The Charleston streamflow gaging station, located where Charleston Road crosses the San Pedro River, has the longest record of any data collection point in the Upper San Pedro Basin and is the longest data record found on the WHIP. Please note that while the stream gaging record at Charleston begins in 1904, during the subsequent 31 years the gage was moved numerous times, streamflow measurement method varied, and there are a number of gaps in the record. The discharge record at Charleston has continued uninterrupted since May 1, 1935, and the gaging station has been permanently located at the Charleston Road location since December 1, 1942. For analysis and research purposes, the 1935 to 1942 record (from a gaging station 1 ½ miles downstream of Charleston Road) is considered comparable to the Charleston Road location, giving a useful record length of about 86 years as of 2022.

GILA RIVER BASIN

727. San Pedro River at Charleston, Ariz.*

Location.

Lat 31°37'40", long. 110°10'30", In NE ¼ NE ¼ sec. 11, T. 21 S.,. R. 21 E., In Spanish land grant of San Juan de las Boquillas y Nogales, at highway bridge a quarter of a mile south of Charleston, 1 ½ miles upstream from Charleston dam site, 8 ½ miles upstream from Babocomarl River, and 29 miles upstream from Benson.

Drainage area.

1,220 sq mi, approximately, for site used since December 1942; 1,250 sq mi, approximately, for sites used 1904 to November 1911 and 1928 to November 1942; 1,300 sq ml, approximately, for sites used November 1911 to September 1926. All areas include about 696 sq mi in Mexico.

Supplemental records available.

January and February 1904, gage heights; October 1910 to November 1911, discharge measurements and gage heights; November 1911 to August 1912, discharge measurements and some gage heights.

*Published as "near Lewis Springs", 1910-11, and as "near Fairbank", 1911-26.

Gage.

Water-stage recorder and concrete control at present site since Dec. 1, 1942. Datum of gage is 3,954.26 ft above mean sea level, datum of 1929.

Jan. *27,* 1904, to Aug. 31, 1906, and Oct. 18, 1910, to Nov. 26, 1911, staff gages at various sites and datums within 1 mile downstream.

Nov. 15, 1911, to Oct. 28, 1924, staff gages at various sites and datums from 5 ½ to 6 ½ miles downstream.

Oct. 29, 1924 to Sept. 27, 1926, water-stage recorder about 6 miles downstream.

Sept. 28, 1926, to May 11, 1928, no gage; estimates of discharge based on record for station at Fairbank, below Babocomari River.

June 17. 1928, to Dec. 21, 1933, and May 1, 1935, to Nov. 30, 1942, water-stage recorder 1 ½ miles downstream at datum 24.01 ft lower. Staff gage nearby May 12 to June 16, 1928, at same datum.

Dec. 22, 1933, to Apr. 30, 1935, no gage; estimates of discharge based on record for station near Mammoth.

Average discharge.

39 years (1904 - 5, 1912-50), 67.9 cfs.

Extremes.

1916-50: Maximum discharge, about 98,000 cfs Sept. 28, 1926 (gage height, 21.9 ft, from floodmarks, site and datum in use 1928 to November 1942), from rating curve extended above 1,900 cfs on basis of slope-area determination of peak flow; minimum at site used 1912-26, 0.5 cfs Jan. 27, 1923, and June 12, 1925; minimum at site used Since 1928, 1.1 cfs July 14, 15, 1948.

Remarks.

Diversions for irrigation above station, mostly by pumping from ground water (about 1,600 acres in 1949; about 1,100 acres in 1938; less in earlier years except for period 1912-26 when station was below diversion for several hundred acres at Boqulllas dam); figures of irrigated acreage include about 200 acres In Mexico. Record shows water available at Charleston dam site.

Gatewood, J.S., 1954, Compilation of records of surface waters of the United States through September 1950: Part 9. Colorado River Basin, United States Geological Survey Water-supply Paper 1313, p. 640 – 643.