

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

DANIEL J. EVANS  
GOVERNOR

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DIRECTOR

Southwest Washington Reg  
Olympia Airpor  
Post Office Box 6  
Olympia, Wn 985

July 26, 1972

Publication No. 72-e27

Memo to: Ron Pine  
From: Nelson Graham  
Subject: Efficiency Studies and Survey Requests

The following is the scoping for the Chehalis River Survey, National Fruit Canning, Del Monte and Diamond fruit growers efficiency studies:

I. Chehalis River

- A. The sewage treatment plant for the City of Chehalis discharges effluent into the Chehalis River. This plant accepts waste from industry within the city, the biggest being National Fruit Canning Incorporated. Three surveys were conducted in 1960 and 1970 before the treatment plant was upgraded and expanded. The results of these surveys are attached. As you can see, a dissolved oxygen and bacteriological water quality problem existed in the river at that time. No surveys have been conducted since the plant was upgraded, therefore, this request is made to determine if the water quality problem has been solved.

The City of Centralia also discharges effluent into the river and have also recently completed a plant upgrade and expansion. The downstream receiving water quality has never been determined for this discharge.

- B. We hope to determine from this survey what the effect of these two discharges has on the water quality in the Chehalis River.
- C. Two people will be required for this survey. It can be completed in one day. The regional office can supply one man if necessary.
- D. The survey should be conducted during the month of August, 1972, as previously requested. This is the critical water quality period for this stretch of river.
- E. A boat with motor and routine sampling equipment will be needed.

Memo to Ron Pine  
July 26, 1972

F. The attached map indicates the sample points. The following parameters should be measured at each station:

1. Temperature
2. Dissolved oxygen
3. Total coliform
4. Fecal coliform

The percent saturation for dissolved oxygen should be calculated.

## II. National Fruit Canning, Incorporated, Chehalis

- A. The plant processes primarily sweet peas and corn during July, August, and September. Their waste is discharged to the city sewer system after pretreatment at the plant site. The purpose of this efficiency study is to determine the adequacy of the pretreatment equipment and the resultant load on the city's sewage treatment plant.
- B. We hope to conclude what the removal percentage of the pretreatment equipment and the waste load being discharged to the city will be. This will aid us in the writing of their new waste discharge permit.
- C. One person can conduct this survey in one day.
- D. According to personnel at the processing plant, the canning of peas will continue until approximately September 1, and then corn will begin about mid-September. Ideally, an efficiency study should be conducted twice; once during the pea season and once during the corn season. If you can only conduct one, then the corn season would be preferred since this creates the heaviest load on the city's plant.
- E. No special equipment is needed.
- F. A "one shift" composite sample of the total plant effluent should be collected ahead of the pretreatment facilities (rotating screen) and after the screen as the waste goes to the city sewer. The two samples should be analyzed for:
  1. COD
  2. BOD

Memo to Ron Pine  
July 26, 1972

3. Temperature
4. pH
5. Settleable solids
6. Total suspended solids
7. Volatile suspended solids

If at all possible, the total flow for the sample period should be determined.

The plant manager, Ray Melhart, should be contacted ahead of time in Chehalis at 748-4403.

*SEPT '72*

III. Del Monte Corporation and Diamond Fruit Growers, Incorporated, Vancouver.

- A. Both industries are fruit and vegetable processors. They are anticipating connection of their waste to the City of Vancouver sewer system. They both have vibrating screens for solids removal with the effluent being discharged to Columbia River. The purpose of this efficiency study is to determine the adequacy of their existing treatment equipment and the anticipated load to the city sewer.
- B. We hope to conclude what the removal percentage of the existing treatment equipment is and what waste load will be discharged to the city. This will aid us in writing their new waste discharge permit.
- C. Two people can conduct both surveys in one day.
- D. These surveys should be conducted in August or September of 1972.
- E. No special equipment is needed.
- F. A "one shift" composite sample of the total plant effluent should be collected ahead of the vibrating screen and the effluent from the screen as it goes to the Columbia River. The two samples should be analyzed for:
  1. COD
  2. BOD
  3. Temperature

Page four

Memo to Ron Pine  
July 26, 1972

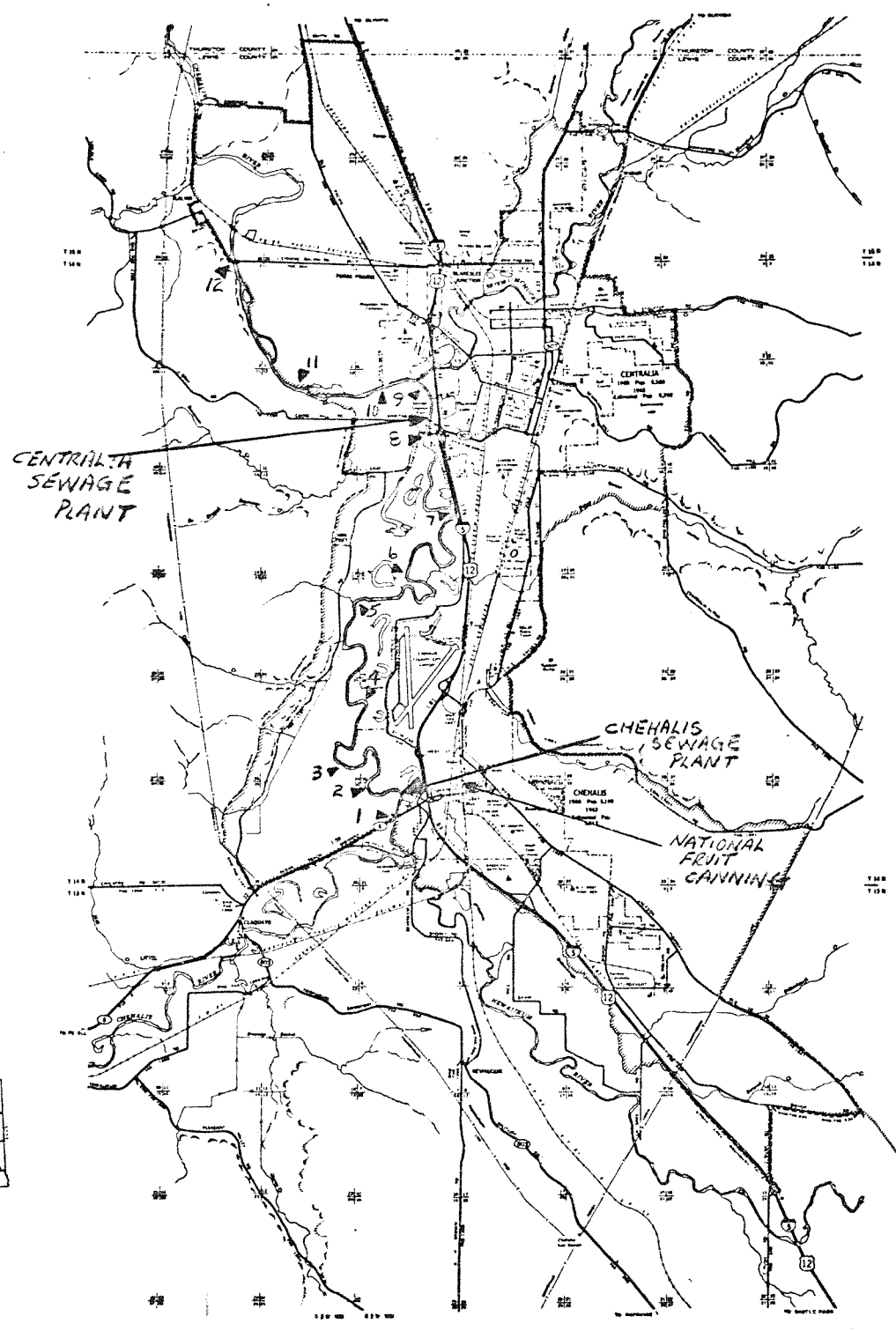
4. pH
5. Settleable solids
6. Total suspended solids
7. Volatile suspended solids

