



Focus

Public comments invited on draft plan to clean up lower Dungeness watershed

Public comment period and public meeting

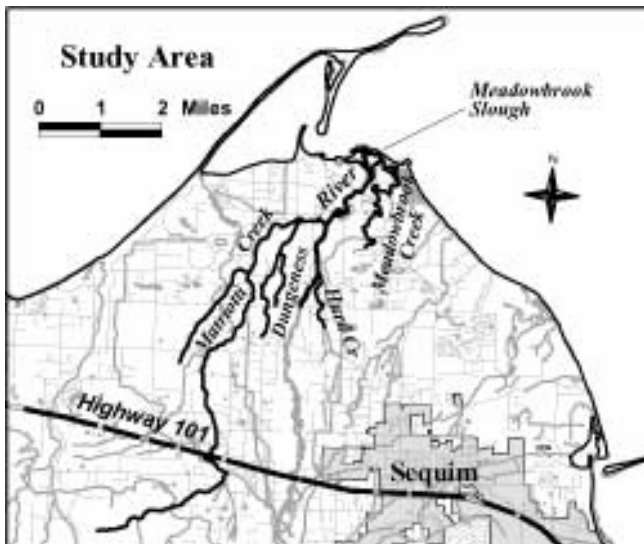
The Washington State Department of Ecology (Ecology) has completed a draft water cleanup plan to reduce bacteria contamination in the lower Dungeness watershed. The watershed includes the Dungeness River, Hurd and Matriotti Creeks, Meadowbrook Creek and Slough, Golden Sands Slough, Cooper Creek, and several irrigation ditches that empty into Dungeness River and Bay.

The *Draft Water Cleanup Plan for Bacteria in the Lower Dungeness Watershed* is based on a water quality study conducted by Ecology, with assistance from the Jamestown S'Klallam Tribe and Clallam County. Information from the study was used to update and refine Clallam County's *Clean Water Strategy*. The updated *Clean Water Strategy* has become the core of the water cleanup plan. It details proposed activities to improve water quality.

Public comment period April 15 – May 13

Public meeting and hearing – Tuesday, April 30
Open house 6 p.m.; Public meeting and hearing from 7 to 9 p.m.

Guy Cole Convention Center at Carrie Blake Park
202 N. Blake Road, Sequim



The draft plan was developed in cooperation with the Clean Water Workgroup. The workgroup formed as part of Clallam County's Clean Water District to address water quality issues and shellfish harvest restrictions in the Dungeness watershed.

At the end of the comment period, Ecology will consult with Clallam County and the Clean Water Workgroup about how to incorporate the comments received. Then Ecology will submit the water cleanup plan to the federal Environmental Protection Agency (EPA) for approval.

What's the problem?

Fecal coliform bacteria contamination has been a problem documented in the Dungeness River watershed since 1991. Matriotti Creek was placed on Washington's list of impaired waterways in 1996. Since 1997 Dungeness Bay has experienced increases in fecal coliform

Ecology is an equal-opportunity employer

bacteria. In 2000, the state Department of Health restricted commercial shellfish harvest in portions of Dungeness Bay due to fecal coliform bacteria contamination. In 2001 an additional area was restricted.

Fecal coliform are a group of bacteria found in the feces of warm-blooded animals such as people, livestock, pets, and wildlife. The presence of fecal coliform bacteria indicates that feces are entering the water. That means people may be exposed to other harmful bacteria and viruses that are present in feces. High levels of bacteria in the water can affect the public health, economy, and environmental quality of a community.

Federal law requires cleanup of polluted waters

Federal law requires states to develop a water cleanup plan (also called a total maximum daily load or TMDL) for waters that fail to meet water quality standards. A water quality study identifies reaches of the river and creeks that are contributing the most bacteria, and how much the pollution “load” must be reduced in order for the waterbody to be healthy. Based on that information, a plan for cleaning up the pollution is developed.

The Dungeness River and Matriotti Creek are among more than 600 polluted waterbodies across the state for which Ecology will develop water cleanup plans by 2013.

Water quality study findings

Ecology, with assistance from the Jamestown S’Klallam Tribe and Clallam County, conducted a water quality study from November 1999 through October 2000. Up to 45 sites were sampled 18 times during the course of the year. The results were analyzed to determine the extent of water quality problems, and what seasonal trends, if any, they followed.

The study area included the Dungeness River downstream of Ward Road bridge, Hurd and Matriotti creeks, Meadowbrook Creek and Slough, Golden Sands Slough, Cooper Creek, and several irrigation ditches that empty into the Bay.

