

# Drayton Harbor Watershed

## Water Quality Status: Fecal Coliform Bacteria

May, 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.

### What are Fecal Coliform Bacteria?

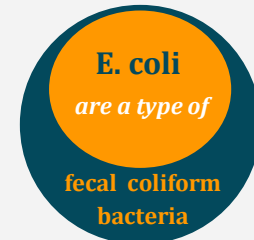
Fecal coliform bacteria are found in human and animal feces. Detection in a creek is a sign that pathogens from these wastes may be polluting the water. Contact with fecal contaminated waters can result in **gastroenteritis, skin rashes, upper respiratory infections** and other illnesses.

### 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**

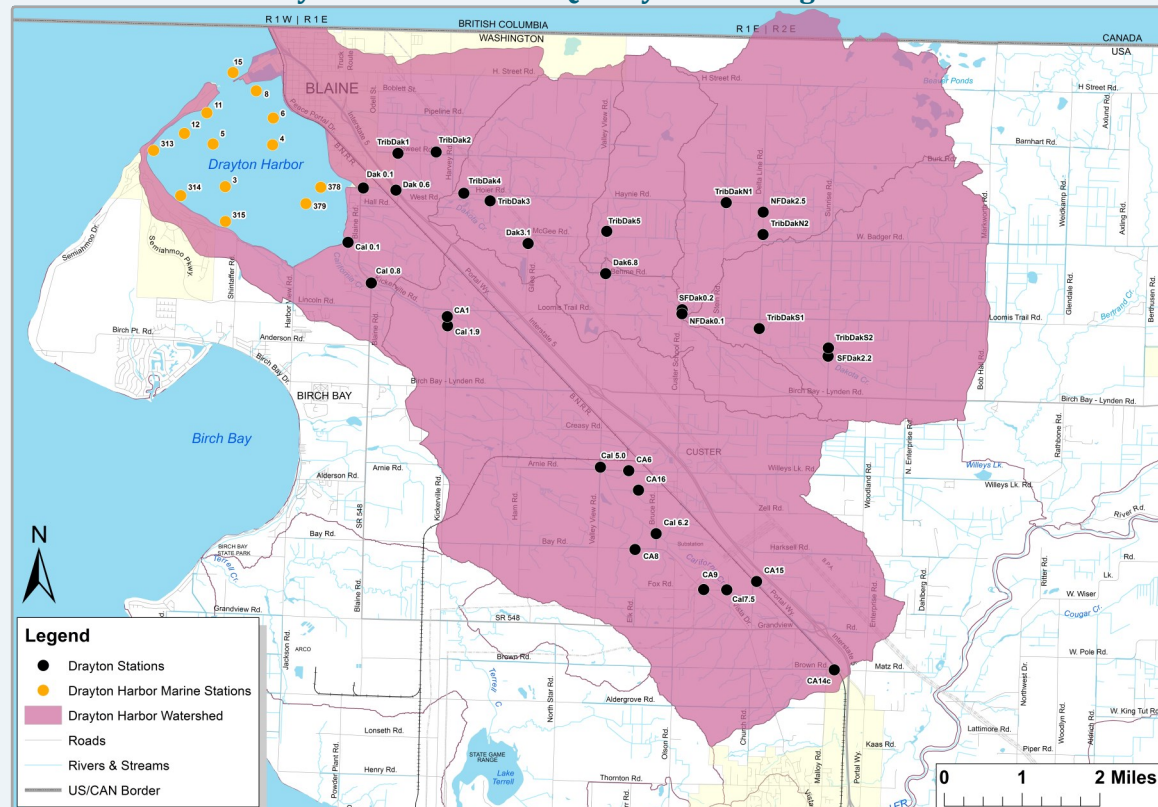
- and -

#### 90th Percentile

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

**Routine Monitoring:** The Dakota and California Creek watersheds have been monitored for fecal coliform bacteria by Whatcom County Public Works (WCPW) since March 2008.

