

**HASSAYAMPA RIVER AT WAGONER ROAD
FCD GAGE ID# 54307**

STATION DESCRIPTION

LOCATION – The gage site is located in Yavapai County, approximately 20 miles southwest of Prescott in the upper portion of the Hassayampa watershed. The gage is reached by turning off of State Highway 89 onto Wagoner Road near Kirkland. The gage site is on a bridge crossing of Wagoner Road over the Hassayampa River, approximately five miles east of SR89. The gage is located on the downstream side of the bridge. Latitude N34° 18' 38", Longitude W112° 34' 05". Located in the NE1/4 NE1/4 SE1/4 S09 T11N R3W in the Walnut Grove 7.5-minute quadrangle.

ESTABLISHMENT – The District began gaging on September 26, 1991.

DRAINAGE AREA – 77.8 square miles, via USGS Streamstats.

GAGE – The gage is a pressure transducer type instrument. It is located near the pier at the bridge. It is able to measure higher flows in the channel. It is at about 2.18 feet gage height, levels of March 27, 2019.

There is no staff gage at this location.

There is no crest gage at this location.

ZERO GAGE HEIGHT – Zero gage height is defined arbitrarily as a point below the current streambed. It is equivalent to elevation 3,739.718 feet NAVD88.

HISTORY – The USGS operated a gage at this location beginning in January 1940. Gaging was discontinued in September 1946. The District established gaging in 1991. A pressure transducer was initially installed. Due to heavy sedimentation and channel shifting, the PT was replaced with a sonar device on July 15, 1998. A newer sonar gage was installed on September 13, 1999. A pressure transducer type instrument was added on the pier on May 16, 2001. The pressure transducer was lowered on June 19, 2002. The sonar gage was discontinued on October 29, 2003. Station was removed for construction on September 25, 2007. Station was installed after construction on May 28, 2008. The PT was moved to a bedrock outcropping on the upstream side of the bridge on February 5, 2009.

REFERENCE MARKS –

BM-HASSWAG is an FCDMC brass cap located on a terrace of the right bank. It is at 12.030 feet gage height and 3,751.748 feet NAVD88, levels of March 27, 2019.

RM-1 is a rebar near the top of the right bank in the gage cross section. It is at elevation 17.981 feet gage height and 3,757.699 feet NAVD88, levels of March 27, 2019.

RM-2 is the most upstream bolt on angle iron on the top the left bank bridge abutment. It is at elevation 15.169 feet gage height and 3,754.887 feet NAVD88, levels of March 27, 2019.

RP-1 is a spot on the southeast corner of the right bank bridge pier below the gage station. Elevation 8.984 feet gage height, levels of March 27, 2019.

RP-2 and RP-3 weren't found during the survey of March 27, 2019.

RP-4 is a bolt at the old transducer location, painted white. It is at elevation 5.993 feet gage height, levels of March 27, 2019.

RP-5 is a bolt on the streamward side of the right bridge pier, painted white. It is at elevation 9.714 feet gage height, levels of March 27, 2019.

RP-6 is the lower upstream bolt on the right bank bridge pier abutment securing the transducer conduit. It is at elevation 4.782 feet gage height, levels of March 27, 2019.

RP-7 is a chiseled 'X' on the large rock outcrop to which the transducer gage is attached. It is at elevation 6.107 feet gage height, levels of March 27, 2019.

CHANNEL AND CONTROL – The channel meanders up and downstream of the gage, though the gage section of the river is relatively straight. The channel bed is mainly sand and gravel with significant vegetation. Both overbanks are silt with significant vegetation.

The control for low flows is the at all stages.

RATING – The current rating is Rating #9 which was developed from a four cross section survey of the river in March 2021 used to develop an HEC-RAS model for rating development. Rating is valid for Water Year 2021.

DISCHARGE MEASUREMENTS – Wading measurements could be made near the gage. Flows should be checked for an appropriate section before measurement is taken. Higher flows are best left to indirect measurements. A section about 500 feet upstream of the bridge has been used in the past for an indirect measurement.

POINT OF ZERO FLOW – The PZF was found to be about 0.1 feet gage height in the survey of March 27, 2019.

FLOODS – The highest flow recorded was 5,068 cfs at 7.10 feet gage height on January 8, 1993.

REGULATION – Hassayampa Lake is located in the very uppermost part of the basin and does not have significant storage capacity. Furthermore, it controls only about two square miles of the upper watershed. (Groom Creek 7.5-minute quadrangle.)

DIVERSIONS – Some flows are taken out of the river just above the gage section for irrigation purposes.

ACCURACY – Poor to fair (higher flows)

JUSTIFICATION – Monitor flows in the upper Hassayampa River watershed

UPDATE – May 13, 2021
DE Gardner