

Fishtrap Creek Focus Area

Water Quality Status: Fecal Coliform Bacteria

April 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

Routine Monitoring: The Fishtrap Creek 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 Fishtrap Creek drainage area since March 2015.

What are Fecal Coliform Bacteria?

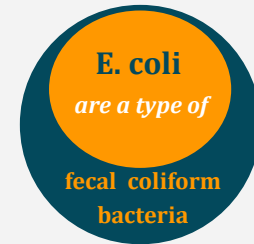
Fecal coliform bacteria are found in human and animal feces. Detection in a creek is a sign that pathogens from these wastes may be polluting the water. Contact with fecal contaminated waters can result in **gastroenteritis, skin rashes, upper respiratory infections** and other illnesses.

Where Does the Bacteria Come From?

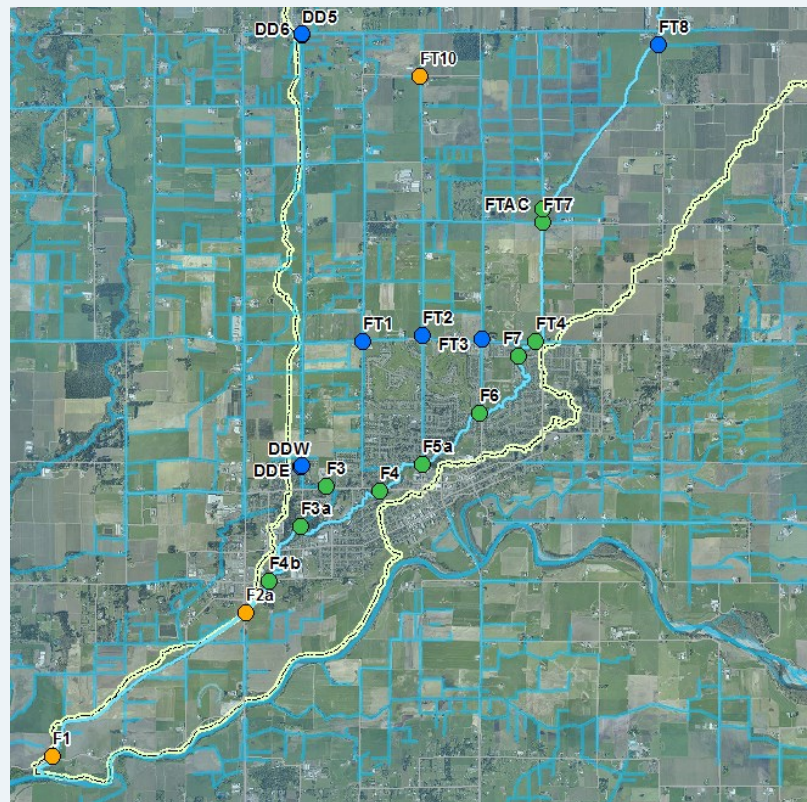
Potential sources of bacteria include:

- 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.



