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There's time to stop the next major disaster

There's time to stop next major disaster

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, HOUSTON CHRONICLE

Published 5:30 am, Sunday, May 22, 2011

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What would it be worth to be able to change the future — to erase an error of judgment that caused a major disaster? Could New Orleans have avoided the Katrina disaster? Would the Japanese do things differently relative to the earthquake, tsunami and nuclear power plants?

Such a question is relevant to Houston today. The most valuable and successful flood control investments ever made in the Houston region - the Addicks and **Barker Dams** and Reservoirs - are at risk of failure. If these dams were to fail, horrendous flooding would inundate much of west, southwest and central Houston. Yet, most of us are not aware that this threat exists, much less what can be done to protect these assets.

In July 2010, the **U.S. Army Corps of Engineers** released a report on safety concerns associated with these dams. In this study, the Corps concludes that a risk of "catastrophic failure" exists at the two dams under normal operational conditions.

The purpose of the Corps report was to present an interim plan setting out a strategy to reduce the risk of dam failure by reducing the amount of water that is allowed to be stored behind the earthen structures. If either Addicks or Barker Dam failed when water levels were high, stored stormwaters would erupt down Buffalo Bayou, inundating the Memorial Drive area and crossing Westheimer into the Brays Bayou watershed. Extensive damage would occur in River Oaks, the Central Business District and even the Texas Medical Center.

In the Corps report, Addicks and Barker were given the dam safety classification of "urgent and compelling," meaning that these are dams "where progression toward failure is confirmed to be taking place under normal operations, and the dam is almost certain to fail under normal operations within a time frame from immediately to within a few years without intervention; or the combination of life or economic consequences with probability of failure is extremely high." Notably, only six of 300 dams evaluated nationwide have been given this highest risk classification of "urgent and compelling."

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Addicks and Barker Dams and Reservoirs were constructed in the mid-1940s in response to calamitous flood events in 1929 and 1935. In 1937, our civic leaders showed vision by asking the **Texas Legislature** to create the **Harris County Flood Control District** to be the Corps' local partner in these dam projects. Unfortunately, 60 years later, due to residential and commercial development in the region, Addicks and Barker have been pushed beyond capacity. The reservoirs no longer can be operated as designed.

In order to address this issue, the Corps of Engineers has made repairs and has initiated longer term studies. In the meantime, they have set elevation limits on how much water can be stored. However, the response of our local and state governments appears to have been to continue business as usual. This is the critical failure that we should rethink today while we still can prevent a future disaster.

So what's wrong with business as usual? Further development west of Addicks and Barker on the Katy Prairie will worsen this bad situation by increasing the volume of stormwater entering these reservoirs. Yet, according to the Corps July 2010 memorandum,

there is no additional capacity in these reservoirs for the runoff generated by new development. Adding more water to a smaller pool simply does not work.

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The Army Corps has held public meetings with Houston residents living adjacent to these reservoirs, but the community dialogue must be wider. Our Houston community should be discussing the risk that we - as employers and employees, as potential victims, as voters - are willing to accept. Yet we are not.

Unfortunately, our governmental entities responsible for land development west of Addicks Reservoir seem to have ignored this Corps information. The **Texas Transportation Commission** recently voted to move forward with its plans to construct Segment E of the Grand Parkway in the drainage area of Addicks Reservoir, ultimately sending more runoff from its concrete and the development it will spawn. Similarly, Harris County has failed to enact development restrictions in response to this July 2010 memorandum.

Perhaps most importantly, none of these governmental entities have proposed any solutions. And there is at least one viable solution: We could buy and set aside large areas of the Katy Prairie west of Addicks and Barker Reservoirs as detention areas to hold additional flood waters, similar to the original thinking behind these two reservoirs. The Corps has stated that "the construction cost (for Addicks and Barker) of over \$4 million appears small when compared to the giant savings which have resulted." New flood protection in the undeveloped Katy Prairie could save billions in avoided flood damages.

Such a new project today would be a bold and far-seeing commitment. Much of the Katy Prairie is a wetland - a sponge that holds rainwater during wet times. A recent publication by Houston Wilderness identifies significant dollar benefits in keeping these lands undeveloped and intact. These natural wetlands west of Addicks and Barker protect us all and should be bought and set aside as protection to absorb and hold rainwater.

There is no reason why the city of Houston and Harris County should not come together and find the financial resources to implement this or a similar solution. Why not spend some of the city's drainage fee on this project? Why not spend flood control district tax money here? Such spending makes economic and ecologic sense and would help prevent the "catastrophic failure" of Addicks and Barker Dams.

We in Houston have a chance to address a major disaster before it occurs - to show vision like those who came before us - before we find ourselves wishing for the chance to undo an error of judgment.

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