

California Regional Water Quality Control Board
North Coast Region

Laguna de Santa Rosa TMDL

Monitoring Report - 2008

Appendices

December 2008

Appendix 1A. Instantaneous Data Sonde Measurement Results - Summer 2008.

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
ABR1	28-Jul-08	12:24	--	16.0	7.4
ABR1	15-Sep-08	16:19	4.4	15.7	7.9
BLU1	12-Aug-08	11:17	2.7	14.6	7.1
BLU1	29-Jul-08	11:29	--	14.3	7.0
BLU1	24-Jul-08	13:45	--	14.4	7.0
BLU1	29-Aug-08	15:20	1.5	17.2	7.2
BLU1	12-Sep-08	17:10	1.2	14.1	6.9
BRU1	8-Aug-08	9:55	--	17.4	7.6
BRU1	15-Sep-08	14:41	6.9	19.9	7.9
BRU1	25-Sep-08	15:10	6.2	18.4	7.8
BRU1	25-Jul-08	12:19	--	19.4	8.3
COL1	29-Jul-08	11:12	--	17.6	7.8
COL1	24-Jul-08	12:35	--	12.8	7.1
COP1	24-Jul-08	8:02	--	16.3	7.7
COP1	12-Aug-08	13:10	4.1	18.3	7.5
COP1	29-Aug-08	13:40	3.0	19.6	7.4
COP1	12-Sep-08	18:05	3.3	16.4	7.8
GOS1	12-Aug-08	11:54	4.4	16.3	7.4
GOS1	24-Jul-08	12:03	--	16.0	7.4
GOS1	28-Jul-08	13:35	--	17.6	7.7
GOS1	29-Aug-08	14:43	5.2	20.6	6.8
GOS1	25-Sep-08	17:18	4.2	14.5	7.6
HIN1	24-Jul-08	11:37	--	19.0	7.8
HIN1	29-Aug-08	14:27	5.6	25.1	7.6
HIN1	28-Jul-08	14:44	--	21.3	7.7
HIN1	12-Aug-08	14:49	5.0	21.4	7.6
HIN1	25-Sep-08	16:28	9.3	19.5	8.2
HIN1	12-Sep-08	17:35	8.9	20.0	8.0
LHW1	24-Jul-08	8:51	--	16.3	7.8
LHW1	29-Jul-08	12:20	--	15.0	7.9
LJRT	29-Jul-08	10:28	--	16.2	7.4
LJRT	8-Aug-08	13:15	--	16.7	7.7
LJRT	24-Jul-08	14:30	--	17.3	7.6
LJRT	29-Aug-08	15:46	4.3	20.1	7.4
LJRT	22-Sep-08	17:20	7.7	16.1	7.6

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
LOR1	25-Jul-08	11:39	--	22.5	8.4
LOR1	29-Aug-08	16:59	15.6	29.0	9.2
LOR1	5-Aug-08	17:15	--	26.1	8.6
LOR1	29-Sep-08	18:06	13.5	22.3	9.1
LOR1	22-Sep-08	18:28	6.8	20.6	8.7
LOR1	29-Aug-08	17:02	16.2	28.9	9.1
LRR1	19-Sep-08	9:38	3.9	12.6	7.4
LRR1	5-Aug-08	14:05	--	18.6	7.5
LRR1	25-Jul-08	9:37	--	16.8	7.6
LSEB	29-Jul-08	9:43	--	20.1	7.6
LSEB	29-Jul-08	9:47	--	20.5	7.6
LSEB	8-Aug-08	13:42	--	19.9	7.7
LSEB	8-Aug-08	13:45	--	23.7	8.0
LSEB	24-Jul-08	14:50	--	19.3	7.6
LSEB	24-Jul-08	14:55	--	21.7	8.3
LSEB	12-Sep-08	16:29	3.3	18.4	7.5
LSEB	12-Sep-08	16:29	11.4	21.7	8.4
LSEB	29-Aug-08	16:40	8.0	23.7	7.5
LSEB	29-Sep-08	17:42	3.5	16.5	7.5
LSEB	29-Sep-08	17:47	11.2	18.5	8.6
LSEB	22-Sep-08	18:07	4.2	16.5	7.5
LSEB	22-Sep-08	18:07	8.4	19.4	8.0
LSEB	29-Aug-08	16:37	1.0	20.5	7.5
LTH1	12-Aug-08	9:13	5.4	17.7	7.8
LTH1	5-Aug-08	15:50	--	18.7	7.8
LTH1	29-Sep-08	16:11	5.6	15.2	7.7
LTH1	25-Jul-08	9:17	--	17.2	7.8
LTH1	12-Sep-08	15:23	6.5	17.2	7.9
LTH1	19-Sep-08	9:24	6.0		7.9
LTOD	29-Jul-08	10:56	--	17.6	8.2
LTOD	12-Aug-08	10:56	7.9	20.9	8.4
LTOD	24-Jul-08	13:10	--	18.3	8.0
LTOD	29-Aug-08	15:07	9.3	28.1	8.6
LTOD	12-Sep-08	16:52	10.0	21.4	8.5
LTOD	25-Sep-08	17:41	9.9	18.2	8.6
MAT1	28-Jul-08	9:50	--	16.5	7.8
MAT1	8-Aug-08	11:19	--	15.5	7.7
MAT1	15-Sep-08	15:25	4.0	15.3	7.6
MAT1	25-Sep-08	16:00	6.4	15.9	7.6

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
MWC1	19-Sep-08	9:07	5.2		7.4
MWC1	5-Aug-08	13:35	--	17.2	7.4
MWC1	25-Jul-08	8:01	--	16.7	7.2
PET1	28-Jul-08	12:03	--	23.5	8.2
PET1	8-Aug-08	15:22	--	25.6	8.3
PIN1	28-Jul-08	11:28	--	20.6	7.7
PIN1	8-Aug-08	15:00	--	22.0	7.6
PIN1	15-Sep-08	15:57	7.2	20.2	7.9
SRFU	28-Jul-08	11:11	--	19.9	7.9
SRFU	8-Aug-08	14:24	--	21.3	7.7
SRFU	15-Sep-08	15:45	10.7	19.9	8.2
SRHW	8-Aug-08	10:02	--	15.6	7.8
SRHW	25-Jul-08	12:07	--	17.0	7.8
SRHW	25-Sep-08	15:18	4.4	15.3	7.6
SRHW	15-Sep-08	14:48	7.0	16.9	7.7
SRWR	28-Jul-08	8:12	--	18.8	7.7
SRWR	29-Jul-08	14:10	--	19.7	7.8
SRWR	12-Sep-08	15:52	7.6	17.2	7.8
SRWR	15-Sep-08	16:32	8.0	16.8	7.9
TUR1	29-Jul-08	11:56	--	14.3	7.4
TUR1	24-Jul-08	12:57	--	18.0	7.1
VIN1	25-Jul-08	10:18	--	12.6	7.7
VIN1	12-Sep-08	15:39	9.7	14.3	7.8
VIN1	5-Aug-08	16:05	--	17.7	7.9
VIN1	29-Sep-08	16:32	9.3	14.3	7.9
WAS1	24-Jul-08	9:51	--	14.5	7.9
WAS1	12-Aug-08	13:46	1.5	15.6	7.2
WAS1	29-Aug-08	14:01	0.6	17.1	6.9
WAS1	25-Sep-08	17:02	1.2	13.1	7.3
WIL1	24-Jul-08	11:05	--	19.2	8.1
WIL1	29-Aug-08	14:14	16.6	26.6	8.4
WIL1	25-Sep-08	16:46	13.4	17.8	8.7
WIL1	12-Sep-08	17:25	11.9	20.3	8.7
WIL1	12-Aug-08	7:55	6.6	23.9	8.0
WIN1	19-Sep-08	8:49	4.4		7.5
WIN1	25-Jul-08	8:51	--	15.4	7.5
WIN1	12-Sep-08	15:07	2.8	16.4	7.5
WIN1	29-Sep-08	15:56	2.7	15.3	7.3
WIN1	12-Aug-08	13:26	3.6	15.5	7.3

Appendix 1B. Instantaneous Data Sonde Measurement Results - Fall 2008.

