

# Lower Dakota Focus Area

## Water Quality Status: Fecal Coliform Bacteria

as of May 18, 2017

**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 protect water quality, Washington State has developed criteria for bacteria levels in both fresh and marine waters.

### Freshwater Standards

#### 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**

### 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.

**E. coli are a fecal coliform bacteria**

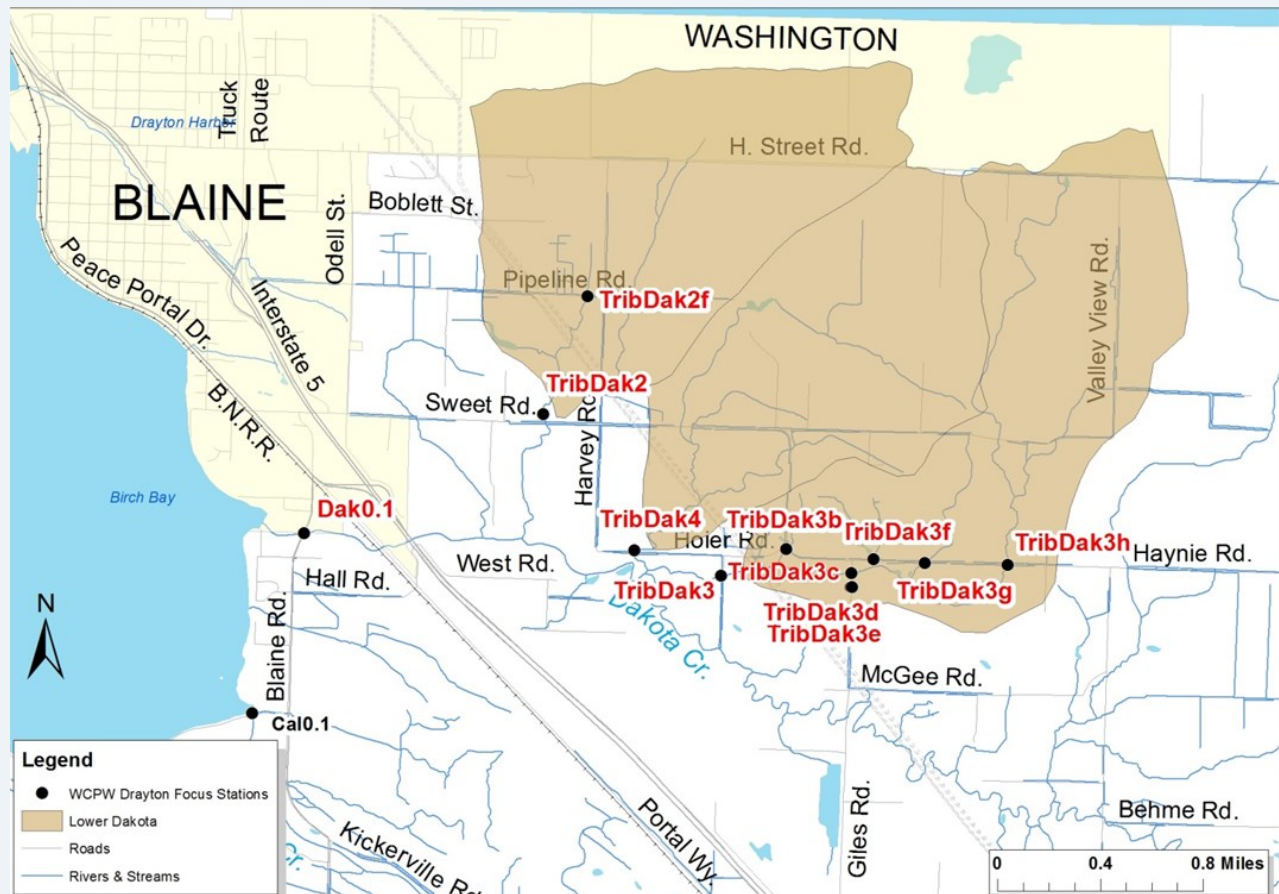
### Where Does the Bacteria Come From?

