

# Tenmile Creek Focus Area

## Water Quality Status: Fecal Coliform Bacteria

February 2019

**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**

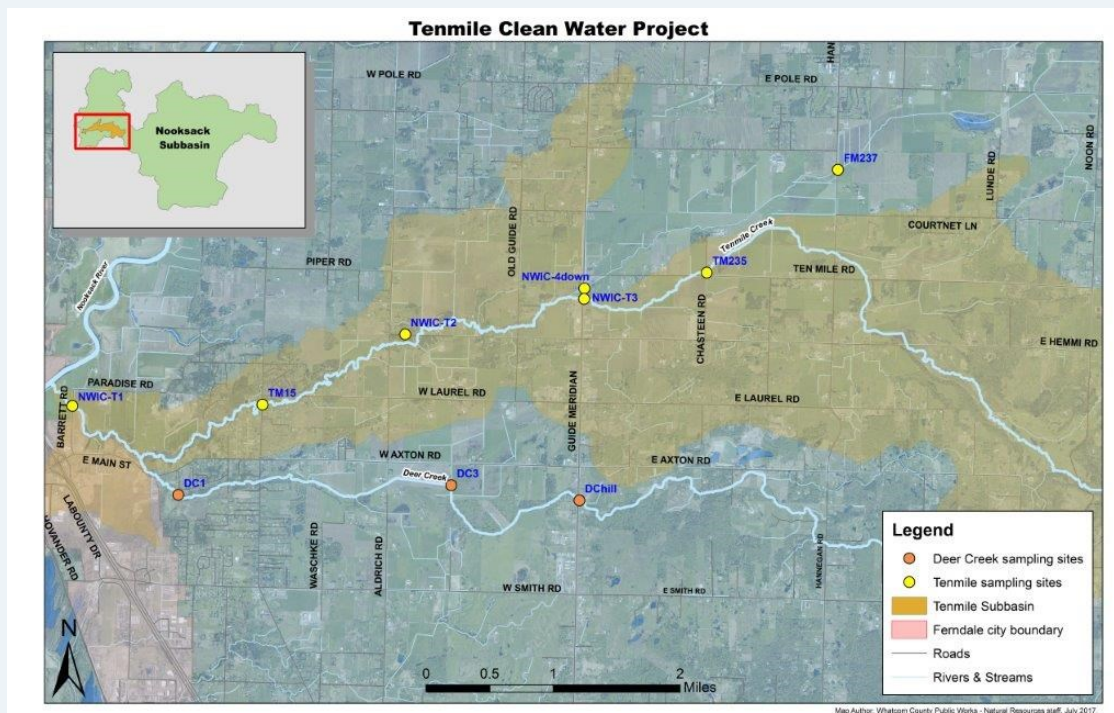
### Where Does the Bacteria Come From?

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

**Focus Area Monitoring:** The Tenmile Clean Water Project represents an effort by citizens to involve the community to reduce fecal coliform levels on a voluntary basis. The Tenmile Creek drainage includes Tenmile, Deer and Fourmile Creek. Citizen-led water quality and watershed improvement efforts occurred from 2001 to 2008, with the most recent effort initiated in 2013 which is on-going.

