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TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

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NEWSLETTER

WINTER 1994

SAYING FAREWELL

On November 30, 1993, Keith Krause retired from the Texas Natural Resource Conservation Commission. Keith has served the State of Texas for 10 years in the field of floodplain management. The plaque that was presented to him sums up our esteem as an expert and colleague in floodplain management:

*Presented to
KEITH E. KRAUSE
in grateful recognition for his
ten years of dedicated service to
Floodplain Management and the State of Texas*

*Your kindness and eager willingness to help
have touched the lives of many.
You are truly missed.*

Keith's plans at the moment are to enjoy his grandchildren to the fullest and improve his tennis game. Nevertheless, don't be surprised if you see him at the next Texas Floodplain Managers Association function or as a FEMA Reservist. Keith, we wish you well in your retirement.

CONTENTS

ARTICLE	PAGE
Midwest Recovery.....	1
Workshops.....	2
Apply for Recognition.....	2
Enforcement:Penalties.....	3
Substantial Improvement....	4
Publications.....	6
TFMA Election Results.....	6
FEMA'S CORNER.....	7
1994 Hurricane Names.....	7

MIDWEST RECOVERY
HERALDS CHANGE

ASFPM-NEWS & VIEWS-Oct 1993

After the Midwest's disastrous summer, flood recovery in the United States will never be the same. From FEMA's rapid and thorough response, to the White House's willingness to provide leadership, to the acknowledgement of the Mississippi basin as a natural system, evidence of progress is everywhere. In the fresh approaches that are being taken toward many old problems, the making finally can be seen of a long-

term recovery strategy that can reduce future flood losses.

Relocation and Acquisition

Once considered a rather exotic and drastic solution, this strategy is receiving serious attention as an effective long-term mitigation measure. The states and FEMA have been working together to be sure stricken communities are aware of this option and of the ways it might be funded and implemented. FEMA is directing \$45 million in Section 404 funds to acquisition and relocation, and has identified additional sources,

both inside and outside the agency. Already over 200 communities have indicated an interest in acquisition /relocation projects, involving at least a thousand structures.

Levees

A wise nation-wide levee policy is still a ways off, but the administration has directed federal agencies to examine alternatives before they automatically rebuild - a sensible first step. An interagency team that includes state representation is making rebuilding decisions. One difficulty is that in many cases institutionalized missions and procedures all but eliminate agency discretion to take alternative approaches. But ways are being looked at to stretch such limits where possible, and thought is being given to future changes in legislation and policy.

Coordination

Better coordination is apparent. The Association of State Floodplain Managers (ASFPM) was instrumental in bringing some of this about by co-sponsoring (with the Association of State Wetland Managers) two meetings at which long-term recovery issues were analyzed. Out of these efforts has emerged a heightened awareness of the many risks and resources floodprone lands offer, a sensitivity to sometimes conflicting interests and priorities, and a willingness to cooperate and compromise.

Something for Everyone

Whether or not they were affected by the floods, floodplain managers can take advantage of two by-products of the recovery process.

First, the situation is now ripe for approaching other agencies or groups with a stake in flood-prone lands. For example, this flood revealed a lack of coordination with agricultural interests. Establishing links with the local Farm Bureau, the National Association of Conservation Districts, or other groups that have been "out of the loop" should be easier now.

Second, the Administration supports a planning and recovery strategy that emphasizes local needs, priorities, and initiatives. The White House calls it "community empowerment"; we call it "multi-objective management." Whatever the label, it is a concept whose time has arrived, and which may well be the key to successful future projects.

FLOODPLAIN MANAGEMENT WORKSHOPS for FY 1994

We would like to again thank **Ricardo Guzman** of the City of Kingsville; **Tomas Sanchez** of Kleberg County, and **Dwayne Boos** of Gillespie County for co-sponsoring the Local Officials Floodplain Workshops in Kingsville on November 16 and in Fredericksburg on November 18, 1993. Fifty floodplain administrators from south and central Texas participated in these day-long workshops. The workshops are free of charge and the sites are selected so that anyone within 150 miles can attend and return on the same day.