If at all possible, the total flow for the sample period should be determined. The product being processed at the plant at the time of the sampling should be noted.

The plant managers of both plants should be notified ahead of time. The manager for Del Monte is Don Berryhill at 693-5871. The manager for Diamond Fruit Growers is E. J. McIrvin at 694-6531.

NG:slk  
7/2

enclosures



**LEGEND**

- INTERSTATE HIGHWAY NUMBER
- U. S. HIGHWAY NUMBER
- STATE HIGHWAY NUMBER
- RAILROAD
- HIGHWAY SYSTEM
- FEDERAL AID ROUTE
- CITY STREET, COUNTY ROAD
- PROJECTED ROAD
- ROAD UNDER CONSTRUCTION
- FEDERAL AID INTERSTATE
- FEDERAL AID PRIMARY
- FEDERAL AID SECONDARY
- FEDERAL AID ROUTE NUMBER
- URBAN AREA BOUNDARY
- CORPORATE LIMITS
- CENTRAL BUSINESS DISTRICT
- TRANSMISSION LINE
- POST OFFICE
- COUNTY COURT HOUSE
- PUBLIC BUILDING
- POLICE STATION
- FIRE STATION
- SCHOOL
- HOSPITAL
- INDUSTRY
- SHOPPING CENTER
- POWER SUBSTATION
- WATER SUPPLY



URBAN AREA MAP  
**CENTRALIA-CHEHALIS**  
 & VICINITY  
 1967

PREPARED BY THE  
 DEPARTMENT OF TRANSPORTATION  
 FEDERAL BUREAU OF SURVEYING  
 FEDERAL HIGHWAY ADMINISTRATION  
 BUREAU OF PUBLIC ROADS

MEMORANDUM  
 Water Pollution Control Commission  
 P. O. Box 829  
 OLYMPIA, WASHINGTON  
 98501

Check	
Information	
For Action	
Permit	
Other	

TO: Nelson Graham

DATE: August 8, 1969

FROM: Mérelly F. McCall

SUBJECT: Chehalis River

The following information was collected on the Chehalis River on August 5, 1969 by Norman Thomas and Ron Devitt. At this time the monitor is located at station 8. The information from the monitor will be given to you later. The D.O. sag starts at station 2 and the river starts its recovery at station 5. The recovery area would probably extend below the Centralia treatment plant.

Sta. #	Time	Depth	Temp. °C	D.O.	D.O. % Sat.	Bact.
1	1115	S	18.8	8.5	90%	1,900
2	1200	S	19.1	7.75	86%	> 50,000
3	1220	S	19.8	6.6	74%	
		14'	19.8	6.4	72%	
4	1235	S	20.2	2.25	26%	
		12'	19.6	1.9	21%	
5	1350	S	20.7	3.8	44%	> 10,000
		14'	20.1	2.9	33%	
6	1305	S	21.0	3.8	44%	
		6'	20.2	3.1	35%	
		14'	20.2	1.9	22%	
7	1335	S	22.2	4.45	52%	> 10,000
		4	20.9	4.4	51%	
		6	20.6	3.0	34%	
		7	20.3	2.7	31%	
		8	20.2	1.6	18%	
		16	20.0	1.45	16%	
8	1355	S	21.8	10.4	121%	> 10,000
		3	21.1	10.0	115%	
		5	21.0	6.7	77%	
		7	21.0	4.9	56%	
		14	20.8	3.7	42%	

Please notice that the bacteriological data is very high.

MFM:lm 

## MEMORANDUM

Water Pollution Control Commission

P. O. Box 829

OLYMPIA, WASHINGTON

98501

Information
For Action
Permit
Other

TO: Nelson GrahamDATE: August 25, 1969FROM: Merley McCallSUBJECT: Chehalis River

The following information was collected on the Chehalis River on August 14, 1969 by Joe McCloskey and Nelson Graham. The data conditions are poorer than the August 5 sampling.

