APPENDIX B

Quality Assurance Information for Inflow Calculations

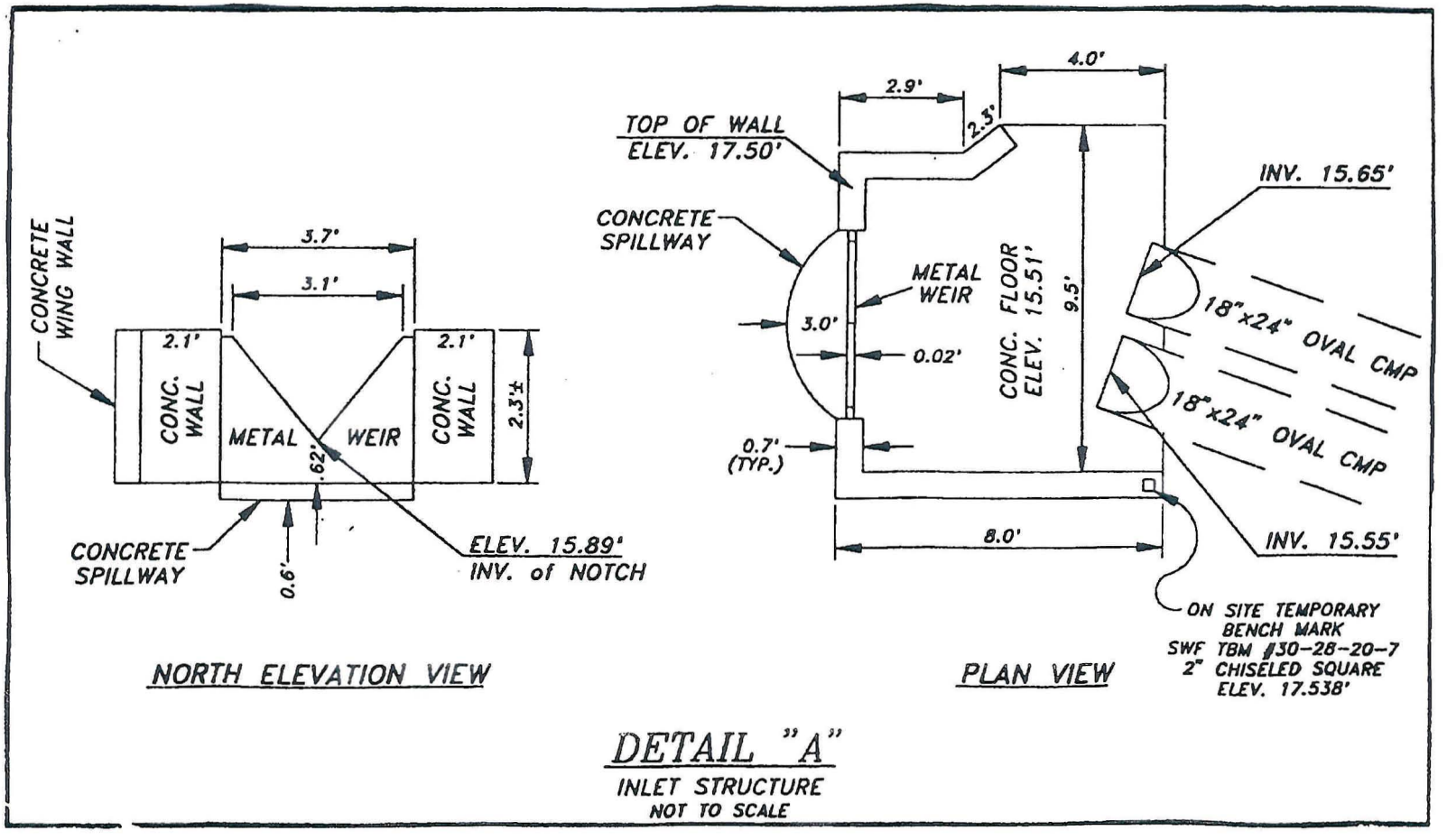


Figure B-1. Design and demensions of inflow weir structure taken from the official survey. This survey was completed late in the study and elevations differ slightly from preliminary measurements used in graphs and tables. The preliminary survey measured the control elevation (INV. of NOTCH) as 16.00 NGVD (ft). The earlier levels are 0.11 feet higher than the official survey. Since head and flow measurements are calculated from differences in water levels, this discrepancy does not affect any of the data.

Table B-1. Water level data for inflow station. For quality checks the sensor readings were compared to actual staff guage using the factory generic conversion factors (LOGGER PRGM). Also a regression equation calculated from field data was compared to the generic equation (REGR CALCS). Accuracy for reading the staff gauge is 0.02 feet.

STAFF GAUGE	FLOAT	DATE	LOGGER PRGM (FLOAT+8.949)	REGRES CALCS (calculations)	ERROR LOGGER	ERROR REGRES	ISCO HEAD	ISCO OFFSET 16.00
15.90	6.9523	18JUL94	15.901	15.899	-0.001	0.001	-0.094	15.994
15.97	7.0122	2SEP94	15.961	15.960	0.009	0.010	-0.040	16.010
16.03	7.0814	19JUL94	16.030	16.031	-0.000	-0.001	0.030	16.000
16.03	7.0847	20JUL94	16.034	16.034	-0.004	-0.004	0.030	16.000
16.04	7.0821	27JUL94	16.031	16.032	0.009	0.008	0.053	15.987
16.04	7.0885	4AUG94	16.038	16.038	0.002	0.002	0.035	16.005
16.04	7.0891	3AUG94	16.038	16.039	0.002	0.001	•	•
16.04	7.0925	31JUL94	16.042	16.042	-0.002	-0.002	0.040	16.000
16.06	7.1119	22JUL94	16.061	16.062	-0.001	-0.002	0.058	16.002
16.08	7.1126	13JUL94	16.062	16.063	0.018	0.017	0.075	16.005
16.08	7.1327	11JUL94	16.082	16.083	-0.002	-0.003	0.084	15.996
16.08	7.1413	8AUG94	16.090	16.092	-0.010	-0.012	0.089	15.991
16.10	7.1503	16SEP94	16.099	16.101	0.001	-0.001	•	•
16.41	7.5215	29SEP94	16.471	16.480	-0.061	-0.070	0.415	15.995
16.57	7.6013	27SEP94	16.550	16.561	0.020	0.009	0.571	15.999
16.75	7.7480	27SEP94	16.697	16.711	0.053	0.039	0.733	16.017
16.76	7.7641	27SEP94	16.713	17.727	0.047	0.033	0.765	15.995
17.02	8.0460	18SEP94	16.995	17.015	0.025	0.005	•	•
17.20	8.2270	18SEP94	17.176	17.200	0.024	0.000	•	•
17.28	8.3060	18SEP94	17.255	17.280	0.025	-0.000	•	•
AVERAGE					0.008	0.001		
STD.DEV.					0.023	0.020		

Abbreviations:

FLOAT=Float and pulley from data logger (ft)
LOGGER PRGM=Calculations for NGVD from program in data logger.
REGRES CALCS=Calculations using the regression equation of staff gauge and sensor.
ERROR=Difference between calculations and actual staff gauge reading in the field.
ISCO HEAD=Reading from ISCO flowmeter.
ISCO OFFSET=Calculation of NGVD using ISCO HEAD reading. It should be 16.00.
•=Data not available.

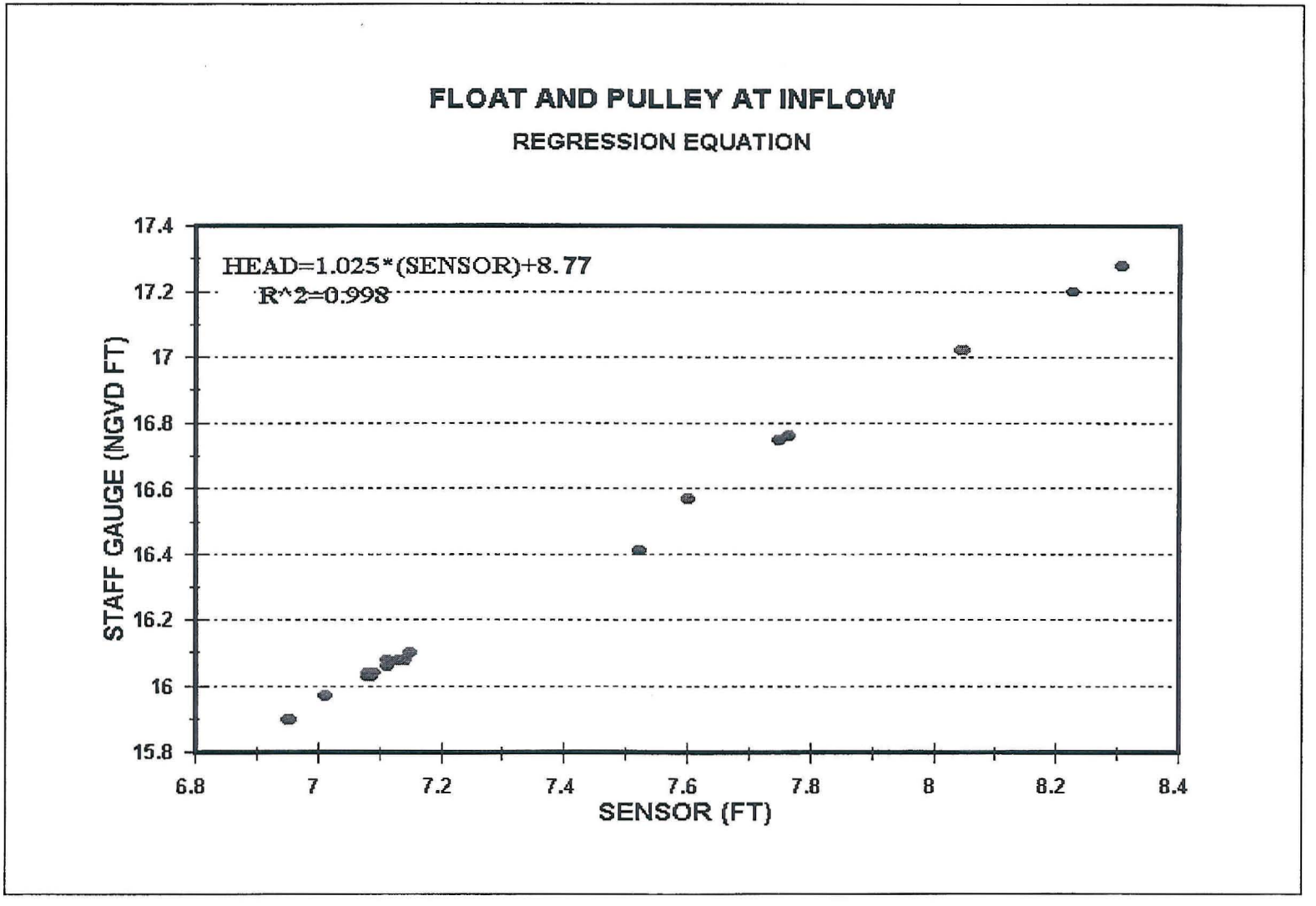


Figure B-2. Regression equation at inflow to determine accuracy of measurements. See Table B-1.

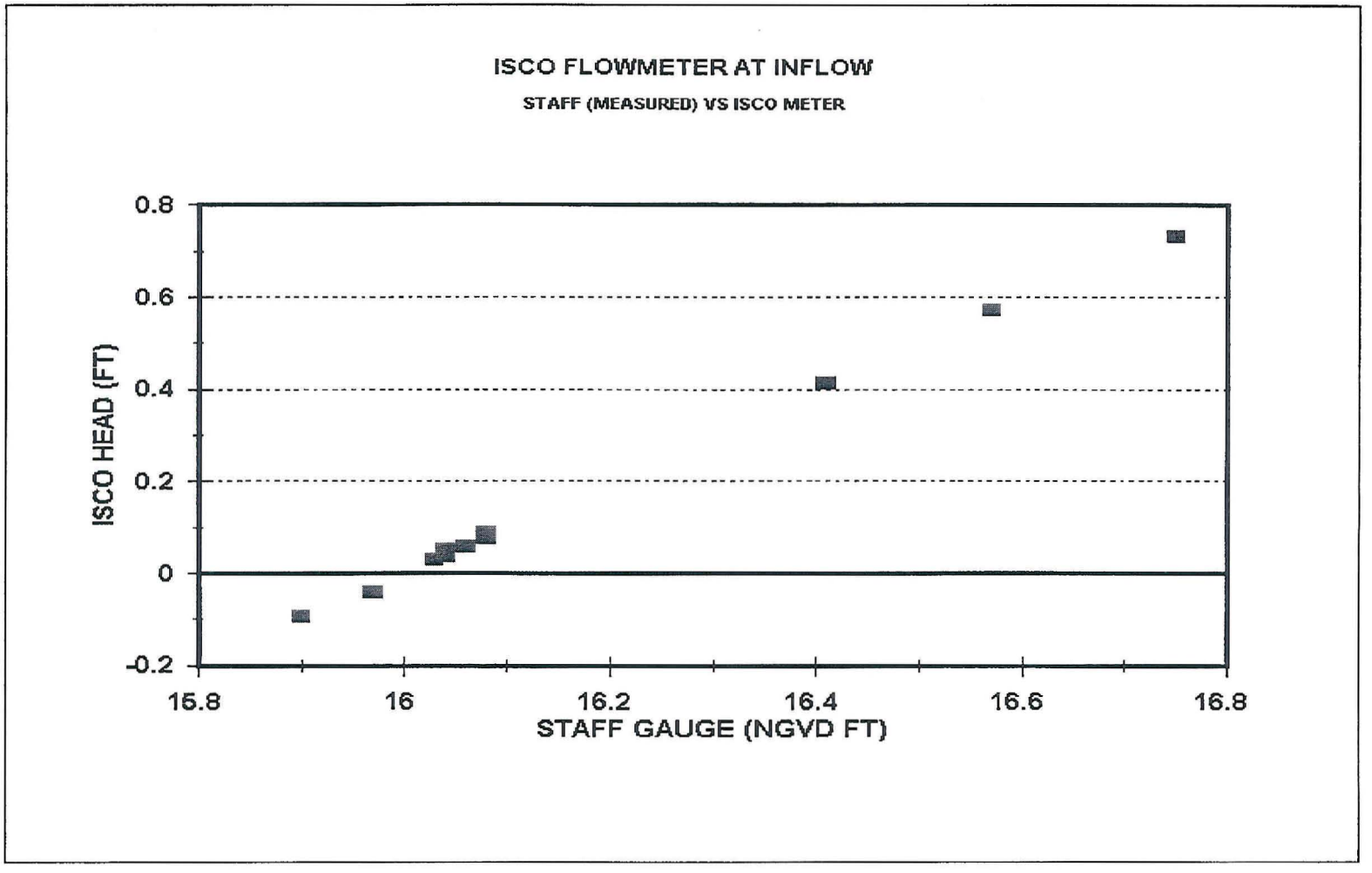


Figure B-3. Comparison of ISCO flowmeter level with the staff gauge at the inflow to determine accuracy. See Table B-1.

APPENDIX C

Quality Assurance Information for Outflow Data

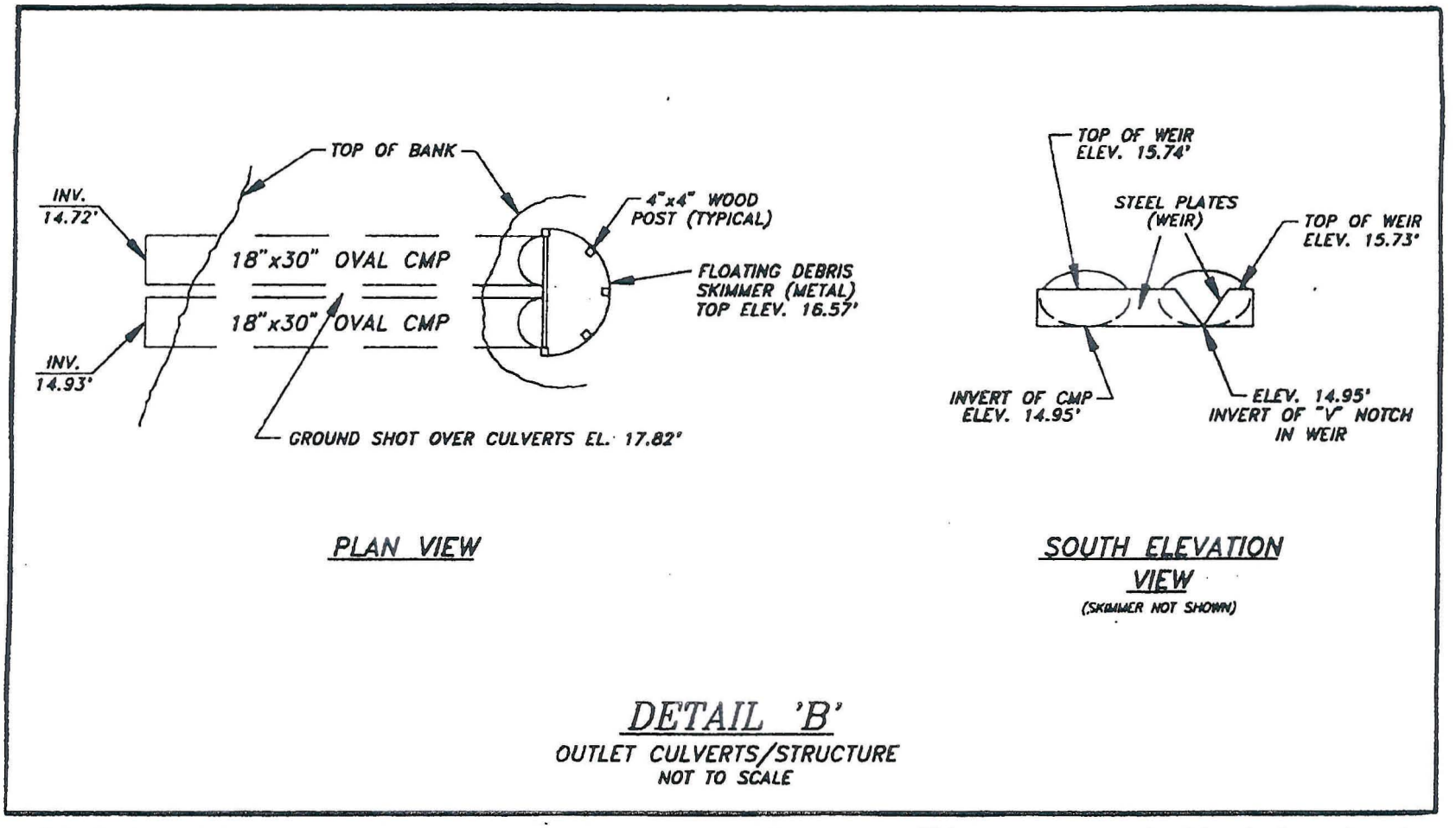


Figure C-1. Design and dimensions of outflow weir structure taken from the official survey. This survey was completed late in the study and elevations differ slightly from the preliminary measurements used in graphs and tables. The preliminary survey measured the control elevation (INVERT OF "V" NOTCH) as 15.064 NGVD (ft). The earlier levels are 0.11 feet higher than the official survey. Since head and flow measurements are calculated from differences in water levels, this discrepancy does not affect any of the data.

Table C-1. To check for accuracy, the sensors at the outflow were compared to actual staff gauge readings. Also the Isco flowmeter levels were compared to the staff gauge. The offset should read 15.035 for the Isco offset.

STAFF GAUGE NGVD(ft)	FLOAT (raw data) (feet)	DATE	LOGGER PRGM (FLOAT+8.949) NGVD(ft)	REGRES CALCS (Calculations) NGVD(ft)	ERROR LOGGER (feet)	ERROR CALCS (feet)	ISCO (raw data) (feet)	ISCO OFFSET 15.035 NGVD(ft)
15.02	5.1100	7JUN94	15.0100	14.9920	0.0100	0.0280	•	•
15.08	5.1100	27JUN94	15.0827	15.0694	-0.0027	0.0106	•	•
15.08	5.1827	18JUL94	15.0911	15.0783	-0.0111	0.0017	0.0500	15.030
15.08	5.1911	27JUN94	15.0829	15.0696	-0.0029	0.0104	0.0410	15.039
15.10	5.1829	11JUN94	15.1140	15.1027	-0.0140	-0.0027	0.0720	15.028
15.14	5.2440	6SEP94	15.1440	15.1346	-0.0040	0.0054	0.1040	15.036
15.16	5.2610	29JUN94	15.1610	15.1527	-0.0010	0.0073	0.1170	15.043
15.19	5.2799	14SEP94	15.1799	15.1728	0.0101	0.0172	0.1400	15.050
15.19	5.2790	30JUN94	15.1790	15.1719	0.0110	0.0181	0.1430	15.047
15.20	5.3027	20JUN94	15.2027	15.1971	-0.0027	0.0029	0.1620	15.038
15.20	5.3016	3AUG94	15.2016	15.1959	-0.0016	0.0041	0.1580	15.042
15.21	5.3032	12SEP94	15.2032	15.1976	0.0068	0.0124	0.1710	15.039
15.22	5.3183	24AUG94	15.2183	15.2137	0.0017	0.0063	0.1800	15.040
15.23	5.3262	28JUN94	15.2262	15.2221	0.0038	0.0079	0.1940	15.036
15.25	5.3580	23JUN94	15.2580	15.2559	-0.0080	-0.0059	0.2190	15.031
15.28	5.3708	11JUL94	15.2708	15.2695	0.0092	0.0105	0.2550	15.025
15.30	5.4001	26AUG94	15.3001	15.3007	-0.0001	-0.0007	0.2590	15.041
15.30	5.4033	5JUL94	15.3033	15.3041	-0.0033	-0.0041	0.2650	15.035
15.30	5.4054	19SEP94	15.3054	15.3063	-0.0054	-0.0063	0.2660	15.034
15.30	5.4104	1AUG94	15.3104	15.3117	-0.0104	-0.0117	0.2710	15.029
15.30	5.3990	21JUN94	15.2990	15.2995	0.0010	0.0005	0.2630	15.037
15.32	5.4153	25JUL94	15.3153	15.3169	0.0047	0.0031	0.2880	15.032
15.34	5.4082	7JUL94	15.3082	15.3093	0.0318	0.0307	0.3030	15.037
15.37	5.4717	4JUL94	15.3717	15.3769	-0.0017	-0.0069	•	•
15.38	5.4870	25AUG94	15.3870	15.3932	-0.0070	-0.0132	0.3430	15.037
15.38	5.4770	22JUN94	15.3770	15.3825	0.0030	-0.0025	0.3370	15.043
15.40	5.5063	18JUN94	15.4063	15.4137	-0.0063	-0.0137	0.3690	15.031
15.46	5.5659	18SEP94	15.4659	15.4771	-0.0059	-0.0171	0.4160	15.044
15.51	5.6130	16JUN94	15.5130	15.5272	-0.0030	-0.0172	•	•
15.53	5.6310	17JUN94	15.5310	15.5464	-0.0010	-0.0164	0.4970	15.033
15.55	5.6522	16SEP94	15.5522	15.5689	-0.0022	-0.0189	0.5070	15.043
15.60	5.7115	11AUG94	15.6115	15.6320	-0.0115	-0.0320	0.5680	15.032
15.87	5.9254	29SEP94	15.8254	15.8596	0.0446	0.0104	0.8270	15.043
15.90	5.9979	27SEP94	15.8979	15.9368	0.0021	-0.0368	0.8565	15.044
15.93	5.9777	27SEP94	15.8777	15.9153	0.0523	0.0147	0.8755	15.055
15.93	5.9777	27SEP94	15.8777	15.9153	0.0523	0.0147	•	•
15.95	6.0010	27SEP94	15.9010	15.9401	0.0490	0.0099	•	•
15.96	6.0001	27SEP94	15.9001	15.9391	0.0599	0.0209	0.8985	15.062
15.97	6.0112	27SEP94	15.9112	15.9509	0.0588	0.0191	0.9120	15.058
15.98	6.0160	27SEP94	15.9160	15.9560	0.0640	0.0240	0.9170	15.063
				mean	0.009	0.002		
				std.dev.	0.022	0.015		

Abbreviations:

STAFF=Actual measurement read from staff gauge NGVD (ft).
FLOAT=Data (ft) read from the data logger without the offset.
LOGGER=Water level (NGVD) recorded from logger using offset of 9.90.
REGRES=Water level (NGVD) calculated from raw data using regression equation.
ERROR=Amount of difference from actual staff gauge readings using the two methods.
ISCO HEAD=Reading from Isco flowmeter.
ISCO OFFSET=Calculation of NGVD using Isco Head reading. It should be 15.035.
•=Data not available.

