

## Publication No. 74-e67

WA-17-3010

TO: Ron Robinson, Jim Krull

FROM: Pat Lee

SUBJECT: Chimacum Creek Survey

---

DATE: April 15, 1974

State of  
Washington  
Department  
of Ecology



Allen Moore and I conducted a brief water quality survey on Chimacum Creek on March 18, 1974. This survey was in response to complaints from Mr. William Bishop (732-4325) of Chimacum, concerning cow manure entering the creek. We contacted Mr. Bishop upon our arrival in Chimacum and he proceeded to take us down the road to spots where we could see over the Chimacum Valley. We could see a number of places where liquid manure was entering the creek. We thanked Mr. Bishop for his help and proceeded to initiate our sampling. Stations were chosen to coincide with the previous sampling efforts of February 23, 1973. The five stations we sampled were as follows:

Station #2 - At the point where Chimacum Creek crosses Highway 9E near center.

Station #5 - At the Gould residence.

Station #5a - At a bridge crossing Chimacum Creek on the Short's property.

Station #5b - At the point where a gravel road crosses Chimacum Creek near William Bishop's house.

Station #6 - At the point where Chimacum Creek flows beneath the highway in Chimacum. (Also, Routine Monitoring Station 17B090.)

The laboratory data from the sampling effort is as follows:

<u>Parameter</u>	<u>2</u>	<u>5</u>	<u>5a</u>	<u>5b</u>	<u>6</u>
pH	7.3	7.3	7.1	7.1	7.1
Specific Conductivity	105	130	130	160	170
Color	180	250	270	265	270
Total Coliform	630	800	9600	1600	800
Fecal Coliform	12	30	120	110	90
Fecal Strep	<2	14	30	14	14
Fecal Strep Ratio	6.0	2.1	4.0	7.8	6.4

As can be seen by the results, the water quality of Chimacum Creek deteriorates as the creek flows through the valley. The highest coliform counts appeared at Station #5a.

The sources of pollution that we noted were:

1. Cows crossing the creek at the Gould residence.
2. Liquid manure entering the stream from the Short's property.

The lab data bears out the visual inspection with the lowest fecal coliform - fecal strep ratios at Stations 5 and 5a.

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: LEE  
COPIES TO:  
.....  
.....  
LAB FILES

DATA SUMMARY

Source CHIMACUM CR

Collected By PLEE

Date Collected 3/18/74

Goal, Pro./Obj. \_\_\_\_\_

Log Number: 74 843 844 845 846 847

	74	843	844	845	846	847						STORET
Station:	2	5	5A	5B	6							
pH	7.3	7.3	7.1	7.1	7.1							00403
Turbidity (JTU)												00070
Conductivity (umhos/cm)@25°C	105	130	130	160	170							00095
COD												00340
BOD (5 day)												00310
Total Coliform (Col./100ml)	630	800*	9600	1600	800							31504
Fecal Coliform (Col./100ml)	12*	30*	120	110	90							31616
NO3-N (Filtered)												00620
NO2-N (Filtered)												00615
NH3-N (Unfiltered)												00610
T. Kjeldahl-N (Unfiltered)												00625
O-PO4-P (Filtered)												00671
Total Phos.-P (Unfiltered)												00665
Total Solids												00500
Total Non Vol. Solids												
Total Suspended Solids												00530
Total Sus. Non Vol. Solids												
COLOR	180	251	270	265	269							
FECAL STREP	<2	14*	30*	14*	14*							

Note: All results are in PPM unless otherwise specified. ND is "None Detected"  
Convert those marked with a \* to PPB (PPM X 10<sup>3</sup>) prior to entry into STORET

\*ESTIMATED

Summary By Mary Holcomb Date 3/29/74