

Custer and Fox Road Focus Areas

Water Quality Status: Fecal Coliform Bacteria

as of April 22, 2020

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

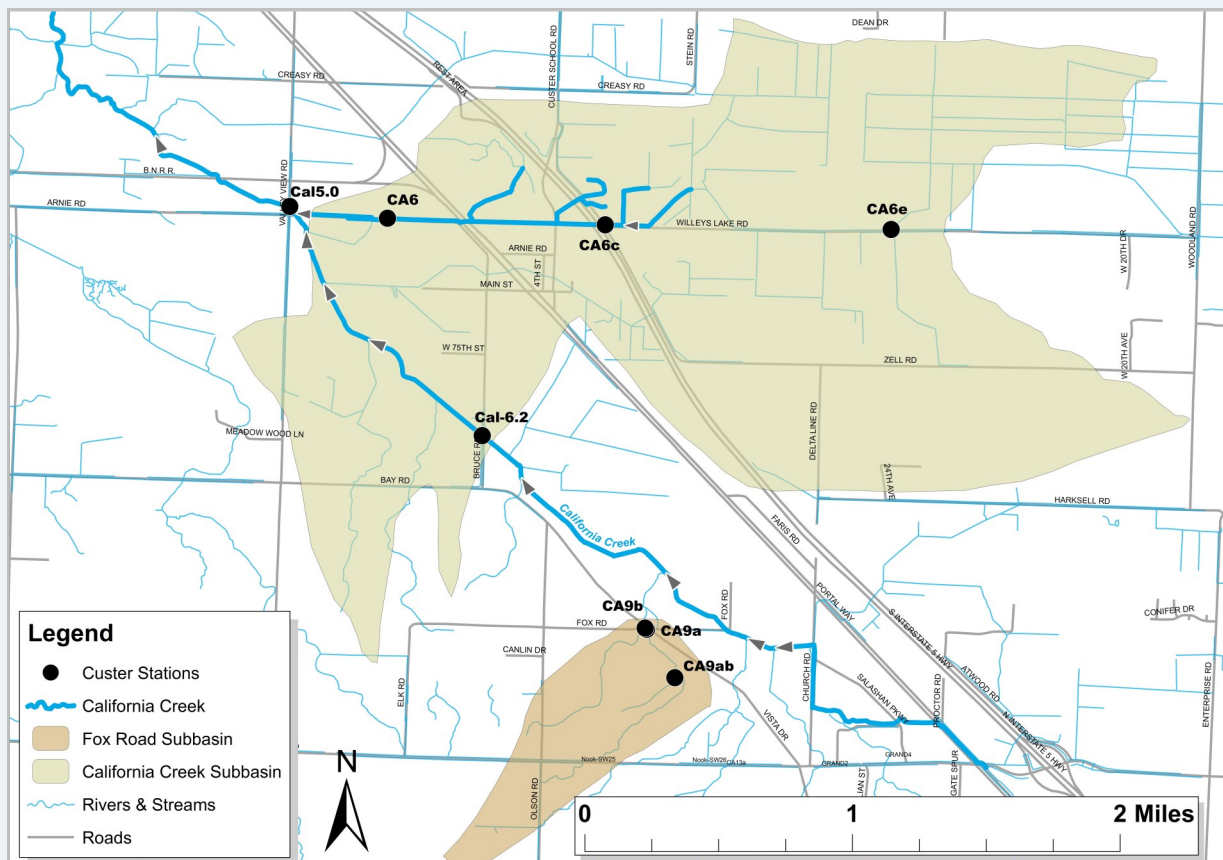
Where Does the Bacteria Come From?

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

Routine Monitoring: The Custer and Fox Rd. drainages have been identified as **focus areas** for water quality monitoring due to high levels of bacteria observed through the routine monitoring program. Whatcom County Public Works (WCPW) has monitored fecal bacteria in these drainage areas since 2017.