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
ABR1	19-Nov-08	8:43	5.4	11.6	7.0
BLU1	02-Oct-08	16:26	4.3	14.4	7.0
BLU1	15-Oct-08	9:40	4.6	10.3	7.5
BLU1	20-Oct-08	16:52	4.8	11.5	7.6
BLU1	23-Oct-08	16:31	5.5	10.6	7.1
BLU1	25-Nov-08	11:23	6.1	9.5	7.1
BLU1	26-Nov-08	10:06	7.2	9.6	7.1
BRU1	31-Oct-08	8:53	6.7	12.9	7.4
BRU1	06-Oct-08	13:47	1.4	18.6	7.0
BRU1	16-Oct-08	14:41	0.6	12.8	7.4
BRU1	25-Nov-08	13:51	11.0	10.9	7.7
BRU1	26-Nov-08	11:45	10.1	10.5	7.6
COL1	14-Nov-08	9:48	6.8	11.2	7.3
COP1	16-Oct-08	16:13	1.9	11.5	7.7
COP1	23-Oct-08	14:54	3.0	11.8	7.7
COP1	25-Nov-08	9:50	3.1	11.1	7.4
DSEB	02-Oct-08	15:55	7.1	16.6	7.4
DSEB	03-Oct-08	9:11	9.0	14.9	7.6
DSEB	09-Oct-08	16:41	7.5	14.6	7.5
DSEB	21-Nov-08	9:58	8.0	11.1	7.4
DSEB	24-Nov-08	16:21	8.1	11.7	7.2
DSEB	25-Nov-08	12:47	7.6	11.9	7.1
GOS1	20-Oct-08	17:13	5.1	13.4	7.4
GOS1	23-Oct-08	16:08	5.9	12.9	7.6
GOS1	14-Nov-08	9:15	2.3	12.6	7.9
GOS1	25-Nov-08	11:04	6.8	10.8	7.5
HIN1	02-Oct-08	17:08	10.9	20.4	8.3
HIN1	16-Oct-08	17:10	13.6	18.0	8.4
HIN1	23-Oct-08	14:40	14.0	16.3	8.3
HIN1	14-Nov-08	8:30	7.0	12.3	7.7
HIN1	25-Nov-08	10:52	11.6	11.7	7.9
HIN1	26-Nov-08	15:24	11.2	12.9	8.0
LHW1	06-Oct-08	16:16	1.4	16.7	7.2
LHW1	25-Nov-08	10:09	7.7	11.4	7.3
LHW1	26-Nov-08	13:20	9.7	12.8	6.9
LJRT	02-Oct-08	15:39	5.9	15.6	7.3
LJRT	03-Oct-08	9:17	5.6	14.6	7.3

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
LJRT	09-Oct-08	16:51	8.4	14.6	7.5
LJRT	20-Oct-08	16:20	10.3	13.8	7.8
LJRT	21-Nov-08	9:46	9.6	8.6	7.3
LJRT	24-Nov-08	16:15	11.0	12.0	7.5
LJRT	25-Nov-08	12:47	6.9	10.9	7.1
LJRT	26-Nov-08	10:20	6.9	10.7	7.1
LOR1	09-Oct-08	17:24	7.2	18.8	8.7
LOR1	10-Oct-08	9:50	5.7	15.1	8.6
LOR1	19-Nov-08	9:43	4.0	14.5	7.3
LOR1	24-Nov-08	16:43		13.6	7.3
LOR1	25-Nov-08	13:26	3.3	12.7	7.3
LRR1	09-Oct-08	15:34	2.2	16.1	7.3
LRR1	07-Nov-08	9:38	3.2	13.6	7.2
LRR1	26-Nov-08	9:07	6.1	10.9	7.2
LSEB	09-Oct-08	17:11	3.9	16.0	7.5
LSEB	09-Oct-08	17:15	7.3	18.0	7.7
LSEB	25-Nov-08	13:10	10.5	11.4	7.5
LSPR	14-Nov-08	8:50	4.0	13.0	7.2
LTH1	09-Oct-08	15:10	5.9	15.6	7.5
LTH1	20-Oct-08	14:36	7.3	12.8	7.6
LTH1	07-Nov-08	9:17	4.5	13.2	7.2
LTH1	25-Nov-08	14:57	7.3	10.8	7.3
LTH1	26-Nov-08	16:17	6.3	11.0	7.3
LTOD	03-Oct-08	9:45	4.5	15.1	7.9
LTOD	20-Oct-08	16:45	9.7	13.6	8.7
LTOD	14-Nov-08	10:00	2.3	12.9	6.9
LTOD	25-Nov-08	11:21	5.0	11.0	7.1
LTOD	26-Nov-08	9:55	7.5	10.9	7.1
MAT1	06-Oct-08	15:12	3.4	15.7	7.4
MAT1	16-Oct-08	15:24	5.6	15.0	7.8
MAT1	31-Oct-08	9:23	8.9	13.7	7.7
MAT1	25-Nov-08	14:13	9.2	11.5	7.5
MAT1	26-Nov-08	12:20	6.8	11.3	7.5
MWC1	07-Nov-08	8:59	8.6	12.3	7.6
MWC1	26-Nov-08	8:57	9.1	10.6	7.6
PET1	21-Nov-08	9:22	6.6	8.9	7.4
PIN1	10-Oct-08	8:56	4.8	13.0	7.4
PIN1	23-Oct-08	14:03	7.5	12.4	7.6
PIN1	19-Nov-08	8:59	7.7	12.4	7.5

