FLYING E WASH
FCD GAGE #7083

STATION DESCRIPTION

LOCATION - The gage is located on the downstream, right side of the bridge culvert of US 60 over Flying E Wash, approximately 4 miles west of downtown Wickenburg. Latitude N 33° 57' 44.5"; Longitude W 112° 46' 58.4". Located in the S09 T7N R5W in the Vulture Peak 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed July 12, 1994.

DRAINAGE AREA - 8.63 mi^2

GAGE - The gage is a pressure transducer type instrument. The PT is at gage height 0.45 feet gage height, levels of November 5, 2002, visually confirmed July 21, 2015.

There is one staff gage at this location. It is located near the crest gage and pressure transducer. It reads in gage height.

There is one crest stage gage at this location. The pin elevation is 1.55 feet gage height, levels of November 5, 2002, visually confirmed on July 21, 2015.

ZERO GAGE HEIGHT - Zero gage height is defined by the zero point on the staff gage at the gage location. Elevation is 2,283.10 feet NAVD 1988.

HISTORY - Gage installed on July 12, 1994. PT moved to 0.45 feet gage height, effective on December 1, 2000 due to constant burial of instrument. Station moved following construction to the south side of US 60. PT remained in the same location and at the same elevation. FCD brass cap was installed on the northwest side of the US 60 crossing of the wash on July 17, 2003.

REFERENCE MARKS -

RM-FLYE2 is an FCD brass cap located approximately 25 feet north of US 60 and about 40 feet west of the wash. Monument established on July 17, 2003. Elevation = 7.27 feet gage height, levels of March 31, 2004.

RP-N is a nail located about 40 feet west of the wash on the northwest corner of the US 60 bridge. A stake is located nearby to identify the nail. Elevation 2,289.54 feet NAVD 1988 or approximately 6.44 feet gage height, levels of November 14, 2002. Northing 1078876.359 feet. Easting 437281.219 feet.

There are three marked cross sections downstream of the gage. These three replace all previous downstream cross sections set in 2000 and 1995.

Cross section one is located approximately 50 feet downstream from the US60 bridge. XS1LB is 1/2-inch rebar with elevation 6.10 feet gage height or 89.20 feet for slope area. XS1RB is a stake high on the right bank with elevation 93.51 feet.

Cross section two is located approximately 300 feet downstream from cross section one. XS2LB is a stake with elevation 86.76 feet. XS2RB is a 1/2-inch rebar with elevation 86.54 feet.

Cross section three is located approximately 250 feet downstream from cross section two. XS3LB is a stake with elevation 83.91 feet. XS3RB is a stake with elevation 83.64 feet.

A fourth cross section downstream may be used if needed.

CHANNEL AND CONTROL - The channel is in natural condition downstream from the gage. The gage is located at the outlet of the US60 bridge, which also has a natural bottom. The control is channel control for most gage heights.

RATING - Current rating is #5, effective October 1, 1999. The rating is a modification of rating #4 based on a slope area computation for an event of August 29, 2000. The change in discharge represents a small increase over the previous rating.

POINT OF ZERO FLOW - Surveyed to -0.1 feet gage height near the PT on the right side of the bridge, levels of July 21, 2015.

DISCHARGE MEASUREMENTS - Low flow discharge measurements could be made directly by wading just downstream from the gage. Higher flow measurements would best be made using indirect methods following the event.

There are three permanent cross sections downstream of the gage and bridge that could be evaluated for an indirect discharge measurement. All four are described above in the references section.

FLOODS – A flood of 5,250 cfs and 7.07 feet gage height occurred on July 18, 2015. A flood of about 3,600 cfs at 5.70 feet gage height occurred on October 22, 2000. A flood of 3,740 cfs and 5.74 feet gage height occurred on July 30, 2005.

REGULATION - None known

DIVERSIONS - There are four known stock tanks upstream from the gage.

ACCURACY - Fair

JUSTIFICATION - Monitor flows in Flying E Wash for the Wickenburg flood warning project.

UPDATE August 17, 2015
DE Gardner