

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: 04/08/2010, 08/22/2010

LOCATION: ORLEANS
STREAM: REPUBLICAN RIVER
BASIN: REPUBLICAN 10

HSA: GID

REFERENCES:

REPUBLICAN RIVER BASIN - WATER MANAGEMENT STUDY - JUN 1979 BY USBR
USGS STATION DESCRIPTION - RECEIVED AUGUST 2006
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: ORNN1
NWS INDEX NUMBER: 25-6365-8
USGS NUMBER: 06844500

MAP OF GAGE LOCATION

LATITUDE: 40 07 54
LONGITUDE: 99 30 09

SOURCE: GPS

LOCATION: REPUBLICAN RIVER near ORLEANS, NE
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BENCHMARKS

ELEVATION OF GAGE ZERO: 1972.570 VERTICAL DATUM: NGVD 1929
 LEVELING AGENCY AND DATE: 9/19/2008 CHECKBAR: 23.840
 RATING AGENCY: USGS

BENCHMARK	DESCRIPTION	GAGE ZERO	DATUM
RM10	BOLT IN DOWNSTREAM RAILING 2 FEET FROM RIGHT EDGE.	25.084	1997.654
RM11	LAG BOLT LOCATED AT THE BASE OF THE NORTHEAST GAGEHOUSE LEG.	21.797	1994.367
RM12	BENCHMARK LOCATED 12 FEET EAST OF RM10.	25.074	1997.644
RM7	LAG BOLT LOCATED 90 FEET NORTHEAST OF NORTHEAST CORNER OF GAGE HOUSE IN TOP OF LARGE WOODEN POST NEXT TO THE WEST RAILROAD BRIDGE ABUTMENT.	17.829	1990.399
RM8	LAG BOLT LOCATED 12 FEET EAST OF RM7 ON HORIZONTAL RAILROAD TIE ON SOUTHWEST END OF RAILROAD BRIDGE.	18.064	1990.634
RM9	BOLT IN DOWNSTREAM BRIDGE RAILING 2 FEET FROM RIGHT EDGE.	25.034	1997.604

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GAGES

DCP

TELEM

NESS ID: CE74414E
 OWNER: USGS
 REPORT TIME: 00:5250
 INTERVAL: 60

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

GAGE TYPE	OWNER	MAINTENANCE	BEGAN	ENDED	GAGE LOCATION/REMARKS
wireweight	USGS	USGS	10/27/1947	05/13/1948	STATION ESTABLISHED BY USGS. WIRE WEIGHT GAGE ATTACHED TO DOWNSTREAM FACE OF CONCRETE DECK NEAR LEFT EDGE OF WATER. WIRE WEIGHT WAS MOVED WEST ON THE BRIDGE OVER THE WATER.
wireweight	USGS	USGS	05/13/1948		
Unk	USGS	USGS	06/02/1948	03/28/2000	A STILLING WELL WITH AN A-35 RECORDER INSTALLED ON RIGHT BANK 50 FT. UPSTREAM OF HIGHWAY 89 BRIDGE. MOVED TO PRESENT SITE 10/11/57. GAGES ARE HOUSED IN A LINCOLN STANDARD METAL SHELTER.
Unk	USGS	USGS	09/28/1965		DIGITAL WATER STAGE RECORDER WAS ADDED TO THE GAGEHOUSE.
bubble	USGS	USGS	09/06/1977	03/28/2000	THE SERVO-MANOMETER WAS REPLACED BY A SUTRON ACCUBAR.
bubble	COE	USGS	03/01/1986	07/29/1997	A DATA COLLECTION PLATFORM (HANDAR) WAS INSTALLED BY THE USGS FOR THE KANSAS CITY DISTRICT CORPS OF ENGINEERS.
bubble	USGS	USGS	07/29/1997		A SUTRON 8200 DCP REPLACED THE 8004.
tipping	USGS	USGS	03/28/2000		TIPPING BUCKET INSTALLED.

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HISTORY

PUBLICATION/LOCATION OF RECORDS	STARTING DATE	ENDING DATE
USGS WRD NE	10/27/1947	

TYPE OF GAGE	OWNER	STARTING DATE	ENDING DATE
wireweight	USGS	10/27/1947	05/13/1948
wireweight	USGS	05/13/1948	
Unk	USGS	06/02/1948	03/28/2000
Unk	USGS	09/28/1965	
bubble	USGS	09/06/1977	03/28/2000
bubble	COE	03/01/1986	07/29/1997
bubble	USGS	07/29/1997	
tipping	USGS	03/28/2000	