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
PIN1	24-Nov-08	14:45	10.9	11.2	7.7
PIN1	26-Nov-08	11:19	9.5	11.2	7.6
SRFU	10-Oct-08	9:09	9.1	12.1	7.7
SRFU	23-Oct-08	14:14	11.1	13.1	8.1
SRFU	31-Oct-08	9:58	9.9	14.3	7.9
SRFU	24-Nov-08	14:30	14.7	11.5	8.2
SRFU	26-Nov-08	10:49	11.7	11.2	8.0
SRHW	06-Oct-08	14:07	8.1	16.5	7.6
SRHW	16-Oct-08	14:47	8.7	15.9	7.9
SRHW	31-Oct-08	9:04	9.1	12.8	7.8
SRHW	25-Nov-08	13:54	10.6	11.0	7.9
SRHW	26-Nov-08	11:48	10.3	10.9	7.8
SRWR	09-Oct-08	16:07	5.1	14.8	7.5
SRWR	10-Oct-08	9:37	6.1	13.6	7.5
SRWR	19-Nov-08	9:56	7.9	11.9	7.6
SRWR	21-Nov-08	8:44	8.7	10.2	7.6
SRWR	24-Nov-08	15:01	9.6	11.0	7.8
SRWR	26-Nov-08	9:30	10.6	10.6	7.7
VIN1	09-Oct-08	15:44	9.6	12.9	7.7
VIN1	07-Nov-08	9:53	9.8	11.8	7.8
VIN1	19-Nov-08	9:25	10.2	11.7	7.6
VIN1	25-Nov-08	14:48	10.4	11.4	7.7
VIN1	26-Nov-08	9:18	10.2	10.8	7.6
WAS1	02-Oct-08	17:26	0.7	15.5	7.2
WAS1	02-Oct-08	17:30	9.3	18.7	8.1
WAS1	06-Oct-08	16:39	0.6	15.6	7.2
WAS1	06-Oct-08	16:42	3.8	18.2	7.3
WAS1	15-Oct-08	9:05	6.8	11.8	7.1
WAS1	16-Oct-08	16:39	4.2	11.3	7.5
WAS1	16-Oct-08	16:43	8.9	16.2	7.6
WAS1	23-Oct-08	15:30	10.5	13.8	8.0
WAS1	23-Oct-08	15:32	10.9	13.6	7.8
WAS1	14-Nov-08	9:27	5.3	12.7	7.3
WAS1	25-Nov-08	10:26	4.3	10.6	7.4
WAS1	25-Nov-08	10:26	11.4	11.1	7.9
WAS1	26-Nov-08	13:35	10.0	11.5	7.7
WIL1	02-Oct-08	16:52	10.2	19.6	8.5
WIL1	06-Oct-08	16:55	5.8	18.8	8.0
WIL1	16-Oct-08	16:58	5.4	14.0	7.9

Site ID	Date	Time	DO (mg/L)	Temp. (°C)	pH
WIL1	23-Oct-08	15:57	5.8	13.9	7.9
WIL1	14-Nov-08	9:00	1.6	13.2	7.3
WIL1	25-Nov-08	10:41	7.9	10.6	7.3
WIL1	26-Nov-08	15:15	6.0	11.1	7.2
WIN1	09-Oct-08	14:44	2.5	14.1	7.2
WIN1	20-Oct-08	14:26	3.0	12.6	7.1
WIN1	07-Nov-08	8:41	6.8	12.7	7.4
WIN1	25-Nov-08	15:09	8.3	10.9	7.3
WIN1	26-Nov-08	16:27	4.1	11.3	7.2

**Appendix 1C. Summary of Instantaneous Data Sonde Measurement Results
– 2008.**

Site ID	DO (mg/L)		Temperature (°C)		pH	
	Summer Median	Fall Median	Summer Median	Fall Median	Summer Median	Fall Median
ABR1	4.4	5.4	15.8	11.6	7.7	7.0
BLU1	1.5	5.2	14.4	10.5	7.0	7.1
BRU1	6.5	6.7	18.9	12.8	7.8	7.4
COP1	--	3.0	15.2	11.4	7.4	7.5
DSEB	3.3	7.8	17.3	13.3	7.6	7.4
GOS1	4.4	5.5	16.3	12.7	7.4	7.6
HIN1	7.3	11.4	20.7	14.6	7.7	8.2
LHW1	--	7.7	15.7	12.8	7.9	7.2
LJRT	6.0	7.6	16.7	12.9	7.6	7.3
LOR1	14.5	4.8	24.3	14.5	8.9	7.3
LRR1	3.9	3.2	16.8	13.6	7.5	7.2
LSEB	6.1	7.3	20.0	16.0	7.6	7.5
LSPR	--	4.0	--	13.0	--	7.2
LTH1	5.8	6.3	17.2	12.8	7.8	7.3
LTOD	9.6	5.0	19.6	12.9	8.5	7.1
MAT1	5.2	6.8	15.7	13.7	7.7	7.5
MWC1	5.2	8.8	17.0	11.5	7.4	7.6
PET1	--	6.6	24.6	8.9	8.3	7.4
PIN1	7.2	7.7	20.6	12.4	7.7	7.6
SRFU	10.7	11.1	19.9	12.1	7.9	8.0
SRHW	5.7	9.1	16.2	12.8	7.8	7.8
SRWR	7.8	8.3	18.0	11.5	7.8	7.6
TUR1	--	--	16.1	--	7.3	--
VIN1	9.5	10.2	14.3	11.7	7.8	7.7
WAS1	1.2	4.8	15.0	12.2	7.3	7.3
WIL1	12.7	5.8	20.3	13.9	8.4	7.9
WIN1	3.2	4.1	15.5	12.6	7.5	7.2

Note: Summer months are June, July, August and September. Fall months are October and November

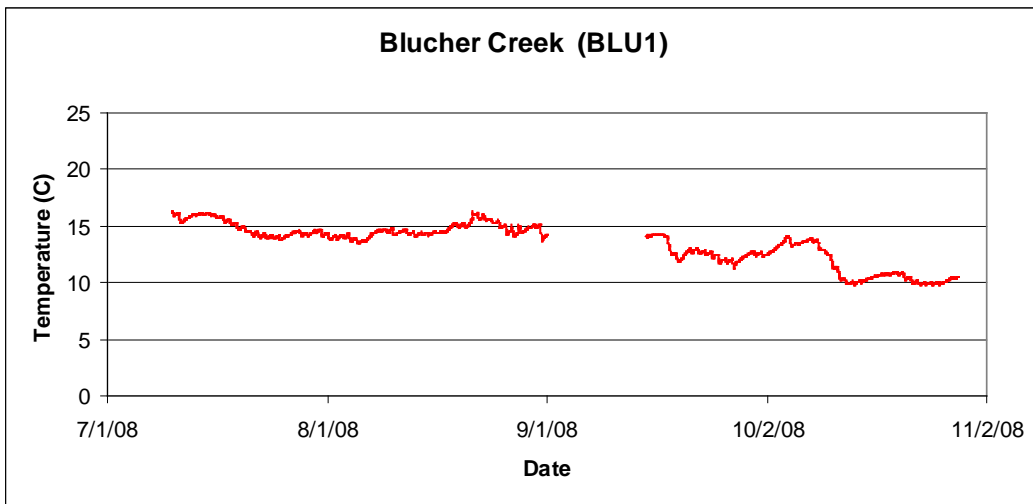
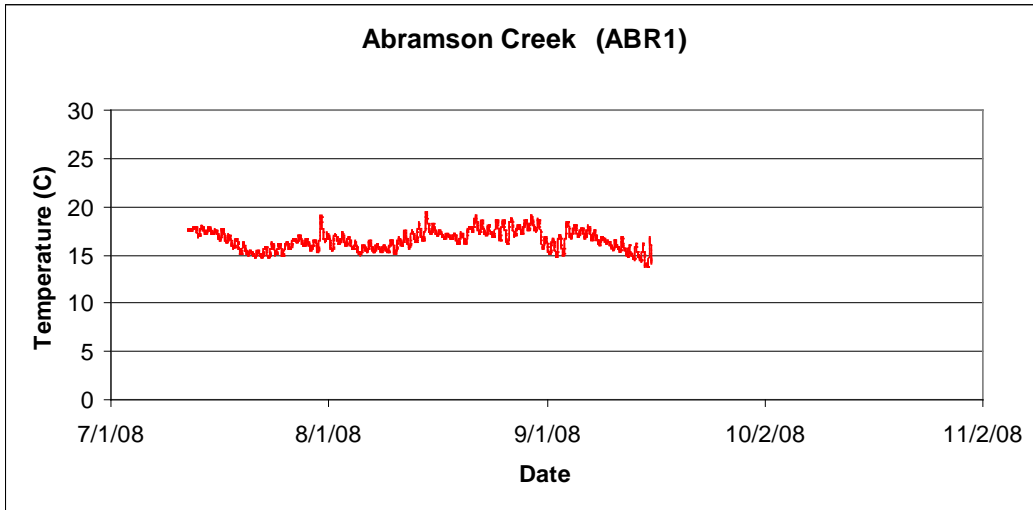
Appendix 1D. Statistically Significant Differences observed between Summer and Fall 2008 Instantaneous Data Sonde Measurement Results

