

**RAWHIDE WASH
FCD GAGE ID# 4863**

STATION DESCRIPTION

LOCATION – The gage is located on the downstream side of the Dynamite Road Bridge over Rawhide Wash in Scottsdale, Arizona. Latitude N 33° 44' 26.1", Longitude W 111° 53' 53.8". Located in the NW1/4 NE1/4 S36 T5N R4E (Curry's Corner 7.5 minute quadrangle.)

ESTABLISHMENT – July 27, 1999

DRAINAGE AREA – 9.2 square miles

GAGE – The gage is a pressure transducer type installed on the east wall of the rightmost (westernmost) culvert barrel of the Dynamite Road Bridge. The PT diaphragm elevation is 0.52 feet gage height, levels of July 27, 1999.

There is one staff gage at this site. It is located inside the rightmost culvert next to the PT gage. It reads in gage height.

There is one crest stage gage at this site. It is located on the outside of the culvert on the downstream side near the PT. The pin elevation is 1.00 feet gage height, levels of February 9, 2000.

ZERO GAGE HEIGHT - Zero is defined as the zero on the staff gage. It is defined only in terms of gage datum.

HISTORY – No previous history at this site.

REFERENCE MARKS –

RM75 – A mark of '75' on northeast corner of bridge chiseled X. Elevation 8.54 feet gage height, levels of July 27, 1999.

RM1 – a bolt located on the left wingwall on the downstream side of the culvert at elevation 3.01 feet gage height, levels of August 18, 1999.

RP1 - The pin of the crest stage gage is at elevation 1.00 feet gage height, levels of February 9, 2000.

There are three slope area cross sections starting at approximately 180 feet downstream of the culvert. All are marked on both banks with sign channel painted white. Assumed and gage height elevations are provided for both. In using the slope area program SAC, the assumed elevations should be used in the input file. All cross sections are perpendicular to the channel.

RP_A_LB – is the left bank marker of the uppermost cross section, approximately 180 feet downstream of the culverts. Assumed elevation of 25.61 feet or gage height elevation of -0.35 feet, levels of February 9, 2000.

RP_A_RB – is the right bank marker of the uppermost cross section. Assumed elevation of 26.40 feet, or gage height elevation of 0.44 feet, levels of February 9, 2000.

RP_B_LB – is the left bank marker of the middle cross section, 85 feet downstream of the upper cross section. Assumed elevation of 25.28 feet, or gage height elevation of -0.68 feet, levels of February 9, 2000.

RP_B_RB – is the right bank marker of the middle cross section. Assumed elevation of 24.71 feet or -1.25 feet gage height, levels of February 9, 2000.

RP_C_LB – is the left bank marker of the lower cross section, approximately 79 feet downstream from the middle cross section. Assumed elevation of 24.82 feet, or -1.14 feet gage height, levels of February 9, 2000.

RP_C_RB – is the right bank marker of the lower cross section. Assumed elevation of 24.05 feet, or -1.91 feet gage height, levels of February 9, 2000.

CHANNEL AND CONTROL – The channel is a sand and granite mix in the streambed downstream of the gage. The control downstream of the gage is the channel for flows below about 6.0 feet gage height. Above about 6.0 feet gage height water will back up behind the bridge and begin to flow around the bridge to the east.

RATING – The current rating is Rating #1, developed using an HEC-RAS model of six surveyed cross sections. The low end of the rating was verified using surveyed high water marks for a flood of unknown date.

DISCHARGE MEASUREMENTS – Low flow discharge measurements could be made by wading. Indirect methods can be employed for higher discharge events.

POINT OF ZERO FLOW – The PZF was found to be 0.0 feet gage height, levels of August 18, 1999.

FLOODS – An event occurred on September 9, 2006 with a discharge of 446 cfs and 2.07 feet gage height.

REGULATION – None known

DIVERSIONS – None known

ACCURACY – Fair until some discharge measurements are made for verification.

JUSTIFICATION – Monitor flows for future basin project.

UPDATE – July 20, 2011
D E Gardner