

Oklahoma Mitigation Success Stories



(Guthrie, Oklahoma):

The City of Guthrie is a small community in central Oklahoma located along Cottonwood Creek. After repetitive flooding, the citizens and local officials said enough was enough. A comprehensive flood hazard mitigation plan that detailed a downtown rehabilitation and flood mitigation project outlined a multi-year project combining historic rehabilitation with acquisition and demolition involving 100 structures. Guthrie has also prevented future development near the creek by acquiring land and converting it to recreational space. This was all accomplished with a grant from the Department of Commerce. The City's priority was and is: economic development, historic preservation, tourism and flood mitigation.

(Miami, Oklahoma):

Another good example of innovative, sustainable thinking can be found in Miami, Oklahoma. This is a town of about 13,000 on the banks of the Neosho River and Tar Creek in northeast Oklahoma. With the occurrence of repeated flooding, the residents decided to relocate outside of the floodplain rather than construct levees. Citizens chose to work with the river rather than attempt to control it. EM Director, Terry Durborrow, applied for HMGP funds to acquire and demolish 10 structures under DR 1058. Additional funding is being applied for under DR 1355.



On May 3, 1999, more than 70 tornadoes tore through Oklahoma.

As a result of these tornadoes, 44 persons died, and almost 800 were injured. The State of Oklahoma launched an initiative to promote and support the construction of storm shelters in homes. The initiative was the first large scale effort to build thousands of safe rooms through a rebate program and its success is a direct result of the involvement and strong support of the Governor of Oklahoma and the participation of partners in industry, business, government and the private sector. Thousands of safe rooms were built and although funding for this rebate program has ended, the initiative continues to result in the construction of safe rooms throughout the State through #1465 and #1355.



The Oklahoma Safe Room Initiative continues through Project Impact and HMGP. The city of Lawton and Logan County are constructing over 1000 shelters to protect their citizens. The Chickasaw Nation is building shelters for over 400 in their area. Through the USDA, citizens can apply for a 1% interest loan to build a safe room or shelter. Following the May 8, 2003 tornado disaster, a \$3.6 million HMGP project will acquire approximately 1800 more shelters for the citizens of Oklahoma.

(Moore, Oklahoma):

Above ground saferoom: Don Stanley and his family are no strangers to storms and tornados. Their first home was hit twice by tornadoes, in October 1998 and then again on May 3, 1999, when it was destroyed. In December 2000, the Staley's new home was ready in Moore, Oklahoma. Shortly after moving in, they had an above ground safe room constructed on the back patio. When the warning sirens sounded on Thursday, May 8, 2003, Don along with his dog and two cats took shelter in the safe room. When he later emerged from the shelter, he found his house in shambles with the roof ripped off.

This house was among the more than 300 homes destroyed in the City of Moore, Oklahoma. Moore also was hit by a severe tornado in May of 1999, which claimed 44 lives; there were no deaths in 2003. The absence of fatalities is being attributed to community preparedness, improved early warning systems and the many safe rooms and shelters that have been built since the last tornado. Mr. Staley summed it all up, “The safe room saved my life, it came through with flying colors. It’s worth a million bucks to me.”



(Moore, Oklahoma):

In-Ground Saferoom: Charles Atchley and his wife escaped unscathed after the 1999 Oklahoma tornado, but decided not to take their good fortune lightly. They took advantage of the tornado initiative (\$2,000 rebate) and installed a belowground safe room. During the tornado of May 8, 2003, which struck Moore, Oklahoma, Mr. Atchley took shelter in his safe room along with his three grandchildren. When the storm passed, his family left the shelter, safe and sound. Mr. Atchley said the storm shelter gives him “peace of mind” that he wouldn’t trade for anything.”

(Oklahoma):

Below Ground Saferoom: The Price family has lived in Oklahoma for many years. Severe storms and tornadoes are frequent occurrences in the area and are a cause of great anxiety for the residents. Twenty seven years ago, Mr. Price had a below ground storm shelter installed in the backyard. On May 9, 2003, Mrs. Price heard about the approaching storm on TV. A tornado watch was in effect. Mrs. Price described the sounds of the storm as a lot of noise like rocks hitting the door of the shelter and a loud roar. When they opened the door, debris had blown and blocked visibility to the house and the power poles were all down. There was some roof and window damage to the Price home and the car was damaged. “Fifteen people walked out of the shelter without a scratch. I don’t have one thing in this house worth a life. I feel safe in the shelter” stated Mrs. Price. She is going to give tornado shelters as a lifetime gift to each of her four children.

(Porum, Oklahoma): Public School Saferoom

In September of 2002, Porum Public Schools requested a grant through the Hazard Mitigation Grant Program (HMGP) under FEMA 1355-DR-OK to build an above ground storm shelter that would hold approximately 700 people. The grant was approved in March of 2003 and construction began on the safe room, along with a new gym and auditorium. The project was completed on time and closed out the 2nd quarter of 2005.

