Publication No. 74-e94

WA-23-1010

August 27, 1974

Memo to: Ron Robinson

From: Mike Tomlinson

Subject: Cedar Creek Youth Camp Lagoon

Lagoon maintained well. Outflow may be too large, however, for a creek the size of Mill Creek.

MT:jmh

STP Survey Report Form

Efficiency Study

City Cedar Cr. Youth Camp Plant Type Overflow Lagoon Pop. Served 150 Design Capacity ?

Receiving Water Mill Creek Perennial X Intermittent

Date 7/24/74 Survey Period Grab (1230) Survey Personnel Tomlinson, Lindskog

Comp. Sampling Frequency NA Sampling Alequot NA

Weather Conditions (24 hr) + Are facilities provided for complete by-pass of raw sewage? Yes X No/Frequency of bypass NA

Reason for bypass NA Is bypass chlorinated? NA Yes No

Was DOE Notified? NA Discharge - Intermittent NA Continuous

Plant Operation

Total flow 30,000 GPD How measured Det. by water use

Maximum flow ? Time of Max. ?

Minimum flow ? Time of Min. ?

Pre Cl_2 NA #/day Post Cl_2 #/day

Field Results

	Influent				Effluent			
Determinations	Max.	Min.	Mean	Median	Max.	Min.	Mean	Median
Temp °C				22.0				21.0
pH (Units)				8.0				10.0
Conductivity ($\mu mhos/cm^2$)				475				1900
Settleable Solids (mls/l)				—				—

Laboratory Results on Composites

	Influent	Effluent	% Reduction
Laboratory No.	74-3043	74-3044	
5-Day BOD ppm	100	44	56
COD ppm	211	187	11
T.S. ppm	245	429	--
T.N.V.S. ppm	120	126	--
T.S.S. ppm	39	81	--
N.V.S.S. ppm	5	4	20
pH (Units)	7.1	9.4	
Conductivity ($\mu mhos/cm^2$)	380	150	
Turbidity (JTU's)	12	13	

Laboratory Bacteriological Results

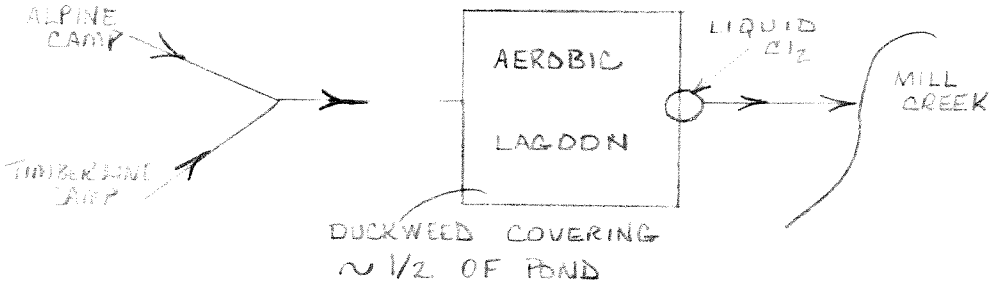
Lab No.	Sampling Time	Colonies/100 ml (MF) Total Coliform	Fecal Coliform	Fecal Strep	Cl_2 Residual 15 Sec.	3 Min.
	1245	<20	<10		>1.0	>1.0

Additional Laboratory Results

NO_3-N ppm -	0.02
NO_2-N ppm -	0.01
NH_3-N ppm -	10.2
T. Kjeldahl-N ppm -	16.3
O-PO_4-P ppm -	2.8
T-PO_4-P ppm -	5.5

Operator's Name Howard Norris Phone No. 753-7280

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



Type of Collection System

___ Combined x Separate ___ Both
No storm sewer

Estimate flow contributed by surface or ground water (infiltration)

? MGD

Plant Loading Information

Annual average daily flow rate (mgd)

Dry ?

Wet ?

Peak flow rate (mgd)

Dry ?

Wet ?

COMMENTS: Approximately 50' downstream of out fall in Mill Creek; time - 1400, T^oC - 13.5°, pH - 7.3, Cond - 84 µmhos/cm, T. coli - <20, F. Coli - <10

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: M. Tennyson
COPIES TO:
LAB FILES

DATA SUMMARY

Source Cedar Creek Youth Camp Collected By M.T. & B.L.

Date Collected 7-24-74 Goal, Pro./Obj.

