

PARADISE LANE AT 33RD DRIVE BASIN

FCDMC GAGE ID #12407

STATION DESCRIPTION

LOCATION:

The station is located at the western edge of Conocido Park. The station is located at latitude 33° 37' 56.2" and longitude W112° 07' 41.4". It is in S02, T3N, R2E.

ESTABLISHMENT:

The gage was established on October 12, 2015.

DRAINAGE AREA:

The drainage area of the gage is undetermined.

HISTORY:

No previous gaging at this location. Station established on October 12, 2015.

GAGE INFORMATION:

There is one pressure transducer instrument located at the outlet of the basin which is located at the western side of the basin. The transducer is at elevation is at 0.23 feet gage height, levels of January 17, 2019.

ZERO GAGE HEIGHT:

Zero is currently defined as the invert of the left inlet through the outfall structure. It is equivalent to 1,308.227 feet NAVD88, levels of January 17, 2019.

REFERENCE MARKS:

BM-12407 is an FCDMC brass cap located to the left of the outfall structure near the sidewalk. It is at elevation 5.168 feet gage height and 1,313.395 feet NAVD88, levels of January 17, 2019. It has coordinates Northing 957643.673 and Easting 635583.957.

RM-1 is a chiseled 'X' located on the sidewalk near the station tube. It is at elevation 5.652 feet gage height and 1,313.879 feet NAVD88, levels of January 17, 2019.

RP-1 is a chiseled 'X' located on the left top sidewall of the weir. It is at elevation 4.600 feet gage height, levels of January 17, 2019.

RP-2 is a chiseled 'X' on the right side of the spillway of the outfall structure. It is at elevation 4.472 feet gage height, levels of January 17, 2019.

CHANNEL AND CONTROL:

The gage is installed at the outlet of the basin near the west edge of the main park. The inlet has 2 1-foot diameter pipes that about 20 feet in length for small flows. A 7-foot wide weir is located in the center of the low-flow channel. Water flows into a channel that heads west toward the 35th Avenue storm drain.

RATING:

A discharge rating was created from calculations of three separate points in the outlet structure. There are two 1-foot diameter pipes located on either side of a 2-foot high, 7-foot wide weir. The weir begins to flow at about 2.0 feet gage height. At about 4.6 feet gage height, water begins to spill over the 75-foot length structure into the same outlet channel.

DISCHARGE MEASUREMENTS:

Discharge measurements could be done downstream from the weir at most flows. No deep flows are anticipated, however the stream velocity is unknown, and the outflow channel is concrete which could be slippery.

POINT OF ZERO FLOW:

Zero flow is at the elevation of the left upstream inlet at 0.00 feet gage height, and at the weir elevation of 1.73 feet gage height. All are levels of January 17, 2019.

FLOODS:

A peak of 3.54 feet gage height and an approximate volume of 39.9 acre-feet was recorded on August 14, 2021.

REGULATION:

Local stormwater is regulated by the 1-foot diameter inlet pipes, and a weir into an outlet channel to a storm drain on 35th Avenue.

DIVERSIONS:

No diversions are anticipated to be found in the watershed.

ACCURACY:

No accuracy at this time. The volume rating is very poor. Volumetric estimates were made from aerial photos and approximating depths.

JUSTIFICATION:

Provide level data in this basin for flood warning for the city of Phoenix.

UPDATED:

January 25, 2024

E.S. Thomas