

# Brown Malloy Focus Area

## Water Quality Status: Fecal Coliform Bacteria

December, 2021

**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**

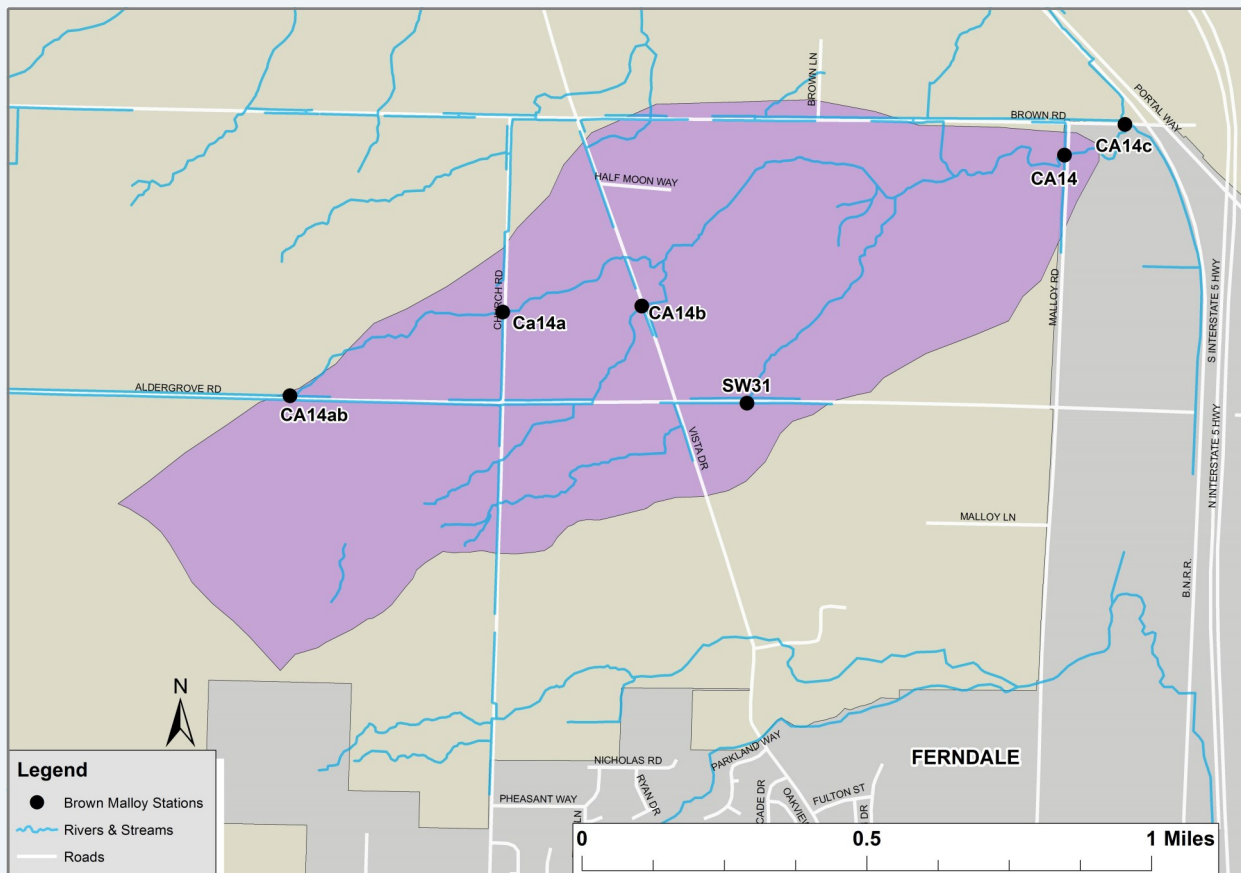
### Where Does the Bacteria Come From?

