



# FRIENDS OF THE BIG SIOUX RIVER

## Water Testing

FBSR tests local lakes, rivers, and streams to determine water quality of the Big Sioux River Watershed. Each year FBSR conducts roughly 500 tests, spanning over 100 miles from Dell Rapids to Akron, IA. Following processing from the South Dakota Health Lab, the results are included in the South Dakota DENR water quality portal and posted to our website to allow public access of our data. Testing parameters included E. coli, total suspended solids, and nitrates.

In general, 2020 results show:

- Contaminant levels spiked following rainfall events; recreationists should avoid immersion recreation following heavy rainfall events.
- Absent rainfall events, Lake Alvin, Lake Lakota, and Wall Lake, which FBSR tested, are performing well in clarity; however, Lake Alvin still suffers from E. coli contamination after heavy rainfall events which cause excessive runoff.
- Our rivers and streams are regularly exceeding safe levels for E. coli. More riparian buffers are needed to reduce runoff of contaminants.
- Falls Park and Skunk Creek sites also regularly exceed safe levels for E. coli. Much of the E. coli is from the Skunk Creek watershed.
- The Big Sioux River gets worse as it flows further south with the Akron, IA site consistently having high levels of with sediment, E. coli, and nitrates.
- Nitrate levels continue to rise but are within safe levels at locations north of the Rock River confluence with levels rising after the Rock River joins the Big Sioux.

2020 Summary	TSS					E. coli					Nitrates				
	Safe Level: 90 MG/L					Safe Level: 126 mL CFU					Safe Level: 10 MG/L				
Name	Tests	Mean	Median	Low	High	Tests	Mean	Median	Low	High	Tests	Mean	Median	Low	High
<b>Big Sioux River Sites</b>															
Dell Rapids BSR Canoe Access	9	92	102	56	132	9	1597	35	2	14100	9	1.4	1.6	0.2	2.4
USGS Station Dell Rapids	8	82	110	23	128	8	1260	72	4	9800	8	1.4	1.7	0.2	2.2
I-90 BSR	9	98	64	30	222	5	59	20	16	202	9	1.8	2.6	0	3.6
Skunk Creek	8	160	120	62	490	8	2463	447	11	9210	8	1.3	1.1	0	3
Falls Park BSR	9	50	62	11	122	5	68	34	11	197	8	2.4	2	0	3.6
Brandon BSR N. Canoe Access	9	84	76	34	136	9	702	135	36	5250	9	3.1	2.9	1.8	4.7
BSR near Gitche Manitou	8	117	94	34	310	8	1262	75	40	9210	8	3.4	3.5	2.6	
Newton Hills BSR Canoe Access	9	191	104	49	975	9	84	63	13	172	9	3.0	3.2	1.2	4.5
Akron BSR Canoe Access	8	127	126	80	188	8	95	72	26	211	8	4.9	5.1	1.1	8.7
<b>Split Rock Creek Sites</b>															
Sherman SRC	9	114	102	17	215										
Garretson City Park	8	48	50	18	72	8	734	150	4	4350	8	3.1	2.5	0.4	6.4
Dev. Gulch Drainage Stream	8	64	19	5	215	8	2666	378	135	17300	8	6.6	6.3	3.8	9.9
Garretson Hwy 11 on SRC	5	55	58	42	74	5	108	50	32	295	5	1.5	1.3	0.6	3.3
Palisades Park Campground Stream	7	35	31	6	96	7	405	47	3	1410	7	6.1	1.5	1	13.5
Palisades Picnic Area	9	41	38	6	106	9	1230	450	58	4610	9	5.2	6	0.4	10.1
484th Ave. on SRC	9	46	36	25	90	9	869	93	23	6490	9	3.6	1.5	1.3	6.7
264th St. Bridge South of Brandon	9	160	92	36	500	9	4719	710	206	24200	9	4.5	3.8	1.3	7.9
<b>Lake Alvin &amp; 9 Mile Creek</b>															
HWY 11 & Nine Mile Creek	7	31	19	10	58	7	681	313	32	1200	7	1.9	1.6	0.9	3.7
Lake Alvin Boat Access	8	22	13	8	80	8	10	6	1	41	8	1.2	1	0.2	2.9
Wall Lake Boat Ramp	9	8	10	3	16	9	16	3.5	2	93	9	0.2	0.2	0.2	0.2
Dewey Gavi Fishing Dock	8	8	4	3	31	8	48	30	15	104	9	0.2	0.2	0.2	0.2
Lake Lakota Boat Access	8	13	13	4	22	8	69	5	1	488	9	1.6	1.3	0.2	2.9

\*Numbers in red indicate levels over safe

Learn More: [www.friendsofthebigsiouxriver.org/water-quality-monitoring](http://www.friendsofthebigsiouxriver.org/water-quality-monitoring)