

Tenmile Creek Focus Area

Water Quality Status: Fecal Coliform Bacteria

October 2017

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.



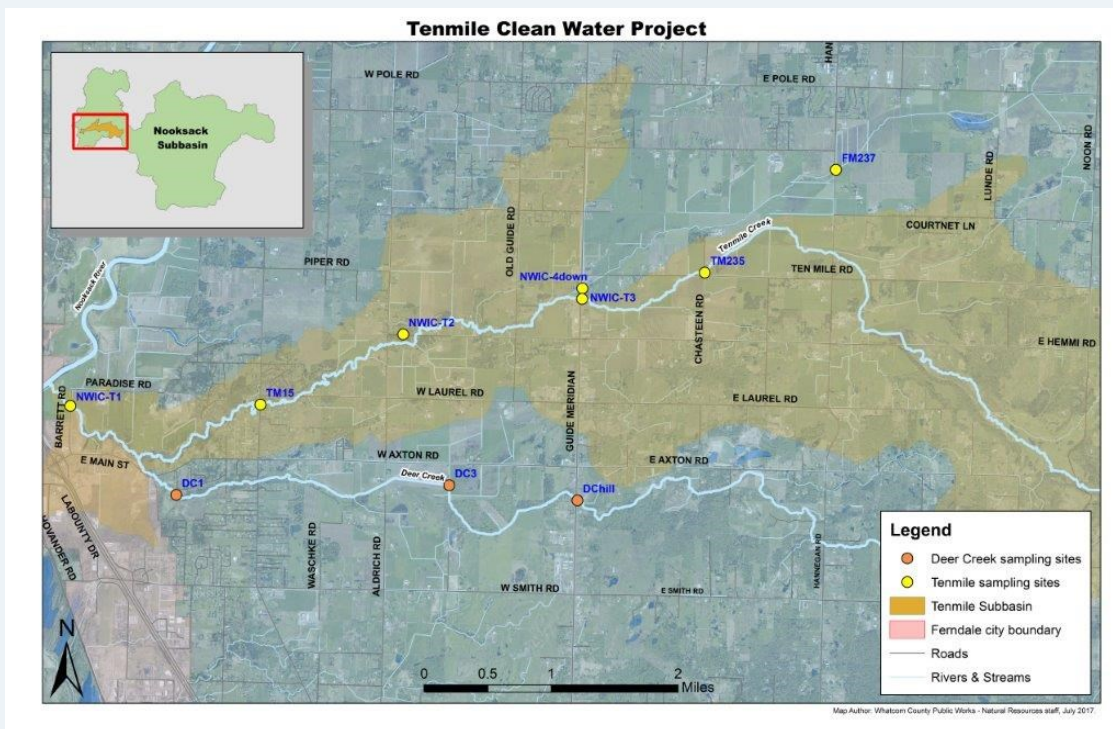
Where Does the Bacteria Come From?

