

# North Platte River Passing Tri-State Dam near Henry, NE 00225000

## LOCATION

Latitude and Longitude

41.98435 -104.0339

#### Road Log

Scotts Bluff county; From the town of Henry, NE at the intersection of County Road "A" and U S Highway 26 travel eastward on U S Highway 26 approximately 1 mile to County Road "B". Turn right and follow the road across the Burlington Northern Railroad tracks towards the Canal Tenders House. You will pass over the Tri-State Canal then pass by the Tenders House, turn to the left at North Platte River below the Diversion dam and follow it downstream to the gage site.

#### Nearby Features

Tri-State Diversion Dam (500 feet above station)

### **Equipment Details**

#### **Recording Gage**

Cube-type metal shelter mounted on pipe pedestal. SUTRON CBS flow meter and a SATLINK DCP radio connected to stream with a well point orifice. Instrument logs data at 15-minute intervals and transmits via satellite each hour to the downlink stations.

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

#### External Gage

ChainGage1

#### Bench Mark and Reference Marks

#### RM # 1, 2, 4, 5, 6, 7, 9, and Staff Gage DESTROYED

**RM # 3** Steel rod in concrete 4' east of house on dam. Elevation 10.21 feet last set of levels run to it 10/1/2008

RM #8 South leg of old shelter base. Elevation 10.37 feet (Origin) by levels 08/01/2018

**RM #10** "X" in leg of old shelter base at NE position 2.52 feet from shelter post. Elevation 10.30 feet by levels 08/01/2018.

**RM#11** "X" in leg of old shelter base at SE position 3.95 feet from shelter post. Elevation 10.54 feet by levels 08/01/2018.

Streamgage Description North Platte River Passing Tri-State Dam near Henry, NE 00225000

**RM #12** 11.5 feet south of station pole near chain gage. Elevation 10.78 feet by levels 08/01/2018

**RP#1** downstream left edge of water corner of dam, near dam station. Elevation 10.27 by levels 11/02/2016.

## Hydrology

#### Drainage Area

Not Determined

#### **Channel and Control**

Flows directly affected by Tri-State Diversion Dam (500 feet above station)

#### **Discharge Measurements**

Wading measurements made near the gage. High water measurements made at the Morrill bridge site and calculated based on travel time, gage heights from the North Platte River at Morrill and North Platte River Passing Tri-State sites, and gains/losses incurred from streams and canals respectively.

#### Floods

NA

#### Extremes for Period of Record

NA

#### Point of Zero Flow

A small amount of seepage always passes control gates, even during heavy diversion from Tri-State Canal. PZF Variable.

#### Winter Flow

Flows are steady in the winter months but can fluctuate drastically contingent upon Tri-State Canal diversion activity.

#### **Regulation and Diversions**

Canal operations above site Tri-State Diversion Dam (500' above station)

#### Accuracy

Fair to Poor. During poor measurement conditions, site discharge is calculated based off of measurements conducted 6.4 miles downstream at the North Platte River at Morrill gage. This can cause an overall reduction in data accuracy but this reduction has proven largely nominal upon close inspection of the data. WY-NE state line measurements used as well to determine calculated discharges.

Streamgage Description North Platte River Passing Tri-State Dam near Henry, NE 00225000

## **Establishment and History**

March 9, 2016: Sutron equipment installed

## **Revision History**

Original station description not found.	02/22/2019.
Revised by J A Marburger	03/08/2019
Revised by K. Schwager	11/13/2023