

5 REASONS CAPE GIRARDEAU IS WEATHERING FLOODS BETTER THAN EVER BEFORE

by Nicolette Brennan

Floodwaters are dangerous and destructive. Anyone with a flooded home, road, car, or property will tell you that flooding is still very much a big problem. However, for most of Cape Girardeau's residents, flooding goes largely unnoticed except for what they see on Facebook feeds and on the news.

That is in stark contrast to 30 years ago, when a flash flood could mean life or death for residents and shoppers in the middle of town. Cars were swept away from midtown. The City lost people as they tried to get home. It is important to appreciate the real danger of flood waters no matter how many public improvements are made.

To date, there are five big reasons floods are not as threatening to as many people in Cape as in years past.

#1 - FLOOD BUYOUTS

"We weren't there. We got out," said one resident of the flood of 2002. Following back-to-back monster floods in Cape Girardeau in the mid-1990s, the City Council took aggressive action to move flood-prone households to higher ground. The following was published by the State of Missouri Emergency Management Agency in 2002:



Cape Girardeau learned the hard way what the term "100-year flood" means. In 1993, this historic Mississippi River town (36,625 pop.) watched with horror as floodwaters slowly crept up. As the waters rose, so too did the number of volunteers who came from across the nation to help build sandbag levees around the threatened homes. After the floodwaters damaged 160 homes in Cape Girardeau's flood plain, volunteers stayed to help locals clean and repair the mud-drenched homes.

At a fall 1993 meeting, the Cape Girardeau City Council considered pursuing a buyout. However, what were the chances of the City experiencing another 100-year flood? What was the rush in removing homes and families from the flood plain? Two years later, the City found out. In the spring of 1995, the river began rising again. This time, the flood came fast. On

May 24, 1995, the river crested at 46.7 feet, more than 14 feet above flood stage, and just shy of the highest recorded crest of 48.5 feet on Aug. 8, 1993. The City had experienced two 100-year floods in a span of three years. As locals learned, a 100-year flood does not mean that such a catastrophic event is likely to happen once every 100 years. Rather, it means that every year, there is a 1 percent chance of such a flood. Over the course of a century, a flood of such magnitude is certain. By May 28, 1995, 100 homes had flooded in Cape Girardeau's

flood plain. Many of them were the same properties that had flooded in 1993. The difference in 1995 was that no one said it would not happen again.

The search for a permanent flood solution began in earnest. With a creative cost-share between federal, state and local governments, as well as charitable nonprofits, the city of Cape Girardeau eventually bought 114 properties in the flood-prone areas and relocated the residents to safer neighborhoods. After demolishing the acquired structures, the land was deed-restricted for open space. Now, the only cost associated with the land is mowing. Best of all, the vast majority of people who lived in the homes and worked in the flood plain neighborhoods are no longer living in harm's way.

In May 2002, the Mississippi River at Cape Girardeau crested at 45.7 feet, its

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Public works crews keep catch basins, grates and driveway pipes clear of debris.

third-highest level after the 1993 and 1995 events. this time, the flooding affected only eight homes.

"It was almost a non-event," said Doug Leslie, director of public works for the city of Cape Girardeau. "We didn't have to scramble around to secure our water supply. We didn't have to sandbag in more than three or four places. We didn't have weeks of cleanup to go through either. I think we had one dump truck full of sandbags this year compared to the hundreds of dump truck loads in the 1993 and 1995 floods." The sandbags were not necessary because almost all of the flood-prone homes in Cape Girardeau had been bought out and razed.

"It would've gotten us this year," said Woody Sadler, who lived for 47 years with his wife Virgie in Cape Girardeau's flood plain before participating in the buyout program. "A lot of homes and people would've been flooded again. But we weren't there. We got out." For more about these programs, visit www.fema.gov.

Cape Girardeau was among many cities responding with a flood buyout program to help individuals and families move to higher ground and repurpose the flood-prone areas into parks and green space. Households were relocated and buildings were demolished for a cost exceeding \$2.7 million. Though the City coordinated the effort, the City's financial share of the cost was 3 percent, with the majority of the funding coming from the FEMA flood buyout program. State funds and grants made a major impact in addition to support from the Salvation Army of St. Louis and Interfaith Disaster Response.

2 - LASALLE BASIN, CAPE LACROIX CREEK AND WALKER BRANCH

Before the creeks were channeled as they are today, flooding, particularly flash flooding, was a severe threat to midtown. The Southeast Missourian reported that in 1986, 6.64 inches fell quickly causing "the most costly and damaging [flood] in Cape Girardeau's history." The most devastating part of the story, "two local residents, a 53-year-old man and a woman in her 70s, were apparently just feet from safety when the rushing water pulled them to their deaths. Their truck had stalled in the rainwater and they were attempting to get to their nearby home, wading through the flooded streets in the dark. They never made it." Read more on their website at <http://www.semissourian.com/story/1727746.html>.