### Whatcom County Public Works Drayton Harbor Water Quality Monitoring Stations

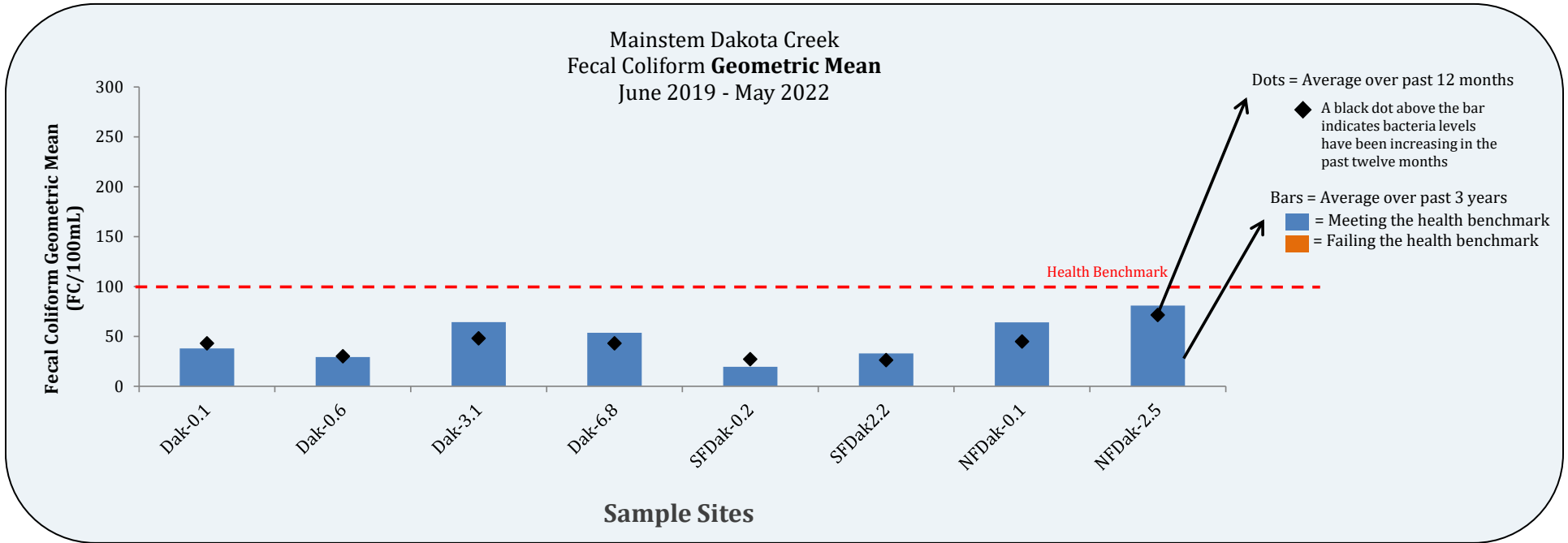


More information is available at: [www.whatcomcounty.us/2170/Water-Quality-Monitoring-Results](http://www.whatcomcounty.us/2170/Water-Quality-Monitoring-Results)