Site ID	Constituents with a Significant Seasonal Difference
BLU1	Temperature, DO
BRU1	Temperature, pH
GOS1	Temperature
HIN1	Temperature, DO
LJRT	Temperature
LOR1	Temperature, DO
LSEB	Temperature
LTH1	Temperature, pH
LTOD	Temperature
PIN1	Temperature
SRFU	Temperature
SRWR	Temperature
VIN1	Temperature
WIL1	Temperature, DO, pH
WIN1	Temperature, pH

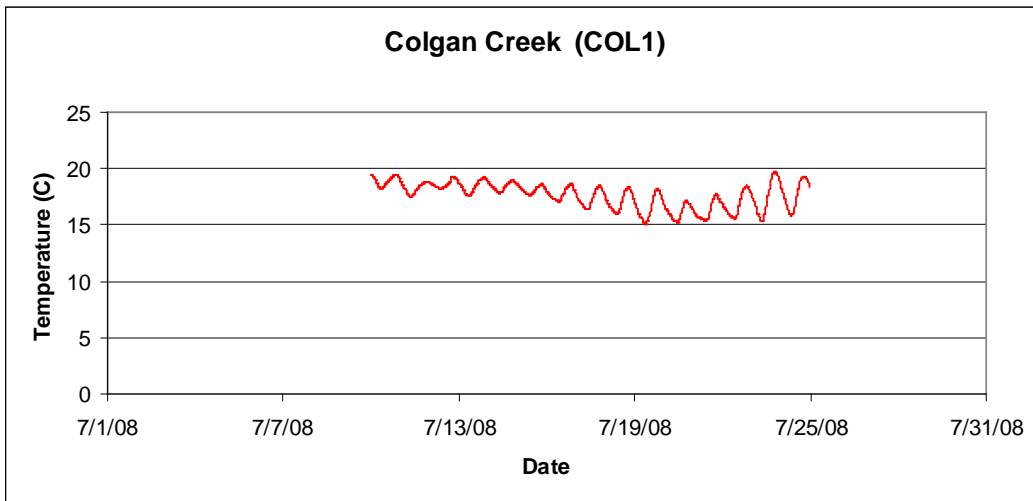
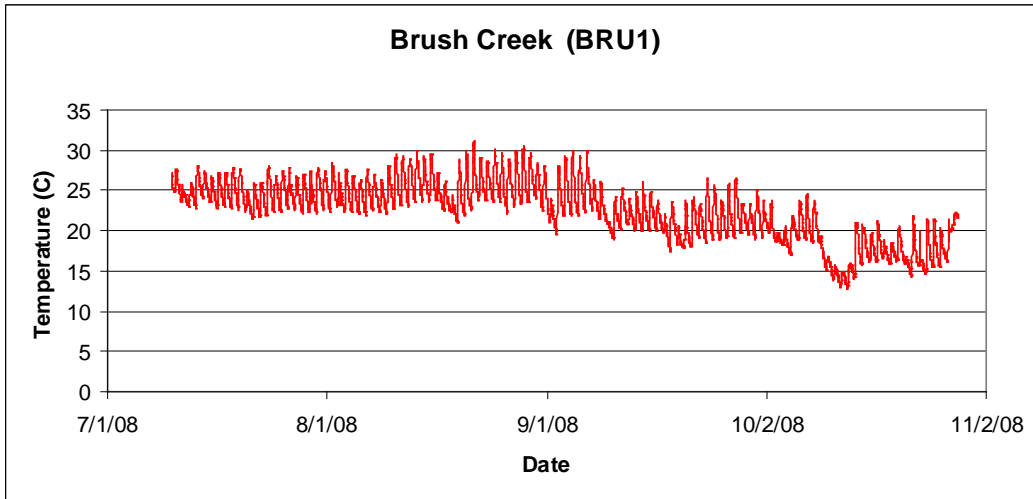
Appendix 2A. Temperature Data-Logger Calibration Results.

Site ID	Mean Difference between NIST Thermometer Reading and Data-Logger (°C)		
	Overall	Pre-Calibration	Post-Calibration
ABR1	-0.19	-0.39	0.11
BLU1	0.29	0.36	0.16
BRU1	0.22	0.33	0.05
COL1	0.50	0.64	0.29
COP1	-0.59	0.00	-1.48
HIN1	0.41	0.72	-0.06
LJRT	0.16	0.13	0.19
LOR1	0.24	0.25	0.11
LRR1	-0.38	-0.66	0.03
LTOD	0.23	0.30	0.14
MWC1	-0.46	-0.88	0.16
PIN1	-0.53	-1.02	0.19
SRHW	0.13	0.00	0.33
TUR1	0.42	0.67	0.03
VIN1	-0.28	-0.62	0.23
WAS1	0.54	0.81	0.14
WIL1	0.49	0.71	0.18
WIN1	-0.03	-0.13	0.11
Mean	0.06	0.07	0.05