We plan to conduct six more Local Officials Floodplain Workshops this year. Our next workshop is co-sponsored by **Avis Pouncy** of Austin County. The workshop will be held in the Austin County Courthouse March 15, 1993, from 4:00 to 8:00 pm. This four-hour workshop is primarily for surveyors and engineers. We will be concentrating on how to determine a Base Flood Elevation (BFE) when you only have a Flood Hazard Boundary Map (FHBM).

We hope to schedule additional workshops in the Lubbock, Longview, El Paso, and/or Waco areas. If you want to co-sponsor a workshop, please contact us at 512/463-8185. As co-sponsor, you provide the meeting place and coffee and doughnuts. We will provide time slots for your mayor or county judge to welcome the participants and for you to brag on your local program.

APPLY FOR RECOGNITION!!

Are you doing a great job as Floodplain Administrator for your community but not getting the credit you deserve? Well, here's your chance to brag on yourself and get recognized in our next **FLOODPLAIN MANAGEMENT NEWSLETTER**. Send us an application/brag sheet on what you have done and / or are doing for your community to promote sound floodplain management. Mail your application to:

TNRCC-Floodplain Coordination Team
Post Office Box 13087
Austin, Texas 78711-3087

or FAX it to: 512/463-6648

ENFORCEMENT :

PENALTIES

On August 25, 1986, the Federal Regulations that govern the National Flood Insurance Program (NFIP) were changed, and that affected every participating community in Texas.

The sample ordinances were very comprehensive but there are a few topics they did not address. We feel the following topics would make your Floodplain Administrator's job easier if they were included in your Ordinance or Court Order. They are suggestions and should be reviewed by appropriate city staff prior to inclusion in the Administration Section.

The following is an example that counties can include:

VIOLATIONS AND PENALTIES:

Definition: Violation - means the failure of a structure or other development to be fully compliant with the community's floodplain management regulation. A structure or other development without the elevation certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as the documentation is provided.

Any person, firm, corporation or agent who shall violate a provision of this regulation, or fail to comply therewith, or with any of the requirements thereof, or who shall erect, construct, or alter, any structure, or shall place any fill material, in violation of the detailed statement or drawing submitted and approved thereunder, shall be guilty of contempt of the Commissioners' Court of _____

_____ County, Texas. Any violation of this Court Order is a class C misdemeanor. Each day a violation occurs is a separate offense. The Commissioners' Court may file suite for injunctive relief or civil penalties or both for any violation or threatened violation of this Court Order. The Floodplain Administrator is authorized to file with the County Clerk a Motion suggesting contempt for failure to comply with these regulations. After filing, said Motion shall be presented to the County Judge who shall set a day and time for the Respondent to appear and show cause

why he should not be held in contempt, which time shall not be less than ten (10) nor more than twenty (20) days from the date of filing of said Motion, whereupon the clerk shall issue a citation and notice of setting for service upon said Respondent. At said hearing Respondent shall be accorded the right to counsel, the right of confrontation, the right to summon and examine witnesses, and the right to testify and offer evidence in his behalf. If after such hearing before the Commissioners' Court he should be held in violation of the regulations and in contempt of Orders of this Court as expressed in these regulations, then he may be punished by a fine not to exceed \$_____ for each offense or by imprisonment not to exceed _____ hours for each offense.

RIGHT OF ENTRY: The Floodplain Administrator, or his duly authorized representative, may enter any building, structure, or premises to perform any duties imposed upon him by this regulation. ***(Don't ever try to force entry-this section only gives you the right to obtain a search warrant if denied admission.)***

STOP WORK ORDERS: Upon notice from the Floodplain Administrator that work on any building, structure, dike, bridge, or any improvement which would affect water drainage, is being done contrary to the provisions of this regulation, or in a dangerous or unsafe manner, such work shall be immediately stopped. Such notice shall be in writing and shall be given to the owner of the property or his agent, or to the person doing the work, and shall state the conditions under which work may be resumed. Where an emergency exists, no written notice shall be required to be given by the Floodplain Administrator, provided, written notice shall follow within twenty (24) hours from the time oral notice to stop work is issued.