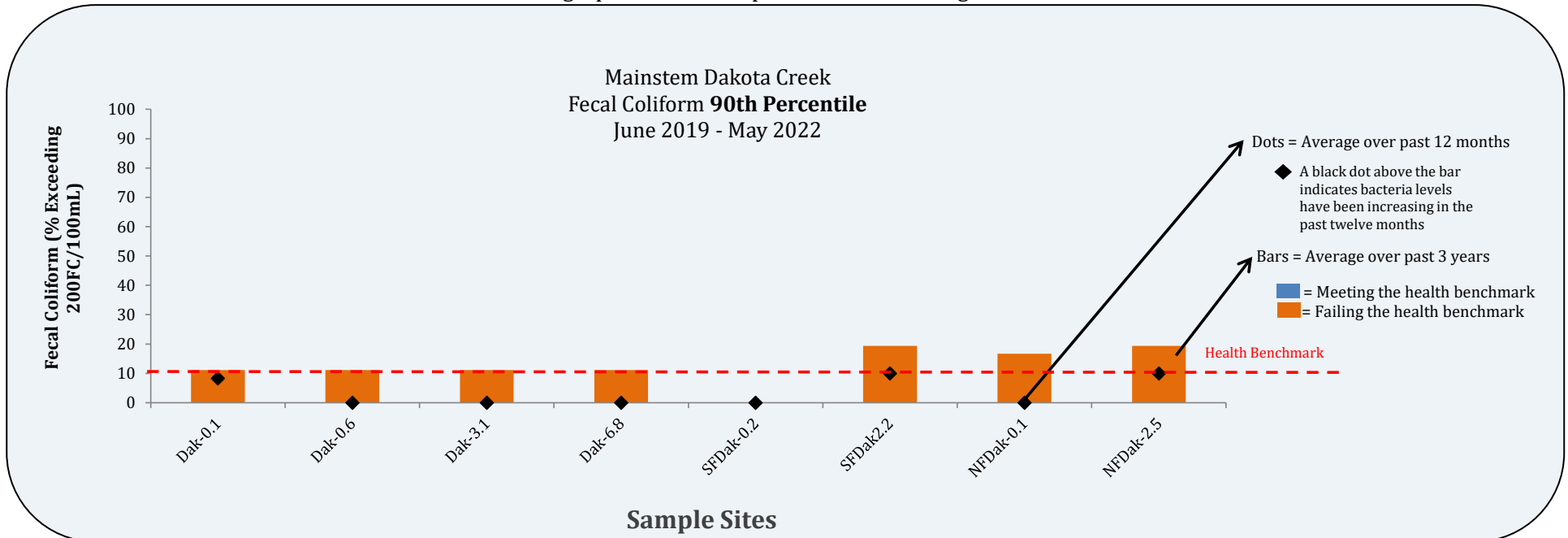
# Dakota Creek Mainstem Stations

## Comparison of Bacteria Levels to Health Benchmarks

Refer to the map on page 1 or the table on page 4 for site locations.



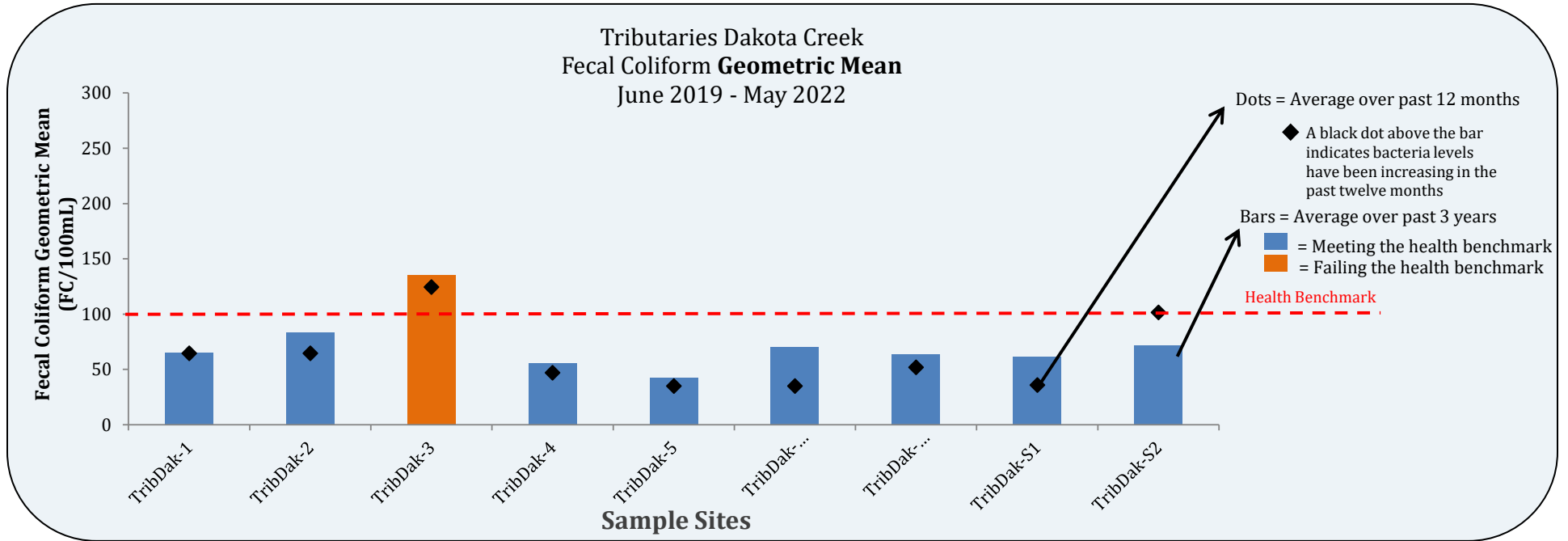
\*The bar must be blue on both graphs for the sample site to be meeting the freshwater health benchmark.