Whatcom County Public Works Fishtrap Creek Water Quality Monitoring Stations



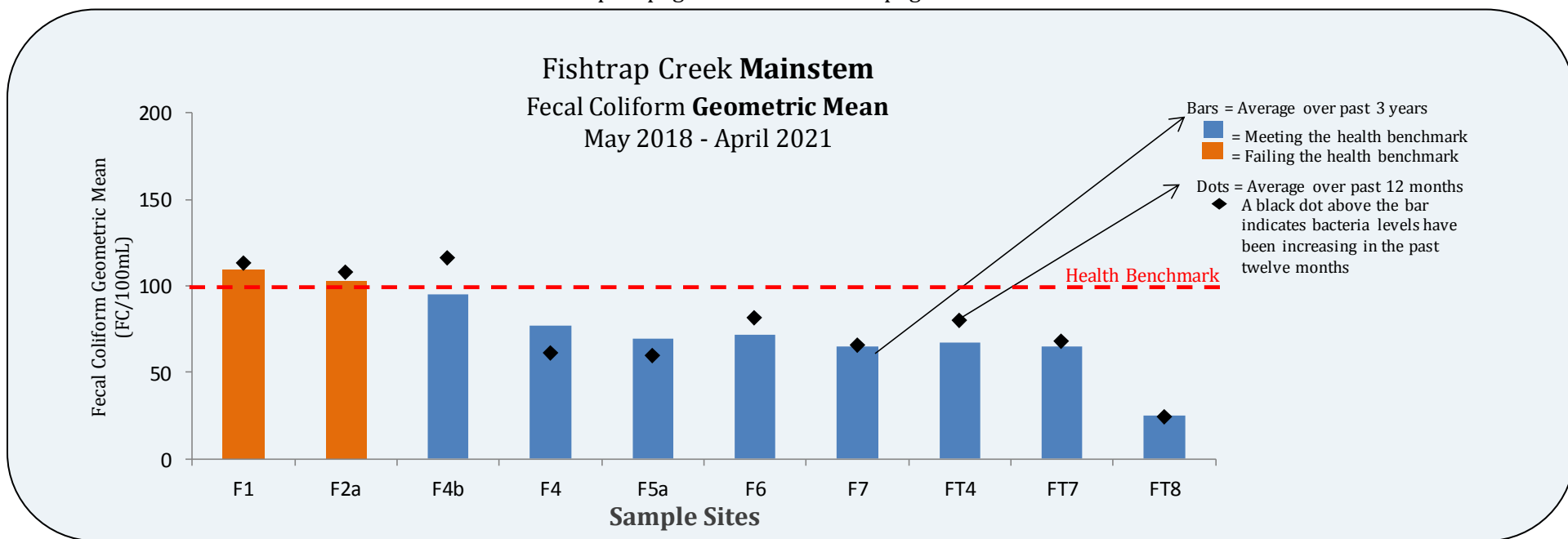
Water Quality Status (Geometric Mean)

- < 50 FC/100mL
- 50-100 FC/100mL
- 100-200 FC/100mL
- 200-500 FC/100mL
- 500-1000 FC/100mL
- > 1000FC/100mL

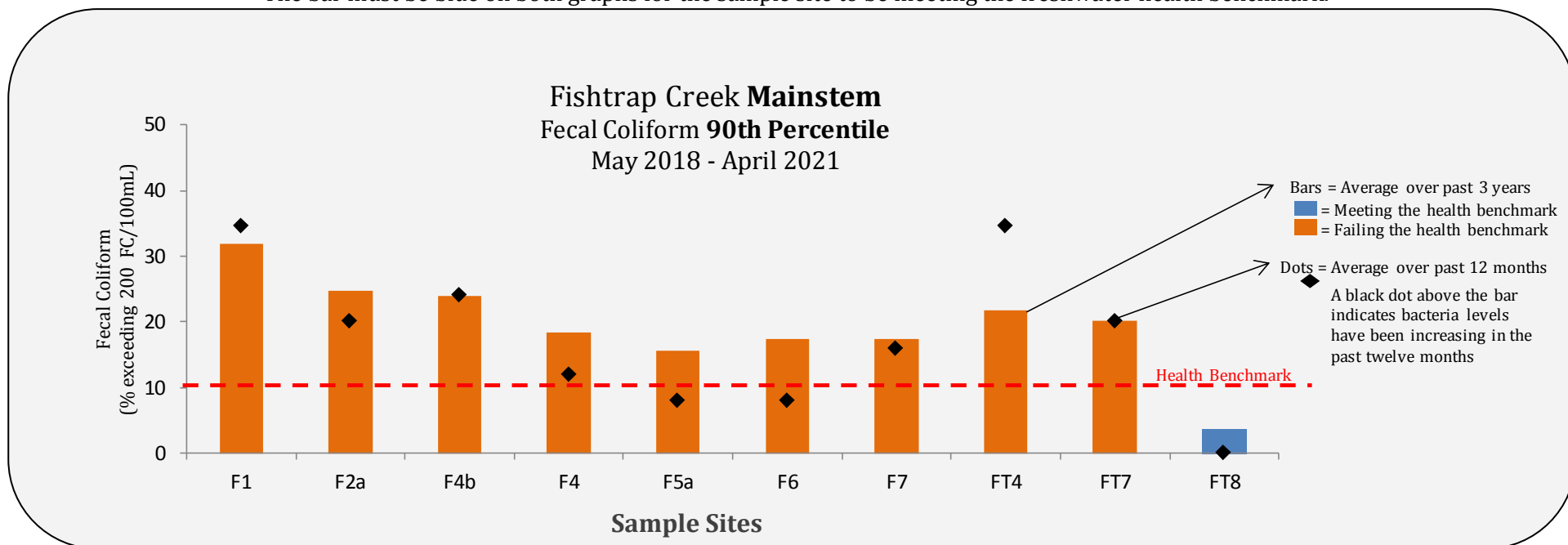
Note: This map illustrates the status of each station for 3-year geometric mean to assist with identifying hot spots.

