

8/10/06



Republican River Compact Nebraska Stream-Gaging Data Water Year 2005

Presented to
Republican River Compact Administration
by Phil Soenksen, Supervisory Hydrologist

August 10, 2006
Phillipsburg, KS

U.S. Department of the Interior
U.S. Geological Survey

Water-resources data on the Web <http://water.usgs.gov>

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Of Current Interest...

NEW USGS REPORT RELEASED --
The Quality of Our Nation's Waters - Pesticides in the Nation's Streams and Ground Water, 1992-2001
This report provides the most comprehensive, national assessment to date on pesticides in streams and ground water.
[Learn more...](#)

Water Information By Topic

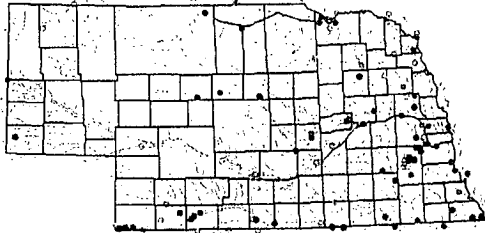
Real-time stream gages in Nebraska

<http://waterdata.usgs.gov/ne/nwis/rt>

WaterWatch -- Current water resources conditions

Map of real-time streamflow compared to historical streamflow for the day of the year (Nebraska)

Tuesday, August 06, 2008 12:20ET



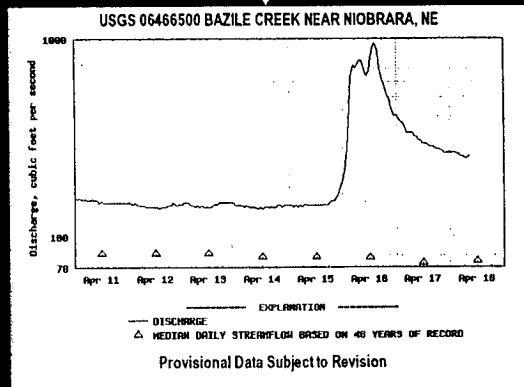
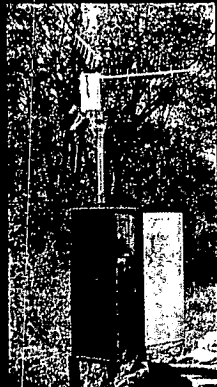
USGS

Choose a data retrieval option and select a location on the map
 List of all stations Single station Nearest stations Peak flow

Explanation - Percentile classes						
●	●	⊗	●	●	●	○
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High Not-rated

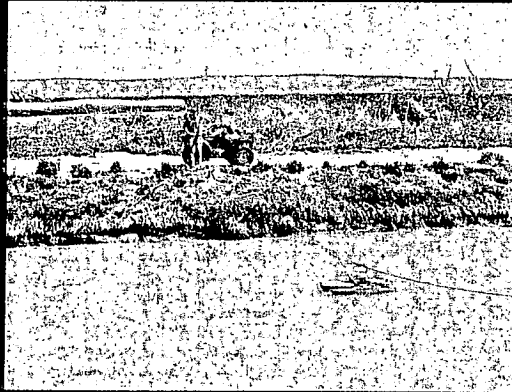
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Stage data move from the field to the Web and are converted to discharge data every 1-4 hours – faster during floods



