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Austin weighs code changes after data show 80% more structures at flood risk

Frances Acuña bought her house on Brassiewood Drive in Southeast Austin 18 years ago. Over the years, the rain and flooding in the neighborhood has gotten worse, she says.

Next month, Acuña's home, now in the 500-year floodplain, could be one of thousands in Austin to be redesignated as in the 100-year floodplain, based on new rainfall data released last year that show major storms are more common in Texas than previously believed. That means homes like Acuña's now are considered at greater risk of flooding in future rain events.

The data, known as Atlas 14, revealed that parts of Austin are seeing as much as three inches more rain in major storm events than the National Oceanic and Atmospheric Administration had calculated with old rainfall data back in 1961.

Because of the new data, the city is considering a code change that would redesignate Austin's 500-year floodplain as the new 100-year floodplain. Developers say the change could increase the cost of construction in those areas because of stricter drainage regulations, building elevation requirements and flood mitigation concerns. It also could affect homeowners, who may run into trouble selling their homes or have to purchase costly flood insurance.

The city's floodplain administrator, Kevin Shunk, said, according to preliminary maps based on the new rainfall data, 80% more structures in Austin are at risk of flooding, now totaling 7,200 buildings. Starting in July, the city's Watershed Protection Department began sending letters to 24,000 utility customers who could be affected by potential code changes the City Council will vote on next month, which would put their properties in a flood zone.

Acuña said, after getting the notice, she preemptively bought flood insurance, hoping to get in at a lower rate before the Federal Emergency Management Agency officially changes its flood insurance rate maps based on the Atlas 14 data. That could still be a few years down the road.

The city said it expects it will be another two years until it officially updates its flood maps with the new data, which will require it to remodel all the city's basins. Redesignating the 100-year floodplain through a code change is a temporary fix for the

time being, to ensure residents are protected and structures are built safely and responsibly, Shunk said.

A public hearing on all the proposed code changes is planned for Oct. 17, when residents are invited to weigh in and the City Council will take a final vote.

"Even if the designation doesn't change, the data is showing that the flood risk does exist," Shunk said.

Flooding fears

Atlas 14 did not just affect how Austin is confronting its floodplain regulations. It showed significant changes in the amount of rainfall that qualifies as a "rare" event all the way from Del Rio, through Central Texas to Corpus Christi on the Gulf Coast. Houston saw some of the biggest changes in its rainfall amounts, which reclassified 100-year storm events there as more frequent 25-year events, meaning they have a 4% chance of occurring in a given year instead of a 1% chance.

In Central Texas, areas along the Colorado River are not affected, as forecasters have not predicted any increase in river flooding. However, wide swaths of land along Austin's creeks and streams, including around East Riverside Drive and South Pleasant Valley Road, U.S. 183 and Decker Lane, as well as Acuña's neighborhood in Dove Springs, are now considered in the floodplain, according to a map created by the city called FloodPro.

If the areas are redesignated, homeowners who live in those places won't have to change anything about their properties, per se. If they do a significant remodel, then they will have to raise the home and adhere to other building rules, like ensuring the work doesn't cause flooding to surrounding properties.

But for Acuña and her neighbors, the threat of major storms and flooding is the most pressing concern. Many of them lost everything four years ago during the Halloween storms and are still battling with the city and Travis County to fix the drainage in the area, since the neighborhood was built long before any flooding threat existed.

"Climate change is getting worse. Flooding has gotten worse. The rains are worse," Acuña said. "We are worried all around."

Affordability concerns

Engineers, developers and realtors in the Austin area were also taken aback by the new rainfall data, and over the past year, have been trying to get a handle on how the new floodplain regulations will affect them and their clients.

Mark Ramseur, a civil engineer and managing principal for Pape-Dawson Engineers, which has built master planned communities in the Austin area, said rainfall data helps determine how his firm assesses drainage in things like new subdivisions, which can often be the most precarious part of the building process and where things often go wrong.

"That's such a key part of our projects and it can also be a big cost driver for a project, how much fill do we need, what kind of detention pond," he said. "This will ultimately add a little bit of cost to development because we are going to be designing for bigger storms, so we are going to see larger storm sewer pipes, bigger ponds, raise the sight."

Whatever inconvenience it might add to the development process, Ramseur said it's worth it to ensure public safety.

"It's hard because affordability is such a tough nut to crack in Austin," Ramseur said. "But we don't want people to flood because of property damage or to get hurt or drown. It's worth it, but there's a little bit of pain involved."

Ramseur said the biggest impacts will be on those looking to redevelop in certain areas, flips homes or tear down and rebuild. Under the proposed code changes, anyone building or remodeling in the new 100-year floodplain will have to elevate structures even higher than before, to mitigate any flood risks.

"If you are in the redevelopment business in Austin and you have a property in the floodplain, you really need to sit down with the city and make sure you understand it," Ramseur said.

The city has also proposed a code change that would raise the required elevation from 1-foot to 2 feet above the floodplain, to minimize flooding risk. It is also asking staff be allowed to approve all building applications for homes and remodels that meet floodplain requirements, rather than requiring owners to go before various boards and commissions for approval, which slows down the process.

David Glenn, director of government relations for the Home Builders Association of Greater Austin, said changing the flood zones also could put a crunch on the housing

supply by taking land out of development, potentially further reducing affordability, although that impact, too, is not yet known.

Homeowner woes

The biggest concern for most homeowners is the resale value of their homes.

Alexandra Petroski bought her home on Third Street in the Bouldin neighborhood in downtown Austin two years ago and said she has never intended to stay there long-term. A majority of her property is located in an area that now will become the 100-year floodplain, if the City Council approves the changes.

"People will still buy here no matter what because it's downtown," Petroski said. "But it will be something that will be considered and could hinder the sale process."

A home in the 100-year floodplain has a one in four chance of flooding in the life of a 30-year mortgage, Shunk said. Brian Talley, a real estate broker who owns Regent Property Group, said homes in these areas could see a decrease in value.

"Purchasing a home in a flood plain carries a higher level of risk since there is a smaller pool of buyers when going to resell," he said.

Homeowners with mortgages who live in areas that may be redesignated as flood zones will likely have to purchase flood insurance in the future, but not until FEMA officially changes its flood insurance rate maps, which won't happen for a few years. The city is recommending that people call their insurer to talk about how their rates may change. FEMA said it's cheaper to purchase flood insurance when a home is not in a designated flood zone than once it is added and that rates vary widely based on a variety of factors like elevation and any history of flooding. Acuña said she is paying \$400 a year for her flood insurance, but neighbors have reported premiums that reach into the thousands.

In addition to seeking the code changes, Watershed Protection staff also are updating the city's drainage criteria manual, which is what engineers use when determining what kind of detention ponds to build and pipes to install. Shunk said the manual is expected to be completed later this year, after the city gets feedback from developers.

San Antonio and Houston already made their own code changes based on the Atlas 14 data earlier this year.

Austin had initially planned its changes a year ago, but Shunk said staff preferred to revise the drainage manual alongside making the code changes, so the two were in sync and developers would have clear-cut directions on how to move forward with new construction.

Ramseur said many developers, when seeing the proposed changes initially, were worried they would have to scrap or completely redo projects already in the works, forcing them to raise homes and install different infrastructure.

"There was a lot of confusion and not understanding what was going on, and I some fear," Ramseur said. "Rightfully, the city got this stuff out, took a pause and said we need to make sure this thing is right."