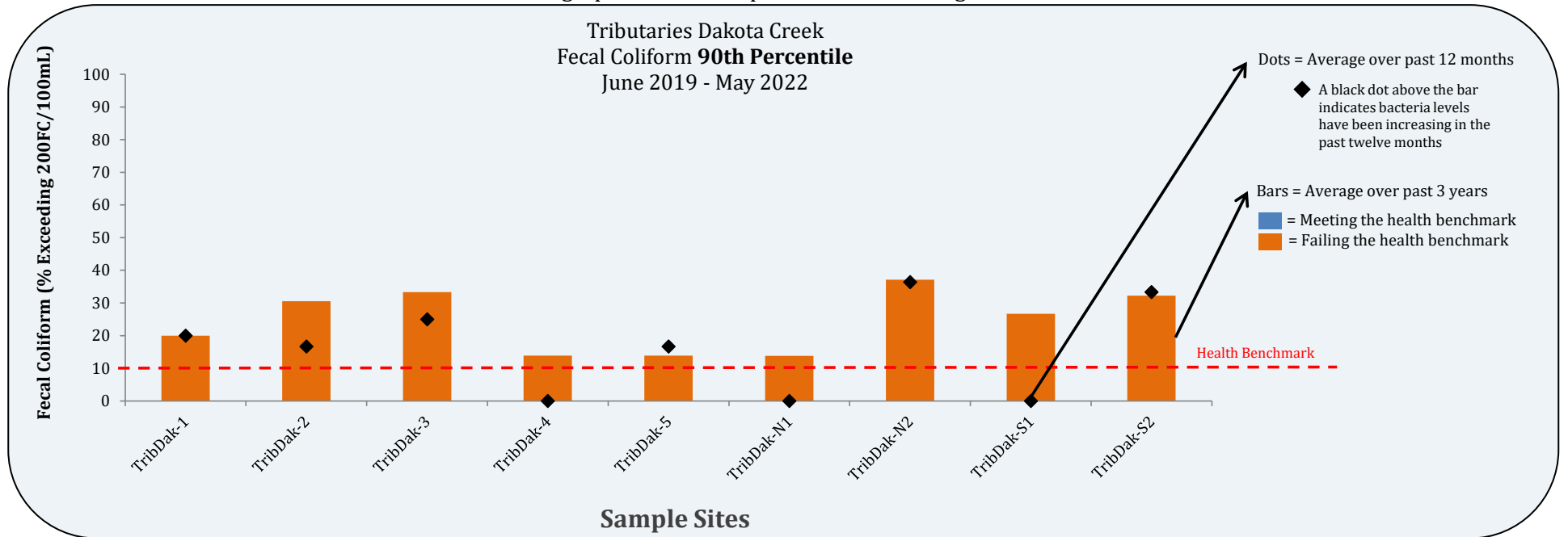
# Dakota Creek Tributary Stations

## Comparison of Bacteria Levels to Health Benchmarks

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# Drayton Harbor Watershed

## 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 exceed 200 FC/100mL. Results in dark orange exceed 1,000 FC/100mL.

### Dakota Creek Mainstem Stations

Date	Creek Access		Dakota Creek at Blaine Road Bridge	Dakota Creek at 15 Bridge	Dakota Creek at Giles Road	Dakota Creek at Valley View Road	SF Dakota at Custer School Road	SF Dakota at Sunrise Road	NF Dakota at Custer School Road	NF Dakota Creek at Delta Line Road
	Rainfall		Dak0.1	Dak0.6	Dak3.1	Dak6.8	SFDak-0.2	SFDak-2.2	NFDak-0.1	NFDak-2.5
	24 hr*	72 hr**								
5/3/21	0.19	0.26	10	28	8	20	10	48	20	18
6/1/21	0.00	0.00	18	42	48	88	8	82	38	82
7/14/21	0.00	0.00	60	62	118	46	102	ST	40	ST
8/16/21	0.00	0.00	40	44	54	50	ST	D	62	ST
9/22/21	0.02	0.01	21	21	33	41	84	25	44	114
10/11/21	0.00	0.29	7	5	23	7	40	21	10	102
11/17/21	0.00	5.38	1,000	84	59	74	80	158	129	89
12/13/21	0.04	0.80	20	15	16	20	13	13	21	23
1/10/22	0.05	0.86	46	25	29	38	25	16	44	74
2/7/22	0.04	0.15	24	15	16	18	7	5	22	24
3/14/22	0.75	0.71	54	16	136	88	5	2	118	320
4/5/2022	0.00	NR	86	98	104	116	70	390	78	68
5/18/22	0.10	0.61	62	62	110	68	36	30	70	46