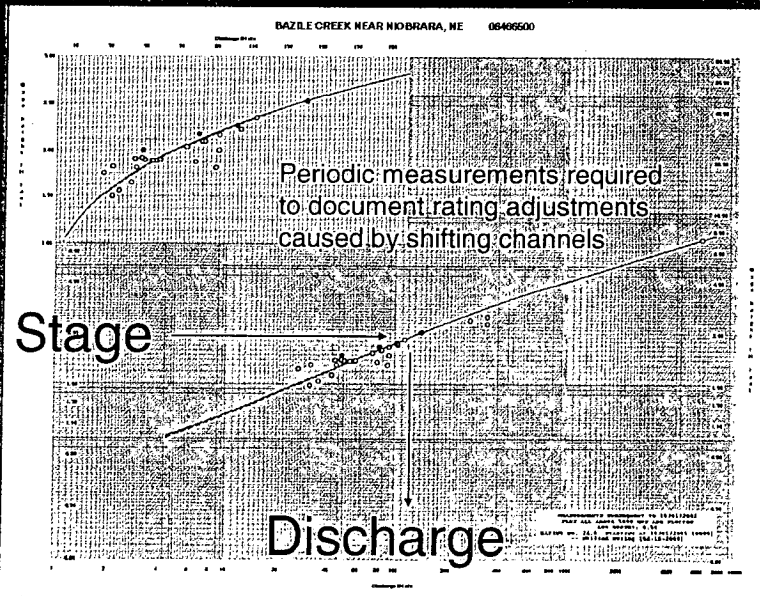
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Periodic discharge measurements



USGS

... are used to develop the ratings to make the conversions

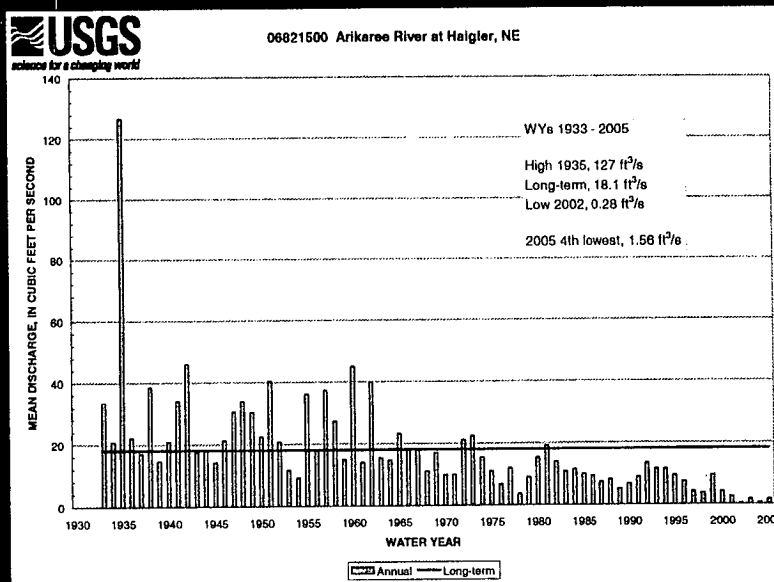


Summary Charts

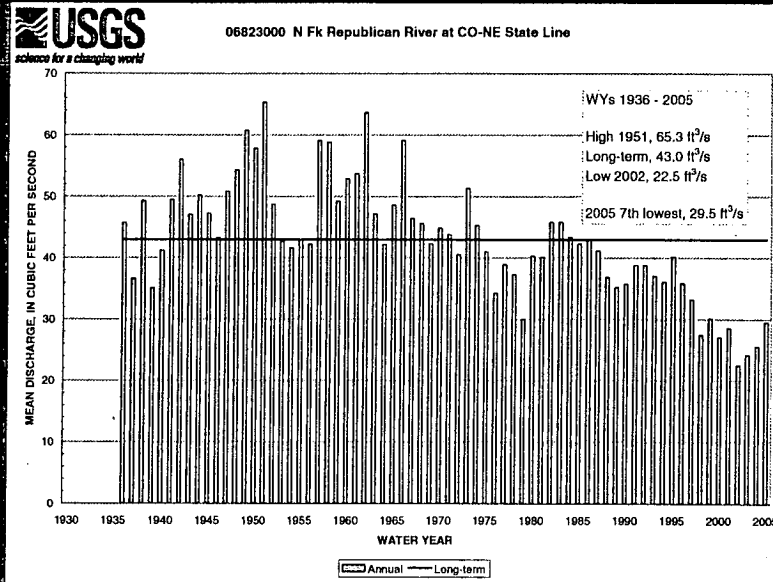
- Published data for water year 2005
- Stations funded by the National Streamflow Information Program (Compact stations)
- Operated by the USGS Nebraska Water Science Center



