



View from the top of I-10 east at Yale.

Photo by Meagan Flynn

15 Ways Harris County Judge Ed Emmett Wants to Mitigate Flooding

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Laying out a broad vision for the future of flood mitigation, Harris County Judge Ed Emmett admitted he was no expert on flood control – but as the director of Harris County emergency management, he said he was tired of the "piecemeal approach" various government agencies and departments have taken to addressing the floods rather than working together.

Of the 15 items he described at a press conference Wednesday, some he didn't even have the jurisdiction to put in motion (like revising the FEMA floodplain maps or urging car manufacturers to devise a way for your cars to alert you when water is too high), and some would require extensive funding (like building a third reservoir or funding a massive buyout and/or elevation program for all homes in the 100-year floodplain).

But the point, Emmett said, was just to get the ball rolling, to start a conversation and get various partner agencies interested in attacking the problem in a more comprehensive fashion in both the short- and long-term.

"Now is not the time for a piecemeal approach," he said. "I think it's very important that we take the sense of urgency created by Harvey, because we know it will fade, and we must quickly commit ourselves to a comprehensive plan to redefine Harris County and the surrounding region as a global model for living and working in a flood-prone area."

The overarching vision, Emmett said, was to turn the floodplains of Harris County into an asset – like for tourism and recreational purposes – rather than a vulnerability due to repeated structural flooding.

Here are the 15 items on Emmett's glorified wish list:

1. Creating a "regional flood control/water management organization." Emmett wants to model the Houston-Galveston Area Council's Transportation Policy Council, saying that if multiple agencies work together to make decisions about transportation projects, they should no doubt be doing the same thing to brainstorm flooding projects. This is something he believes can be done quickly – a "yes or no decision," as he described it.

2. Revising the FEMA floodplain maps. The ball's in FEMA's court on this one, obviously – but given homes that weren't even in the FEMA floodplain also flooded, a total redo of the FEMA maps has been something that many, many more public officials have been calling for. Emmett said that development should also face further restrictions in the 500-year floodplains, not just the 100-year floodplains.

3. Building a third reservoir in west Houston.

As the Addicks and Barker Reservoirs have aged and grown in serious need of repairs, local officials have called for an additional reservoir altogether, which could have saved potentially thousands more people from the severe flooding caused during Harvey from both uncontrolled and controlled releases from the two overflowing dams. Instead of waiting forever on Congress to cough up the money, Emmett called on the state to pull from the Rainy Day Fund to finance the third reservoir, which he said would cost in the ballpark of \$500 million. Still, that's just 5 percent of the \$10 billion Rainy Day Fund.

4. Calling on the U.S. Army Corps of Engineers to immediately fund four flood

projects ready for completion. Again, it's in the feds' court, but four Harris County Flood Control projects that are "ready for completion" along the Brays Bayou, White Oak Bayou, Hunting Bayou and Clear Creek all need to be expedited, Emmett said. Project Brays – the widening of the Brays Bayou plus detention basin upgrades and other improvements – inched along closer to completion with a \$47 million loan from the Texas Water Development Board earlier this month – but has mostly been plagued by grueling, long delays in funding from the federal government.

5. Identifying all old watersheds. All across Houston, after the Corps re-channeled the Buffalo Bayou and others throughout the 20th Century, the old watersheds stayed behind but still manage to cause flooding problems even though the bayous aren't really there anymore. When it rains like it did during Harvey, the waterflow finds its way back to its old homes. "I always say Mother Nature has a long memory," Emmett said. "When the water gets to a certain level, it goes back to its old flow patterns." Homeowners in those areas need to be made aware of the dangers, he said.

6. Developing a "state-of-the-art flood warning system" and local evacuation

plan. Emmett said technology needs to be better used to warn people, particularly those in flood-prone areas, when their immediate surroundings pose life-threatening danger. By the same token, when conditions are forecast to reach that level, Emmett said Harris County needs to have better organized volunteer rescue crews with private boats, perhaps coordinated through the Harris County Sheriff's Office with community emergency response teams. And before people even need

to be rescued, Emmett said the county, working with other local governments, need to devise evacuation plans at least for the flood-prone areas. "We spent a lot of time explaining why we didn't evacuate," Emmett said. "You just can't do it in a county of 4.5 million people. But we do know where the flood-prone areas are."

7. Converting Lake Houston and Lake Conroe into flood-control facilities.

Instead of simply existing for the purpose of storing water, Emmett said they need to be viewed as tools for flood mitigation. The San Jacinto River Authority – which faced massive criticism from flood victims for its decision to release water from the Lake Conroe dam – should install some upstream detention basins, Emmett said, and Harris County officials should be represented on the San Jacinto River Authority. These changes may require legislative changes, though.

8. Serving smaller municipalities in times of emergency. Emmett feels bad for the littler counties that don't get much attention during severe weather events and who might feel kinda left out and neglected. He says the Harris County Emergency Operations Center should be expanded to help out smaller counties too.

9. Expanding the role of municipal utility districts. If your local MUD isn't doing much about preventing flooding, Emmett thinks that needs to change, that their responsibilities should include both storm water management and flood control in cooperation with the flood control district.

10. Installing barriers at all the most dangerous flood-prone underpasses. After three people drowned at the same two underpasses in the Galleria area, the Texas Department of Transportation and Harris County worked to install manual barriers at two of the locations, and the Harris County Toll Road Authority also took steps since then to identify and place manual barriers at all its flood-prone locations. But Emmett said the county needs to go further and should consider making the barriers automatic gates. "When an HPD officer drives into high water and drowns, that tells you it can happen to anybody," Emmett said. He also added that vehicle manufacturers should be installing technology to alert drivers if water is too high – but acknowledged that was a little out of his reach.

11. Diverting more storm water around downtown Houston. Emmett said the flood control districts needs to re-examine all the major watersheds – prioritizing

the Buffalo Bayou – and develop comprehensive plans for diverting water away from downtown. He raised the idea of a canal or tunnel system. But, like he said, just an idea.

12. Offering a full-blown buyout and/or home elevation program to everyone in the 100-year floodplain. With unprecedented interest in the county's buyout program after Harvey, county officials have been scrambling to find funding sources to buy out homeowners who are "hopelessly deep" in the floodplain, where flood-mitigation projects just aren't going to make any difference. More than 3,000 homeowners have inquired about a buyout with the flood control district since Harvey. The problem, of course, is where the money is going to come from. Generally it comes from Congress, though sometimes Harris County just uses its own money upfront in order to get the ball rolling (it recently put \$20 million toward buyouts). Emmett said that officials need to get creative with funding sources, suggesting private funding, through social impact bonds, could be an option.

13. Creating stricter development rules in unincorporated areas. Emmett said that development plans need to be vetted more extensively, and that the law should require clear disclosure of the risk of flooding to homebuyers and renters.

14. Fixing up the dams. At least in the meantime, while waiting on much more significant funding to upgrade the Addicks and Barker dams, Emmett said the U.S. Army Corps of Engineers should at least clear out vegetation or dirt within the reservoirs in order to "restore the dams to first-class condition."

15. Giving Harris County ordinance-making power. Even though if unincorporated Harris County were a city it would be the fifth-largest in the country, Harris County doesn't have ordinance-making power. Also, Emmett said county government should receive some of the collected sales tax rather than just relying on property tax. "To continue to exclusively rely on the property tax is fundamentally unfair and unsustainable," he said. This is much more of a long-term shift, however, Emmett said.