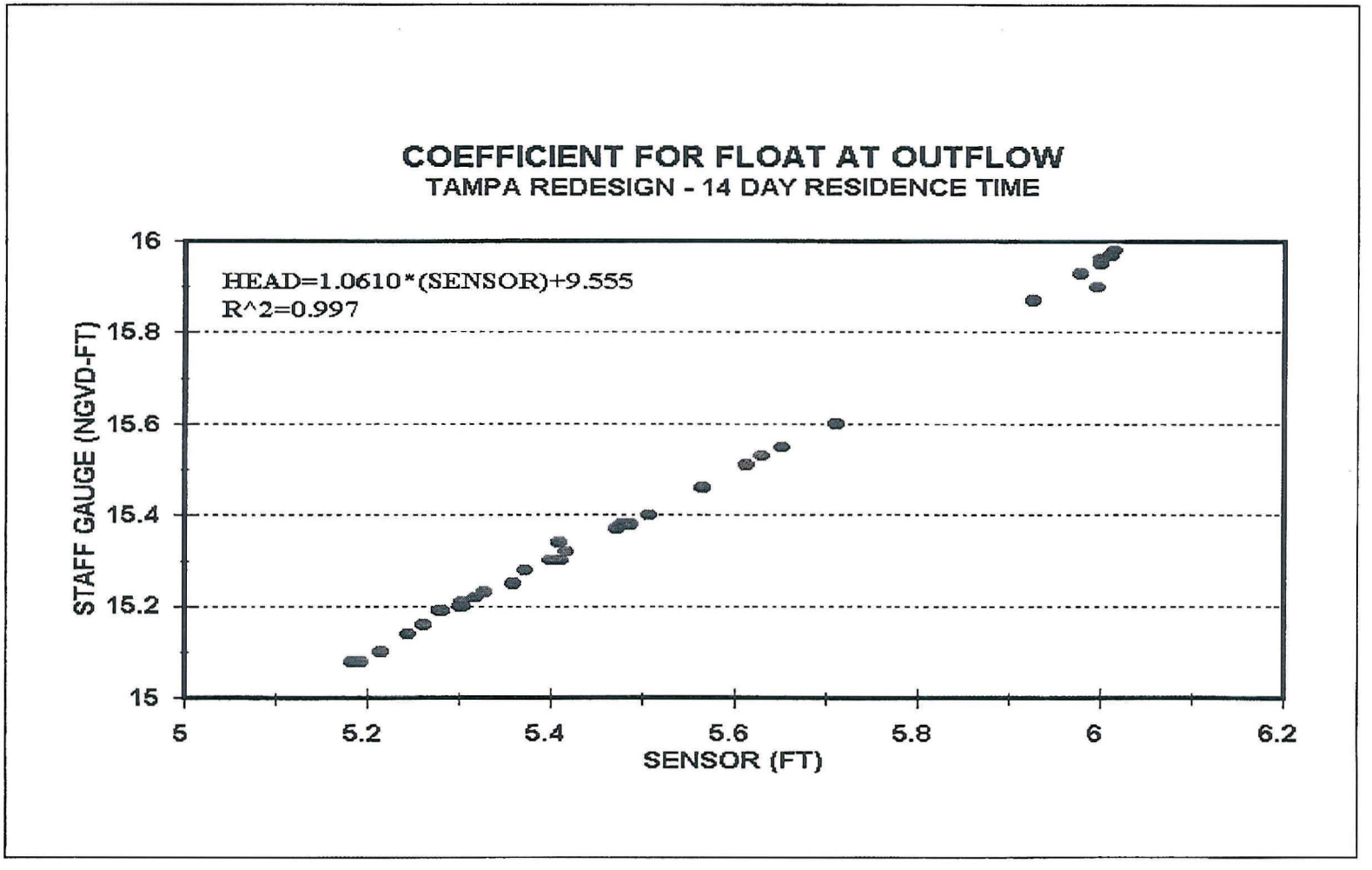


Figure C-2. Regression equation at outflow to determine accuracy of measurements. See Table C-1.

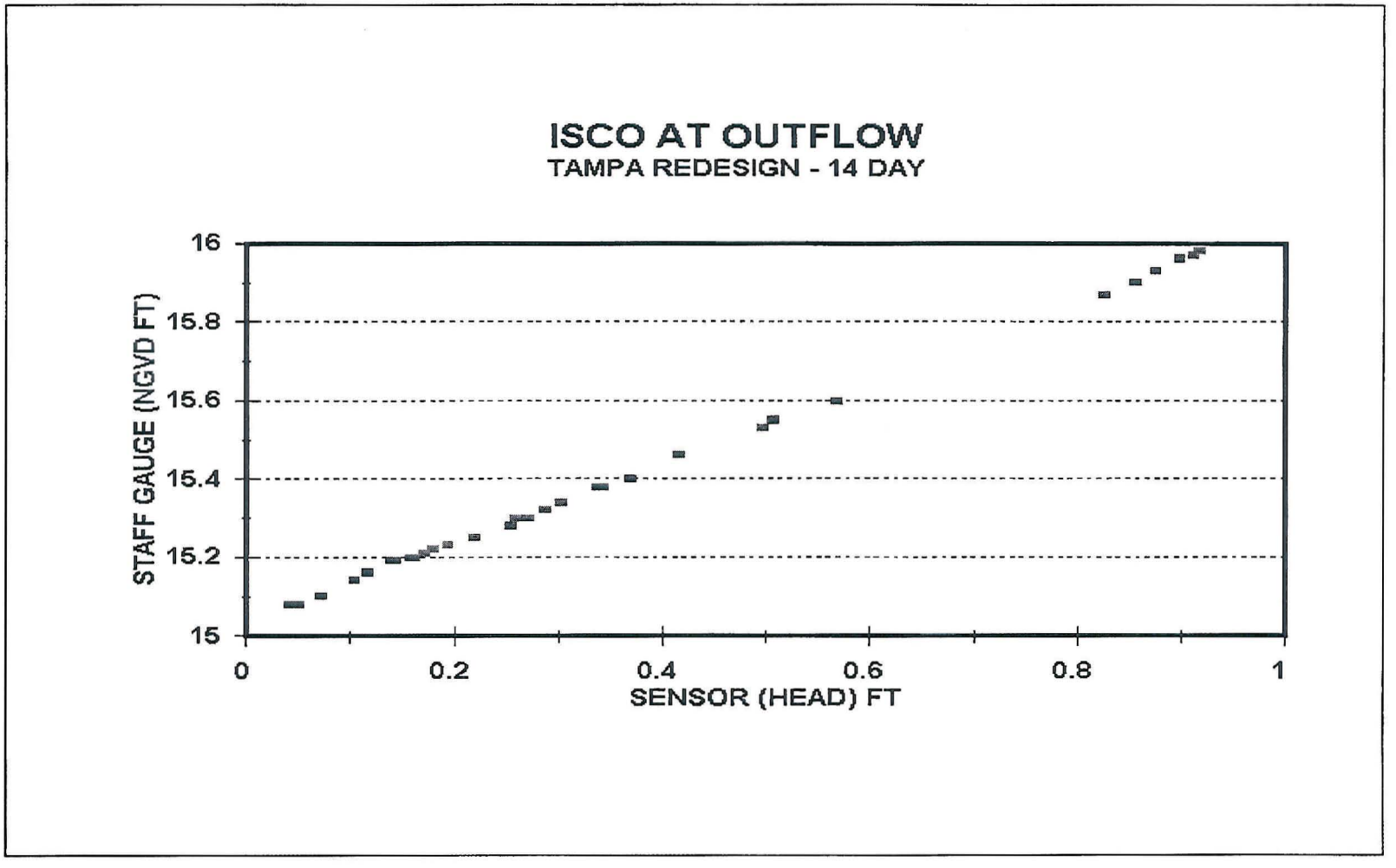


Figure C-3. Comparison of ISCO flowmeter level with the staff gauge at the outflow to determine accuracy. See Table C-1.

Table C-2. Flow measurements through 20° V-notch weir at outfall.

DATE	STAFF NGVD	MEAS CFS	ISCO CFS	FLOAT CFS	ISCO FT	FLOAT FT
1-11-94	15.18	0.0064	0.0047	0.0054	0.14	0.15
9-24-93	15.20	0.0115	0.0103	0.0086	0.19	0.18
10-10-93	15.23	0.0110	0.0124	0.0111	0.21	0.20
9-29-93	15.29	0.0248	0.0240	0.0236	0.27	0.27
1-07-94	15.36	0.0385	0.0432	0.0420	0.34	0.34
9-15-93	15.38	0.0498	0.0501	0.0491	0.37	0.36
9-15-93	15.41	0.0533	0.0573	0.0563	0.39	0.38
1-03-94	15.48	0.0780	0.0786	0.0894	0.44	0.46
9-22-93	15.50	0.1050	0.0984	0.0994	0.48	0.48
1-18-94	15.62	0.1670	0.1638	0.1737	0.59	0.60

Abbreviations:
STAFF=Measurement read directly from staff gauge in feet.
MEAS= Actual amount measured using stop watch and bucket.
ISCO=Flow as read from flow meter using coefficient of 0.623.
FLOAT=Flow as read from data logger using float and pulley with coefficient of 0.623.
ISCO=Water level read from flow meter.
FLOAT=Water level from data logger.

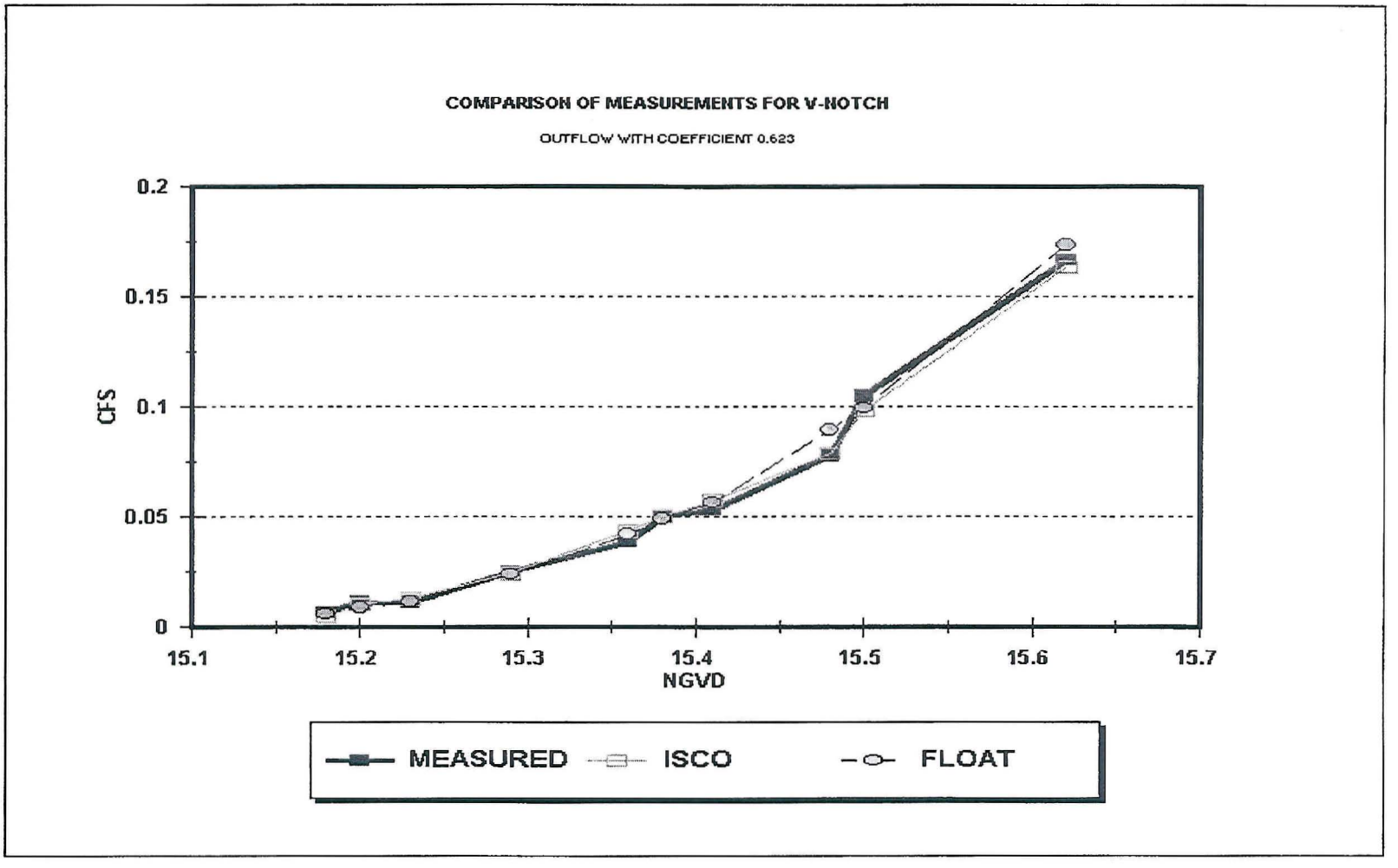


Figure C-4. Comparison of sensors for the V-notch at the outflow with measured values. See Table C-2.

APPENDIX D

Data for Field Blanks for Water Quality Assurance

Table D-1. Samples taken for quality assurance. Samples were taken using deionized water (D.I.) in the same manner (i.e. through the equipment tubing) as the regular samples. Samples were also analyzed using the D.I. water directly from the bottle. In a few cases samples were analyzed using D.I. water both before and after the tubing was changed. BD=Below the detction limit, MDL=Minimum detection limit.

DATE	SAMPLE NUMBER	NH3 MDL= 0.01	CD 0.003	CU 0.001	FE 0.03	PB 0.002	MN 0.07	NOX 0.01	OP 0.01	TP 0.01	TKN 0.1	ZN 0.03
Equipment samples taken using D.I. water right before the tubing was changed.												
6-08-92	1019	BD	BD	0.002	0.100	BD	BD	BD	BD	BD	BD	BD
3-26-92	0307	0.047	BD	0.006	0.140	BD	BD	0.443	BD	0.017	0.37	BD
7-28-92	0361	BD	BD	BD	0.060	BD	BD	BD	BD	0.012	BD	BD
2-02-93	0467	0.035	BD	BD	0.064	BD	BD	BD	BD	0.016	0.12	BD
4-08-93	0504	BD	BD	0.003	0.045	BD	BD	BD	BD	BD	0.11	BD
3-26-92	0308	BD	BD	BD	0.130	BD	BD	0.013	BD	BD	BD	BD
7-28-92	0364	BD	BD	BD	BD	BD	BD	BD	BD	0.013	BD	BD
2-02-93	0465	BD	BD	BD	0.066	BD	BD	BD	BD	0.022	BD	BD
6-08-93	0505	BD	BD	BD	0.034	BD	BD	BD	BD	BD	BD	BD
3-02-93	0309	BD	BD	BD	BD	BD	BD	0.012	BD	BD	BD	BD
7-28-93	0363	BD	BD	BD	0.060	BD	BD	BD	BD	0.023	BD	0.038
2-02-93	0466	BD	BD	BD	BD	BD	BD	BD	BD	0.021	BD	BD
6-08-93	0506	BD	BD	BD	BD	BD	BD	BD	BD	BD	0.14	BD
6-25-93	3008	BD	BD	BD	BD	BD	BD	0.013	0.012	0.025	0.36	BD
6-30-93	3007	0.020	BD	0.006	BD	BD	BD	0.020	BD	BD	0.16	BD
10-6-94	1137	BD	BD	0.006	0.290	BD	BD	BD	0.017	0.036	0.02	BD
10-6-94	1138	BD	BD	0.003	BD	BD	BD	BD	BD	BD	0.49	BD

continued next page

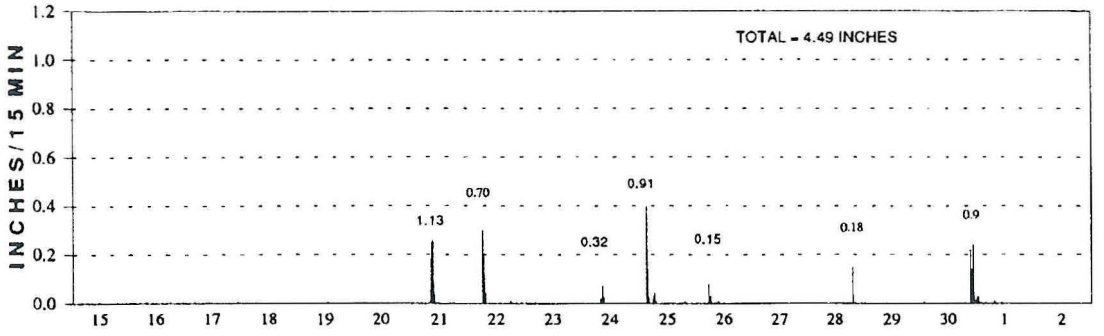
Table D-1. Continued

DATE	SAMPLE NUMBER	NH3 MDL= 0.01	CD 0.0003	CU 0.001	FE 0.03	PB 0.002	MN 0.07	NOX 0.01	OP 0.01	TP 0.01	TKN 0.1	ZN 0.03
Samples taken using D.I. water right before tubing changed "A" and right after tubing changed "B'.												
7-05-93	528A	BD	BD	BD	0.035	BD	BD	BD	BD	BD	0.25	BD
7-05-93	528B	BD	BD	BD	0.054	BD	BD	BD	BD	BD	0.10	BD
7-05-93	529A	BD	BD	0.003	BD	BD	BD	BD	BD	BD	0.14	BD
7-05-93	529B	BD	BD	BD	BD	BD	BD	BD	BD	BD	0.19	BD
7-05-93	530A	BD	BD	BD	0.077	BD	BD	BD	BD	BD	0.24	BD
7-05-93	530B	BD	BD	0.004	0.081	BD	BD	0.012	0.028	0.090	0.54	BD
7-05-93	531A	BD	BD	0.002	0.040	BD	BD	0.011	BD	BD	0.31	BD
7-05-93	531B	BD	BD	BD	BD	BD	BD	0.053	BD	BD	0.23	BD
12-17-93	3100 A	BD	BD	BD	BD	BD	BD	BD	BD	0.029	0.50	0.039
12-17-93	3100 B	BD	BD	BD	0.050	BD	BD	BD	BD	BD	BD	BD
12-17-93	3101 A	BD	BD	BD	BD	BD	BD	BD	BD	0.016	0.38	BD
12-17-93	3101 B	BD	BD	BD	0.041	BD	BD	0.015	BD	0.016	0.29	BD
Samples taken through the rain collector using D.I. water.												
6-08-92	0340	BD	BD	0.005	BD	BD	BD	BD	BD	BD	0.21	BD
7-28-92	0362	BD	BD	BD	0.050	BD	BD	BD	BD	BD	BD	BD
2-02-93	0463	BD	BD	BD	0.053	BD	BD	BD	BD	BD	0.26	BD
4-08-93	0503	BD	BD	BD	0.052	BD	BD	BD	BD	BD	0.24	BD
6-30-93	3015	0.018	BD	0.004	BD	BD	BD	0.026	BD	BD	0.21	BD
8-18-93	1141	0.012	BD	BD	0.261	BD	BD	0.020	BD	0.274	0.21	BD
Samples taken directly from the D.I. bottle.												
6-25-93	3009	0.046	BD	BD	BD	BD	BD	BD	BD	BD	0.25	BD
7-05-93	532	BD	BD	BD	BD	BD	BD	BD	BD	BD	0.17	BD
10-6-94	1140	BD	BD	0.006	0.082	BD	BD	BD	BD	BD	0.15	BD
12-22-93	3105	BD	BD	BD	BD	BD	BD	BD	BD	BD	0.62	BD