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

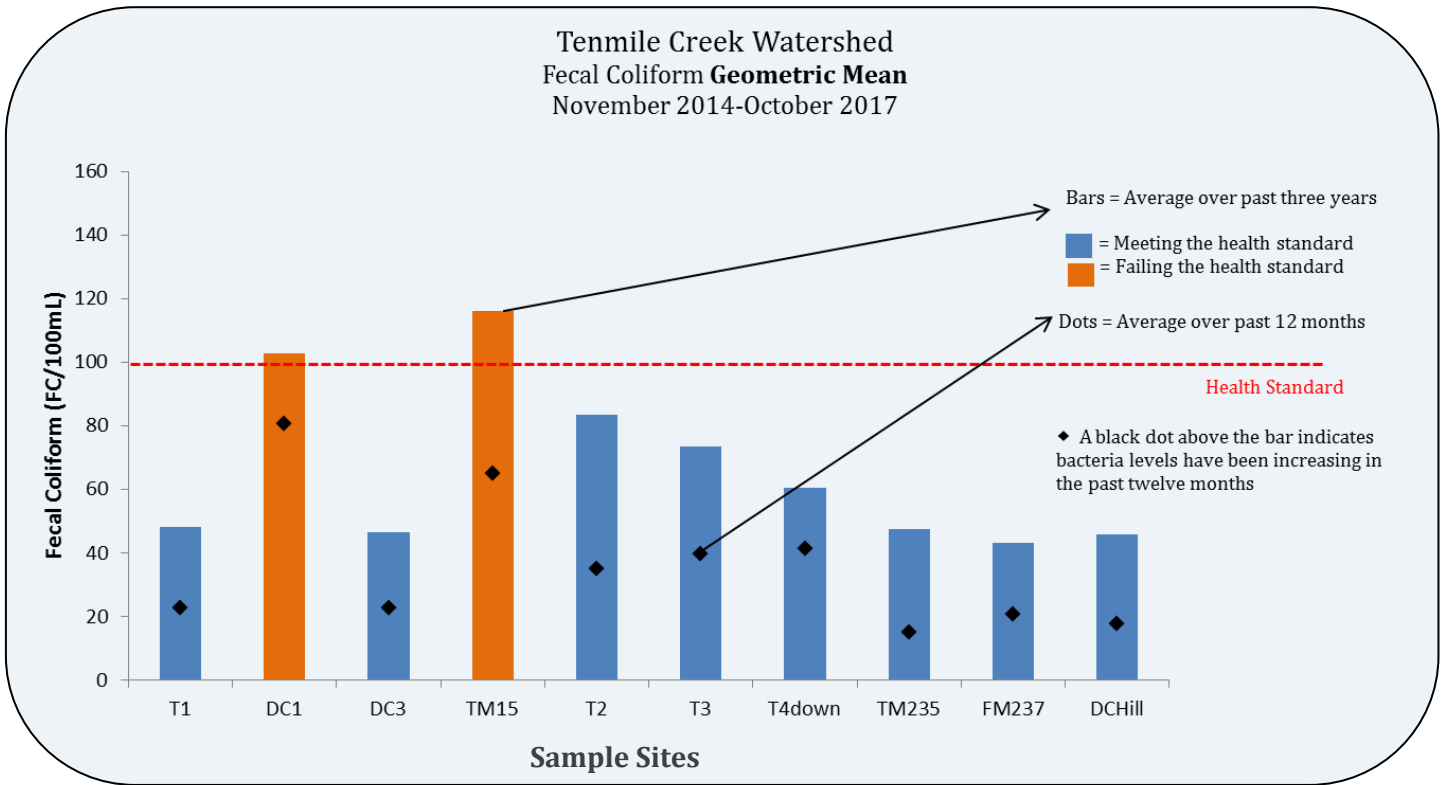


More information is available at: RE Sources For Sustainable Communities: <http://www.re-sources.org/tenmile-creek>
Whatcom Conservation District: <http://www.whatcomcd.org/tenmile>

