


MEMORANDUM  
Water Pollution Control Commission  
P. O. Box 829  
OLYMPIA, WASHINGTON  
98501

Publication No. 70-e14

TO: Tom Haggarty

DATE: October 6, 1970

FROM: Ron Lee 

SUBJECT: Eutrophication: Liberty  
Lake and Silver Lake Complaints

Water quality data from Liberty and Silver Lakes are presented in Tables 1 and 2, respectively. The nutrient data obtained from Liberty Lake sampling stations would suggest that septic tank seepage may be gaining entrance to the creek that drains into the lake. High nitrate and phosphate values in the creek compared to the control station (WDG boat launch) indicate contamination and would explain the dense localized algae growths at the creek's entrance into the lake.

The two stations sampled at Silver Lake essentially show no difference in water quality. Substantial amounts of suspended algae was present throughout the lake which exhibited typical eutrophic characteristics.

DI:ahh

Table 1 Liberty Lake water quality data collected on September 2, 1970:

Station	Total coliform counts/100ml	<u>NO<sub>3</sub></u>	<u>Total-P</u>	<u>Kjeldahl-N</u>	<u>NO<sub>2</sub></u>
			(ppm)		
Dept. of Game boat launch	1,000	.017	.023	0.48	0
Ogle residence swimming dock	120	.033	.020	0.38	0
Creek (culvert drain pipe)	540	1.19	.039	0	0

Table 2 Silver Lake water quality data collected on September 21, 1970:

Station	coliform counts/100ml	pH	<u>NO<sub>3</sub></u>	<u>NO<sub>2</sub></u>	<u>Kjeldahl-N</u>	<u>Total P</u>
					(ppm)	
Silver Lake Resort dock	20	9.2	0.33	0	1.63	0.12
Trailer Park dock	200	9.1	0.19	0	1.80	0.19

Date - 9/26/70

Dato 10/13/20