Fishtrap Creek Focus Area Mainstem Stations Comparison of Bacteria Levels to Health Benchmarks

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

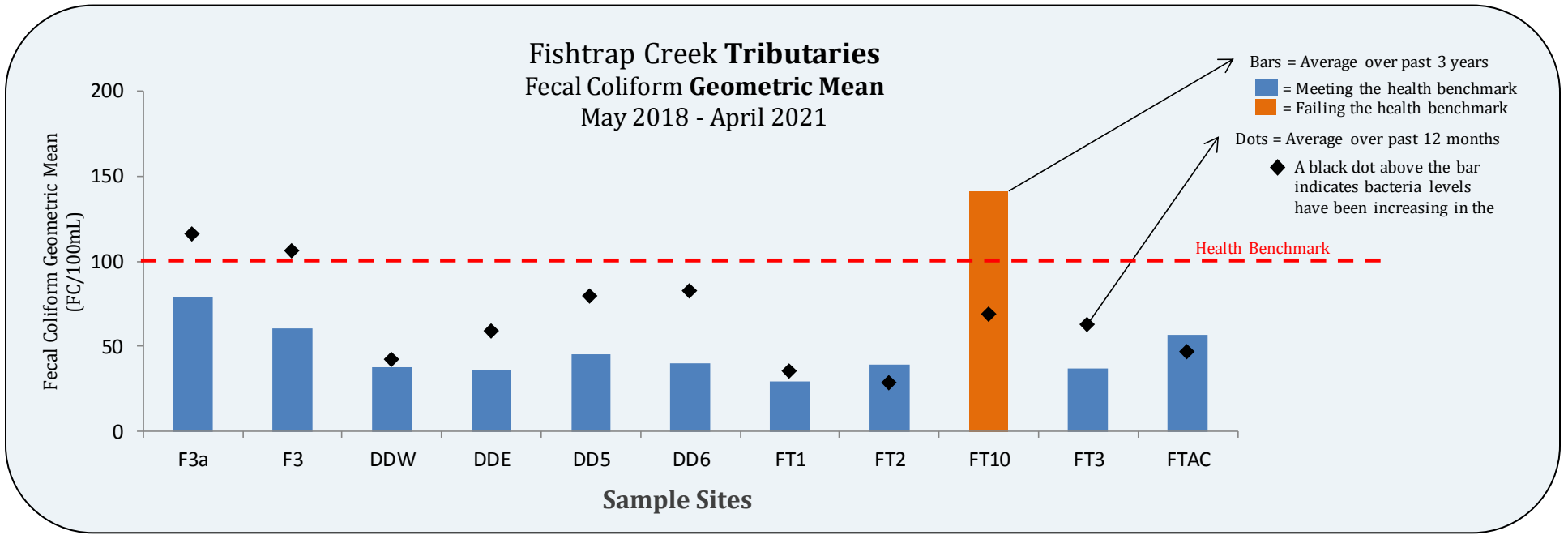


*The bar must be blue on both graphs for the sample site to be meeting the freshwater health benchmark.