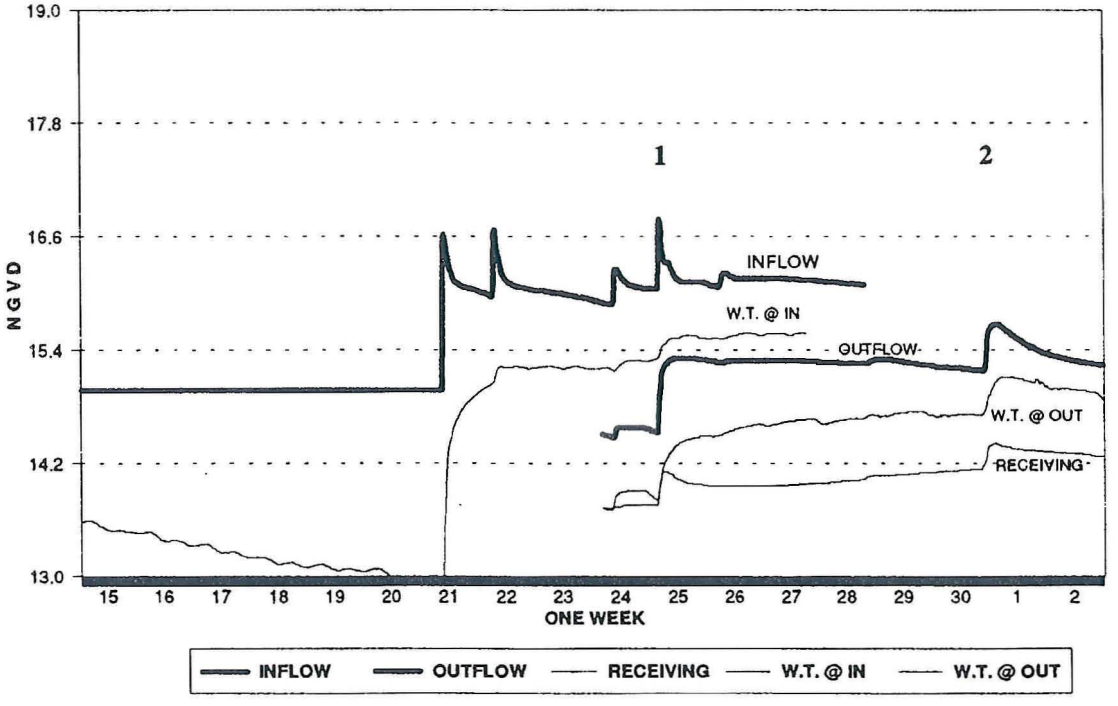
APPENDIX E

Rainfall and Water Level Comparisons for 1993

JUNE 14, 1993 TO JULY 1, 1993
RAINFALL

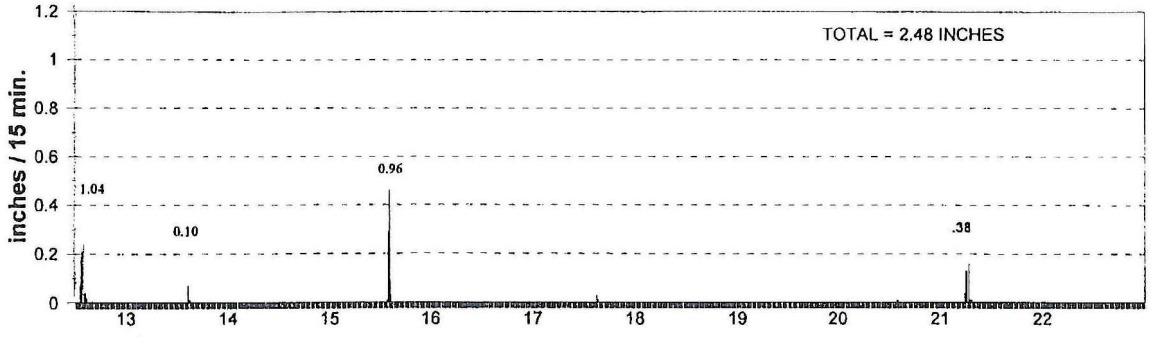


WATER LEVEL COMPARISONS

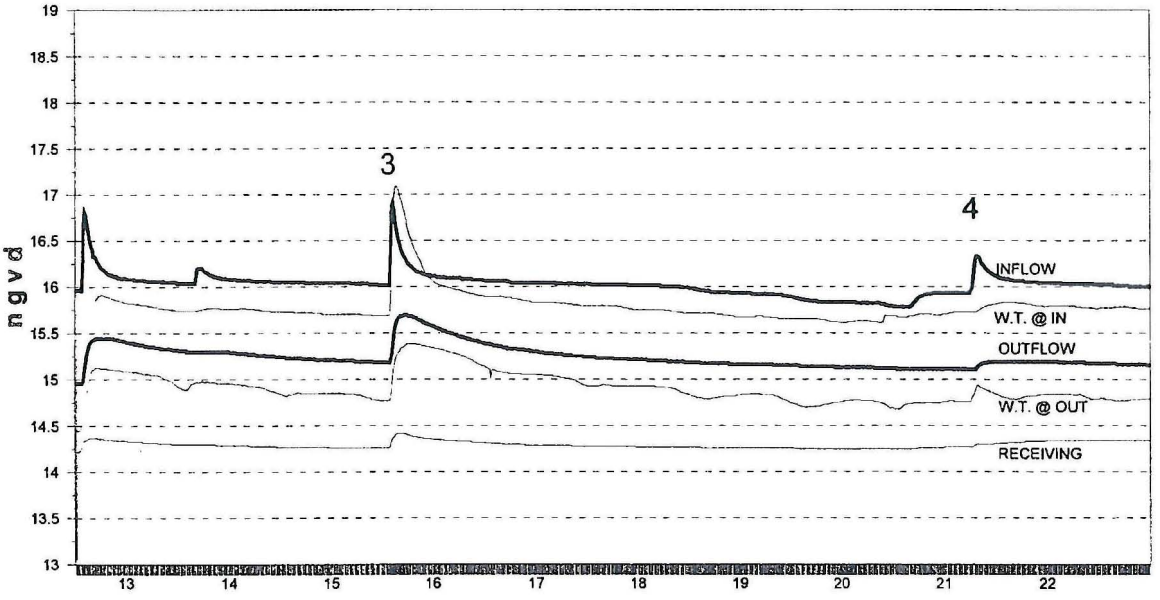


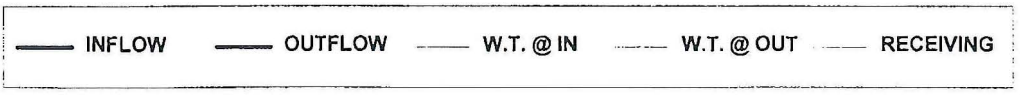
July 12 to July 23 1993

RAINFALL



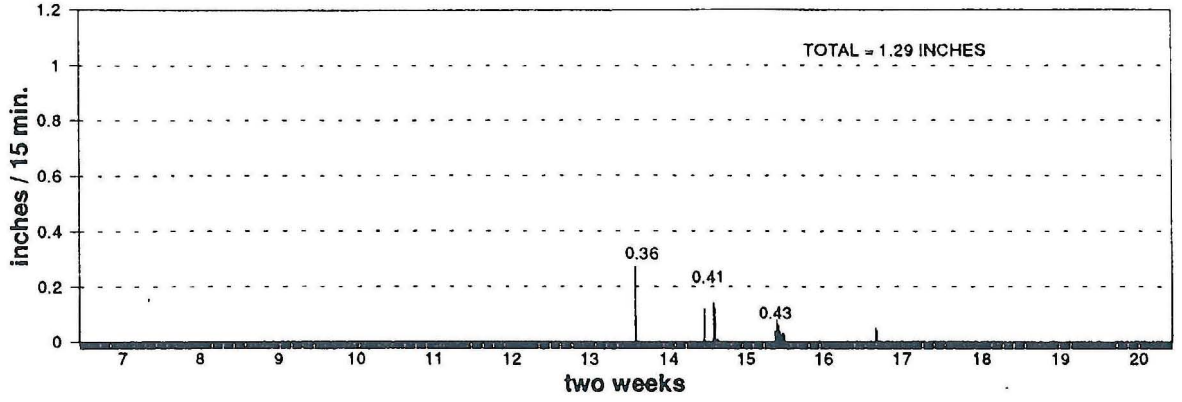
WATER LEVEL COMPARISONS



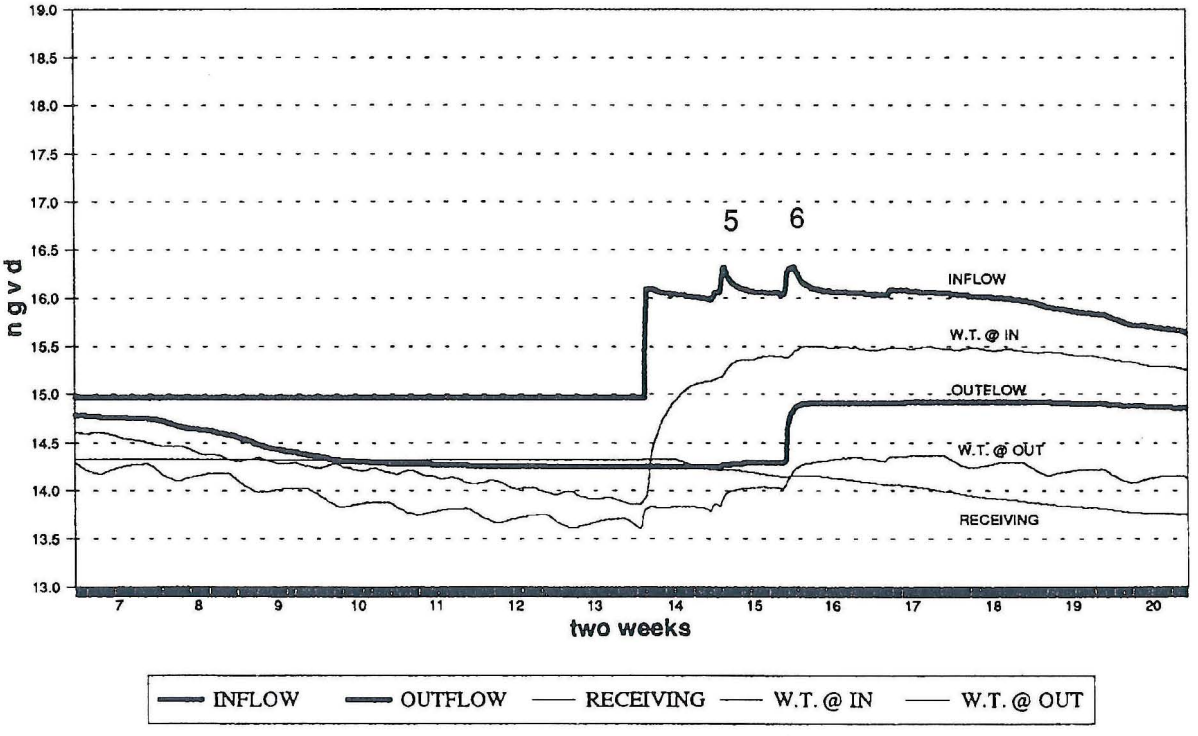


August 6 to August 20, 1993

RAINFALL

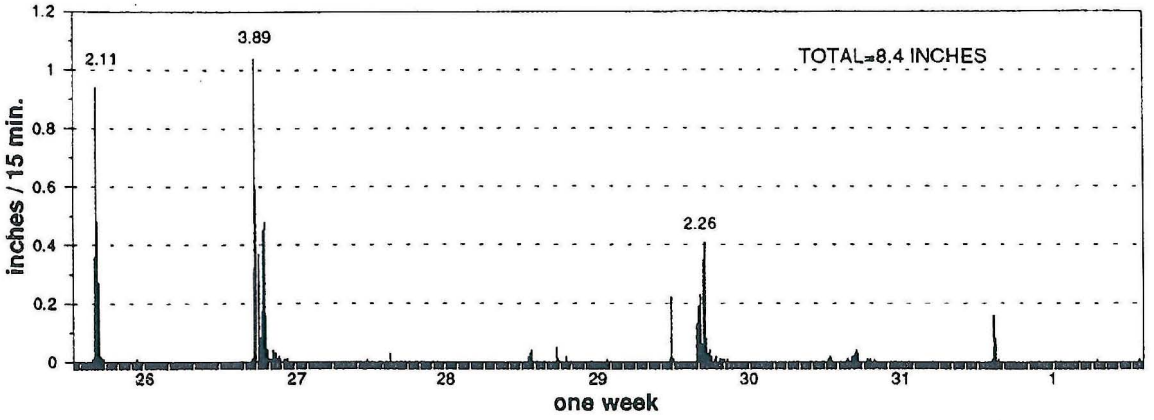


WATER LEVEL COMPARISONS

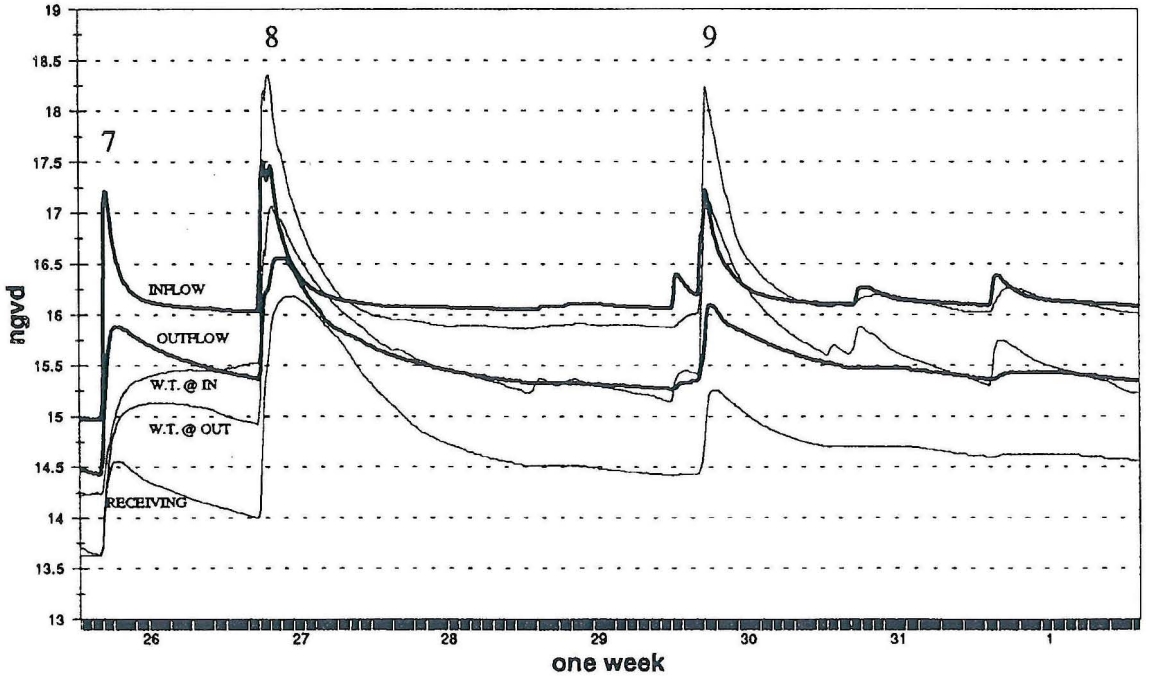


August 25 to September 1, 1993

RAINFALL



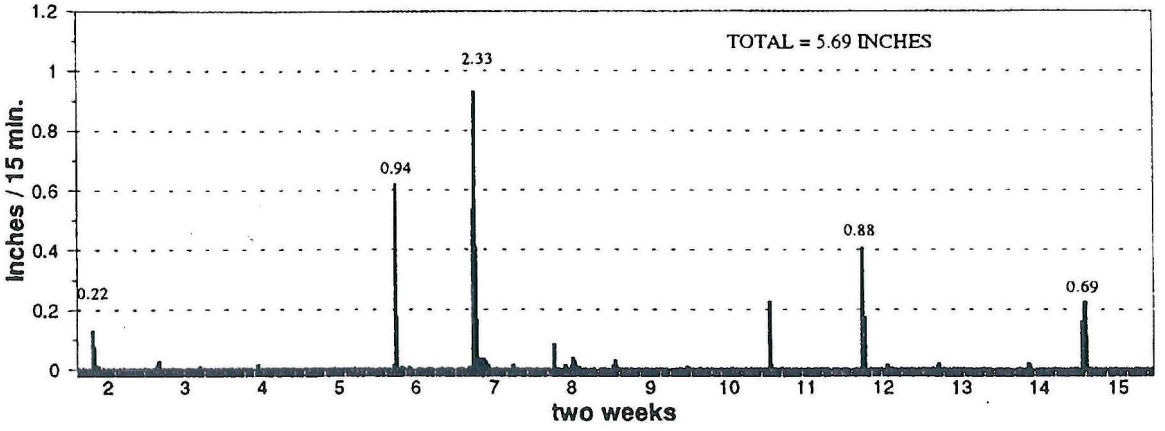
WATER LEVEL COMPARISONS



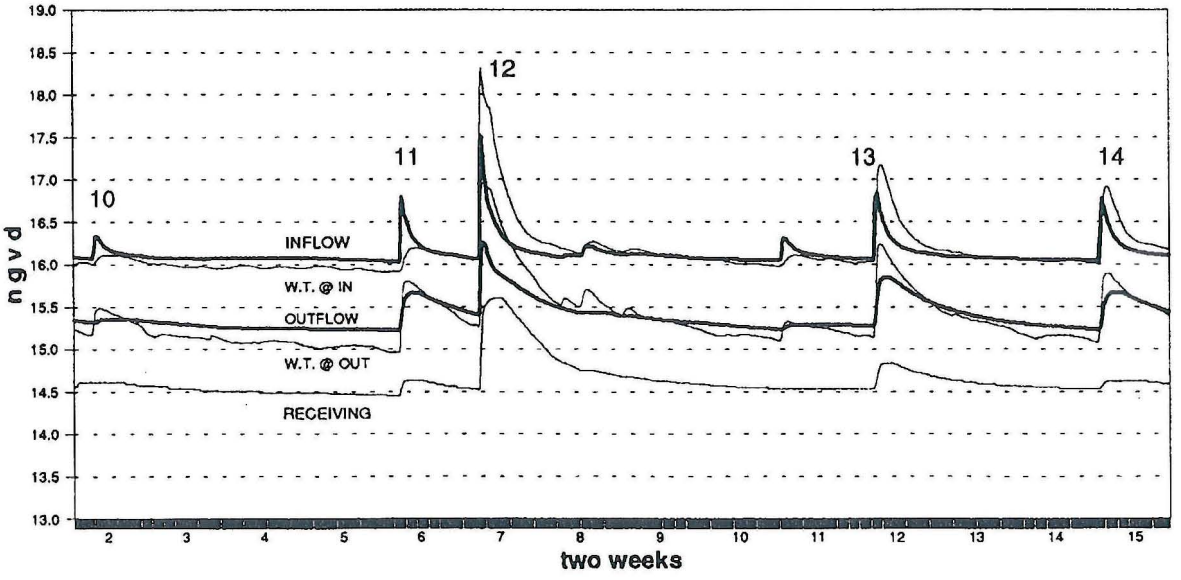
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

September 1 to September 15, 1993

RAINFALL



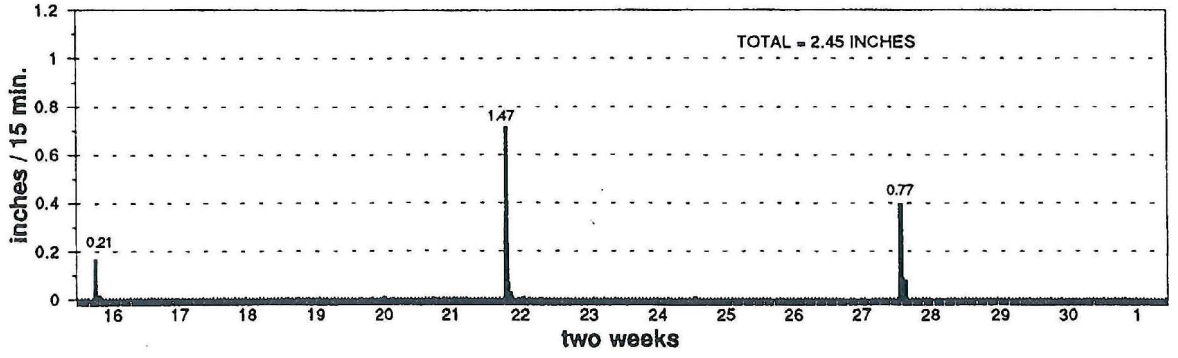
WATER LEVEL COMPARISONS



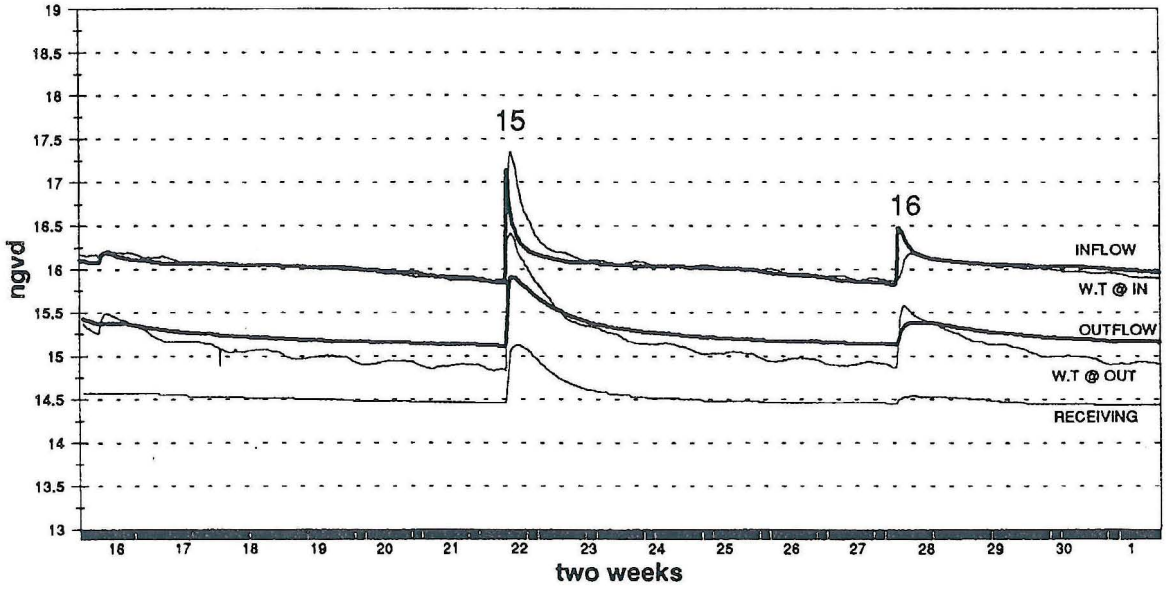
INFLOW — OUTFLOW — RECEIVING — W.T. @ IN — W.T. @ OUT

September 15 to October 1, 1993

RAINFALL



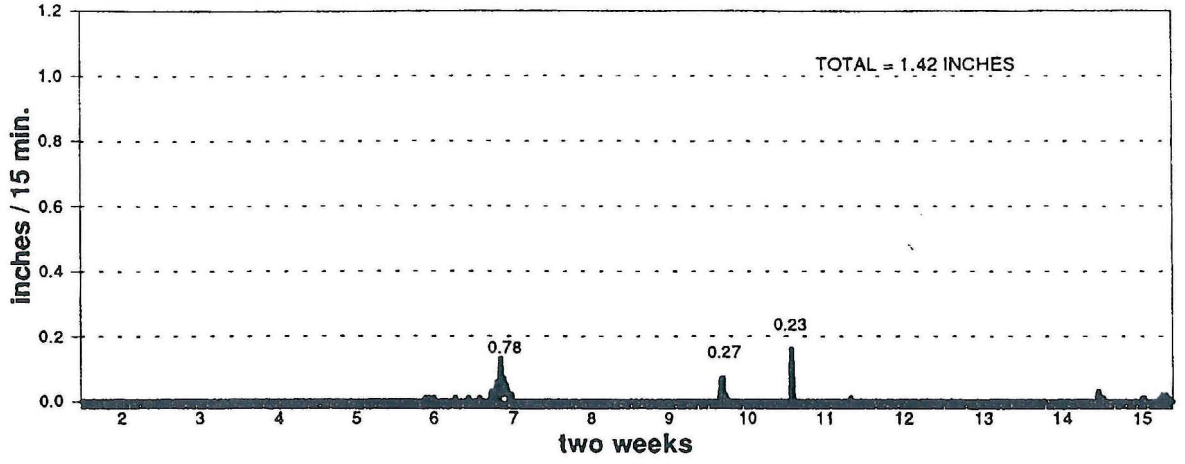
WATER LEVEL COMPARISONS



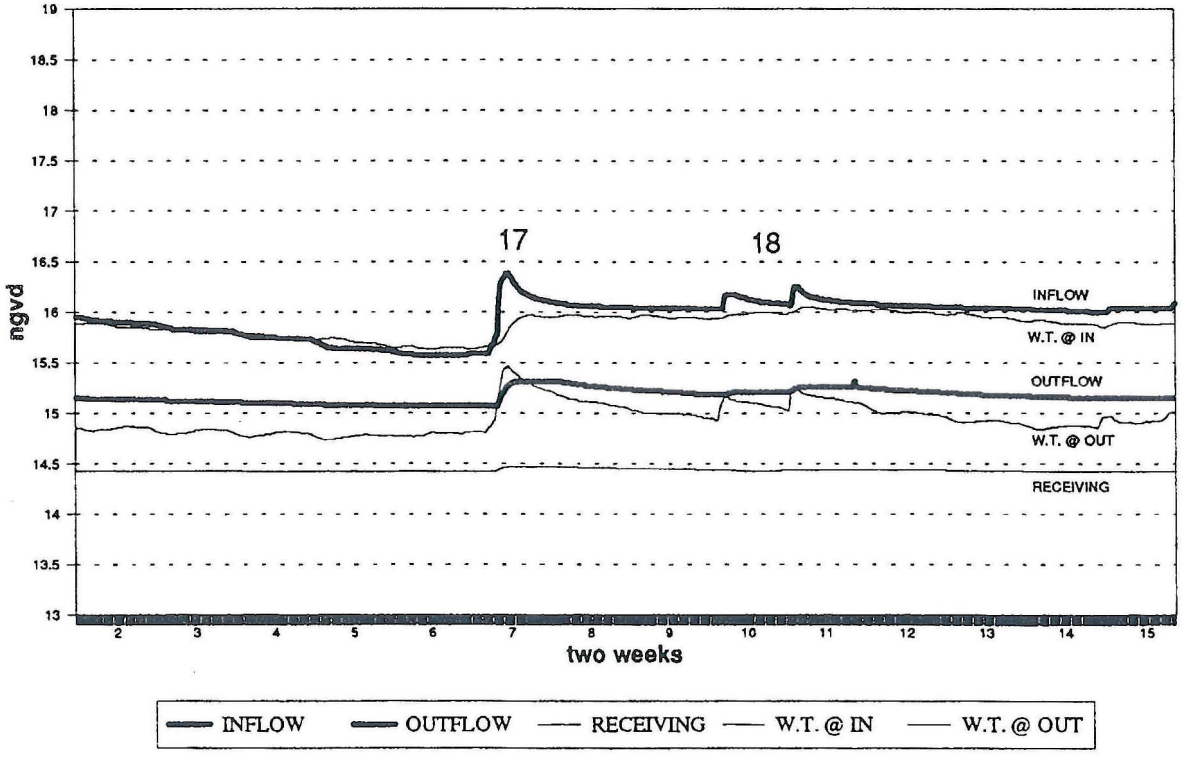
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