### Dakota Creek Tributary Stations

Date	Sweet Rd, East of Odell	Sweet Rd, West of Harvey	Rogers Road	Hoier Road	Bridge at Valley View, South of McGee	Haynie Road	US of Cross Culvert at Delta Ln N of Badger	DS of Cross Culvert at Delta Ln S of Loomis Trail Rd	Sunrise Road, North of SF Dakota
	TribDak-1	TribDak-2	TribDak-3	TribDak-4	TribDak-5	TribDak-N1	TribDak-N2	TribDak-S1	TribDak-S2
5/3/21	3	2	92	3	30	39	21	240	240
6/1/21	2	72	220	145	25	102	54	164	540
7/14/21	D	1,300	1,100	100	209	D	360	ST	LF
8/16/21	D	900	118	80	330	D	240	ST	ST
9/22/21	6,000	23	200	20	84	ST	210	ST	LF
10/11/21	25	16	191	16	10	43	210	21	48
11/17/21	260	82	54	66	27	100	10	40	46
12/13/21	112	33	200	26	5	3	21	7	54
1/10/22	11	15	48	20	9	31	NA	NA	46
2/7/22	78	11	176	64	86	98	2	64	31
3/14/22	100	52	16	42	31	26	34	20	380
4/5/2022	31	182	30	164	30	23	60	20	240
5/18/22	54	40	290	20	23	31	40	110	136

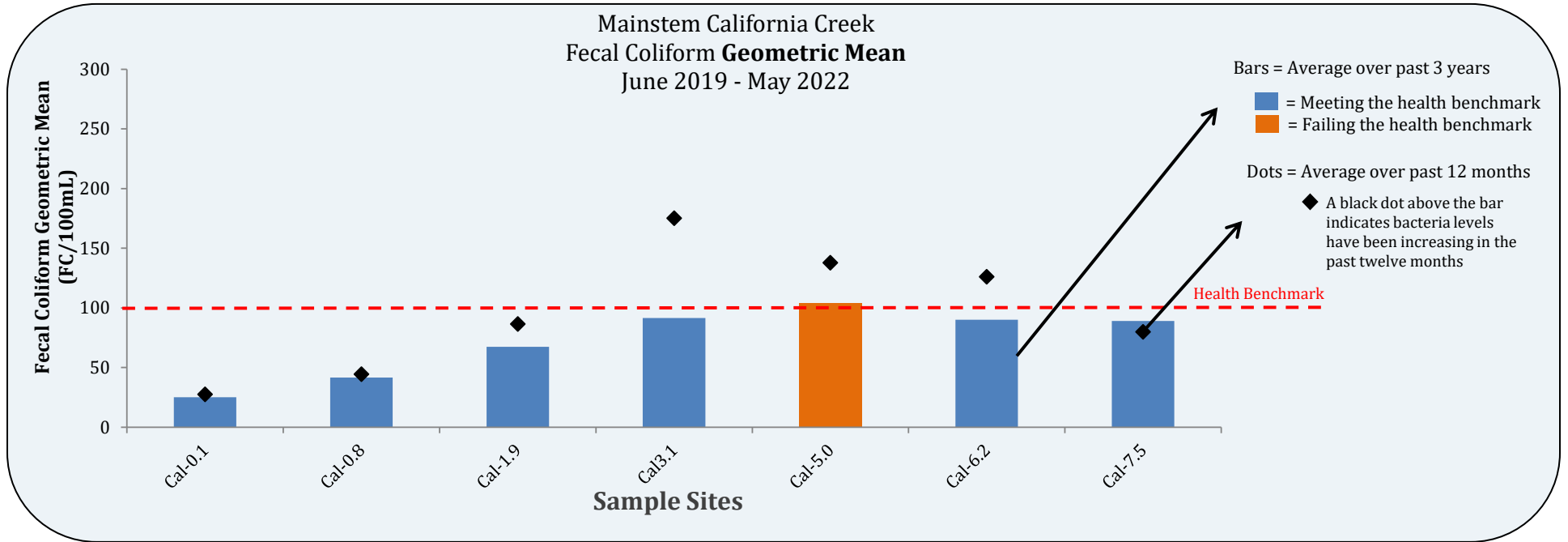
Gray box indicates an event where no sample was collected for varying reasons. ST - Stagnant, FL - Flood, D - Dry, I - Ice, NA - Not Accessible