Station	Time	Depth	Temp °C	D.O. ppm	D.O. % Sat.	Bact.
1	9:35	Surf.	18.5	8.5	93%	3,400
2	9:50	Surf.	18.1	6.9	75%	21,000
		10'	18.1	7.5	81%	
3	10:05	Surf.	18.5	6.9	75%	
		5'	18.5	6.5	71%	
		14'	18.4	6.0	66%	
4	10:15	Surf.	17.6	3.6	38%	
		5'	17.7	3.4	36%	
		14'	17.7	3.2	34%	
5	10:45	Surf.	18.0	2.4	26%	1,200,000
		5'	17.8	2.1	22%	
		14'	17.9	2.0	21%	
6	11:00	Surf.	18.2	2.2	24%	
		5'	18.2	1.9	20%	
		14'	18.0	1.7	18%	
7	11:10	Surf.	18.5	4.8	52%	40,000
		5'	18.3	4.0	43%	
		14'	18.0	3.2	34%	
8	11:20	Surf.	18.8	4.5	49%	110,000
		5'	18.0	2.6	28%	
		10'	18.0	2.4	26%	
9	11:30	Surf.	18.4	3.2	35%	12,000
		5'	18.2	3.1	33%	

MM:lm

CHEHALIS RIVER

August 20, 1970

Sampling Run

Station #	Time	Sounding Feet	Sampling Depth Feet	Total Coliform /100 mi.	Temp. °C	DO PPM	DO % Sat.
1	1100	5	2	240	18.9	7.8	87
2	1115	5	1	10	19.3	7.4	82
3	1125	14	1	260	19.5	7.7	86
			5		19.5	7.5	84
4	1140	13	1	360	19.4	6.9	78
		19	5		19.5	6.8	76
			15		19.7	6.8	76
			18		19.8	5.3	60
5	1155	20	1	170	19.0	Nil	0
			5		19.7	6.5	73
			10		19.8	6.5	73
	1160		15		19.7	6.4	72
			18		19.5	2.4	27
6	1220	14	1	150	19.0	2.1	23
			5		20.5	12.5	142
			7		20.3	7.8	89
	1225		9		20.3	7.2	82
			12		20.3	6.5	74
7	1235	12	1	40	18.7	Nil	0
			5		20.5	11.3	129
			10		20.8	11.1	128
8	1245	15	1	50	20.2	6.7	76
			7		20.4	11.1	126
			10		20.0	7.0	80
			14		19.4	1.0	11
9	1254	6	1	190	18.4	Nil	0
			5		19.5	8.9	100
10	1330	6	1	70	19.4	8.7	98
			5		20.2	7.0	80
11	1355	5	1	230	20.4	8.6	98
			4		20.2	8.6	88
					19.6	8.7	98



CHEHALIS RIVER

September 21, 1970

Sampling Run

Station #	Time	Sounding Feet	Sampling Depth Feet	Total Coliform /100 mi.	Temp. °C	DO PPM	DO % Sat.
1	1030	3	2	700	13.5	10.4	103
2	1040	6	3	230	13.6	9.5	94
3	1045	8	1	210	13.8	9.4	94
			7		13.8	9.8	98
4	1055	10	9	500	13.8	9.5	95
					13.8	9.4	94
					13.8	9.0	90
5	1105	20	1	940	13.8	9.2	92
					13.8	9.2	92
					13.8	9.3	93
					13.7	9.2	92
					13.8	9.3	93
6	1125	14	1	760	14.1	8.9	89
			5		14.0	9.1	91
			10		14.0	9.0	90
			13		14.0	9.3	93
7	1135	8	1	440	14.7	8.9	91
			4		14.6	8.8	90
			7		14.1	8.8	88
8	1140	12	1	280	14.8	8.4	86
			5		14.7	8.8	90
			11		14.7	8.4	86
9	1150	5	1	350	14.9	8.5	87
			4		14.9	8.6	88
10	1300	4	1	350	15.3	8.6	89
11	1320	5	1	600	15.4	8.7	90
			4		15.4	8.6	89

CHEHALIS RIVER

August 20, 1970

Sampling Run

Station #	Time	Sounding Feet	Sampling Depth Feet	Total Coliform /100 mi.	Temp. °C	DO PPM	DO % Sat.
1	1100	5	2	240	18.9	7.8	87
2	1115	5	1	10	19.3	7.4	82
3	1125	14	1	260	19.5	7.7	86
			5		19.5	7.5	84
4	1140	13 19	1	360	19.4	6.9	78
			5		19.5	6.8	76
			15		19.7	6.8	76
			18		19.8	5.3	60
5	1155	20	1	170	19.0	Nil	0
			5		19.7	6.5	73
			10		19.8	6.5	73
			15		19.7	6.4	72
6	1220	14	1	150	19.5	2.4	27
			5		19.0	2.1	23
			7		20.5	12.5	142
			9		20.3	7.8	89
7	1225	12	1	40	20.3	7.2	82
			5		20.3	6.5	74
			12		18.7	Nil	0
8	1235	12	1	50	20.5	11.3	129
			5		20.8	11.1	128
			10		20.2	6.7	76
			14		20.4	11.1	126
9	1245	15	1	190	20.0	7.0	80
			7		19.4	1.0	11
			10		18.4	Nil	0
10	1254	6	1	70	19.5	8.9	100
			5		19.4	8.7	98
11	1330	6	1	230	20.2	7.0	80
			5		20.4	8.6	98
11	1355	5	1	230	20.2	8.6	88
			4		19.6	8.7	98

**MEMORANDUM**  
**Department of Ecology**  
P. O. Box 829  
**OLYMPIA, WASHINGTON**  
98501

	Check
Information	<input type="checkbox"/>
For Action	<input type="checkbox"/>
Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>

**TO: Gene Asselstine and Nelson Graham**

**DATE: November 19, 1970**

**FROM: Merley McCall**

**SUBJECT: Chehalis River Study**

During the summer of 1970, two sampling runs were conducted on the Chehalis River between the Cities of Centralia and Chehalis. The samples were taken at the same stations as referred to in a memo from myself to Waite, Stan and files on June 14, 1967, for to the installation of new facilities at the Chehalis Sewage Treatment Plant.

