

**CAVE CREEK ASHDALE
FCD GAGE ID# 4947**

STATION DESCRIPTION

LOCATION - The gage is located on the site of the unused Ashdale Ranger Station, approximately one mile west of the Seven Springs Campgrounds. Latitude 33° 57' 44.3" North; Longitude 111° 52' 34.2" West. Located in S07 T7N R5E, in the New River Mesa 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed on February 25, 2009.

DRAINAGE AREA – 33 mi²

GAGE – The gage is a pressure transducer type instrument located near the low part of the channel. Elevation of the transducer is 1.24 feet gage height, levels of April 21, 2010.

There is no crest-stage gage at this site.

There are no staff gages at this site.

ZERO GAGE HEIGHT – Zero gage height is defined as a point 2.2 feet below the pressure transducer at the time of installation. It is defined as 3,250.00 feet M.S.L., based on an elevation from a USGS topographical map.

HISTORY – Gaging established on February 25, 2009. No previous history at this location. Equipment and gage cross section surveyed June 23, 2009. Level sensor destroyed during January 21, 2010 event. Level sensor re-established at new elevation on February 11, 2010.

REFERENCE MARKS

RP-1 is a spot on a fairly secure rock located near the pressure transducer conduit. It was painted orange, and established on June 23, 2009. Elevation 3.51 feet gage height, levels of June 23, 2009. The existence of this reference point is unknown, as it was not surveyed or looked for in the April 21, 2010 survey.

RP-2 is a nail in the ground on the south side of the trail and nearly in line with the transducer. It was established on June 23, 2009. Elevation 8.66 feet gage height, levels of June 23, 2009, and checked April 21, 2010.

RP-3 is a chiseled 'X' on a rock above the trail on the right side of the wash about 10 feet downstream from the gage cross section, near a tree, and painted orange. It was

established June 23, 2009. Elevation 10.81 feet gage height, levels of June 23, 2009, and checked April 21, 2010.

CHANNEL AND CONTROL – The channel at the gage site is natural and is heavily vegetated. The right bank of the channel is steep at about 30 degrees from top of bank to low flow of channel. The left half of the channel is less vegetated and relatively flat.

Low flow control is non-existent. Higher flows up to about 7.5 feet are controlled by the main channel. Levels above 7.5 feet will spill into the left high flow channel. Some transitional flows with various controls occur between about 8 and 10 feet gage height. Above about 10 feet gage height, the entire channel is the control.

RATING - The current rating is Rating #1, dated February 25, 2009. The rating was computed using a Manning evaluation. Channel geometry at the gage and channel slope from the USGS quadrangle was used. The lower end of the rating was revised following the January 2010 event to accommodate the change in the channel.

DISCHARGE MEASUREMENTS - Direct measurements would be difficult except for small flows. Indirect measurements also would be difficult due to heavy vegetation.

POINT OF ZERO FLOW - The low point in the gage cross section of the channel was found at -0.8 feet gage height, levels of April 21, 2010.

FLOODS – None yet recorded.

REGULATION - There may be stock ponds located in the northern part of the watershed.

DIVERSIONS - None known

ACCURACY - Poor

JUSTIFICATION - Monitor flows in Cave Creek for potential high runoff caused by the Cave Creek Complex fire in June 2005.

UPDATED - July 13, 2011
 DE Gardner