\*Day of sampling event \*\*Three days prior to, but not including, day of sampling event Rainfall measured in inches. Rainfall data taken from the Bertrand Creek "NR mouth" stream flow monitoring station.

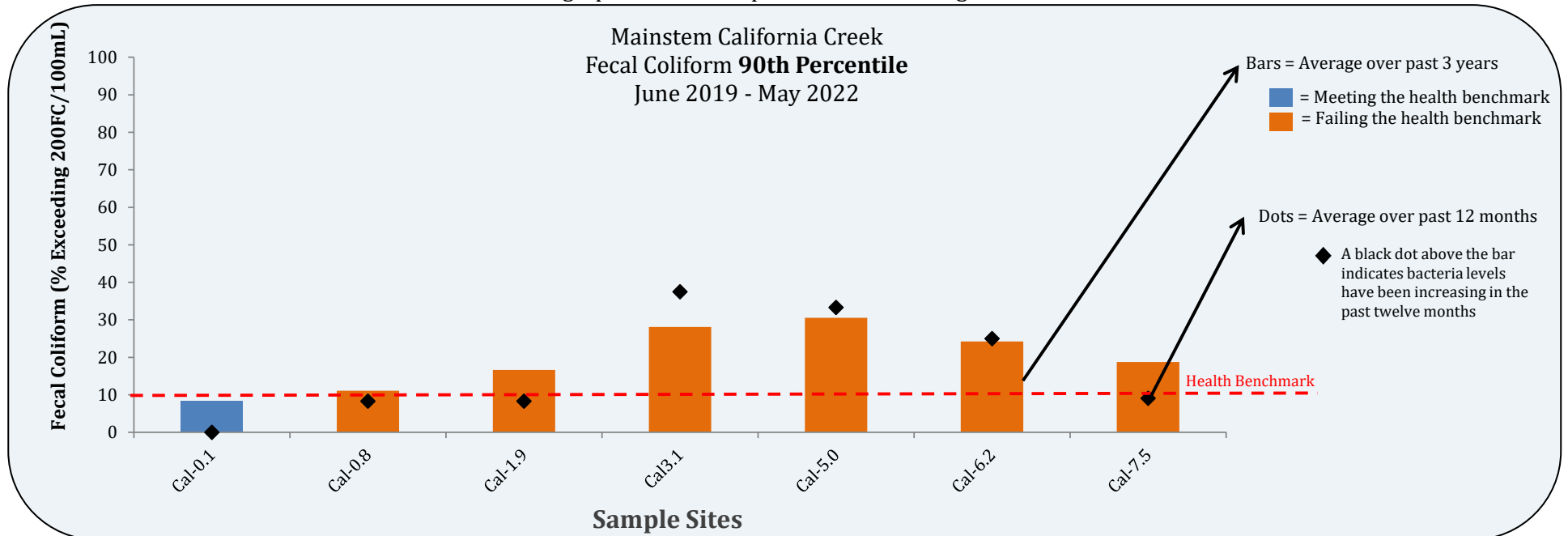
NR - Not Recorded. <sup>1</sup>Rainfall data taken from CoCoRAHS WA-WC-29

# California Creek Mainstem Stations

Refer to the map on page 1 or the table on page 7 for site locations.