On both dates the STP was operating normally. On August 20, 1970, the Associated Industry was processing peas and on September 21, 1970, they were processing corn. The discharge of the river at the U. S. Geological Survey Gaging Station near Grand Mound was:

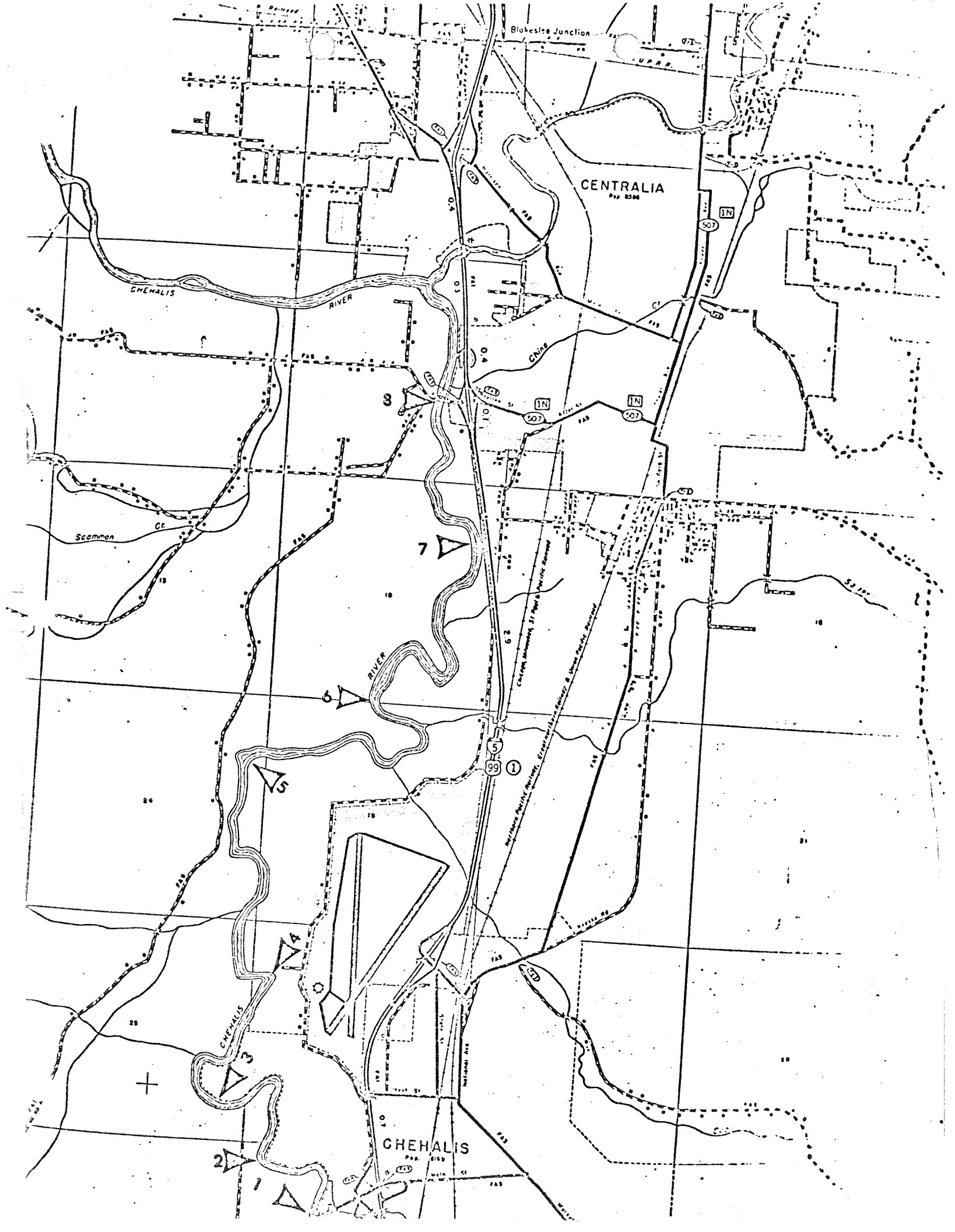
<u>Date</u>	<u>Discharge</u>
August 20, 1970	133 cfs
September 21, 1970	566 cfs

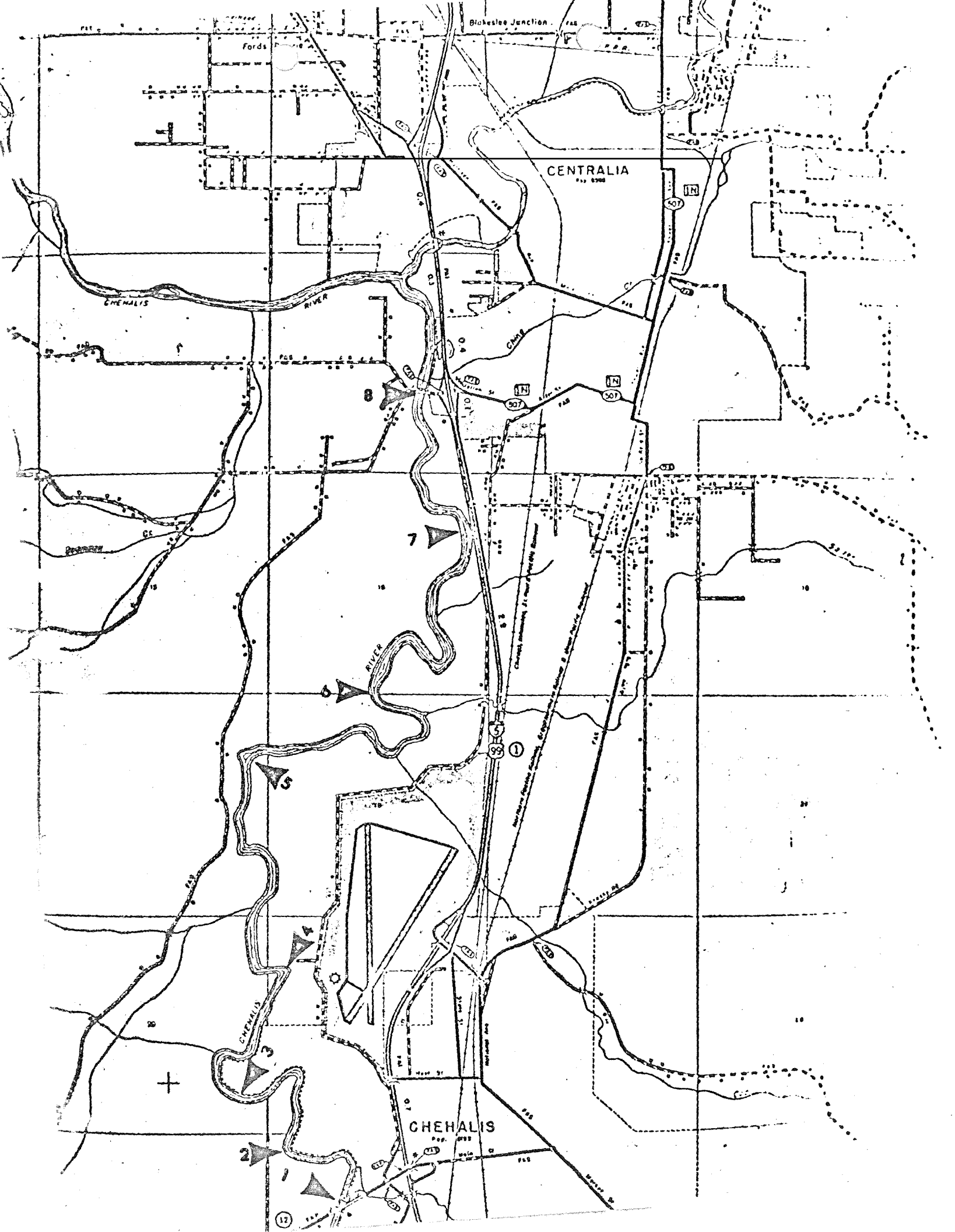
Two additional stations were added to measure the effect of the Centralia STP. These two stations were as follows:

10. Taken from Stevens Road Bridge about 3 miles downstream from Station 9.
11. Taken from Prather Road Bridge about 8 miles downstream from Station 9.

The stratification demonstrated in 1967 is seen here again (August 20, 1970 sampling). The river flow and conditions in the STP make the August 20, 1970 sampling comparable with the August 3, 1967 and the August 25, 1967 sampling. There appears to be definite improvement in the river in the problem reach (Stations No. 3, 4, 5, and 6). This data indicates that much of the problem in the river is due to the stratification which develops at low flow periods. I would think that there would be some problems in this stretch of the river at low flow, even if the STP were removed.

MH:mg





Bakeslee Junction

Fords

CENTRALIA  
Pop. 6500

CHEHALIS RIVER

CHEHALIS RIVER

OLNEY RIVER

7

5

5

4

3

2

12

CHEHALIS  
Pop. 2000

STATION # 8

WATER POLLUTION CONTROL COMMISSION

4 SEP 1969

WATER QUALITY DATA ACQUISITION SYSTEM

PROGRAM PCC-02-210

PAGE 1

STATION LOCATION CHEHALIS R (~~2 STATIONS~~) AND YAKIMA R STATIONS ~~#1, #2, #3~~

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	07	22	13	00	6.42	110	28	3.6	23.4	1	1200	44
01	07	22	13	07	6.42	110	28	3.5	23.2	8	1201	43
01	07	22	13	30	6.51	110	28	3.5	23.5	5	1201	43
01	07	22	14	00	6.41	110	28	3.6	23.6	2	1201	44
01	07	22	15	00	6.54	105	28	3.8	23.9	1	1200	46
01	07	22	16	00	6.55	110	28	3.9	24.0	4	1201	48
01	07	22	16	30	6.52	105	28	3.9	24.0	6	1200	48
01	07	22	17	00	6.57	110	28	4.0	24.3	7	1201	49
01	07	22	17	30	6.52	105	28	3.8	24.0	8	1201	47
01	07	22	18	00	6.57	110	28	3.6	23.7	9	1201	44
01	07	22	18	30	6.53	110	28	3.2	23.1	10	1201	39
01	07	22	19	00	6.52	105	28	3.2	23.0	10	1201	38
01	07	22	20	00	6.49	105	28	3.1	22.9	11	1200	38
01	07	22	20	30	6.48	105	28	3.1	22.9	12	1201	38
					MAXIMUM	6.57	110	28	4.0	24.3	12	49
					MINIMUM	6.41	105	28	3.1	22.9	1	38
					MEAN	6.50	108	28	3.6	23.5	7	44
					STD. DEV.	.06	4	0	.7	1.8	4	4
					NUMBER IN	14	14	14	14	14	14	14