REVOCATION OF PERMIT: The Floodplain Administrator may revoke a permit or approval issued under the provisions of this regulation, in cases where there has been any false statement or misrepresentation as to a material fact in the application or plans upon which the permit or approval was based.

For a sample Floodplain Management Court Order or City Ordinance with Penalty Clause, please do not hesitate to contact us at 512/463-8193.

SUBSTANTIAL IMPROVEMENT and the NFIP

Deep floods or floods with high velocity waters frequently cause substantial damage to both residential and commercial buildings. Communities participating in the National Flood Insurance Program (NFIP) have certain responsibilities for permitting the repair and reconstruction of these "substantially damaged" buildings.

One of the basic requirements of floodplain management under the NFIP is to protect new or substantially improved structures from the 100-year flood.

The following questions and answers is a guidance designed for local building inspectors, zoning administrators, and other permit officials that enforce the floodplain management requirements of a community participating in the NFIP and may help shed some light on this often misunderstood requirement.

1. Q.WHAT IS SUBSTANTIAL IMPROVEMENT?

A. Substantial improvement, as defined in 44 Code of Federal Regulations 59.1 means:

"any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred 'substantial damage', regardless of the value of or actual cost of repair work performed. The term does not, however, include either (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or (2) any alteration of a 'historic structure', provided that the alteration will not preclude the structure's continued designation as a 'historic structure'."

2. Q.WHY WAS THE 50% FIGURE CHOSEN AS THE SUBSTANTIAL IMPROVEMENT THRESHOLD?

A. The 50% threshold was chosen as a compromise between the extremes of

- 1.) prohibiting all investment to structures in flood hazard areas which does not meet minimum FEMA floodplain management requirements for elevation and
- 2.) allowing structures to be improved in any fashion without meeting any regulatory standards.

In the first alternative, there is the potential for causing hardship to those who have located in flood hazard areas without knowledge of risk. These individuals would not be able to improve their structures as damage or age contributed to their deterioration. The second alternative provides no mechanism to ensure that increased investment in flood hazard areas will receive needed protection from the flood risk, thus contributing to the increased peril to life and property. The threshold is thus a compromise at a half-way point and was chosen because it conforms with similar building code and zoning standards that also use a 50% threshold.

3. Q.IN TERMS OF NFIP REGULATIONS, IF A STRUCTURE IS DETERMINED TO BE A SUBSTANTIAL IMPROVEMENT, WHAT MUST HAPPEN TO THAT STRUCTURE?

A. A substantially improved structure must be brought into compliance with NFIP regulations and other requirements in the local ordinance for new construction; that is, the structure must be elevated (or flood proofed if it is a non-residential structure) to or above the level of the 100-year or base flood, and meet other applicable requirements.

4. Q.WHAT ARE SOME EXAMPLES OF THE WAYS IN WHICH STRUCTURES CAN BE SUBSTANTIALLY IMPROVED?

A. Generally, structures are substantially improved in one of four ways:

- 1.) Rehabilitations - are improvements made to an existing structure which do not affect the external dimensions of the structure;
- 2.) Additions - are improvements that increase the square footage of a structure. Commonly this included the structural attachment of a bedroom, kitchen, den, recreational room, or other type of addition to an existing structure;
- 3.) Reconstructions - cases where an entire structure is destroyed by damage or is purposefully demolished

or razed and a new structure is built on the old foundation or slab;

4.) Substantial Damage - structures are considered substantial improvements when they incur substantial damage. (Although this document primarily addresses substantially damaged structures, it should be noted that substantial improvement occurs much more commonly in non-disaster, everyday situations through the rehabilitation of, or addition to structures.)

5. Q.WHAT IS A SUBSTANTIALLY DAMAGED STRUCTURE?

A. As defined in 59.1 of the NFIP regulations, a building is considered to be substantially damage when:

"damage of any origin is sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred."

6. Q.IN TERMS OF NFIP REGULATIONS, IF A STRUCTURE IS DETERMINED TO BE SUBSTANTIALLY DAMAGED, WHAT MUST HAPPEN TO THAT STRUCTURE?