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

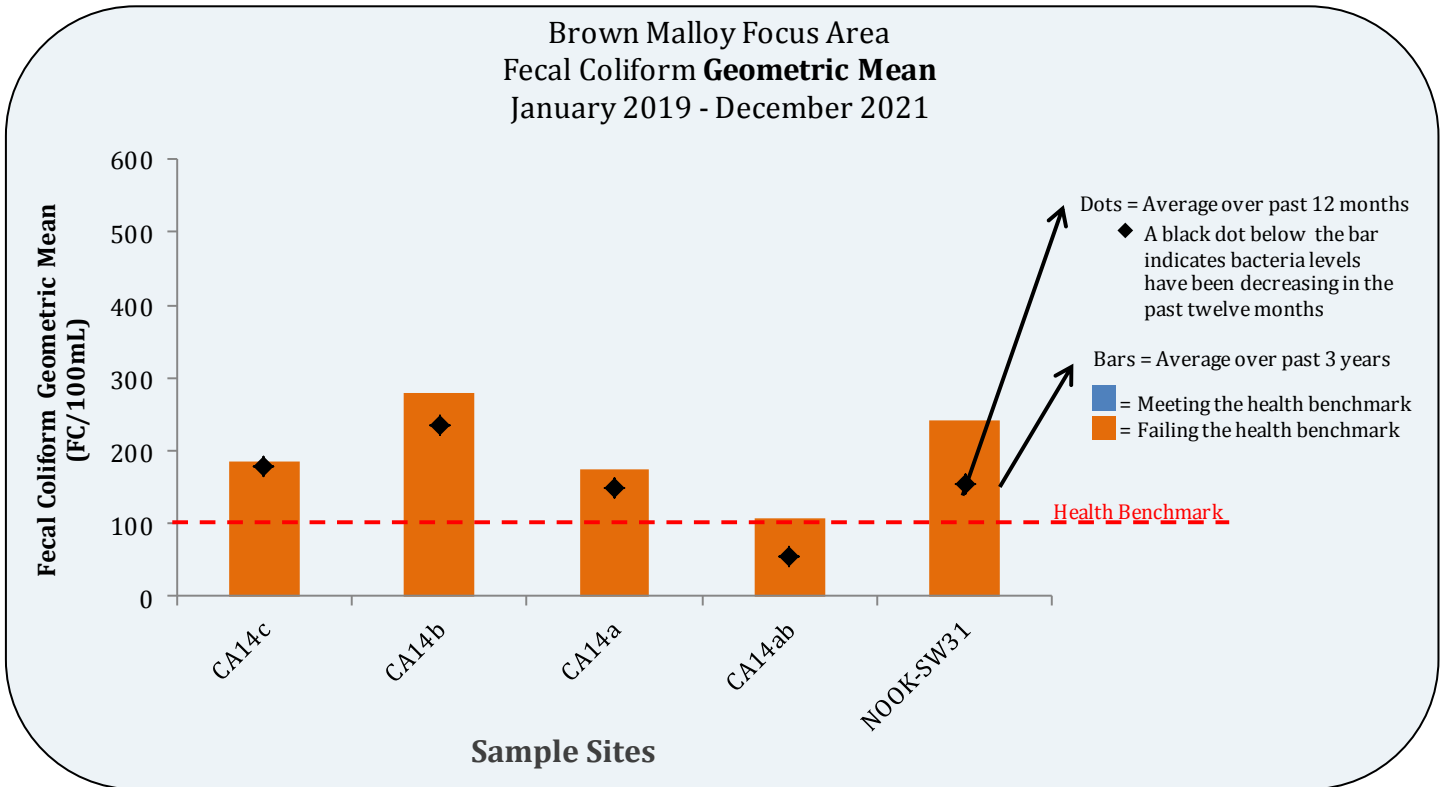
**Focus Area Monitoring:** The Brown Malloy drainage has been identified as a *focus area* for water quality monitoring due to high levels of bacteria observed through the routine monitoring program. Whatcom County Public Works (WCPW) has monitored fecal coliform bacteria in the Brown Malloy drainage area since 2014.