Station #5

WATER POLLUTION CONTROL COMMISSION

4 SEP 196

WATER QUALITY DATA ACQUISITION SYSTEM

PROGRAM PCC-02-210

PAGE

STATION LOCATION CHEHALIS R (2 STATIONS) AND YAKIMA R STATIONS #1, #2, #3

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	08	11	15	00	6.77	90	26	6.1	21.0	7	1202	70
01	08	11	16	00	6.75	90	26	6.5	20.9	7	1202	75
01	08	11	17	00	6.74	90	26	6.8	20.9	8	1202	79
01	08	11	18	00	6.72	90	28	7.0	20.8	8	1202	80
01	08	11	19	00	6.73	90	28	7.0	20.6	8	1202	81
01	08	11	20	00	6.71	90	26	7.1	20.5	8	1202	81
01	08	11	21	00	6.72	90	26	7.1	20.4	7	1202	82
01	08	11	22	00	6.72	90	26	7.3	20.4	5	1201	83
01	08	11	23	00	6.71	95	26	7.3	20.3	5	1202	83
01	08	12	00	00	6.71	90	26	7.4	20.3	5	1202	85
01	08	12	01	00	6.70	90	28	7.5	20.2	5	1202	85
01	08	12	02	00	6.71	95	26	7.9	20.2	5	1202	90
01	08	12	03	00	6.69	95	26	7.9	20.2	5	1202	90
01	08	12	04	00	6.71	95	26	8.2	20.2	5	1202	93
01	08	12	05	00	6.73	95	26	8.3	20.2	5	1202	95
01	08	12	07	00	6.72	95	26	8.4	20.1	5	1202	95
01	08	12	08	00	6.73	90	26	8.0	20.2	5	1201	91
01	08	12	09	00	6.72	95	26	7.9	20.2	5	1202	90
01	08	12	12	00	6.71	95	26	7.7	20.4	7	1202	88
01	08	12	13	00	6.74	90	26	7.8	20.4	7	1202	90
01	08	12	14	00	6.75	90	26	7.8	20.5	9	1202	90
01	08	12	15	00	6.74	95	26	7.7	20.5	10	1202	89
01	08	12	16	00	6.77	95	28	7.7	20.6	12	1202	88
01	08	12	17	00	6.77	90	26	7.7	20.6	15	1202	88
01	08	12	18	00	6.77	95	26	7.6	20.6	17	1202	87
01	08	12	19	00	6.76	95	26	7.4	20.5	20	1202	85
01	08	12	20	00	6.75	95	26	7.2	20.4	21	1202	83
01	08	12	21	00	6.71	95	26	7.1	20.4	22	1202	82
01	08	12	22	00	6.71	95	26	6.6	20.4	23	1202	76
01	08	12	23	00	6.68	95	26	6.3	20.3	23	1202	72
01	08	13	00	00	6.66	95	26	5.7	20.2	24	1202	65
01	08	13	02	00	6.62	100	26	4.8	20.1	24	1202	55
01	08	13	03	00	6.60	100	26	4.3	20.1	23	1202	49

Station #8

WATER POLLUTION CONTROL COMMISSION

16 SEP 1969

WATER QUALITY DATA ACQUISITION SYSTEM

PROGRAM PCC-02-210

PAGE 1

STATION LOCATION CHEHALIS RIVER STATION #8

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	09	09	09	15	.15	5	0	11.5	19.0	0	1200	128
01	09	09	09	46	6.91	170	0	3.0	18.7	0	1200	34
01	09	09	10	00	6.91	165	0	2.1	18.7	0	1201	24
01	09	09	10	02	6.91	170	0	3.2	18.8	0	1200	36
01	09	09	11	00	6.97	170	0	4.0	18.9	0	1200	45
01	09	09	12	00	7.00	165	0	4.5	19.2	0	1201	51
01	09	09	13	00	7.02	165	0	5.0	19.2	0	1200	56
01	09	09	16	00	7.35	165	0	9.1	19.6	0	1201	103
01	09	09	17	00	6.99	165	0	6.4	19.3	0	1201	72
01	09	09	19	00	7.18	160	0	8.3	19.5	0	1201	94
01	09	09	22	00	7.20	140	0	8.6	19.4	0	1201	96
01	09	09	23	00	7.28	135	0	9.3	19.4	0	1201	104
01	09	10	01	00	7.01	140	0	7.4	19.0	0	1200	83
01	09	10	02	00	7.05	145	0	7.7	18.9	0	1201	85
01	09	10	03	00	7.06	135	0	7.9	18.8	0	1201	88
01	09	10	04	00	6.98	150	0	6.9	18.7	0	1201	77
01	09	10	05	00	6.99	140	0	7.2	18.7	0	1201	80
01	09	10	07	00	6.88	130	0	6.1	18.5	0	1200	67
01	09	10	08	00	6.91	135	0	6.7	18.5	0	1201	74
01	09	10	09	00	6.90	130	0	6.3	18.4	0	1201	70
01	09	10	10	00	7.02	135	0	7.8	18.6	0	1200	86
01	09	10	11	00	7.11	130	0	8.5	18.9	0	1201	94
01	09	10	12	00	7.19	135	0	8.7	19.1	0	1201	97
01	09	10	13	00	7.55	140	0	10.5	19.8	0	1200	119
01	09	10	14	00	7.76	130	0	11.3	20.2	0	1201	129
01	09	10	15	00	7.78	120	0	11.7	20.1	0	1201	133
01	09	10	16	00	7.92	120	0	11.9	20.4	0	1201	136
01	09	10	18	00	7.54	120	0	11.0	19.8	0	1201	124
01	09	10	19	00	7.53	120	0	10.8	19.7	0	1201	122
01	09	10	20	00	7.59	120	0	11.1	19.8	0	1201	125
01	09	10	21	00	7.39	120	0	10.4	19.6	0	1201	117
01	09	10	22	00	7.30	120	0	9.9	19.6	0	1201	111
01	09	10	23	00	7.32	125	0	10.0	19.6	0	1200	113



## WATER QUALITY DATA ACQUISITION SYSTEM

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STATION LOCATION CHEHALIS R (2 STATIONS) AND YAKIMA R STATIONS #1, #2, #3

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	08	13	04	00	6.58	100	26	3.9	20.0	22	1202	44
01	08	13	05	00	6.56	105	26	3.3	20.0	22	1202	38
01	08	13	07	00	6.58	105	26	2.5	20.0	24	1202	29
01	08	13	08	00	6.58	105	26	2.2	20.1	25	1202	25
01	08	13	09	00	6.61	110	26	2.1	20.2	25	1202	24
01	08	13	11	00	6.64	110	26	2.1	20.6	28	1202	24
01	08	13	12	00	6.67	110	26	2.6	20.8	30	1202	30
01	08	13	12	41	6.67	110	26	2.9	21.1	32	1202	34
01	08	13	12	45	6.95	110	28	3.1	20.8	33	1201	36
01	08	13	12	53	6.48	5	26	3.2	22.5	9	1202	38
01	08	13	13	00	6.46	105	26	3.3	22.6	7	1202	40
01	08	13	14	00	6.48	105	26	3.5	22.4	10	1202	41
01	08	13	15	00	6.48	105	26	3.6	22.7	13	1202	43
					MAXIMUM	6.95	110	28	8.4	22.7	33	95
					MINIMUM	6.46	5	26	2.1	20.0	5	24
					MEAN	6.68	95	26	6.0	20.6	14	69
					STD. DEV.	.09	15	1	2.2	1.5	9	24
					NUMBER IN	46	46	46	46	46	46	46

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WATER QUALITY DATA ACQUISITION SYSTEM

