

**SCATTER WASH
FCD GAGE ID# 14007 (5543)**

STATION DESCRIPTION

LOCATION – The gage is located on the west (right) bank of Scatter Wash just south of the eastbound Beardsley Road between 43rd and 35th Avenues. Latitude N 33° 40' 08.6"; Longitude W 112° 08' 28.8". Located in the NW1/4 NE1/4 S27 T4N R2E of the Hedgpeth Hills 7.5-minute USGS quadrangle.

ESTABLISHMENT – The gage was installed September 18, 1996.

DRAINAGE AREA – 12.4 mi² via USGS Streamstats.

GAGE – The gage is a pressure transducer type sensor. The diaphragm was found at 0.00 feet gage height, levels of March 6, 2019.

There is one staff gage at this location. It is located on the downstream (south) side of the Beardsley Road eastbound culvert. It displays within 0.03 feet of true gage height.

There is no crest gage at this location.

ZERO GAGE HEIGHT - Zero is defined as zero on the staff gage at the end of the culverts on Beardsley Road. It is equivalent to 1,332.258 feet NAVD88, levels of January 6, 2020.

HISTORY – Gage installed on September 18, 1996. Crest gage moved from inside of a culvert to the right bank near the PT gage on June 19, 2000. PT run was changed and PT lowered to 0.00 feet gage height on November 18, 2008.

REFERENCE MARKS –

BM-50140 is an FCDMC brass cap located south of the station tube. It is at elevation 9.231 feet gage height and 1,341.489 feet NAVD88, levels of January 6, 2020.

RM-1 is a chiseled 'X' at the end of the concrete wingwall near the gage standpipe. It is at elevation 10.493 feet gage height and 1,342.751 feet NAVD88, levels of March 6, 2019.

RM-2 is an ADOT brass cap located near the center of the headwall of the Beardsley Road culverts north of the gage. It is at elevation 10.420 feet gage height and 1,342.678 feet NAVD88, levels of March 6, 2019.

RP-1 is the top upstream bolt securing the transducer gage. It is at elevation 9.562 feet gage height, levels of March 6, 2019.

RP-2 is a chiseled 'X' on top of the left bank at the gage cross section. It is at elevation 9.594 feet gage height, levels of March 6, 2019.

RP-3 is the lowest upstream bolt securing the transducer gage. It is at elevation 0.459 feet gage height, levels of March 6, 2019.

CHANNEL AND CONTROL – The channel is earthen bottom and concrete trapezoidal side slopes. The rating is channel control at the PT for all stages.

RATING – The current rating is Rating #5. It was developed from a survey of nine cross sections from the gage cross section downstream to the end of the channelized section, about 1,300 feet downstream. Sureyed data were used in developing an HEC-RAS model. Variable n values were used in the channel to account for the vegetation that grows to about 1.0-1.5 feet in depth. The rating is applied from WY2014 and forward. Surveys of high water marks past the PT from runoff event of July 7, 1998 indicate an observed water surface very close to that of the channel bed slope (0.002 versus 0.0021 respectively.)

DISCHARGE MEASUREMENTS – Can be done for low flow events. Higher flow, i.e. above wading depth, would be dangerous because of squishy mud.

POINT OF ZERO FLOW – Found to be approximately -0.5 feet gage height from levels of March 6, 2019 and January 6, 2020.

FLOODS – The peak flow recorded to date was 1,784 cfs at 3.42 feet gage height on July 25, 2007. A peak discharge of 824 cfs and 2.22 feet gage height was recorded on September 3, 2005. Several other floods of between 300 cfs and 480 cfs have occurred since installation.

REGULATION – No known regulation

DIVERSIONS – No known diversions

ACCURACY – Fair, given generally fixed channel geometry. Variations in roughness due to vegetation changes should be monitored.

JUSTIFICATION – Monitor additions to Skunk Creek from Scatter Wash downstream of Adobe Dam.

UPDATE - January 16, 2020
D E Gardner