Today, the Cape Lacroix Creek and Walker Branch channels so much of the area's stormwater safely away from homes and businesses. To the far north, the 100-acre Lasalle Detention Basin and Dam controls the flood of water pouring into the City's creeks. Lacroix Creek is a scenic companion to the aptly named Lacroix Recreation Trail, an almost 6-mile mixed-use trail that connects a Missouri Department of Conservation site on the far north of the city, to the Shawnee Fields and Sports Complex site on the City's far south. Protecting midtown actually starts miles away to the north.

#3 - VOTERS

The Cape Splash Family Aquatic Center gets a lot of attention for being the signature project of the Parks

and Recreation and Stormwater tax approved by voters in 2008. In fact, most of the Parks and Recreation projects from the tax initiative have been very visible. Getting less attention, but certainly no less deserving, is a short list of neighborhood stormwater projects. By focusing on street access for emergency vehicles, erosion-control and increased capacity, the city of Cape Girardeau identified 12 projects. Of those, 10 projects have been completed and each was completed under budget. Some of the savings have been put toward moving a railway this summer to make room for a Corps of Engineers' project to improve floodwall drainage. The remaining two projects that are on hold affect Arena Park, site of the SEMO District Fair and many other large events.

Voters also approved two ballot issues in 2011 that brought a new wastewater treatment facility online in 2014. During wet weather events, the City would bypass the treatment plant because it only had a 7 million gallons per day (MGD) capacity. When Missouri Department of Natural Resources' regulations compelled the City to upgrade wastewater treatment, sinkholes also plagued the area of the original site, making expansion unfeasible. The new facility has a capacity of 11 MGD (dry weather) and 50 MGD (wet weather, peak flow). All wastewater will be treated per state regulations. In addition to regulatory compliance, the increased capacity will position Cape Girardeau for residential growth and economic development.

A 1996, 1/4-cent sales tax also funded water improvements, including a project to transition the City to well water following 118 years of relying on the Mississippi River to provide fresh water to the community. It took 17 years of research and design, but the result was better water for Cape Girardeau and fewer issues associated with flooding.

#4- FLOODWALL AND PUMP STATIONS

Cape Girardeau's floodwall is as fun as it is functional. Among the star attractions downtown, Riverfront Park is lined by the floodwall that is covered in state and local murals and portraits. More importantly, the floodwall is a part of a system that provides riverfront protection against a 180-year flood of approximately 54 feet on the gauge.

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The floodwall, numerous drainage systems, two pump stations, and earthen levees work together spanning nearly 23 football fields to surround the downtown district, the casino in the north, to the performance campus near the Bill Emerson Memorial Bridge, and connecting Cape Girardeau and Illinois, in the south.

In 2008, the ownership, operation, and maintenance of the floodwall and levee system was transferred to the city of Cape Girardeau. Prior to 2008, the North Main Street and Main Street Levee Improvement Districts, funded by property taxes at the time, operated the system. Productive partnerships between the former Levee Districts, the City, the U.S. Army Corps of Engineers, local businesses, and local property owners have provided for the continuing success of the Cape Girardeau Flood Protection System. One of the pump stations was recently dedicated to its former operator, Andy Juden of Cape Girardeau.

#5 – PEOPLE POWER: INSPECTIONS, MAINTENANCE AND RESPONSE

A combination of people and technology check and monitor more than 800 locations each rain event. SCADA systems monitor key creek levels, basins, and rain gauges across the City. Public works crews keep catch basins, grates and driveway pipes clear of debris. They maintain 200 miles of storm water facilities and more than five watersheds throughout the year, while mowing 44 detention basins and maintaining creeks, channels, and various culverts and piping.

During the record-setting 2016 New Year Flood, the whole city entity came together with agency partners to coordinate response, services, and information. In the emergency operations center, the conversation was as focused on tasks at-hand, as it was on how it “used to be.” Maintenance workers, firefighters, police, engineers, and other employees recalled all of the rescues, the sandbags, and the problems. The change is a testament to

the power of public investment, sound management, and hard work.

CONCLUSION

The danger of floodwaters and the devastating effects it can have on property can not be overstated. City officials are proud of work on these issues, but recognize the awesome power of Mother Nature’s forces. Officials hope public awareness of “turn around don’t drown” and other safety messages have helped curb the number of dangerous flood-related incidents. It is important for everyone to remain mindful of flood conditions. □

Nicolette Brennan is a passionate supporter of open, accessible government with degrees in both mass media and information technology. As the city of Cape Girardeau’s public information manager, Nicolette oversees website activity, social media, announcements, and facilitates media access to officials and information.