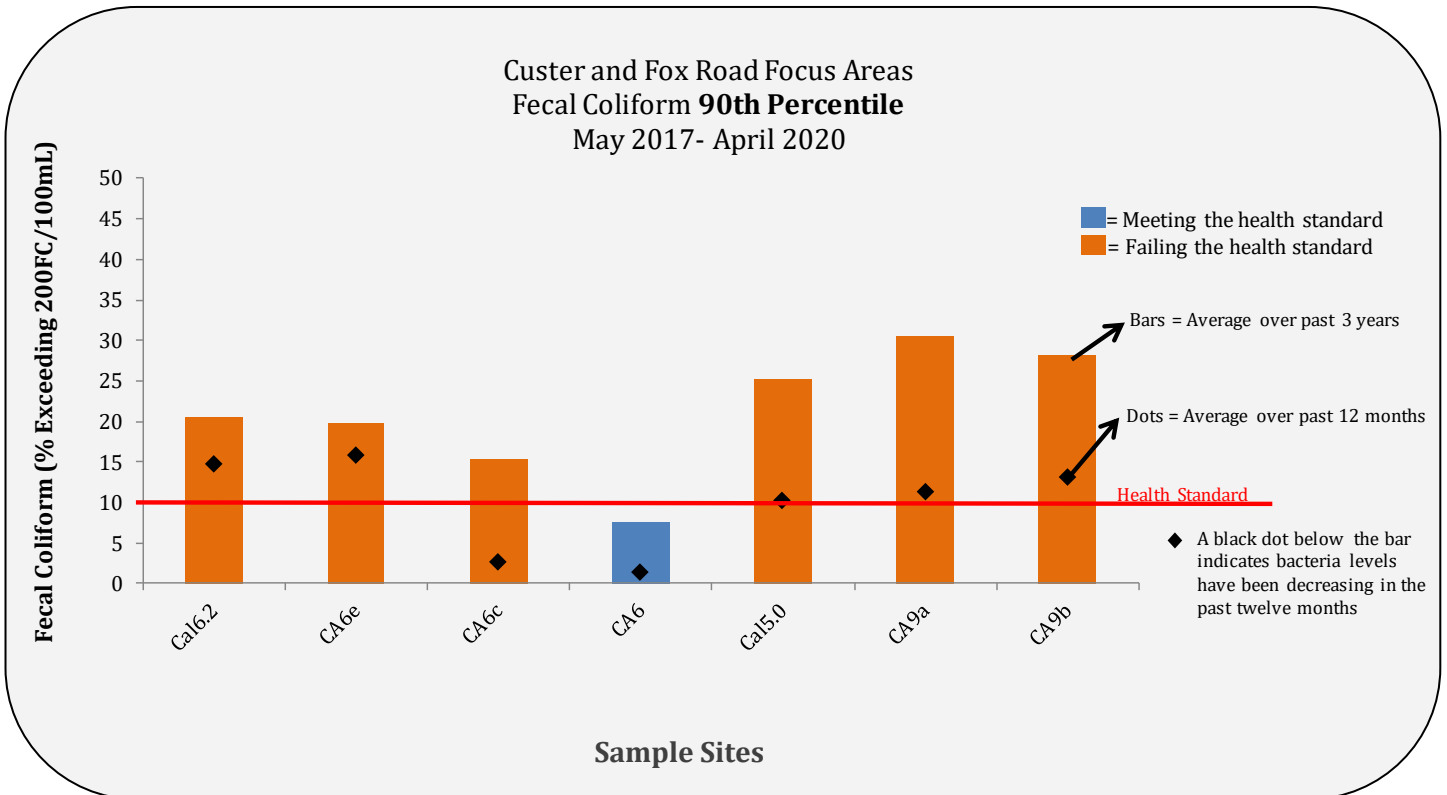
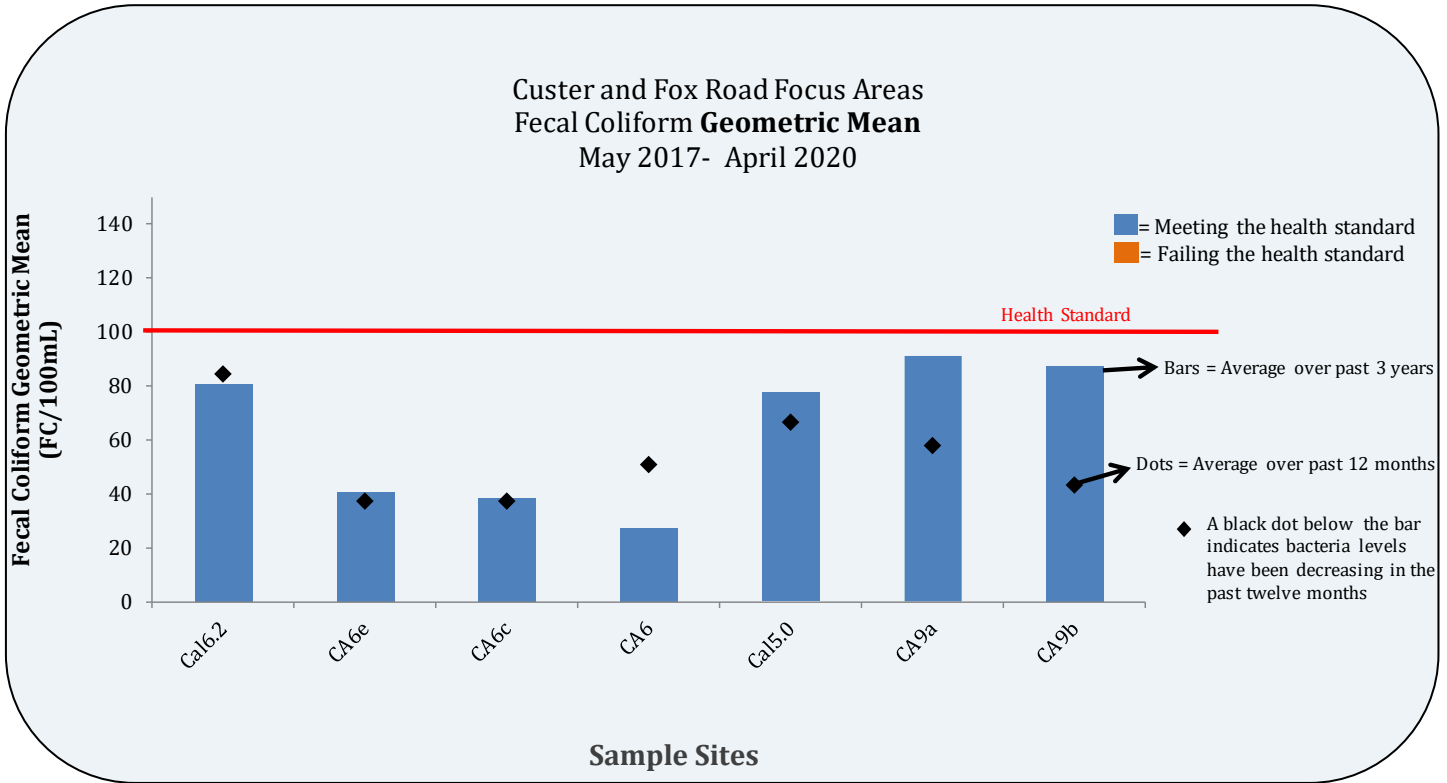
Whatcom County Public Works Custer and Fox Road Water Quality Monitoring Stations



