

Lower Dakota Focus Area

Water Quality Status: Fecal Coliform Bacteria

April 2023

Background: Clean water is a valuable resource; it is essential for human health and for the health of fish, shellfish, wildlife, and livestock. Water provides irrigation for crops and a safe place for water-based recreation. To maintain safe shellfish harvest, Washington State has developed standards for fecal bacteria in marine waters. Meeting the fecal coliform benchmarks in freshwater systems leads to satisfying the marine water standards to protect public health.

What are Fecal Coliform Bacteria?

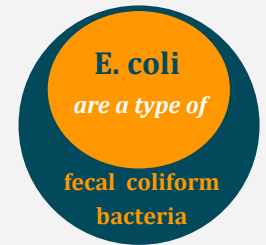
Fecal coliform bacteria are found in human and animal feces. Detection in a creek is a sign that pathogens from these wastes may be polluting the water. Contact with fecal contaminated waters can result in **gastroenteritis, skin rashes, upper respiratory infections** and other illnesses.

Where Does the Bacteria Come From?

Potential sources of bacteria include:

- 1) Animal waste from livestock, domestic pets, and wildlife
- 2) Human sewage from failing septic systems, leaking sewer lines or cross-connections between sewer and stormwater systems

Other potential sources are continually being investigated.



Freshwater Benchmarks

Geometric Mean

Average sample contains less than:
100 fecal coliform/100mL

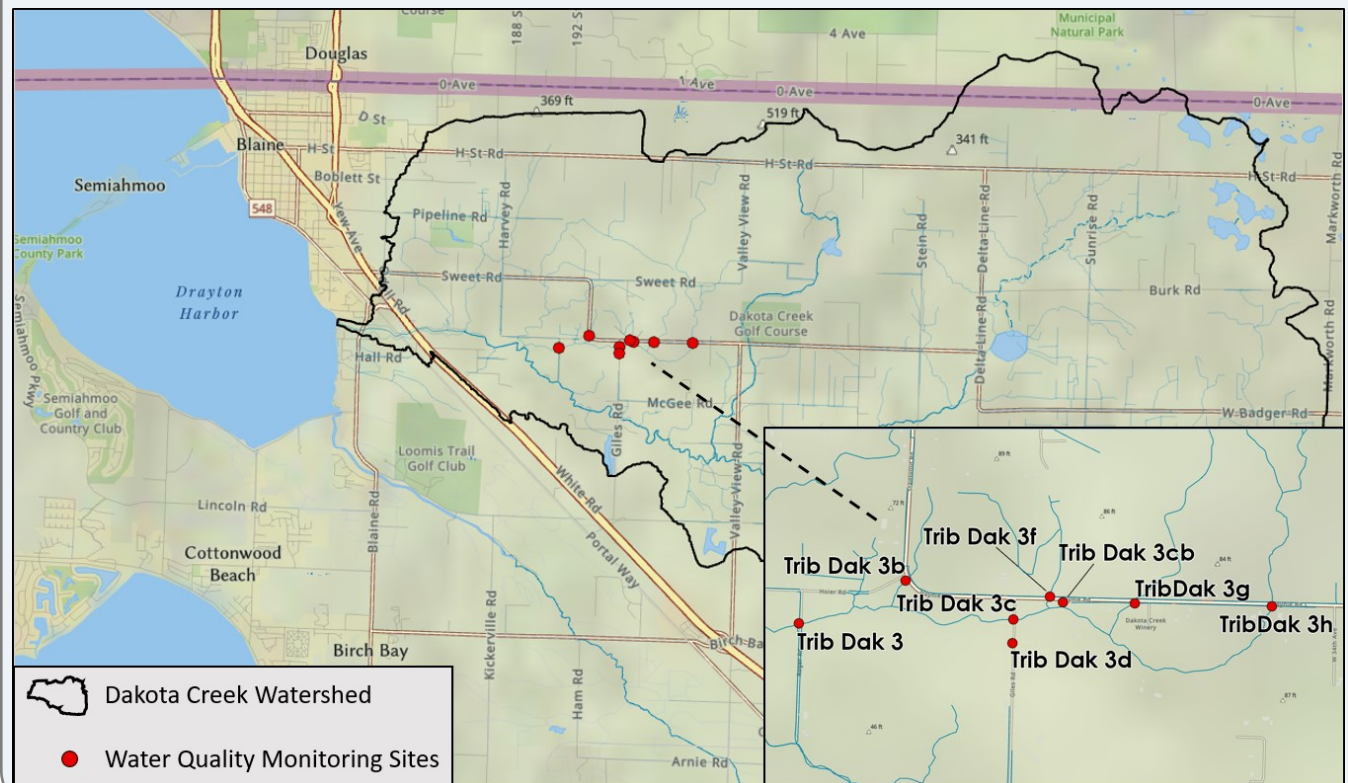
- and -

90th Percentile

Less than 10% of samples contain over:
200 fecal coliform/100mL

Focus Area Monitoring: The Lower Dakota drainage has been identified as a **focus area** for water quality monitoring due to high levels of bacteria observed through the routine monitoring program. Whatcom County Public Works (WCPW)