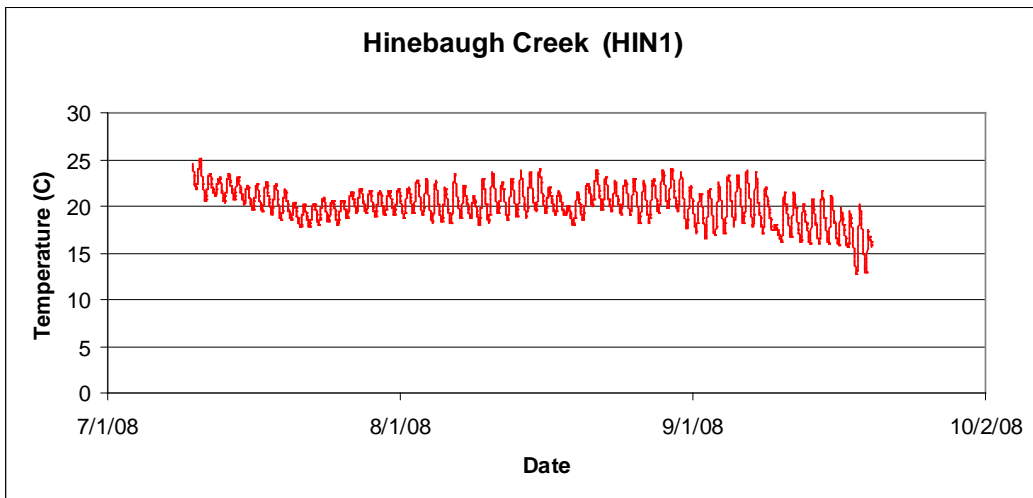
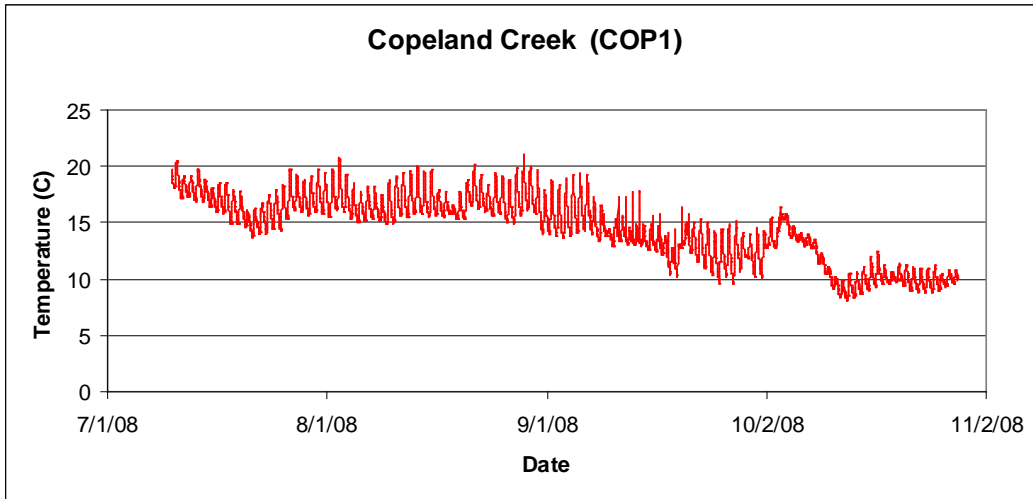
Appendix 2B. Continuous Water Temperature Measurement Results.



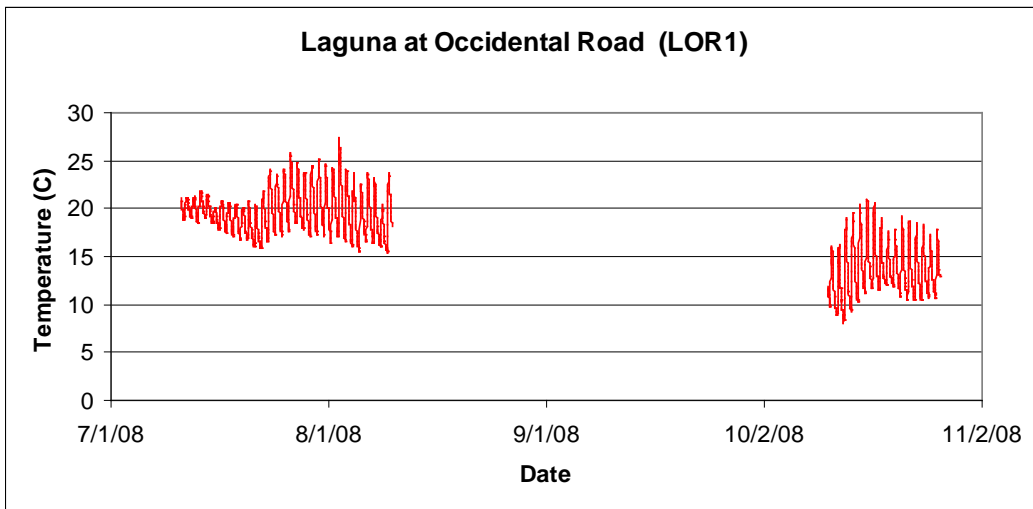
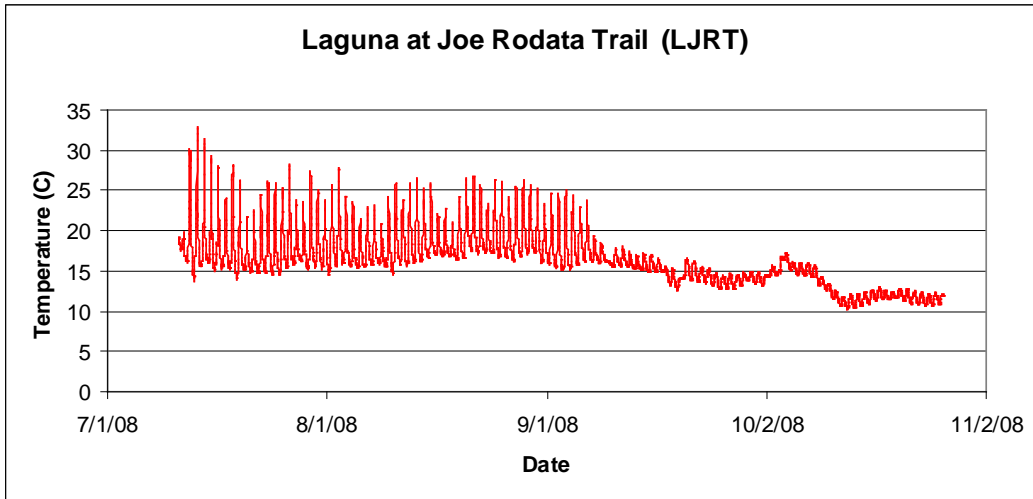
Appendix 2B. Continuous Water Temperature Measurement Results.



