

Lodgepole Creek at Ralton, Nebraska 06763500

LOCATION

Latitude and Longitude

41.03349 -102.4048

Road Log

On right bank directly west of bridge culvert at Ralton, 2.1 mile north of Colo.-Ne. state line on state Highway 23 or 5.5 miles southeast of Chappell, Ne. on State Highway 23 to county road then .2 mile west to station.

Equipment Details

Recording Gage

Sutron Accubar® CF Bubbler Flow meter connected to stream with an open-end orifice and referenced to water surface. Gage has satellite communications for real time information.

Real-time data can be accessed through the internet <https://nednr.nebraska.gov/RealTime>

External Gage

R.M. No.5/RP#2 Reference Point (notch) located on top of downstream bridge culvert. Elevation 4.48 feet to gage datum on March 30, 2017.

Bench Mark and Reference Marks

RM.1, RM.2, RM.4, and RM.6 have been destroyed.

R.M. No. 3, Standard Bronze Tablet 90-feet east of gage or 1 foot west of east gate post. Elevation, 5.80 feet to gage datum. from levels run on March 30, 2017. **Use as origin.**

Elevation, 5.80 feet to gage datum. from levels run on April 14, 2021. **Origin**

R.M. No.5/ RP#2 Reference Point (notch) located on top of downstream bridge culvert. Elevation 4.48 feet to gage datum on March 30, 2017.

Elevation 4.44 feet to gage datum on April 14, 2021.

R.M. No. 7 Top on T post 4.5 feet east of shelter. Elevation 6.05 feet by levels March 30, 2017

Elevation 6.05 feet by levels April 14, 2021

Hydrology

Drainage Area

Approximately 3,307 square miles.

Channel and Control

This channel is 15 feet wide and straight for 50 feet upstream and 100 feet downstream from gage. Flow will be in one channel up to a stage of 4.0 feet. Banks are covered with grass and weeds. Some small trees and heavy vegetation in the overflow area. Sand channel control.

Discharge Measurements

Wading measurements will be made in vicinity of gage usually below gage. High flow measurements will be made at downstream side of county road bridge culvert directly east of gage. Ice conditions are severe during winter months. All discharge measuring conditions with the exception of those made under ice conditions should be fair.

Floods

Peak discharge 4,560 cubic feet per second August 15, 1968, gage height 6.49 feet.

Extremes for Period of Record

Peak discharge 4,560 cubic feet per second August 15, 1968, gage height 6.49 feet from rating curve extended above 1,200 cubic feet per second on basis of slope-area measurement of peak flow; minimum daily discharge of no flow many years since 1931.

Point of Zero Flow

Variable. 2.00 gage height May 14, 2018.

Winter Flow

Ice cover occurs for extended period of time during winter months.

Regulation and Diversions

No regulation. Numerous diversions above station for irrigation purposes. Very little diversion takes place due to the lack of flow in basin.

Accuracy

Records good except those for winter period, which are poor.

Cooperation.

None

Establishment and History

March to September 1931 published by USGS. Staff gage ¼ mile below present site. June 18, 1951 to September 1979(discontinued), October 2001 to date.

Isco replaced by Sutron equipment with satellite communications on 11/22/2016

Revision History

Original prepared by A.N.De Paulo 1/7/52

Revised by: J. Nichols 02/18/11

Revised by: J.A. Marburger 02/01/2017

Revised by: J.A. Marburger 01/18/2019

Revised by: K. Schwager 11/01/2021