

MEMORANDUM
Department of Ecology

Publication No. 71-e22

TO: Jim Knudson

DATE: December 9, 1971

FROM: Ron Pine 

SUBJECT: Boise Cascade - Steilacoom
Evaluation of Bottom Study Data Re: Memo
Sept. 28, 1971

There does not appear to be a significant difference in the data at any of the stations sampled except for zinc, volatile solids (bottom grab) and Secchi disc readings.

Zinc values on the surface at stations 1, 2, 3, and 4 are slightly higher than at stations 5, 6, and 7. Additional sampling would have to be done to determine if these higher values are significant. You could, I suppose, attribute the higher surface values to the influence of the Boise Cascade discharge.

The dry weight zinc values were obtained from the bottom grab samples. The sample at station 6 is nearly twice as high in zinc content as those samples collected from the other five stations. I think this can be attributed to the many years of discharging into the Chambers Creek estuary eventually creating a sludge deposit at the mouth of the estuary. This is further substantiated by the volatile solids analysis of the bottom samples. At station 6 the volatile solids are 5.3% of the total solids which is twice that found at the other station. EPA has established that any dredge spoil material which exceeds 6% must be disposed of on land.

I have no explanation for the lower Secchi disc readings at stations 2 and 3 except for the influence of the outfall.

This is about all I can make out of the data. I hope it is of some assistance to you.

RP:bjj

MEMORANDUM
Department of Ecology
P. O. Box 329
OLYMPIA, WASHINGTON
93504

Information
For Action
Permit
Other

Check

TO: Ron Pine

DATE: October 27, 1971

FROM: Jim Knudson JK

SUBJECT: Boise Cascade - Steilacoom
Receiving Water and Bottom Study

I am enclosing a copy of Norm Thomas' report on his sampling conducted in the vicinity of the mill's new outfall on September 7, 1971.

I would appreciate your review and interpretation of the field data, including a comparison with existing water quality standards, and a one page summary of your conclusions that could be forwarded to the Company and other interested parties.

JCK:dn

enclosure

MEMORANDUM

Department of Ecology

P. O. Box 829

OLYMPIA, WASHINGTON

98501

Information

For Action

Permit

Other

Check

Frank

TO: Mike Palko, Dick Burkhalter

DATE: September 28, 1971

FROM: Norm Thomas *x.b.v.*

SUBJECT: Boise Cascade outfall near Chambers Creek

As requested, a survey was conducted in the receiving water at the outfall location of the Boise Cascade plant near Chambers Creek on September 7, 1971, the first day of discharge from the new outfall. The parameters sampled and values are reflected on the enclosed table.

The survey was conducted on a flood tide, the low slack was at 1230. Core samples were not obtained because the bottom grab samples were sand or sand & rock at all stations with one exception, station number 6, which was about 50/50 sand and sludge. Pictures of the bottom sample were made at all stations and are enclosed in this memo.

A current study was made with a float attached to an anchor with a slight negative bouyancy, suspended 2 feet below the float. It was released at 1355 at Station number 4 and in 20 minutes had drifted about 150 yards in a southwesterly direction.

Station number 6 appears that it may have been affected from the previous outfall used by Boise Cascade that discharged into Chambers Bay.

NOT:dlb
Enclosure

St. No.	Time	Sound- ing in feet	Depth in Ft	C Temp	Salinity	Turbidity JTU	Zinc PPM	% Total Solids (Bottom	% Volatile Solids Grab)	Zinc PPM Dry Weight	Secchi Disc. in Ft.
1	1335	20	1	12.6	25.9	1.	0.10	71.	2.5 2.0	34. ⁺ ₋ 1.	14
			10	12.5	26.0	1.	.08				
			20	12.5	25.8	1.	.02				
2	1344	20	1	12.9	24.8	3.	.18	72.	2.1 1.5	34. ⁺ ₋ 1.	4
			10	12.5	26.0	2.	.07				
			20	12.4	25.9	2.	.12				
3	1348	24	1	12.7	26.2	3.	.14	74.	2.3 1.7	35. ⁺ ₋ 1.	7
			10	12.6	26.1	3.	.09				
			20	12.4	26.1	1.	.04				
4	1354	40	1	12.7	26.0	3.	.11	75.	2.7 2.0	32. ⁺ ₋ 1.	10
			20	12.5	26.3	2.	.05				
			40	12.2	26.5	1.	.06				
5	1400	68	1	12.9	26.0	1.	.07	76.	2.0 1.5	31. ⁺ ₋ 1.	20
			30	12.3	26.4	1.	.07				
			65	12.2	26.3	1.	.05				
	1408	16	1	12.9	26.0	1.	.08	60.	5.0 3.2	51. ⁺ ₋ 1.	16
			8	12.7	26.1	1.	.06				
			15	12.7	26.1	1.	.07				
7	13:20	76	1	12.7	26.0	1.	.07	79.	1.0 1.1	29. ⁺ ₋ 1.	30
			35	12.2	26.0	1.	.06				
			75	12.2	26.2	1.	.05				