October1 to October 15, 1993

RAINFALL

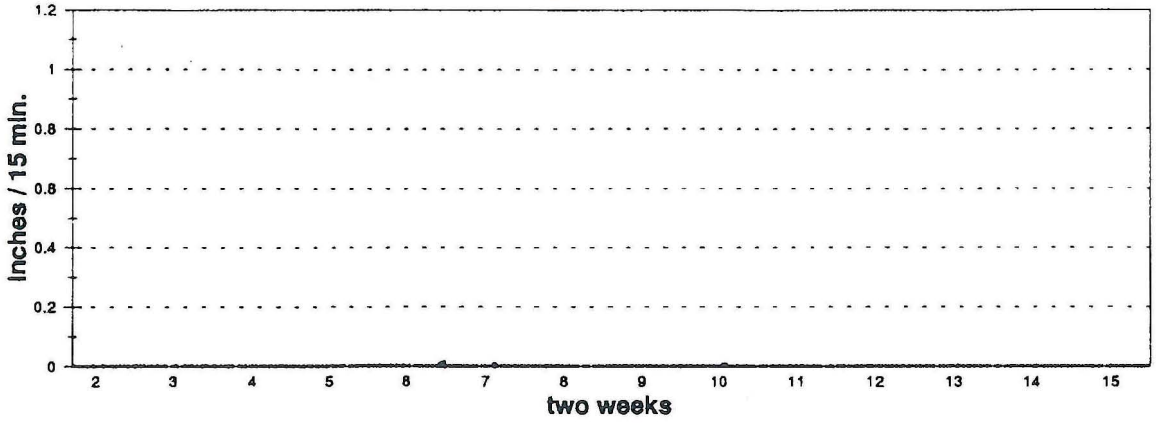


WATER LEVEL COMPARISONS

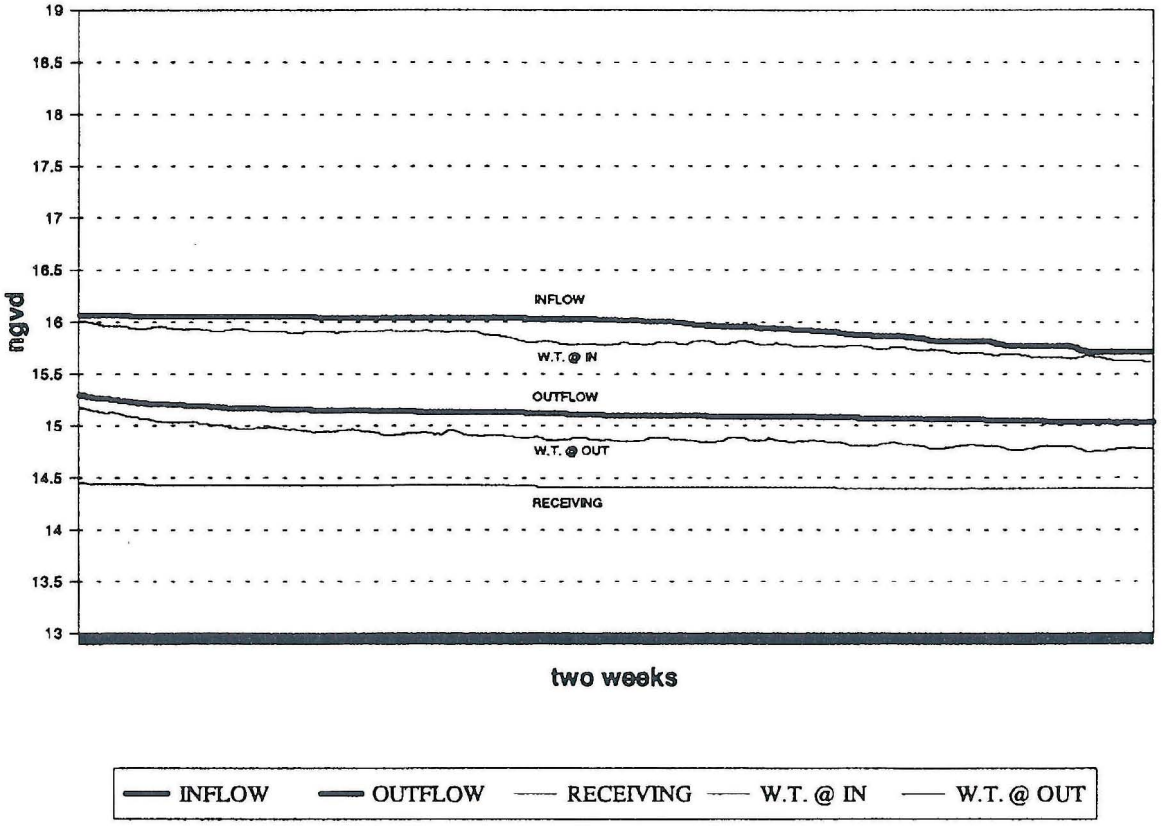


November 1 to November 15, 1993

RAINFALL

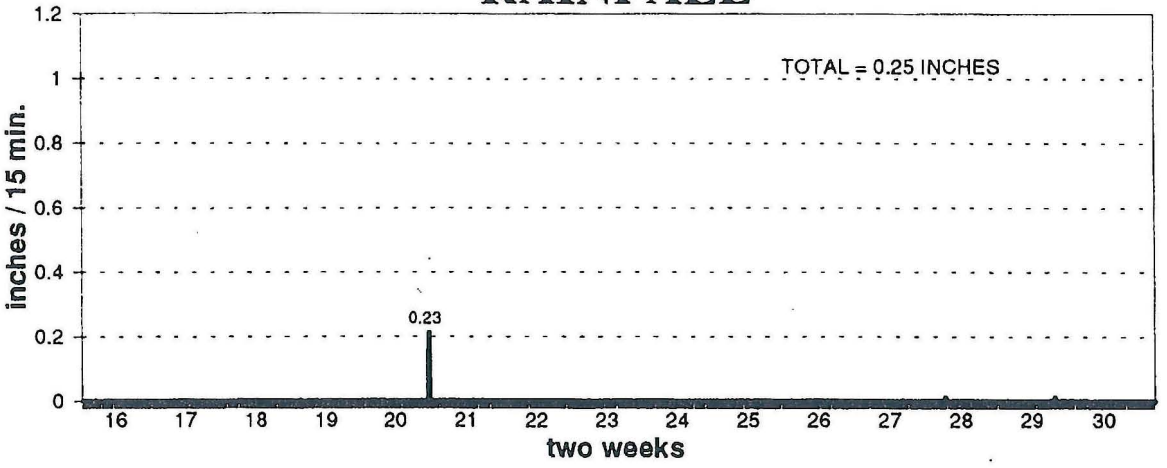


WATER LEVEL COMPARISONS

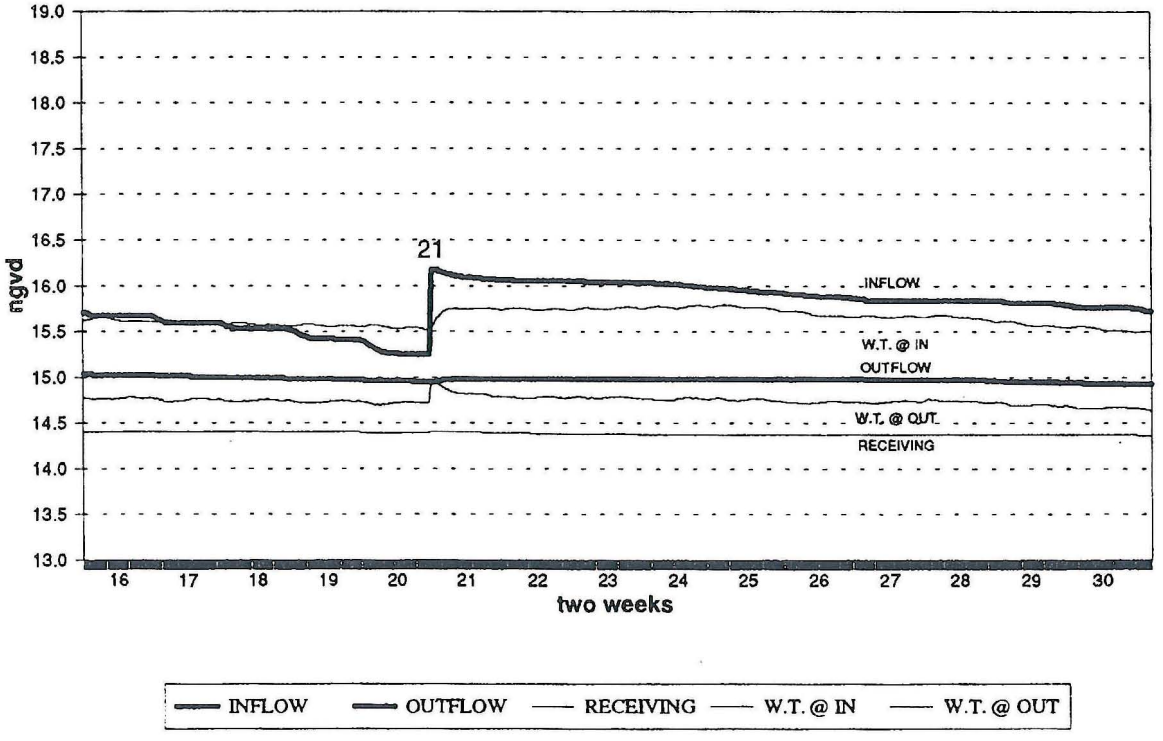


November 15 to November 30, 1993

RAINFALL

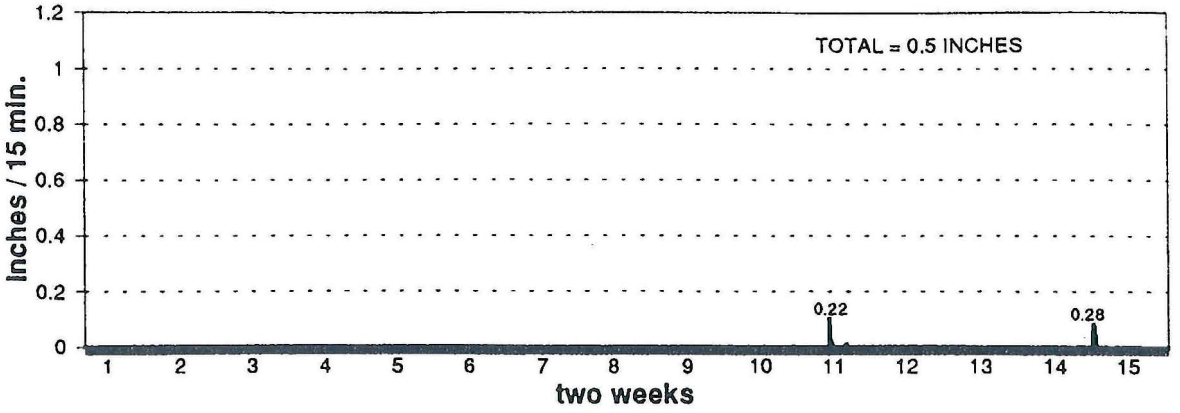


WATER LEVEL COMPARISONS

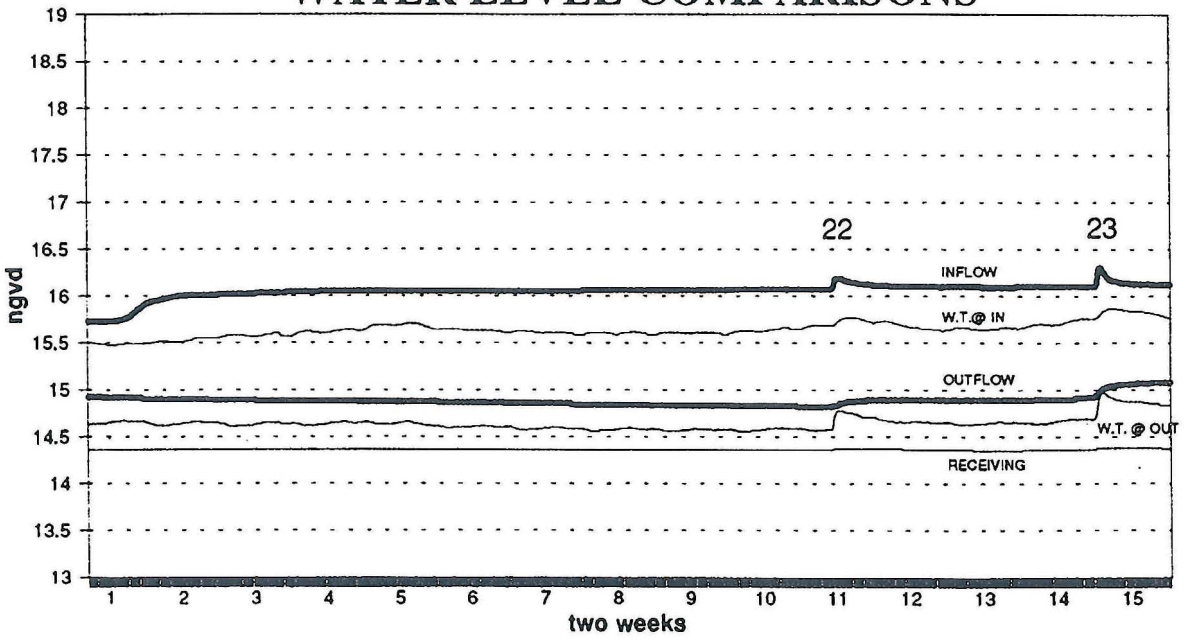


November 30 to December 15, 1993

RAINFALL



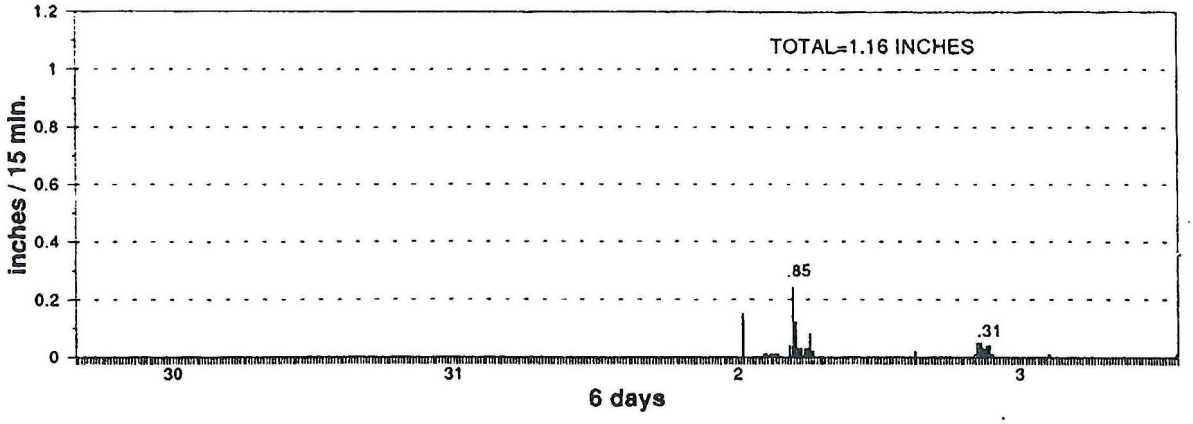
WATER LEVEL COMPARISONS



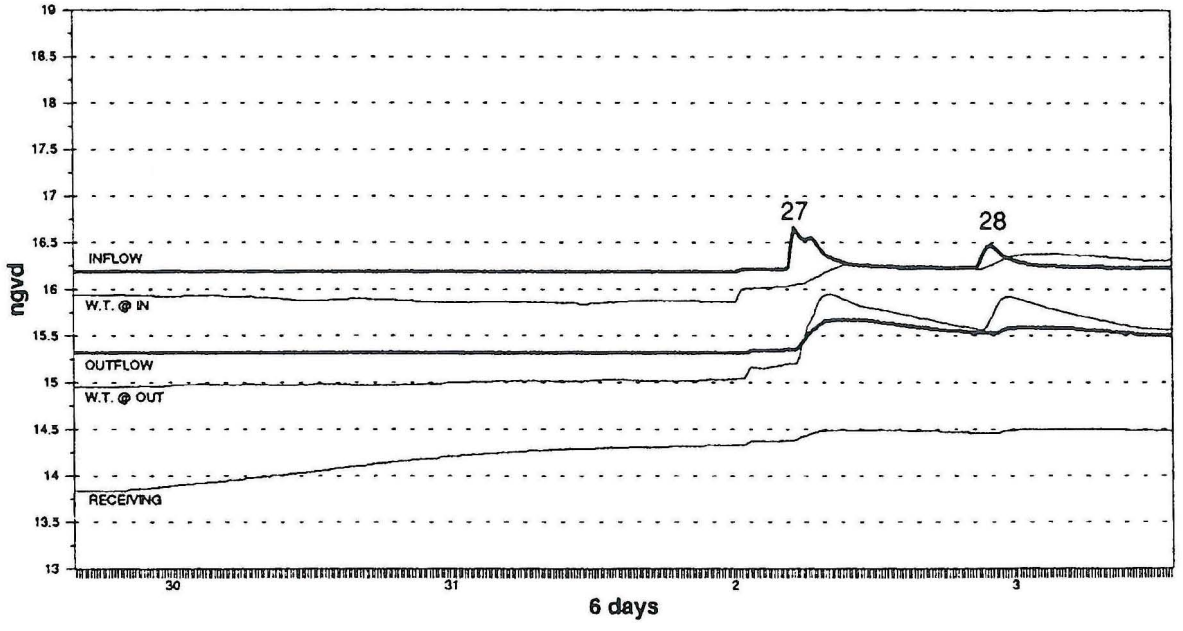
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

December 29, 1993 to January 3, 1994

RAINFALL

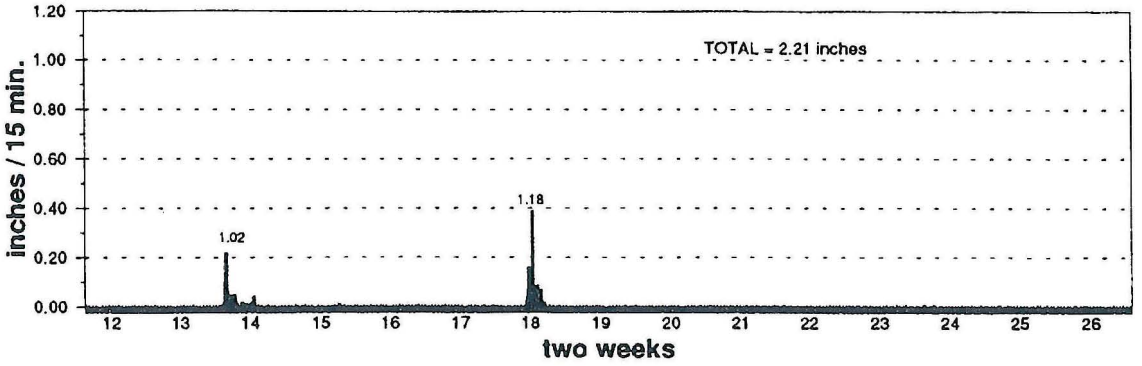


WATER LEVEL COMPARISONS

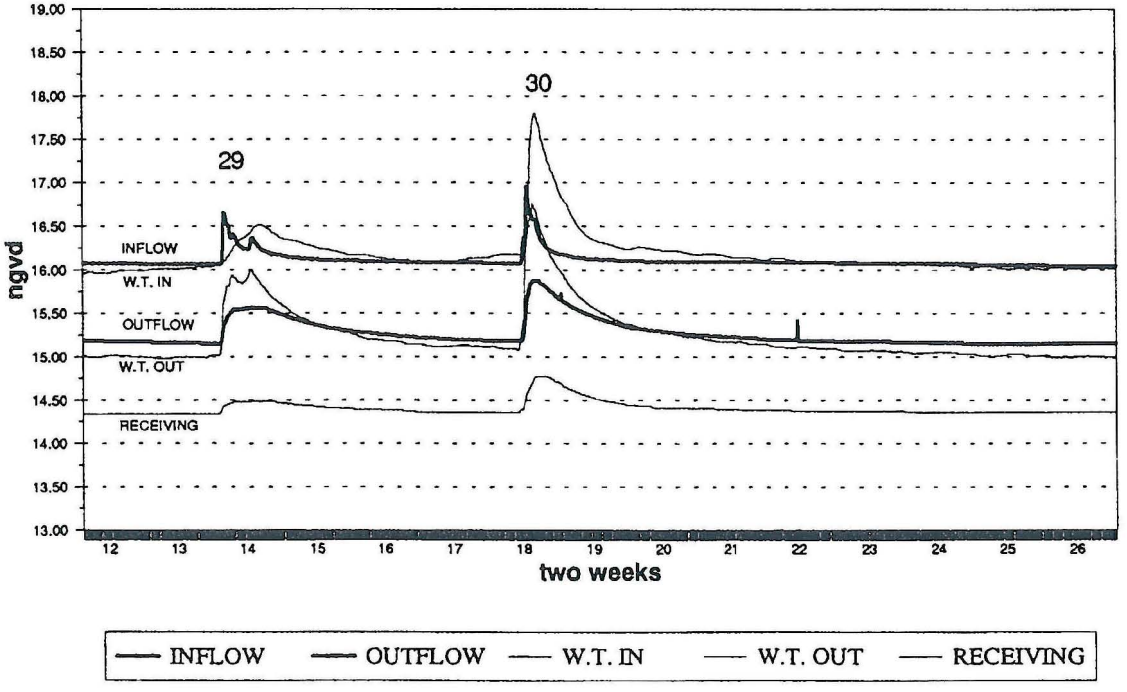


January 11 to January 26, 1994

RAINFALL



WATER LEVEL COMPARISONS

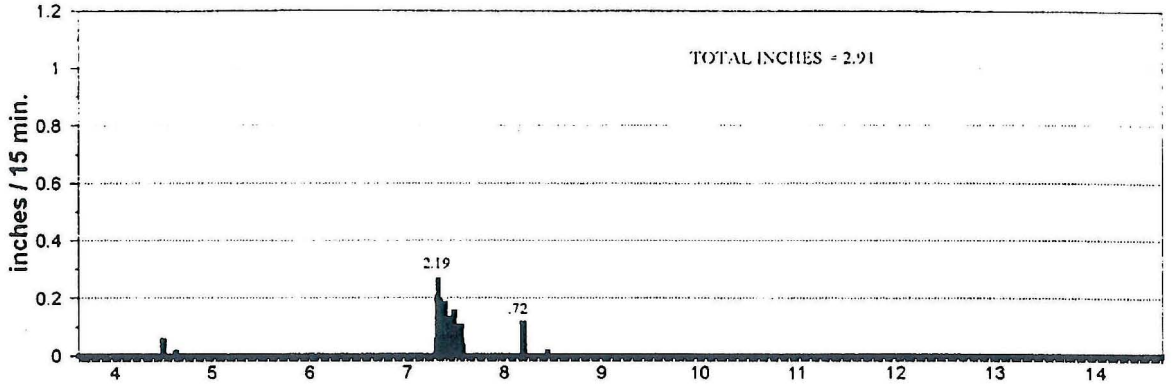


APPENDIX F

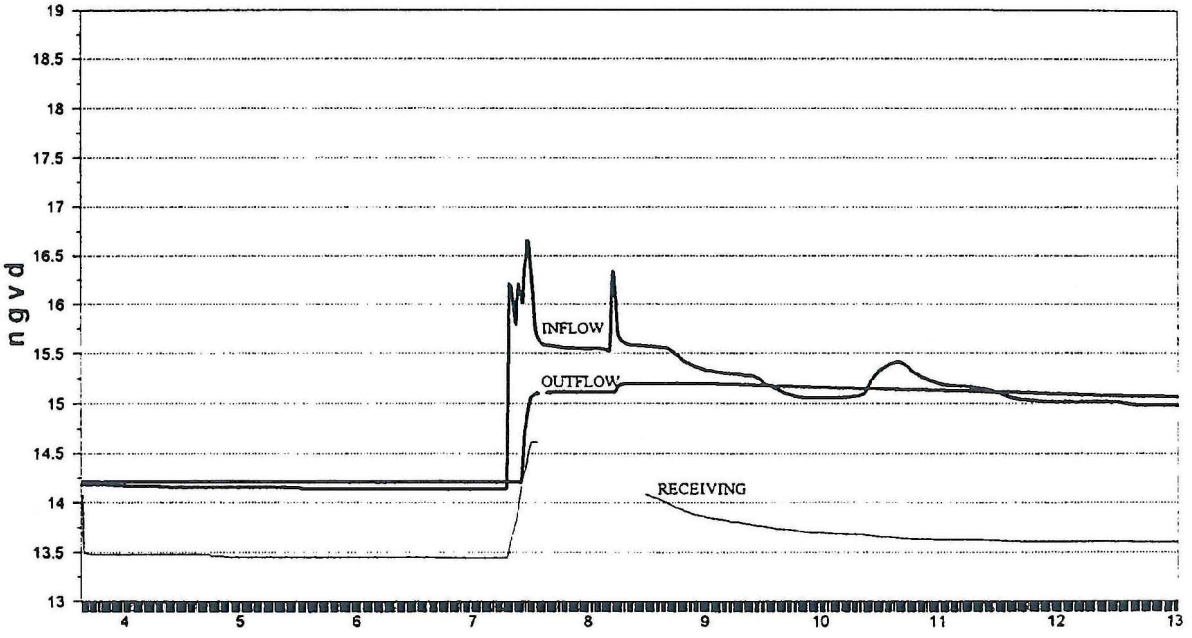
Rainfall and Water Level Comparisons for 1994