Whatcom County Public Works Lower Dakota Water Quality Monitoring Stations



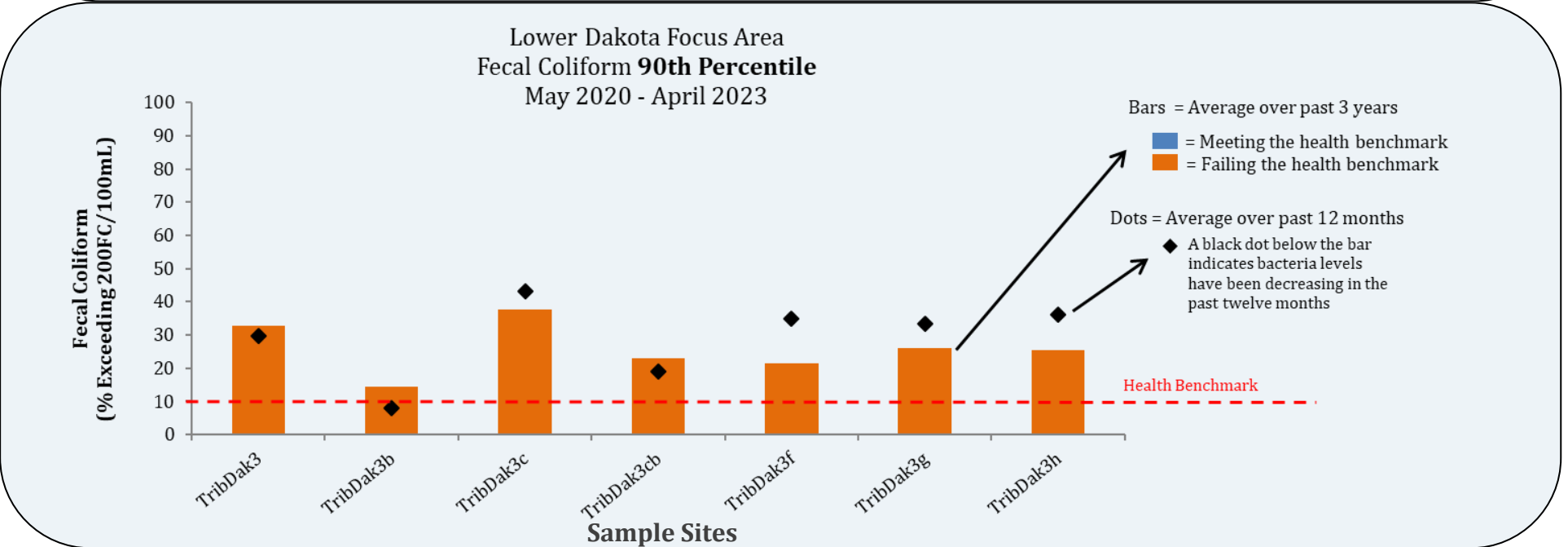
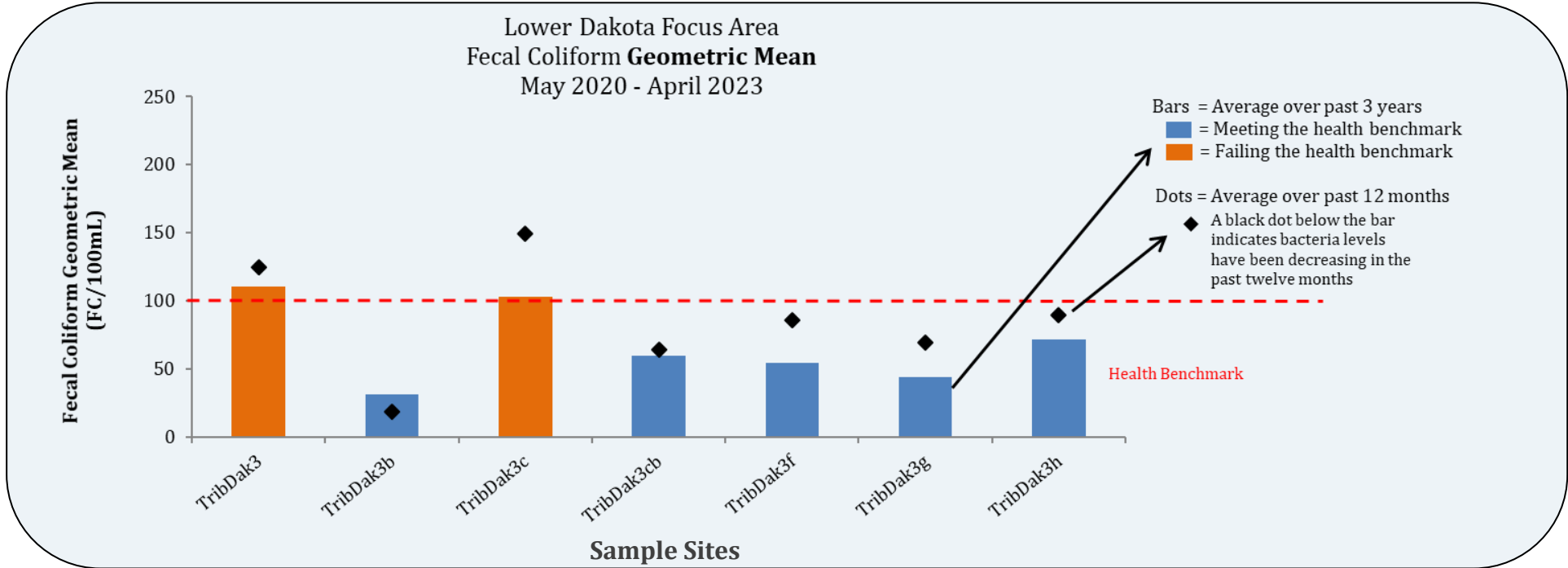
More information is available at: www.whatcomcounty.us/2170/Water-Quality-Monitoring-Results