## Tenmile Creek Watershed Water Quality Sample Locations

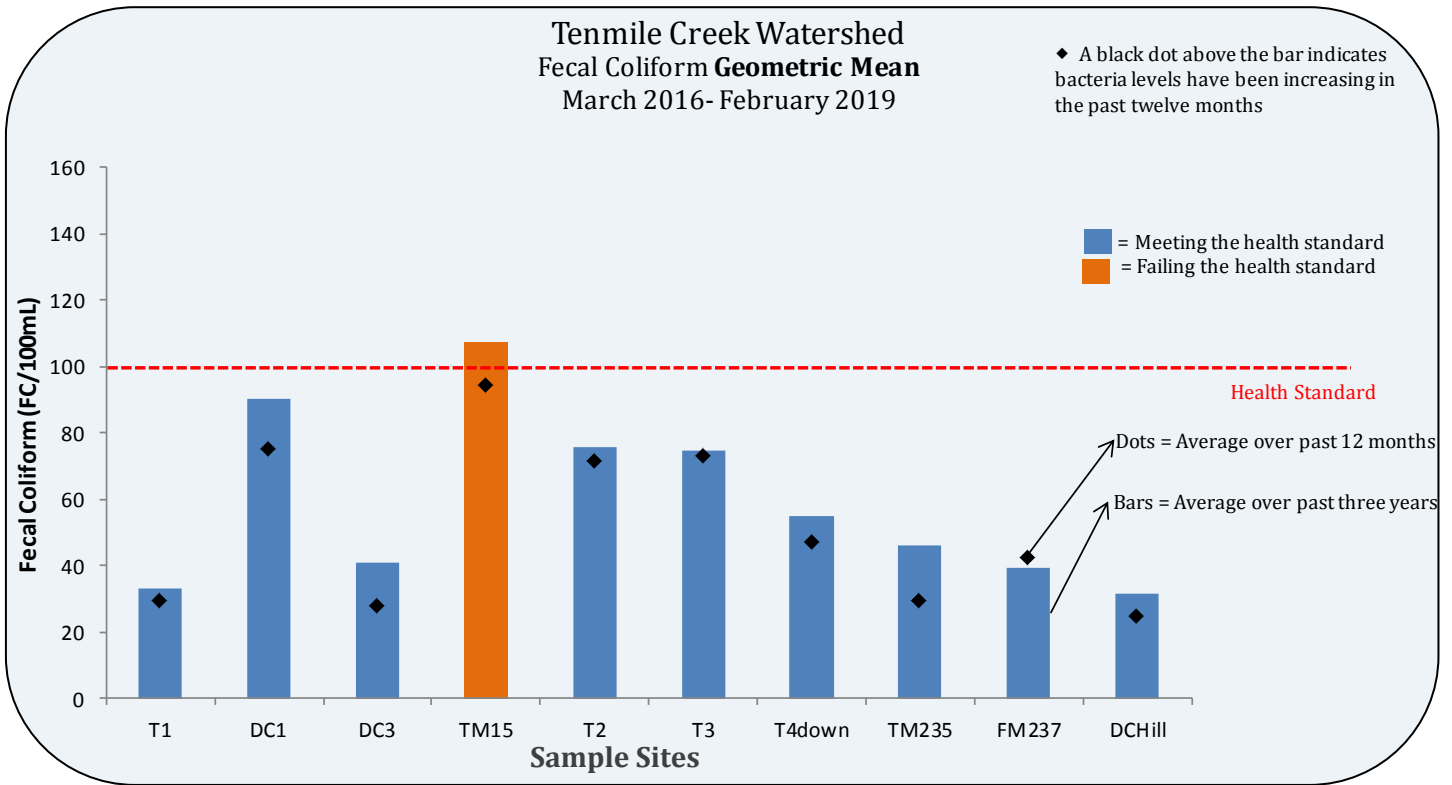


More information is available through the Tenmile Clean Water Project: <http://tenmilecleanwater.org/>  
And through the Whatcom Conservation District: <http://www.whatcomcd.org/tenmile>