Custer Focus Area

Comparison of Bacteria Levels to Health Standards

Refer to the map on page 1 or the tables on pages 3-6 for site locations.



Custer and Fox Road Focus Areas Historical Fecal Coliform Bacteria Data

These tables provides the individual results at each station since focused sampling began in March 2017. Results in light orange exceeded 200 FC/100mL. Results in dark orange exceed 1000 FC/100mL.

Sampling Stations

Date	<i>Bruce Rd.</i>	<i>Wiley's Lk. E. of Zell Rd.</i>	<i>Zell Rd. & Wiley's Lk.</i>	<i>Arnie Rd. W. of Bruce</i>	<i>Valley View</i>	<i>Fox Rd. & Vista Dr.</i>	<i>Fox Rd. & Vista Dr.</i>	<i>Cemetery at Vista Dr.</i>
	Cal6.2	CA6e	CA6c	CA6	Cal5.0	CA9a	CA9b	CA9ab
3/28/17				737	NS	NS	NS	
4/13/17				610	NS	310	28	
4/20/17				62	56	145	62	
4/27/17				64	38	260	54	
5/3/17				450	2,000	360	320	
5/11/17				410	450	370	910	
5/18/17	104		62	70	400	66	220	
5/25/17	128		138	98	64	14	123	
6/1/17	138		310	106	130	2,100	946	
6/8/17	240		755	127	230	3,100	4,400	
6/15/17	828		220	88	280	1,064	3,700	
6/28/17	380		137	112	70	440	LF	
7/6/17	90		250	106	250	66	ST	
7/13/17	100		220	128	540	ST	ST	
7/20/17	120	74	60	56	64	ST	D	
8/3/17	1,355	540	570	116	189	2,700	D	
8/9/17	310	340	828	310	270	ST	D	
8/15/17	270	430	330	102	106	ST	D	
8/24/17	82	250	310	320	510	D	D	
8/31/17	230	94	114	62	114	D	D	
9/7/17	420	48	94	20	153	D	D	
9/14/17	118	46	163	12	68	D	ST	
9/19/17	17,000	14,100	782	155	791	8,400	ST	
9/28/17	62	44	137	5	68	5,500	D	
10/5/17	37	70	80	22	50	NS	NS	
10/12/17	92	3,200	94	68	106	1,182	ST	
10/18/17	42	3,700	25	60	78	114	ST	
10/26/17	66	32	17	22	19	76	ST	
11/2/17	27	27	40	12	22	400	ST	
11/8/17	15	14	66	7	10	2	ST	
11/15/17	27	45	48	28	44	9	10	5
11/21/17	63	TNS	TNS	99	109	210	5,700	2
12/7/17	45	5	14	17	28	4	23	4
12/19/17	230	220	92	50	270	540	110	133
1/3/18	5	7	9	4	7	12	5	4
1/17/18	33	35	4	2	9	2	4	4
2/1/18	42	40	37	20	32	600	19	9
2/14/18	23	56	28	51	19	74	200	15

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

NS- no sample. ST- stagnant. FL-Flooded, D- Dry, TNS- Temporarily Not Sampling, NA- No Access

Custer and Fox Road Focus Areas Continued Historical Fecal Coliform Bacteria Data

Date	Bruce Rd.	Wiley's Lk. E. of Zell Rd.	Zell Rd. & Wiley's Lk.	Arnie Rd. W. of Bruce	Valley View	Fox Rd. & Vista Dr.	Fox Rd. & Vista Dr.	Cemetery at Vista Dr.
	Cal6.2	CA6e	CA6c	CA6	Cal5.0	CA9a	CA9b	CA9ab
3/1/18	6	14	16	6	9	17	42	8
3/7/18	15	3	3	3	5	6	260	4
3/22/18	62	2,000	48	9	20	1,546	964	50
4/5/18	96	946	350	41	91	127	27	94
4/12/18	24	14	14	44	26	20	26	7
4/26/18	57	25	45	48	192	35	64	25
5/9/18	190	1,264	93	42	174	152	1,180	30
5/17/18	130	86	235	70	148	62	48	2
5/31/18	102	27	66	10	56	19	117	12
6/14/18	33	38	28	48	140	1,373	100	5
6/28/18	74	80	80	33	380	157	470	D
7/12/18	260	37	35	260	133	35	ST	ST
7/25/18	610	40	32	10	102	1,455	D	D
7/31/18	104	64	58	4	410	210	D	D
8/29/18	ST	22	62	9	33	138	D	D
9/12/18	ST	44	20	7	74	163	D	D
9/26/18	60	35	30	32	66	28	D	D
10/10/18	17	14	14	15	19	98	ST	ST
10/17/18	30	9	9	5	27	9	ST	ST
10/31/18	132	273	171	22	84	8,700	290	25
11/14/18	873	682	700	340	782	582	819	973
11/20/18	12	4	17	45	17	7	4	14
11/29/18	56	78	56	56	76	72	46	15
12/6/18	12	7	2	2	12	19	52	2
12/19/18	14	4	12	9	20	22	10	9
12/26/18	9	12	19	17	10	116	25	30
1/8/19	20	9	5	12	40	100	60	5
1/30/19	10	2	2	4	19	5	22	2
2/20/19	108	16	44	30	210	20	126	18
2/28/19	66	7	11	2	43	360	43	700
3/6/19	34	7	15	10	44	10	86	66
3/20/19	46	5	3	10	240	3	13	3
3/28/19	13	16	16	18	23	7	74	34
4/11/19	280	2	72	51	84	84	114	270
4/17/19	30	31	33	26	39	50	40	NA
4/24/19	2,300	33	18	23	56	15	260	20

