

NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Midland, Texas
	MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS	REPORT FOR: MONTH July YEAR 2004
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE J. DeBerry In Charge of HAS	DATE 08/01/04

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

7 flood stages were reached in this HSA in July.

The pseudo-monsoon season continued through July, which normally would be relatively mundane weather under a broad ridge of high pressure.

On July 5th, a classic supercell developed over the Permian Basin. In addition to golfball-sized hail, flash flooding was also reported. In Dawson County, several roadways near Lenorah were flooded with up to 1' of runoff.

On the 10th, thunderstorms developed over Jeff Davis County, where as much as 3" of rain fell in a short amount of time. This resulted in a rock slide on St. Hwy 118 1 mile west of Fort Davis. Storms then developed north into Eddy County. Portions of County Rd. 418 southwest of Carlsbad flooded, as did County Rd. 408 (Dark Canyon Road), with 6" of water.

On July 13, thunderstorms developed over the lower Trans Pecos, resulting in minor street flooding in Fort Stockton. Storms then moved into southwestern Pecos County, flooding US Hwy 385 with up to 1' of runoff south of Fort Stockton.

On the 24th, an unusually strong cold front moved south into the HSA, colliding with an easterly tropical wave that moved through the Big Bend area. The combination of these two features, along with the deep, moist tropical airmass that the easterly wave ushered in, set the stage for a major flood event.

As the cold front moved south-southwest into the area, thunderstorms first formed over the Western Low Rolling Plains. Major street flooding occurred in Snyder in Scurry County. Several high water rescues were performed. Further west, in extreme southeast Lea County, 0.5-1' of water flooded streets in Jal. As the front moved south, storms developed in Brewster and Jeff Davis Counties. Minor street flooding was reported in Marathon, where up to 1" of rain fell. Rainfall was widespread over the entire area by the end of the day, saturation soils and priming arroyos and rivers for the 25th.

Thunderstorm activity continued into the morning of the 25th. By 6 AM, 4.5" of rain had fallen at the Terrell County Gas Plant, flooding secondary roads and making travel impossible. Storms continued over Terrell County throughout the day, prompting high water rescues of motorists on US Hwy 90 west of Sanderson and St. Hwy 349. Further west, Terlingua Creek and Long Draw flooded RR 170 where they crossed it between Study Butte and Terlingua in Brewster County. Additional storms later in the day over Big Bend Park continued to flood Long Draw and Terlingua Creek, as well as Alamo Creek, shutting down several additional roads within the park. Storms between Alpine and Marathon in north Brewster County flooded US Hwy 67 near Hovey. Meanwhile, in Ward County, 0.5' of runoff flooded roadways near the Monahans Sandhills. In Odessa in Ector County, widespread street flooding stalled several cars, prompting barricading of several roads. Further northwest, thunderstorms over Eddy County began flooding Dark Canyon near Carlsbad, stranding motorists of the roofs of their vehicles in up to 6' of water. Local officials in Carlsbad began barricading certain roads, including St. Hwy 137, in anticipation of a flood wave moving down Dark Canyon. County Rd 406 flooded 4-5' deep and 100 yds wide. Rocky Arroyo also flooded local roads 3.5-4' deep.

As the afternoon began, rainfall over Pecos and Terrell Counties continued. 24-hour radar estimates that as much as 10-11" of rainfall fell in isolated parts of southern Pecos and northern Terrell Counties. This flooded much of US Hwy 285 between Ft. Stockton and Sanderson. Runoff then drained into the Independence Creek basin, which quickly filled and overtopped the St. Hwy 349 bridge. Dry Creek, a tributary of Independence Creek,

rose as well, washing out a significant portion of the St. Hwy bridge it crosses under. RR 2400 was also barricaded. Meanwhile, storms in Ector County flooded city streets with up to 2' of water in Odessa, rendering them impassable.

Much of the runoff from the flash flooding led to elevated flows along the Rio Grande. Overnight, moderate flood stage was reached at Johnson Ranch (TELT2), and on the evening of the 26th, the Rio Grande briefly reached flood stage below Presidio (PRDT2). See attached E-3 for details. No damage was reported.

On June 27th, with river levels still elevated, thunderstorms developed over the Rio Grande watershed above Candelaria. A brief flood wave came through Candelaria (CDET2). See attached E-3 for details.

Overnight into the 28th, thunderstorms continued to develop over the Stockton Plateau, RR 1776 in Pecos and Ward Counties flooded with up to 2' of water in several locations, and runoff was reported across US Hwy 67 in Brewster Counties between Alpine and Fort Stockton. These storms also flooded St. Hwy 118 between Alpine and Fort Davis. Eventually, Alpine Creek in Alpine (normally dry), ran 3' deep and prompted the closure of several nearby city streets. US Hwy 90 east of Marfa in Brewster County was closed as well. Meanwhile, the Rio Grande below Presidio (PRDT2) rose to moderate flood stage. Thunderstorms then developed over the northern Permian Basin, flooding roadways with up to 1' of runoff near Big Spring in Howard County. Several city streets in Big Spring were barricaded, and a vehicle was washed off US Hwy 87 north of town. In Gaines County, US Hwy 180 east of Seminole flash flooded in spots. This round of thunderstorms ended with a flash flood in Terrell County, where St. Hwy 349 flooded north of Dryden.

The night of June 28th was relatively quiet. A thunderstorm complex developed north of the area and moved southeast, but only clipped Scurry County. Flash flooding prompted the barricading of several city streets in Snyder.

Some locations in the HSA that received notable amounts of precipitation for July were:

Kent 8 South, Jeff Davis County	4.30"
Snyder, Scurry County	5.10"
Gail, Borden County	6.00"
Sanderson, Terrell County	6.63"

The average of all stations reporting was 2.75", the highest since October 2002.

Midland International Airport received 1.21" of precipitation for the month. Normal for the month of July is 1.89". Total for the year is 7.88", 0.23" above normal.

Due to the relatively abundant rainfall for July, drought conditions over the HSA have improved significantly. Conditions are near normal everywhere except the far western HSA and the northwest Permian Basin, which are abnormally dry.

Reservoir levels across the HSA are averaging 45% of conservation capacity, around 6% higher than in June. Champion Creek Reservoir remains the lowest, at about 8% capacity, while Lake Avalon is the highest, at around 95% capacity. The flood threat remains low.

River products issued:

FLW = 11 FFW = 43 FFS = 51 RVS = 22 FLS = 17

Shifts worked: 20

cc:mail: DOA HIC IBWC-ELP IBWC-PRS SWFED USGS-CNM USGS-SJT

cc:email: HIC SRH W/SR2 W/SR3 W/SR-ABQ W/SR-ELP W/SR-FWR /SR-LBB W/SR-MAF W/SR-SJT