

LOOK UPSTREAM

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Residents in over 2,200 subdivision communities in Harris County live with the growing fear of flooding in the Bayou City. It is spreading deeper into neighborhoods and under the doors of homes never previously flooded. And it is occurring more frequently. Unlike never-ending new road construction, flood damage reduction infrastructure is not being built ahead of urban development. This seemingly irrational phenomena begs such questions as, **"What is the cause?" "Can something be done about it?"** If so, **"What is it?" "What can I do?"**

Mickey Herskowitz describing Houston in a Super Bowl XXXVIII article in the Houston Chronicle said, *"The land is so flat that you can drop a marble and watch it roll for miles. There [are no] mountains or hills to block the view. It [is] a cement mixer's dream."* He goes on to say, *"What we do best here is literally reach for the sky. This is the home of the Space Center and the world's first weatherproof stadium, and a renowned medical center, where the transplanting of hearts is no longer considered the daily miracle."* The flat topography to which he refers and frequent heavy rainfall are 2 of the top 3 reasons for flooding; the third is failure to use our "can do" resourcefulness to fix the source of the problem before allowing urban development to push relentlessly onward. Instead we try to fix the problem after it occurs. We seem to have *"the cart before the horse"* philosophy allowing the urban development's cement mixers to work ahead of sufficient stormwater detention construction. The "cement mixers dream" is continuing its unabated rush into the future. This is resulting in a tremendous increase in both volume and rate of stormwater runoff.

The cause of flooding is not disputed. Workable solutions are known. We don't need rocket scientists to do it. Several solutions exist. One is to dig wider and deeper channels. Although this can reduce out-of-bank flooding, it can also cause undesirable environmental damage. Another solution is to capture the stormwater runoff at its source and then control its release into the streams and bayous such that the downstream volume is reduced to a level which stays within the natural capacity of the stream / bayou. Called "detention" by the flood industry engineers, it could just as well be called the "bath-tub-with-plug-and-drain" approach.

Twenty years ago HCFCD engineers calculated what they believed would keep the stormwater runoff into the streams and bayous at a rate which would not exceed that if the land was left untouched by human activity. Detention with maximum allowed stormwater release rates was specified in Harris County's land development criteria and became one of the backbones for flood damage reduction in Harris and some neighboring counties. During the subsequent 2 decades urban development continued and our drainage system was tested. It failed the test in Harris County. What exists today is inadequate and getting worse. Many requirements are good. But overall something is wrong. Then in October 2003, the HCFCD published a draft of revised design criteria for detention pond construction and operation. The Cypress Creek Flood Control Coalition (CCFCC) hired a technical consultant to review these revisions only to find

that the outlet release rates specified for detention ponds remains the same as it has been for the last 20 years. **The plug and drain are too large.** We recommended it be decreased significantly such that the outflow rate of stormwater into down stream communities will be lowered to the same rate as that required in neighboring Ft. Bend County. HCFCD's decision on this recommendation had not been received at the time this article is written.

All things considered, Harris County, Texas, the 4th largest county in the United States with its intelligence and multitude of high tech accomplishments is crying for inspired leaders who will put the plumbers ahead of the cement mixers. All the other elements needed for solution are in our hands and just need to be utilized. In next month's issue of **Look Upstream** we will report on the progress being made toward this recommendation becoming a reality. Or will it be rejected and the regulations in their present form be sent on to Harris County Commissioners Court for adoption?

Visit the Cypress Creek Flood Control Coalition web site, www.ccfcc.org for past articles in this series and information on flood insurance, flood projects, what is being done in an ongoing study of the Cypress Creek Watershed, membership and more.

Look Upstream articles are provided to your neighborhood newsletter editor by CCFCC as a public service. Questions will be welcomed at all times.

E-mail: floodalliance@ccfcc.org
Tel. 281-469-5161