Log Number: 74-	3043	44	45	46							STORET
Station:	INF	EFF	1245	1400							
pH	7.1	9.4									00403
Turbidity (JTU)	12	13									00070
Conductivity (umhos/cm)@25°C	380	150									00095
COD	211	189									00340
BOD (5 day)	100	44									00310
Total Coliform (Col./100ml)	-	-	<20	<20							31504
Fecal Coliform (Col./100ml)	-	-	<10	<10							31616
NO3-N (Filtered)	.04	.02									00620
NO2-N (Filtered)	.02	.01									00615
NH3-N (Unfiltered)	137.	10.2									00610
T. Kjeldahl-N (Unfiltered)	191.	16.3									00625
O-PO4-P (Filtered)	3.8	2.8									00671
Total Phos.-P (Unfiltered)	8.0	5.5									00665
Total Solids	245	429									00500
Total Non Vol. Solids	120	126									
Total Suspended Solids	39	81									00530
Total Sus. Non Vol. Solids	5	4									
Color	165	220									

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10^3) prior to entry into STORET

Summary By Stephen D. Roll Date 8-19-74

STP Survey Report Form

Efficiency Study

City CEDAR CR. YOUTH CAMP Plant Type OVERFLOW LAGOON Pop. Served 150 Design Capacity ?

Receiving Water MILL CR. Perennial ✓ Intermittent _____

Date 24JUL74 Survey Period GRAB (~1230) Survey Personnel M Tomlinson, B. Lindahl

Comp. Sampling Frequency NA Sampling Alequot NA

Weather Conditions (24 hr) _____ Are facilities provided for complete by-pass of raw sewage? ____ Yes ✓ No/Frequency of bypass NA

Reason for bypass NA Is bypass chlorinated? NA Yes ____ No

Was DOE Notified? NA Discharge - Intermittent NA Continuous _____

Plant Operation

Total flow ~30,000 GPD How measured DET. BY WATER USE

Maximum flow ? Time of Max. ?

Minimum flow ? Time of Min. ?

Pre Cl_2 NA #/day Post Cl_2 _____ #/day

Field Results

	Influent				Effluent			
Determinations	~~Max.~~	~~Min.~~	~~Mean~~	~~Grab~~ Median	~~Max.~~	~~Min.~~	~~Mean~~	~~Grab~~ Median
Temp °C				22.0				21.0
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Lab No.	Sampling Time	Colonies/100 ml (MF) Total Coliform	Fecal Coliform	Fecal Strep	Cl_2 Residual (15 SEC)	(180 SEC)
	1245	<20	<10		>1.0	>1.0

Additional Laboratory Results

	Effluent
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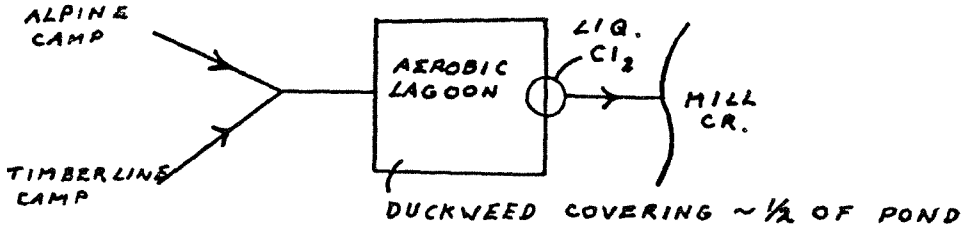

Type of Collection System

__ Combined ✓ Separate __ Both
NO STORM SEWER

Estimate flow contributed by surface or ground water (infiltration)

? MGD

Plant Loading Information

Annual average daily flow rate(mgd)

Dry ?

Wet ?

Peak flow rate(mgd)

Dry ?

Wet ?

COMMENTS: APPROX. 50' DOWNSTREAM OF OUT FALL IN MILL CR.: TIME - 1400, T°C - 13.5, pH - 7.3, COND - 84 mmhos/cm, T.COLI. - <20, F.COLI - <10

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

ORIGINAL TO: M. Tomlinson

COPIES TO:

LAB FILES

DATA SUMMARY

& Creek Youth Camp

Collected By M.T. & B.L.

7-24-74

Goal, Pro./Obj.

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Turb 12	13									00070
mhos/cm)@25°C 380	150									00095
COD 211	182									00340
BOD 100	44									00310
(Col./100ml) -	-	<20	<20							31504
(Col./100ml) -	-	<10	<10							31616
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T.S 245	429									00500
olids TNVS 120	126									
Solids TSS 39	81									00530
ol. Solids 5	4									
Color 165	220									

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