

M E M O R A N D U M

February 18, 1975

State of
Washington
Department
of Ecology



TO: JOHN GLYNN, Northwest Regional Office
FROM: HANS CREGG
SUBJECT: Winslow STP

The Winslow sewage treatment plant was visited on January 7, 1975.

At the time of the unannounced visit, the operation was pumping compressed air into the digester in order to "flush" the system. This situation was immediately brought to the attention of the Northwest Regional Office and the "flushing" operation was discontinued.

The plant was revisited on the 22nd of January and grab samples of both influent and effluent were taken. Laboratory analysis of these samples indicate little or no reduction in BOD, COD and total solids. Total coliform count is greater than 40,000; fecals are an estimated 40 colonies/100 ml. In light of the high total count, I feel that the validity of the fecal data is suspect.

HC:bj

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

DATA SUMMARY

ORIGINAL TO: A.W. Moore
COPIES TO:
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.....
LAB FILES

Source Winslow STP

Collected By A.W.M.

Date Collected 1-22-75

Goal, Pro./Obj. _____

Log Number:	75- 0364		65	66								STORET	
Station:	INF	CFP	GRAB										
pH	7.8	7.9											00403
Turbidity (JTU)	52.	60.											00070
Conductivity (umhos/cm)@25°C	430.	550.											00095
COD	296	243											00340
BOD (5 day)	205.	168.											00310
Total Coliform (Col./100ml)	-	-	>4x10 ⁴										31504
Fecal Coliform (Col./100ml)	-	-	EST 40										31616
NO3-N (Filtered)	-	.01											00620
NO2-N (Filtered)	-	ND											00615
NH3-N (Unfiltered)	-	34.											00610
T. Kjeldahl-N (Unfiltered)	-	40.											00625
O-PO4-P (Filtered)	-	4.0											00671
Total Phos.-P (Unfiltered)	-	9.10											00665
Total Solids	409	398											00500
Total Non Vol. Solids	184	242											
Total Suspended Solids	115	90											00530
Total Sus. Non Vol. Solids	9	9											

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10³) prior to entry into STORET

Summary By Stephen P. Roll Date 2-5-75

STP Survey Report Form

Efficiency Study

City Winslow Plant Type Primary Pop. Served 500 Design 500
 Receiving Water Puget Sound Perennial Intermittent
 Capacity
 Date 1/22/75 Survey Period Grab samples Survey Personnel H. J. Cregg
 Comp. Sampling Frequency -- Sampling Alequot --
 Weather Conditions (24 hr) Are facilities provided for complete by-
 pass of raw sewage? Yes No/Frequency of bypass
 Reason for bypass Is bypass chlorinated? Yes No
 Was DOE Notified? Discharge - Intermittent Continuous

Plant Operation

Total flow How measured
 Maximum flow Time of Max.
 Minimum flow Time of Min.
 Pre Cl₂ #/day Post Cl₂ #/day

Field Results

Took grab sample
for lab analysis

Influent

Effluent

<u>Determinations</u>	<u>Max.</u>	<u>Min.</u>	<u>Mean</u>	<u>Median</u>	<u>Max.</u>	<u>Min.</u>	<u>Mean</u>	<u>Median</u>
Temp °C	X				X			
pH (Units)								
Conductivity (µmhos/cm ²)								
Settleable Solids (mls/l)								

Laboratory Results on Composites

	<u>Influent</u>	<u>Effluent</u>	<u>% Reduction</u>
Laboratory No.	<u>75-0364</u>	<u>75-0365</u>	
5-Day BOD ppm	<u>205</u>	<u>168</u>	<u>18</u>
COD ppm	<u>296</u>	<u>243</u>	<u>18</u>
T.S. ppm	<u>409</u>	<u>398</u>	<u>3</u>
T.N.V.S. ppm	<u>184</u>	<u>242</u>	<u>negative</u>
T.S.S. ppm	<u>115</u>	<u>90</u>	<u>22</u>
N.V.S.S. ppm	<u>9</u>	<u>9</u>	<u>0</u>
pH (Units)	<u>7.8</u>	<u>7.9</u>	
Conductivity (µmhos/cm ²)	<u>430</u>	<u>550</u>	
Turbidity (JTU's)	<u>52</u>	<u>60</u>	

Laboratory Bacteriological Results

Lab No.	Sampling Time	Colonies/100 ml (MF)			Cl ₂ Residual
		Total Coliform	Fecal Coliform	Fecal Strep	
75-0365	grab 1700	> 4 x 10 ⁴	Est 40		

Additional Laboratory Results

NO ₃ -N ppm -	.01
NO ₂ -N ppm -	N.D.
NH ₃ -N ppm -	34
T. Kjeldahl-N ppm -	40
O-PO ₄ -P ppm -	4.0
T-PO ₄ -P ppm -	9.1

Operator's Name _____ Phone No. _____

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

Type of Collection System

Combined Separate Both

Estimate flow contributed by surface or ground water (infiltration)

_____ MGD

Plant Loading Information

Annual average daily flow rate(mgd)

Peak flow rate(mgd)

Dry _____

Dry _____

Wet _____

Wet _____

COMMENTS: _____