ZERO ELEVATION	STARTING DATE
1972.570	10/27/1947

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CRESTS

FLOOD STAGE: 9.00 ACTION STAGE: 8.00 BANKFULL STAGE: 9.00
 FLOOD FLOW: 2994 ACTION FLOW: 2154

DATE OF CREST	TIME LST	CREST (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
06/23/1947	UNDEF	14.00	145000				X
06/22/1948	UNDEF	11.25	40600				
06/18/1949	UNDEF	9.32	5410				
07/27/1950	UNDEF	9.43	6080				
05/21/1951	UNDEF	11.65	11600				
07/14/1952	UNDEF	8.41	3260				
05/28/1953	UNDEF	8.69	5160				
05/16/1954	UNDEF	7.78	2330				
06/18/1955	UNDEF	9.76	5160				
06/20/1956	UNDEF	8.31	2400				
06/17/1957	UNDEF	12.04	12300				
07/23/1958	UNDEF	7.45	2140				
03/01/1959	UNDEF	-0.99	2200				
03/22/1960	UNDEF	12.60	10000				
05/22/1961	UNDEF	11.20	6510				
06/10/1962	UNDEF	11.29	6280				
09/22/1963	UNDEF	7.63	2260				
08/20/1964	UNDEF	9.07	3600				
05/27/1965	UNDEF	11.54	7200				
10/18/1965	UNDEF	10.68	5350				
06/21/1967	UNDEF	11.71	8960				
08/30/1968	UNDEF	6.15	1240				
05/22/1969	UNDEF	10.17	5060				
06/13/1970	UNDEF	6.64	1550				
05/11/1971	UNDEF	6.16	1250				
06/20/1972	UNDEF	6.33	1530				
07/19/1973	UNDEF	7.73	2360				
06/10/1974	UNDEF	8.22	3120				
06/21/1975	UNDEF	10.48	5680				
04/09/1976	UNDEF	7.35	2430				
05/23/1977	UNDEF	9.58	4520				
03/14/1978	UNDEF	-0.99	2000				
07/29/1979	UNDEF	7.36	2440				
02/24/1980	UNDEF	-0.99	1000				X
08/07/1981	UNDEF	7.10	2140				
02/19/1982	UNDEF	5.37	850				
06/13/1983	UNDEF	10.28	5220				
05/19/1984	UNDEF	5.03	968				
06/27/1985	UNDEF	6.18	1520				
05/10/1986	UNDEF	10.97	5990				
05/04/1987	UNDEF	5.50	1350				
08/14/1988	UNDEF	7.13	2150				
06/27/1989	UNDEF	8.48	3270				
05/20/1990	UNDEF	6.80	1940				
06/03/1991	UNDEF	3.92	514				

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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
08/07/1992	UNDEF	4.35	538				
03/08/1993	UNDEF	12.95				X	BACKWATER FROM ICE.
07/28/1993	UNDEF	10.66	5220				
03/05/1994	UNDEF	5.82	1520			X	BACKWATER FROM ICE.
05/28/1995	UNDEF	5.72	1300				
06/17/1996	UNDEF	7.97	2750				
06/28/1997	UNDEF	4.12	593				
04/07/1998	UNDEF	3.08	328				
08/12/1999	UNDEF	6.37	1440				
07/05/2000	UNDEF	3.86	57			X	
04/24/2001	UNDEF	5.42	125				
05/11/2002	UNDEF	2.27	22				
05/21/2003	UNDEF	3.56	46				
07/11/2004	UNDEF	1.94	7				
06/05/2005	UNDEF	4.65	526				Maximum peak flow and maximum peak stage for the year.
01/06/2006	UNDEF	2.69	126				
04/25/2007	20:00	8.69	2734				
04/25/2007	UNDEF	8.69	3270				
05/26/2008	06:45	13.04	8157				MEMORIAL WEEKEND...WATER CREPT INTO SW FIELD NEAR HOUSE BY GAGE SITE.

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LOW WATER RECORDS

DATE OF LOW WATER	STAGE (ft)	FLOW (CFS)	REMARKS
06/01/1952	0.00	0	NO FLOW AT TIMES IN 52-57, 63, 78-80

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RIVER STAGE DATA

	17-	

	15-	

	14.00	06/23/1947

	13-	13.04 05/26/2008
	-----	12.95 03/08/1993
	-----	12.60 03/22/1960
	-----	12.04 06/17/1957
	-----	11.71 06/21/1967
	11-	11.29 06/10/1962
	-----	10.97 05/10/1986
	-----	10.48 06/21/1975
	-----	10.17 05/22/1969
	-----	9.76 06/18/1955
	9-	9.32 06/18/1949
9.00 - LOWLAND FLOODING BEGINS. ABOVE 9 FT, MORE LOWLAND FLOODING TAKES PLACE. THE TOWN OF ORLEANS IS NOT LOCATED IN THE FLOOD PLAIN.	-----	8.69 04/25/2007
	-----	8.48 06/27/1989
	-----	7.97 06/17/1996
	-----	7.78 05/16/1954
	7-	7.36 07/29/1979
	-----	6.80 05/20/1990
	-----	6.37 08/12/1999
	-----	6.18 06/27/1985
	-----	5.72 05/28/1995
	5-	5.37 02/19/1982
	-----	4.65 06/05/2005
	-----	4.35 08/07/1992
	-----	4.12 06/28/1997
	-----	3.56 05/21/2003
	3-	3.08 04/07/1998
	-----	2.69 01/06/2006
	-----	2.27 05/11/2002
	-----	1.94 07/11/2004

	1-	

	-1-	-0.99 02/24/1980

REACH:

ELEVATION ZERO: 1972.57

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CONTACTS

SQ	CONTACT/REMARKS	PHONE
1	JASON & CHELSEA BOSE SIGNIFICANT RIVER RISES AND FLOODING ISSUES.	308-473-3002
2	ERNEST KUHL	308-473-3725
3	USGS NORTH PLATTE OFFICE MAINTENANCE.	308-532-5323

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