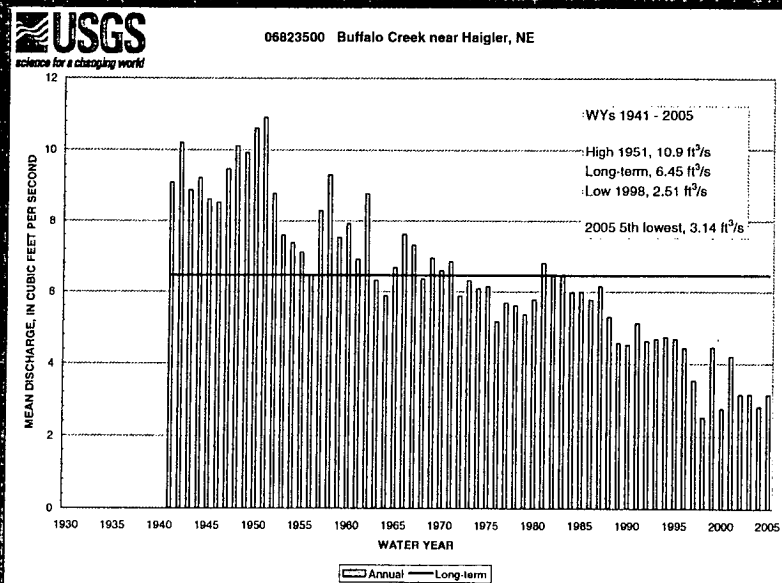
Annual mean discharges



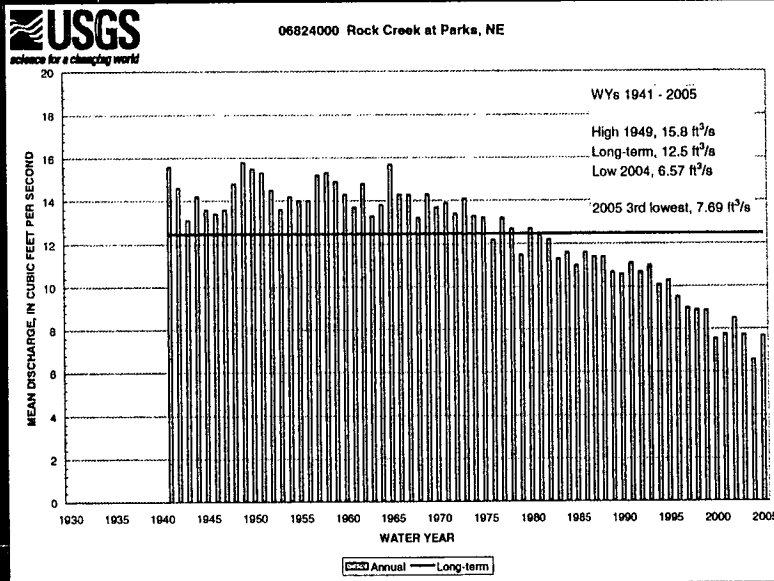
Annual mean discharges



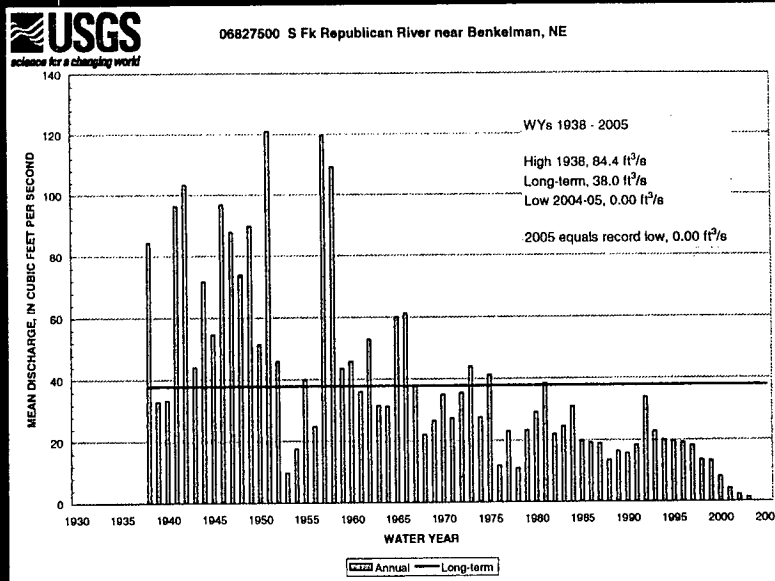
Annual mean discharges



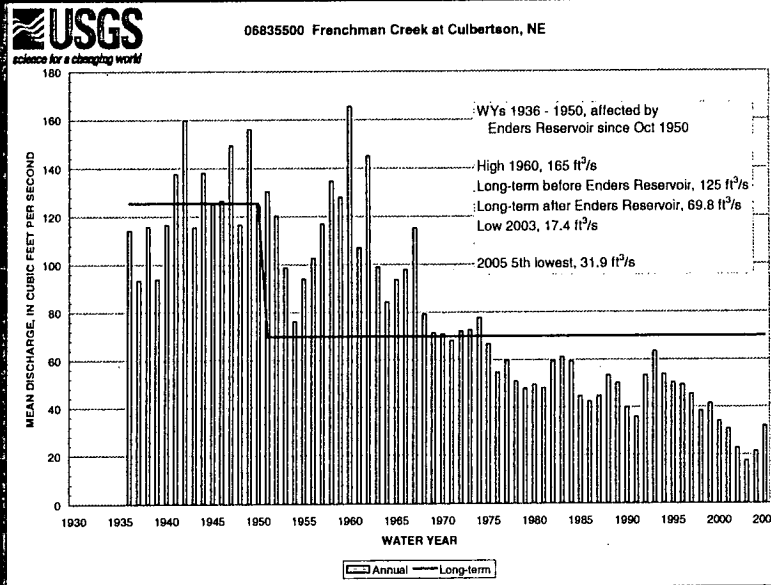
Annual mean discharges



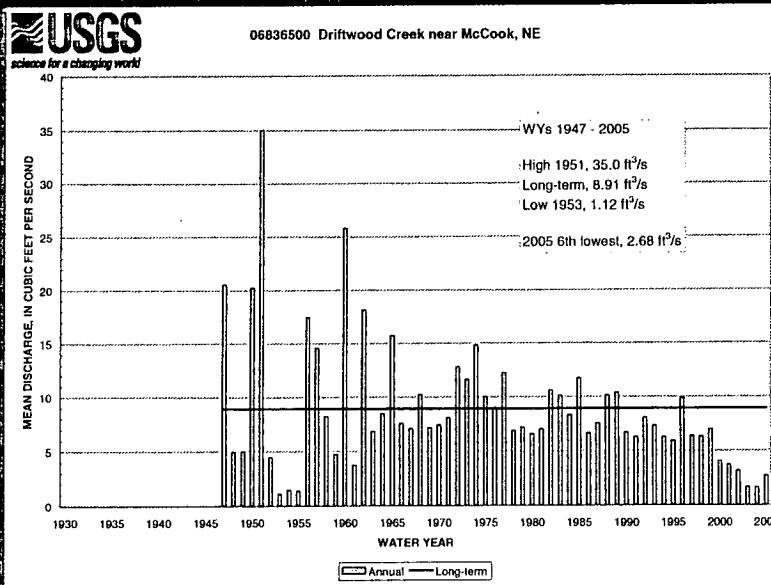
Annual mean discharges



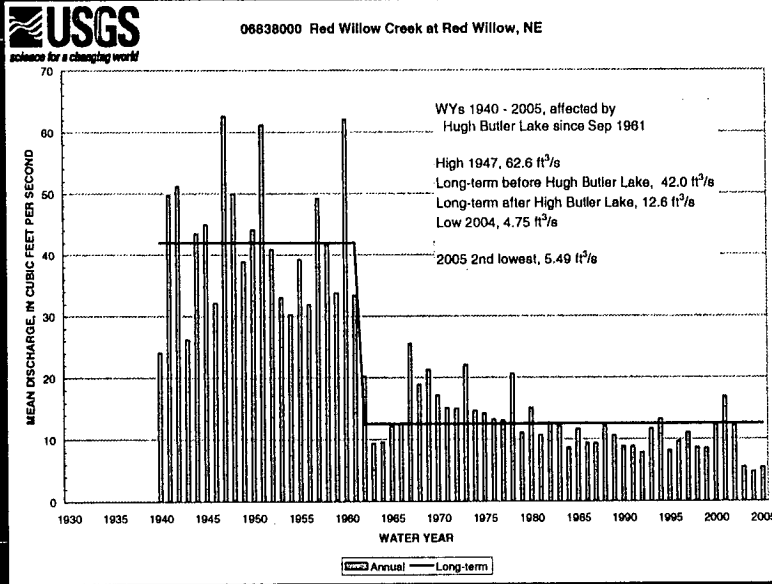
Annual mean discharges



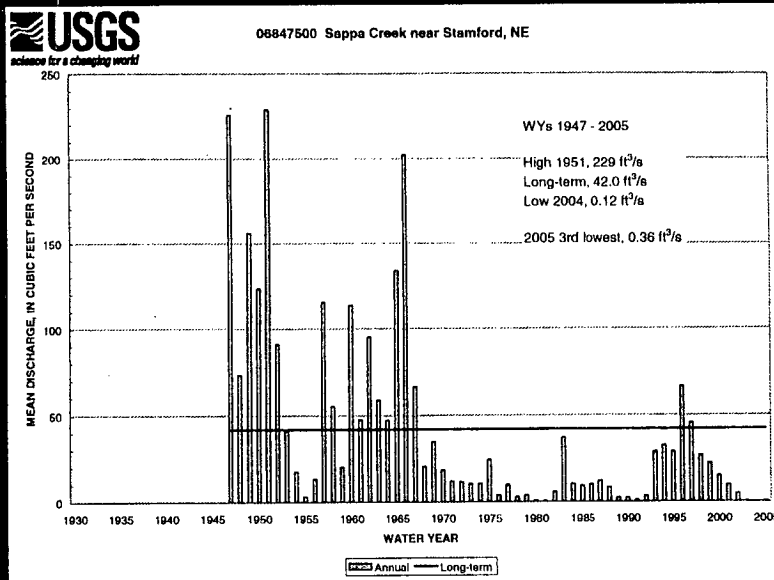
Annual mean discharges



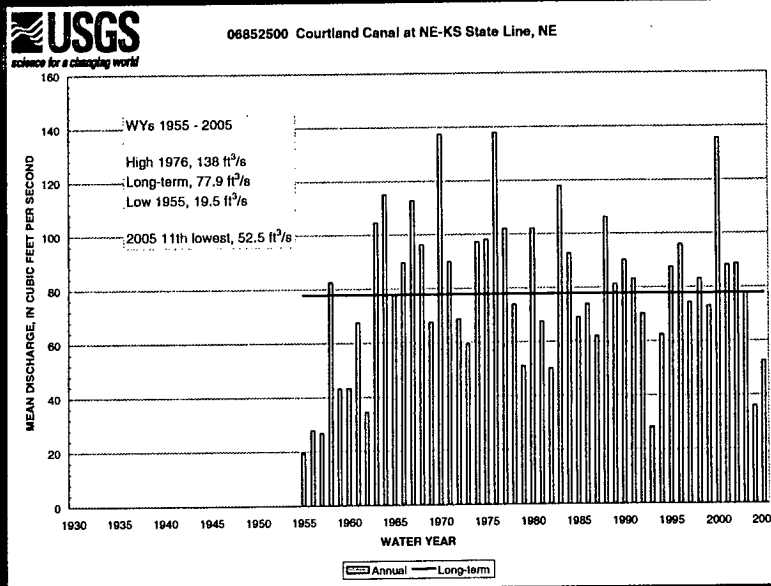
Annual mean discharges



Annual mean discharges



Annual mean discharges



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Republican River Basin streamflow-gaging stations with records published by USGS for water year (WY) 2005

