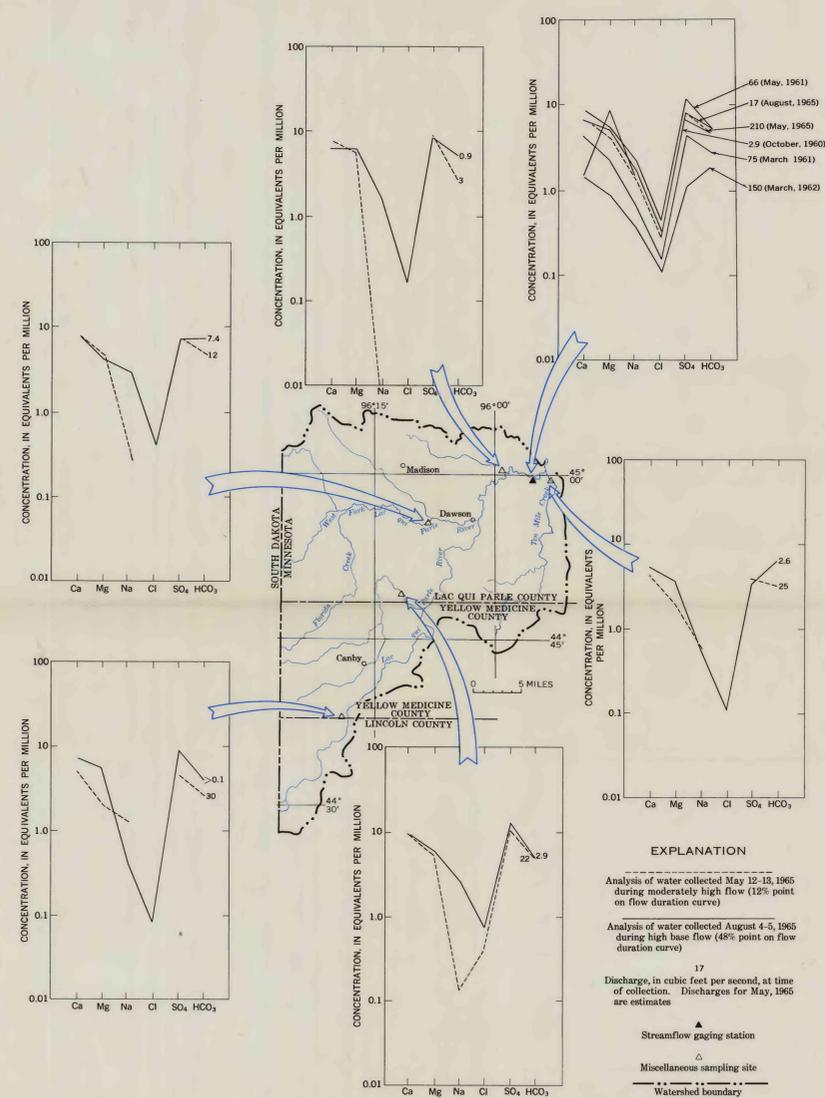
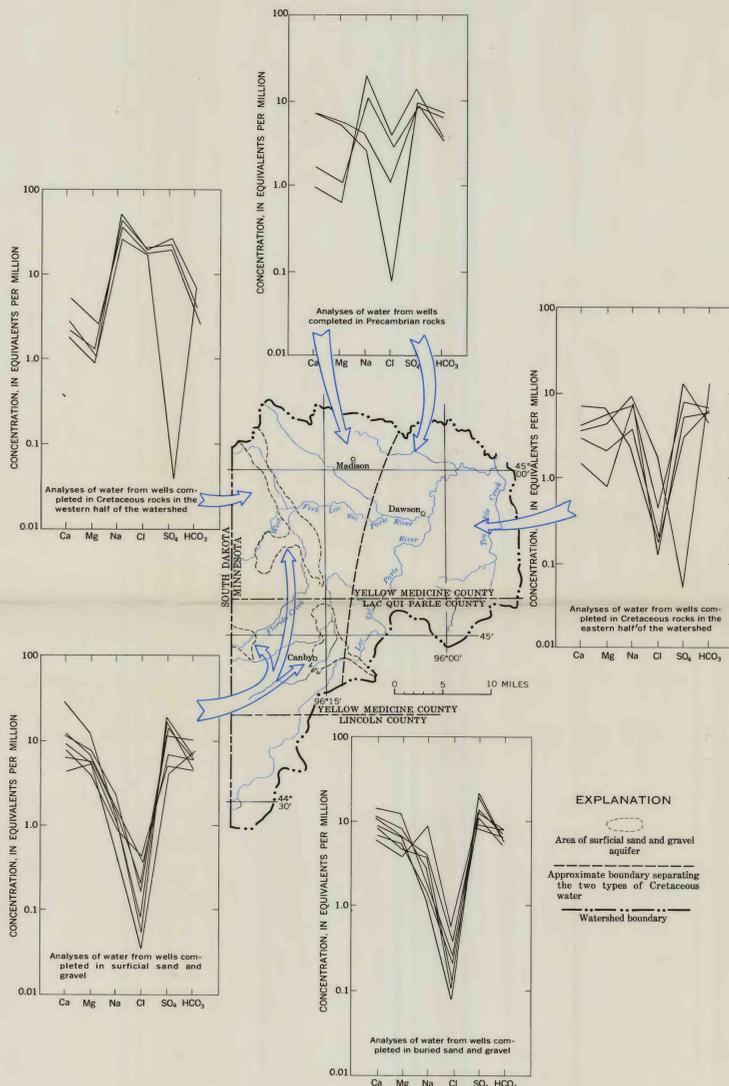
