

**INDIAN BEND WASH INTERCEPTOR CHANNEL
FCD GAGE ID# 4623**

STATION DESCRIPTION

LOCATION – The gage site is located along the IBW Interceptor Channel, which is located approximately 1/4 mile south of Indian Bend Road and 1/4 mile west of Pima Road in Scottsdale. The gage is located on the left bank of the channel. Latitude N 33° 31' 59.6"; Longitude W 111° 53' 52.5". Located in the SW1/4 NE1/4 S12 T2N R4E, in the Paradise Valley 7.5-minute quadrangle.

ESTABLISHMENT – Gaging was established on April 21, 1994

DRAINAGE AREA – 35 mi²

GAGE – The gage is a pressure transducer type instrument. The PT is at 0.00 feet gage height, levels of February 24, 2000.

There is one staff gage at this site. It is located with the PT and crest gage. The staff gage reads directly in gage height.

There is one crest stage gage at this location. The pin elevation is at 0.35 feet gage height, levels of March 31, 2004.

ZERO GAGE HEIGHT – Zero gage height is defined as the 0.00 reading on the staff gage. Elevation = 1,266.47 feet NAVD 1988, levels of March 31, 2004.

HISTORY – The District established gaging at this location on April 21, 1994. The gage was removed for golf course construction on June 16, 1999. The gage was reestablished in a low flow part of the channel on January 11, 2000. Datum changed for the new gage. Since the previous references for the old datum were no longer in existence, the difference in the datum is unknown.

REFERENCE MARKS –

RM-INTCPTR is an FCD brass cap located near the gage house and along side of the golf cart path. The RM was established in November 2000. Elevation 16.35 feet gage height, levels of March 31, 2004, or 1,282.821 feet NAVD 1988, levels of March 12, 2001. Northing 921521.872 feet; Easting 705753.562 feet.

RP1 was taken as the top of the staff gage post. It is at elevation 5.39 feet gage height, levels of February 24, 2000.

CHANNEL AND CONTROL – The channel upstream and downstream of the gage is a golf course. For lower flows, a low flow channel is provided and is the control for flows under approximately 1,000 cfs. A transition point exists when the low flow channel has reached capacity but the main channel is not yet completely covered. The main channel is the control for higher flows outside of the low flow channel. However, because of the contours of the golf course with greens and rolling hills, the channel is not truly in control until the flow is at least one foot higher than the highest putting green that is in the gage cross section.

RATING – The current rating is Rating #2. This rating was developed using the HEC-2 model for the channel as designed with the golf course. The HEC-2 model was imported into HEC-RAS for a step backwater analysis. The low end of the rating was refined/defined using a slope-conveyance measurement from a March 6, 2000 event. The previous rating was a step backwater model based on previous channel geometry.

DISCHARGE MEASUREMENTS – Low flow measurements could be taken directly in the low flow channel, golf course operators permitting. Indirect measurements of higher discharges could be taken, again with permission of the golf course operator.

POINT OF ZERO FLOW – The PZF at the gage is at –0.10 feet gage height, as surveyed on February 24, 2000. There is also an area of ponding near the gage. The ponding area extends from the sidewalk just upstream of the gage, to a point several hundred feet downstream of the gage.

FLOODS – A discharge of approximately 480 cfs and 3.35 feet gage height, occurred on August 24, 2006. Runoff of 269 cfs and 2.50 feet gage height, occurred on August 3, 2005. Runoff of 223 cfs and 2.25 feet gage height, occurred on February 14, 2003.

REGULATION – None known

DIVERSIONS – There are some small lakes throughout the golf course that hold some quantity of water.

ACCURACY – Fair

JUSTIFICATION – Monitor inflows into the Indian Bend Wash system for the Scottsdale flood warning project. Floods impact unbridged crossings of the wash downstream, and impact recreational users of the channel also.

UPDATE - July 19, 2011
 DE Gardner