

NWS FORM E-19 (COVER)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

REPORT ON RIVER GAGE STATION

REVISED, PRINTED DATES: 03/01/2008, 08/22/2010

LOCATION: CAMBRIDGE
STREAM: REPUBLICAN RIVER
BASIN: REPUBLICAN 10

HSA: GID

REFERENCES:

CAMBRIDGE CLARION - NEWSPAPER
STATION DESCRIPTION - NDNR - 11/29/2004
STATION DESCRIPTION - NDNR - 12/10/1999
WATER RESOURCES DATA FOR NE - USGS
WS FORM E-19 - MARCH 1991

ABBREVIATIONS:

BM - bench mark	EPA - Environmental Protection Agency
DS - downstream	IBWC - International Boundary and Water Comm.
US - upstream	MSRC - Mississippi River Commission
HW - high water	MORC - Missouri River Commission
LW - low water	NOAA - National Oceanic and Atmospheric Admin.
RB - right bank	NOS - National Ocean Survey
LB - left bank	NWS - National Weather Service
MGL - mean gulf level	TVA - Tennessee Valley Authority
MLW - mean low water	USACE - U.S. Army Corps of Engineers
MSL - mean sea level	USBR - U.S. Bureau of Reclamation
MLT - mean low tide	USGS - U.S. Geological Survey
MT - mean tide	USWB - U.S. Weather Bureau
WQ - water quality	NGVD - National Geodetic Vertical Datum
RM - reference mark	NAD - North American Datum
RP - reference point	

LOCATION IDENTIFICATION: CAMN1
NWS INDEX NUMBER: 25-1416-7
USGS NUMBER: 06843500

MAP OF GAGE LOCATION

LATITUDE: 40 17 04 SOURCE: USGS
LONGITUDE: 100 08 37

LOCATION: REPUBLICAN RIVER At CAMBRIDGE , NE
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NWS FORM E-19 PAGE 1: GAGE MAP

BENCHMARKS

ELEVATION OF GAGE ZERO: 2239.070 VERTICAL DATUM: NGVD 1929
 LEVELING AGENCY AND DATE: 2/22/02 USGS CHECKBAR: 0.000
 RATING AGENCY: USGS

BENCHMARK	DESCRIPTION	GAGE ZERO	DATUM
RM1-5	REFERENCE MARKS 1 THROUGH 5 HAVE NOT BEEN IN USE SINCE 1958.		
RM6	THE HEAD OF MACHINE BOLT (RED) EMBEDDED IN A CONCRETE BOLT 51 FEET SHOREWARD AND 27 FEET DOWNSTREAM FROM CENTER OF GAGE WELL ABOUT 3 FEET STREAMWARD FROM A SMALL TREE. FOUND IN 2002.	10.550	2249.620
RM7	THE TOP OF THE DOWNSTREAM ANCHOR BOLT IN THE DOWNSTREAM LEG OF THE LEFT BANK A-FRAME OF MEASURING CABLEWAY (50 FT. WEST OF GAGE HOUSE). BOLT IS SET VERTICALLY IN A CONCRETE PEDESTAL. FOUND IN 2002.	11.070	2250.140
RM8	STANDARD USGS BRASS TABLET SET IN A CONCRETE POST 9 FT. SHOREWARD AND 27 FT. UPSTREAM FROM CENTER OF GAGE WELL. FOUND IN 2002.	10.230	2249.300

