DESCRIPTION OF GAGING STATION ON PINE CREEK

Location – Lat 36.4065, long -121.6919, approx. 1,000 feet upstream of the Pine Creek/Carmel River confluence, or approximately one mile downstream of Syndicate Camp, Cachagua, along the Carmel River.

Establishment - Staff gage station established February 1987 by G. Matthews. Re-established as a recording station Sept. 19, 1991 by G. W. James.

Drainage area - 7.8 sq. mi.

Gage - Campbell Scientific (CS) CR300 data recorder/CS451 7.25 psig pressure transducer system. Gage housing consists of a steel recorder shelter with two-inch galvanized pipe used as conduit and intake.

Enameled staff gage ranges from 0.50 to 3.33 ft.

History - No other gages have been operated on this stream. Station was non-recording until Water Year 1992 when an Environmental Monitoring Systems (ENMOS) recorder and pressure transducer was installed. Three subsequent CS recorder upgrades include the following: BDR-320, CR510 and CR300 installed on July 6, 1994, Nov. 5, 1999 and May 31, 2018, respectively. Gage datum at the former site changed by 1.00 ft. on Sept. 19, 2000 as GHTs were negative at low flows (current datum – 1.00 ft. = old datum). Gage relocated to current site with a new arbitrary gage datum established on May 31, 2018 in response to channel changes that rendered the initial site unsuitable for gaging.

Reference and benchmarks – Top steel rebar pin at orifice, and at top left bank are elevation 3.16 ft. and 10.61 ft gage datum, respectively, surveyed May 31, 2018. Top existing staff gage elevation is 3.33 ft.

Channel - One channel at all stages. Channel is straight for approximately 100 ft. upstream and 100 ft downstream from gage. Left bank is steep and rocky. Right bank is moderately sloped with moderate vegetal cover. Streambed is composed primarily of boulders and large cobble.

Control - Low and medium stage control is boulder riffle 15 ft. downstream from gage. Channel control at high flows.

Discharge measurements - Low and medium stage measurements are made by wading within 300 ft. upstream or downstream of the gage. Gage is inaccessible at high flows with measurements obtained by the slope-area method. High end wading measurements are made at the tail end of the gage pool.

Floods - Flood of February 3, 1998 reached a stage of 4.29 ft., gage datum as indicated by the recorder. Flood of March 10, 1995 reached a stage of 4.10 ft. as indicated by crest stage gage and recorder. These floods at the current datum are 5.29 (1998) and 5.10 (1995) due to the Sept. 19, 2000 gage datum reset. Flood of Jan. 10, 2017 reached a stage of 4.93 ft. at former site.

Point of zero flow - 1.00 ft., gage datum. Varies due to scour and fill at control.

Winter flow - No ice.
Regulation - None
Diversion - None

Accuracy - Stage discharge relationship is fairly stable. Leafy build-up during Fall months results in backwater at gage, first significant storm flow eliminates build-up. Records of stage are fair and measuring conditions are fair. High flows are defined by the slope-area method and computed records above 100 cfs are considered poor.
Cooperation -