

November 1, 1972

MEMO TO: Pete Hildebrandt

FROM: Nelson Graham

SUBJECT: Scoping for water quality survey on Salmon and Burnt Bridge
Creeks, Clark County Washington

Objective:

In the case of Salmon Creek, we need to know what the existing water quality is prior to complete urbanization as well as to pin-point possible sources of agricultural runoff pollution. Salmon Creek is urbanized along I-5 and will become more densely urbanized when I-205 is completed.

Burnt Bridge Creek has many sources of pollution ranging from urban storm runoff, septic tank drainage, to agricultural runoff. It is hoped that data from this survey will aid us in determining the general areas where these sources are located.

Background:

As can be seen on the attached map, Salmon Creek is being considered as an area in which to construct a sewerage system. Existing septic tank and treatment plant discharges would be intercepted when this system is constructed sometime within the next 2-3 years. There are many dairy farms within the Salmon Creek drainage basin which contribute contaminants to the creek. There is one industrial waste discharge into Salmon Creek located immediately downstream from the I-5 bridge. This discharge originates from a gravel washing and asphalt batch plant operation.

Burnt Bridge Creek drainage basin is currently being sewered by the City of Vancouver on a ten-year program. Storm drains are also being constructed which will discharge into the creek. The upper basin is still rural in nature which contributes to the pollution of the creek through agricultural runoff.

The stations to be sampled are located on the referenced map. There are seven stations on Burnt Bridge Creek; they are Stations AB, 28C110, BB, CB, DB, EB and 28C070. There are also seven stations on Salmon

Memorandum
Page two
November 1, 1972

Creek; they are Stations 28D110, 28E070, AS, BS, CS, 28D070 and DS. Stations 28C110, 28C070, 28D110, 28E070 and 28D070 are currently (as of October 1, 1972) being sampled by Dick Cunningham's group to determine long-term trends.

In addition to these stations, I would like to request as a secondary priority that the effluents from the following sewage treatment facilities be sampled (these all discharge into Salmon Creek); Battleground lagoon, Columbia Academy Trickling Filter plant, Clark County Sewer District No. 1 lagoon and Columbia River High School Package Treatment plant. They are located on the referenced map.

Expected Results: The following parameters should be measured at each of the stream stations: temperature, DO, pH, turbidity, nutrients, and total and fecal coliform. *Aquatic Insects, Algae*

One grab sample from each treatment facility effluent should be analyzed for total combined chlorine residual and total and fecal coliform.

Study completed by when: Best time would be during low flow (late fall) and during a runoff period.

Date final report needed: ASAP after survey is completed.

NOTE!

I NEED THE ATTACHED MAP, SO PLEASE HANDLE WITH CARE AND RETURN TO ME.

NG:as

C
O
P
Y

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

ORIGINAL TO:
C.G.S. JEAN...
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.....
.....
LAB FILES

WATER QUALITY LABORATORY

DATA SUMMARY

Source SALMON & BURNT R. CR

Collected By G.S.J + D.A

Date Collected 11-28

Goal, Pro./Obj. 3.2 21

Log No.	Station	Col./100 ml		(JTD) TURB	CL ⁻	COD	NO ₂ -N	NH ₃ -N	(FILT) NO ₂ -N	P _o P _o / 4
		T. Colif.	F. Colif.							
7246-96	A-S	3500	200	15	7	14	1.2	.24	.02	
97	B-S	900	90	15	6	14	1.9	.76	.08	
98	D-S	5000	200	15	6	14	1.1	ND	.02	
99	28 D 110	3000	120	10	4	14	0.9	ND	ND	3,000
4700	C-S	4000	200	10	6	14	1.0	.24	.02	
01	28 D 070	7000	250	10	6	14	1.1	.32	.02	6.0
02	28 E 070	>4000	50	10	9	14	1.1	.32	.04	8.00
03	A-B	2000	440	5	7	7	1.9	ND	.02	
04	B-B	4500	440	10	9	21	2.0	ND	.02	
05	C-B	4000	50	10	8	21	1.8	ND	.02	
06	28 C 070	20,000	120	15	8	28	1.8	ND	.02	1,200
07	28 C 110	4000	60	8	8	16	1.8	ND	.02	5,000
08	D-B	5000	90	10	9	16	2.0	ND	.02	
09	E-B	8000	60	15	9	23	1.8	ND	.02	
10	COLUMBIA POST INTERMEDIATE BATTLE CREEK	>40,000	<100							
11	EFF	>40,000	>6000							

All results are in PPM unless otherwise specified. ND is "None Detected"

O-PO₄-P } NOT ANALYZED due to
T-P } INSTRUMENT
BREAKDOWN

Summary by Stephen P. Hall Date 12-6-72



1-1 Composite spec. H subseq. composite was
split 12/13-14/77 for addition comparison BOD5

OLYMPIA LABORATORY

seg #

13-28-03

ORIGINAL TO:
.G.C.
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DATA SUMMARY

Source SALMON CR. STP @ Union Clark County

Collected By G. GALTING

Date Collected 11-15-77

Loz Number:	77-6904	05	06	07	08	09				
Station:	Sec- eff UNFIL	RAW EFF	FINAL EFF 2230	1030	1132	1230				
pH	7.2	7.3								
Turbidity (NTU)										
Sp. Conductivity (umhos/cm)										
COD										
BOD (5 day)	STP 0.9 60	105 153								
Total Coliform (Col./100ml)			<10	est 8	<10	<10				
Fecal Coliform (Col./100ml)										
NH3-N (Filtered)	0.0									
NH3-N (Unfiltered)	0.2									
NH3-N (Unfiltered)	.07									
T. Kjeldahl-N (Unfiltered)										
O-PO4-P (Filtered)	4.4									
Total Phos.-P (Unfiltered)	4.4									
Total Solids										
Total Non. Vol. Solids										
Total Suspended Solids	STP 5 7	240 212								
Total Sus. Non Vol. Solids										
Loss		1.5								
Loss		0.45								
Loss		<0.2								
Loss		0.25								

Note: All results are in PPM (mg/L) unless otherwise specified. ND is "None Detected"
" < " is "Less Than" and " > " is "Greater Than"