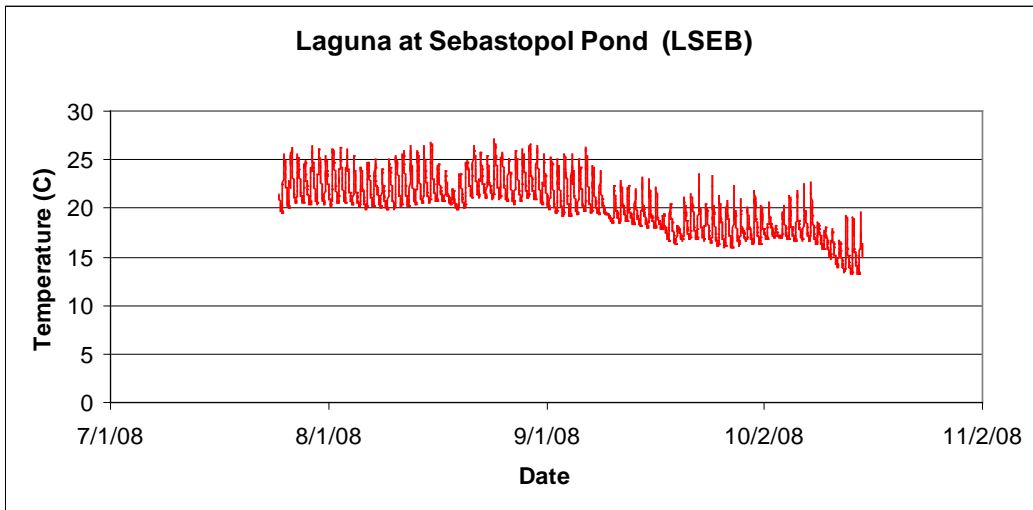
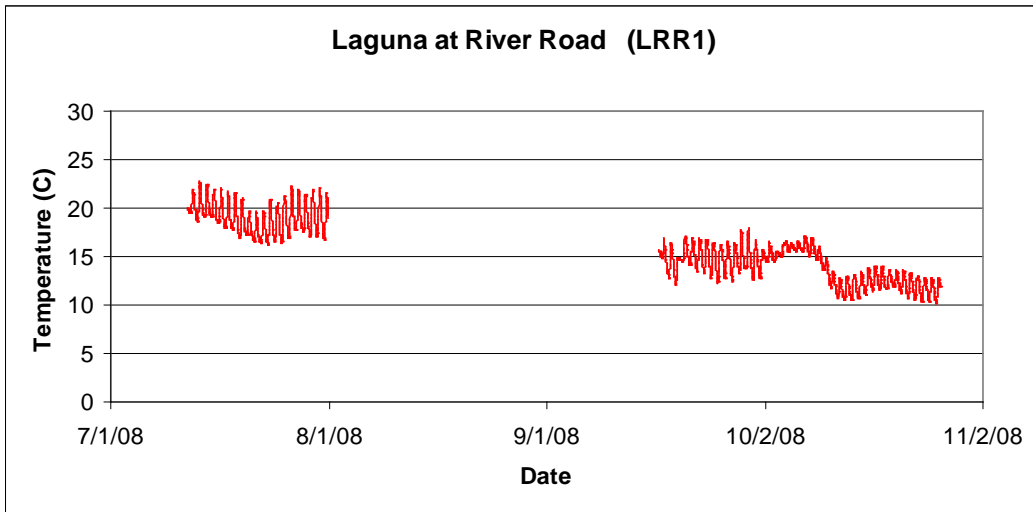
Appendix 2B. Continuous Water Temperature Measurement Results.

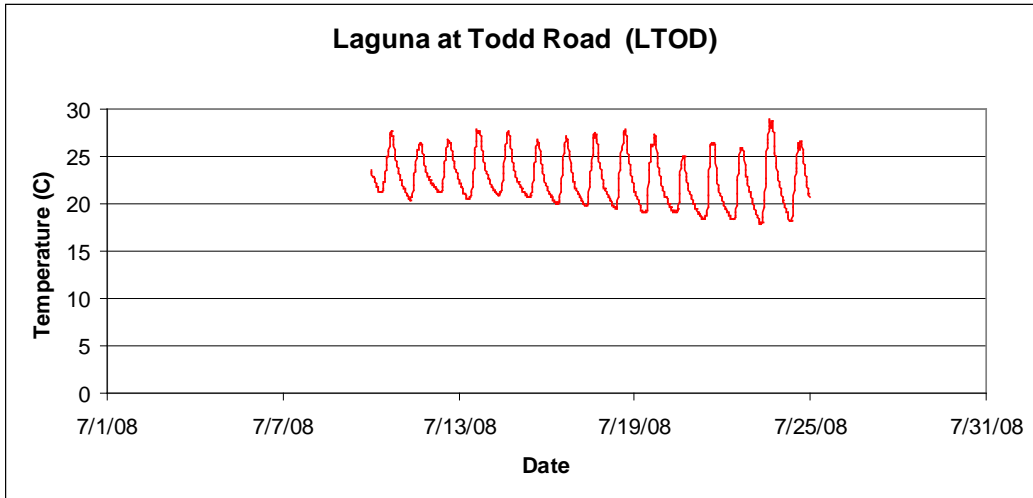


Appendix 2B. Continuous Water Temperature Measurement Results.

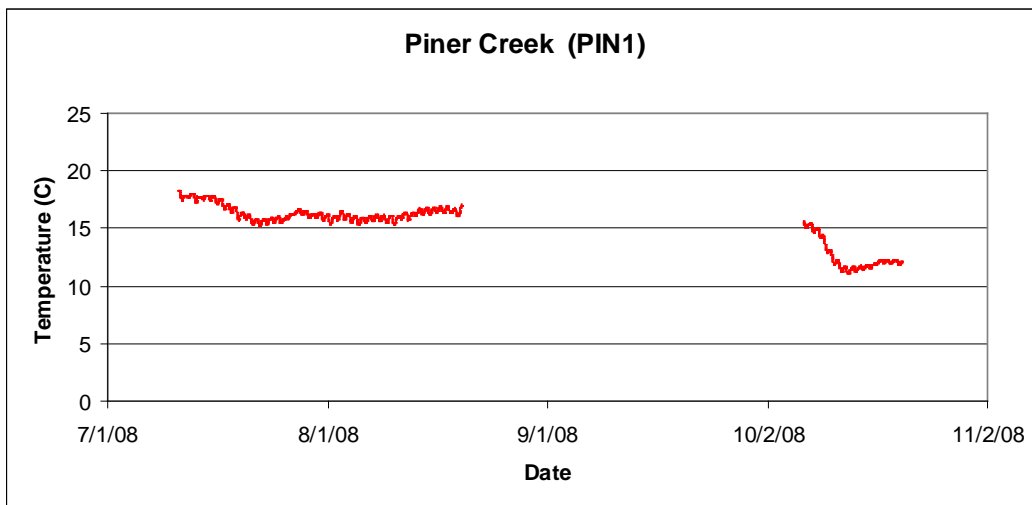
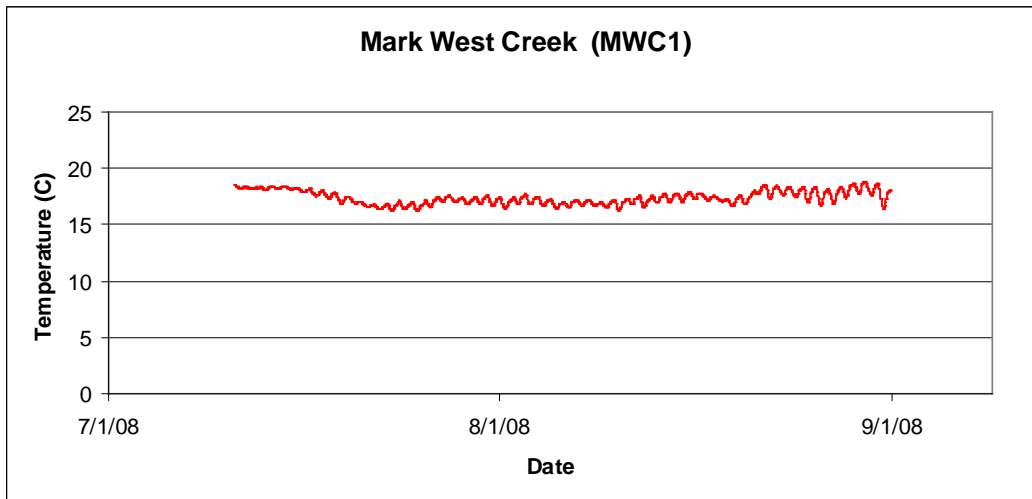


Appendix 2B. Continuous Water Temperature Measurement Results.