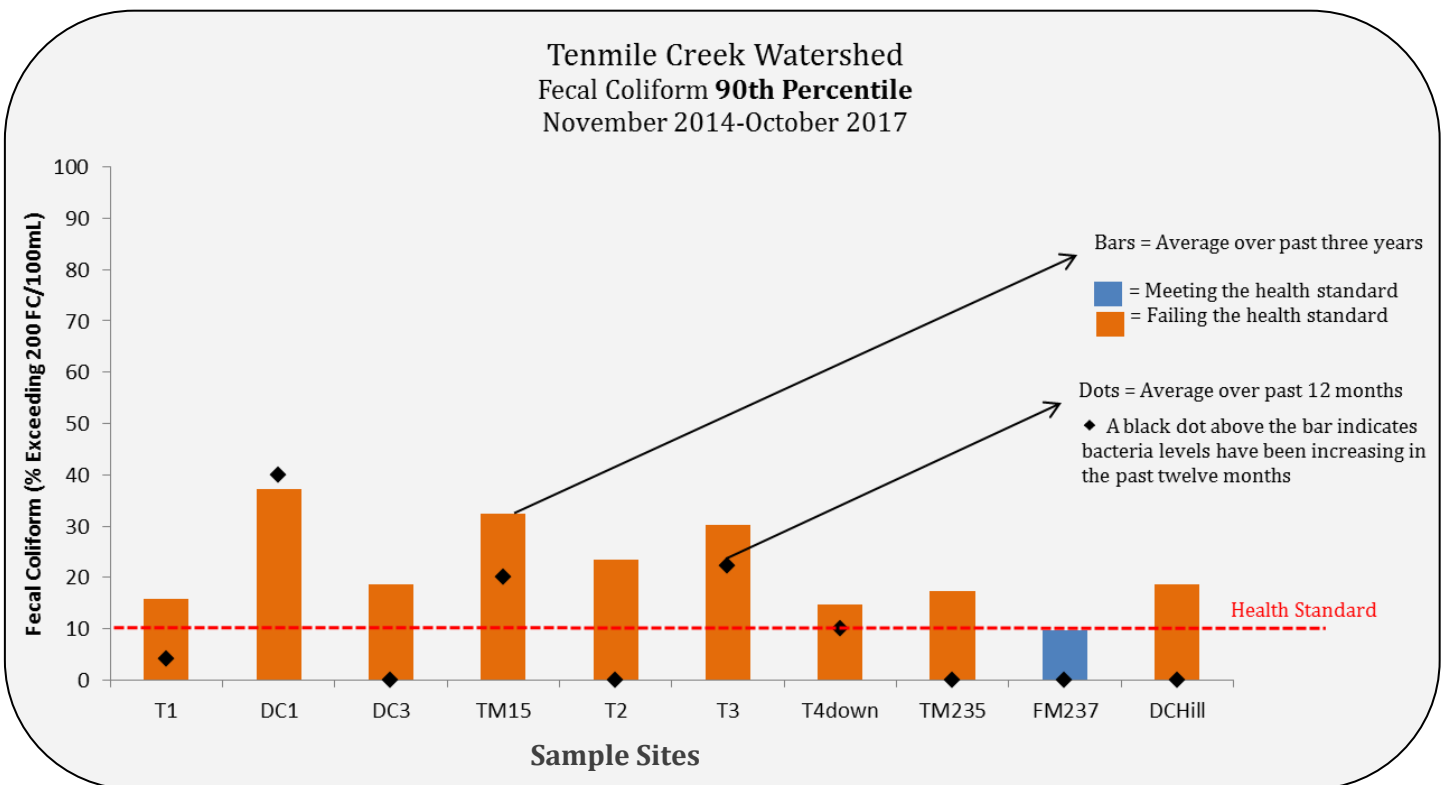
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Comparison of Bacteria Levels to Health Standards

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 Date	<i>Barrett Road, Tenmile</i> T1	<i>Deer Creek Drive, Deer</i> DC1	<i>Axton Road, Deer</i> DC3	<i>Northwest Drive, Tenmile</i> TM15	<i>Hemmi, Tenmile</i> T2	<i>Guide Meridian, Tenmile</i> T3	<i>Guide Meridian, Fourmile</i> T4down	<i>Chasteen Road, Tenmile</i> TM235	<i>Hannegan Road, Fourmile</i> FM237	<i>Guide Meridian, Deer</i> DCHill
10/24/16	5	74	15	64	118	56	137	54	104	D
11/8/16	46/28	400	4,500	54	38	32	44	15	54	51
11/10/16		37	33							
11/22/16	10									
12/5/16	58/44	210	200	64	43		14	25	32	
12/21/16	27									
1/9/17	20/30	310	19	105	99	87	35		22	128
1/25/17	5									
2/13/17	44									
2/22/17	9	20	17	22	12	7	20			2
3/6/17	30/17	78	15	72	28	17	20			28
3/22/17	7									
4/4/17	5/10	10	25	19	20	23	25	17	4	10
4/19/17	12									
5/2/17	7/19	62	2	60	50	42	42	32	12	25
5/16/17	270									
6/7/17	80									
6/20/17	37/38	40	20	94	40	68	43		17	
7/17/17	118	240	96	235	110	230	118	10	62	
8/29/17	120	1,582	77	350	64	220	540	22	76	
10/24/17	4	12	5	14	7	7	25	4	12	

D- Dry Site

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

Data were collected by Tenmile Clean Water Project volunteers, RE Sources staff, or N₃ staff.

Results in blue were collected by Whatcom County Public Works as a part of the routine Nooksack sampling run.