Cityscapes: A Geographer's View of the New Orleans Area

The Katrina of the Nineteenth Century was called

Sauve's Crevasse

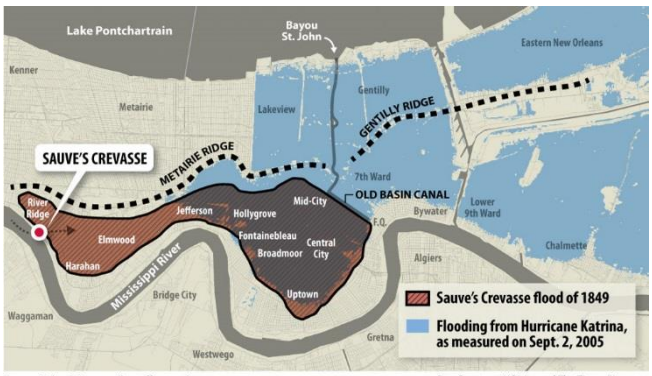
by Richard Campanella *New Orleans Times-Picayune* InsideOut section, June 13, 2014

This month marks the 165th anniversary of what, until 2005, had long been described as the worst flood in New Orleans history. It's worth remembering today for a number of reasons, starting with the fact that, like Hurricane Katrina and most other major deluges here, it began with a levee failure. Locals called them "crevasses" back then -- "the name given to a fissure or breaking of the levée," as one journalist explained in 1823, "almost uniformly produced by neglect." Minor crevasses happened regularly along the lower Mississippi, and the more destructive ones tended to get named for the nearest plantation or settlement, such as the Macarty or Carrollton Crevasse of 1816.

In the spring of 1849, rising waters began to undermine the levee fronting Pierre Sauvé's sugarcane plantation in what is now River Ridge. Sauvé was not alone in this predicament; other planters eyed their softening levees worriedly. Those lining the Fortier parcel in present-day Waggaman on the West Bank ("Right Bank" in those days) were the first to fail. On April 17, they unleashed a "rush of water (of the) most awful destructive appearance" with a "noise...heard from a long distance." Luckily, it inundated mostly uninhabited lands and flowed harmlessly out Bayou Verret and into Lake Cataouatche.

Sauvé's embankment on the East ("Left") Bank had long been tenuous, even under natural conditions, because it lay on the river's cutbank side. There, powerful currents leaned leftward as they worked their way around a sharp meander, scouring bankside sediments and sometimes sending a chute of water onto the land. For this reason, a natural distributary -- bayous Metairie, Gentilly, and Sauvage, the last of which still exists -- had for centuries flowed out of the river in this vicinity and wended eastward, forming the Metairie-Gentilly Ridge.

On May 3, Sauvé's levee finally gave way. Lunging river water quickly expanded the crevasse to 150 feet long and 6 feet deep. The torrent destroyed everything in its path and accumulated in the swampy lowlands known today as Hoey's Basin, around today's Earhart Expressway and Jefferson Highway. The flood that would become known as Sauvé's Crevasse had begun.



Because the Metairie Ridge (today's Metairie Road) restrained the floodwaters from flowing northward toward Lake Pontchartrain, they instead spread eastward into present-day Hollygrove, Fontainebleau, Broadmoor and Mid City, most of which were within Jefferson Parish and undeveloped at the time.

On May 8, waters reached a level high enough to subsume the New Basin Canal and its guide levees (now the Interstate-10 corridor near Xavier University). Unlike those of the Fortier Crevasse, Sauvé's waters crept into urbanized areas, past Broad, Claiborne and Dryades streets and into New Orleans city limits, which at that time was at Felicity Street.

The track bed of the present-day St. Charles Streetcar Line helped block the water from rising too far into Uptown, although some did make it past St. Charles Avenue (aptly called Nyades at the time, the water nymphs of Greek mythology) between Washington Avenue and Upperline Street, reaching nearly to Magazine Street.

Downtown, floodwaters from Sauvé's Crevasse, which lay 15 miles away, flooded upper North Rampart, Burgundy, Dauphine and Bourbon streets. But the water went no farther east than present-day Lafitte Street, because, unlike those of the New Basin Canal, the guide levees of the Old Basin (Carondelet) Canal, now the Lafitte Corridor, successfully blocked them.

On June 4, a Daily Picayune journalist climbed up the St. Charles Hotel and described the view from the 185-foot-high cupola. "Far away (to) Carrollton...to the lands in the vicinity of the Sauvé Crevasse, the surface of the country on the left bank of the Mississippi is one sheet of water, dotted in innumerable spots with houses. ...The streets in the Second Municipality (above Canal Street) are now so many vast water courses (issued) from the bosom of the swamp. ... New Orleans (looks like) the city of Venice." Had he looked farther, he would have seen additional flooding from another crevasse at English Turn, from the still-open Fortier Crevasse, from a break in the Kenner levee and from weak spots at Bonnet Carre, which would later rupture.

New Orleans was inundated by Mississippi River waters in the spring of 1849. This oil painting by Elizabeth Lamoisse shows Canal Street at the time of the flood. "Landscape" by Elizabeth Lamoisse, 1848 - 1849, from the Louisiana State Museum.

