SUN VALLEY PARKWAY AT NORTHERN AVENUE
FCD GAGE ID# 48307

STATION DESCRIPTION

LOCATION - The gage is located on the west side of Sun Valley Parkway just north of the Northern Avenue alignment. Latitude 33° 33 12.4 North; Longitude 112° 40' 40.8" West. Located in S32 T3N R4W, in the Wagner Wash Well 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed on August 2, 2005.

DRAINAGE AREA – 1.41 mi^2, via USGS Streamstats.

GAGE - The gage is a pressure transducer type instrument. The PT diaphragm is at gage height 0.10 feet, levels of June 18, 2020. The PT is on the right bank of the culvert under Sun Valley Parkway.

There is one crest-gage at this site. It is located near the transducer gage on the northwest corner of the bridge. It has pin elevation of 0.30 feet gage height, levels of June 9, 2021.

There is no staff gage at this site.

ZERO GAGE HEIGHT – Zero gage height is defined as the bottom of the culvert at the pressure transducer. It is at elevation 1,394.570 feet NAVD88.

HISTORY – Gaging established on August 2, 2005. No previous gaging history at this location. Transducer gage elevation was re-evaluated during the survey of June 18, 2020 and determined to be 0.10 feet. No physical change to the gage occurred. A crest stage gage was added in 2020.

REFERENCE MARKS

BM-50483 is an FCDMC brass cap located about 8 feet northeast of the station tube. It is at elevation 1,400.289 feet NAVD88. Gage height elevation is 5.719 feet, levels of March 28, 2017 and May 25, 2017.

RP-1 is a rebar set to the northeast of the station tube. Elevation 6.05 feet gage height, levels of October 31, 2005. This reference was not found during a survey of March 28, 2017.

RP-2 is the top of an iron plate near the right edge of the culvert above the pressure transducer. Elevation 4.350 feet gage height and 1,398.920 feet NAVD88, levels of May 25, 2017.

RP-3 is a chiseled 'X' on the concrete part of the road, due east of the FCDMC brass cap. It is at elevation 5.860 feet gage height and 1,400.430 feet NAVD88, levels May 25, 2017.

CHANNEL AND CONTROL - The channel at the culvert is concrete. The culvert is comprised of six, 3 foot high and 14 feet wide barrels. The channel downstream is natural, composed mainly of sand and gravel.

The control for the channel is the channel downstream, which has a fairly steep slope causing flows to be at critical depth.

RATING - The current rating is Rating #2, dated October 1, 2019. The rating was created by making an HEC-RAS model with eight surveyed cross sections from June 2020.

DISCHARGE MEASUREMENTS - Direct measurements would be difficult at the gage because access is difficult. A spot within 50 feet downstream of the edge of the culvert may work for measurements. A suitable indirect reach has not been identified, but should be evaluated following each event.

POINT OF ZERO FLOW - The low point in the gage cross section of the channel was found at 0.00 feet gage height, levels of October 31, 2005.

FLOODS – The highest flow recorded since installation is 790 cfs at 1.88 feet gage height occurred on September 8, 2014.

REGULATION - None known

DIVERSIONS - None known

ACCURACY - Fair

JUSTIFICATION - Monitor flows coming from the alluvial fans from the west side of the White Tank Mountains before and during development of the area.

UPDATED - June 14, 2021
DE Gardner