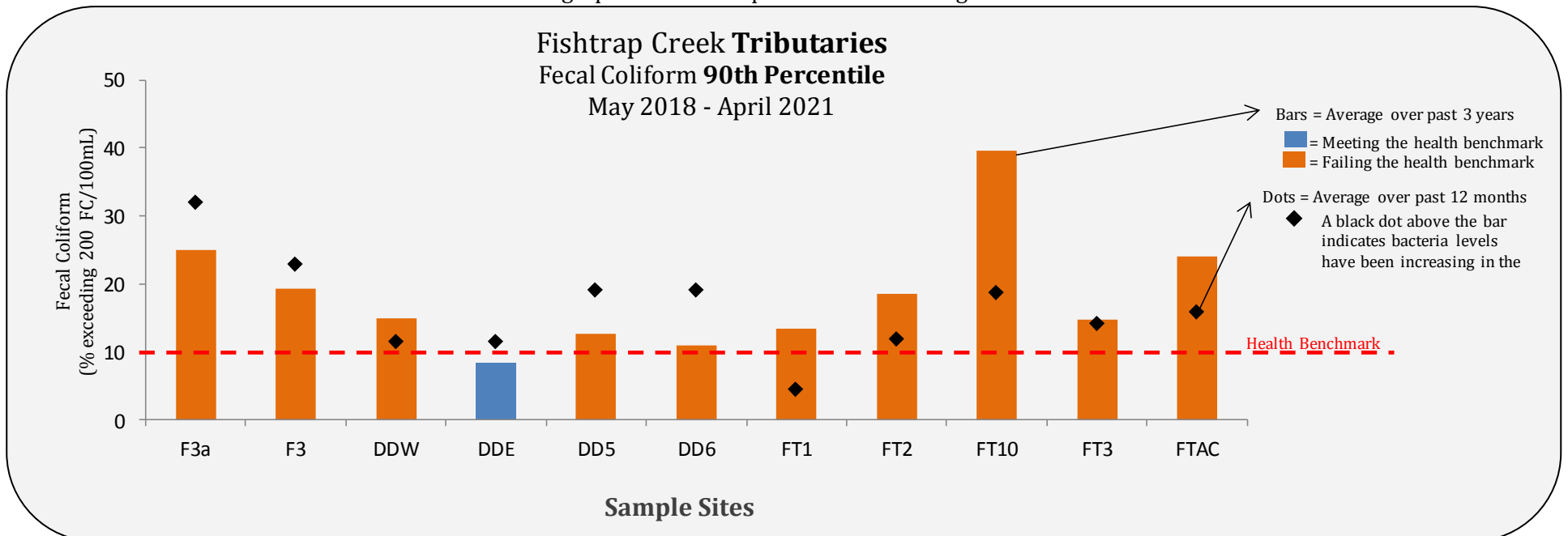


Fishtrap Creek Focus Area *Tributary Stations* Comparison of Bacteria Levels to Health Benchmarks

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



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



Mainstem Stations

Date	Creek Access Point		River Rd.	Guide Meridian	Kok Rd.	Main St.	Depot Rd. Bridge	Bentley Rd.	Aaron	Badger	Pangborn	Northwood
	24 hr*	72 hr**	F1	F2a	F4b	F4	F5a	F6	F7	FT4	FT7	FT8
4/6/20	0.00	0.05	16	40	40	16	7	13	18	11	13	5
4/20/20	0.00	0.00	50	42	56	60	70	50	38	26	42	20
5/4/20	0.00	0.08	102	76	114	40	82	98	76	1,400	1,600	38
5/18/20	0.00	0.73	220	240	260	230	250	230	220	191	112	182
6/4/20	0.00	0.10	218	91	118	96	182	200	300	250	112	96
6/15/20	0.08 ⁴	0.24 ⁴	210	109	200	108	106	145	155	240	82	78
6/29/20	0.00	0.08	580	2,000	1,500	91	145	100	440	460	270	118
7/13/20	0.00	0.03	56	530	480	114	96	145	220	240	94	36
7/27/20	0.00	0.03	430	390	570	410	570	1,800	116	290	98	28
8/10/20	0.00	0.06	118	155	155	102	84	82	92	380	370	21
8/24/20	0.03	0.36	320	164	230	210	164	84	173	260	370	23
9/8/20	0.00	0.00	380	74	56	116	86	182	68	127	72	52
9/21/20	0.00	0.01	155	86	84	96	72	86	112	290	510	25
10/5/20	NR	0.00	52	66	54	40	34	46	8	26	68	28
10/19/20	0.04	0.70	44	76	48	46	30	66	41	21	36	16
11/2/20	0.00	0.08	25	30	40	15	40	18	16	25	16	2
11/16/20	0.38 ³	1.35 ³	2,200	2,900	3,300	94	78	92	72	62	78	118
12/1/20	0.00	0.16	11	8	30	7	8	30	20	11	30	3
12/14/20	0.17	0.45	62	76	98	42	28	23	30	31	23	7
12/28/20	0.00	0.86	58	60	64	42	30	44	100	104	86	78
1/11/21	0.57	0.45	48	50	40	26	18	106	48	58	50	18
1/26/21	0.00	0.47	100	136	136	20	40	54	33	23	8	18
2/10/21	0.00	0.00	700	TNS	TNS	TNS	TNS	TNS	TNS	21	TNS	31
2/22/21	0.16	0.52	120	140	52	100	130	120	190	110	88	94
3/10/21	0.00	0.05	44	45	56	44	30	30	30	28	16	10
3/23/21	0.00	0.30	54	40	64	36	31	68	66	40	25	13
4/7/21	0.15	0.00	60	58	52	54	48	70	10	11	10	11
4/15/21	0.00	0.00	31	40	30	42	13	23	21	15	13	2

