

**SALT RIVER AT 7TH AVENUE
FCD GAGE ID# 68007**

STATION DESCRIPTION

LOCATION - The gage is located on the 7th Avenue bridge crossing of the Salt River. Latitude 33° 25' 08.3" North; Longitude 112° 04' 56.4" West. Located in S19 T1N R3E, in the Phoenix 7.5-minute quadrangle.

ESTABLISHMENT - The gage was installed January 25, 2012.

DRAINAGE AREA – 12,956 square miles, via USGS Streamstats.

GAGE - The gage is a pressure transducer type instrument. The PT diaphragm is at gage height 0.00 feet gage height. The PT station is located on the downstream side of 7th Avenue.

There is no crest-stage gage at this site.

There is no staff gage at this site.

ZERO GAGE HEIGHT – Zero gage height is the elevation of the pressure transducer. It is equivalent to 1,027.403 feet NAVD88, levels of February 27, 2019.

HISTORY – Gaging established on January 25, 2012. No previous gaging history at this location.

REFERENCE MARKS

BM-4763 is an FCDMC brass cap located on the top of the left bank, downstream of the bridge near the station house. It is at elevation 42.417 feet gage height and 1,069.820 feet NAVD88, levels of February 27, 2019.

RM-1 is a rebar on the streamward side of the station house on top of the downstream left bank. It is at elevation 41.516 feet gage height and 1,068.919 feet NAVD88, levels of February 27, 2019.

RM-2 is a rebar set just downstream of the first (downstream) pier from the left bank. It is at elevation 13.544 feet gage height and 1,040.947 feet NAVD88, levels of February 27, 2019.

RM-3 is a rebar set just downstream of the second (downstream) pier from the left bank. It is at elevation 9.382 feet gage height and 1,036.785 feet NAVD88, levels of February 27, 2019.

RP-1 is a chiseled 'X' on the northeast corner of the pad of the station house. It is at elevation 41.667 feet gage height, levels of February 27, 2019.

RP-2 is a chiseled 'X' on a rock under the bridge, shoreward of the recreation path on the left side of the channel. It is at elevation 16.021 feet gage height, levels of February 27, 2019.

RP-3 is a chiseled 'X' on a rock located between the upstream and downstream piers 2. It is at elevation 12.116 feet gage height, levels of February 27, 2019.

RP-4 is the top of a sign channel at the transducer location. It is not a sturdy reference point and may be bent during a high flow. It is at elevation 3.572 feet gage height, levels of February 27, 2019.

RP-5 is a nail in the recreation path, about 50 feet downstream of the bridge on the streamward side of the path. It is at elevation 13.582 feet gage height, levels of February 27, 2019.

CHANNEL AND CONTROL - The control for this gage is the main channel.

RATING – The current rating is Rating #2 and is applied as of October 1, 2022. Its origin is unknown, though it appeared on a cross section plot dated December 9, 2020, following a cross section survey at the gage section on December 3, 2020.

The previous rating is Rating #1, dated January 25, 2012. The rating was taken from a visual comparison of ratings for Salt River at 51st Avenue and Salt River at Priest Drive.

DISCHARGE MEASUREMENTS – Direct measurements are not possible due to height of bridge crossing, and dangerous conditions in the channel.

POINT OF ZERO FLOW – The PZF is at about 0.0 feet gage height, based on a survey from December 3, 2020.

FLOODS – The highest discharge recorded since installation is 39,558 cfs at 20.44 feet gage height on March 23, 2023. Much greater flows have occurred prior to installation.

REGULATION – A number of dams upstream regulate flow in the Salt River.

DIVERSIONS – Granite Reef Diversion structure diverts water to canals on the north and south sides of the river for irrigation and domestic purposes.

ACCURACY – Poor to fair

JUSTIFICATION – Monitor flow in the river for MCDOT to manage low-flow road closures.

UPDATED - February 1, 2024
DE Gardner