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

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Custer and Fox Road Focus Areas Continued

Historical Fecal Coliform Bacteria Data

	<i>Bruce Rd.</i>	<i>Wiley's Lk. E. of Zell Rd.</i>	<i>Zell Rd. & Wiley's Lk.</i>	<i>Arnie Rd. W. of Bruce</i>	<i>Valley View</i>	<i>Fox Rd. & Vista Dr.</i>	<i>Fox Rd. & Vista Dr.</i>	<i>Cemetery at Vista Dr.</i>
Date	Cal6.2	CA6e	CA6c	CA6	Cal5.0	CA9a	CA9b	CA9ab
5/1/19	390	5	16	10	66	2	54	5
5/14/19	460	400	52	56	191	900	2,900	320
5/22/19	127	18	20	42	73	28	109	8
5/29/19	98	98	28	25	200	21	1,200	7
6/5/19	200	23	20	40	78	110	520	2
6/19/19	200	74	98	70	127	7	LF	ST
6/26/19	118	23	100	78	220	28	ST	ST
7/3/19	76	44	108	62	230	46	LF	ST
7/9/19	ST	33	62	44	260	54	ST	ST
7/17/19	ST	116	182	88	800	182	ST	ST
8/7/19	ST	23	510	36	310	78	D	D
8/14/19	ST	10	18	44	480	700	D	D
8/28/19	ST	23	28	23	370	ST	D	D
9/4/19	ST	16	30	18	230	ST	D	D
9/11/19	ST	18	9	5	164	ST	D	D
9/25/19	ST	13	8	25	108	2,300	D	D
10/3/19	ST	2	2	2	25	ST	D	D
10/10/19	ST	2	2	18	26	21	ST	ST
10/16/19	ST	39	68	33	68	2,800	ST	D
10/30/19	46	3	5	2	8	62	LF	20
11/5/19	48	25	52	31	74	30	LF	LF
11/20/19	80	200	50	50	50	54	86	33
11/26/19	16	8	7	8	11	106	31	30
12/3/19	118	209	55	390	230	1,100	182	NA
12/18/19	43	10	2	5	28	43	18	21
12/26/19	16	2	5	2	8	220	11	33
1/23/20	270	56	28	10	70	182	1,300	28
1/28/20	91	13	2	15	13	60	64	8
2/6/20	54	56	28	10	70	182	1,300	28
2/18/20	92	13	2	15	13	60	64	8
2/27/20	44	30	15	10	36	8	15	8
3/3/20	200	112	66	56	260	44	20	7
3/24/20	700	900	2,100	2,000	1,500	700	96	56
4/1/20	70	10	5	5	56	18	8	NA
4/7/20	23	11	2	2	16	36	40	NA
4/16/20	36	20	11	7	15	44	33	NA
4/22/20	173	1,700	28	31	58	50	2,900	NA

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