Sampling sites were chosen so the study could identify which stream reaches are in most urgent need of cleanup activities. In several areas, landowners are already working with the County and Conservation District to improve practices on their land.

Here are some of the study findings and recommendations:

- Bacteria concentrations must be reduced in several tributaries to the Dungeness River to meet public health-based standards for clean water.
- The bacteria load in the Dungeness River and other freshwater sources needs to be reduced to restore and protect shellfish harvest in Dungeness Bay.
- Matriotti Creek is the primary contributor of bacteria to the Dungeness River. During the wet season it contributes 46 per cent of the Dungeness’ load; during the irrigation season 53 per cent.

“Concentration” is the amount of a substance in a given amount of water (for instance, bacteria colonies per milliliter).

“Load” refers to the total amount of a pollutant being carried by a waterbody. It is calculated by multiplying the concentration of the pollutant times the volume of water.

It’s possible for a waterbody like the Dungeness River, which has a large volume, to have a low *concentration* and still be carrying a large *load*. Also, a relatively small reduction in load can remove a lot of bacteria from the system.

-
- During the wet season, the area where the most fecal coliform bacteria enters the River is between 0.1 and 0.3 miles upstream from the mouth. This is of special concern because in that area there is a greater possibility of the bacterial contamination coming from human sources. The area is also near to shellfish beds.
 - To meet public health-based water quality and shellfish harvest standards, reductions in bacteria are needed in the following areas:
 - Matriotti Creek
 - the irrigation ditch that enters the Dungeness River one mile upstream from the mouth
 - the Dungeness River between 0.1 and 0.3 miles upstream from the mouth
 - Meadow Brook Creek and Slough
 - Cooper Creek
 - Golden Sands Slough.

Water cleanup planning

Local entities and state agencies are working together to address water quality issues and shellfish closures in the lower Dungeness watershed. Ecology's water quality study has been used to update and refine Clallam County's *Clean Water Strategy*. Clallam County, the Jamestown S'Klallam Tribe, Clallam Conservation District, and others helped to write the strategy as part of the formation of Clallam County's Clean Water District, adopted by ordinance in June 2001.

The strategy is the core of the *Water Cleanup Plan for Bacteria for the Lower Dungeness Watershed*. It describes activities recommended to help reduce bacteria levels, the responsibility and authority of the responsible public entities, and funding sources and needs. It also proposes a cleanup schedule.

In developing the strategy, the workgroup considered all sources of feces from warm blooded animals, including humans, domestic animals, and wildlife. Wildlife sources are a concern. However, options for addressing this waste are limited. The strategy primarily addresses human-influenced inputs such as animal keeping practices, pet waste, and on-site septic systems. By cleaning up the human side of the bacteria contributions, most of the water quality concerns may be alleviated. If it is not enough, options for managing areas of high wildlife concentrations in the watershed can be explored. Technology, such as "mycoremediation" (a technique in which mushrooms are used to "eat" bacteria), may be useful in removing wildlife waste.

Ecology wants your comments!

The updated strategy, along with supporting information from the water quality study, will be available for public comment from April 15 to May 13. We are interested in your comments on the cleanup activities and schedule proposed in the Summary Implementation Strategy, as well as additional suggestions you may have.

The *Water Cleanup Plan for Bacteria in the Lower Dungeness Watershed, Submittal Package*, is available on the web at www.ecy.wa.gov/biblio/0210015.html

You can also review copies at these locations:

- Sequim City Hall, 152 W. Cedar St., Sequim.
- Sequim Public Library, 630 N. Sequim Ave., Sequim
- Jamestown S’Klallam Tribal Center, 1033 Old Blyn Hwy, Sequim
- Dungeness River Audubon Center, 2151 Hendrickson Rd, Sequim
- Clallam County Courthouse, 223 E. 4th St., Port Angeles

Please send written comments by May 13 to Christine Hempleman at <mailto:chem461@ecy.wa.gov>, or P.O. Box 47775, Olympia WA 98504-7775. Or you can comment orally at the public meeting on April 30 (see information page 1).

For more information, please contact Christine Hempleman, <mailto:chem461@ecy.wa.gov>, (360)407-6329.

We welcome your comments and participation at our meeting on April 30, and appreciate your interest in improving water quality in the Dungeness River watershed.

If you have special accommodation needs, please call (360) 407-6300 or (360) 407-6306 (TDD).