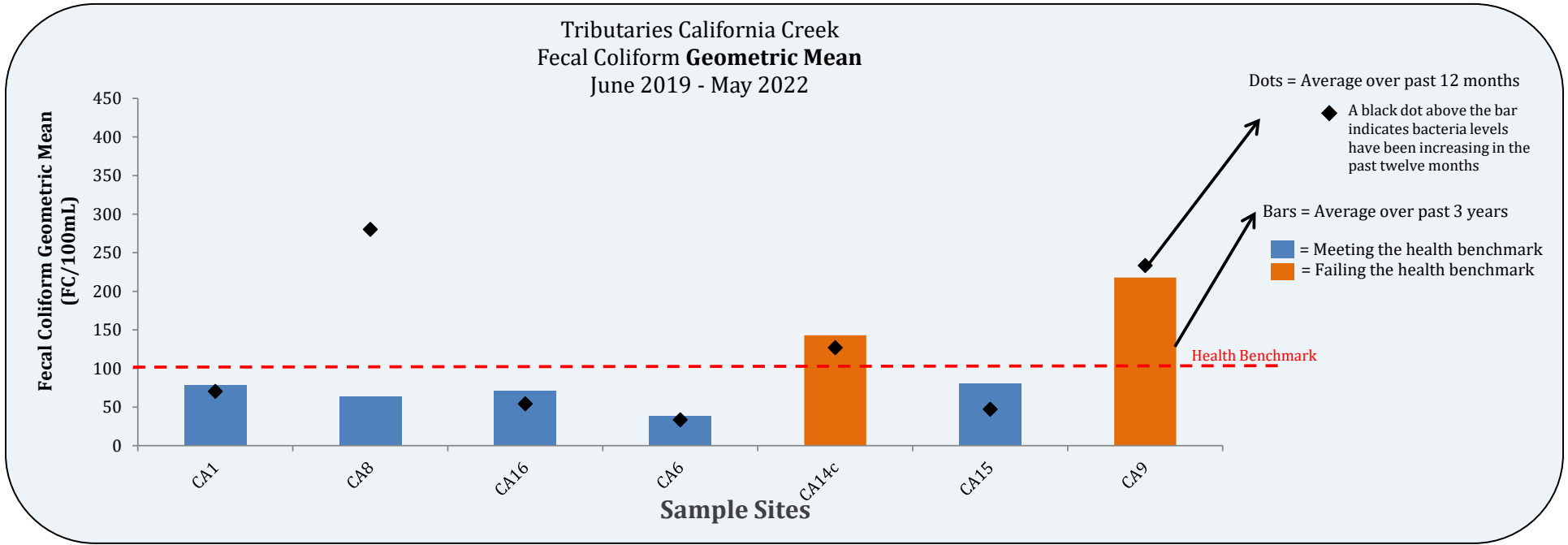
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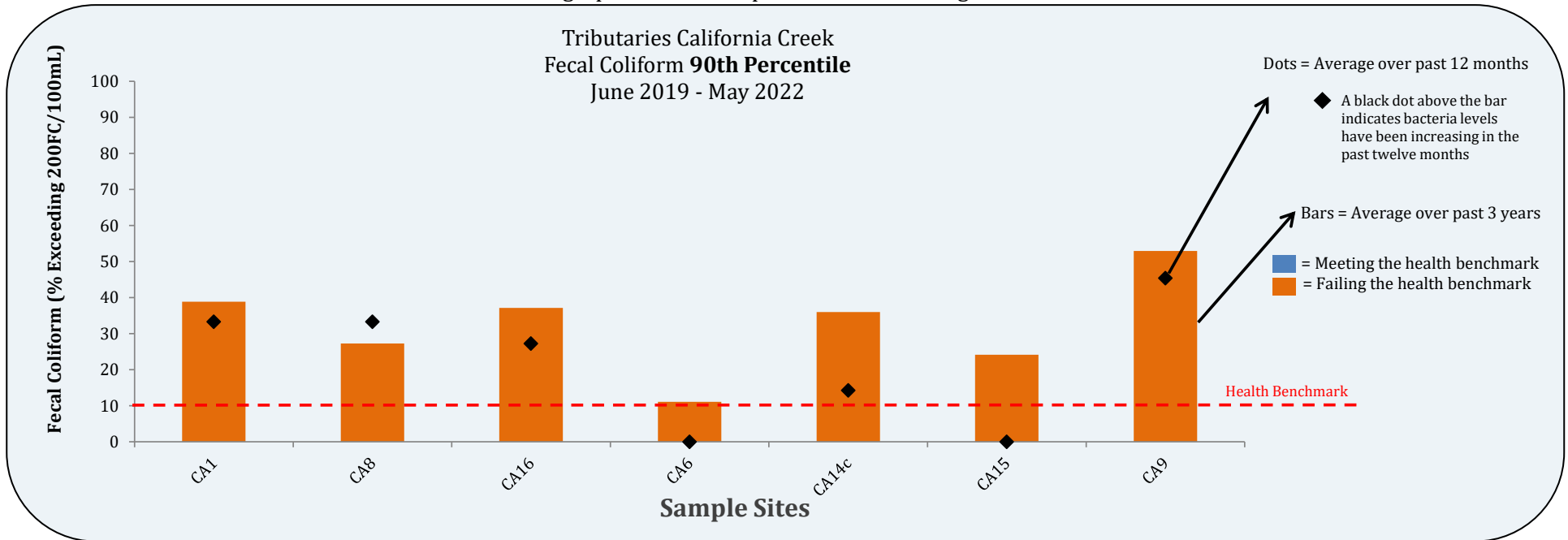
# California Creek Tributary Stations