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Comparison of Bacteria Levels to Health Benchmarks

Refer to the map on page 1 or the tables on pages 3-4 for site locations.



*The bar must be blue on both graphs for the sample site to be meeting the freshwater health benchmark.

*No bar indicates fewer than three years data for respective sampling location.

Lower Dakota Focus Area 13-Month Historical Fecal Coliform Bacteria Data

This table provides the individual results at each station for the past thirteen months. Results in light orange exceeded 200 FC/100mL. Results in dark orange exceed 1000 FC/100mL.

Date	Site Loca-	Rainfall (Inches)		Roger Rd, S of Hoier	Corner of Hoier Rd and Haynie	Giles Rd, S of Haynie	South side of Haynie, E of Giles	Haynie Rd., E of Giles	Haynie Rd., E of TribDak3cb, south side	South side of Haynie Rd., West of fire station
		24 hr*	72 hr**	TribDak3	TribDak3b	TribDak3c	TribDak3cb	TribDak3f	TribDak3g	TribDak3h
4/19/22		0.02	0.32	TNS	TNS	TNS	TNS	TNS	TNS	TNS
4/26/22		0.00	0.33	220	TNS	28	TNS	TNS	TNS	TNS
5/5/22		0.77	0.42	1700	20	182	58	200	68	94
5/10/22		0.00	1.10	92	11	110	21	52	33	39
5/23/22		0.00	0.00	173	3	98	38	540	420	109
6/2/22		0.01	0.29	420	20	370	116	420	390	210
6/9/22		0.91	0.11	200	23	136	68	1300	50	600
6/23/22		0.00	0.06	200	200	220	108	900	340	800
6/30/22		0.00	0.00	240	410	340	91	1900	370	240
7/7/22		0.01	0.00	1700	1600	2500	900	2900	1200	900
7/20/22		0.00	0.00	460	LF	500	270	LF	LF	2200
7/28/22		0.00	0.00	102	LF	82	390	LF	LF	240
8/4/22		0.06	0.14	1200	LF	1800	800	LF	LF	570
8/11/22		0.00	0.00	530	LF	1300	500	LF	LF	390
8/23/22		0.00	0.00	84	LF	220	145	LF	LF	100
9/1/22		0.00	0.00	240	LF	280	270	LF	LF	210
9/21/22		0.00	0.00	76	LF	2100	173	LF	D	360
9/29/22		0.00	0.00	300	LF	3800	118	LF	D	182
10/4/22		0.00	0.00	78	LF	900	94	LF	D	164
10/13/22		0.00	0.00	110	LF	1100	145	LF	D	78
11/3/22		0.85	0.26	94	18	400	136	LF	LF	42
11/8/22		0.01	0.18	6500	36	6500	6100	118	38	38
11/21/22		0.00	0.00	11	8	109	10	8	LF	18
12/1/22		0.01	0.16	20	TNS	8	3	TNS	F	42
12/8/22		0.05	0.32	46	2	30	23	LF	F	62
12/29/22		0.06	1.43	90	28	52	39	250	164	112
1/5/23		0.00	0.02	12	32	20	22	8	66	10
1/18/23		0.19	0.48	44	25	40	40	86	550	370
1/26/23		0.27	0.27	96	102	32	42	100	198	8
2/2/23		NR	NR	7	25	7	10	18	23	5
2/15/23		NR	NR	66	3	28	13	10	42	8
2/23/23		NR	NR	300	2	20	18	35	I	I
3/2/23		NR	NR	TNS	TNS	TNS	TNS	TNS	TNS	TNS
3/9/23		NR	NR	38	2	32	7	12	7	7
3/23/23		NR	NR	132	7	76	72	2	310	340
3/30/23		NR	NR	48	3	38	23	15	10	10
4/3/23		NR	NR	94	10	46	28	30	2	30
4/19/23		NR	NR	100	8	15	10	54	46	39
4/27/23		NR	NR	15	74	46	11	350	2	127

Gray box indicates an event where no sample was collected for varying reasons. D- Dry, I- Ice LF- Low Flow, TNS- Temporarily Not Sampling. *Day of sampling event; **Three days prior to, but not including, day of sampling event. NR- Not Recorded