

# Focus on Bacteria in Bear-**Evans Watershed**

from Ecology's Water Quality Program

#### **MEETING NOTICE**



**Bear-Evans TMDLs Technical Committee** 

June 21, 2007

10 a.m.- Noon

#### **Woodinville Library**

17105 Avondale Rd N.E Woodinville, WA 98072

- Ecology will share the technical findings on the bacteria TMDL and begin planning for implementation of actions.
- Ecology will ask for input to help with the dissolved oxygen and temperature models.

#### **Contact information**

Sinang H. Lee WA Dept. of Ecology 3190 160<sup>th</sup> Ave. SE Bellevue, WA 98008

(425) 649-7110 sile461@ecy.wa.gov

### The problem of too much bacteria in the Bear-Evans creek system

Bear Creek, Cottage Lake Creek, and Evans Creek have too much fecal coliform bacteria in the water. Stream samples from this Bear-Evans creek system show bacteria levels beyond what Washington State allows in our freshwaters. We all need to work together to fix this.

The Bear-Evans creek system is not unique. It has pollution from fecal coliform bacteria, a common water pollution problem in our state. Fecal coliform bacteria belong to a mostly harmless group of bacteria commonly found in large numbers in the feces of people and other warm-blooded animals such as pets, livestock, and wildlife. They indicate that more serious disease-causing organisms (called pathogens), may be present in the water. Stormwater runoff and other discharges can carry these small organisms into the creeks where they pollute the water and can infect humans through skin contact or ingestion of water.

### Did you know?

**Cats and dogs** are primary sources of bacteria in urban Puget Sound watersheds. Other non-human sources include pigeons, gulls, waterfowl (such as ducks and geese), rats, raccoons, squirrels, beaver, muskrats, deer, and other warm-blooded wildlife.

**Domestic sewage** typically is 2-3 times "stronger" than stormwater runoff in terms of bacteria, and 4-5 times "stronger" than forest runoff influenced only by wildlife sources. In sewered watersheds, humans can contribute bacteria from leaking sanitary sewer lines or from sewer lines improperly connected to the stormwater drainage system.

Failing septic systems are often significant human sources of bacteria in non-sewered watersheds. Humans create problems, especially in rural and non-sewered watersheds, where on-site septic systems can fail and contaminate runoff.

**Livestock** such as llamas, horses, sheep, poultry, and rabbits generate significant bacteria. If livestock fields and manure are not managed properly, bacteria can enter the streams.

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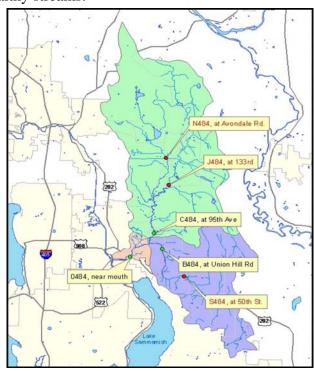


# Efforts to improve water quality in the Bear-Evans Watershed

When water quality problems are found, federal law requires that a Total Maximum Daily Load (TMDL) be developed for water bodies that don't meet state water quality standards. The TMDL process:

- Evaluates the water quality conditions.
- Estimates how much the pollution needs to be reduced to achieve clean water.
- Describes how the state, citizens, local governments, and other organizations will control the pollution and improve conditions in the affected water body.

The Water Quality Improvement Report for Bear-Evans Watershed, due out in spring 2008, will include this information and a schedule for actions to improve the water quality. King County, City of Redmond, and other groups have already done much to restore and improve water quality in the Bear-Evans Watershed, but more work is needed. Ecology is working with community partners to identify and correct remaining problem sources of bacteria in the watershed. Working as partners, we can all restore and help protect clean and healthy streams.



Map of King County's fecal coliform monitoring sites in the Bear-Evans Watershed.

#### 7 Simple things you can do

#### 1. Check on-site septic system

Make sure yours is working right; test and pump regularly (at least every 3 years).

## 2. Recycle & prevent litter from people & pets

Put recycling in proper containers. Bag and put pet waste in the garbage or toilet – not in the on-site sewage system.

#### 3. Protect natural vegetation

Restore or maintain streamside vegetation that shades the water and helps filter runoff pollutants.

## 4. Dispose of household hazardous aste properly

Avoid dumping materials like yard clippings and pet litter in storm drains or stream ravines.

#### 5. Manage animal use areas

If you have animals, cover manure piles and manage heavy use areas so runoff does not reach the stream.



#### 6. Call the Spills Hotline

Call 1-800-258-5990 if you see a spill or illegal dumping of hazardous wastes.

## 7. Wash vehicles at commercial carwash or on lawns

Soapy, dirty run-off from driveways may carry oil and grease straight to our streams and rivers and feed unwelcome 'problem' water weeds.

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