

**EL MIRAGE ROAD DRAIN
FCD GAGE ID# 14507 (5483)**

STATION DESCRIPTION

LOCATION - The gage is located approximately 1/2 mile southeast of Loop 303 and about 1/4 mile east of El Mirage Road. Latitude N 33° 41' 26.4"; Longitude W 112° 19' 41.0". Located in the NE1/4 S14 T4N R1W in the Calderwood Butte 7.5-minute quadrangle.

ESTABLISHMENT - The gage was established on February 16, 2006.

DRAINAGE AREA - 70.3 mi²

GAGE - The gage is a pressure transducer type instrument. The PT diaphragm is at gage height 1.20 feet gage height, levels of September 25, 2018. The PT is on the left bank of the channel.

There is one crest-gage at this location, located on the left bank about 10 feet downstream of the transducer gage. It has a pin elevation of 1.39 feet gage height, levels of September 25, 2018.

There is no staff gage at this location.

ZERO GAGE HEIGHT - Zero gage height is arbitrarily defined as a point about 1.20 feet below the PT. Zero gage height was adjusted when datum was changed. See HISTORY section. Zero gage height is currently defined as 1,262.960 feet NAVD88.

HISTORY - Gaging established on February 16, 2006. No previous gaging history at this location. The channel receives flows from natural runoff above the CAP canal, and primarily from McMicken Floodway. Significant flows since installation has scoured the channel. It was also found that the PT was high above the bottom of the channel. The PT was reestablished at a lower elevation sometime in April 2013. PT move will be set as April 1, 2013. Following a survey of January 27, 2015, it was decided to lower the zero gage height datum by exactly 2.000 feet, as of April 1, 2013. A brass cap monument was installed in late 2015. A crest gage was installed in summer 2017.

REFERENCE MARKS

BM-5483 is an FCDMC brass cap located about 25 feet south of the station tube on the east bank of the wash. Elevation is 9.080 feet gage height and 1,272.040 feet NAVD88, levels of September 25, 2018.

RM-1 is a rebar on the left bank in the gage cross section. It is at elevation 9.338 feet gage height and 1,272.298 feet NAVD88, levels of September 25, 2018.

RM-2 is a rebar on the right bank in the gage cross section. It is at elevation 8.501 feet gage height and 1,271.461 feet NAVD88, levels of September 25, 2018.

RP-3 is a green sign rail stake about midway up the left bank. There is no longer anything attached to it, but it formerly held the flex conduit for the PT. Elevation 3.582 feet gage height and 1,266.542 feet NAVD88, levels of September 25, 2018.

RP-4 is the stake that holds the PT near the bottom left bank of the channel. The reference has changed since the original survey when the pressure transducer was reconfigured. It is at elevation 1.616 feet gage height and 1,264.576 feet NAVD88 levels of September 25, 2018.

CHANNEL AND CONTROL - The channel is natural with a mainly sand, and small to large cobbles.

The control for the channel is the channel at levels above about 1.5 feet gage height.

RATING - The current rating is Rating #2, dated April 1, 2013.

Rating #1 was in service till March 31, 2013. The rating was done by creating a HEC-RAS model of three cross sections surveyed on February 22, 2006.

DISCHARGE MEASUREMENTS - Direct measurements are possible at or near the station. Indirect measurements could be done in the three cross section reach used for rating development.

POINT OF ZERO FLOW - The low point in the gage cross section of the channel was found at 0.3 feet gage height, levels of January 27, 2015.

FLOODS - A large discharge occurred on January 21, 2010 of 3.36 feet gage height (old datum) and 475 cfs. Another discharge occurred on September 8, 2014 of 4.80 feet gage height (new datum) and 418 cfs.

REGULATION - McMicken Dam regulates flows from the west that are diverted to this wash via McMicken Floodway. Aerial photographs indicate that the wash siphons under the CAP canal, and passes over the Beardsley Canal.

DIVERSIONS - None known

ACCURACY - Fair

JUSTIFICATION - Monitor outflow from McMicken Dam in the natural wash that receives water from the dam and water from natural drainages upstream of the dam outfall. This gage also measures water before it flows into the Agua Fria River.

UPDATED - December 19, 2018
D E Gardner