

Custer and Fox Road Focus Areas

Water Quality Status: Fecal Coliform Bacteria

September, 2022

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.

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

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

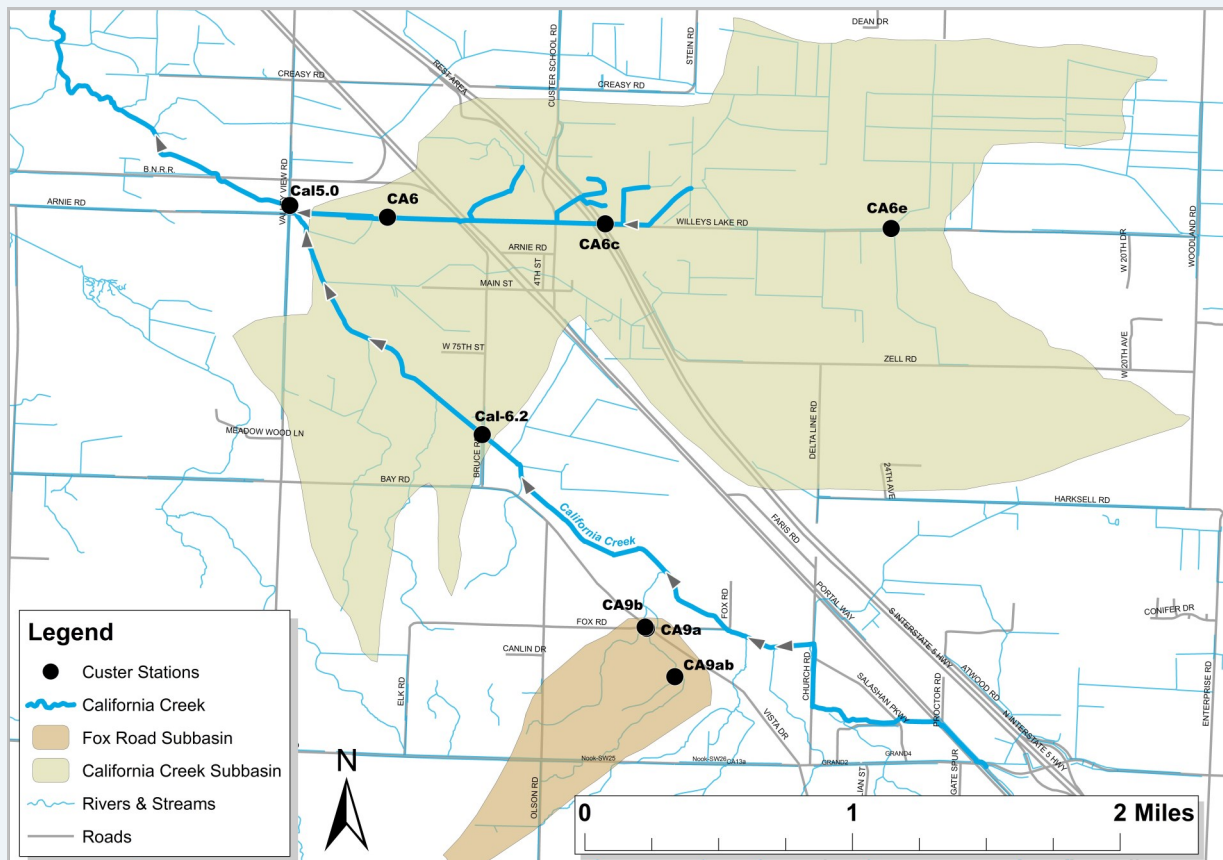
Where Does the Bacteria Come From?

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.

