McMICKEN DAM FLOODWAY
FCD GAGE #71307 (5438)

STATION DESCRIPTION

LOCATION - The gage is located near Grand Avenue (US60) and 163rd Avenue, just northwest of the SR303L. Latitude N 33° 41' 07.6"; Longitude W 112° 24' 30.4". Located in the NW1/4 SW 1/4 S18 T4N R1W, in the McMicken Dam 7.5-minute USGS quad map.

ESTABLISHMENT - The gage was installed May 19, 1992.

DRAINAGE AREA – 243.2 mi^2 (approximate)

GAGE - The gage is a pressure transducer type instrument. The gage is at gage height 0.15 feet, levels of September 14, 2017.

There are two crest stage gages at this location.

CSG#1 is the lower crest stage gage. It has a pin elevation of 1.04 feet gage height and 1,326.111 feet NAVD88, levels of September 14, 2017.

CSG#2 is the upper crest stage gage. It has a pin elevation of 4.89 feet gage height and 1,329.960 feet NAVD88, levels of September 14, 2017.

There are several staff gages at and near to the station.

The staff gages at the station display in 0.02 foot increments. The upper staff gage displays directly in gage height. The middle staff displays approximately 0.1 feet low.

There is a 0 – 5 foot painted staff gage located at the road dip crossing about 240 feet downstream. Five feet on the downstream staff gage is equivalent to 4.34 feet gage height in the stream gage datum.

There are sets of painted 5 foot staff gages upstream about 420 feet from the gage station. Five feet on the upstream staff gage is equivalent to 5.8 feet gage height in the stream gage datum.

ZERO GAGE HEIGHT - Zero gage height is based on the staff gages located at the transducer station, specifically the upper staff gage. Zero gage height is equivalent to 1,325.070 feet NAVD88, levels of September 14, 2017.

HISTORY - No previous history at this location.

REFERENCE MARKS -

BM-5438 is an FCDMC brass cap located on top of the right bank just east of the station tube. It is at elevation 15.000 feet gage height and 1,340.070 feet NAVD, levels of September 14, 2017.

RM-1 is a chiseled 'X' on top of the northeastern base of the first electric tower about 100 feet downstream of the station housing on the right bank. It is at elevation 17.473 feet gage height and 1,342.543 feet NAVD88, levels of September 14, 2017.

RM2 - Cut cross on the top of concrete footing of second electric tower east of US 60. Elevation 1,337.69 feet MSL (levels of February 1993), gage height 14.52 feet. This was not surveyed in the September 2017 survey.

RM-3 is a rebar on the left bank in the gage cross section. It is at elevation 11.956 feet gage height and 1,337.026 feet NAVD88, levels of September 14, 2017.

RM-4 is a rebar on the right bank in the gage cross section. It is at elevation 8.495 feet gage height and 1,333.565 feet NAVD88, levels of September 14, 2017.

RP-1 is a chiseled 'X' on the south side of an irrigation box on the top of the left bank across from the station. It is at elevation 16.689 feet gage height and 1,341.759 feet NAVD88, levels of September 14, 2017.

RP-2 is a chiseled 'X' on a headwall for a culvert at the top of the right bank near the station house. It is at elevation 15.106 feet gage height and 1,340.176 feet NAVD88, levels of September 14, 2017.

CHANNEL AND CONTROL - The channel is compacted earth bottom. The channel is the control for all but the lowest flows.

RATING – The current rating is Rating #2 developed from surveyed cross sections taken in April 2019. Data were used in an HEC-RAS model for analysis.

DISCHARGE MEASUREMENTS - Low volume discharges could be made by direct measurement. Higher volume discharges can be evaluated by indirect measurement methods.

POINT OF ZERO FLOW - The PZF in the gage cross section is at approximately 0.15 feet gage height, or 1,325.220 feet NAVD88.

REGULATION - McMicken Dam upstream from this gage regulates flows into the channel from Trilby Wash and the White Tank Mountains.

DIVERSIONS - None known

ACCURACY - Fair

JUSTIFICATION - Monitor flows from McMicken Dam for releases into the Agua Fria River.

UPDATE August 1, 2019
D E Gardner