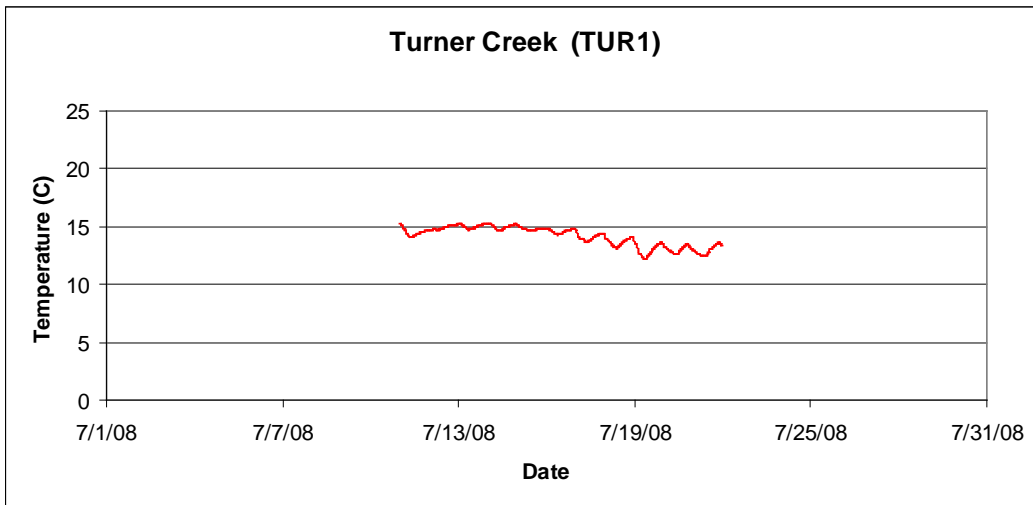
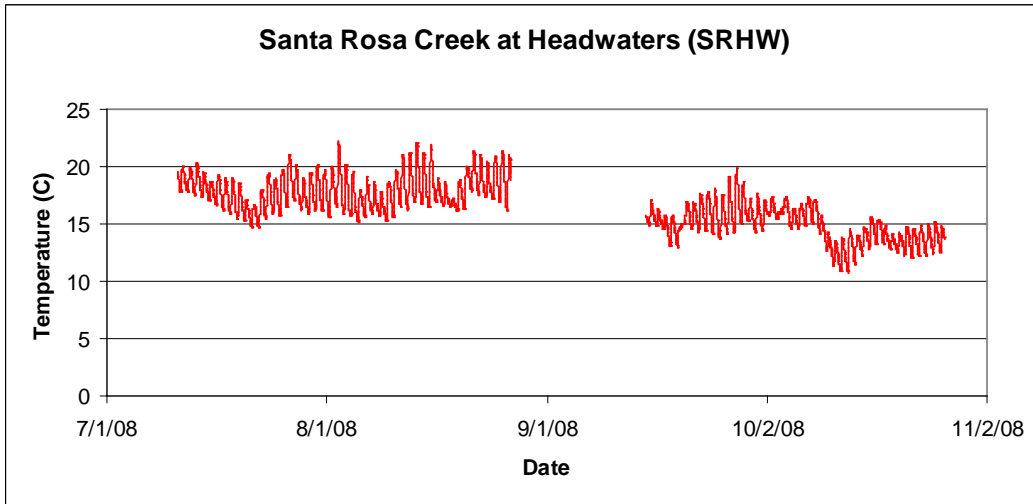




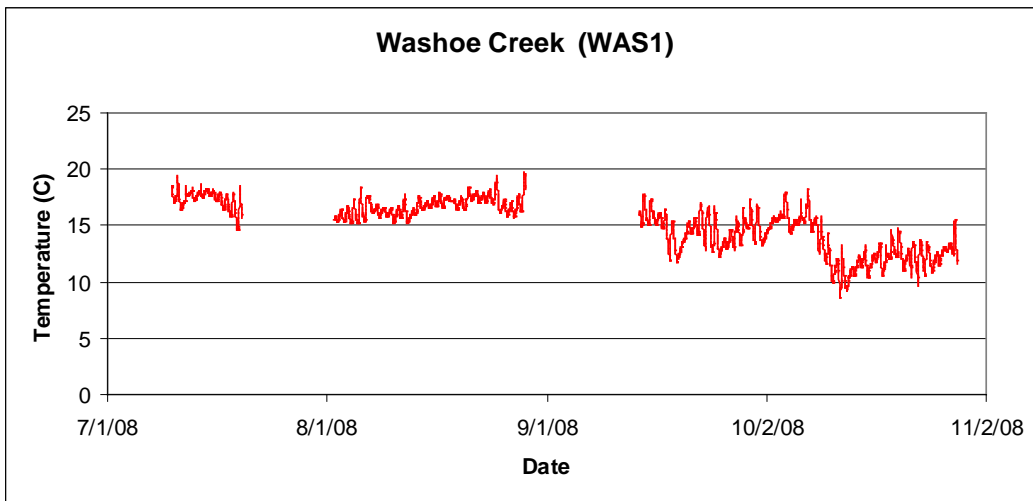
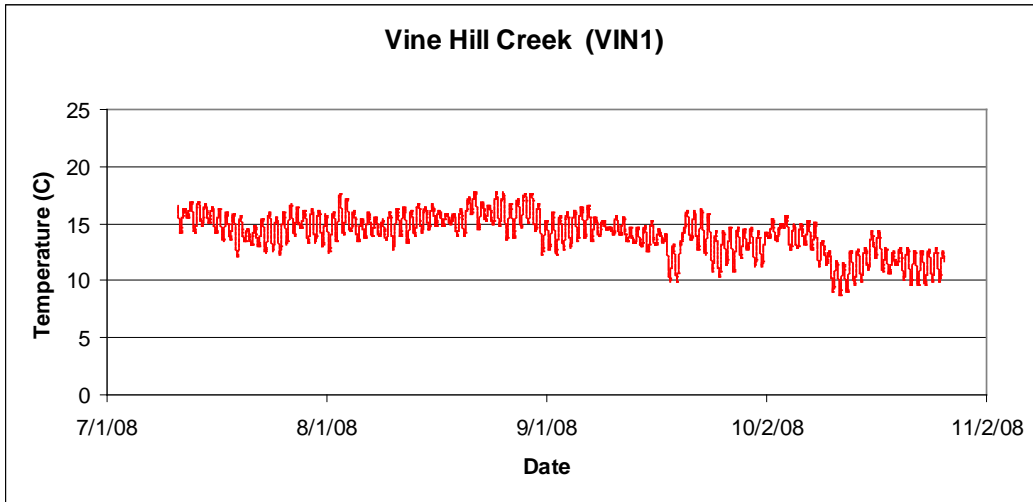
Appendix 2B. Continuous Water Temperature Measurement Results.