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

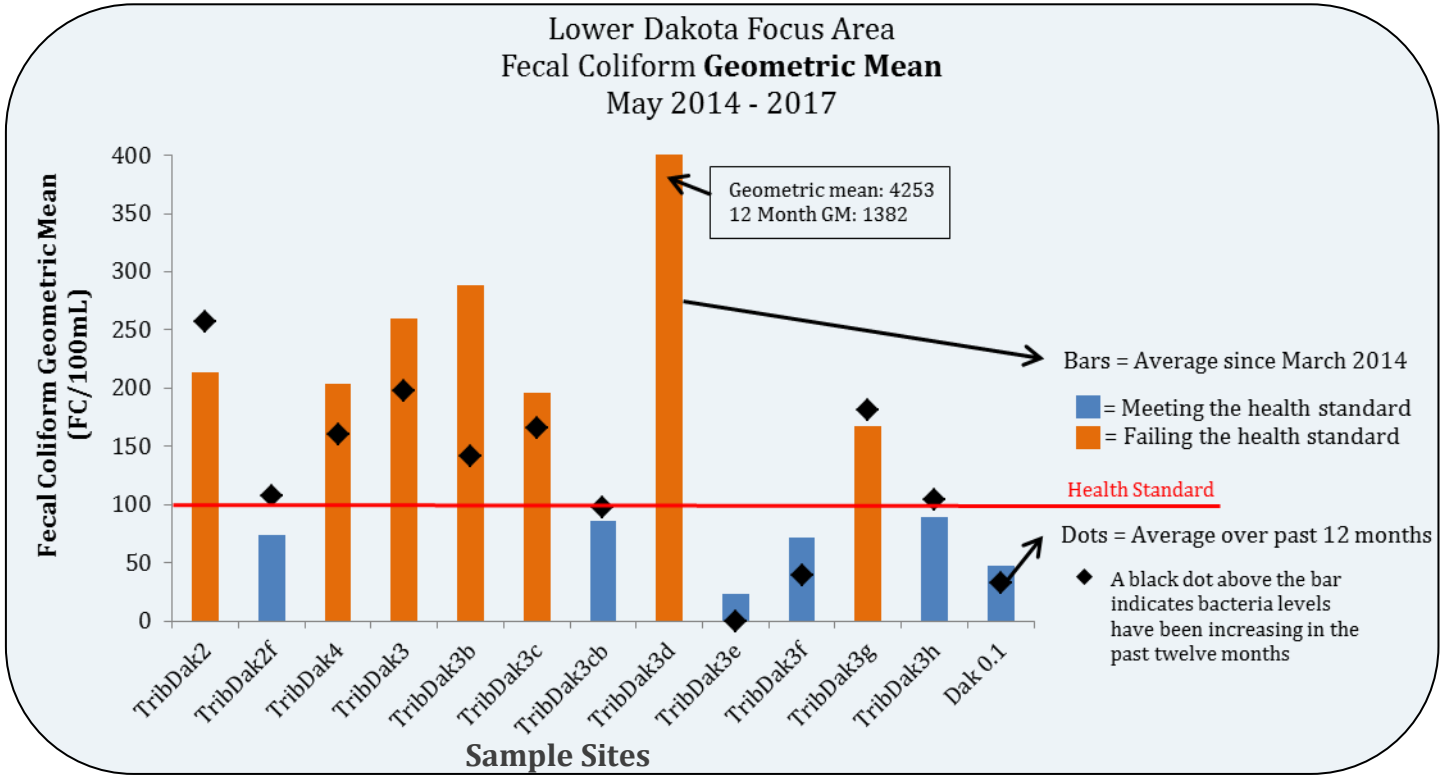
**Focus Area Monitoring:** The Lower Dakota drainage has been identified as a *focus area* for water quality monitoring due to high levels of bacteria observed through the routine monitoring program. Whatcom County Public Works (WCPW) has monitored fecal coliform bacterial in the Lower Dakota drainage area since December 2013.