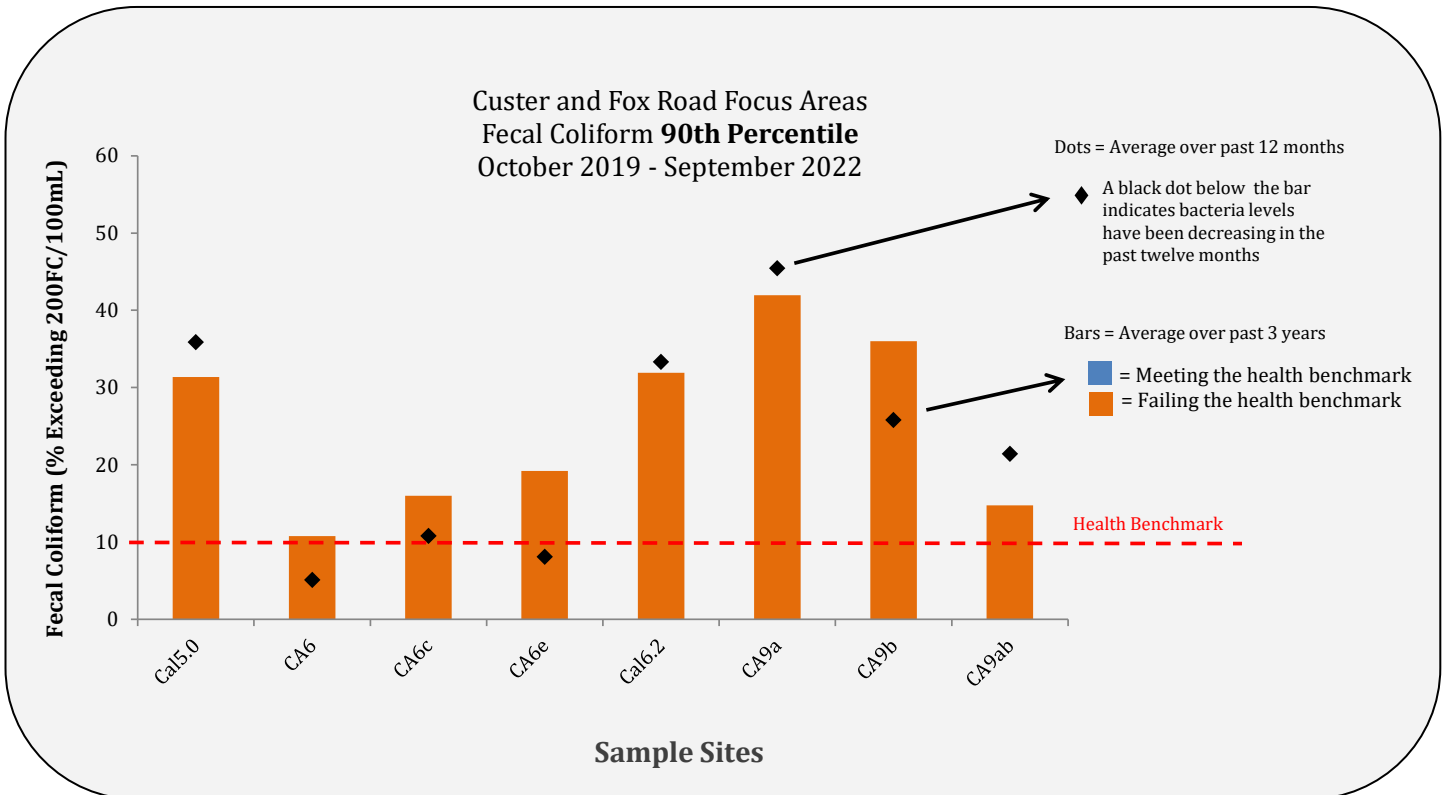
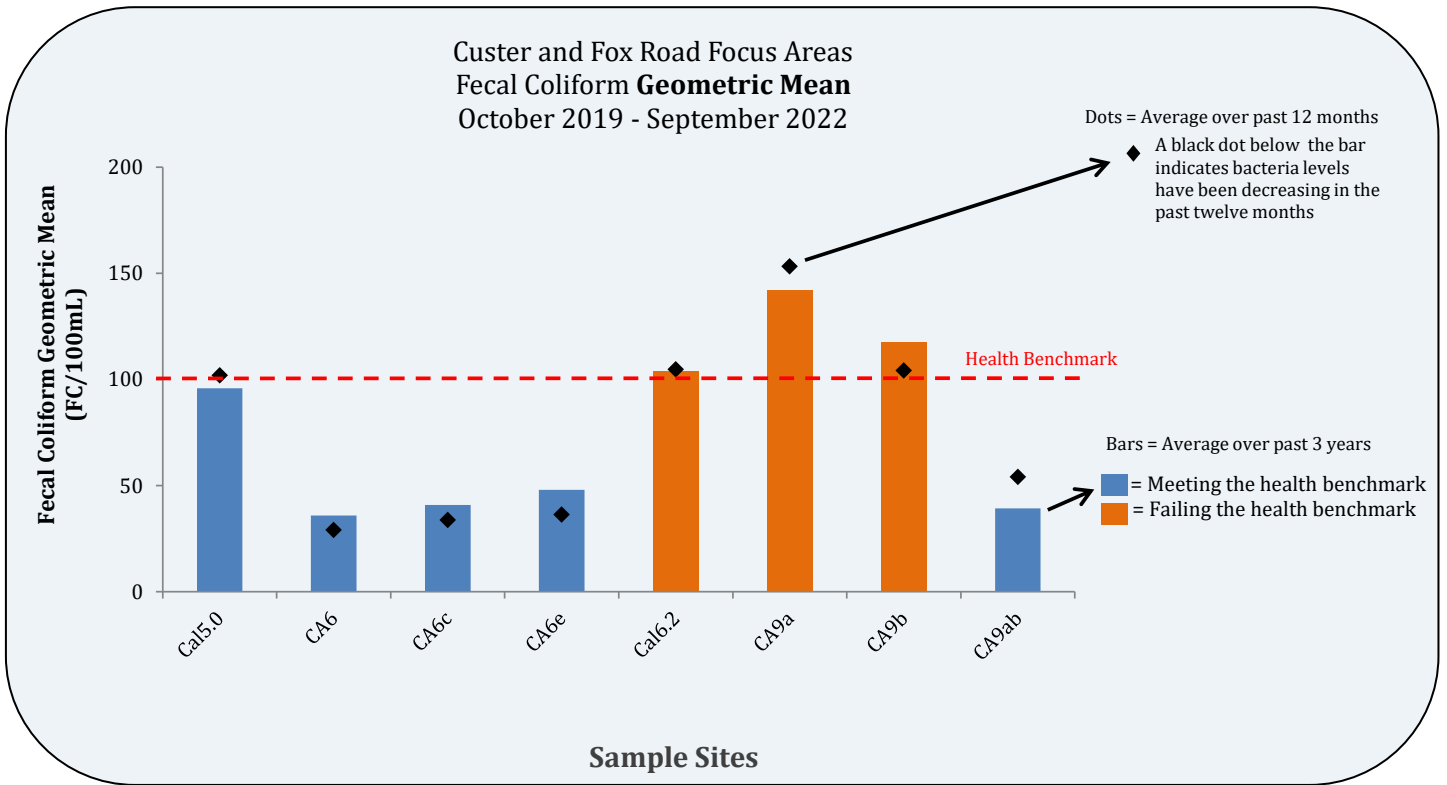
Whatcom County Public Works Custer and Fox Road Water Quality Monitoring Stations



