

NON-CIRCULATING



FLOODPLAIN MANAGEMENT

VOLUME 8, No. 26 NEWSLETTER WINTER, 1990

FLOOD INSURANCE AVAILABILITY MISUNDERSTOOD

With all of the flooding that took place last spring a lot of attention has been focused on flood insurance and floodplain management. Unfortunately, some attitudes and beliefs that have surfaced have been grossly inaccurate. For instance, in one recent newspaper article local insurance agents stated that flood insurance was not available outside the 100 year floodplain. They also mentioned that flood insurance outside the floodplain, when obtainable, would cost 5 to 6 times more than it's worth.

For the record, flood insurance is available anywhere within the corporate boundaries of a participating community. It does not matter whether or not the structure is in an A, B, C, or X zone. In fact, those who purchase flood insurance in zones B, C, or X may be eligible for the preferred risk flood insurance policy. This policy can be as low as \$75.00 a year, much lower than the "5 to 6 times" one would pay if located in the floodplain.

If it were true that flood insurance was not available outside the floodplain, a tremendous injustice would be the consequence. This is because fully one third of all claims paid are OUTSIDE the 100 year floodplain! Remember, just because you may live outside the floodplain does not guarantee you will never be flooded. It only means that you are less likely to be flooded with the severity or frequency of the 100 year flood.

Nevertheless, the above scenario did occur and it is likely that some people were adversely affected because they were unintentionally misinformed. In such

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situations there really is not a whole lot you can do after the fact. The best approach is to adopt an attitude of prevention and education. Establish and MAINTAIN a public awareness program. Make public service announcements via mass media and/or send flood insurance brochures in your utility bills.

As the Floodplain Administrator, you should also contact local lenders and insurance companies in your community and ensure they understand their role in the NFIP. If they don't, have them call FEMA, the Texas Water Commission, or the NFIP Regional Office in Houston. Each office will strive to assist you in any way it can. It may also be possible to attend workshops offered by these offices when they are conducted in you area. In fact, you may wish to host one in your community.

Remember, it is the Floodplain Administrator's responsibility to ensure that all facets of the community are kept abreast of the NFIP floodplain regulations as well as flood insurance availability. If this responsibility is not met then it is the people of your community that will suffer.



CARS' SAFETY DURING FLOODS OVERESTIMATED

by Jeffrey Weiss

(Article originally appeared in the DALLAS MORNING NEWS on May 18, 1989)

Five times in the past two weeks, a frantic motorist seeking to escape rising water has died the same way: trying to drive to safety through a rain-engorged stream.

Flash floods, sending torrents of water down dry arroyos, have been sweeping Texans to their deaths since long before the region became a state. But the seeming invulnerability of a car creates an unwarranted sense of safety that produces more modern fatalities, experts say.

Seven people died in the five accidents.

"If you have moving water of unknown depth, it is insane to enter it," said Dr. Gary Nelson, an Austin-based safety engineering consultant.

Driving through any fast-moving water more than a foot deep is a risk, experts say, and counter to the urges of panic, driving slowly reduces that risk.

Naturally, a current deep enough to cover a car will float it away. But even relatively shallow streams are dangerous.

Cars are easier to move than most people think. And the flow of water is much stronger than most people imagine.

An auto driving straight into a 2-foot-deep stream will end up with about

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eighteen square feet of car surface being hit broadside by the force of the flow," Dr. Nelson said. If the water is moving at 15 mph - not unusual for a flash flood current, hydrologists say - the side of the car will be hit by more than 25,000 pounds of water every second.

That's about the same weight as a rolling transit bus, give or take a Yugo.

A stream only a foot deep will smack the same car with more than 7,000 pounds of water a second - about the same weight as a loaded Lincoln.

As tires roll quickly over a wet road, a thin film of water slips between the rubber and the road surface. This hydroplaning reduces the friction, and at worst, the tires hold to the road no better than if they were sliding over smooth ice.

That means the car is left with no resistance to the force of the current.

"They probably figure they need to drive fast, but what they really need to do is drive very slowly," said Dr. Marie Morisawa, a geologist and hydrologist for State University of New York.