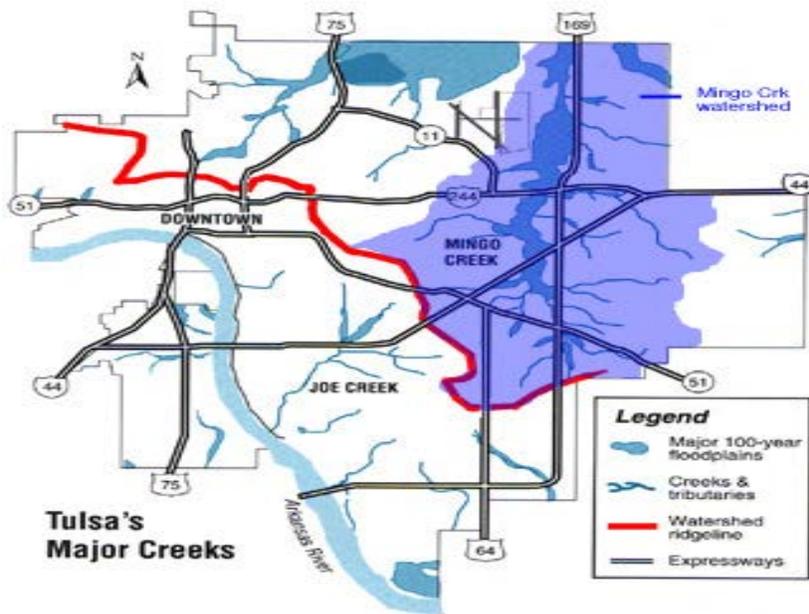


(Skiatook, Oklahoma):

The river overflowed the banks of the Bird Creek Basin and inundated Skiatook in 1985, 1986, 1988, 1990, 1993, and 1995. The flooding affected the city of about 5000 people. In a referendum after the flood, the people of Skiatook decided they would not try to rebuild back in the same path of the flooding. They voted to relocate to higher ground. In 1998, City Manager Eric Wiles applied for HMGP funding, to acquire and demolish 19 structures, completing this project in May 2002. This project was also incorporated into a FMA grant to include several additional structures.

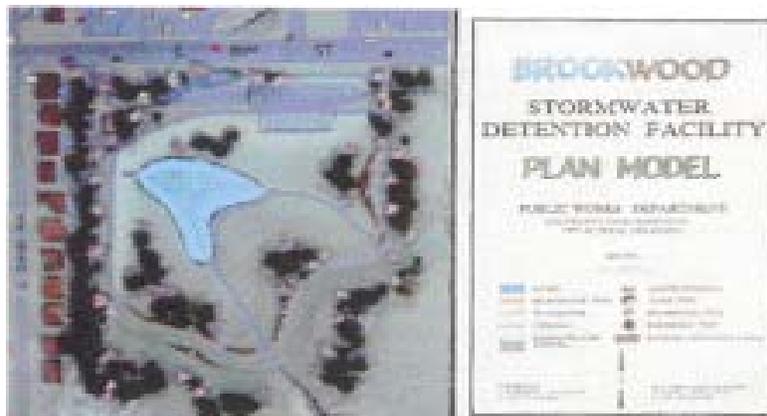
(Tulsa, Oklahoma) Mingo Creek Greenway Corridor:

Mingo Creek Basin in Tulsa, Oklahoma had caused over \$216 million in flood damage since 1959 and \$180 million in property damage and the loss of five lives in 1984. Plans designed to control flooding were developed. The City of Tulsa retained R.D. Flanagan & Associates to review the designs, work with the U.S. Corps of Engineers and to develop and refine an alternative plan sensitive to the ecological, visual and cultural needs of the community. This effort resulted in the development of an open multi-jurisdictional, multi-objective design process that changed the way drainage and flood control facilities are planned and designed.



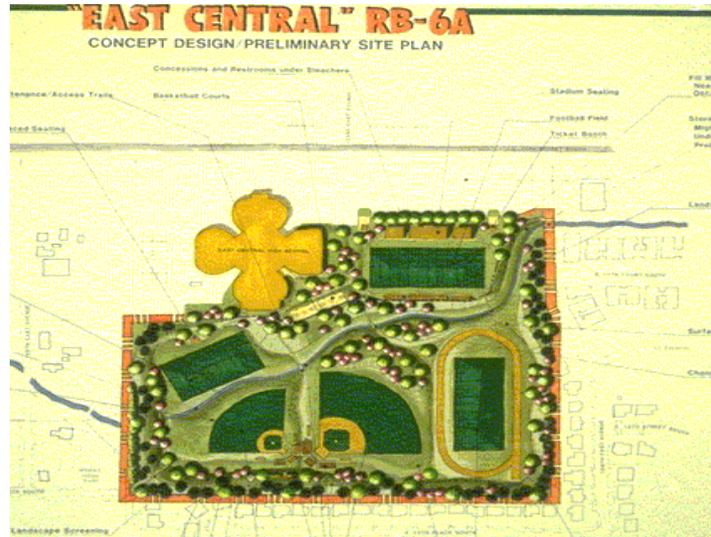
(Tulsa, Oklahoma) Vensel Creek Master Drainage Plan:

