

Pima Canyon Wash FCD Gage ID# 6523

Station Description

LOCATION – The station is located in Phoenix near the town of Guadalupe. Latitude 33.3649°; Longitude -111.9751°. Located in S05 T1S R4E, in the Guadalupe 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed April 15, 2014.

DRAINAGE AREA – 1.51 mi² via UGSG Streamstats.

GAGE - The gage is a pressure transducer type instrument. The PT diaphragm is at gage height 1.69 feet, levels of April 22, 2014.

There is no crest-stage gage at this site.

There is a staff gage on the right bank wall about 60 feet upstream from the culvert. The staff gage and numbers are faded, and read from 0 – 4 feet, with 4 feet being the top of the wall. Four feet on the staff gage is equivalent to about 5.9 feet gage height, levels of April 22, 2014.

ZERO GAGE HEIGHT – Zero gage height is defined as 0.00 feet and is located below the current streambed at the upstream entrance to the culvert.

HISTORY – Gaging established on April 15, 2014. A staff gage has been painted on the right guide wall. No automatic gaging of this site has been done.

REFERENCE MARKS

RP-1 is a chiseled '+' on the southwest corner of the SRP transformer pad located on the top of the left bank on the west side of 48th Street. Elevation is 14.394 feet gage height, levels of April 22, 2014.

CHANNEL AND CONTROL – The channel is a culvert crossing under 48th Street. The channel is mostly natural upstream, but has been redirected to cross through the culvert. The channel downstream is a graded grass lined channel through a golf course until it terminates into Guadalupe FRS.

The control for the gage is not defined at low flows. The culvert becomes the control at perhaps 1 – 2 feet inside, or about 3.0 – 3.5 feet gage height.

The culvert is either a 16-foot corrugated steel culvert that is embedded about 8 feet deep, or it is an arch culvert that has a 16-foot diameter at the streambed, and rises to about 8 feet above the streambed. At the downstream outlet, the width remains 16 feet, but is only about 6 feet above the streambed. The culvert length is 85 feet, and the slope is 0.013 feet/foot.

RATING - The current rating is Rating #1, dated April 15, 2014. The rating was developed from an HY-8 culvert analysis. The culvert was modeled as a 16-foot pipe, with an 8-foot embedment.

DISCHARGE MEASUREMENTS – Direct measurements would be difficult at the gage site, but could be done elsewhere. Both direct and indirect measurements may be possible in a reach downstream from the culvert.

POINT OF ZERO FLOW - The PZF is at approximately 1.8 feet gage height.

FLOODS – None yet recorded.

REGULATION – None known.

DIVERSIONS - None known

ACCURACY - Fair

JUSTIFICATION – Monitor inflow into Guadalupe FRS.

UPDATED - April 24, 2014
 D E Gardner