June 3 to June 14, 1994

RAINFALL



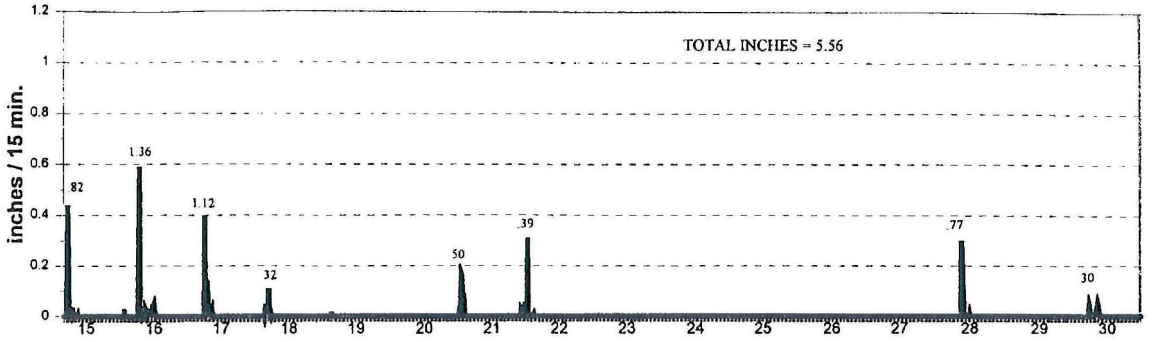
WATER LEVEL COMPARISONS



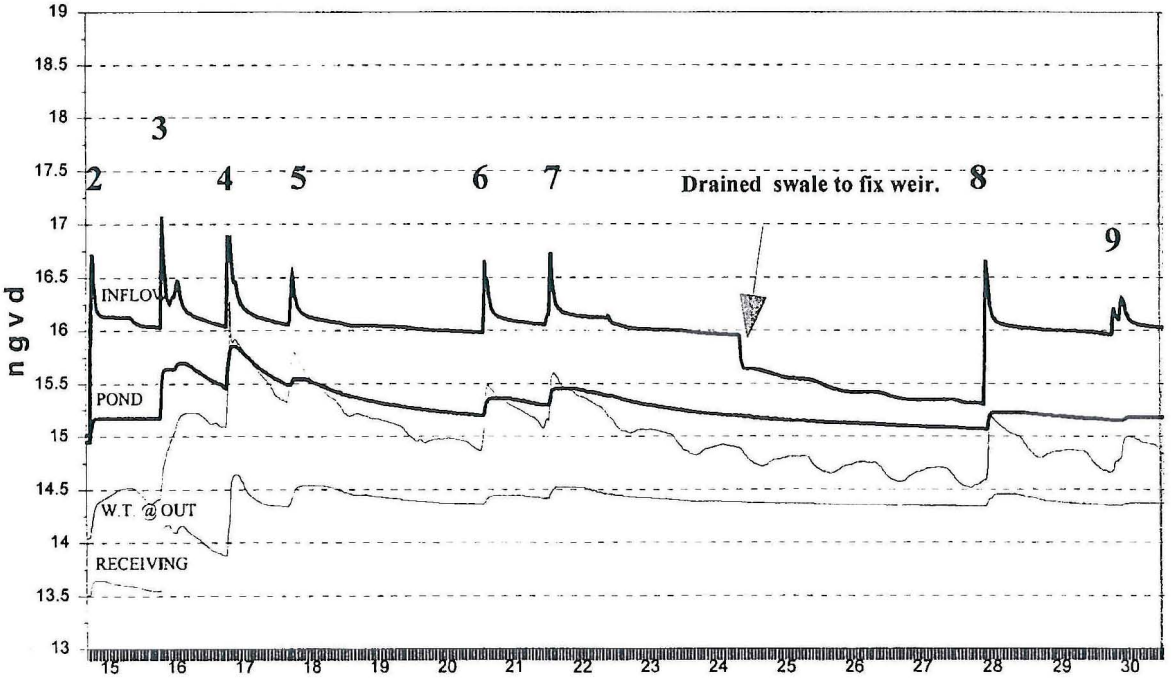
OUTFLOW — RECEIVING — INFLOW

June 14 to June 30, 1994

RAINFALL



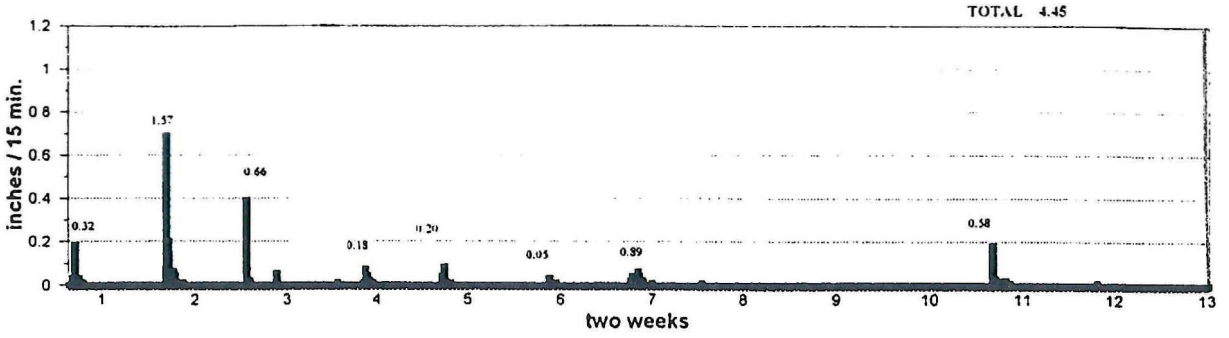
WATER LEVEL COMPARISONS



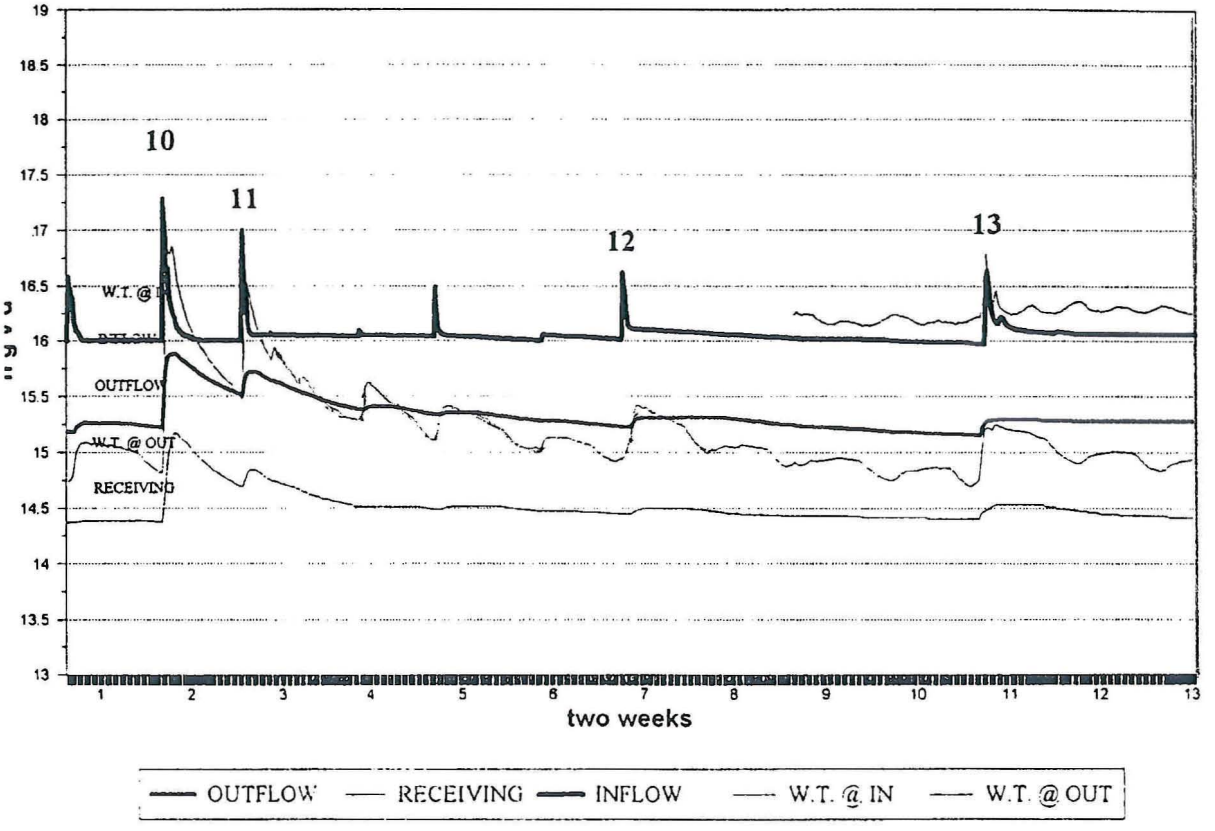
—— INFLOW —— W.T. @ OUT —— POND —— RECEIVING

July 1 to July 13, 1994

RAINFALL

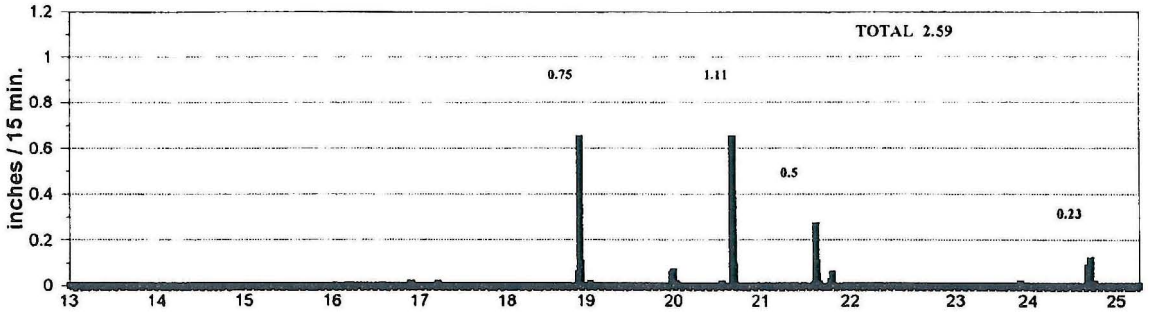


WATER LEVEL COMPARISONS

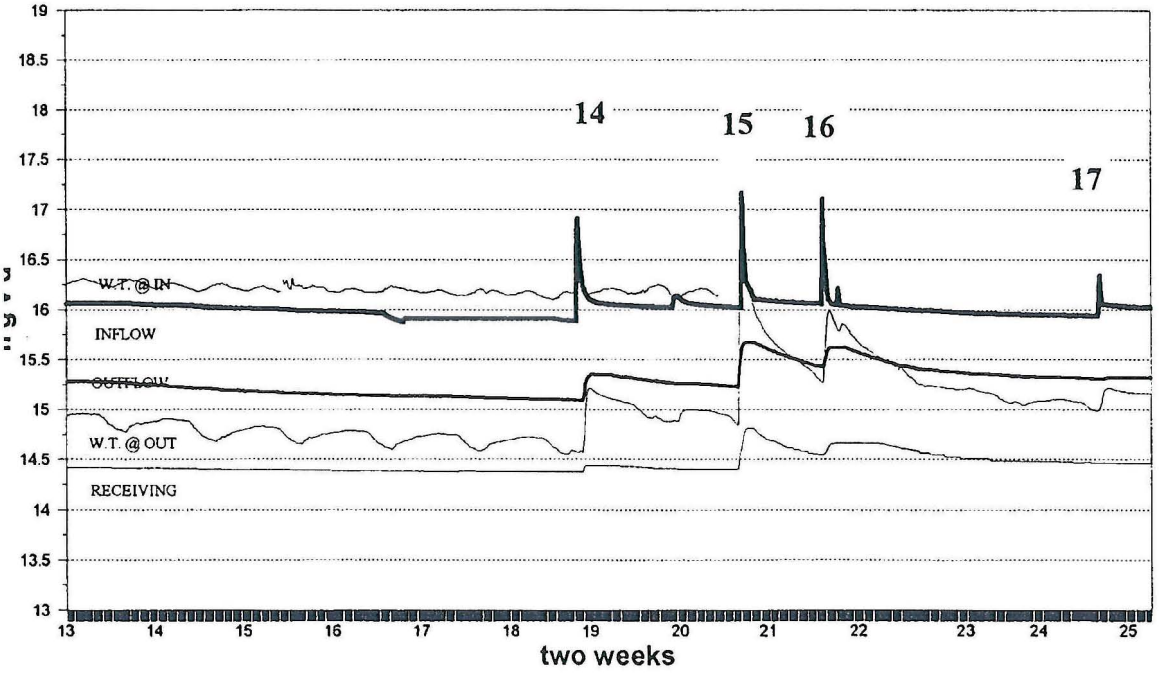


July 13 to July 25, 1994

RAINFALL



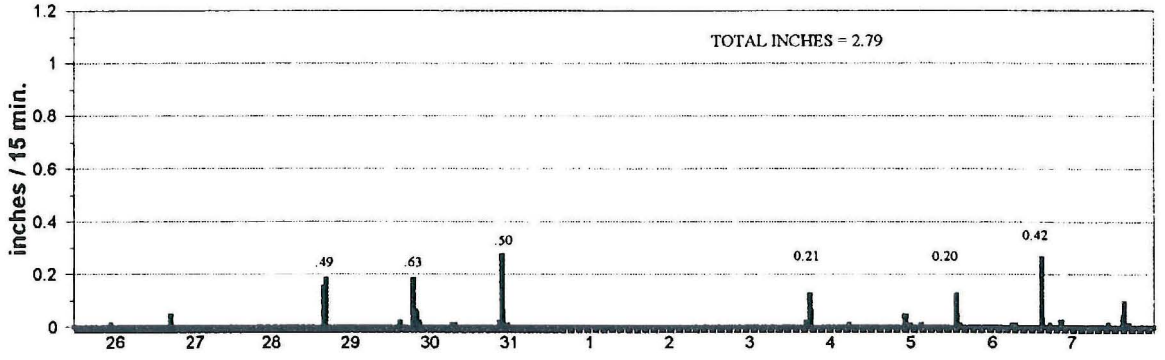
WATER LEVEL COMPARISONS



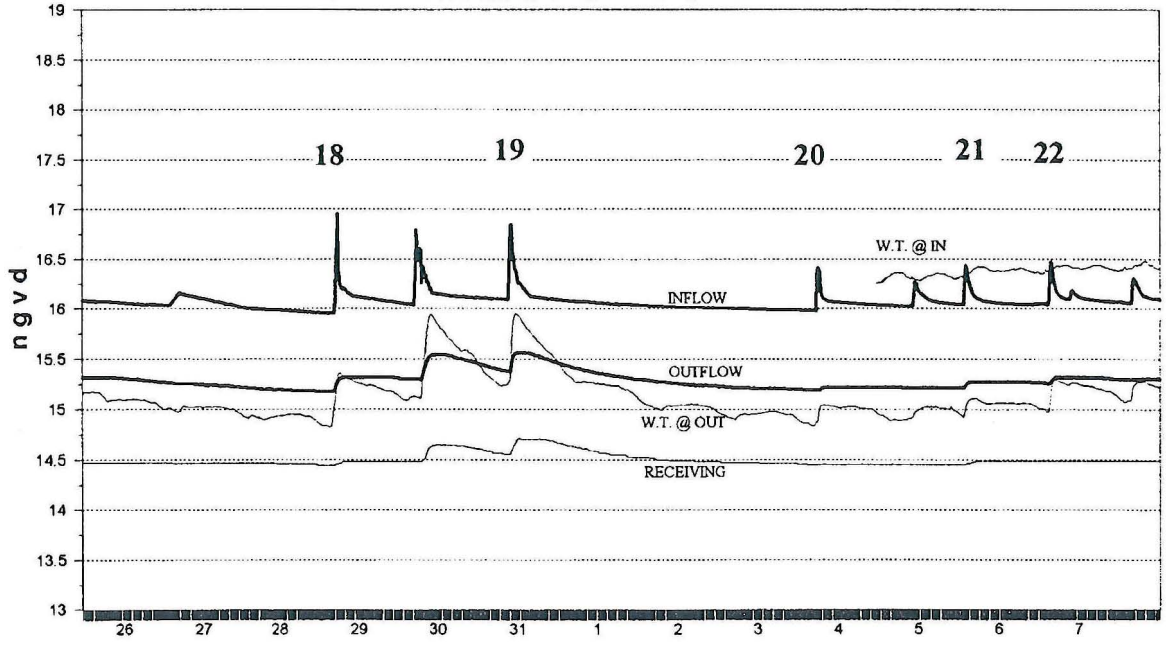
OUTFLOW — RECEIVING — INFLOW — W.T. @ IN — W.T. @ OUT

July 25 to August 7, 1994

RAINFALL



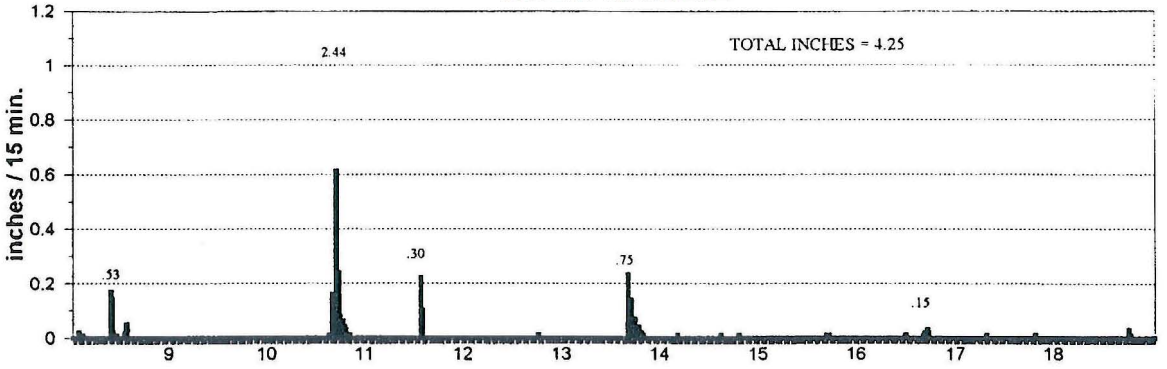
WATER LEVEL COMPARISONS



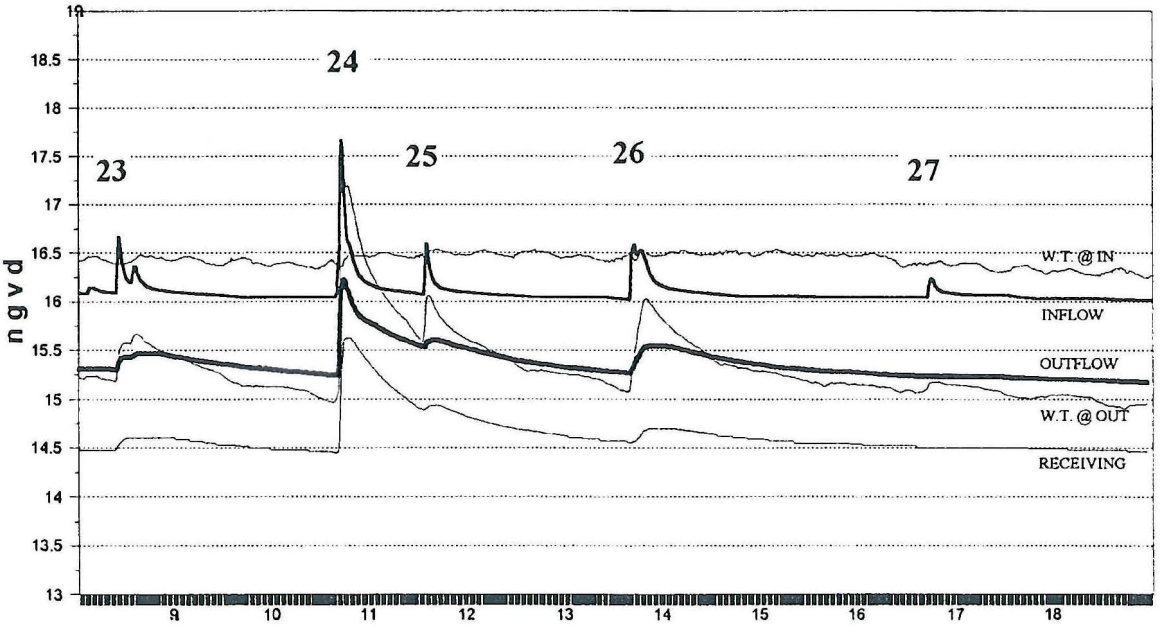
INFLOW OUTFLOW W.T. @ IN W.T. @ OUT RECEIVING

August 8 to August 18, 1994

RAINFALL



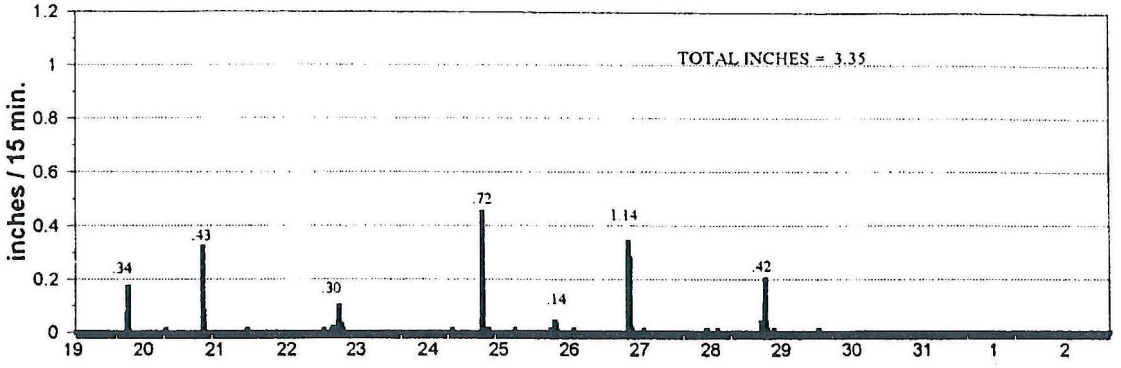
WATER LEVEL COMPARISONS



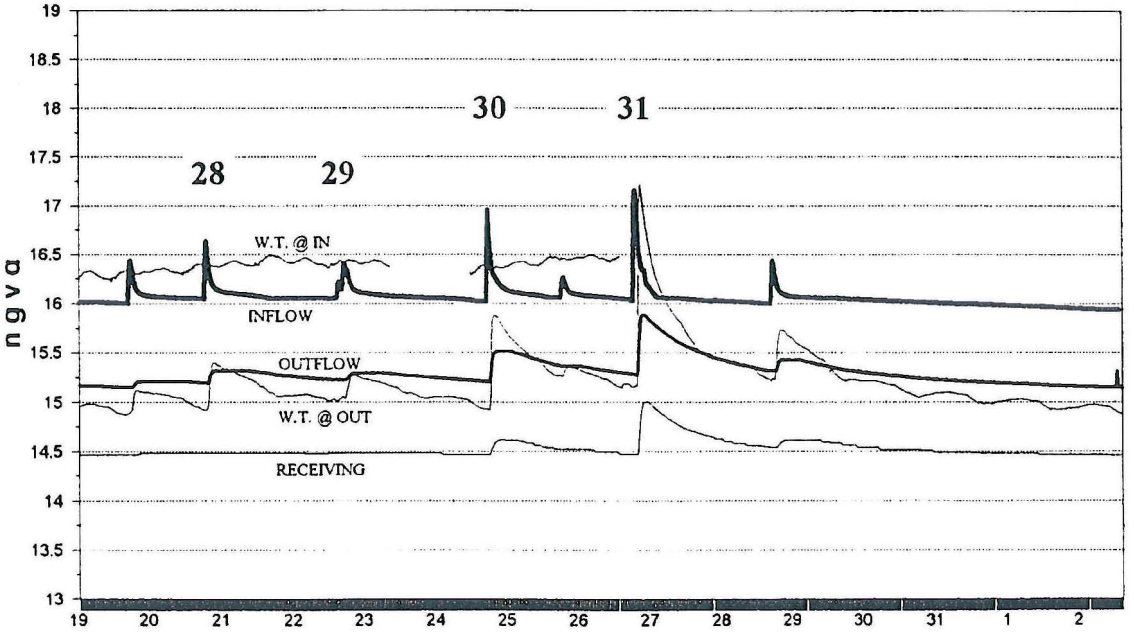
INFLOW	W.T. @ IN	OUTFLOW
W.T. @ OUTFALL	CANAL	