Tributary Stations

Date	Creek Access Rain-fall Data		Double Ditch at Fishtrap	Double Ditch at Lynden	DD West at Pine	DD East at Pine	DD West at Border	DD East at Border	Benson at Badger	Depot at Badger	Depot at Visser	Bender at Badger	E. Assink, N of Pangborn
	24 hr*	72 hr**	F3a	F3	DDW	DDE	DD5	DD6	FT1	FT2	FT10	FT3	FTAC
4/6/20	0.00	0.05	40	3	2	2	10	7	7	11	320	3	11
4/20/20	0.00	0.00	38	20	10	31	31	13	44	86	1,300	10	164
5/4/20	0.00	0.08	82	84	78	72	42	68	36	34	104	82	2,900
5/18/20	0.00	0.73	260	450	76	330	86	98	92	52	800	56	92
6/4/20	0.00	0.10	74	136	38	23	31	26	120	34	50	112	88
6/15/20	0.08 ⁴	0.24 ⁴	72	64	64	84	82	48	34	112	700	118	108
6/29/20	0.00	0.08	490	72	44	100	38	28	43	270	42	200	76
7/13/20	0.00	0.03	42	78	28	56	54	34	10	31	ST	120	112
7/27/20	0.00	0.03	380	66	44	54	44	21	15	320	D	420	330
8/10/20	0.00	0.06	88	72	20	23	33	30	42	76	D	D	300
8/24/20	0.03	0.36	230	310	20	28	31	34	D	34	D	D	360
9/8/20	0.00	0.00	56	76	3	20	36	36	D	23	D	D	173
9/21/20	0.00	0.01	76	28	7	52	16	8	D	72	D	D	68
10/5/20	NR	0.00	270	70	16	34	40	88	2	28	D	25	42
10/19/20	0.04	0.70	48	40	25	42	48	52	10	5	D	52	66
11/2/20	0.00	0.08	25	20	2	2	3	13	11	3	D	16	16
11/16/20	0.38 ³	1.35 ³	5,700	6,000	5,900	6,000	6,000	6,000	68	68	220	94	38
12/1/20	0.00	0.16	33	10	18	8	40	42	70	5	8	31	7
12/14/20	0.17	0.45	330	340	72	173	360	240	52	15	39	102	3
12/28/20	0.00	0.86	72	52	43	43	84	114	10	7	28	11	11
1/11/21	0.57	0.45	30	29	18	28	44	52	290	3	110	76	66
1/26/21	0.00	0.47	600	1,500	360	155	1,100	1600	62	8	46	3	5
2/10/21	0.00	0.00	TNS	9,000	18,000	7,000	60,000	60,000	TNS	TNS	TNS	TNS	TNS
2/22/21	0.16	0.52	100	64	49	57	320	360	42	230	33	260	66
3/10/21	0.00	0.05	128	73	20	33	182	118	34	7	38	36	5
3/23/21	0.00	0.30	42	40	21	25	30	33	92	40	82	58	10
4/7/21	0.15	0.00	64	52	8	13	10	20	80	11	26	210	7
4/15/21	0.00	0.00	60	36	38	56	23	20	30	82	74	50	20