

**COLTER CHANNEL AT EL MIRAGE ROAD**  
**FCD GAGE ID #85507**

**STATION DESCRIPTION**

**LOCATION** – The gaging station is located on the east side of El Mirage Road and approximately 1/4 mile north of Camelback Road. Latitude N 33° 30' 41.2", Longitude W 112° 19' 25.6". Located in the SW1/4 NW1/4 SW1/4 S13 T2N R1W in the El Mirage 7.5-minute quadrangle.

**ESTABLISHMENT** – The gage was established on June 29, 1994.

**DRAINAGE AREA** – Approximately 3.48 mi<sup>2</sup>

**GAGE** – The gage is a pressure transducer type instrument. The PT is at gage height 0.10 feet gage height, levels of January 11, 2018.

There is one painted staff gage at this location. It is located on the north bank of the downstream side of bridge. It displays in gage height, levels of January 11, 2018.

There is one crest gage at this location. The pin elevation is 0.21 feet gage height, levels of January 11, 2018.

**ZERO GAGE HEIGHT** – Zero gage height is defined as the bottom of the channel at the transducer gage. It is at elevation 1,025.073 feet NAVD88, levels of January 11, 2018.

**HISTORY** – No previous history at this site prior to gage installation. Channel is man-made and no channel existed at this location before construction. Slope-area survey markers were installed on December 9, 1996. A crest gage was installed on February 11, 1997.

**REFERENCE MARKS** –

BM-5408 is an FCDMC brass cap located near the station tube on top of the right bank. It is at elevation 7.817 feet gage height and 1,032.890 feet NAVD88, levels of January 11, 2018.

RM-1 is a MCDOT brass tablet on top of the concrete walkway divider at the southeast corner of the bridge. It is at elevation 11.638 feet gage height and 1,036.711 feet NAVD88, levels of January 11, 2018.

RM-2 is a rebar on top of the left bank downstream of El Mirage Road. It is at elevation 7.303 feet gage height and 1,032.376 feet NAVD88, levels of January 11, 2018.

RP-1 is a chiseled 'X' on the right bank downstream side of channel headwall. It is at elevation 8.684 feet gage height and 1,033.757 feet NAVD88, levels of January 11, 2018.

RP-2 is a chiseled 'X' on the bottom of the channel near its center. It is at elevation 0.172 feet gage height and 1,025.245 feet NAVD88, levels of January 11, 2018.

**CHANNEL AND CONTROL** – The channel is concrete lined at the gage (bridge) and for 50 feet downstream after which the channel transitions to an earthen lined man-made engineered channel. The shape is trapezoidal. The control for all gage heights is the channel. There is no control at low stages.

**RATING** – The current rating is Rating #2 developed from July 2020 survey data of seven cross sections in a 650 foot reach downstream. The data were used in an HEC-RAS model for analysis. The previous rating was developed in a similar manner.

**DISCHARGE MEASUREMENTS** – Direct measurements could be made by wading for shallow depths or from the bridge for higher flows. Indirect measurements could be made using the surveyed slope area cross sections.

**POINT OF ZERO FLOW** – The concrete lined channel near the center pier at the gage is at gage height 0.00 feet.

**FLOODS** – The largest flow recorded was 158 cfs at 1.52 feet gage height on September 8, 2014.

**REGULATION** – None known

**DIVERSIONS** – None known

**ACCURACY** – Fair to good

**JUSTIFICATION** – Monitor flows in Colter Channel inputs to the Agua Fria River.

**UPDATE** – July 14, 2020  
D. E. Gardner