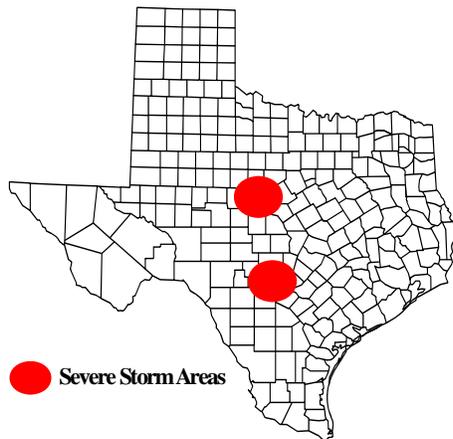


THE SITUATION: STORMS PRODUCING RECORD RAINFALLS RESULT IN DAMAGING FLOODS ACROSS THE NORTHERN AND SOUTHERN PORTIONS OF CENTRAL TEXAS

On June 30 – July 6, 2002, bands of severe thunderstorms repeatedly swept through the central area of Texas from San Antonio to Abilene. Especially hard hit were 24 counties including Bexar, Comal, Guadalupe, Kendall, Medina, Kerr, Gillespie, Bandera, Brown, Coleman and Taylor. The heaviest rainfall fell in the Texas Hill Country northwest of San Antonio. Rainfall in this area totaled as much as 2-3 feet with daily rainfalls of 10 inches. On July 6, southeast of Abilene, 12 to 14 inches of rain fell in the predawn hours. The City of Brownwood suffered severe flooding when Lake Brownwood overflowed. This was the wettest July on record. River levels reached record heights. Canyon Lake near New Braunfels experienced its first uncontrolled spill since filling in 1962. Downstream flooding was severe. More than 130 roads were closed and nearly 250 high water rescue calls were reported. Thousands lost power and telephone service. The good news is, NRCS constructed floodwater retarding structures reduced the loss of life and property. In the San Antonio vicinity, Salado Creek, Calaveras Creek, and Martinez Creek Watershed projects performed as anticipated. Near Abilene, fourteen watershed projects provided protection to areas downstream.



The storm of June 30 – July 6, 2002, was most intense in the San Antonio and Brownwood areas. NEXRAD weather service radar indicated large areas of rainfall exceeding 9 inches. Rain gauge measurements confirmed these totals, but also revealed many isolated areas recording a total rainfall of over 40 inches during a six-day period.



Upper Pecan Bayou Site 25, located in Coleman County, had severe erosion in the auxiliary spillway from intense rainfall runoff. The structure functioned as designed. The spillway will be repaired and revegetated. Built in 1974, with proper maintenance, the site will provide many more years of flood protection to downstream areas.

STORM DAMAGES

- ◆ Total floodwater damage estimated over \$1.5 billion
- ◆ 9 lives lost, more than 48,000 homes damaged
- ◆ Intense portion of storm exceeded 500-year event
- ◆ 34 counties identified as Federal Declared Disaster areas

WATERSHED PROJECT BENEFITS

The floodwater retarding structures were designed to provide protection from the 50-year to 100-year frequency events. Even though the storms of late June and early July 2002 exceeded the design storm, property damage was greatly reduced due to the implementation of the many watershed projects in the area. Estimated overall benefits exceeded \$36 million.

Watershed Projects near Abilene

- ◆ Estimated \$17 million benefits
- ◆ Reduced water levels in Lake Brownwood
- ◆ Prevented loss of human life
- ◆ Saved Brownwood from a catastrophic event

Watershed Projects near San Antonio

- ◆ Estimated \$19 million benefits
- ◆ Reduced water levels in developed areas
- ◆ Prevented loss of human life
- ◆ Held floodwaters for Edwards Aquifer recharge

REPAIRS NEEDED

Millions of dollars are being used to protect watersheds impaired by the storms. Included will be the repair of floodwater retarding structures and debris and sediment removal. This will ensure that flood protection will be provided from future storm events.

- \$5 million damages to watershed structures
- Over \$12 million Emergency Watershed Protection (EWP) funds will be used for emergency measures such as debris and sediment removal

FUTURE WATERSHED NEEDS

Damages to watershed sites was minimal compared to benefits provided, yet many personnel hours will be

required to see that the repairs to the watershed sites are completed. Contracts will be let and construction inspections carried out.

The NRCS has implemented a team effort to complete these projects in a timely manner. A project coordinator will lead this team. Field office personnel within the storm-damaged area will fulfill many of these roles. In some cases, other staff may be detailed to assist in this effort. Technical staff will assist the team to complete repairs.

Watershed projects can provide benefits for many years beyond their evaluated life expectancy. Proper repairs and maintenance ensure the life of these projects.

SUMMARY OF WATERSHED PERFORMANCE

Watershed	County	Rainfall	Floodwater Retarding Structures constructed	Structures that had auxiliary spillway flow	Damage description
Blanket Creek	Brown, Comanche	12 inches	14		
Brownwood Laterals	Brown	12 inches	22		
Calaveras Creek	Bexar	15 inches	9		
Clear Creek	Brown	12 inches	8		
Comal River	Comal	25 inches	5		
Elm Creek (1250)	Runnels	3 inches	2		
Hamilton Creek	Burnet	12 inches	3		
Home Creek	Coleman	9 inches	21		
Jim Ned Creek	Coleman, Taylor	12 inches	38	6	Minor erosion, fencing
Leona River	Uvalde	15 inches	3		
Lower Brushy Creek	Williamson	4 inches	16		
Lower Plum Creek	Caldwell	7 inches	10		
Martinez Creek	Bexar	13 inches	6		
Mukewater Creek	Brown, Coleman	9 inches	9	1	
NE Tribs of the Leon River	Comanche	6 inches	6		
Northeast Laterals	Brown	12 inches	5		
Northwest Laterals	Coleman, Runnels	9 inches	17		
Plum Creek	Caldwell, Hays	12 inches	18		
Rush Creek	Comanche	6 inches	11		
Salado Creek	Bexar	15 inches	14	1	
Sulphur Creek	Burnet, Lampasas	7 inches	9		
Town Creek	Blanco	18 inches	1		
Turkey Creek	Brown, Callahan	12 inches	13	1	Minor erosion, fencing
Upper Brushy Creek	Williamson	9 inches	29		
Upper Cibolo Creek	Kendall	32 inches	4	4	Moderate to severe erosion
Upper Pecan Bayou	Brown, Callahan, Coleman, Taylor	8 – 12 inches	25	8	Moderate to severe erosion, Site 11A flowed 3.2 ft of depth
Upper San Marcos	Hays	9 inches	5		
Valley Creek	Runnels, Taylor	3 inches	14		
Williams Creek	Gillespie	17 inches	4	2	
York Creek	Comal, Guadalupe, Hays	14 – 21 inches	16		
Totals			357	23	Only one site with >3 feet auxiliary spillway flow depth.

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