

Turkey Creek near Kearney, Nebraska 00145700

LOCATION

Latitude and Longitude

40.67303, -99.02775

Road Log

Station is located 67 ft. north of left stream channel bank, 115 ft. west of centerline of Cherry Avenue, 350 ft. east of Kearney East Bypass.

Nearby Features

Equipment Details

Recording Gage

The base recorder is a Sutron CBS Bubbler Flow Meter and a Satlink DCP unit housed in a cube type shelter and connected to the stream with an orifice. The DCP provides one hour transmissions with 15 minute data sent to the satellite and downlink stations.

External Gage

Instrument referenced to staff gage located 70 ft. south of station.

Bench Mark and Reference Marks

RM1, RM2, RM3 were located at original gage site and have been abandoned.

RM'S # 4, 5, 6, 7, 8 & 9 are all gone or destroyed so they were not shot.

STAFF held on 2.47 feet during the last levels from March 29, 2021.

RM 4, Not found.

RM 5, Not found.

RM 6, Not found.

RM 7, Not found.

RM 8, Not found.

RM 9, Not found.

RM 10, "X" in top of I-Beam sticking up 150' S across creek from shelter. Elevation 11.25, on last levels from March 29, 2021.

RM 11, Not found.

RM 12, "X" on top DS bridge rail 29' S of N edge of the bridge. Established and given elevation is 18.28, shot on last levels from March 29, 2021.

RM 13, X in top of bolt that is the NE bolt in DS handrail base on the left side of bridge.
Established with elevation of 13.05 on March 29, 2021.

RM 14, X in top of bolt that is the SE bolt in DS handrail base on the left side of bridge.
Established with elevation of 13.31 on March 29, 2021.

PRESENT GAGE DATUM: 2122 ft. WGS84

Hydrology

Drainage Area

Channel and Control

Shifting sand channel.

Discharge Measurements

Wading measurements are made in vicinity of gage. Good results can be expected if proper care is taken in sectioning. High flows are measured by bridgeboard or crane from Cherry Avenue Bridge.

Floods

Major flood event on July 10, 2019 caused station to be wash out.

Extremes for Period of Record

Peak discharge 4,310 cubic feet per second July 9 of 2019, gage height 10.47 feet;
minimum daily discharge 10 cubic feet per second January 1 (Ice Affected).

Point of Zero Flow

It was measured -0.49 on December 6 of 2016.

Seasonal Flow

Flow varies due to Kearney Power Return spillage into Turkey Creek.

Regulation and Diversions

April through October the gage height fluctuates due to power cycling from Johnson hydro that takes away from the flow and more importantly Kearney Canal that dumps into the creek during irrigation season.

Accuracy

When ice is not present, records are considered good.

Establishment and History

On September 19, 2001: Station was installed south of Kearney sewage plant

On March 20, 2007: Station was moved to present location.

On May 8, 2007: Datum was raised by 1 ft. on all reference marks

On November 16, 2016: Monitoring equipment switched from ISCO 4200 to Sutron CBS Bubbler Flow Meter/Satlink DCP combination

On July 9, 2019: Station washed out by flood water. Station re-established 20 ft. north of previous location.

Install: SatLink2-V2 HDR Logging Transmitter 29N00767, Accubar CF Bubbler 29N00818

Remove: SatLink2-V2 HDR Logging Transmitter 29N00920, Accubar CF Bubbler 29N00929

Revision History

Original Station Description prepared by:	Trevor Massey	08/14/2017
Reformatted by:	Stjepan Figuric	02/28/2019
Revised by:	Stjepan Figuric	11/04/2019
Revised by:	K.Schwager	11/02/2023
Revised by:	Stjepan Figuric	11/07/2023