VULTURE MINE ROAD FCD GAGE ID# 47007

STATION DESCRIPTION

LOCATION - The gage is located in an unincorporated portion of Wickenburg near the high school at Steinway Drive and Duffy Lane, just off of Vulture Mine Road. Latitude 33° 57' 1.8" North; Longitude 112° 45' 58.8" West. Located in S15 T7N R5W, in the Vulture Peak 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed on October 26, 2005.

DRAINAGE AREA – 0.13 square miles, via USGS Streamstats.

<u>GAGE</u> - The gage is a pressure transducer type instrument. The PT diaphragm is at 1.60 feet gage height, levels of June 9, 2021. The PT is on the center headwall of the upstream side of the culverts under Steinway Drive.

There is one crest-stage gage at this location. It has pin elevation of 1.79 feet gage height, levels of June 9, 2021.

There is one staff gage at this location. It is located on the right, upstream wing wall. Elevations displayed are in gage height.

ZERO GAGE HEIGHT – Zero gage height is defined in terms of the staff gage, which reads in gage height. Zero gage height is at elevation 2,311.449 feet NAVD88, levels of June 9, 2021.

<u>HISTORY</u> – No previous history at this location. Gaging established on October 26, 2005. Transducer gage and crest-stage gage both moved to a higher stage due to sedimentation of culverts as of April 8, 2021.

REFERENCE MARKS

BM-5263 is an FCDMC brass cap located about 10 feet north of the station tube. It is at elevation 6.839 feet gage height and 2,318.288 feet NAVD88, levels of February 5, 2019.

BM-2 is a MCDOT brass cap located near the center line of Steinway Drive about 40 feet south of the culvert. It is at elevation 6.940 feet gage height and 2,318.389 feet NAVD88, levels of March 9, 2017. It was not found during the survey of February 5, 2019 or June 9, 2021, and is presumed destroyed.

RM-1 is a rebar located south of the station tube. It is at elevation 7.002 feet gage height and 2,318.451 feet NAVD88, levels of June 9, 2021.

RP-1 is a chiseled 'X' on the upstream culvert headwall. It is at elevation 6.649 feet gage height and 2,318.098 feet NAVD88, levels of June 9, 2021.

RP-2 is a chiseled 'X' on the downstream culvert headwall. It is at elevation 6.254 feet gage height, levels of June 9, 2021.

RP-3 is a chiseled 'X' on the upstream apron between the transducer gage and crest stage gage. It is at elevation -0.014 feet gage height, levels of June 9, 2021.

<u>CHANNEL AND CONTROL</u> - The gage is located at a 2 barrel 54-inch diameter culvert under Steinway Drive. The channel is natural upstream and downstream of the culverts. About 75 feet upstream of the culvert is a single barrel culvert under Vulture Mine Road.

Control for the channel at the gage is the culvert. Any subsequent overtopping is mainly uncontrolled.

<u>RATING</u> – The Rating #1 has been updated with modeling based on a February 2020 survey of cross sections and culvert parameters. The past rating was created using survey data in an HY-8 model for culvert analysis. The rating developed in February 2020 was applied back to the entire gage record.

DISCHARGE MEASUREMENTS - Direct measurements could be made by wading just downstream of the gage at low flows.

POINT OF ZERO FLOW - The PZF varies with flows, but there is typically some sediment in the culverts. The culverts were found slightly filled with sand which has a minimum elevation of 1.13 feet gage height, levels of February 5, 2019.

FLOODS – The peak flow of record is 93 cfs at 3.58 feet gage height, which occurred on August 3, 2014.

REGULATION - None known

DIVERSIONS - None known

ACCURACY - Fair

JUSTIFICATION - Monitor flows in the south fork of Casandro Wash as input to Casandro Dam.

UPDATED -

DE Gardner

December 14, 2023