A. All structures that are determined to be substantially damage are automatically considered to be substantial improvements, regardless of the actual repair work performed. In other words, if the cost necessary to fully repair the structure to its before damaged condition is equal to or greater than 50% of that structure's market value before damages, then the structure must be elevated (or flood proofed if it is non-residential) to or above the level of the base flood, and meet other applicable program requirements.

7. Q.IN TERMS OF NFIP REGULATIONS, WHAT HAPPENS WHEN A SUBSTANTIALLY DAMAGED STRUCTURE IS LOCATED IN A COASTAL HIGH HAZARD AREA (V-ZONE)?

A. If a substantially damaged structure is located in a coastal high hazard area (A-Zone) it not only must be elevated to or above the base flood elevation, but it also must comply with additional requirements contained in 60.3(e) of the NFIP regulations. These requirements call for the elevation to be on pilings or columns so that the lowest horizontal structural member of the lowest floor is elevated to or above the base flood level. This pile or column foundation supporting the structure must also be anchored to resist flotation, collapse and lateral movement due to

the combined effects of wind and water loading forces which equal the 100-year mean recurrence interval. Before the permit to repair or rebuild a substantially damaged structure in a V-Zone is granted, a registered professional engineer or architect must develop, review and certify that the structural design, specifications and plans for the construction are in accordance with accepted standards of practice for meeting the above requirements for V-Zone foundations and anchoring.

8. Q.WHEN A STRUCTURE IS COMPLETELY DESTROYED AND A NEW STRUCTURE IS TO BE BUILT ON THE OLD FOUNDATION OR SLAB, IS THAT STRUCTURE CONSIDERED A SUBSTANTIAL IMPROVEMENT OR NEW CONSTRUCTION?

A. It is considered a substantial improvement. However, it really does not matter whether it is referred to as new construction or a substantial improvement because in either case the structure will have to be elevated (or flood proofed if non-residential) to or above the elevation of the base flood.

9. Q.WHAT IS THE BASIS FOR DETERMINING A SUBSTANTIALLY DAMAGED STRUCTURE?

A. The criteria for determining substantial damage is the ratio of the cost of repairing the structure to its before damaged condition to the market value of the structure prior to the damage. (Note: The cost of the repairs must include all costs necessary to fully repair the structure to its before damage condition.)

10. Q.WHO IS RESPONSIBLE FOR MAKING THE DETERMINATION WHETHER A STRUCTURE HAS BEEN SUBSTANTIALLY DAMAGED?

A. Ultimately, it is the responsibility of the community permit official to assure that market value estimates are reasonably accurate and that the cost estimate reasonably reflects the actual costs to fully repair the damage and make any other improvements to the structure. However, the local permit official may require that the permit applicant or owner of the building supply the information necessary (e.g., appraisals, construction costs estimates, etc.) to make the determination. There are numerous publications and reference materials to assist a community official in making an objective decision on this matter. These materials provide practical guidance on estimating both the cost of improvement and market value and in verifying that estimates submitted on permit applications are reasonably accurate.

PUBLICATIONS

"Answers to Questions About Substantially Damaged Building" FEMA-213, To order the manual please call FEMA's Publications at 1-800-638-6620.

"Storm: The World Weather Magazine" is a new, independent journal that examines climatic and meteorologic events, the technology developed to keep up with them, and their impacts on human beings. Designed for both scientist and those not so inclined, the periodical is intended to bridge the gap between scientific knowledge and public understanding of it. The first issue had highlights of the Midwest floods; a discussion of the role of satellites in understanding global warming; an overview of the National Weather Service's restructuring; and an inside look at past progress in television weathercasting (John Harlin, Editor). Subscribe to **Storm** for \$24,00 annually (12 issues) by writing to P. O. Box 579, Batavia, IL 60510 or calling 1-800-547-0890.