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GAGES

DCP

TELEM

NESS ID: CE74390C
 OWNER: USGS
 REPORT TIME: 005320
 INTERVAL: 60

TYPE OF TELEMETRY:
 OWNER:
 PHONE NUMBER:
 INTERVAL:
 PAYOR/COST OF LINE: / \$

GAGE TYPE	OWNER	MAINTENANCE	BEGAN	ENDED	GAGE LOCATION/REMARKS
staff	USGS	USGS	05/19/1942	06/22/1947	USBR ESTABLISHED STATION WITH A STAFF GAGE LOCATED 150 FEET UPSTREAM OF PRESENT SITE. USGS ASSUMED STATION OPERATION ON 9/1/45. ORIGINAL GAGE WAS DESTROYED BY A FLOOD ON 6/22/47. RANGE OF ZERO TO 9.2 FT.
staff	USGS	USGS	06/22/1947	07/13/1947	TEMPORARY GAGE.
staff	USGS	USGS	07/14/1947	07/13/1948	A STAFF GAGE WAS INSTALLED AT THE SAME SITE READING FROM ZERO TO 10.1 FEET.
staff	State DNR	State DNR	07/13/1948	12/31/2050	HIGH WATER STAFF GAGE WAS INSTALLED READING 10.2 TO 16.9 FEET ON A LARGE COTTONWOOD TREE ABOUT 10 FEET UPSTREAM OF CURRENT GAGE.
wireweight	State DNR	State DNR	07/13/1948	12/31/2050	THIS PRESENT OUTSIDE GAGE IS A CANTILEVERED TYPE CHAIN GAGE CONSTRUCTED OF TIMBER AND SUPPORTED BY TWO PIECES OF 2" GALVANIZED PIPE SET IN CONCRETE LOCATED ABOUT 20 FEET UPSTREAM FROM GAGE WELL.
bubble	State DNR	State DNR	09/26/1950	03/01/1986	PRESENT GAGEHOUSE AND A-35 WERE INSTALLED.
Unk	State DNR	State DNR	09/28/1965		ADR RECORDER INSTALLED IN PRESENT GAGEHOUSE. A LINCOLN STANDARD 48" CORRUGATED IRON PIPE WELL AND SHELTER CONTAINS THE A-35 AND ADR RECORDERS.
bubble	USGS	USGS	03/01/1986		HANDAR DCP GAGE INSTALLED IN THE GAGEHOUSE.

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HISTORY

PUBLICATION/LOCATION OF RECORDS	STARTING DATE	ENDING DATE
-----	-----	-----
WRD NE	05/19/1942	

TYPE OF GAGE	OWNER	STARTING DATE	ENDING DATE
-----	-----	-----	-----
staff	USGS	05/19/1942	06/22/1947
staff	USGS	06/22/1947	07/13/1947
staff	USGS	07/14/1947	07/13/1948
staff	State DNR	07/13/1948	12/31/2050
wireweight	State DNR	07/13/1948	12/31/2050
bubble	State DNR	09/26/1950	03/01/1986
Unk	State DNR	09/28/1965	
bubble	USGS	03/01/1986	

ZERO ELEVATION	STARTING DATE
-----	-----
2239.070	05/19/1942

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CRESTS

FLOOD STAGE: 9.00 ACTION STAGE: 8.00 BANKFULL STAGE: 9.00
 FLOOD FLOW: 5371 ACTION FLOW: 2499

DATE OF CREST	TIME LST	CREST (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
05/31/1935	UNDEF	17.60	280000				MAXIMUM STAGE KNOWN BASED UPON INFORMATION FROM LOCAL RESIDENT.
06/03/1946	UNDEF	10.00	18000				FLOODING OCCURRED BEFORE REGULATION UPSTREAM.
06/22/1947	UNDEF	16.70	160000	X			FLOOD OF RECORD DURING PERIOD OF RECORD. OCCURRED BEFORE REGULATION.
06/21/1948	UNDEF	14.00	50000				FLOOD OCCURRED BEFORE REGULATION UPSTREAM.
06/18/1949	UNDEF	7.10	8080				
08/07/1950	UNDEF	7.20	7750				
09/04/1951	UNDEF	7.02	11000				
05/09/1952	UNDEF	5.17	1580				
05/28/1953	UNDEF	5.92	2250				
08/18/1954	UNDEF	5.33	1060				
06/17/1955	UNDEF	7.55	5200				
07/06/1956	UNDEF	7.48	3960				
05/25/1957	UNDEF	8.25	5720				
07/21/1958	UNDEF	6.45	2420				
05/20/1959	UNDEF	5.65	1530				
03/22/1960	UNDEF	9.35	9080				
05/21/1961	UNDEF	7.39	3520				
06/08/1962	UNDEF	9.32	8000				
06/18/1963	UNDEF	7.09	2300				
08/20/1964	UNDEF	7.60	2890				
06/13/1965	UNDEF	9.24	7600				
10/19/1965	UNDEF	6.79	1950				
06/21/1967	UNDEF	7.62	3350				
08/29/1968	UNDEF	6.90	2100				
05/21/1969	UNDEF	9.28	6560				
06/12/1970	UNDEF	6.28	1560				
06/09/1971	UNDEF	6.32	1480				
06/18/1972	UNDEF	6.89	2110				
02/09/1973	UNDEF	7.48				X	
06/05/1973	UNDEF	5.83	1110				
06/09/1974	UNDEF	8.35	5200				
06/20/1975	UNDEF	8.19	3460				
06/23/1976	UNDEF	6.76	1710				
05/22/1977	UNDEF	8.52	4480				
03/12/1978	UNDEF	6.28	1500			X	
07/28/1979	UNDEF	6.40	1240				
08/11/1980	UNDEF	6.13	1360				
07/19/1981	UNDEF	6.85	1940				
08/15/1982	UNDEF	5.84	1120				
06/13/1983	UNDEF	7.65	2220				
06/18/1984	UNDEF	5.78	957				
06/26/1985	UNDEF	6.71	1610				
06/05/1986	UNDEF	4.65	384				

