recovery needs of affected local governments in the counties of Alfalfa, Atoka, Beckham, Caddo, Canadian, Carter, Cotton, Creek, Custer, Ellis, Grady, Grant, Harmon, Jackson, Kingfisher, Kiowa, Lincoln, Logan, Major, Murray, Nowata, Osage, Ottawa, Pottawatomie, Roger Mills, Seminole, Tillman, Washita and Woodward. The total damage estimate for the state now stands at $10 million.

Under the declaration, the federal government will pay 75 percent of the approved costs for restoring public roads, bridges, utilities and related facilities damaged by the storms. In addition, funding will be provided to pay part of the eligible costs for clearing of debris from public areas and emergency measures that were taken to protect public health and safety.

According to Ken Morris, state NFIP coordinator, the Town of Davidson in southwest Oklahoma was among the hardest hit by the late spring storms. "Separate gages in the area measured rainfall at six inches in one hour and 14 inches in a 12-hour period. Homes in the southeast part of town were flooded with over three feet of water," he said.

Counties included in the presidential disaster declaration are eligible for federal assistance under the FEMA Hazard Mitigation Grant Program (HMGP), created to reduce a community's vulnerability to flooding and related natural disasters. Specific projects funded through the program -- including floodproofing, acquisition/relocation and development of disaster preparedness plans -- decrease the potential for future damages as well as the need for state and federal financial assistance.

Morris is working with officials from FEMA and the Oklahoma Department of Civil Emergency Management in evaluating projects in the disaster areas that could be eligible for HMGP grants.

"Our primary objective is to prevent or decrease the likelihood of flood-related disasters -- especially loss of life," Morris said. The HMGP will provide a 75/25 cost-match for both public and private projects, contingent upon membership in the National Flood Insurance Program, he added. ❏

OFMA Meets September 13-15

The Oklahoma Floodplain Management Association will host its fifth annual meeting at Lake Texoma Lodge September 13-15. Enforcement will be the theme.

Speakers will include representatives of the Federal Emergency Management Agency, Oklahoma Municipal League, Association of State Floodplain Managers, City of Tulsa, Oklahoma Department of Civil Emergency Management and Insurance Services Office. The conference will feature a workshop on the National Flood Insurance Program Community Rating System.

Ken Morris, state NFIP coordinator, urges floodplain managers from all communities with sound programs to attend the CRS session, scheduled for Friday, September 15. "Local govern-

The Town of Davidson in Tillman County received 14 inches of rain, flooding homes in the southeast part of town.

MAJOR FLOODS WORLDWIDE WITHIN THE PAST CENTURY

YEAR	LOCATION	CAUSE & CASUALTIES
1883	Java & Sumatra	Tsunami, following the explosion of Krakatoa. 36,000 dead.
1887	Henan, China	The Hwang He River, swollen by rain, floods 50,000 square miles. 900,000 dead.
1889	Johnstown, Penn.	Dam failure. 2,200 dead.
1900	Galveston, Texas	Hurricane/flooding. 6,000 dead.
1916	The Netherlands	North Sea storms flood lowlands. 10,000 dead.
1928	Florida	Hurricane causes Lake Okeechobee to flood. 2,400 dead.
1938	northern China	Chinese forces blow up dikes on the Hwang He to impede Japanese advance. Estimate: 1 million dead.
1960	Chile, Hawaii & Japan	Giant tsunami, following a major Chilean earthquake, inundates coastal areas.
1963	northern Italy	Landslide into Vaiont Dam/Reservoir sends huge wave into valley below. 2,000 dead.
1970	eastern Pakistan	Cyclone-generated floods inundate coastal regions. Estimate: 200,000 dead.
1971	Orissa State, India	Cyclone and sea surge hit coast. 10,000 dead.
1979	Morvi, India	Heavy monsoon rains cause collapse of river dam. 7,000 to 10,000 dead.
1982	Peru	Torrential rains cause lake to overflow into Chantayacu River valley. 2,500 dead.
1985	northeastern Brazil	Rain-caused floods. 1 million homeless
1988	Bangladesh	Monsoon flooding inundates most of country. 28 million homeless.
1988	Sudan	Torrential rains flood the Nile. 1.5 million homeless. Number of dead unknown.
1991	Bangladesh	Cyclone hits delta area with 145 mph winds, floods and 16-20 foot water surges. 125,000 believed dead.
1993	midwestern U.S.	Record spring and summer rains cause prolonged flooding along Mississippi River and its tributaries. 50 dead; 70,000 homeless.

ments who qualify for the CRS can expect to secure a substantial reduction in flood insurance premiums for their residents," he pointed out. ❑

Floodplain Information is Free

Community officials or other citizens in search of information on floodplain management can obtain a wide variety of national publications on that subject by contacting the Floodplain Management Resource Center in Boulder, Colorado. After identifying your needs, staff will search the computerized bibliographic data base for the appropriate publications.

The Center can be contacted by calling 303/492-6818. The service is free. ❑

OWRB Offers NFIP Video

To improve community involvement in the Natioal Flood Insurance Program, the OWRB offers a video for use by community officials.

The 9-minute video details responsibilities of the NFIP, what constitutes development in the floodplain, and the differences between the floodway and floodplain. The video is available for loan or presentation to intrested communities. For more information, call (405) 525-4740.

"100-Year Flood". . . It's a Probability

The following article is reprinted, in part, from the North Dakota Water newsletter, "The Water Primer."

When flooding or flood control are discussed, the terms 100-year, 500-year, or even 10- or 25-year flood, are often used to describe the size of a flood event. Unfortunately, these terms often mislead people to believe that once an area has experienced a 100-year flood, for example, there won't be another as big for the next century. But that's not exactly correct. The term "100-year flood" is actually a way of stating the odds.

According to rules and regulations of the Oklahoma Water Resources Board, the 100-year flood, or "base flood," is defined as "the flood having a one percent chance of being equaled or exceeded in any given year." While this definition does not hint at its severity, the 100-year flood is often associated with considerable damage to property and, sometimes, loss of life.

If you flip a coin, there is a 50 percent chance it will come up heads. Or, if you have two straws, one of which is shorter, there is a 50 percent chance of drawing the short straw. Another way to say this is the odds are one in two. A two-year flood has the same chance of occurring -- 50 percent, or one year in two. If you had 10 straws, one of them short, the chances of drawing the short straw are one in 10, or 10 percent; in flooding terminology, this is the same as a 10-year event.

A 100-year flood has a one in 100 chance of occurring, or a one percent chance in any given year. This is the same chance as drawing the one short straw out of 100 straws. To most accurately demonstrate the chances of a 100-year flood, imagine 100 bundles of straws, each containing 100 straws. In each bundle, there is one short straw. The chance of drawing the short straw out of one bundle is one in 100. However, if one straw is drawn from each of the 100 bundles, the odds are good that one short straw will be "selected."

Because of luck, good or bad, it may be that no short straws are drawn or a fairly large number of short straws may be drawn. You might draw one on the first pull and one on the last, or five, even ten, in a row. Floods work much the same way. One hundred years may pass without a 100-year flood (no short straws) or you could have five or ten 100-year floods in a row. Now that you (hopefully) understand what the 100-year flood is and when it could occur, you should also know the value of this advice: plan carefully and BE PREPARED! ❑