

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: 06/08/2007, 08/22/2010

LOCATION: STOCKTON
STREAM: BOW CREEK
BASIN: SOLOMON 12
HSA: GID

REFERENCES:

USGS STATION DESCRIPTION - DECEMBER 27, 2001
USGS STATION DESCRIPTION - MARCH 15, 2006

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: SKTK1
NWS INDEX NUMBER: 14-7836-02
USGS NUMBER: 06871500

MAP OF GAGE LOCATION

LATITUDE: 39 33 34
LONGITUDE: 99 17 08

SOURCE: USGS STN DESCRIPTION

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BENCHMARKS

ELEVATION OF GAGE ZERO: 1801.800 VERTICAL DATUM: 1801.80
 LEVELING AGENCY AND DATE: 08/03/2000 CHECKBAR: 21.067
 RATING AGENCY:

BENCHMARK	DESCRIPTION	GAGE ZERO	DATUM
MP-1	A PHILLIPS SHELL IN THE LEFT DOWNSTREAM PIER ON THE LEFT EDGE OF WATER LOCATED JUST SOUTH OF THE ORIFICE LINE AND CSI.	5.225	1807.025
RM3	A BRASS TABLET ON THE LEFT DOWNSTREAM WINGWALL.	18.542	1820.342
RM4	A BRASS TABLET ON THE RIGHT DOWNSTREAM WINGWALL.	20.483	1822.283
RP1	A CHISELED SQUARE AT STATION 155 ON THE DOWNSTREAM SIDE OF THE BRIDGE.	22.231	1824.031

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GAGES

DCP

TELEM

NESS ID: DD9C060A
 OWNER: USGS
 REPORT TIME: 004630
 INTERVAL: 60

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

GAGE TYPE	OWNER	MAINTENANCE	BEGAN	ENDED	GAGE LOCATION/REMARKS
wireweight	USGS	USGS	11/20/1950		
Unk	USGS	USGS	06/28/1951	06/22/1999	A GRAPHICAL RECORDER WAS INSTALLED IN A STILLING WELL AND SHELTER AT THE DOWNSTREAM SIDE OF THE BRIDGE PIER.
bubble	USGS	USGS	11/11/1965	03/16/1993	A BUBBLE GAGE AND DIGITAL RECORDER WERE INSTALLED IN A STEEL COVERED SHELTER AT RIGHT DOWNSTREAM BRIDGE ABUTMENT. THE DIGITAL RECORDER WAS REMOVED 3/16/1993.
bubble	USGS	USGS	09/05/1991	06/22/1999	MANOMETER, SHAFT ENCODER AND GRAPHIC RECORDER REMOVED. ACCUBAR PRESSURE TRANSDUCER INSTALLED.
tipping	NWS	NWS	09/05/1991	12/31/2050	TIPPING BUCKET RAIN GAUGE WAS INSTALLED IN 1991. USGS CEASED MAINTAINING TIPPING BUCKET RAIN GAUGE IN JANUARY OF 2005. TIPPING BUCKET NOW MAINTAINED BY NWS.
pres trans	USGS	USGS	02/15/2005	12/31/2050	A DESIGN ANALYSIS H-350 PRESSURE TRANSDUCER WAS INSTALLED. GAUGE TO HIGH DATA RATE DCP.
crest	USGS	USGS	04/21/2005	12/31/2050	CSI INSTALLED ON DOWNSTREAM SIDE OF PIER ON LEFT EDGE OF WATER.

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HISTORY

PUBLICATION/LOCATION OF RECORDS	STARTING DATE	ENDING DATE
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TYPE OF GAGE	OWNER	STARTING DATE	ENDING DATE
wireweight	USGS	11/20/1950	
Unk	USGS	06/28/1951	06/22/1999
bubble	USGS	11/11/1965	03/16/1993
bubble	USGS	09/05/1991	06/22/1999
tipping	NWS	09/05/1991	12/31/2050
pres trans	USGS	02/15/2005	12/31/2050
crest	USGS	04/21/2005	12/31/2050

ZERO ELEVATION	STARTING DATE
1801.800	01/01/1929

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CRESTS

FLOOD STAGE: 9.00 ACTION STAGE: 8.00 BANKFULL STAGE: 9.00
 FLOOD FLOW: 1860 ACTION FLOW: 1589

DATE OF CREST	TIME LST	CREST (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
07/12/1951	UNDEF	13.60	12900				
05/30/1952	UNDEF	8.84	1210				
07/21/1953	UNDEF	6.08	470				
06/15/1954	UNDEF	10.12	3380				
09/26/1955	UNDEF	6.40	572				
07/07/1956	UNDEF	6.07	486				
06/17/1957	UNDEF	10.70	4300				
09/05/1958	UNDEF	8.14	1220				
07/14/1959	UNDEF	8.03	1120				
05/18/1960	UNDEF	9.14	2040				
06/06/1961	UNDEF	8.99	1430				
07/01/1962	UNDEF	9.21	1410				
08/12/1963	UNDEF	7.14	732				
07/12/1964	UNDEF	5.29	292				
05/24/1965	UNDEF	8.36	1130				
02/09/1966	UNDEF	8.02	948				
07/28/1967	UNDEF	9.79	2140				
08/15/1968	UNDEF	12.81	9140				
05/20/1969	UNDEF	13.51	12300				
06/12/1970	UNDEF	6.69	547				
09/01/1971	UNDEF	7.73	859				
08/05/1972	UNDEF	5.26	264				
09/29/1973	UNDEF	6.58	515				
10/10/1973	UNDEF	7.72	856				
06/20/1975	UNDEF	11.25	2850				
05/23/1976	UNDEF	3.43	26				
04/20/1977	UNDEF	6.74	525				
08/15/1978	UNDEF	8.87	1250				
05/20/1979	UNDEF	8.29	1020				
04/03/1980	UNDEF	3.72	78				
05/20/1981	UNDEF	2.98	23				
07/01/1982	UNDEF	11.78	3760				
05/18/1983	UNDEF	6.04	388				
06/15/1984	UNDEF	13.10	9300				
08/13/1985	UNDEF	9.04	1320				
05/16/1986	12:00	8.20	1010				
10/11/1986	11:00	7.60	781				
07/14/1988	07:00	3.95	110				
06/27/1989	UNDEF	7.32	696				
06/07/1990	UNDEF	5.16	243				
05/26/1991	UNDEF	6.09	397				
07/13/1992	UNDEF	5.27	197				
07/09/1993	02:30	11.80	3120				
05/06/1994	UNDEF	5.73	249				
05/27/1995	UNDEF	13.49	11700				