Station ID	Station Name	Telemetry	Annual mean (ft ³ /s) WY 2005	Long-term	2005 mean as a percentage of long-term mean	Ranking of 2005	WYs used for long-term mean	Remarks
USGS Compact stations supported by the National Streamflow Information Program (NSIP)								
06821500	Arikaree River at Haigler, Nebr	Satellite	1.56	18.1	8.6%	4th lowest	1933 - 2005	
06823000	N Fk Republican River at Colo-Nebr State Line	Satellite	29.5	43.0	68.6%	7th lowest	1936 - 2005	
06823500	Buffalo Creek near Haigler, Nebr	Satellite	3.14	6.45	48.7%	5th lowest	1941 - 2005	
06824000	Rock Creek at Parks, Nebr	Satellite	7.69	12.5	61.5%	3rd lowest	1941 - 2005	
06827500	S Fk Republican River near Benkelman, Nebr	Satellite	0	38	0.0%	Record low	1938 - 2005	since Enders Reservoir
06835500	Frenchman Creek at Culbertson, Nebr	Satellite	31.9	69.8	45.7%	5th lowest	1951 - 2005	
06836500	Driftwood Creek near McCook, Nebr	Satellite	2.68	8.91	30.1%	6th lowest	1947 - 2005	
06838000	Red Willow Creek near Red Willow, Nebr	Satellite	5.49	12.6	43.6%	2nd lowest	1962 - 2005	since Hugh Butler Lake
06847500	Sappa Creek near Stamford, Nebr (USACE funds DCP)	Satellite	0.36	42.0	0.9%	3rd lowest	1947 - 2005	
06852500	Courtland Canal at Nebr.-Kans State Line (USBR DCP)	Satellite	52.5	77.9	67.4%	11th lowest	1955 - 2005	
USGS stations supported by USACE								
06837000	Republican River at McCook, Nebr	Satellite	40.8	135	30.2%	4th lowest	1955 - 2005	
06845500	Republican River near Orleans, Nebr	Satellite	48.2	239	20.2%	3rd lowest	1948 - 2005	
06849500	Republican River below Harlan County Dam	Satellite	2.62	206	1.3%	2nd lowest	1954 - 2005	
Nebr DNR stations with USGS/USACE support for DCP, review, and publishing								
06834000	Frenchman Creek at Palisade, Nebr	Satellite	19.5	65.5	29.8%	2nd lowest	1951 - 2005	
06843500	Republican River at Cambridge, Nebr	Satellite	62.7	222	28.2%	3rd lowest	1950 - 2005	since Harry Strunk Lake
06853020	Republican River at Guide Rock, Nebr	Satellite	2.53	275	0.9%	Record low	1951 - 2005	
USGS stations with support from USACE and Nebr DNR								
06828500	Republican River at Stratton, Nebr	Satellite	16.4	103	15.9%	2nd lowest	1951 - 2005	



Indicates less than 2004 WY mean
 No USACE funding for WY 2007



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Links to USGS data, publications, studies, ...
 National <http://water.usgs.gov/>
 Nebraska <http://ne.water.usgs.gov/>