The year 1849 was to 19th-century Louisianians what the year 2005 was to us. Volunteers heroically plugged Sauvé's Crevasse on June 20, but not before 220 city blocks, 2000 structures and 12,000 residences were flooded.

Within a few days, water receded out the two canals and Bayou St. John or percolated into the soil. Displaced citizens returned home to clean up, and the city approved a special tax to pay for repairs to damaged infrastructure. The deluge also left behind a "deposit of alluvion (with) vegetable and animal matter," worrying officials that an epidemic would follow. It did not help that the crevasse threatened to reopen repeatedly into early 1850.

"May heaven avert from us such another catastrophe!" implored the Picayune journalist at the end of his report. "May our citizens, in their foresight and their intelligence, devise some means of raising an insuperable barrier to another inundation from (the Mississippi River)!"

It's informative, 165 years later, to view the responses to that call for help through the lens of Katrina. Bad as it was, the 1849 deluge mostly affected cane fields and woods. Although planters took a hit with crop losses, only about one-tenth of the flood footprint actually inundated populated areas. Likewise, only around 10 percent of the New Orleans population found water in their homes, and rarely was it deeper than a couple of feet. The very deepest inundations measured 6 feet, and only in two small areas.

Readers know all too well that these figures were much, much worse during after Katrina.

And whereas roughly 1,500 people died in 2005, I know of no deaths directly attributable to Sauvé's Crevasse. Contrary to officials' concerns, the deluge may have actually saved lives. Only months earlier, cholera plagued the populace, but floodwaters and heavy rains had washed away filthy stagnant pools, and as had happened in 1816 after the Carrollton Crevasse, death rates actually declined.

The environment also benefitted, as the flood replenished the soil with new fresh water and sediment, two resources needed by a delta to sustain itself against subsidence and the encroaching sea.

But, to Louisianians at the time, a levee had failed and floodwaters caused deprivation and loss. Understandably, they wanted improvements, as did other Americans settling along the Mississippi River. Much like Katrina, Sauvé's Crevasse became a rallying cry for better levees, and its high-water line would serve as a local benchmark for subsequent protection. A state law a few years later mandated that the levees along the New Basin Canal "shall be raised to the level of the high water from Sauvé Crevasse of 1849, so as to protect the city from inundation from any future crevasse."

Regionally, Sauvé's Crevasse and adjacent breaches added momentum to a congressional act passed a few months earlier in 1849, itself having been motivated by Mississippi valley-wide floods in 1844. The Act to Aid the State of Louisiana in Draining the Swamp Lands ceded federally owned swamps to the state so it might encourage their reclamation and economic exploitation to generate revenue for levee enhancements along the Mississippi.

On the heels of the 1849 disasters, the so-called "Swampbuster Act" was expanded in 1850 to 12 additional states in the Mississippi Valley, plus two more elsewhere in 1860. Over the next century, this law would lead to the reclamation of 65 million acres of wetlands, producing wealth but also luring people into flood plains and setting up for inevitable flood losses.

In Louisiana, the act helped pave the way for extractive and developmental activity in wetlands and marshes, which created jobs and revenue but also environmental losses through navigation, oil and gas canal excavation and the impounding and drainage of swamps.

Sauvé's Crevasse and similar incidents also informed the federal government's ongoing effort to master control of western waterways. Research conducted in the 1850s primarily for navigation improvements eventually led to the creation of the Mississippi River Commission in 1879 and federally sponsored levee improvements in later decades. After the searing lessons of the Great Mississippi River Flood of 1927, the Flood Control Act of the subsequent year cemented the federal government's commitment to a massively augmented flood-control system complete with spillways and reservoirs -- but without liability should they fail.

The system was a success, and today, New Orleanians no longer suffer the sort of riverfront crevasses that terrorized their ancestors. But, as a result of the wetlands damage and leveeing of the Mississippi partly attributable to post-Sauvé responses, plus later oil, gas and navigation canal excavation, swamps and coastal wetlands have deteriorated while seawater creeps upward and inward.

In essence, over the past two centuries, we have transferred the source of the flood threat from high springtime rain and snow melt flowing out the Mississippi River, to late-summer hurricanes blowing in from the Gulf of Mexico.

Whereas our ancestors would have been terrified by the extraordinarily high river stages we saw in 2011, we rested assured that our river-control system would succeed, and it did. But whereas our ancestors generally did not worry about surges from gulf storms, we nearly lost our city to them in 2005, when our hurricane protection system failed.

In silent testimony to this irony, the site of Sauvé's Crevasse, where rapids tore through 165 years ago, is today a pleasant residential subdivision, situated well above sea level and completely unflooded by the 2005 deluge.

Traffic makes its way along Jefferson Highway near the intersection of Sauve Road in River Ridge Tuesday, June 10, 2014. In the spring of 1849 the Mississippi poured through a crevasse at Pierre Sauve's plantation inundating much of New Orleans and Jefferson Parish. (Photo by Brett Duke, Nola.com | The Times-Picayune)

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