August 19 to September 2, 1994

RAINFALL



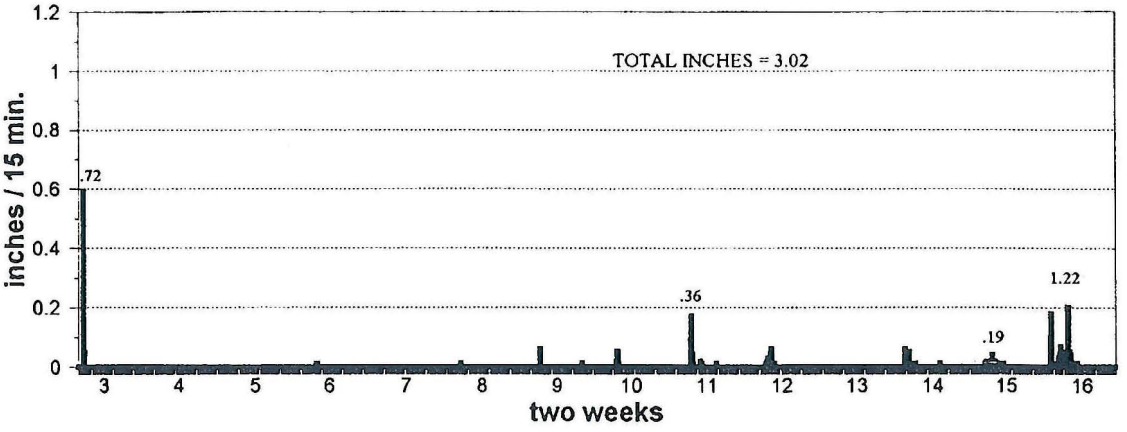
WATER LEVEL COMPARISONS



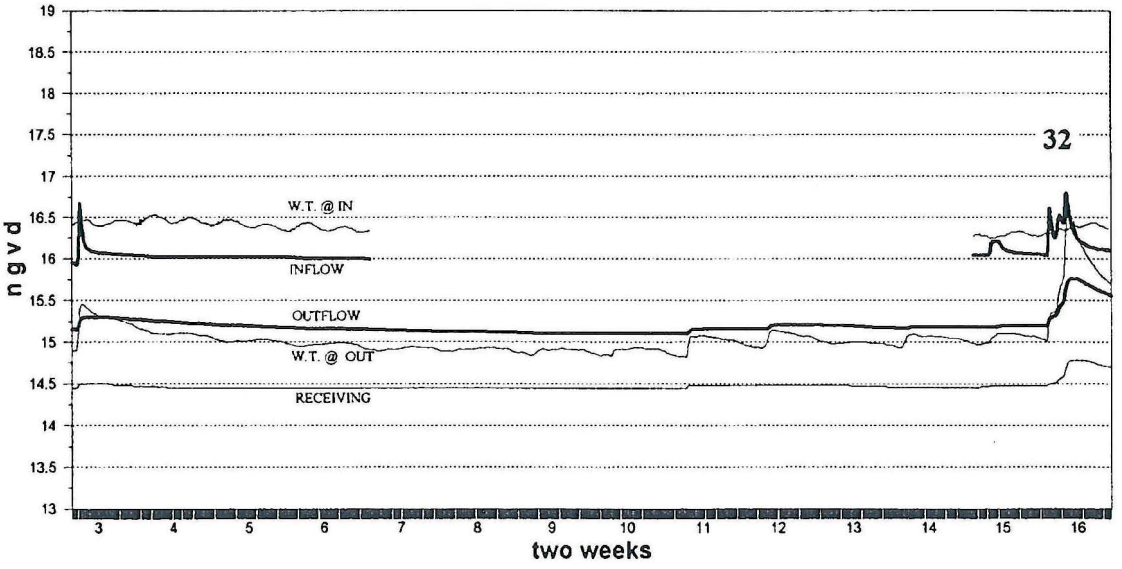
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

September 2 to September 16, 1994

RAINFALL



WATER LEVEL COMPARISONS



INFLOW — OUTFLOW — W.T. IN — W.T. OUT — RECEIVING

September 16 to 29, 1994

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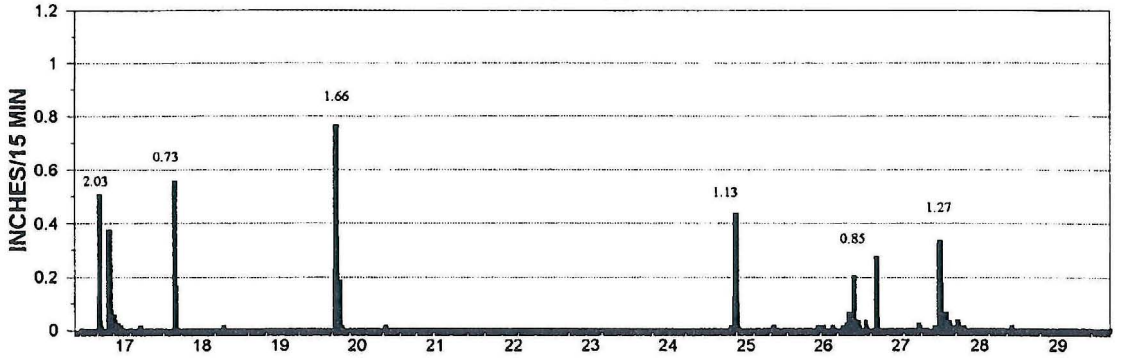
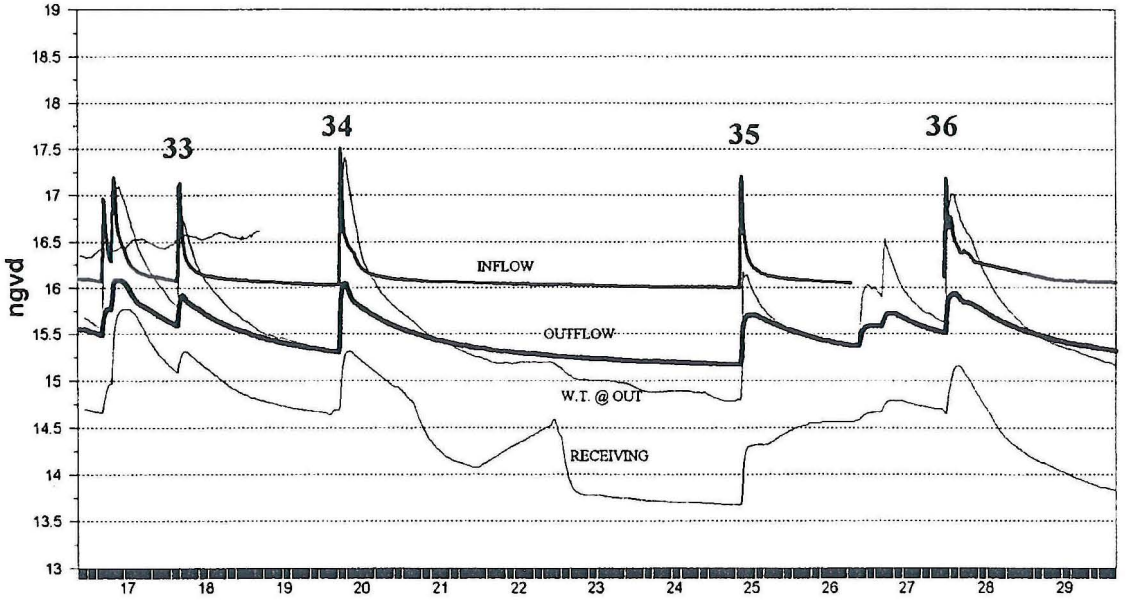


WATER LEVEL COMPARISONS



INFLOW — W.T.@IN — OUTFLOW — RECEIVING — W.T.@OUT

September 29 to October 14, 1994

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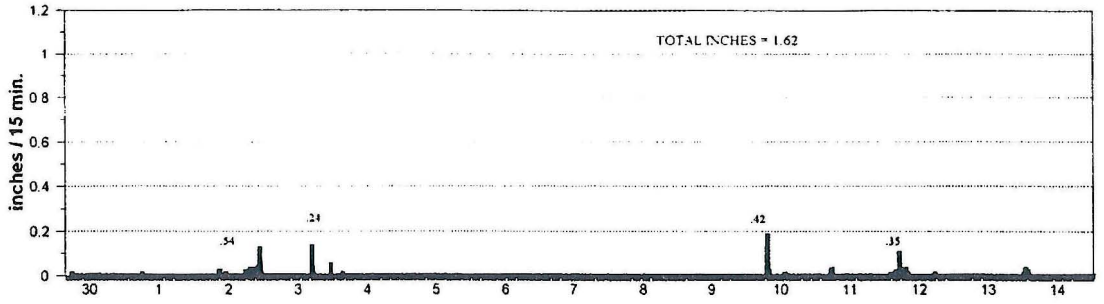

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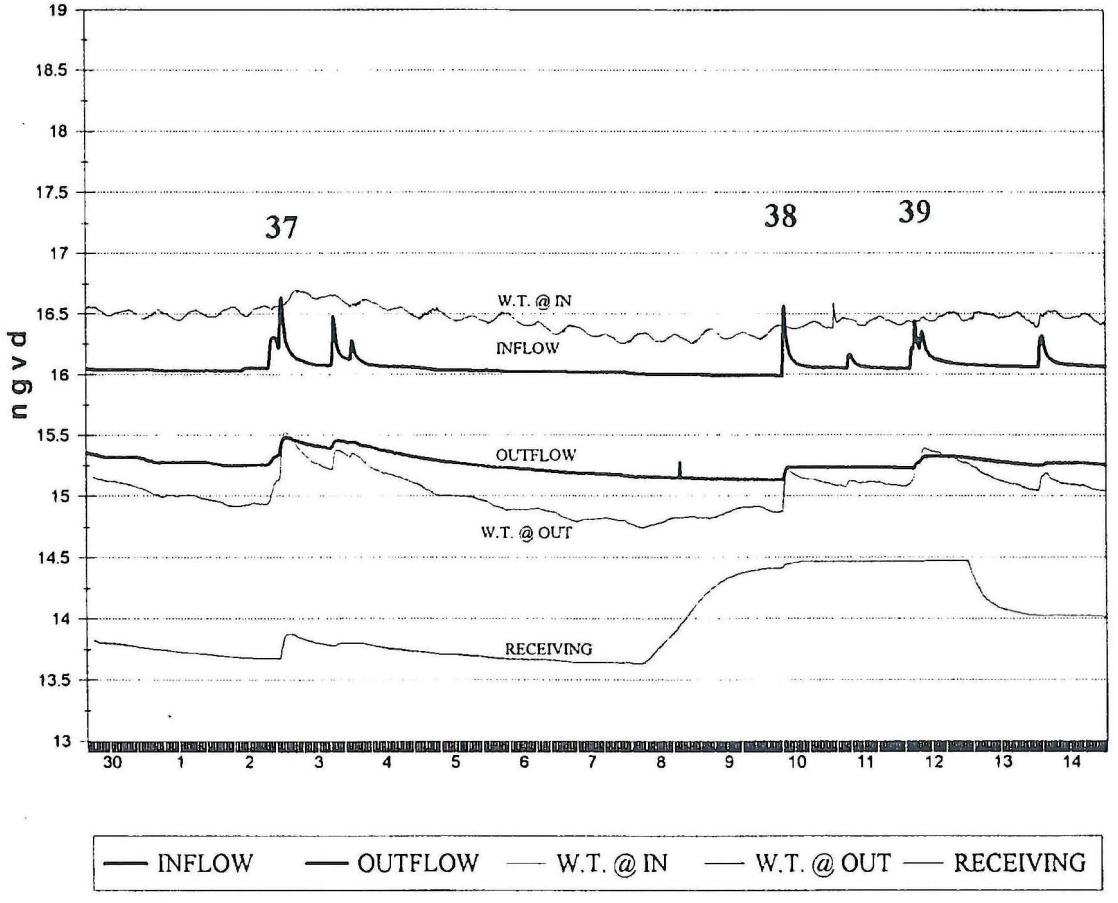
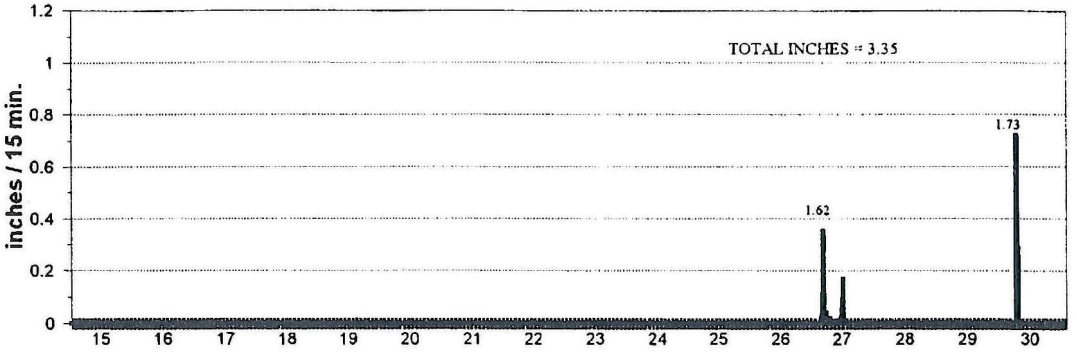
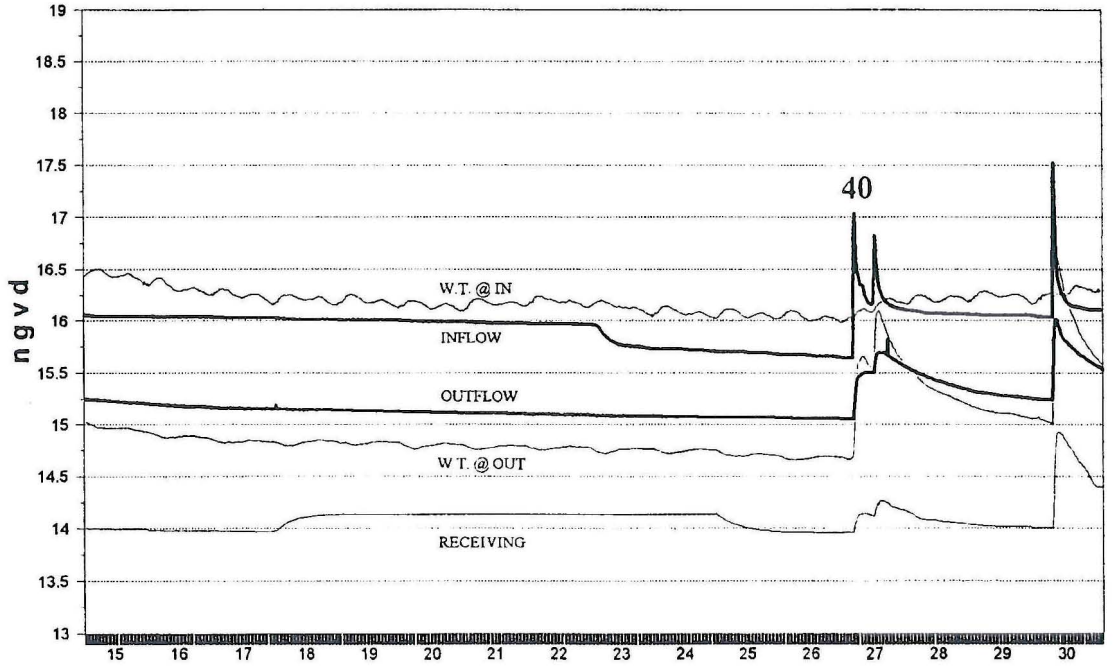


October 14 to October 30, 1994

RAINFALL



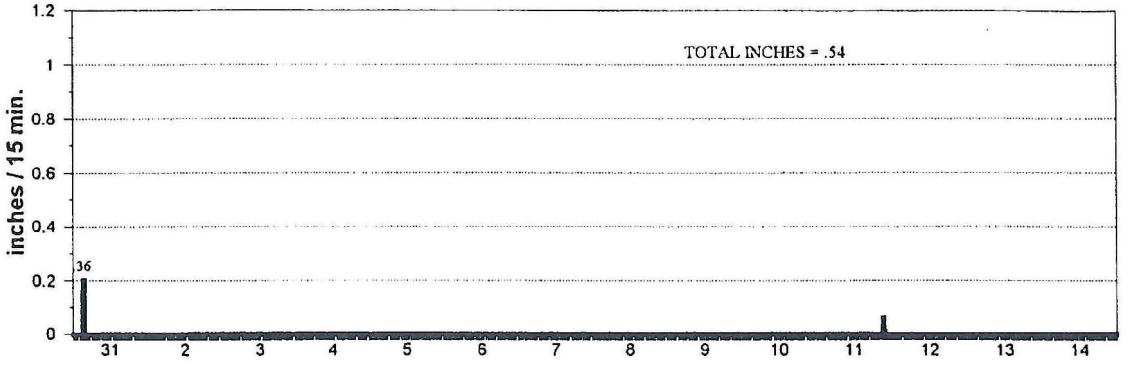
WATER LEVEL COMPARISONS



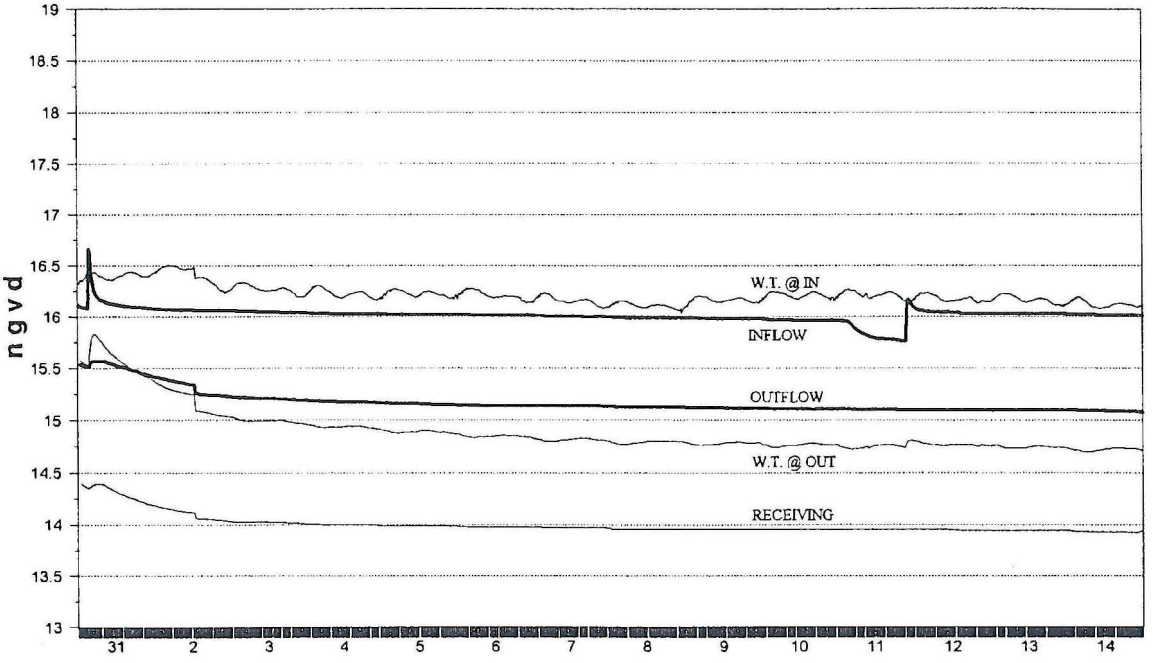
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

October 30 to November 14, 1994

RAINFALL



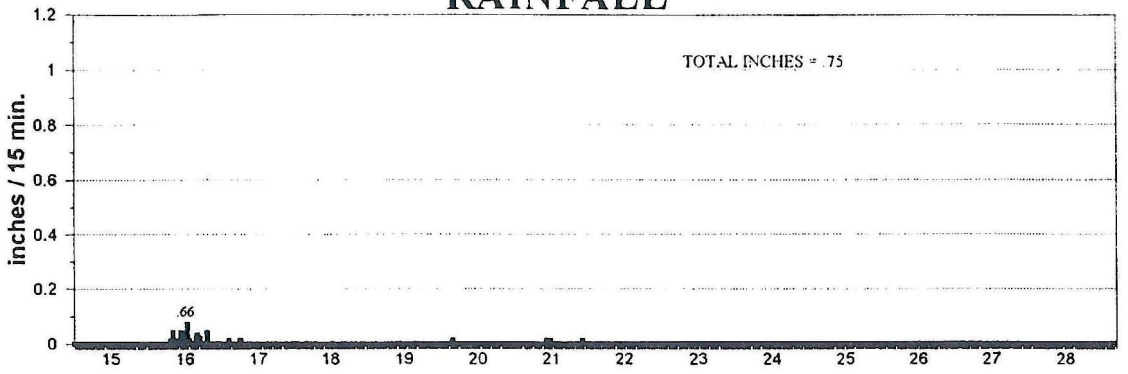
WATER LEVEL COMPARISONS



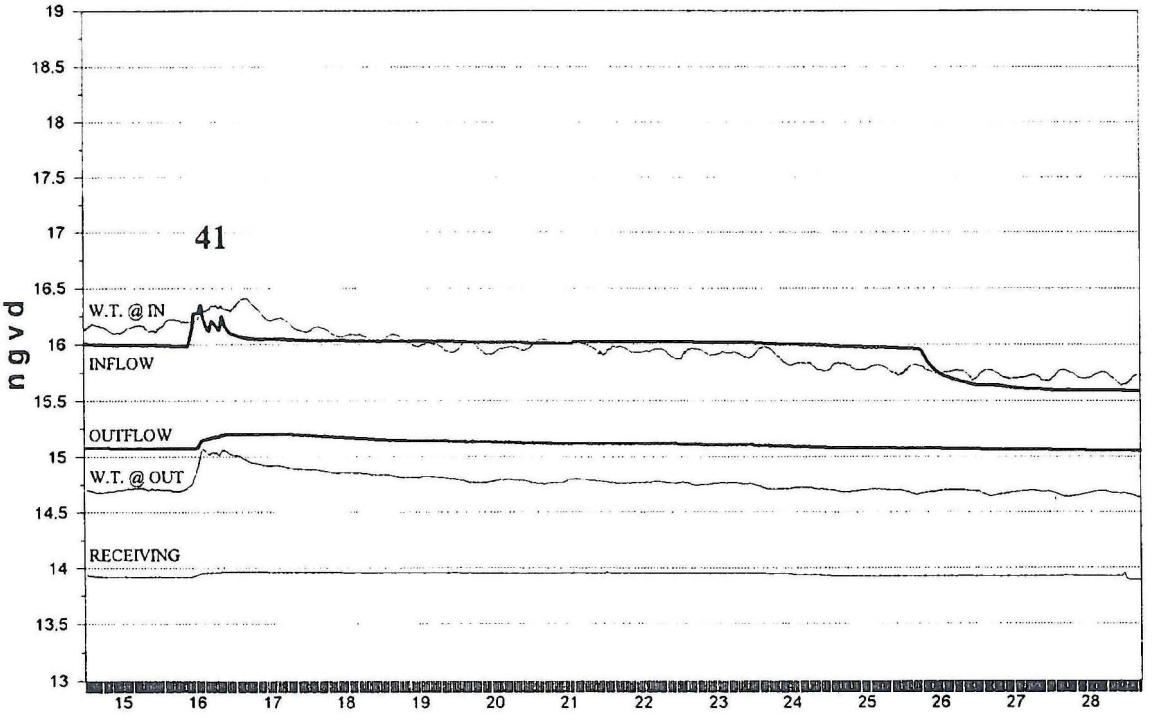
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

November 14 to November 30, 1994

RAINFALL



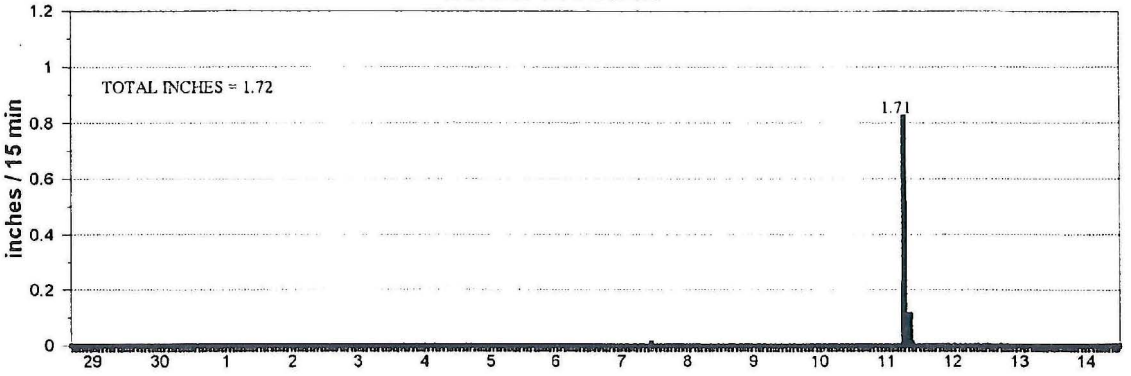
WATER LEVEL COMPARISONS



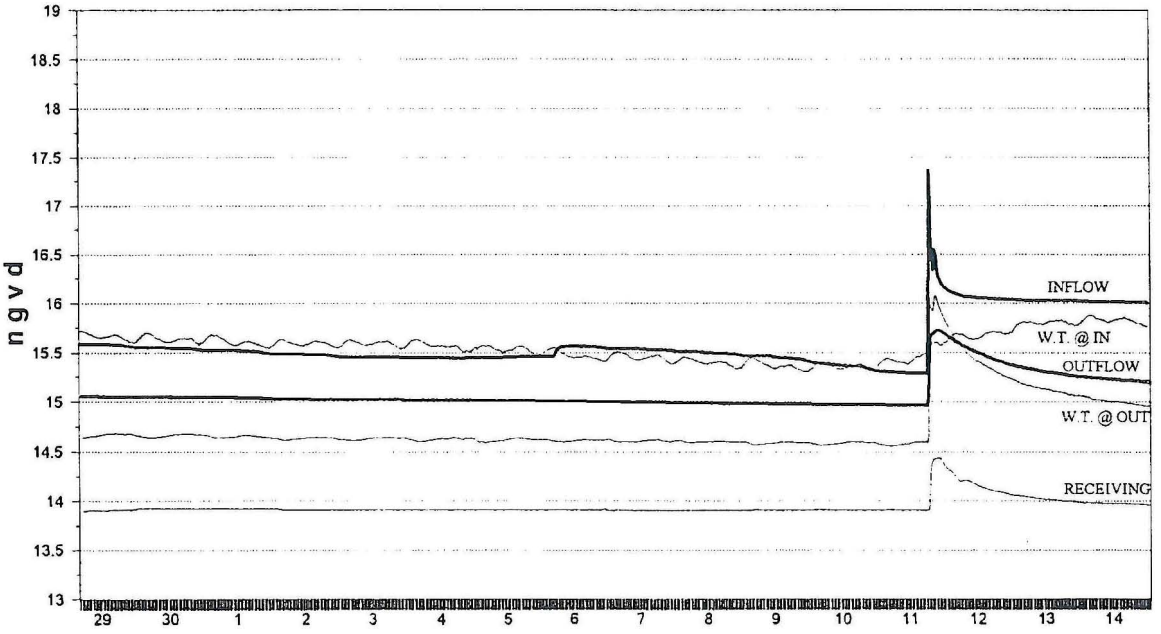
INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