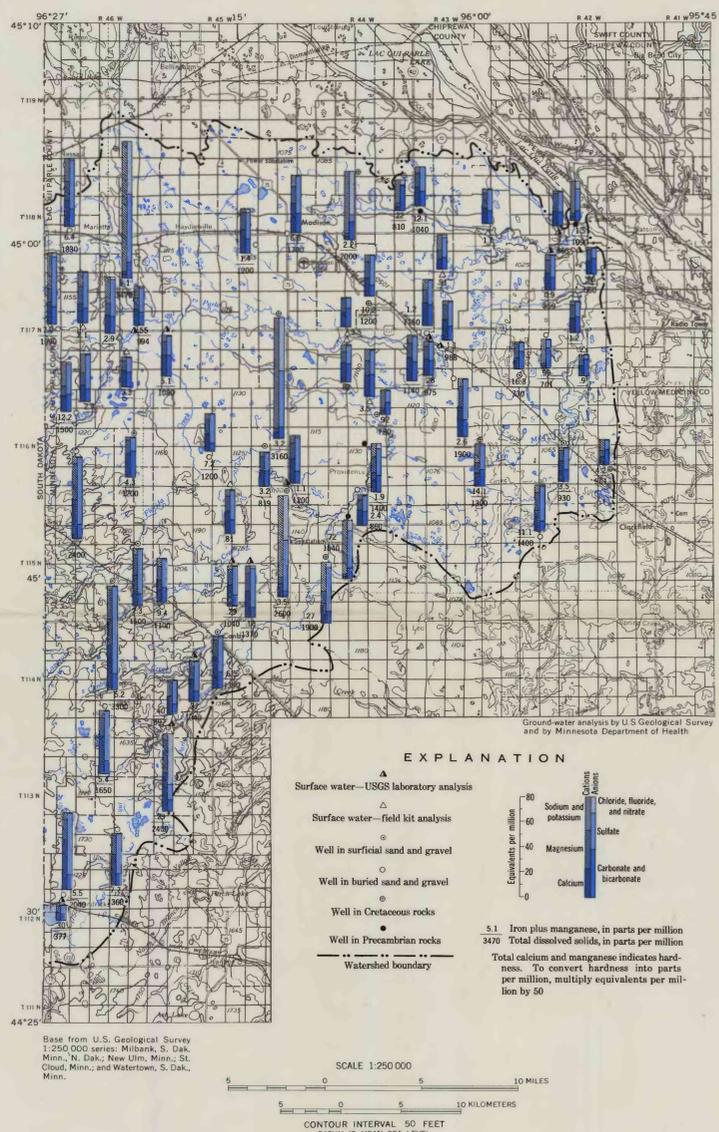