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DATE OF CREST	TIME LST	CREST (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
05/03/1987	UNDEF	6.13	1160				
07/19/1988	UNDEF	6.59	1400				
07/01/1989	UNDEF	6.07	1080				
05/19/1990	UNDEF	5.83	930				
07/02/1991	UNDEF	4.57					
08/20/1991	UNDEF	4.38	384				
08/05/1992	UNDEF	6.14	1060				
07/24/1993	UNDEF	7.43	1950				
03/06/1994	UNDEF	4.55	547			X	
01/25/1995	UNDEF	5.61	126			X	BACKWATER FROM ICE.
05/27/1995	UNDEF	4.58	435				
09/20/1996	UNDEF	5.23	716				
06/27/1997	UNDEF	4.50	439				
07/20/1998	UNDEF	4.35	392				
06/11/1999	UNDEF	4.93	568				
07/23/2000	UNDEF	4.96	60				
04/23/2001	UNDEF	5.12	55				
07/23/2002	UNDEF	4.78	52				
08/21/2003	UNDEF	3.79	23				
07/21/2004	UNDEF	3.79	25				
06/09/2005	UNDEF	4.53	330				
07/21/2006	UNDEF	4.41	321				Maximum peak flow and maximum peak stage for the year.
04/25/2007	20:00	8.88	3400				ACTUAL FLOW MEASUREMENTS BY CAMBRIDGE NDNR.
05/25/2008	08:30	10.21	11133				

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LOW WATER RECORDS

DATE OF LOW WATER	STAGE (ft)	FLOW (CFS)	REMARKS
09/27/1978		1	MINIMUM DAILY DISCHARGE DURING RECORD PERIOD.
10/03/1995	2.09	59	MOST RECENT PERIOD OF NO FLOW.

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RIVER STAGE DATA

	20-	

	18-	

	-----	17.60 05/31/1935

	-----	16.70 06/22/1947
	16-	

	14-	
	-----	14.00 06/21/1948

	12-	

	10-	10.21 05/25/2008
10.00 - THE LEFT BANK WILL OVERFLOW INTO AGRICULTURAL LAND. THE CITY OF CAMBRIDGE IS NOT THREATENED.	-----	10.00 06/03/1946
	-----	9.35 03/22/1960
9.00 - FLOODING WILL SPREAD FURTHER OUT OF THE SOUTH BANK.	-----	8.88 04/25/2007
	-----	8.52 05/22/1977
	8-	8.35 06/09/1974
	-----	7.65 06/13/1983
8.00 - RIGHT BANK BEGINS TO OVERFLOW ONTO PASTURELANDS. WATER WILL START FLOWING THROUGH SLOUGHS SOUTH OF THE MAIN CHANNEL.	-----	7.60 08/20/1964
	-----	7.20 08/07/1950
	-----	6.79 10/19/1965
	6-	6.40 07/28/1979
	-----	5.92 05/28/1953
	-----	5.33 08/18/1954
	-----	5.17 05/09/1952
	-----	4.78 07/23/2002
	4-	4.38 08/20/1991
	-----	3.79 08/21/2003

	2-	

REACH: A FEW MILES UPSTREAM AND DOWNSTREAM OF GAGE.

ELEVATION ZERO: 2239.07

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CONTACTS

SQ	CONTACT/REMARKS	PHONE
1	DELMAR SCHOENFISH	308-697-4638
2	NDNR CAMBRIDGE OFFICE MAINTENANCE.	308-697-3730

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