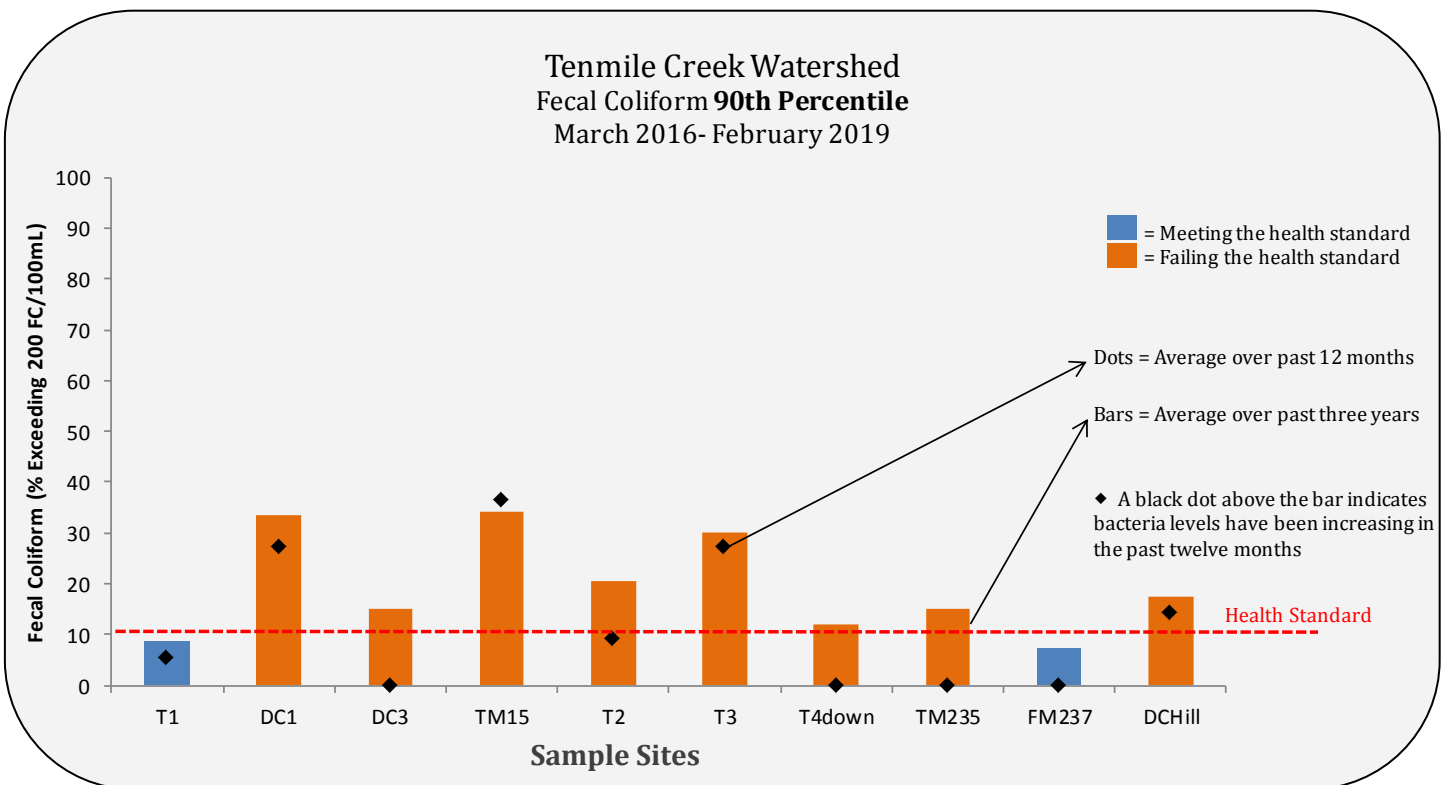
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### Comparison of Bacteria Levels to Health Standards

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



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



## Tenmile Creek Focus Area Historical Fecal Coliform Bacteria Data in FC/100mL

These tables provides the individual results at each station for the last thirteen months.

Results in light orange exceeded 200 FC/100mL. Results in dark orange exceed 1000 FC/100mL.

Creek Access Point	Barrett Road, Tenmile	Deer Creek Drive, Deer	Axton Road, Deer	Northwest Drive, Tenmile	Hemmi, Tenmile	Guide Meridian, Tenmile	Guide Meridian, Fourmile	Chasteen Road, Tenmile	Hannegan Road, Fourmile	Guide Meridian, Deer
Date	T1	DC1	DC3	TM15	T2	T3	T4down	TM235	FM237	DCHill
2/22/18	12/37	10	4	38	60	45	22	20	2	4
3/13/18	4/8	7	2	14	50	52	4	42	54	5
3/28/18	60									
4/3/18	2									
4/17/18	35/12	94	78	104	94	76	68	76	110	50
4/23/18	8									
5/7/18	80									
5/15/18	68									
5/22/18	120/84	400	40	97	119	210	200	12	76	143
6/11/18	46									
6/18/18	58/72	66	66	86	120	70	78	56	54	
6/26/18	40									
7/3/18	52									
7/17/18	195/141	390	37	290	82	300	80	40	56	
8/1/18	250									
8/13/18	220/94	520		260	270	220	120	15	163	
9/6/18	72									
9/18/18	17/15	90		50	46	52	44	12	50	
10/1/18	42/68	80		230	76	37	35	14	58	19
10/16/18	10									
11/6/18	15/15	14	40	19	22	17	17	19	22	5
12/10/18	10/20	56	70	340	84	150		164	17	230
12/18/18	17									
1/2/19	4									
1/7/19	12									
2/5/19	25/13	21	8	76	26	16		20	3	7

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

Data were collected by Tenmile Clean Water Project volunteers. Results in blue were collected by Whatcom County Public Works as a part of the routine Nooksack sampling run.