## Comparison of Bacteria Levels to Health Benchmarks

Refer to the map on page 1 or the table on page 7 for site locations.



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# Drayton Harbor Watershed

## 13-Month Historical Fecal Coliform Bacteria Data Continued

### California Creek Mainstem Stations

Creek Access Point	Creek Access Point		California Creek at Drayton Harbor Road Bridge	California Creek at Blaine Road Bridge	Kickerville Bridge	Birch Bay-Lynden Rd., West of Ham Road	California Creek at Valley View	California Creek at Bruce Road	California Creek at Fox Road, East of Vista
	Rainfall								
Date	24 hr*	72 hr**	Cal-0.1	Cal-0.8	Cal-1.9	Cal-3.1	Cal-5.0	Cal-6.2	Cal-7.5
5/3/21	0.19	0.26	7	20	46	52	40	82	54
6/1/21	0.00	0.00	10	52	86	164	88	54	66
7/14/21	0.00	0.00	48	21	42	100	260	1,200	1,800
8/16/21	0.00	0.00	46	58	74	1100	1200	1100	ST
9/22/21	0.02	0.01	31	40	74	88	90	56	60
10/11/21	0.00	0.29	3	5	145	220	260	70	48
11/17/21	0.00	5.38	158	560	7,000	TNS	3,000	400	56
12/13/21	NR	0.80	18	21	31	TNS	20	34	15
1/10/22	0.05	0.86	44	80	72	TNS	72	76	59
2/7/22	0.04	NR	16	9	7	TNS	18	62	50
3/14/22	0.75	0.71	43	98	136	290	91	155	173
4/5/22	0.00	NR	33	84	54	44	82	38	88
5/18/22	0.1	0.61	33	70	78	200	127	155	66

### California Creek Tributary Stations

Creek Access Point	Downstream of Cross Culvert at Kickerville, W of Cal Creek	Upstream of Cross Culvert at Bay Road	Main Street at Custer	Upstream of Cross Culvert at Arnie Road, West of Bruce	Downstream of Cross Culvert at Brown Road, W of Railroad	Upstream of Cross Culvert at Portal, South of Farris	Upstream of Cross Culvert at Fox and Vista
Date	CA1	CA8	CA16	CA6	CA14c	CA15	CA9
5/3/21	3,200	11	490	48	56	173	360
6/1/21	460	58	46	100	D	109	6,000
7/14/21	1,700	D	270	50	D	ST	700
8/16/21	290	D	ST	26	D	ST	ST
9/22/21	44	LF	16	50	D	50	270
10/11/21	15	1,900	240	11	ST	118	127
11/17/21	28	200	139	158	112	72	580
12/13/21	2	TNS	23	7	145	11	200
1/10/22	48	TNS	18	20	98	11	102
2/7/22	18	TNS	4	5	62	94	48
3/14/22	80	TNS	46	56	460	50	360
4/5/22	300	TNS	56	74	106	38	90
5/18/22	82	TNS	420	60	110	56	42

Gray box indicates an event where no sample was collected for varying reasons. ST- Stagnant, FL- Flood, D-Dry, I- Ice, TNS—Temporarily Not Sampling

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NR- Not Recorded