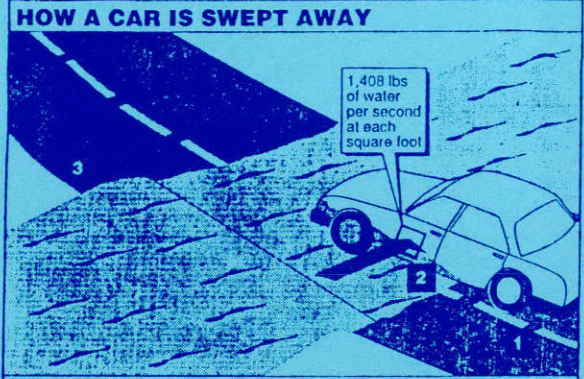
"Even a careful driver who enters a shallow stream isn't safe," Dr. Morisawa said. "Often there are crests - large waves - driven downstream by the rain.

That means a shallow stream can get much deeper in a few moments.

The best idea, experts agree, is to avoid driving into any moving water during flash-flood conditions and while many longtime residents understand the power of such currents, more recent arrivals to Texas can be caught by

surprise, said Dr. Jerry Rogers, a geologist at the University of Houston.

HOW A CAR IS SWEEP AWAY



1,408 lbs of water per second at each square foot

1. People generally drive fast when trying to escape a flood. Driving fast on rain-slick streets makes the car hydroplane - the tires are pushed off the ground by a thin film of water. And that means the car acts as if it were sliding on ice when it is slammed from the side by tons of water. Control is lost immediately.
2. Flowing water is very strong. One cubic foot of water weighs about 64 pounds. A fast moving flood-driven stream can push almost 2,000 pounds of water against a flat one-square-foot surface - like the side of a car every second.
3. Flood streams don't flow smoothly. They often have crests - waves that hurl downstream and suddenly increase the depth of water flow.

The Dallas Morning News, Lisa J. Smith

HOME SWEET HOME

In our last newsletter we reported that we were moving to a new location in Austin. Unfortunately, we did not have a telephone number to give you. That has all changed!

Our new telephone number is (512) 371-6314. We are located at 8900 Shoal Creek Boulevard between Steck Avenue and Research Boulevard (U.S. 183).

Please bear in mind that our mailing address is still P.O. Box 13087, Capitol Station, Austin, Texas, 78711-3087.

WHERE TO GET FLOOD MAPS

Need a copy of a floodplain map? It's a fairly simple procedure to obtain one. All you have to do is call (800) 333-1363. This is the NFIP Map Distribution Center order line. To order Flood Insurance Rate Maps (FIRMs), Flood Hazard Boundary Maps (FHBMs), and Flood Boundary Floodway Maps (FBFMs) just call the toll free number, tell them the name of the community, the county, and the six digit community number (the Flood Management Unit can provide this number to you). There is no charge for community officials, lenders, and insurance companies. Private companies and citizens will be charged \$5.00 per map (up to 10 panels plus 60 cents for each additional panel).

ADDRESS CORRECTIONS REQUESTED

Has your address changed? Has the name of your organization been changed? Is the name and address on your **Floodplain Management Newsletter** incorrect? Have you appointed a new Floodplain Administrator? Want someone else to receive a copy? If you answered "yes" to any one of these questions, please contact us so that we may update our files. Our phone number is (512) 371-6314 or feel free to contact us at the address printed on the back of this newsletter. Either way will ensure that we will be able to get you your copy along with the information it contains.

GROUND WATER SUPPLIES MAY BE AT RISK

Does your community rely on ground water as a public water supply? Do members of your community rely on ground water as their source of drinking water? If so, they could be at risk in the event of a flood.

Improperly constructed wells have the potential to allow flood waters direct access to the aquifer below. This is especially critical when the flood waters are carrying everything from raw sewage to dead animals. Communities that rely on ground water need to take all necessary measures to ensure that their water wells are properly constructed and reasonably safe from flooding.

As if this weren't enough, thousands of abandoned wells exist across the state that are often left as open holes or merely covered with makeshift material. While you may not be aware of it, these wells are a constant threat to the integrity of your water supply. So, what can you do about it?

First, ensure that your functioning wells are properly constructed and that any unused wells are not only plugged, but plugged **CORRECTLY**. So far as the abandoned wells are concerned, educate your staff and the community on how to identify them. In the event that one of these wells is located you can either inform the landowner that the well must be plugged or contact the Texas Water Commission Ground Water Conservation Section for assistance at (512) 371-6321.

Generally speaking, most people are concerned about the dangers associated

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with rising water. The hazards posed by improperly constructed or abandoned water wells serves as a reminder that not all development threatened by flooding occurs above ground.



