

**CAP REACH 11 DIKE #4**  
**FCD GAGE ID# 59807**

**STATION DESCRIPTION**

**LOCATION** - The gage is located in Scottsdale, east of Pima Road and southeast of the crossing of the CAP at Thompson Peak Pkwy. It is at latitude N 33° 37' 23.1" and longitude W 111° 52' 02.0". Located in S08 T3N R5E, in the Sawik Mountain 7.5-minute quadrangle.

**ESTABLISHMENT** - The gage was installed on July 19, 2016.

**DRAINAGE AREA** – 26.3 square miles

**GAGE** - The gage is a pressure transducer type instrument. The PT diaphragm is at gage height 0.00 feet gage height, levels of July 19, 2016. The PT is installed inside the outlet are behind the trash rack.

There are no crest gages at this site.

There are no staff gages at this site.

**ZERO GAGE HEIGHT** – Zero gage height is defined as the concrete apron for the culverts. It is defined as 1,510.00 feet NAVD88, from the design. The design elevations are in M.S.L., but NAVD88 elevations are assumed by adding exactly 2.00 feet to the M.S.L. elevations.

**HISTORY** – Gaging established on July 19, 2016. No previous gaging history at this location.

**REFERENCE MARKS**

RM-1 is a ½-inch rebar located at the west edge of the concrete top of the outlet. It is at elevation 1,543.79 feet NAVD88 and 33.89 feet gage height, levels of June 6, 2017.

RM-2 is a chiseled 'X' on the east side of the concrete pad atop the outlet. It is at elevation 1,543.62 feet NAVD88 and 33.72 feet gage height, levels of June 6, 2017.

RM-3 is a chiseled 'X' near the bottom of the left wing wall on the pool side of the inlet. It is at elevation 1,511.99 feet NAVD88 and 2.09 feet gage height, levels of June 6, 2017.

RM-4 is a chiseled 'X' on the bottom of the inlet concrete apron about 20 feet upstream from the trash rack. It is at elevation 1,509.90 feet NAVD88 and 0.00 feet gage height, levels of June 6, 2017.

**CHANNEL AND CONTROL** – There are two culverts at the outlet. The culverts discharge directly into the CAP canal.

The dike is 34 feet from bottom of inlet of outlet to the top of the dike.

**RATING** - The current rating is Rating #1, dated July 19, 2016. The discharge rating was provided by the CAP from their Emergency Action Plan document.

The volumetric rating was developed from contours and using a GIS analysis.

**DISCHARGE MEASUREMENTS** – No direct or indirect measurements are possible.

**POINT OF ZERO FLOW** – Is about 2.0 feet gage height based on operational information from the CAP.

**FLOODS** – No floods recorded since installation.

**REGULATION** - Undetermined

**DIVERSIONS** - None known

**ACCURACY** - Good

**JUSTIFICATION** - Monitor water levels behind the Reach 11 dikes in Phoenix and Scottsdale.

**UPDATED** - June 7, 2017  
DE Gardner