

**CENTENNIAL LEVEE
FCD GAGE ID# 25707**

STATION DESCRIPTION

LOCATION – The gage site is located in western Maricopa County about 5 miles southwest of the intersection of I-10 and Salome Road. Latitude N33° 31' 10", Longitude W113° 15' 37.9". Located in S17 T2N R10W, in the Courthouse Well 7.5-minute quadrangle.

ESTABLISHMENT – Gaging by the District established on July 9, 2003.

DRAINAGE AREA – 20.0 mi² via USGS Streamstats

GAGE – The gage is a pressure transducer type instrument. The PT diaphragm is at elevation 0.65 feet gage height.

There is one staff gage at this location. It is placed about 20 feet west of the station platform in the low flow. It displays in feet, gage height from 0 – 10 feet.

There is one crest-stage gage at this location. It is attached to the station platform. The pin of the crest gage is at elevation 1.338 feet gage height, levels of March 22, 2018.

ZERO GAGE HEIGHT – Zero gage height is defined as a point below the current channel bottom. Elevation 1,260.701 feet NAVD 1988, levels of March 22, 2018.

HISTORY – No previous history at this location. A precipitation only gage was located approximately 1/2 mile downstream since 1984. Level gaging established on July 9, 2003.

REFERENCE MARKS –

BM-5123 is an FCDMC brass cap located on the levee in the gage cross section. It is at elevation 9.729 feet gage height and 1,270.430 feet NAV88, levels of March 22, 2018.

RP-CNTLVEE is a rebar spike near the top of the levee on the left bank nearly in line with the gage cross section. Elevation 9.800 feet gage height, or 1,270.501 feet NAVD 1988, levels of March 22, 2018.

RM-1 is a rebar spike located near the recently added staff gage. It is at elevation 0.723 feet gage height and 1,261.424 feet NAVD88, levels of March 22, 2018.

RM-2 is a rebar spike located near the right bank of the cross section near a road. It is at elevation 5.001 feet gage height and 1,265.702 feet NAVD88, levels of March 22, 2018.

RP-1 is a chiseled 'X' on concrete at ground level on the northeast corner of the station platform. It is at elevation 0.617 feet gage height and 1,261.318 feet NAVD88, levels of March 22, 2018.

CHANNEL & CONTROL – The channel at the gage is a wide flat channel with a maximum depth of about 4.3 feet. The channel is a uniform 500 feet in width. The channel downstream of the gage is very flat with a slope of only 0.00011 feet/feet. There is sparse vegetation in the channel, but the bottom is rough, due to heavy equipment rutting the hard clay bottom. At low flows, the control is minimal, but is probably the small low flow channel. At higher flows, the main channel is the control. Some sediment is moveable, but significant channel changes are not anticipated.

RATING – The current rating is Rating #2. It like the initial rating, was developed from surveyed data and an HEC-RAS model.

DISCHARGE MEASUREMENTS – Direct measurements can be made at low flows. However, velocities and depths may be too low to measure accurately. Indirect measurements could be made in any suitable reach downstream from the gage since the channel is uniform.

POINT OF ZERO FLOW – 0.3 feet gage height, at the low flow channel.

FLOODS – The peak stage and flow of record occurred on September 9, 2013, with a peak stage of 4.50 feet gage height, and a peak discharge of 1,000 cfs.

REGULATION – No known regulation

DIVERSIONS – Harquahala FRS possibly diverts some flows that would have flowed southwest to this levee. The I-10 freeway also diverts flows to specific culverts.

ACCURACY – Fair.

JUSTIFICATION – Monitor water behind Centennial Levee for Dam Safety program.

UPDATE - January 9, 2024
ES Thomas