NEW RULES IN EFFECT FOR FY-1990

Final rules were recently published in the Federal Registry that became effective October 1, 1989. These rules revised some old definitions and created some new ones; revised some existing regulations and clarified others; and also established some new ones.

The old definitions that got a shiny coat of paint are "substantial improvement", "new construction", and "development." The new rule and improved definitions are stated briefly:

Substantial Improvement: "...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."

New Construction: "that which commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures."

Development: "storage of equipment or materials" is now classified as

development along with the pre-existing definition.

In part 60 of the NFIP Regulations, Criteria for Land Use Management and Use, three rules have been changed. The amended sections deal with the issue of variances for historic structures, the use of enclosed areas below the lowest floor, and wind loading values in coastal high hazard areas.

Section 60.6(a) has been changed to read, "variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure."

Section 60.3(c)(5) has been altered by an addition to the regulation dealing with enclosed areas below the lowest floor. The first sentence will now read as follows:

"Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

Also revised in Section 60.3 is the replacement of a sentence in paragraph (e)(4). The second sentence, which currently begins with the word "Wind", has been removed and replaced with the sentence "Water loading values used shall be those associated with the base flood. Wind loading values shall be those required by applicable State or local building standards".

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This same replacement also occurs in paragraph (e)(5)(ii). The second sentence in the paragraph, which begins with the word "Maximum" is also deleted and replaced with the same sentences inserted in paragraph (e)(4).

These new rules have also created some brand new definitions for "historic structure", "substantial damage", "alluvial fan flooding", and "apex". The new definitions will read as follows:

Historic Structure: (In brief) Any structure listed individually, or preliminarily determined as meeting the requirements to be listed, on the National Register of Historic Places. Structures that are determined, or are preliminarily determined, to contribute to the historic significance of a registered historic district. Also included are those listed in either a State or local inventory of historic places that have been approved by the Secretary of the Interior.

Substantial Damage: This means damage of any origin 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.

Alluvial Fan Flooding: This means flooding occurring on the surface of an alluvial fan or similar landform, which originates at the "apex" and is characterized by high velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Apex: This means a point on an alluvial fan or similar landform, below

which the flow path of the major stream that formed the fan, becomes unpredictable and alluvial fan flooding can occur.

This collection of Final Rules also clarified some regulations pertaining to the procedures for map revisions and map amendments. Standards and procedures were also established for map changes in areas subject to alluvial fan flooding. For example, in order for a flood control project (in areas subject to alluvial fan flooding) to be recognized on the flood map, the technical material must be supplied to FEMA at the time a flood risk study or restudy is done or when a map revision is sought. Just as important, the elevations of a parcel of land or a structure by fill or other means will not serve as a basis for removing areas subject to alluvial fan flooding from an area of special flood hazard, specifically: the 100 year flood. Furthermore, FEMA will only credit on NFIP maps major structural flood control measures whose design and construction are supported by sound engineering analyses. These measures must demonstrate that they will effectively eliminate alluvial fan flood hazards from the area they are designed to protect.

Hopefully, this article has shed some light on the National Flood Insurance Program rule changes that have taken effect this year. However, please bear in mind that the article only touches on the main points of each rule.

In order to get ahold of the complete rules you need to obtain a copy of the **Federal Register**, Volume 54, No. 156, Tuesday, August 15, 1989, Rules and Regulations. You may also obtain assistance by calling FEMA, (817)

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898-9162, or the Texas Water Commission, (512) 371-6314.

MANUFACTURED HOME RULES ARE FINAL, FINALLY!

The saga that began back on October 1, 1986, with the publication of new rules regarding elevation requirements for manufactured homes, has finally come to an end. New rules that became effective November 1, 1989 will revise the NFIP floodplain management criteria that are applicable to the placement or substantial improvement of manufactured homes that are in existing manufactured home parks and subdivisions located in flood hazard areas. They also address the requirements applicable to recreational vehicles.

In a nutshell, this is how the new rules stand:

A manufactured home is required to be elevated on a permanent foundation, such that the lowest floor of the manufactured home, is elevated to or above the base flood elevation (BFE) and securely anchored, when placed or substantially improved within Zones A1-30, AH, and AE on these types of sites:

- 1) Outside of a manufactured home park or subdivision.
- 2) In a new manufactured home park

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LENDER AND AGENT SEMINARS TO BE CONDUCTED

The NFIP Region VI office has scheduled both mortgage lender and insurance agent seminars on flood insurance. These sessions do require pre-registration and run from 9:00 a.m. until about 4:00 p.m. The cost is \$35.00 per person for insurance agents and \$25.00 per person for mortgage lenders. Lunch is the responsibility of the individual.

