MEMORANDUM

January 14, 1976

To: Ron Robinson

From: Allen Moore

Subject: Sequim STP Efficiency Survey

An efficiency survey was conducted at the Sequim STP on July 30, 1975. The plant is well kept and neat. The effluent was very clear until about 1500 when a fine floc started to rise to the surface in the inner port of the clarifier and go out with the effluent. Correspondingly the ss in the effluent went from a trace to about 125 ml/l. Because the effluent sample for lab analysis was composited, the results are biased by the very high solids in the effluent from 1500 until the end of the sampling time. The high ammonia (6.4 ppm) and nitrite (1.52 ppm) indicate a problem of denitrification. Dick Parker, the operator, said that this problem occurs regularly on sunny days. Bacteria counts were very high due to no chlorination. The supplier had failed to deliver chlorine several days before when they ran out. Chlorine finally arrived late that day.

AWM:ee

STP Survey Report Form

Efficiency Study

City Sequim F	Plant Type Oxida	tion ditchoondary	p. Served_	2332 Des	sign35 MGD_
Receiving Water Wash	ington <u>Harbor-Str</u>	aits Perenn	ial_x	Cap Intermittent	pacity
Jate 30 July 75 Surv					
lomp. Sampling Freq	quency 1/2 hour	Samp	ling Alequ	otPeak flow X 10	300 m1
Weather Conditions	(24 hr) clear,	warm Are	facilities	provided for	complete by-
pass of raw sewage?	X Yes	No/Freq	uency of b	ypass None	
Reason for bypass		Is b	ypass chlo	rinated? X	YesNo
Vas DOE Notified?	Discha	rge - Inte:	rmittent	Continu	ious
	Plan	t Operation	<u>n</u>		
Total flow 104,8	00 gal	How me	asured	Totalizer	
Maximum flow .4	1 MGD	Time o	f Max. 10	00	
finimum flow .2	5 MGD	Time of	f Min. 16	30	
re Cl ₂ None	#/day	y Post C	12	10	#/day
	n: -	1.7 7 7.1			
	The second secon	ld Results			
	Infl	luent		Efflu	ient
Determinations	Max. Min.	Mean	Median	Max. Min.	Mean Median
lemp °C	22.0 19.5 7.6 7.0		7.1	22.0 19.0 7.1 6.9	20.5 7.0
OH (Units) Conductivity			550	500 350	450
(µmhos/cm²) Settleable	650 420	10.0			T T
iolids (mls/1)	15 10	1 12.3	12.5	125. T	
	Laboratory Re	esults on (Composites		
	Influent	Effl	uent	% Reduction	on lbs/day
aboratory No.	75-3477	75-3	3478		
i-Day BOD ppm	250	27 - 17 - 17 - 17 - 17 - 17 - 17 - 17 - 	110	56%	376
100 ppm 1.S. ppm	370 454	Emmagen empley no surplus and	125 297		
1.3.V.S. ppm 1.5.S. ppm	<u>221</u> 147	all restriction of the second	299 85	42%	291
I.V.S.S. ppm M (Units)	14		15 7.2	all the second control of the second control	
Conductivity unbox/cm²)	7.0	Onesta de la composição do co			
Purbidity(JTU's)	490	generated States of States	390 32		

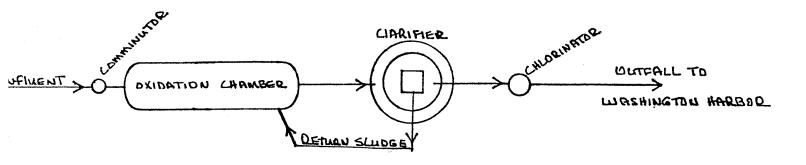
Laboratory Bacteriological Results

Lab No.	Samplin Time	g Co Total Coliform	olonies/100 m Fecal Coliform	nl (MF) Fecal Strep	Cl ₂ Residual
75-3479	0930	>4 X 10 ⁴	> 4000		0.0
75-3480	1530	>4 X 10 ⁴	> 4000		0.0
	<u> </u>				
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			-	<u> </u>	
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Additional Laboratory Results

NO ₃ -N ppm - 1.48	
MO ₂ -N ppm - 1.52	E-V
NH3-N ppm - 6.4	
T. Kjeldahl-N ppm 77.8	
O-PO4-P ppm - 3.6	
T-PO ₄ -P ppm - 6.6	
Operator's Name Dick Parker	Phone No.

Furnish a flow diagram with sequence and relative size and points of chlorination.



Type of Collection	on System					
X Combined Separate Both	Estimate flow contributed by surface or ground water (infiltration					
	MGD					
Plant Loading Ir	nformation					
Annual average daily flow rate(mgd)	Peak flow rate(mgd)					
Dry	Dry					
Wet	Wet					
COMMISS: Chlorine supply ran out - no chlorine	orination for past several days					

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

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			DATA	SUMMA	RY				Ĺ	AB FILES
Source Scavin STP		_				Co	llecte	ed By_	A. Mosa.	£
Date Collected 7-30-75						Go	al, Pr	o./0bj	•	
Log Number: 75-	3477	78	79	80			T			STORET
Station:	INF	cor	0130	1530						
рН	7.0	7.2								00403
Turbidity (JTU)	90.	32.								00070
Conductivity (umhos/cm)@25C	490.	390.								00095
COD	3 7 0.	125.								00340
BOD (5 day)	250.	110.								00310
Total Coliform (Col./100ml)	_	-)4x104	YYLOY						31504
Fecal Coliform (Col./100ml)	•	•	>4000	74000						31616
NO3-N (Filtered)	_	1.48								00620
NO2-N (Filtered)	_	1.52								00615
NH3-N (Unfiltered)	•	6.4								00610
T. Kjeldahl-N (Unfiltered)	-	17.8								00625
<u>O-PO4-P (Filtered)</u>	`	3.6								00671
Total PhosP (Unfiltered)	~	6.6								00665
Total Solids	454	297								00500
Total Non Vol. Solids	221	299								
Total Suspended Solids	147	85						<u> </u>		00530
Total Sus. Non Vol. Solids	14	15								
Note: All results are in P						4 y w	15.		<u> </u>	
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te: All results are in PPM unless otherwise specified. ND is 'None Detected' Convert those marked with a \star to PPB (PPM X 10 3) prior to entry into STORET

Summary By Stylu D. Roll

Date 8-12-75