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STATION LOCATION CHEHALIS RIVER STATION #8

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	09	11	00	00	7.29	120	0	9.8	19.4	0	1201	110
01	09	11	01	00	7.20	125	0	9.2	19.4	0	1201	104
01	09	11	02	00	7.15	120	0	8.9	19.2	0	1200	100
01	09	11	03	00	7.06	125	0	8.2	19.1	0	1201	92
01	09	11	04	00	7.00	125	0	7.9	19.0	0	1200	88
01	09	11	05	00	6.92	125	0	7.1	18.9	0	1201	79
01	09	11	07	00	6.82	130	0	6.0	18.6	0	1201	66
01	09	11	08	00	6.77	130	0	5.4	18.6	0	1201	60
01	09	11	10	01	6.88	185	0	5.6	18.9	0	1201	62
01	09	11	11	00	7.22	185	0	6.3	19.8	0	1201	72
01	09	11	12	00	7.19	185	0	5.9	19.8	0	1201	67
01	09	11	13	00	7.31	185	0	7.2	20.0	0	1201	81
01	09	11	14	00	7.34	185	0	7.5	20.2	0	1201	86
01	09	11	15	00	7.55	185	0	8.8	20.6	0	1201	102
01	09	11	18	00	7.19	185	0	5.9	20.1	0	1201	68
01	09	11	19	00	7.17	185	0	6.0	20.0	0	1201	68
01	09	11	20	00	7.37	185	0	7.9	20.3	0	1201	90
01	09	11	21	00	7.17	190	0	6.0	19.9	0	1201	69
01	09	11	22	00	7.04	185	0	4.4	19.7	0	1201	50
01	09	12	00	00	7.06	185	0	5.1	19.6	0	1201	58
01	09	12	01	00	7.05	185	0	4.8	19.6	0	1201	55
01	09	12	02	00	7.06	185	0	4.9	19.6	0	1201	55
01	09	12	03	00	7.05	185	0	4.8	19.6	0	1201	54
01	09	12	04	00	7.02	185	0	4.4	19.6	0	1201	50
01	09	12	05	00	7.00	185	0	4.0	19.6	0	1201	46
01	09	12	06	00	6.95	190	0	3.6	19.5	0	1201	40
01	09	12	07	00	6.92	190	0	2.9	19.4	0	1201	33
01	09	12	08	00	6.92	185	0	2.7	19.4	0	1201	31
01	09	12	09	00	6.92	185	0	2.6	19.4	0	1201	29
01	09	12	10	00	6.92	185	0	2.4	19.4	0	1201	28
01	09	12	11	00	6.91	190	0	2.4	19.5	0	1201	27
01	09	12	13	00	6.92	185	0	2.5	19.7	0	1200	29
01	09	12	14	00	6.95	185	0	2.7	19.8	0	1201	30

WATER POLLUTION CONTROL COMMISSION

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WATER QUALITY DATA ACQUISITION SYSTEM

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STATION LOCATION CHEHALIS RIVER STATION #8

STA NO	MO	DY	HR	MIN	PH	COND MICRO MHOS	CHLOR PPM	DO PPM	TEMP C	TURB JTU	TEST SIG	PERCENT SAT
01	09	12	14	13	6.94	185	0	2.6	19.8	0	1200	30
					MAXIMUM	7.92	190	0	11.9	20.6	0	136
					MINIMUM	.15	5	0	2.1	18.4	0	24
					MEAN	7.03	154	0	6.7	19.4	0	76
					STD. DEV.	.88	32	0	2.9	1.5	0	31
					NUMBER IN	67	67	67	67	67	67	67

MEMORANDUM  
Department of Ecology

Check

Information  
For Action  
Permit  
Other


TO: Nelson Graham

DATE: October 20, 1972

FROM: Ron Devitt *RD*

SUBJECT: Chehalis River Survey September 9, 1972

On September 9, 1972, the Chehalis River was resampled at previously established stations indicated on the attached map. Additional stations were sampled at the following locations:

- Station 2A - Approximately midway between 2 and 3.
- Station 4A - Approximately midway between 4 and 5 (old water quality monitor site).
- Station 9A - Skookumchuck River 10 yards upstream from confluence with Chehalis River.

The data collected is listed in the attached table. The most significant observation was an unknown fecal contamination between stations 3 and 4. It appears that the entire reach of water between stations 4 and 5 had high coliform counts. Although there were cattle adjacent to and waterfowl in the river, it does not seem that the animals would explain these high values.

All dissolved oxygen values exceed established water quality standards for this stretch of waterway.