Debbi Frank of the NFIP Region VI Office advises everyone to arrive around 8:30 a.m. so that she will have time to distribute the training materials and get set up. Also, participants should bring their manual, a pocket calculator and writing material.

All interested parties should direct their inquiries to Debbi Frank at (713) 690-0115 or they may write to 7035 West Tidwell, Building J, Suite 105, Houston, Texas 77092.

AGENT WORKSHOP SCHEDULE

HOUSTON Tuesday, January 16
Ramada Inn-S/W 6855 S/W Freeway
(at Bellaire)

DALLAS Tuesday, February 20
Holiday Inn 1930 E. Airport Fwy.
(Irving)

LENDER WORKSHOP SCHEDULE

HOUSTON Thursday, January 18
Holiday Inn-S/W 11160 S/W Freeway
(at Bellfort)

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DALLAS
Holiday Inn

Thursday, February 22
1930 E. Airport Fwy.
(Irving)

SAMPLE ORDINANCES AND PERMIT FORMS AVAILABLE

Are you currently in the process of updating your community's floodplain management ordinance? Have you been notified by FEMA that your ordinance is not in compliance with the NFIP Regulations? Have you been converted from the Emergency Phase to the Regular Phase of the NFIP? If you answered "yes" to one of these questions, you can contact us here at the Water Commission and we will send you a sample floodplain management ordinance along with instructions on how to utilize it. Also, if you do not have an approved floodplain development permit system in place, we can supply you with some sample forms as well. All you need to do is call (512) 371-6314 and we will send the information to you. Or you can write to the address printed on the back of this newsletter.

TWC WORK ASSIGNMENTS FOR FY-1990 DELAYED

Even though it's taken longer than expected to get the NFIP grant back from FEMA the Flood Management Unit is already getting FY-1990 underway. To give all of the participating communities an idea of what to anticipate, we are listing the work assignments we have tentatively set at this time. Please, bear in mind that some changes probably will occur over the course of the fiscal year so far as communities scheduled for CACs, and CAVs are concerned.

The Flood Management Unit will be conducting a total of 90 Community Assistance Contacts (CACs) for FY-90. The communities that are scheduled for a CAC at this time include the following:

Anthony	Clay Co.
Archer Co.	Clint
Arcola	Coldspring
Argyle	Collin Co.
Asherton	Colorado Co.
Ballinger	Copper Canyon
Bartonville	Coryell Co.
Baylor Co.	Culberson Co.
Bell Co.	Daisetta
Bianco Co.	Dallas Co.
Booker	Dalworthington
Bosque Co.	Gardens
Boyd	Darrouzett
Brewster Co.	Dell City
Buffalo Gap	Duval Co.
Caldwell Co.	Early
Canadian	El Paso Co.
Chico	Fayette Co.

Fort Bend Co.	Plum Grove
Gregg Co.	Presidio Co.
Grimes Co.	Quanah
Gunter	Quintana
Hale Co.	Randall Co.
Hamilton	Real Co.
Haskell Co.	Reno
Haskell	Richardson
Hebron	Richwood
Henderson Co.	Roaring Springs
Highland Village	Rockwall
Howard Co.	Roscoe
Howe	Terrell
Hudspeth Co.	
Hutchins	
Idalou	
Iowa Colony	
Iraan	
Jeff Davis Co.	
Kountze	
Lampasas Co.	
Lefors	
Liberty Co.	
Liberty	
Limestone Co.	
Malone	
Mitchell Co.	
Montague Co.	
Moulton	
Muenster	
Muleshoe	
Nassau Bay	
Natalia	
Nixon	
N. Richland Hills	
Olney	
Ovilla	
Oyster Creek	
Palo Pinto Co.	
Pantego	
Pecan Grove Mud #1	
Petrolia	
Plains	

COMMUNITY ASSISTANCE VISITS FOR FY-1990

In addition to the CACs, the FMU has scheduled the following communities for Community Assistance Visits (CAVs):

