

Houston Survives Hurricane Harvey

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The CNN crews had already moved on to the next hurricane in Florida, but weeks after Hurricane Harvey had passed, parts of Houston were still under several feet of water. Harvey made landfall in Texas late on August 25, 2017, with Category 4 winds, devastating the small coastal towns of Port Aransas and Rockport. The storm then wandered across southeast Texas for a week. Parts of Houston received as much as 50 inches of rain in three days. The Beaumont area to the east saw similar amounts.

Houston is at high risk for flooding because of the natural topography of the region—a flat coastal plain drained by a network of shallow tributaries known locally as “bayous.” Nevertheless, the water comes up quickly and goes down just as quickly. Even in Harvey most of the floodwaters drained off within a day or two after the rain stopped. The exception—still underwater many weeks later—was a large part of West Houston near two large flood control reservoirs or detention ponds. Harvey’s rains quickly overwhelmed these normally dry reservoirs, and the Army Corps of Engineers was forced to release large amounts of water into Buffalo Bayou to prevent failure of the earthen dams. Flood control engineers made some difficult decisions, guaranteed to please no one. The additional water from this measured release worsened flooding downstream while the slow pace of the release worsened flooding upstream, behind the dams. The lawsuits have already begun.

As in the rest of the city, some of the historic areas were damaged while others survived unscathed. Houston was founded in 1836 on the banks of Buffalo Bayou, so the oldest buildings in the city are located downtown within several blocks of the bayou. In this low-lying area, water filled the basement and first-floor levels of these historic commercial buildings.

North and west of downtown are some late nineteenth century residential neighborhoods such as the Old Sixth Ward Historic District and nearby First Ward. The Sixth Ward is one of the city’s few intact neighborhoods of nineteenth century Victorian residential buildings. Farther north is the Woodland Heights and the larger Houston Heights neighborhood, full of large Craftsman homes from the early 20th century. Because of their higher elevation (hence the name “Heights”), they seem to have done well in the storm.

Houston has always placed more importance on supporting its cultural institutions than on preserving its historic architecture. The city’s Theater District, home to its performing arts, is located downtown in the blocks along Buffalo Bayou. Twelve days after the storm, crews were still pumping water out of the Wortham Center, home to the Houston Grand Opera and the Houston Ballet. Performances had been cancelled at least through October and probably beyond. Rising waters also devastated the Alley Theater, an important repertory theater. There, architect Ulrich Frantzen’s award-winning Brutalist building from 1968 was severely damaged. Jones Hall, home to the Houston Symphony, is farther from the bayou and had relatively minor damage. The city’s leading institutions for the visual arts, the Museum of Fine Arts-Houston and the Menil Collection, are located in the Museum District, several miles south of downtown, and were spared the worst of the flooding.

Harvey was also kind to the historic coastal city of Galveston, fifty miles south of Houston. Its nineteenth-century commercial district, known as the “Strand,” and the nearby Victorian residential neighborhoods saw heavy rain and street flooding but little serious damage. This was a relief after Galveston took a direct hit from Hurricane Ike in September 2008. The city has only recently recovered from that storm’s devastation.

Local government in Houston and surrounding Harris County has reacted to Hurricane Harvey with uncharacteristic speed. Calling Harvey a “game-changer,” the head of the county government promptly called for a re-examination of the county’s flood control strategy and an allocation of additional resources to the problem. The county is now planning to float a \$1 billion dollar bond issue to pay for the flood control improvements, even though it will require a tax increase to pay it off. Among the ideas being considered for the region is a system of levees and other fortifications known as the “Ike Dike.” First proposed after Hurricane Ike, its focal point is a massive set of flood gates that would close off the entrance to Galveston Bay during a storm. It would protect the ports of Galveston and Houston and the huge complex of refineries and petrochemical plants on the bay. A similar set of gates has long protected the Netherlands from the North Sea. The multi-billion dollar cost of the Ike Dike has deterred tax-averse Texans, but they are now taking another look. The flooding from Harvey was unprecedented, and now they are living in a new world.