Flooding in New Orleans points to climate change, poor infrastructure

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New Orleans experienced flooding on Saturday across large swaths of the city after a heavy rainstorm passed over it.

The system dumped up to 10 inches of rain in some portions of the city over a three-hour span. The event has demonstrated once again that New Orleans's infrastructure is in utter disarray, once again leaving the city unprepared for the year's hurricane season, which began on June 1 and officially ends on November 30.

Flood waters reportedly have damaged structures and vehicles in Mid-City and Treme, as well as in Lakeview to the North. All three neighborhoods are located in some of the lowest areas of the city, in large part comprising working class neighborhoods. The flooding shut down major roadways, including multiple lane closures on the city's interstate system. Many areas of the city still remained flooded into Sunday, with emergency responders and city officials towing abandoned vehicles and engaging in cleanup operations. Luckily, no deaths were reported.

Though officials expected rain for both Sunday and Monday along with the possibility of additional flooding, the city's residents were spared from any further disaster. Mayor Mitch Landrieu and other city officials dragged their feet on requesting an emergency declaration from the Louisiana state government over the weekend, with Landrieu instead urging residents to stay clear of flooded areas and "clean out" any debris in their catch basins ahead of future rainfall.

Saturday's flooding was the second such event in under a month. More than four inches of rain fell over the course of an hour on parts of New Orleans the afternoon of July 22, after which many streets in the Mid-City area were flooded as city pump systems were unable to cope. The flooding caused many businesses to close, and major intersections were shut down. The Louisiana State University Dental School was also forced to close due to basement flooding.

The city of New Orleans, which is located in a subtropical climate and built predominantly on drained swampland, is highly prone to flooding, particularly in poorer and working-class neighborhoods such as Gentilly, New Orleans East and the Lower Ninth Ward. Excepting thin strips of elevated land along the natural banks of the Mississippi River to the south, where generally wealthier neighborhoods and the city's downtown and French Quarter district are located, and along the shore of Lake Pontchartrain to the north, most of the city's neighborhoods lie significantly below sea level. This creates the infamous "bowl" effect that resulted in 80 percent of the city being flooded for weeks after widespread levee failures during Hurricane Katrina in 2005, killing roughly 1,500 people and displacing hundreds of thousands.

Little has been done, either before or since Katrina, to adequately protect this major American city from catastrophic flooding. Flooding is so common that it has virtually become a part of the daily life of the residents of the city and the region. Even during thunderstorms that are moderate by the standards of the region, residential streets and highway underpasses throughout the city frequently become impassable and basements often flood.

Because of the city's "bowl"-shaped geography, rainwater must be pumped out of the city by 24 pump stations operated by the city's Sewerage and Water Board (SWB). This pump system, which is more than 100 years old, can remove one inch of rain over the course of the first hour after being activated, and a half-inch over each subsequent hour. Initial claims that the pumps were fully operational during last week's storm were contradicted today by an admission from the

SWB that 7 of the 121 pumps, which are distributed throughout the 24 pump stations, were not operating during the flood. However, they claim that this had no significant impact on drainage of floodwaters

In Sunday's press conference, SWB Executive Director Cedric Grant dismissed any fault with the city pumping system. "This is the capacity that we have," he told reporters, "which is as much capacity as any pumping station in the country." Grant's remark is unintentionally revealing, making clear that not a single American city has infrastructure capable of dealing with such heavy rainfall. He went on to state that the rains are part of the current "climate change era" and that any upgrade to the city pumping systems would cost billions of dollars in funds the city does not have.

In reality, there are more than enough resources available to prevent flooding in New Orleans and other major cities. However, existing systems have suffered from decades of neglect and decay as successive administrations at the local and federal level have diverted funds to finance the profiteering of American capitalism. The decades-long postponement of planned upgrades to the city's levee system, for example, led directly to the disaster of Katrina, a disaster which was entirely preventable.

In the aftermath of the near-destruction of New Orleans, the ruling class did not respond with a massive infrastructure program to rebuild the city and provide housing and good-paying jobs to workers whose lives were destroyed in the disaster. Rather, they seized upon the "opportunity" to convert the city into a test bed of privatization and pro-market restructuring, most notably with mass layoffs of public school teachers and the total conversion of the city's public schools into privately run charters. Today, nearly 12 years after Katrina, tens of thousands of residents have yet to return.

The most recent flooding event is yet another expression of the growing threat of climate change. August of last year was the warmest month ever recorded, following July, the second warmest month ever recorded. This is significant because higher air temperatures increase the capacity of the air to store water vapor, with the greater potential downpour in the event that water vapor turns into rain.

This new disaster comes only one year after the catastrophic flooding in and around the state capital of Baton Rouge last August. It occurred when a slow-moving low-pressure storm system dumped as much as two feet of rain throughout East Baton Rouge, Livingston and St. Helena parishes over the course of 48 hours.

The system resulted in roughly two feet of rain being dumped on a region of 800,000 residents over two days. Massive flooding, exacerbated by inadequate and neglected drainage, killed 13 and rendered many thousands homeless. Some 146,000 homes were damaged by the flooding, many of them significantly. More than 30,000 people had to be rescued, many from their vehicles as they sought to flee the flood zone. More than 11,000 people were jammed into shelters that were hastily made available by local authorities. Tens of thousands more were without electric power, and repair efforts were hampered by inundated roads. The agricultural impact alone of the flood was at least $110 million, according to the Louisiana State University AgCenter.

The worst flooding happened in predominantly rural areas without adequate access to emergency services. The greatest rain volumes were recorded at White Bayou in Zachary, with more than 26 inches and in Livingston, with more than 25 and a half inches. In Tangipahoa, East Feliciana, Washington, Ascension, Lafayette, Iberville and St. Martin parishes, where flooding occurred less, the rainfall amount was equal to a 100-year event. However, it is widely acknowledged by climate scientists that such severe weather events are likely to become much more common as a consequence of man-made climate change.