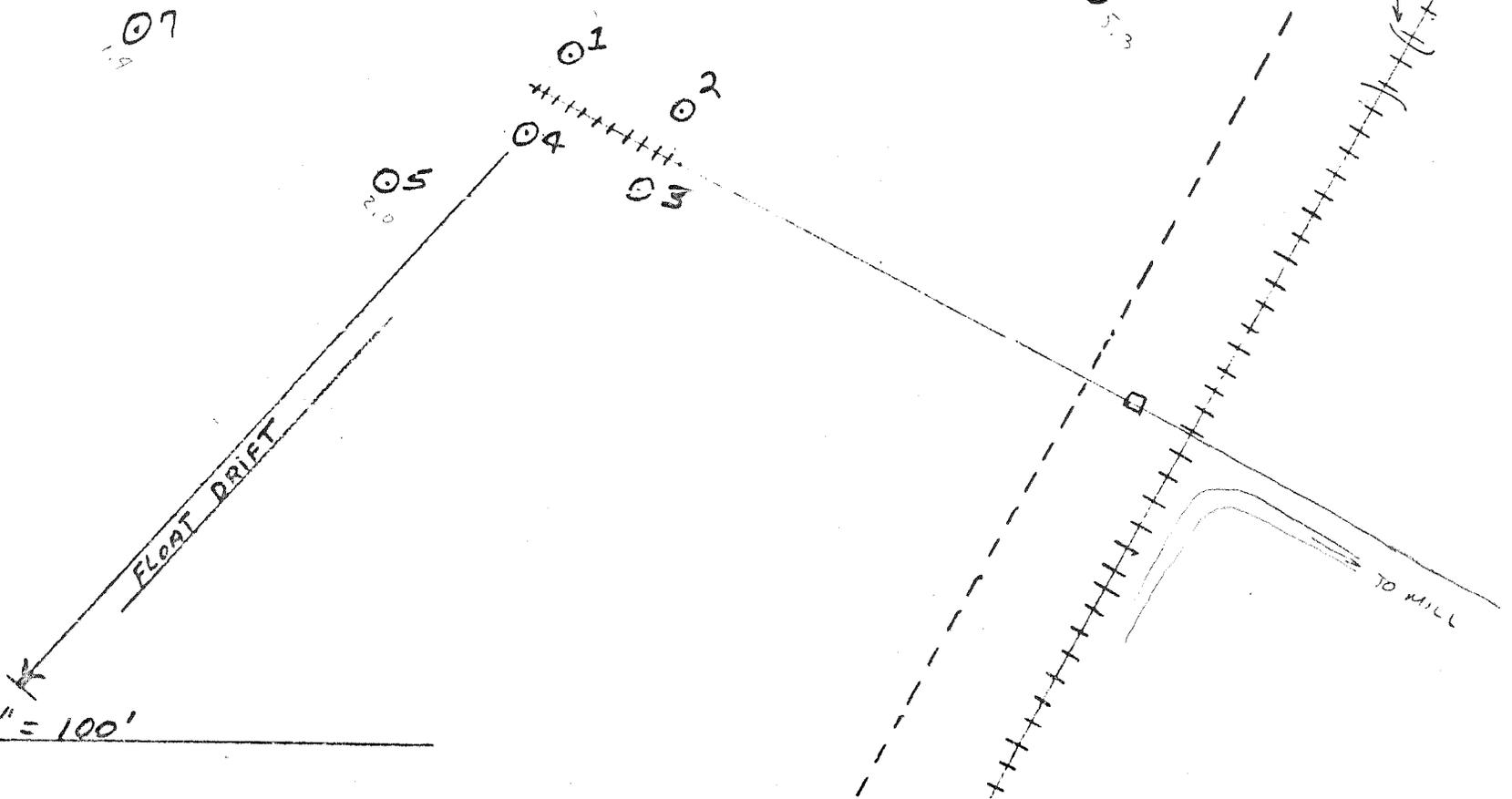
NOTES:

1. Zinc reported as ⁺ 1. PPM are concentrations of dry sample
2. All other zinc samples are ⁺ .02 PPM.

NOT:DLB
9-28-71

Boise CASCADE OUT FALL

NEAR CHAMBERS CREEK



SCALE: 1" = 100'