QUALITY OF WATER



WATER IN THE LAC QUI PARLE WATERSHED IS SUITABLE FOR MOST PURPOSES ALTHOUGH IT IS COMMONLY HARD AND HIGH IN IRON

Surface water and water from glacial drift is suitable for irrigation. Surface water samples were taken at median flow

sodium, chloride, and boron that are harmful to some crops. Surface water samples were taken at median flow

MUNICIPAL - SUPPLY POTENTIAL AND WATER USE

ALL OF THE MUNICIPALITIES HAVE MORE WATER AVAILABLE THAN THEY ARE NOW USING

In addition to the ground-water sources, three municipalities located on or near the Lac qui Parle River have potential surface-water sources. The average per capita consumption from municipal sources is 36 gallons per day

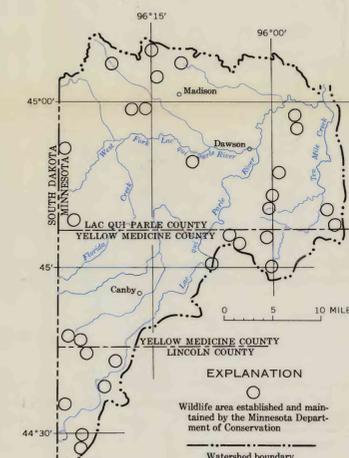
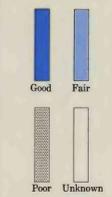
Municipality	Wells (1965)	In use	Standby (Partial list)	Depth, in feet	Diameter, in inches	Year drilled	Pumping rate, in gallons per minute	Production per year, in gallons	Specific capacity, in gallons per minute per foot of drawdown	Aquifer	Water quality problems (numbers are parts per million)	Water treatment	Remarks	Potential for development of additional water			
														Surficial sand and gravel	Buried sand and gravel	Cretaceous rocks	Surface water
Boyd	1			36	96	1936	2007	11.8		Surficial sand and gravel	Hardness Iron (600) (3.3)	None	No screen	Present source capable of greater yield	Probably good; testing required	Probably poor	Village located on Tenmile Creek
				100	10	1946	200	54.2		Surficial sand and gravel			21 feet of screen				
Canby	2			170	12	1963	580	14		Buried sand and gravel			Screen is gravel packed				
				94	8	1946	90	2		Surficial sand and gravel	Hardness Iron Manganese (964) (5.9) (0.6)	Iron removal and filtration	18 feet of screen	Present source capable of much greater yield	Present source capable of greater yield	Probably poor	City located on Canby Creek and within 2 miles of Lac qui Parle River
Dawson	2			93	12	1955	250	14		Surficial sand and gravel			28 feet of screen-gravel packed				
				107	16	1963	300	28		Buried sand and gravel			22 feet of screen Abandoned because of iron content				
Hendricks	2			114	20	1964	300	40		Buried sand and gravel	Hardness Iron Manganese (689) (0.6) (0.6)	Iron removal and filtration	25 feet of screen Has been pumped at 900 gpm	Aquifer missing in this area	Present source capable of greater yield	The rocks are thin and probably not capable of even a moderate yield	City located on West Branch Lac qui Parle River and within 1 mile of Lac qui Parle River
				102	10	1944	280	20		Buried sand and gravel			16 feet of screen				
Marietta	2			145	8	1934	120	12.8		Buried sand and gravel	Hardness Iron Manganese (1390) (3.8) (1.7)	Iron removal and filtration	5 feet of screen	Aquifer missing in this area	Present source capable of greater yield	Not a present source These rocks are probably buried to a depth of over 500 feet	Village located on Hendricks Lake at outlet to Lac qui Parle River
				162	8	1950	120	12.8		Buried sand and gravel			Wells are pumped alternately				
Madison	2			110	8	1933	180	47.9		Buried sand and gravel			12 feet of screen	Aquifer missing in this area	Present source capable of much greater yield	Present source of numerous domestic wells Capable of yielding a moderate supply	No reliable source nearby
				111	8	? 180				Buried sand and gravel	Hardness Iron (910) (6.4)	Softening, iron removal, and filtration	20 feet of screen				
Marietta	2			102	12	1956	-			Buried sand and gravel			13 feet of screen				
				58	12	1950	90	1.7		Buried sand and gravel	Hardness Iron (907) (6.2)	Chlorination	8 feet of screen; coefficient of storage = 10 ⁻⁵ Coefficient of transmissibility = 10 ⁻⁶ gpd/ft ²	Possible source located east of town	Present source capable of much greater yield	Former source Capable of yielding a moderate supply	No reliable source nearby
Marietta	2			70	12	1961	150			Buried sand and gravel			20 feet of screen				
				329	8	1948	60			Cretaceous sandstone and sand			15 feet of screen; pumped sand				

SCHOOLS, FACTORIES, AND BUSINESSES ARE LARGE WATER USERS

A soybean processing plant in Dawson pumps nearly 175 million gallons per year. All irrigation supplies are from surface water

Source	Water use in Lac qui Parle River Watershed (million gallons per year)			Total use
	Domestic	Industrial, commercial, and institutional	Agricultural (stock and irrigation)	
Community wells	123	57	0	180
Private wells	90	175	140	405
Surface water	0	5	25	30
Total	213	237	165	615

EXPLANATION



WATER RESOURCES OF THE LAC QUI PARLE RIVER WATERSHED, SOUTHWESTERN MINNESOTA

By
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1968