

LAVEEN BASIN
FCD GAGE ID# 67807 (4578)

STATION DESCRIPTION

LOCATION – The gage is located at the southeast corner of 43rd Avenue and Southern Avenue in Phoenix. The gage instrumentation is located at the outlet from the basin on the west side of the basin. Latitude N33° 23' 25.3", Longitude W 112° 09 2.7. Located in the NW1/4 NW1/4 S34 T1N R2E in the Fowler 7.5-minute quadrangle.

ESTABLISHMENT – The gage was installed on November 7, 2006.

DRAINAGE AREA – Not determined

GAGE – The gage is a pressure transducer type instrument, located at 0.20 feet gage height, or 1,003.32 feet NAVD88, levels of March 17, 2016.

There is no staff gage at this location.

There are no crest gages at this location.

ZERO GAGE HEIGHT - Zero gage height is defined as the invert of the lower 36-inch culvert at the west side of the basin. The elevation is 1,003.121 feet NAVD88.

HISTORY – No history prior to gage establishment. Gage was established on November 7, 2006.

REFERENCE MARKS –

BM-4578 is an FCDMC brass cap located just north of the station tube on the west end of the basin. Elevation is 21.369 feet gage height and 1,024.490 feet NAVD88, levels of March 17, 2016.

RP-1 is a chiseled 'X' on the right top of the upper inlet structure near the top of the basin. Elevation is 19.361 feet gage height and 1,022.482 feet NAVD88, levels of March 17, 2016.

RP-2 is a chiseled 'X' on the right top of the principal outlet structure. Elevation is 10.930 feet gage height and 1,014.051 feet NAVD88, levels of March 17, 2016.

CHANNEL AND CONTROL – The principal outlet for the basin is a pair of 36-inch gated inlets located at the principal outlet. Additionally, there is an upper inlet near the top of the basin.

PRINCIPAL OUTLET / EMERGENCY SPILLWAY –

The principal outlet is consists of two stacked, gated 36-inch inlet pipes. The lower pipe has an invert elevation of 0.00 feet gage height, and the upper pipe has an invert elevation of 5.95 feet gage height, levels of March 17, 2016. Additionally, there is an upper inlet at elevation 17.50 feet gage height, levels of March 17, 2016. The top of this upper inlet is open as well and its elevation is 19.40 feet gage height, levels of March 17, 2016.

There is an emergency spillway for the basin, at the southwest corner of the basin. From the design, the minimum elevation is 19.00 feet gage height, or 1,022.12 feet NAVD88. The survey of March 17, 2016 confirmed this elevation.

The minimum top was found to be 21.10 feet gage height near the station tube. Levels of March 17, 2016. The design indicates the top of basin to be about 20.0 feet gage height.

RATING – The current discharge rating, Rating #1, is from the design report, 43rd Avenue Detention Basin Design Report, 100% Submittal, from March 1999.

The current capacity rating is Rating #1 from the same source as the discharge rating.

DISCHARGE MEASUREMENTS – Discharge measurements are not possible at this location.

POINT OF ZERO FLOW – The PZF is the inlet invert of the 36-inch culvert. Elevation 0.00 feet gage height, levels of March 17, 2016.

FLOODS / SIGNIFICANT IMPOUNDMENTS – The greatest event of record occurred on September 8, 2014. The peak stage was 18.92 feet gage height and 126.2 acre-feet, which is 90.2 percent of capacity.

REGULATION – The basin captures local runoff in the area.

DIVERSIONS – None known

ACCURACY – Good

JUSTIFICATION – Monitor levels in basin.

UPDATE – April 10, 2018
D E Gardner