## Whatcom County Public Works Brown Malloy Water Quality Monitoring Stations

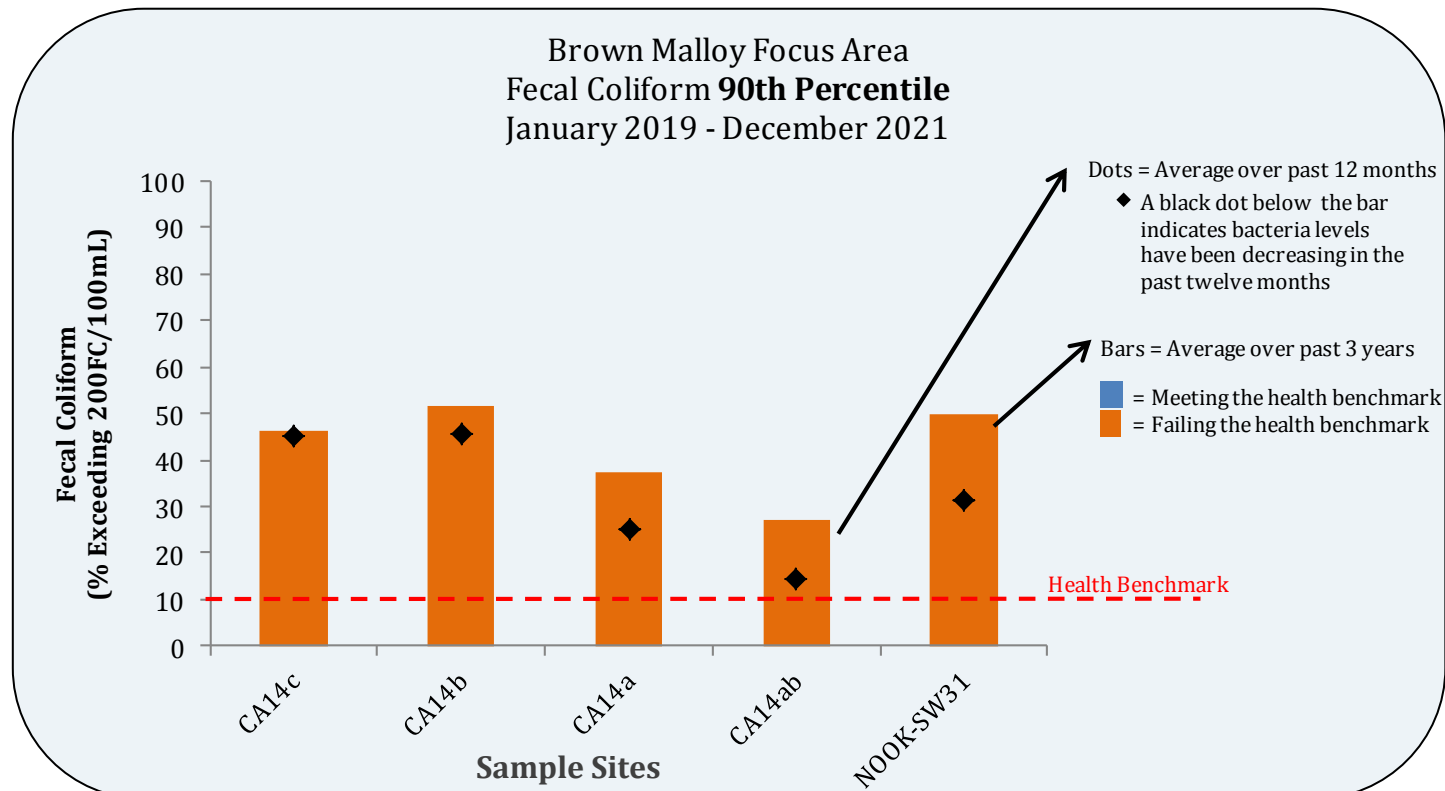


## Brown Malloy Focus Area Comparison of Bacteria Levels to Health Benchmarks

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.



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### 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	Site Location		Brown Rd, East of Malloy	Vista Drive, North of Aldergrove	Church Rd, North of Aldergrove	Aldergrove Rd, W of Church, Southside	Aldergrove Rd, East of Vista
	Rainfall Data		CA14c	CA14b	CA14a	CA14ab	SW31
12/03/20	0.00	0.16	18	90	23	118	78
12/16/20	0.61	0.65	290	74	68	56	33
12/29/20	0.36	0.56	44	40	100	23	46
1/12/21	0.84	0.64	470	200	200	127	1,200
1/20/21	0.00	0.03	60	370	510	20	15
2/2/21	0.20	2.33	410	86	92	72	73
3/10/21	0.00	0.05	11	66	164	3	56
3/17/21	0.00	0.16	80	227	145	58	102
3/24/21	0.58	0.25	2,600	1,600	500	570	3,000
3/30/21	0.00	0.27	40	100	520	84	104
4/14/21	0.00	0.00	28	240	100	LF	118
4/28/21	0.00	0.18	60	82	36	LF	LF
5/12/21	0.01	0.00	260	182	102	LF	LF
5/19/21	0.06 <sup>1</sup>	0.34 <sup>1</sup>	420	2,200	200	D	42
5/26/21	0.00	0.26	62	LF	31	LF	155
6/9/21	0.00	0.12	D	TNS	TNS	TNS	TNS
6/16/21	0.00	0.57	ST	TNS	TNS	TNS	TNS
6/23/21	0.00	0.00	D	TNS	TNS	TNS	TNS
7/7/21	0.00	0.00	D	TNS	TNS	TNS	TNS
7/21/21	0.00	0.00	D	TNS	TNS	TNS	TNS
8/4/21	0.00	0.00	D	TNS	TNS	TNS	TNS
8/18/21	0.00	0.00	D	TNS	TNS	TNS	TNS
8/31/21	0.16	0.00	D	TNS	TNS	TNS	TNS
9/15/21	0.00	0.76	D	TNS	TNS	TNS	TNS
9/29/21	0.20	1.02	ST	TNS	TNS	TNS	TNS
10/7/21	0.00	0.04	ST	TNS	TNS	TNS	TNS
10/20/21	0.07	0.56	200	TNS	TNS	TNS	LF
10/28/21	1.29	0.57	6000	TNS	TNS	TNS	5400
11/4/21	0.43	1.04	6000	TNS	TNS	TNS	6000
11/9/21	0.42	0.35	13	TNS	TNS	TNS	3
11/23/21	0.09	0.04	380	TNS	TNS	TNS	TNS
12/2/21	0.00	1.85	100	TNS	TNS	TNS	64
12/7/21	0.14	0.74	600	TNS	TNS	TNS	560
12/21/21	NR	1.61	44	TNS	TNS	TNS	16

Gray box indicated an event where no sample was collected for varying reasons. D– Dry, ST– Stagnant, NA– Not Accessible, Temporarily Not Sampling

\*Day of sampling event \*\*Three days prior to, but not including, day of sampling event

Rainfall data is taken from the Bertrand Creek stream flow monitoring station. <sup>1</sup>Rainfall data was taken from CoCoRaHS Station WA-WC-29 8/2019–12/2019. Measured in inches. NR– Not Recorded

Note: These sites are seasonally dry. No samples were collected on the sample runs ranging from 7/22/20 to 9/29/20