## Whatcom County Public Works Lower Dakota Water Quality Monitoring Stations

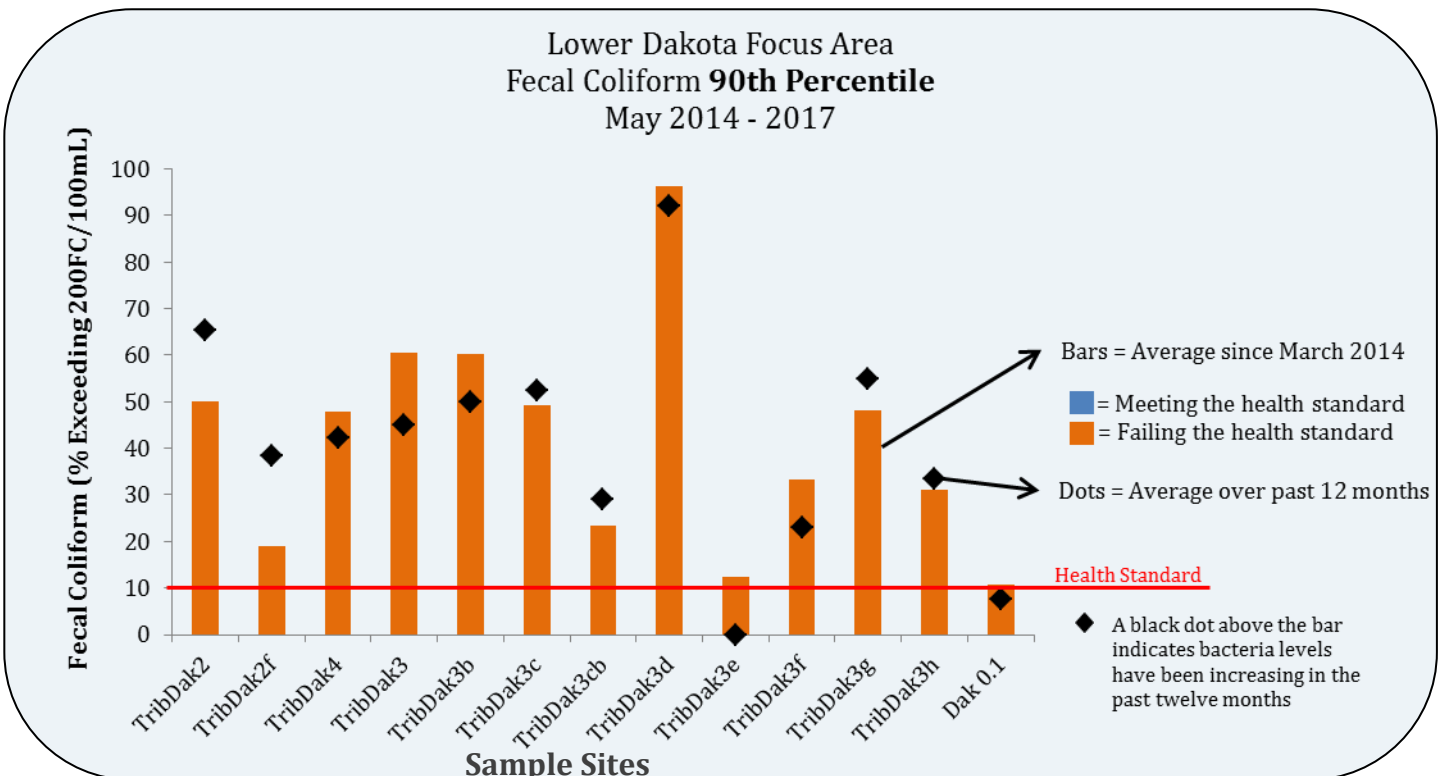


## Lower Dakota Focus Area Comparison of Bacteria Levels to Health Standards

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 standard.