November 28 to December 14, 1994

RAINFALL



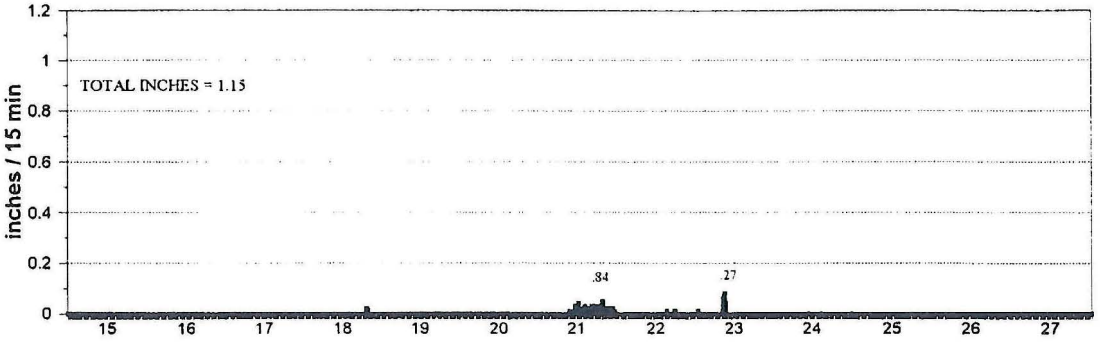
WATER LEVEL COMPARISONS



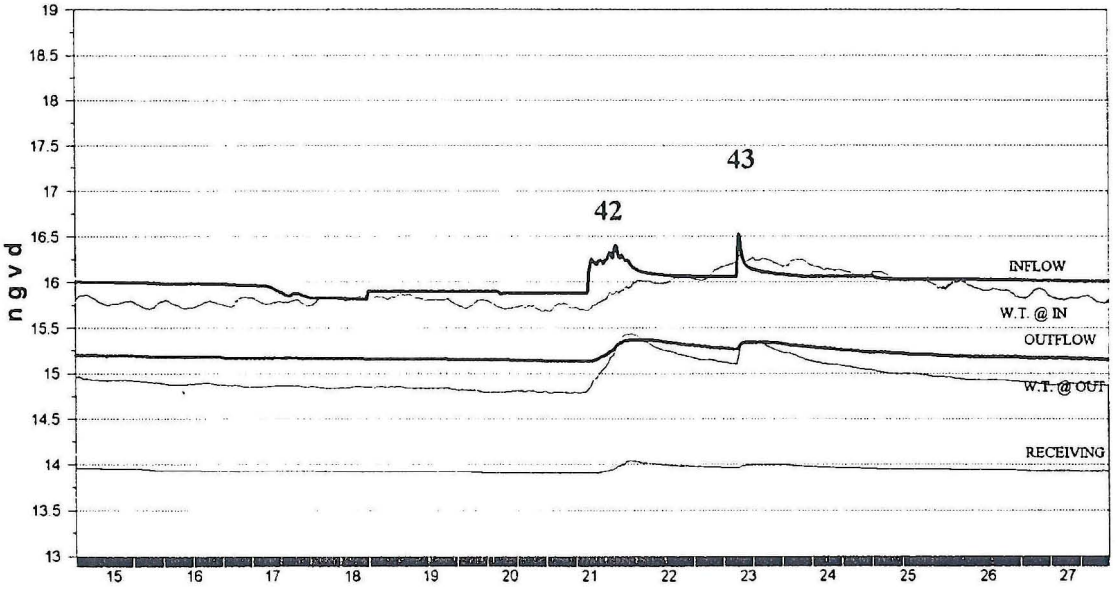
— INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

DECEMBER 14 TO 27, 1994

RAINFALL



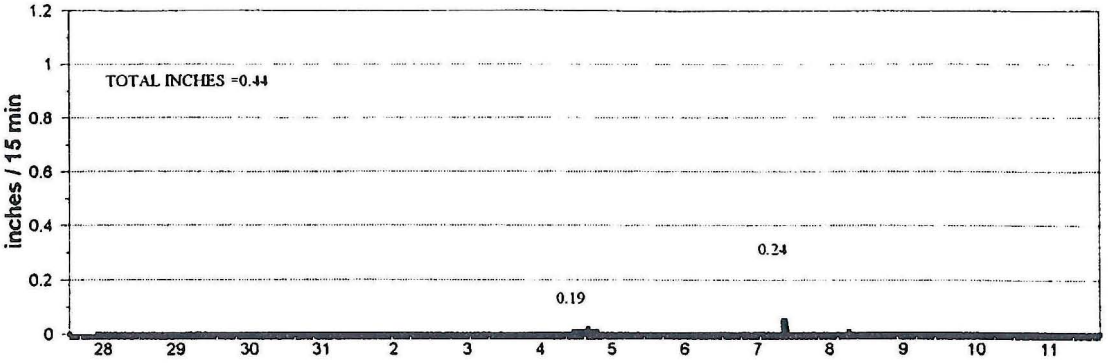
WATER LEVEL COMPARISONS



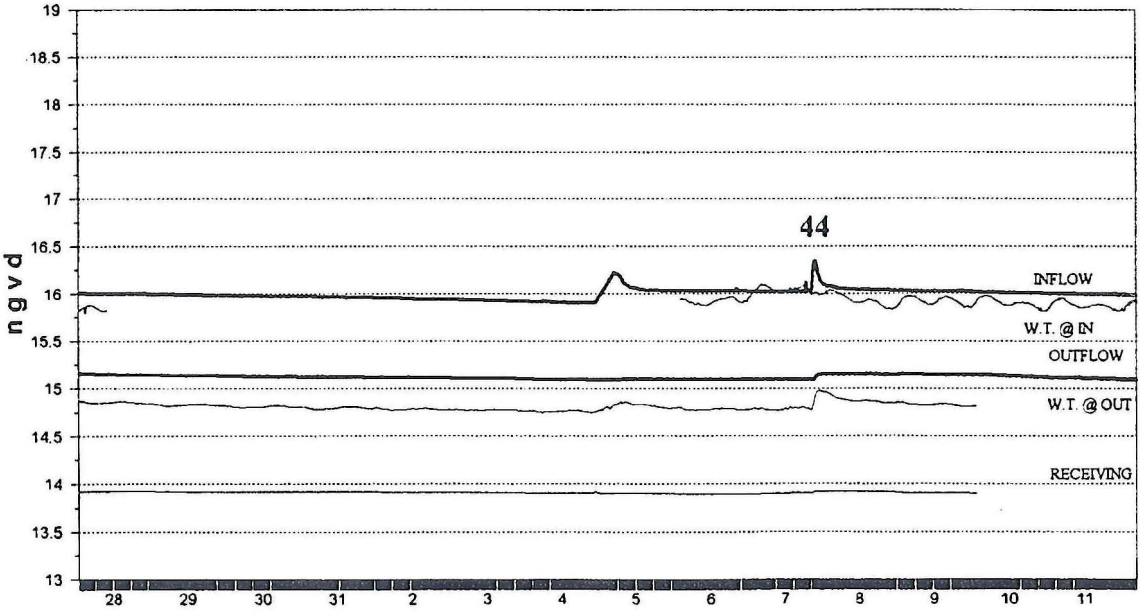
— INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

DECEMBER 27 TO JANUARY 11, 1995

RAINFALL



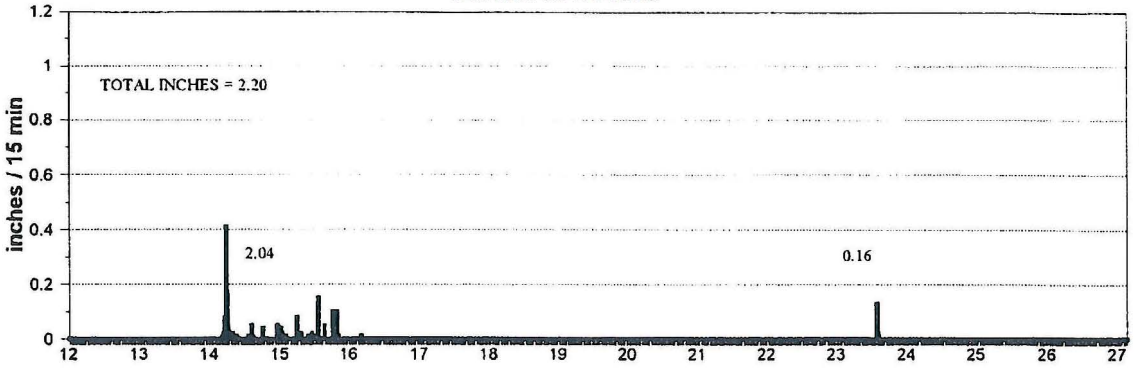
WATER LEVEL COMPARISONS



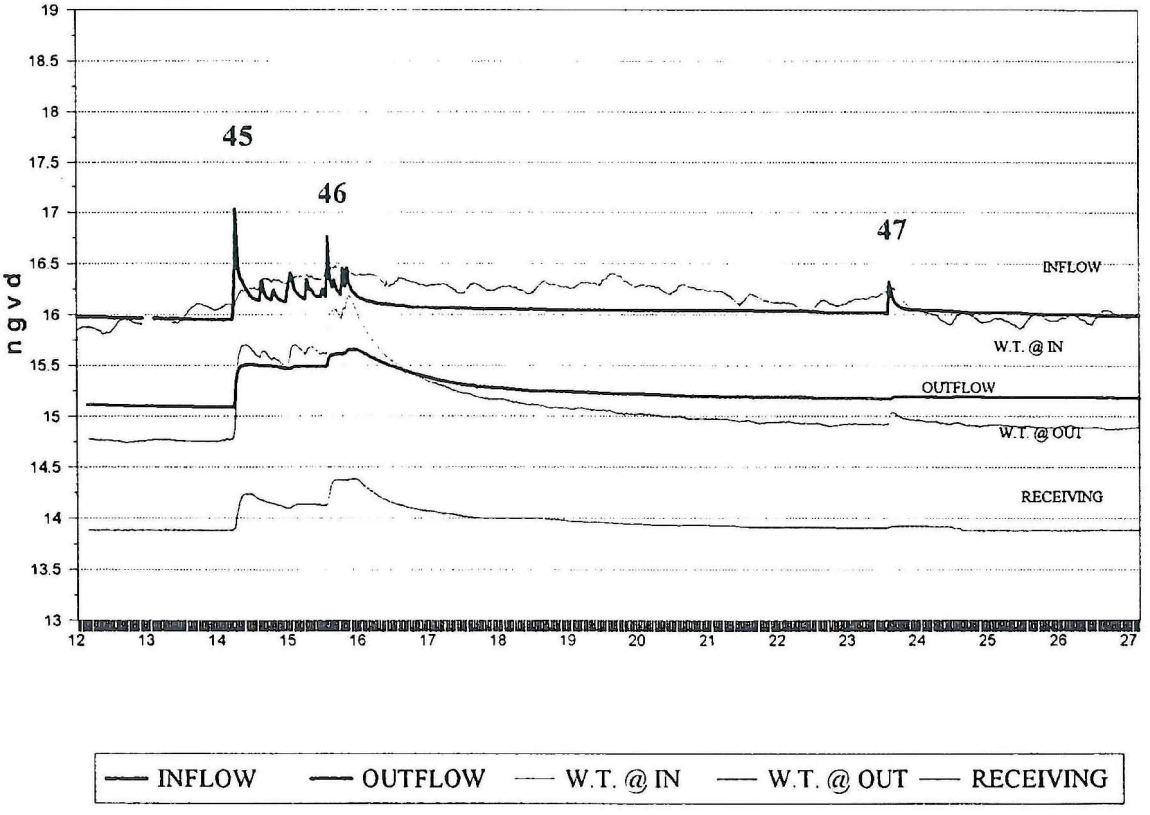
— INFLOW — OUTFLOW — W.T. @ IN — W.T. @ OUT — RECEIVING

January 12 to January 27, 1995

RAINFALL



WATER LEVEL COMPARISONS



APPENDIX G

Rainfall Characteristics and Runoff Coefficient

Table G-1. Summary table for rainfall characteristics

	INTER-EVENT PERIOD days	RAIN inches	AVERAGE INTENSITY in/hr	MAXIMUM INTENSITY in/hr	DURATION hours	RUNOFF COEFF.
1990 (June 1990 through January 1991)						
# Obs.	53	53	52	52	52	52
Average	4.40	0.53	0.26	0.85	2.67	0.19
Std. Dev.	5.27	0.53	0.22	0.71	2.62	0.22
Maximum	25.77	2.34	0.87	2.72	15.88	0.91
Minimum	0.16	0.05	0.03	0.12	0.38	0.00
Median	2.71	0.35	0.16	0.57	2.06	0.12
CV	1.20	1.00	0.85	0.83	0.98	1.12
Total		28.00				
1993 (June 1993 through January 1994)						
# Obs	59	60	57	57	57	46
Average	3.56	0.57	0.27	0.81	2.61	0.38
Std.Dev.	4.14	0.67	0.23	0.92	2.53	0.24
Maximum	20.45	3.91	0.93	4.16	16.50	0.85
Minimum	0.16	0.05	0.03	0.04	0.25	0.00
Median	1.96	0.27	0.19	0.52	1.75	0.39
CV	1.16	1.18	0.85	1.13	0.97	0.62
Total		34.21				
1994 (June 1994 through January 1995)						
# Obs	83	83	83	83	83	75
Average	2.67	0.53	0.30	0.91	2.72	0.37
Std. Dev.	3.63	0.50	0.35	0.89	2.63	0.18
Maximum	24.89	2.28	2.31	3.88	13.00	0.81
Minimum	0.07	0.05	0.02	0.08	0.07	0.00
Median	1.02	0.36	0.15	0.64	1.75	0.35
CV	1.36	0.94	1.18	0.98	0.97	0.49
Total		44.38				

Table G-2. Hydrologic characteristics of rainfall at a wet-detention pond in Tampa, Fla. during 1990-91.

STORM #	DATE	INTER-EVENT PERIOD days	* INTER-EVENT PERIOD days	RAIN inches	AVERAGE INTENSITY in/hr	MAXIMUM INTENSITY in/hr	DURATION hours	RUNOFF COEFF.	INFLOW VOLUME (CU. FT)
2	5-24-90	14.49	14.49	0.37	0.37	0.78	1.00	0.05	433
	5-27-90	2.71		0.07	0.05	0.16	1.50	0.00	0
	5-27-90	0.24		0.06	0.08	0.14	0.75	0.00	0
	6-01-90	4.92		0.15	0.11	0.16	1.38	0.01	41
	6-02-90	0.96		0.16	0.13	0.26	1.25	0.05	178
3	6-03-90	0.95	9.78	0.69	0.62	1.88	1.13	0.26	4311
	6-06-90	2.91		0.35	0.10	0.62	3.50	0.08	675
4	6-10-90	3.83	6.74	0.46	0.36	0.58	1.25	0.17	1798
	6-20-90	9.67		0.05	0.10	0.12	0.50	0.62	727
	6-21-90	1.07		0.21	0.17	0.42	1.25	0.09	448
5	6-22-90	1.38	12.12	1.05	0.70	1.98	1.50	0.29	7112
6	6-23-90	0.53	0.53	0.83	0.16	1.32	5.38	0.25	4933
7	7-07-90	14.05	14.05	0.86	0.57	1.88	1.50	0.21	4256
8	7-10-90	2.97	2.97	1.10	0.59	1.96	2.00	0.28	7142
9a	7-11-90	0.85	0.85	1.04	0.69	1.42	1.50	0.40	9769
9b	7-11-90	0.22	0.22	0.08	0.25	0.28	0.38	0.51	958
10	7-12-90	0.81	0.81	0.48	0.14	0.94	3.38	0.27	2980
11	7-13-90	0.47	0.47	0.57	0.38	2.64	4.75	0.38	5109
	7-14-90	0.71		1.70	0.31	1.64	3.00	0.91	35449
	7-15-90	1.15		1.78	0.39	2.00	3.50	0.88	35817
12	7-18-90	3.95	5.81	0.29	0.20	0.92	1.50	0.24	1629
13	7-31-90	12.74	12.74	0.40	0.11	0.56	3.75	0.12	1167
	8-09-90	8.99		0.44	0.74	1.30	0.63	0.06	622
	8-13-90	4.08		0.36	0.36	0.30	3.00	0.02	185
14	8-14-90	0.65	13.72	0.32	0.63	1.22	0.50	0.22	1604
15	8-18-90	3.98	3.98	0.40	0.54	1.02	0.75	0.16	1490
	8-20-90	2.21		0.12	0.14	0.23	0.88	0.00	0
	8-22-90	2.16		0.05	0.15	0.18	0.38	0.00	0
	8-23-90	0.63		0.15	0.08	0.20	2.13	0.01	29
	8-24-90	0.89		0.12	0.06	0.24	2.13	0.00	0
16	8-25-90	1.07	6.96	0.62	0.25	0.82	2.50	0.21	3005
17a	8-28-90	2.94	2.94	0.84	0.30	2.28	2.88	0.26	5068
17b	8-28-90	0.16	0.16	0.14	0.28	0.44	0.50	0.22	727
	8-30-90	1.69		0.08	0.16	0.20	0.50	0.00	0
18	8-31-90	1.00	2.69	1.06	•	•	•	•	8441
19	9-17-90	16.83	16.83	1.90	0.58	2.72	3.25	0.31	13403
	9-28-90	11.02		0.26	0.03	0.48	8.50	0.00	•
	9-29-90	0.67		0.26	0.09	0.48	3.00	0.07	419
20	9-30-90	1.92	13.61	0.65	0.87	1.44	0.75	0.36	5312
21	10-3-90	2.97	2.97	0.45	0.60	1.08	0.75	0.17	1854
22a	10-10-90	6.26	6.26	1.40	0.22	1.40	6.50	0.42	13570
22b	10-11-90	1.23	1.23	1.24	0.28	1.08	4.50	0.66	18680
	11-6-90	25.77		0.10	0.06	0.16	1.88	0.00	0
	11-9-90	3.21		0.39	0.05	0.30	7.88	0.05	484
	11-23-90	14.03		0.27	0.10	0.28	2.75	0.01	36
	11-24-90	0.39		0.06	0.11	0.20	0.50	0.02	29
	11-28-90	4.34		0.22	0.06	0.38	3.63	0.11	587
	1-12-90	13.09		0.31	0.11	0.84	3.13	0.06	416
23	1-15-90	3.24	64.07	2.34	0.15	1.24	15.88	0.38	20352
	1-19-90	3.91		0.20	0.08	0.38	2.38	0.08	376
	1-25-90	6.92		0.18	0.04	0.14	4.63	0.01	56
	1-28-90	2.25		0.19	0.04	0.34	4.63	0.06	277
	1-31-90	2.96		0.17	0.09	0.24	2.13	0.06	242

* Storms that produced flow over the inflow weir.

Table G-3. Hydrologic characteristics at a wet detention pond in Tampa, Florida during 1993-1994

STORM #	DATE	INTER-EVENT PERIOD days	INTER-EVENT * days	RAIN inches	AVERAGE INTENSITY in/hr	MAXIMUM INTENSITY in/hr	STORM DURATION hours	RUNOFF COEFFIC
	6-20-93	•		1.13	0.41	1.04	2.75	0.165
	6-21-93	0.80		0.69	0.55	1.20	1.25	0.324
	6-23-93	2.89		0.33	0.19	0.64	1.50	0.118
1	6-24-93	0.74	4.43	0.93	0.24	1.50	4.00	0.386
	6-25-93	0.92		0.15	0.09	0.32	1.25	0.846
	6-28-93	2.49		0.18	0.36	0.60	0.50	0.455
2	6-30-93	2.06	5.47	0.93	0.23	0.96	4.00	0.466
	7-05-93	4.20		0.05	0.05	0.08	1.00	•
	7-08-93	2.82		0.17	0.11	0.56	1.50	•
	7-10-93	2.02		0.12	0.03	0.12	3.75	•
3	7-12-93	1.69	10.73	1.09	0.34	0.96	3.25	0.308
	7-13-93	0.93		0.12	0.24	0.44	0.50	0.252
	7-15-93	1.89		0.89	0.71	1.86	1.25	0.450
4	7-21-93	5.63	8.45	0.36	0.23	0.66	3.00	0.168
	7-24-93	3.26		0.25	0.17	0.40	3.00	0.000
	7-27-93	2.96		0.10	0.20	0.36	0.50	0.000
5	8-13-93	16.92	23.14	0.37	0.74	1.04	0.50	0.001
6	8-14-93	0.85	0.85	0.43	0.74	0.68	2.00	0.021
	8-15-93	0.73		0.43	0.13	0.26	3.25	0.035
	8-16-93	1.17		0.10	0.19	0.28	0.50	0.016
7	8-25-93	8.90	10.80	2.16	0.93	3.90	2.00	0.384
8	8-26-93	0.97	0.97	3.91	0.67	4.16	5.75	0.704
	8-28-93	1.60		0.23	0.17	0.54	1.50	0.024
	8-28-93	0.16		0.08	0.05	0.18	1.75	0.157
9	8-29-93	0.68	2.44	1.79	0.27	1.76	5.00	0.729
	8-30-93	0.66		0.22	0.04	0.18	4.75	0.509
	8-31-93	0.75		0.27	0.18	0.64	1.25	0.523
	9-01-93	1.15		0.22	0.14	0.60	2.00	0.496
11	9-02-93	3.82	6.38	0.91	0.91	2.08	1.00	0.752
12	9-05-93	0.94	0.94	2.32	0.41	3.70	5.75	0.430
	9-06-93	0.84		0.08	0.32	0.32	0.25	0.773
	9-07-93	0.22		0.14	0.06	0.16	2.25	0.361
	9-08-93	0.43		0.07	0.06	0.12	1.25	0.515
	9-10-93	1.96		0.23	0.39	0.86	0.50	0.383
13	9-11-93	1.17	4.62	0.85	0.52	1.12	1.25	0.715
14	9-14-93	2.77	2.77	0.66	0.48	0.94	1.50	0.695
	9-15-93	1.13		0.22	0.12	0.60	1.75	0.405
15	9-21-93	5.98	7.11	1.46	0.59	2.84	2.25	0.570
16	9-27-93	5.67	5.67	0.77	0.46	1.62	1.25	0.279
17	10-6-93	9.04	9.04	0.75	0.12	0.50	6.25	0.187
18	10-9-93	2.67	2.67	0.27	0.14	0.30	2.00	0.238
	10-10-93	0.83		0.22	0.44	0.58	0.50	•
	10-14-93	3.82		0.11	0.04	0.12	1.75	0.013
19	10-15-93	0.70	5.35	0.12	0.03	0.08	3.25	0.574
	10-15-93	0.29		0.32	0.09	0.44	3.75	•
	10-16-93	0.18		0.05	0.03	0.04	1.50	•
	10-16-93	6.80		0.28	0.04	0.16	6.25	•
	10-26-93	9.73		0.20	0.10	0.20	2.00	0.256
20	10-30-93	4.07	21.07	1.34	0.08	1.00	16.50	0.437
	11-07-93	5.90		0.05	0.04	0.08	1.50	0.054
21	11-20-93	14.03	19.93	0.24	0.39	0.84	0.50	0.211
22	12-11-93	20.45	20.45	0.20	0.18	0.40	1.00	0.337
23	12-15-93	3.53	3.53	0.28	0.15	0.30	1.50	0.602
24	12-22-93	7.20	7.20	0.27	•	•	•	•
25	12-23-93	1.21	1.21	0.20	•	•	•	•
26	12-26-93	1.39	1.39	0.50	•	•	•	•
27	1-02-93	8.50	8.50	0.85	0.12	0.24	7.00	•
28	1-02-93	0.53	0.53	0.31	0.18	0.05	1.75	•
29	1-13-93	10.50	10.50	1.06	0.28	0.24	3.75	0.503
30	1-17-93	4.17	4.17	1.18	0.21	0.46	5.75	0.730

*Storms that produced flow over the inflow weir

Table G-4. Hydrologic characteristics of rainfall at a wet detention pond in Tampa, Fla. during 1994-95.

