

Water woes:

Texas developers weigh in



Larry Johnson

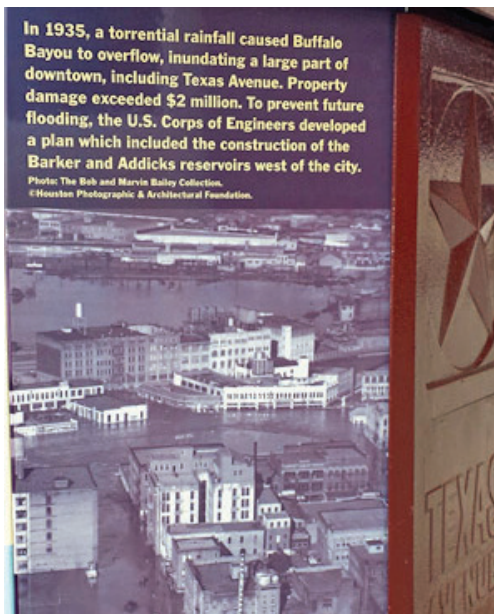


Mark Sappington

BY BRANDI SMITH

In October's REDNews, we explored the topic of Texas water issues and their impact on development in the Lone Star State. This month, we're tackling the same issues from the developers' perspective.

Flooding is a significant and well-documented issue throughout Texas, especially in the Houston area. Looking back to 1929 and especially 1935, data reveals the Bayou City's longstanding battle with floodwaters.



In December 1935, water rushed through downtown Houston, causing damage that totaled nearly \$3 million (\$52 million in today's dollars).

"That year, it got so deep in downtown, it went up to the second floor of the buildings," said Mark Sappington, vice president at Cobb, Fendley & Associates. "There's actually video that you can see on YouTube showing the water rushing by, inundating all of the buildings at a lower part of downtown."

That flood resulted in the formation of the Harris County Flood Control District, which has since created multiple bayous and other mitigation tools to minimize the flood potential in the Houston area.

"The Flood Control District, I think, has done just a marvelous job of putting together and implementing a plan for a series of regional basins to control the transference of the flow from upstream to downstream. By putting in some very large regional detention basins, they have lowered the amount of water that's continuing downstream, and have,

I feel, significantly lowered the flooding effects that would have been," Sappington said.

Experts say one of the reasons flooding in Houston, as well as other parts of Texas, has caused so much damage in recent years is because of the exponential growth and development during that time.

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"It's kind of a love-hate relationship, but development can be done in a proper way that doesn't affect or worsen the flooding upstream or downstream."

Developers have mounted efforts to minimize the impact on the floodplain, even as demand for growth and new development



Credit: City of Houston

boomed. Sappington says the key idea is “do no harm.”

“In developing the floodplain, the engineer and the developer ensure through modeling and other means that they are not raising water surface elevations upstream or downstream,” said Sappington.

He went on to explain that, while Harris County does allow filling of the floodplain, any volume the developer fills must be excavated nearby in a “tit-for-tat ratio.”

“That protects the people downstream, so you’re not creating problems and you’re not affecting downstream property owners with more water, higher flows and higher elevations,” Sappington said. “The development community, by far, plays by the rules and has a good record of wanting to do what is right.”

Larry Johnson, president and CEO of The Johnson Development Corp., said that’s

especially true when working on a master-planned community.

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That process begins with the local flood control administrator. If the project poses any environmental impact, which happens more often than not, Johnson said the next step is applying for a permit with the U.S. Army Corps of Engineers.

“Once we go to the USACE, virtually every other federal resource agency and environmental group, i.e. the Environmental Protection Agency and U.S. Fish and Wildlife, gets input on the permit,” he said. “The state agencies that are responsible

for administering the Clean Water Act get involved, i.e. TCEQ, Texas Parks and Wildlife and the Texas Historical Commission.”

With so many different organizations involved, the permitting process alone can take anywhere from one to three years, according to Johnson.

“It takes a team of consultants, lawyers, engineers, and environmental specialists to guide you through the process,” he said.

The end result, though, is a responsible approach to resource management, mitigating the impact of flooding as much as possible. Still, despite their best efforts, developers often receive blame during historic flooding events.

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“It is a very emotional issue. I mean, when you are standing with water in your home, you want to blame someone,” Sappington said. “I feel unjustified sound-bites can undo a lot of good engineering and good development that gets painted as being the cause of the flooding when it really isn’t.”

The cause, Sappington said, is simple: when you get upwards of 15 inches of rain in a matter of hours, there’s nowhere for it to go in the Houston area.

“We’re flat. Water travels very slowly. We don’t have mountains. We don’t have water rushing down; it moves very slowly from upstream to downstream,” he described. “As it goes slowly, it spreads out and, being flat, just a little bit of rise in water surface elevation inundates a lot more area.”

Despite its geographic challenges, Texas development shows no signs of slowing as the state’s population grows by the thousands. It’s imperative to remember in the years to come, especially during the next flooding event, that developers are working to strike a tenuous balance between the overwhelming need presented by the influx of people to Texas and the environmental obstacles posed by Mother Nature. ●



Credit: Pinnacle Design / Build Group Inc.