Alvarado	Jacksboro
Blum	Jamaica Beach
Bryson	Johnson City
Cedar Park	Knox City
Celina	Kosse
Childress	Lucas
Clute	Lumberton
Columbus	Madisonville
Coolidge	Marble Falls
Crowell	Meridian
Danbury	Morton
Dawson	Naples
De Leon	Nash
De Soto	New Boston
Decatur	Nocona
Dilley	Normangee
Elgin	Ore City
Falls City	Point
Florence	Portland
Floresville	Roman Forest
Fulshear	Seadrift
Garden Ridge	Shenandoah
Gregory	Simonton
Grey Forest	Victoria
Hamlin	Woodbranch
Hooks	Granite Shoals
Hubbard	
Ingleside	

If you have any questions concerning the CACs/CAVs, please direct inquiries to the Flood Management Unit (512) 371-6314.

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- 3) In an expansion to an existing manufactured home park or subdivision.
- 4) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood.

In contrast, manufactured homes that are placed or substantially improved on sites in an "existing" manufactured home park or subdivision within Zones A1-30, AH, and AE, must be adequately anchored and elevated so that either:

- 1) The lowest floor of the manufactured home is at or above the BFE, or
- 2) The manufactured home chassis is supported by reinforced piers (or other foundation elements of at least equivalent strength), that are no less than 36 inches in height above grade.

Recreational vehicle rules have also changed. Any recreational vehicle on sites within Zones A1-30, AH, and AE must either:

- 1) Be on the site for fewer than 180 consecutive days, and be fully licensed and ready for highway use, or
- 2) Meet all permitting, elevation and anchoring requirements for "manufactured homes".

A requirement has also been added for the development of plans to evacuate residents of all manufactured home parks or subdivisions located within flood prone areas. These plans need to be filed with and approved by your local

government's Emergency Management Coordinator.

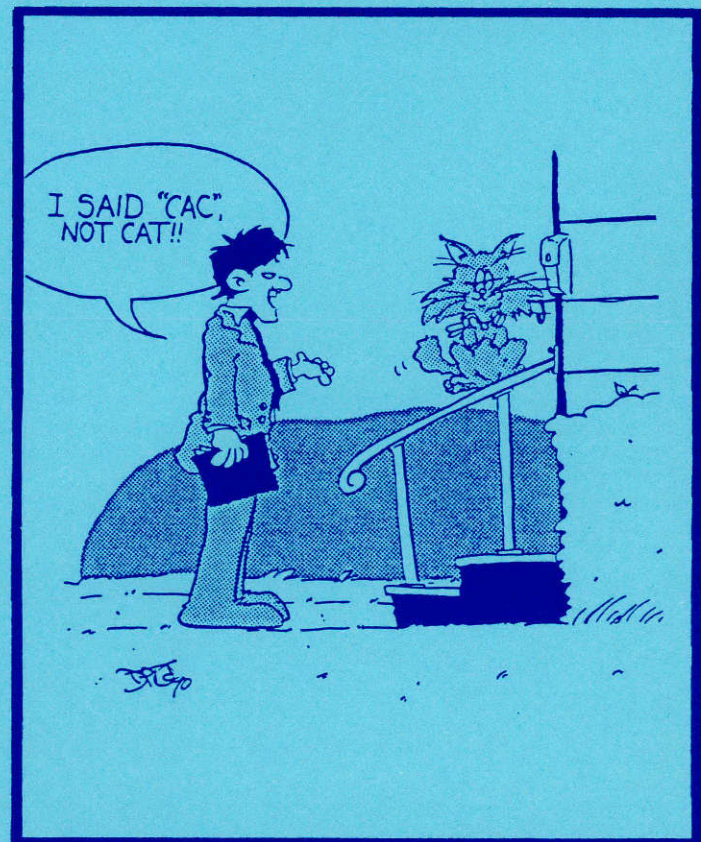
NEWSLETTER ARTICLES: WHERE DO THEY COME FROM?

Articles appearing in the TEXAS FLOODPLAIN MANAGEMENT NEWSLETTER are generated by the Flood Management Unit staff. The contributing staff members are James Mirabal, Sharon Jones, Keith Krause, David P. Terry, and Loyd Blackmon.

Additional material is adapted from other newsletters (along with proper credit), FEMA, the NFIP Regional Office in Houston, and various outside sources. Furthermore, permission for reproduction of newsletter material is freely granted. The TWC would appreciate acknowledgement.

FLOOD FOLLIES

by David P. Terry



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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