NEBRASKA
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DEPT. OF NATURAL RESOURCES

Platte River at Darr, NE
06766650

LOCATION

Latitude and Longitude

40.77653 -99.84803

Road Log

Dawson County, off Interstate I-80 at exit 231 State Numbered Highway Link L24A southbound for approximated .25-mile, gage is at the left upstream end of the bridge over the Platte River.

Equipment Details

Recording Gage

SUTRON CBS flow meter connected to stream with a sand point orifice. SATLINK DCP communications installed so a near real time data is available in one-hour transmissions. Instrument powered from 12-volt gel cell battery connected to solar panel. All instruments housed in a 2.5 foot x 2.5 foot x 2.5 foot precut metal shelter on the left upstream end of the bridge over the Platte River.

Real-time data accessed through the internet at https://nednr.nebraska.gov/RealTime

External Gage

Wire weight gage attached to the upstream side of the bridge. Check bar elevation 21.00 feet March 23, 2017

Bench Mark and Reference Marks

Gage datum is 2,415.226 feet above sea level, referenced to NAVD88. Based on survey of RM#3 on September 23, 2019, combined with levels from August 28, 2018.

RM#1 "X" on bridge rail located on the downstream (north end) of bridge. Elevation 22.19 feet August 28, 2018.

RM#2 "X" on bridge rail located on the upstream (north end) of bridge. Elevation22.03 feet August 28, 2018.

RM#3 Standard Brass Tablet (Nebraska Department of Roads) located on the downstream side of bridge left end of bridge at road level. Elevation 19.71 feet by levels September 7, 2016. ORIGIN.

Elevation 19.71 feet by levels August 28, 2018. ORIGIN.

Wire Weight check bar elevation 21.00 feet by levels August 28, 2018.

Hydrology

Drainage Area

Not Determined.

Channel and Control

Channel is straight for a considerable distance above and below the gage. At low and medium stages, there will be one or two meandering channels with numerous sandbars separating flow. The streambed is composed of shifting sand with no stable control. Some diurnal fluctuation will occur because of the generating cycle of an upstream diversion.

Discharge Measurements

Low and medium flows measured by wading near the gage. Higher flows measured from the State Numbered Highway Link L24A Bridge.

Floods

NA

Extremes for Period of Record

NA

Point of Zero Flow

Point of zero flow is variable at this location. PZF 5.05 feet June 6, 2018.

Winter Flow

Ice conditions expected during and after periods of cold temperatures

Regulation and Diversions

Flow affected by upstream diversions/returns for irrigation, storage, and power.

Tri-County Canal system/Jeffrey Power Return.

Accuracy

The stage-discharge relation is subject to moderate shifting but good records expected with bi-weekly measurements, good gage-height record, and additional measurements during high-water periods. Ice conditions expected to be severe during extended cold periods, producing poor results.

Establishment and History

This site moved from the Platte River at Lexington to this location because of bridge construction and a better cross section.

Station Established September 7, 2016

Revision History

Original description by Trevor Massey 04/26/2018

Revised by J A Marburger 05/11/2018

Revised by K. Schwager 03/06/2019

Revised by J. Williams 2023-08-22 to include gage datum corrected to 2019 survey

Revised by K. Schwager 11/17/2023