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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
08/03/1996	UNDEF	9.44	1380				
06/26/1997	03:00	6.64	414				
04/07/1998	12:15	5.48	211				
06/28/1999	UNDEF	8.89	871				
06/30/2000	UNDEF	4.01	39				
08/10/2001	UNDEF	5.55	182				
10/10/2001	UNDEF	3.85	30				
05/08/2003	UNDEF	3.72	18				
07/07/2004	UNDEF	4.66	65				
08/29/2005	UNDEF	6.58	223				
08/17/2006	UNDEF	5.64	116				
02/22/2007	UNDEF	6.89	200				
05/23/2008	13:15	11.68	5777			X	Backwater from ice jam. Flow is estimated.
08/24/2008	13:30	9.17					
10/22/2008	15:45	9.78					
06/19/2010	UNDEF	14.29	16801				

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LOW WATER RECORDS

DATE OF LOW WATER	STAGE (ft)	FLOW (CFS)	REMARKS
09/01/2000	2.70	0	
07/15/2006		0	
10/08/2006		0	Actual flow was 0.3 CFS.

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CONDITIONS AFFECTING FLOW

MILES ABOVE MOUTH: 0.0 DRAINAGE AREA: 341.0 POOL STAGE: 0.0

STREAM BED: COMPOSED OF SAND AND GRAVEL WHICH IS SUBJECT TO SHIFTING.

REACH:

REGULATION: SOME KNOWN DIVERSIONS UPSTREAM FOR IRRIGATION.

DIVERSION:

WINTER: AN AVERAGE AMOUNT OF ICE EFFECT CAN BE EXPECTED.

TOPOGRAPHY: FLAT AGRICULTURAL LAND. THE BANKS ARE LOW AND LIGHTLY
WOODED ADJACENT TO THE CREEK WITH SOME UNDERBRUSH AND WEED
GROWTH DURING THE GROWING SEASON.

REMARKS: THE CHANNEL PASSES THE GAGE AT A SLIGHT ANGLE WITH THE
BRIDGE.

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DAMAGE

STAGE AREAS AFFECTED

9.00 AT 9.0 FEET WATER WILL OVERFLOW BOTH BANKS OF THE RIVER AND FLOOD ADJACENT AGRICULTURAL LOWLANDS.

13.60 THE RIVER REACHED A GAGE HEIGHT OF 13.6 FEET ON JULY 12, 1951. ACCORDING TO LOCAL RESIDENTS, STAGES OF APPROXIMATELY 12 FEET HAVE OCCASIONALLY BEEN REACHED.

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RIVER STAGE DATA

	18-	

	16-	

	14-	14.29 06/19/2010

13.60 - THE RIVER REACHED A GAGE HEIGHT OF 13.6 FEET ON JULY 12, 1951. ACCORDING TO LOCAL RESIDENTS, STAGES OF APPROXIMATELY 12 FEET HAVE OCCASIONALLY BEEN REACHED.	-----	13.60 07/12/1951
	-----	13.10 06/15/1984
	12-	
	-----	11.80 07/09/1993
	-----	11.25 06/20/1975
	-----	10.70 06/17/1957
	10-	10.12 06/15/1954
	-----	9.79 07/28/1967
	-----	9.44 08/03/1996
9.00 - AT 9.0 FEET WATER WILL OVERFLOW BOTH BANKS OF THE RIVER AND FLOOD ADJACENT AGRICULTURAL LOWLANDS.	-----	9.17 08/24/2008
	8-	8.36 05/24/1965
	-----	7.73 09/01/1971
	-----	7.60 10/11/1986
	-----	7.14 08/12/1963
	-----	6.74 04/20/1977
	6-	6.40 09/26/1955
	-----	5.73 05/06/1994
	-----	5.55 08/10/2001
	-----	5.16 06/07/1990
	-----	4.66 07/07/2004
	4-	4.01 06/30/2000
	-----	3.95 07/14/1988
	-----	3.43 05/23/1976
	-----	2.98 05/20/1981
	2-	

	0-	

REACH:

ELEVATION ZERO: 1801.80

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CONTACTS

SQ	CONTACT/REMARKS	PHONE
1	DARYL THORNBURG THE CONTACT IS DARYL THORNBURG AT THE EMERGENCY PREPAREDNESS OFFICE IN STOCKTON.	785-425-6818
2	KS USGS MAINTENANCE.	785-628-8918

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