Cluster Focus Area

Comparison of Bacteria Levels to Health Benchmarks

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



Custer and Fox Road Focus Areas 13-Month Historical Fecal Coliform Bacteria Data

These tables 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.

Site Location Date Sampled	Valley View	Arnie Rd. W. of Bruce	Zell Rd. & Willey's	Wiley's Lk. E. of Zell Rd.	Bruce Rd.	Fox Rd. & Vista Dr.	Fox Rd. & Vista Dr.	Cemetery at Vista Dr.
	Cal5.0	CA6	CA6c	CA6e	Cal6.2	CA9a	CA9b	CA9ab
9/15/21	330	48	400	280	330	1400	ST	ST
9/29/21	173	62	104	200	90	ST	ST	ST
10/7/21	86	25	74	8	82	218	ST	LF
10/20/21	230	20	15	26	270	380	ST	ST
10/28/21	4900	145	700	3700	2400	1800	430	3800
11/4/21	700	136	600	20	370	340	210	98
11/9/21	230	10	10	20	109	60	56	40
11/23/21	20	2	2	13	23	300	68	22
12/2/21	55	5	3	23	64	1000	28	7
12/7/21	44	13	13	48	80	260	80	52
12/21/21	21	5	2	3	36	52	41	11
1/5/22	62	18	NA	NA	68	96	30	10
1/19/22	16	2	11	2	56	78	42	68
1/26/22	13	2	2	2	31	196	84	38
2/1/22	36	7	4	9	40	48	27	15
2/16/22	54	7	16	13	34	52	157	5
2/23/22	18	15	38	9	40	4	50	2
3/1/22	137	70	62	68	460	54	110	34
3/10/22	16	5	5	3	5	ST	80	54
3/16/22	127	41	10	31	28	90	76	18
3/24/22	15	21	8	7	30	31	20	15
3/31/22	18	7	8	8	25	15	2	3
4/12/22	18	18	62	48	28	20	92	96
4/19/22	145	16	TNS	TNS	200	56	90	191
4/26/22	18	13	15	15	40	30	30	26
5/5/22	1200	360	330	420	2000	3600	380	5200
5/10/22	72	76	25	38	106	33	90	3400
5/23/22	106	21	88	82	34	15	145	39
6/2/22	210	54	48	62	114	280	88	209
6/9/22	109	38	33	60	260	330	54	280
6/23/22	340	60	33	46	230	88	520	280
6/30/22	270	5600	6000	2800	72	330	310	84
7/7/22	136	164	55	118	250	900	1600	ST
7/20/22	155	62	92	155	240	6000	6000	ST
7/28/22	520	82	173	100	470	800	LF	D
8/4/22	300	118	173	173	1900	4700	2100	ST
8/11/22	300	76	127	145	280	ST	D	D
8/23/22	182	42	102	114	191	ST	D	D
9/1/22	400	54	60	96	220	ST	ST	LF
9/21/22	250	52	34	34	54	ST	ST	ST
9/29/22	250	145	58	38	82	ST	D	D

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

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