STORM NUMBER	DATE	TIME	INTER-EVENT days	RAIN inches	AVERAGE INTENSITY in/hr	MAXIMUM INTENSITY in/hr	STORM DURATION hours	RUNOFF COEFFIC.
2	6-14-94	17:15	6.29	0.77	0.39	2.00	2.00	0.203
3	6-15-94	18:45	0.99	1.39	0.22	2.56	6.25	0.377
4	6-16-94	18:15	0.72	1.10	0.34	1.60	3.25	0.488
5	6-17-94	15:45	0.76	0.32	0.16	0.52	2.00	0.345
6	6-20-94	12:30	2.78	0.50	0.25	1.08	2.00	0.334
7	6-21-94	10:45	0.84	0.39	0.14	1.24	2.75	0.547
8	6-27-94	21:00	6.36	0.77	0.77	2.00	1.00	0.151
9	6-29-94	20:45	4.00	0.30	0.08	0.28	4.00	0.132
	6-30-94	15:00	0.62	0.32	0.14	0.72	2.25	0.263
10	7-1-94	15:00	0.90	1.56	0.52	2.76	3.00	0.544
11	7-2-94	12:00	0.75	0.52	1.04	1.56	0.50	0.530
	7-2-94	20:25	0.29	0.08	0.11	0.20	0.75	•
	7-3-94	20:30	0.97	0.18	0.10	0.28	1.75	0.528
	7-4-94	16:30	0.78	0.18	0.18	0.16	1.00	0.392
	7-5-94	19:45	1.09	0.07	0.09	0.12	0.75	0.279
12	7-6-94	17:45	0.85	0.37	0.10	0.24	3.75	0.175
13	7-10-94	14:00	3.77	0.49	0.39	0.72	1.25	0.315
	7-10-94	18:10	0.07	0.06	0.06	0.08	0.07	•
14	7-18-94	19:30	8.23	0.76	1.01	2.56	0.75	0.277
15	7-20-94	10:15	0.66	1.11	1.11	2.56	1.00	0.389
16	7-21-94	13:00	0.90	0.42	0.34	1.04	1.25	0.610
	7-21-94	17:00	0.13	0.08	0.11	0.20	0.75	•
17	7-24-94	10:00	2.86	0.22	0.22	0.32	1.00	0.208
	7-26-94	12:00	2.27	0.05	0.10	0.16	0.50	0.150
18	7-28-94	13:30	1.91	0.49	0.39	0.72	1.25	0.281
	7-29-94	13:45	0.90	0.63	0.09	0.72	6.50	0.332
19	7-30-94	19:00	0.97	0.45	0.26	1.08	1.75	0.571
20	8-3-94	16:00	3.77	0.22	0.15	0.48	1.50	0.154
	8-4-94	19:45	1.14	0.12	0.05	0.16	2.25	0.124
21	8-5-94	11:15	0.55	0.20	0.13	0.60	1.50	0.313
22	8-6-94	4:45	0.98	0.42	0.34	1.04	1.25	0.223
	8-6-94	18:45	0.21	0.06	0.12	0.16	0.50	•
	8-7-94	14:00	0.76	0.17	0.10	0.32	1.75	0.230
23	8-8-94	00:00	0.69	0.42	0.10	0.68	4.25	0.522
24	8-10-94	14:00	2.05	2.28	0.48	3.88	4.75	0.641
25	8-11-94	13:00	0.74	0.30	0.60	1.04	0.50	0.447
27	8-13-94	15:00	2.08	0.71	0.20	1.00	3.50	0.468
27	8-16-94	15:00	2.84	0.11	0.07	0.12	1.50	0.196
	8-19-94	15:00	3.01	0.34	0.32	0.68	1.00	0.187
28	8-20-94	20:00	1.02	0.45	0.60	1.32	0.75	0.324
29	8-22-94	5:00	1.78	0.29	0.07	0.44	4.25	0.336
30	8-24-94	16:00	1.94	0.72	0.26	1.84	2.75	0.455
	8-25-94	16:30	0.88	0.14	0.06	0.16	2.50	0.245
31	8-26-94	19:00	1.00	1.14	0.65	1.36	1.75	0.649
	8-28-94	15:30	1.81	0.42	0.17	0.80	2.50	0.198
	9-2-94	15:00	4.24	0.72	0.96	2.36	0.75	0.163
	9-8-94	17:30	6.06	0.06	0.24	0.24	0.25	0.081
	9-9-94	18:15	1.01	0.09	0.06	0.20	1.50	•
	9-10-94	18:00	0.92	0.31	0.31	0.68	1.00	•
	9-11-94	18:15	0.95	0.26	0.07	0.24	4.00	•
	9-13-94	14:15	1.72	0.21	0.08	0.24	2.50	•
	9-14-94	18:00	0.97	0.18	0.04	0.16	5.00	0.185
32	9-15-94	13:15	0.64	1.22	0.15	0.84	8.00	0.503
	9-16-94	15:00	0.92	2.03	0.29	2.08	7.25	0.553
33	9-17-94	14:15	0.96	0.72	0.96	2.60	0.75	0.683
34	9-19-94	15:00	2.04	1.63	0.72	3.04	2.25	0.807
35	9-24-94	18:15	5.05	1.13	0.90	1.72	1.25	0.507
	9-26-94	5:00	1.39	0.85	0.09	1.08	10.00	0.699
36	9-27-94	9:30	2.18	1.27	0.39	1.32	3.25	0.802
37	10-1-94	19:30	5.78	0.51	0.09	0.48	5.50	0.485
	10-3-94	3:45	0.73	0.24	0.04	0.52	6.50	0.585
38	10-9-94	17:45	6.32	0.42	0.34	0.72	1.25	0.254
	10-10-94	16:00	0.88	0.08	0.11	0.12	0.75	0.151
39	10-11-94	13:15	0.85	0.36	0.06	0.20	6.00	0.400
	10-13-94	6:30	1.67	0.14	0.08	0.12	1.75	0.354
40	10-26-94	14:30	13.00	1.60	0.38	1.40	4.25	0.461
	10-29-94	18:00	3.00	1.73	2.31	2.88	0.75	0.601
	10-30-94	12:15	0.81	0.36	0.70	0.64	0.50	0.448
	11-11-94	8:00	10.72	0.09	0.12	0.24	0.75	0.118

Table G-4. Hydrologic characteristics of rainfall at a wet detention pond in Tampa, Fla. during 1994-95.

STORM NUMBER	DATE	TIME	INTER-EVENT days	RAIN inches	AVERAGE INTENSITY in/hr	MAXIMUM INTENSITY in/hr	STORM DURATION hours	RUNOFF COEFFIC.
(Continued)								
41	11-15-94	18:30	4.35	0.66	0.05	0.28	12.25	0.179
	12-11-94	5:15	24.89	1.70	0.68	3.28	2.50	0.416
	12-18-94	6:45	6.91	0.05	0.10	0.12	0.50	0.000
42	12-20-94	21:45	2.63	0.83	0.06	0.20	13.00	0.274
43	12-22-94	19:45	1.35	0.28	0.22	0.32	1.25	0.480
	1-4-95	10:30	11.53	0.19	0.02	0.08	7.75	0.131
44	1-7-95	7:15	2.55	0.25	0.14	0.20	1.75	0.186
45	1-14-94	4:00	6.75	1.02	0.20	1.64	5.00	0.441
	1-14-95	12:46	0.16	0.07	0.09	0.20	0.75	0.482
	1-14-94	17:30	0.14	0.05	0.05	0.16	0.75	0.468
	1-14-95	22:15	0.17	0.18	0.07	0.20	2.50	0.503
	1-15-95	5:15	0.19	0.11	0.06	0.32	1.75	0.268
46	1-15-95	12:00	0.23	0.53	0.07	0.72	7.50	0.561
47	1-23-94	13:15	7.72	0.16	0.16	0.52	1.00	0.188

APPENDIX H

Surface Water Volumes Including Inflow, Outflow and Rainfall

Table H-1. Surface water inflow and outflow for June through January 1993-4. Rainfall directly on the pond is considered an input. Rainfall measured at the inflow and outflow stations give slightly different readings. LOGGER = DATA LOGGER, METER = ISCO FLOW METER.

			INFLOW			OUTFLOW			AVERAGE		
STORM NUMBER	DATE	TIME	RAIN inches	LOGGER cu ft	METER cu ft	RAIN inches	LOGGER cu ft	METER cu ft	RAIN cu ft	INFLOW cu ft	OUTFLOW cu ft
	20-JUN-93	19:30	1.13	4402	* 4402	1.13	0	0	1435	4402	0
	21-JUN-93	17:45	0.70	5345	* 5345	0.70	0	0	889	5345	0
	23-JUN-93	19:45	0.32	921	* 921	0.34	0	0	419	921	0
1	24-JUN-93	17:15	0.91	8571	* 8571	0.97	1151	1064	1194	8571	1108
	25-JUN-93	16:45	0.15	2995	* 2995	0.15	2492	2152	191	2995	2322
	28-JUN-93	6:45	0.18	1986	* 1986	0.19	1373	1173	235	1986	1273
2	30-JUN-93	9:00	0.94	10940	9732	0.94	9292	8680	1194	10336	8986
TOTALS JUNE			**4.33**	**35160**	**33952**	**4.42**	**14308**	**13069**	**5556**	**34556**	**13689**
	12-JUL-93	13:45	1.08	7640	* 7640	1.02	3120	* 3120	1334	7640	3120
	13-JUL-93	16:00	0.16	713	* 713	0.08	1612	* 1612	152	713	1612
3	15-JUL-93	14:00	0.97	10295	* 10295	0.97	8873	* 8873	1232	10295	8873
4	21-JUL-93	6:00	0.38	1406	* 1406	0.33	480	* 480	451	1406	480
TOTALS JULY			**2.59**	**20054**	***20054**	**2.40**	**14085**	***14085**	**3169**	**20054**	**14085**
	8-AUG-93	13:30	0.36	19	* 19	0.38	0	0	470	10	0
5	14-AUG-93	10:30	0.41	206	* 206	0.42	0	0	527	206	0
6	15-AUG-93	08:30	0.43	353	* 353	0.42	0	0	540	353	0
	16-AUG-93	15:45	0.09	36	* 36	0.10	0	0	121	36	0
7	25-AUG-93	15:15	2.11	19665	* 19665	2.23	12537	9077	2756	19665	10807
8	26-AUG-93	16:45	3.93	65600	* 65600	3.97	82590	87590	5017	65600	85090
	28-AUG-93	12:45	0.09	52	* 52	0.09	348	471	114	52	410
	28-AUG-93	17:15	0.09	333	* 333	0.09	1130	544	114	333	837
	29-AUG-93	11:15	0.24	1684	* 1684	0.25	303	147	311	1684	225
9	29-AUG-93	15:30	1.62	28948	* 28349	1.71	19299	19669	2115	28649	19484
	30-AUG-93	12:15	0.05	85	151	0.07	890	774	76	118	832
	30-AUG-93	15:15	0.19	2039	2521	0.19	4539	2964	241	2280	3752
	31-AUG-93	14:00	0.28	3099	3815	0.28	3663	3096	356	3457	3380
TOTALS AUGUST			**9.53**	**121505**	**122170**	**9.82**	**125299**	**124332**	**12757**	**121838**	**124815.5**
10	1-SEP-93	19:00	0.22	2084	3064	0.22	1119	2510	279	2574	1815
	2-SEP-93	15:00	0.06	671	1457	0.06	3051	1137	76	1064	2094
11	5-SEP-93	16:45	0.95	9540	* 9540	0.93	7157	7157	1194	9540	7157
12	6-SEP-93	17:30	2.42	43866	*43866	2.39	39973	* 39973	3054	43866	39973
	7-SEP-93	23:45	0.14	1192	* 1192	0.14	1659	* 1659	178	1192	1659
	8-SEP-93	12:15	0.07	851	* 851	0.07	2290	* 2290	89	851	2290
	10-SEP-93	12:30	0.23	1843	626	0.23	819	* 819	292	2078	819
13	11-SEP-93	17:00	0.94	14421	16445	0.89	14850	15615	1162	15433	15233
14	14-SEP-93	12:45	0.66	10125	11372	0.65	7788	7896	832	10749	7842
	15-SEP-93	17:15	0.22	1828	2378	0.22	4183	4168	279	2103	4176
15	21-SEP-93	18:30	1.48	19045	21051	1.50	19654	18456	1892	20048	19055
16	27-SEP-93	12:45	0.77	4849	5756	0.84	4011	3052	1022	5303	3532
TOTALS SEPTEMBER			**7.94**	**108231**	**116221**	**7.92**	**105435**	**102222**	**10351**	**112226**	**103829**

(continued)

Table H-1 (continued)

			INFLOW			OUTFLOW			AVERAGE		
STORM NUMBER	DATE	TIME	RAIN inches	LOGGER cu ft	METER cu ft	RAIN inches	LOGGER cu ft	METER cu ft	RAIN cu ft	INFLOW cu ft	OUTFLOW cu ft
17	6-OCT-93	00:00	0.81	4149	3057	0.82	2609	3095	1035	3603	2852
18	9-OCT-93	13:30	0.50	2940	2629	0.49	2340	2775	629	2785	2558
	14-OCT-93	2:45	0.13	42	40	0.13	264	320	165	41	292
19	15-OCT-93	14:30	0.73	* 10028	10028	0.75	8097	9180	940	10028	8639
	26-OCT-93	12:15	0.20	* 1208	1208	0.20	13	25	254	1208	19
20	30-OCT-93	19:00	1.34	* 13828	13828	1.34	8874	11417	1702	13828	10146
TOTALS OCTOBER			**3.71**	**32195**	**30790**	**3.73**	**22197**	**26812**	**4724**	**31493**	**24505**
	7-NOV-93	8:12	0.07	107	72	0.07	36	45	89	90	36
21	20-NOV-93	10:30	0.25	1038	1351	0.23	0	0	305	1195	676
TOTALS NOVEMBER			**0.32**	**1145**	**1423**	**0.30**	**36**	**45**	**394**	**1284**	**712**
22	11-DEC-93	11:45	0.18	* 1432	1432	* 0.18	0	0	229	1432	0
23	15-DEC-93	16:30	0.28	* 3974	3974	* 0.28	0	0	356	3974	0
24	22-DEC-93	00:00	0.27	* 5963	5963	* 0.27	* 3011	3011	343	5963	3011
25	23-DEC-93	5:00	0.20	* 4613	4613	* 0.20	* 2434	2434	254	4613	2434
26	24-DEC-93	12:00	0.50	* 14682	14682	* 0.50	* 9104	9104	635	14682	9104
TOTALS DECEMBER			**1.43**	*** 30664**	**30664**	*** 1.43**	*** 14549**	**14549**	**1816**	**30664**	**14549**
27	2-JAN-94	00:00	0.85	9975	10331	0.87	5521	6503	1092	10153	6012
28	2-JAN-94	20:00	0.31	6512	6038	0.24	4707	4904	349	6275	4806
29	11-JAN-94	15:00	1.03	12705	12434	1.09	11079	9458	1346	12570	10269
30	17-JAN-94	21:45	1.18	20699	19796	1.17	20547	17664	1492	20248	19106
TOTALS JANUARY			**3.37**	**49891**	**48599**	**3.37**	**41854**	**38529**	**4280**	**49245**	**40192**

* Instrument not operational and the alternate measuring device was substituted

Table H-2. Surface water inflow and outflow data for 1994-5. Rainfall directly on the pond is considered an input . Average values are the average of the two instruments used for measuring rainfall, inflow and outflow.

			INFLOW			OUTFLOW			AVERAGE		
STORM NUMBER	DATE	TIME	RAIN inches	LOGGER cu ft	METER cu ft	RAIN inches	LOGGER cu ft	METER cu ft	RAIN cu ft	INFLOW cu ft	OUTFLOW cu ft
2	14-JUN-94	17:15	0.79	3782	3690	0.78	152	470	1727	3736	311
3	15-JUN-94	18:45	1.38	12214	12713	1.42	10946	*10946	3100	12464	10946
4	16-JUN-94	18:15	1.08	13119	12930	1.18	14427	13394	2502	13025	13911
5	17-JUN-94	15:45	0.35	3178	3007	0.41	7663	* 7663	841	3093	7663
6	20-JUN-94	12:30	0.47	3965	3927	0.52	1765	1990	1107	3946	1878
7	21-JUN-94	10:45	0.39	5148	4916	0.39	6130	5970	863	5032	6050
8	27-JUN-94	21:00	0.66	3017	3176	0.87	590	810	1926	3097	700
9	29-JUN-94	20:45	0.30	1036	826	0.30	137	200	664	931	169
	30-JUN-94	15:00	*	* 1986	1986	0.32	715	715	708	1986	715
TOTAL JUNE			5.74	47445	47171	6.19	42525	41443	13438	47308	42342
10	1-JUL-94	15:00	*	*20151	20151	1.57	15202	*15202	3476	20151	15202
11	2-JUL-94	12:00	*	* 8000	8000	0.66	12293	*12293	1416	8000	12293
	3-JUL-94	20:30	*	* 2245	2245	0.18	2574	* 2574	399	2245	2574
	4-JUL-94	16:30	*	* 1853	1853	0.20	2186	2375	443	1853	2281
	5-JUL-94	19:45	*	* 330	330	0.05	783	940	111	330	862
12	6-JUL-94	17:45	*	* 3684	3684	0.89	3145	3333	1970	3684	3239
13	10-JUL-94	14:00	0.56	4738	3879	0.58	4873	5079	1284	4309	4976
14	18-JUL-94	19:30	0.86	4867	5544	0.93	2083	2123	1764	5206	2103
15	20-JUL-94	10:15	*	*10289	10289	1.12	8873	6781	2480	10289	7827
16	21-JUL-94	13:00	*	* 7343	7343	0.51	12965	11493	1129	7343	12229
17	24-JUL-94	10:00	*	* 1126	1126	0.23	2575	3121	509	1126	2848
	26-JUL-94	12:00	*	* 177	177	0.05	1310	949	111	177	1130
18	28-JUL-94	13:30	*	* 3254	3254	0.49	1466	1626	1085	3254	1546
	29-JUL-94	13:45	*	* 5328	5328	0.68	6309	8028	1506	5328	7169
19	30-JUL-94	19:00	*	* 6334	6334	0.47	8961	8129	1041	6334	8545
TOTAL JULY			*	79719	79537	8.61	85598	84046	18724	79628	84822
20	3-AUG-94	16:00	*	* 762	762	0.21	591	1038	465	762	815
	4-AUG-94	19:45	0.22	447	575	0.13	261	639	387	511	450
21	5-AUG-94	11:15	0.22	1618	1342	0.18	685	1277	443	1480	981
22	6-AUG-94	4:45	0.46	2320	2100	0.38	1942	1980	930	2210	1961
	7-AUG-94	14:00	0.15	921	921	0.19	589	581	376	921	585
23	8-AUG-94	00:00	0.49	5669	5911	0.45	6615	6113	1041	5790	6364
24	10-AUG-94	14:00	2.44	35199	33881	2.13	21923	20325	5059	34540	21124
25	11-AUG-94	13:00	0.33	3079	3248	0.27	10176	14556	664	3164	12366
	13-AUG-94	15:00	0.82	8029	9100	0.73	8980	8130	1716	8565	8555
26	16-AUG-94	15:00	0.17	660	730	0.12	1109	1446	332	695	1278
27	19-AUG-94	15:00	0.37	1441	1645	0.32	410	471	775	1543	441
28	20-AUG-94	20:00	0.46	3323	3716	0.44	2027	2846	1018	3520	2437
29	22-AUG-94	5:00	0.34	2211	2621	0.27	2111	2178	675	2416	2145
30	24-AUG-94	16:00	0.71	7406	8274	0.75	5045	4476	1616	7840	4761
	25-AUG-94	16:30	0.15	726	894	0.12	2280	1950	310	810	2115
31	26-AUG-94	19:00	1.17	17912	17912	1.17	18100	15576	2590	17912	16838
	28-AUG-94	15:30	0.43	2555	1470	0.43	5514	5568	952	2013	5541
TOTAL AUGUST			9.14	94278	95102	8.29	88358	89150	19349	94690	88754

(continued)

Table H-2. Continued

			INFLOW			OUTFLOW			AVERAGE		
STORM NUMBER	DATE	TIME	RAIN inches	LOGGER cu ft	METER cu ft	RAIN inches	LOGGER cu ft	METER cu ft	RAIN cu ft	INFLOW cu ft	OUTFLOW cu ft
	2-SEP-94	15:00	0.80	2824	* 2824	0.67	2163	2336	1627	2824	2250
	8-SEP-94	17:30	*	1920	* 1920	1.01	1500	1870	2236	1920	1685
	14-SEP-94	14:15	0.19	742	* 742	0.17	387	391	376	742	389
32	15-SEP-94	13:15	1.29	14478	*14478	1.17	12277	8370	2701	14478	10324
	16-SEP-94	15:00	2.11	26428	*26428	1.94	40406	45029	4483	26428	42718
33	17-SEP-94	14:15	0.73	11764	*11764	0.73	19176	18097	1616	11764	18637
34	19-SEP-94	15:00	*	31601	*31601	1.66	27614	27624	3675	31601	27619
35	24-SEP-94	18:15	*	13518	*13518	1.13	11637	9479	2502	13518	10558
	26-SEP-94	5:00	*	14028	*14028	0.85	12809	10710	1882	14028	11760
36	27-SEP-94	9:30	*	24771	23253	1.27	27842	27173	2811	24012	27508
TOTAL SEPTEMBER			**11.04**	**142074**	**140556**	**10.60**	**155811**	**151079**	**23909**	**141315**	**153445**
37	1-OCT-94	19:30	*	5821	6546	0.54	3929	2692	1196	6184	3311
	3-OCT-94	3:45	*	2874	3747	0.24	6338	6161	531	3311	6250
38	9-OCT-94	17:45	0.42	2423	2616	0.41	541	779	930	2520	660
	10-OCT-94	16:00	0.11	288	282	0.08	553	579	177	285	566
39	11-OCT-94	13:15	0.36	3338	3637	0.37	2308	2609	819	3488	2459
	13-OCT-94	6:30	0.16	1508	1492	0.17	2254	2694	398	1500	2474
40	26-OCT-94	14:30	1.60	17339	17432	1.60	14786	12774	3542	17386	13780
	29-OCT-94	18:00	1.73	23794	22400	1.52	16036	17491	3609	23097	16764
	30-OCT-94	12:15	0.36	3680	3935	0.30	9214	10333	797	3808	9774
TOTAL OCTOBER			**5.52**	**61065**	**62087**	**5.23**	**55959**	**56112**	**11999**	**61576**	**56036**
	11-NOV-94	8:00	0.09	258	242	0.08	22	113	199	250	68
41	15-NOV-94	18:30	0.75	2719	3060	0.62	963	1046	1517	2890	1005
TOTAL NOVEMBER			**0.84**	**2977**	**3302**	**0.70**	**985**	**1159**	**1716**	**3140**	**1073**
	11-DEC-94	5:15	1.71	15809	17725	1.55	14484	13821	3786	16767	14153
	18-DEC-94	6:45	0.05	0	0	0.06	305	515	111	0	410
42	20-DEC-94	21:45	0.84	5088	5764	0.83	2990	3090	1860	5426	3040
43	22-DEC-94	19:45	0.27	2964	3154	0.28	3583	4208	598	3059	3896
TOTAL DECEMBER			**2.87**	**23861**	**26643**	**2.72**	**21362**	**21634**	**6355**	**25252**	**21498**
	4-JAN-95	10:30	0.20	587	* 587	0.19	25	179	421	587	102
44	7-JAN-95	7:15	0.26	1017	1182	0.24	246	815	554	1100	531
45	14-JAN-95	4:00	1.14	13693	15421	1.08	7960	7224	2458	14557	7592
46	15-JAN-95	12:00	0.54	8122	9203	0.77	17178	15532	1450	8663	16355
47	23-JAN-95	13:15	0.16	672	750	0.16	1186	1783	354	711	1485
TOTAL JANUARY			**2.30**	**24091**	**27143**	**2.44**	**26595**	**25533**	**5237**	**25617**	**26064**

* Instrument not operational. For calculations the alternate measuring device was substituted.