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

These tables provide 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	Sweet Rd, W of Harvey	Pipeline Rd, W of Harvey	Hoier Rd, E of Harvey	Roger Rd, S of Hoier	Corner of Hoier Rd and Haynie	Giles Rd, S of Haynie	Culvert S of Haynie	Giles Rd, 2 <sup>nd</sup>	Culvert S of Haynie	Haynie Rd, 1 <sup>st</sup> Culvert E of Giles	Haynie Rd, 2 <sup>nd</sup> Culvert E of Giles	Haynie Rd, 3 <sup>rd</sup> Culvert E of Giles	Mouth of Dakota Creek
	Trib Dak2	Trib Dak2f	Trib Dak4	Trib Dak3	Trib Dak3b	Trib Dak3c	Trib Dak3d	Trib Dak3e	Trib Dak3f	Trib Dak3g	Trib Dak3h	Trib Dak3i	Dak 0.1
5/4/16	114	5	260	480	430	320	8,700	D	200	873	250	220	
5/12/16	360	10	250	200	7,000	290	9,900	D	20	973	20	14	
5/17/16	430	390	420	430	737	210	737	D	10	864	7	10	
5/25/16	560	D	240	120	54	510	14,500	D	38	250	46	48	
6/2/16	330	ST	390	610	120	2,000	LF	D	35	2,300	25	80	
6/9/16	560	ST	340	102	44	280	LF	D	37	2,300	76	48	
6/14/16	320	ST	200	145	530	390	LF	D	4	1,046	240	22	
6/22/16	764	ST	78	360	710	600	LF	D	44	746	510	27	
6/29/16	1,164	ST	125	470	320	390	LF	D	17	1,010	108	96	
7/7/16	2,000	691	1,473	360	700	737	LF	D	1,300	719	3,800	310	
7/13/16	637	330	112	145	33	470	LF	D	19	74	480	41	
7/20/16	1,155	ST	100	120	44	220	LF	D	12	846	1,219	52	
8/3/16	1,028	ST	189	520	210	991	LF	D	86	982	700	35	
8/17/16	290	ST	46	137	250	991	LF	D	102	LF	782	23	
8/31/16	737	ST	773	2,000	420	590	LF	D	340	LF	430	28	
9/8/16	98	ST	19	250	122	104	LF	D	480	791	66	2	
9/21/16	220	ST	220	390	1,019	60	LF	D	280	2,900	370	4	
10/6/16	600	ST	380	340	1,100	280	LF	D	360	380	360	7	
10/19/16	50	48	23	40	62	60	LF	D	7	22	38	12	
11/2/16	420	480	691	691	450	520	11,200	NS	20	540	460	44	
11/9/16	330	173	340	135	310	100	4,400	NS	22	270	158	58	
11/16/16	118	68	340	68	114	22	955	NS	10	92	19	48	
11/30/16	96	50	110	68	66	54	430	NS	260	360	138	50	
12/8/16	28	27	86	66	72	25	782	NS	5	28	19	2	
12/20/16	200	240	76	250	210	260	510	NS	92	646	92	33	
12/28/16	27	56	104	2,000	98	60	250,000	NS	40	116	56	60	
1/5/17	48	70	78	62	230	58	3,100	NS	2	9	80	9	
1/11/17	16	8	44	100	64	64	1,010	NS	12	2	36	32	
2/2/17	NS	NS	NS	82	270	23	470	NS	NS	60	33	4	
2/16/17	NS	NS	NS	102	68	90	5,200	NS	NS	52	78	86	
2/23/17	NS	NS	NS	58	23	23	300	NS	NS	33	14	7	
3/2/17	NS	NS	NS	173	28	210	3,300	NS	NS	19	44	17	
3/8/17	NS	NS	NS	52	15	48	200	NS	NS	17	14	50	
3/14/17	NS	NS	NS	460	300	80	2,300	NS	NS	40	50	40	
3/21/17	NS	NS	NS	52	7	50	290	NS	NS	50	48	22	

D- Dry, ST- Stagnant, LF- Low Flow, NS- No Sample

Gray box indicates an event where no sample was collected for varying reasons.

## Lower Dakota Focus Area Continued

Date	Sweet Rd, W of Harvey	Pipeline Rd, W of Harvey	Hoier Rd, E of Harvey	Roger Rd, S of Hoier	Corner of Hoier Rd and Haynie	Giles Rd, S of Haynie	Culvert S of Haynie	Giles Rd, 2 <sup>nd</sup>	Culvert S of Haynie	Giles Rd, 3 <sup>rd</sup>	Haynie Rd, 1 <sup>st</sup> Culvert E of Giles	Haynie Rd, 2 <sup>nd</sup> Culvert E of Giles	Haynie Rd, 3 <sup>rd</sup> Culvert E of Giles	Mouth of Dakota Creek
	Trib Dak2	Trib Dak2f	Trib Dak4	Trib Dak3	Trib Dak3b	Trib Dak3c	Trib Dak3d	Trib Dak3e	Trib Dak3f	Trib Dak3g	Trib Dak3h	Trib Dak3h	Dak 0.1	
3/28/17	NS	NS	NS	200	250	71	1,100	NS	NS	NS	NS	NS	NS	50
4/13/17	NS	NS	NS	530	846	480	191	NS	NS	NS	NS	NS	NS	230
4/20/17	NS	NS	NS	98	19	84	230	NS	NS	NS	NS	NS	NS	30
4/27/17	NS	NS	NS	68	56	56	2,200	NS	NS	NS	NS	NS	NS	46
5/3/17	NS	NS	NS	600	250	719	691	NS	NS	NS	NS	NS	NS	2,100
5/11/17	NS	NS	NS	691	300	540	2,000	NS	NS	NS	NS	NS	NS	40
5/18/17	NS	NS	NS	280	155	220	1,010	NS	NS	NS	NS	NS	NS	200

D- Dry, ST- Stagnant, LF- Low Flow, NS- No Sample

Gray box indicates an event where no sample was collected for varying reasons.