RD:bj

Attachments

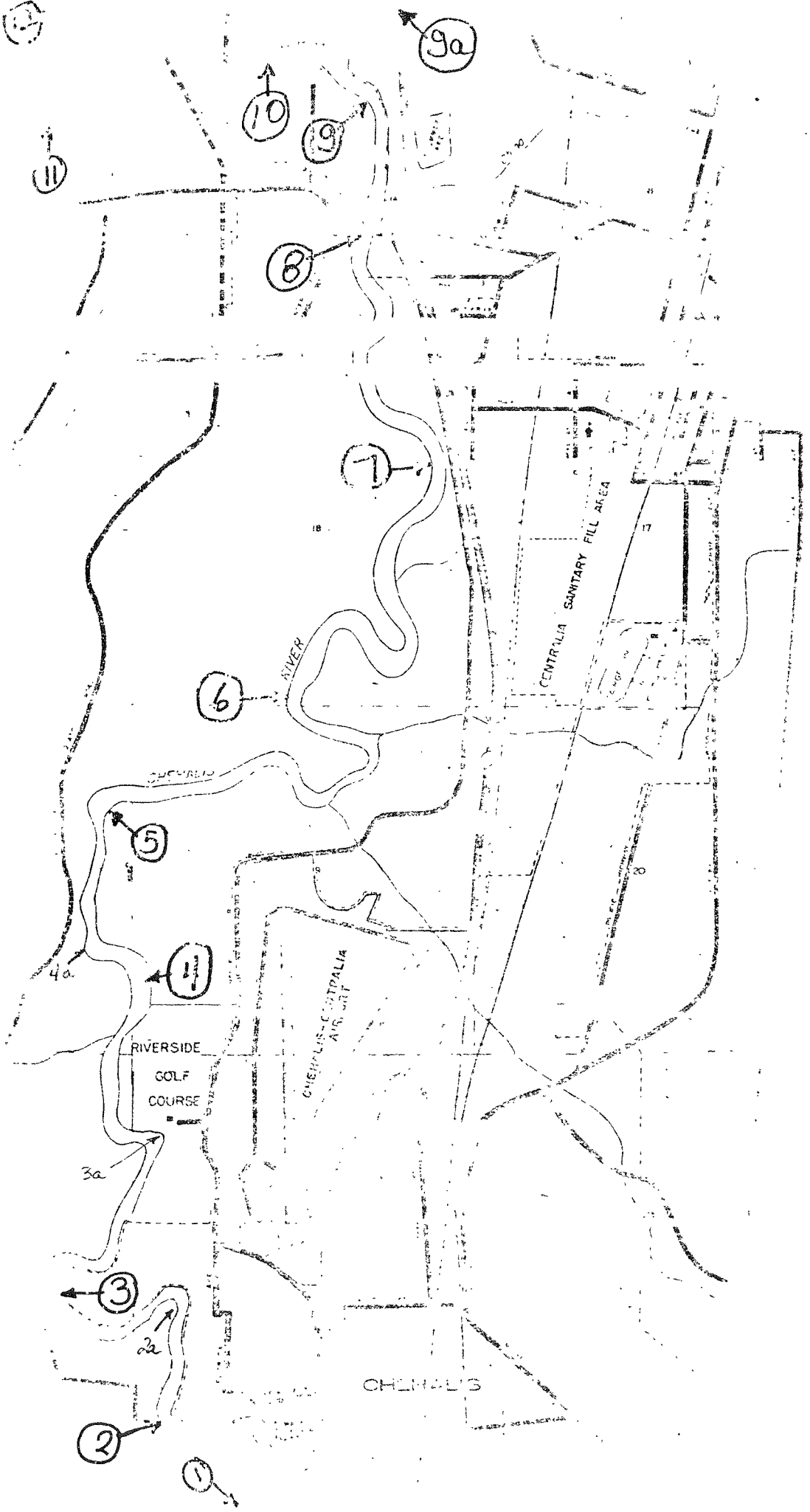
CHEHALIS RIVER

September 9, 1972

Sampling Run

Sta.#	Time	Sampling Depth Feet	Total Coliform /100 ml	Fecal Coliform /100 ml	Conductivity $\mu$ MHOS /cm	T°C	DO PPM	DO % Saturation
#1	1045	1'	800	<40	100	14.0	6.9	69%
		2'			130	14.0	7.5	75%
#2	1100	1'	<40	<40	100	14.0	6.5	65%
		3'			110	14.0	6.5	65%
		5'			110	14.0	6.5	65%
2a	1110	1'			100	14.5	6.3	63%
		4'			100	14.5	6.4	64%
		6'			100	14.4	6.4	65%
		10'			120	14.5	6.5	66%
		14'			120	14.3	6.8	68%
3	1115	1'	54	<40	100	15.0	6.55	67%
		4'			100	15.0	6.55	67%
		6'			100	15.0	6.6	68%
		8'			100	15.0	6.6	68%
		10'			100	15.0	6.7	69%
		12'			95	14.7	6.9	70%
3a	1140	1'			105	15.05	5.7	58%
		4'			105	15.0	5.8	59%
		8'			110	15.0	5.85	60%
		14'			110	15.0	5.85	60%
		18'			100	15.0	5.9	60%
		22'			100	15.0	6.0	61%
#4	1155	1'	>4000	330	100	16.0	5.6	59%
		4'			105	16.0	5.6	59%
		6'			100	15.5	5.6	58%
		8'			100	15.5	5.7	59%
		10'			100	15.0	5.8	59%
4a	1205	1'			110	16.0	5.4	56%
		6'			110	15.9	5.4	56%
		10'			110	15.8	5.4	56%
		16'			110	15.7	5.3	55%
		20'			110	15.7	5.3	55%
		24'			105	15.5	5.4	56%
		26'			105	15.5	5.6	58%

Sta.#	Time	Sampling Depth Feet	Total Coliform /100 ml	Total Coliform /100 ml	Conductivity $\mu$ MHOS /cm	T°C	DO PPM	DO % Saturation
5	1220	1'	>4000	80	100	16.0	5.7	60%
		4'			100	16.0	5.65	59%
		8'			100	15.5	5.7	59%
6	1240	1'	1500	<40	110	16.7	5.4	57%
		4'			110	16.2	5.45	57%
		8'			110	16.0	5.35	56%
		12'			110	16.0	5.25	55%
		16'			105	16.0	5.3	55%
7	1255	1'	300	<40	105	16.8	5.3	56%
		6'			105	16.0	5.2	54%
		12'			105	16.0	5.1	53%
		20'			108	16.0	5.1	53%
		26'			100	15.8	5.1	53%
8	1310	1'	500	<40	100	16.0	5.2	54%
		4'			100	16.0	5.2	54%
		6'			100	16.0	5.2	54%
		8'			100	15.8	5.2	54%
9	1320	1'	500	<40	100	16.0	5.3	55%
		4'			100	16.0	5.35	56%
		6'			99	16.0	5.45	57%
9a	1325		1900	<40				
10	1330	1'	1600	<40	70	14.0	6.9	69%
		3'			75	14.0	7.05	70%
11	1350	1'	1200	<40	70	14.0	7.15	72%
		4'			70	14.0	7.25	73%
		6'			70	14.0	7.35	74%
12	1415	1'	1000	<40	75	13.6	7.35	73%
		4'			70	13.8	7.20	72%



12

9a

10

9

11

8

7

6

5

4

4a

RIVERSIDE  
GOLF  
COURSE

3a

3

2a

2

1

CENTRALIA  
SANITARY FILL AREA

CHEHALIS-CENTRALIA  
AIRPORT

CHEHALIS