"Floods in the Upper Mississippi River Basin 1993," USGS Circular 1120 will be a series of individually published papers on the characteristics of the recent flood. The circular will cover discharges, precipitation, water quality, sediment transport, sediment deposited on floodplains, groundwater quality, reservoir storage, channel scour at selected bridges, extent of inundation, and geomorphologic changes. The first part, **"Flood Discharges"**, by Charles Parrett, Nick B. Melcher, and Robert W. James, Jr. (Circular 1120-A), has been released. Obtain it and future entries free from the Books and Open-File Report Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225.

"Flood Proofing: How to Evaluate Your Options", is intended to assist property owners, engineers, and contractors in determining whether or not flood proofing is appropriate and what may be the best flood proofing measure to consider. It contains a detailed explanation of how to evaluate the flood proofing options and how to conduct a benefit/cost analysis. Contact Richard Stuart, U.S. Army Corps of Engineers, 601-634-5827.

"A Flood Proofing Success Story along Dry Creek at Goodlettsville, Tennessee" documents the procedures used by the U.S. Army Corps of Engineers, Nashville District, to justify a Section 205 Project involving flood proofing. It contains information packages, agreements, covenants, etc. used in the program and an equation that can be

used to quickly estimate the cost of elevating one-story, brick veneer homes with crawl spaces and in sound structural condition. Contact Richard Stuart, U.S. Army Corps of Engineers, 601-634-5827.

TEXAS FLOODPLAIN MANAGEMENT ASSOCIATION 1994 ELECTION RESULTS

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FEMA Reorganizes

The new director of the Federal Emergency Management Agency (FEMA) is James Lee Witt, former head of the Office of Emergency Services for Arkansas. The first FEMA director to have hands-on-experience in hazards management, Witt said he plans to revitalize the agency and develop a new partnership with Congress, the White House, other Federal agencies, State and local governments, and volunteer groups to FEMA, one of the most "effective and respected agencies in the nation." In assuming his new post, Witt said: **"The one thing that everyone must remember as we begin our task of rebuilding, is that emergency services exist for only one reason: to help people. We can never lose sight of that."** Witt said he hopes the nation will adopt a new phrase for FEMA, one that underscores the agency's mission: **"FEMA, An Agency of People Helping People."**

On September 7, 1993 Witt released his organizational plan for FEMA's "renewal". It divides all the program functions at headquarters into five elements:

- (1) Mitigation;
- (2) Preparedness;
- (3) Response and Recovery Operations;
- (4) the Federal Insurance Administration; and
- (5) the U.S. Fire Administration.

Floodplain management under the NFIP (the former Office of Loss Reduction), has been made the cornerstone of the new Mitigation component, providing for the integration of mitigation techniques and technical approaches across hazards like flooding, hurricanes, and dam safety. Also, housed within Mitigation is the floodplain mapping program (the former Office of Risk Assessment), earthquake hazard reduction, hazard mitigation grants, hurricanes, and dam safety. Disaster assistance function, including assessment, declarations, response teams, and state and local planning, will come under the new Response and Recovery component. The Federal Insurance Administration will retain the insurance aspects of the NFIP, concentrating on improving rating systems and market penetration. Witt indicated he expects the transition to the new order to begin immediately, and to take about six months.

On the Regional level, Raymond Lloyd (Buddy) Young is the new Director of FEMA's Region VI office in Denton, Texas. As director of FEMA's Region VI office, Young is responsible for administering a variety of federal emergency preparedness and disaster recovery programs in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. The NFIP component at Region VI is located under Jim LeGrotte, Director, Mitigation Division, with Robert Hendrix as Chief of the Community Mitigation Programs Branch and Frank Pagano, Senior Natural Hazards Program Specialist. Jack Quarels, P.E., will be the Chief of the Hazard Identification and Risk Assessment Branch.

1994 Atlantic Tropical Storm & Hurricane Names

Alberto

Beryl

Chris

Debby

Ernesto

Florence

Gordon

Helene

Isaac

Joyce

Keith

Leslie

Michael

Nadine

Oscar

Patty

Rafael

Sandy

Tony

Valerie

William

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REMEMBER

Your community receives one copy of this Newsletter. Please circulate to all key personnel with responsibilities in Floodplain Management or Emergency Management.

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