R.D. Flanagan & Associates was retained by the Engineering Department, City of Tulsa, to develop a process for the comprehensive planning of drainage basins within the city. The project included performing a pilot study on a developing basin in south Tulsa and development of a standard planning format for subsequent studies. Since the Vensel Creek Trail Plan, the City of Tulsa has completed master drainage plans on all drainage basins and multi-use trails within its jurisdiction of over 150 square miles. Detailed design and implementation plans were developed for the Brookwood Detention Facility. This plan involved extensive citizen participation and resulted in a park-like facility with a permanent water feature, landscaping and trails.



(Tulsa, Oklahoma) Cooley/Tupelo Corridor Plan:

R.D. Flanagan & Associates was the design team leader in a consortium of planners and landscape architects retained to develop multi-use plans and detailed designs for eight regional storm water detention facilities in the Cooley Creeks drainage basins. The drainage basins are major tributaries to Mingo Creek in eastern Tulsa. The Cooley Lake and Sampson Lake sites were designed to serve as passive recreation facilities with a permanent water feature and trail systems.



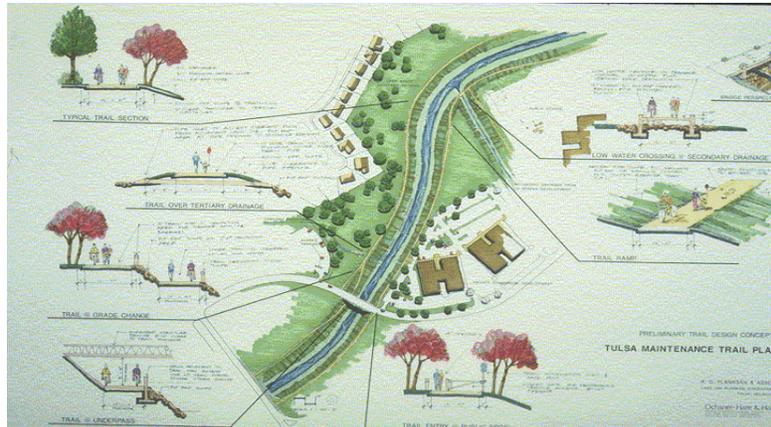
(Tulsa, Oklahoma) Mooser Creek Greenway Corridor:

R.D. Flanagan & Associates was selected as the chief planner in assisting the City of Tulsa and the Rivers, Trails, and Conservation Assistance Program of the National Park Service in the development of a pilot greenway and trails project for the Mooser Creek Basin in southwest Tulsa. The solution presented was to create artificial sites that imitate nature by ponding runoff during spring and fall rains, but for the rest of the year serve as parks, playing fields and wildlife habitat. The project involved extensive citizen involvement, interagency inter-governmental cooperation and coordination, extensive inventory, alternative development and refinement of the selected plan.



(Tulsa, Oklahoma) Tulsa Trails:

R.D. Flanagan & Associates developed the first Tulsa Trails Master Plan for the City of Tulsa in 1987. This first “Blue-Greenway” plan illustrated the trails concept utilizing the River Parks trail system, major drainage corridors, traffic ways, and connector systems linking public facilities, parks, schools, commercial and employment centers, and storm water detention ponds. This early trails master plan served as the basis for the later INCOG Tulsa Area Parks and Trails Plan. In July 1992, FEMA selected Tulsa for its Outstanding Public Service Award because of the city’s “Significant contributions and distinguished leadership” to the nation in floodplain management.



(Tulsa, Oklahoma) Community Rating System:

A 1976 study identified Tulsa, Oklahoma as the most flood-prone community in the nation. In 1984, Tulsa lost 14 people and \$180 million in damages to nearly 7,000 homes and businesses. Tulsa County was leading the nation in flood frequency. Due to the dedicated effort of citizens and the government, less than 20 years later Tulsa was generally recognized as having the best floodplain management program in the nation. In September 2003 the City of Tulsa was honored by FEMA under the Department of Homeland Security for becoming the first city in the nation to receive a Community Rating System rating of 2. As a result Tulsans in the Special Hazard Flood Areas receive a 40% discount on flood insurance. Today, Tulsa’s floodplain and stormwater program is based on respect for the natural systems. It includes comprehensive watershed management, dedicated funds for maintenance and operation, a prototype alert system, and a \$200 million capital improvements program.



