

## Officials watching 'high risk' dams after Houston storms

April 20 2016, by By Juan A. Lozano



A person paddles through a flooded neighborhood, Tuesday, April 19, 2016, in Spring, Texas. Storms have dumped more than a foot of rain in the Houston area, flooding dozens of neighborhoods. (AP Photo/David J. Phillip)

Two aging dams deemed "extremely high risk" by the U.S. Army Corps of Engineers are at record pooling levels in Houston's west side after this week's torrential rainfall, but are working well and have undergone improvements in recent years, authorities said Wednesday.



The dams—at 50 percent capacity—are classified as high risk only because they're about two decades beyond their life expectancy and in a populated area, said Corps spokeswoman Sandra Arnold.

However, a Corps report issued on the dams in 2012 offered more worrying criteria for the classification, noting that such structures are "critically near failure or at extremely high risk under normal operations."

The National Weather Service issued flood warnings Wednesday evening for the fast-growing neighborhoods around the reservoirs behind the Addicks and Barker dams. The warnings were effective through Saturday afternoon. Water levels in the reservoirs are expected to crest this weekend

In the unlikely event that the dams collapse, downtown and the highly populated area in sprawling west Houston would likely see deaths as well as \$60 billion in property damage, said Richard Long, a project operations managers with the Corps.

But the current conditions are no reason to panic, he added. Improvements done the last few years have shored up the 70-year-old structures and an ongoing \$72 million construction project will greatly strengthen them.





From left, Simon Holden, brother Phillip and sister Brianna ride in an airboat as they are evacuated from their flooded neighborhood, Tuesday, April 19, 2016, in Spring, Texas. Storms have dumped more than a foot of rain in the Houston area, flooding dozens of neighborhoods. (AP Photo/David J. Phillip)

"The dams are in good condition," he said. "We have 24-hour surveillance occurring."

The monitoring of the dams comes as the Houston-area deals with the effects of heavy rain—18 inches in some spots—that walloped the area Sunday night and Monday. Creeks and streams getting runoff from the rain have continued to rise above their banks, prompting neighborhood flooding and additional evacuations on Wednesday by residents from homes and apartment complexes.

Officials said another person had died in the Houston-area flooding, raising the toll to eight.



Kim Jackson, spokeswoman for the Harris County Flood Control District, said crews assessing damage on Wednesday were still hindered by rain and floodwaters in some areas. Officials have so far catalogued about 1,000 homes with flood damage—a number she said "will go up considerably."

Long said it will take a long time to drain the reservoirs behind the Addicks and Barker dams in controlled releases. There is about two months' worth of water to get rid of. Each dam held about 100,000 acre feet of water on Wednesday.

The dams were constructed in the mid-1940s to collect excessive amounts of rainfall. The water is released downstream at a controlled rate, preventing flooding in downtown Houston and other urban areas to the east.



Residents are evacuated by airboat from their flooded neighborhood, Tuesday, April 19, 2016, in Spring, Texas. Storms have dumped more than a foot of rain in the Houston area, flooding dozens of neighborhoods. (AP Photo/David J.



Phillip)

A weather service statement says the water level in the Addicks Reservoir was measured Wednesday night at 101.4 feet. It's expected to crest at 103.2 feet, far surpassing the previous record for the reservoir of 97.46 feet set in March 1992. The water in Barker Reservoir was 93.8 feet and expected to crest at 97.7 feet, exceeding the March 1992 record of 93.6 feet.

While the dams are not expected to reach 100 percent capacity, part of the reservoirs are on public property, meaning that additional water that comes into the reservoirs from rivers and streams is expected to flow into surrounding public roadways and some subdivisions, possibly flooding a number of homes, Long said.

Harris County Judge Ed Emmett said officials are considering acquiring sandbags for deployment on "non-governmental land" behind the Addicks and Barker reservoirs due to the potential flooding of homes.

But he said the damage should be limited.

"I know people's nerves are on edge," he said. "There should be very few homes.

"We probably are, or certainly are past the worst of this. And we have to make sure we do the recovery right."

The Corps of Engineers' recent improvements on the dams include additional filters to control seepage, additional lighting and emergency power "to have around the clock ability to operate the dams and to ensure their inspections and function when we get pools like we're



having right now," Long said.

"From this one flood event ... the operations of (the dams) ... have prevented over \$3 billion in damage downstream of these projects," he said.

Despite reassurances by the Corps on the integrity of the dams, there still remains a worry the structures might fail, said Jim Blackburn, a Houston environmental attorney who in 2011 filed a lawsuit on behalf of the Sierra Club related to reducing runoff into the two reservoirs.

"If we lose Addicks and Barker, that will be absolutely catastrophic," he said. "And we should be doing as a community everything we can to protect them. They are the best flood control investments we have in this community."

© 2016 The Associated Press. All rights reserved.

Citation: Officials watching 'high risk' dams after Houston storms (2016, April 20) retrieved 18 July 2024 from <a href="https://phys.org/news/2016-04-high-houston-storms.html">https://phys.org/news/2016-04-high-houston-storms.html</a>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.