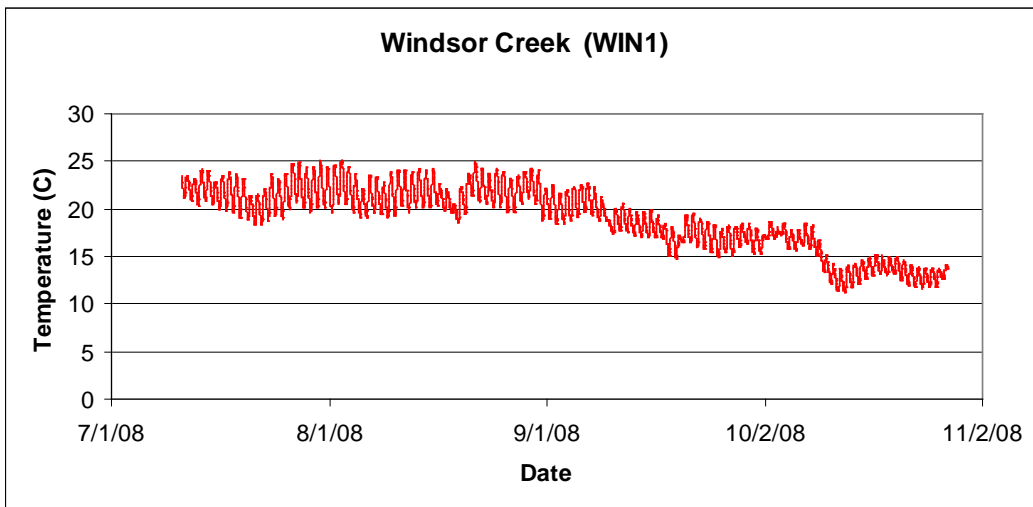
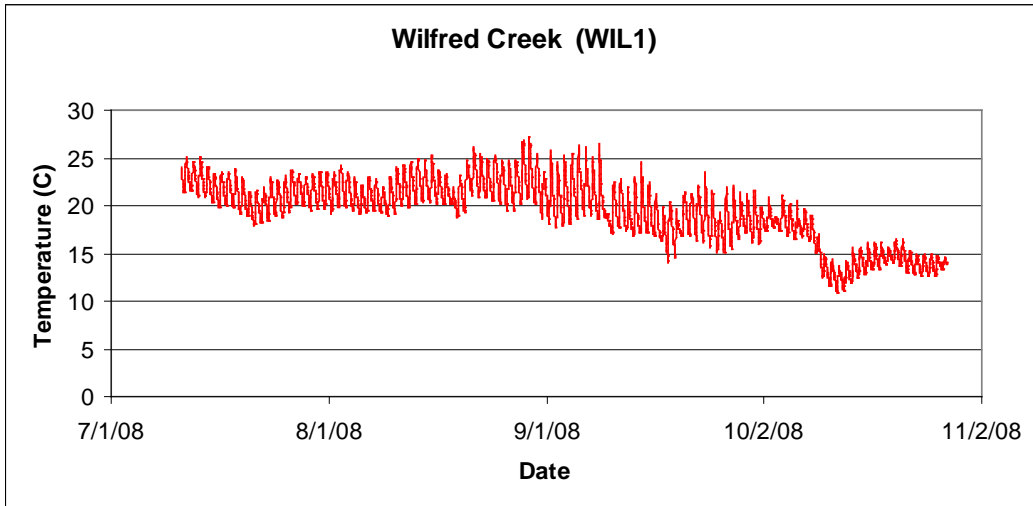
Appendix 2B. Continuous Water Temperature Measurement Results.



Appendix 2B. Continuous Water Temperature Measurement Results.



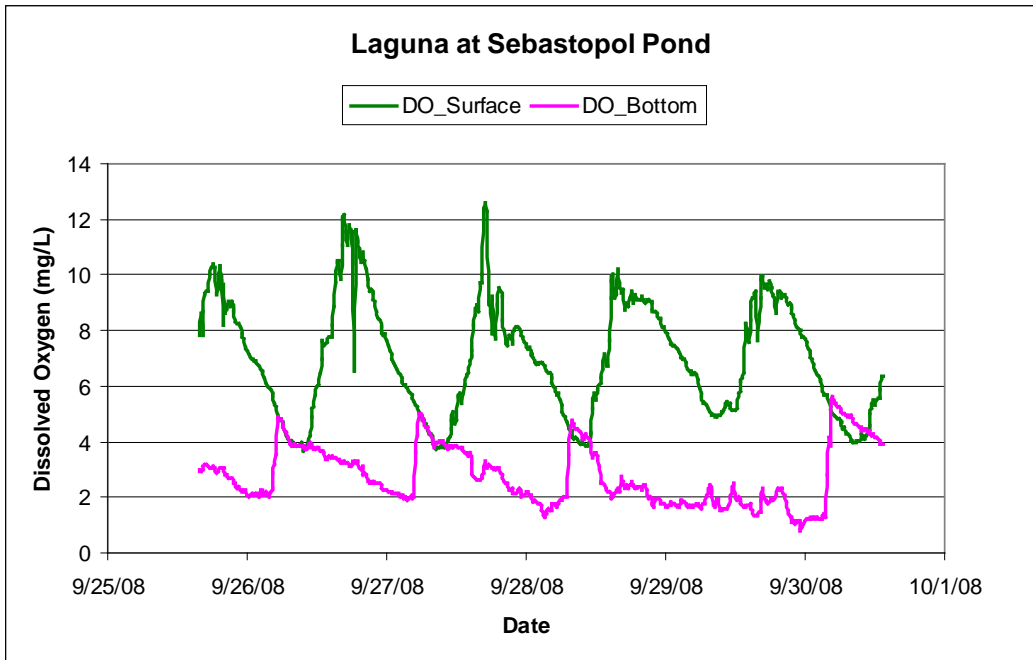
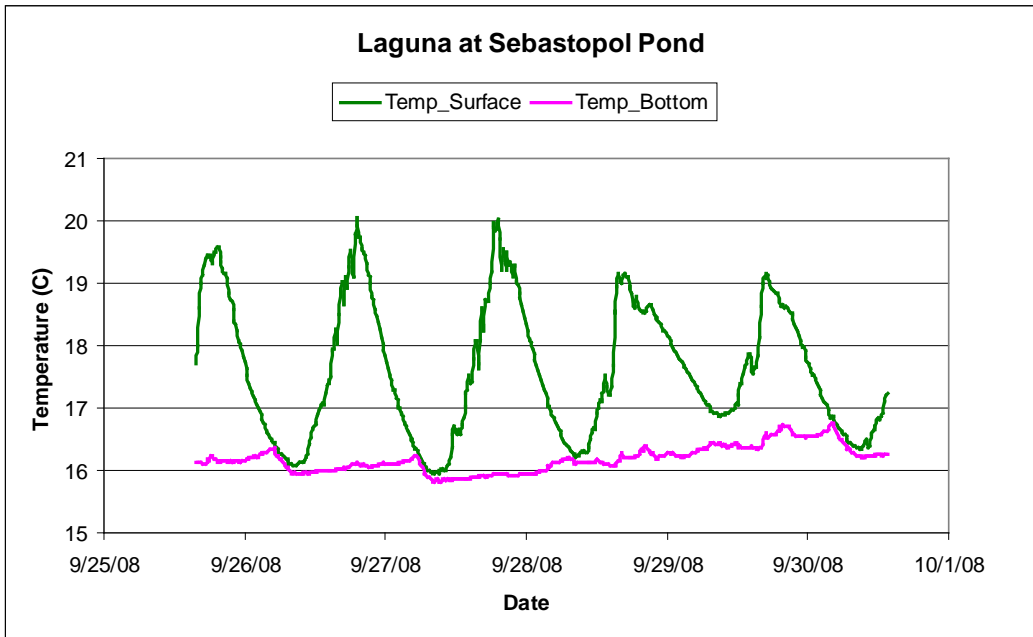
Appendix 2B. Continuous Water Temperature Measurement Results.



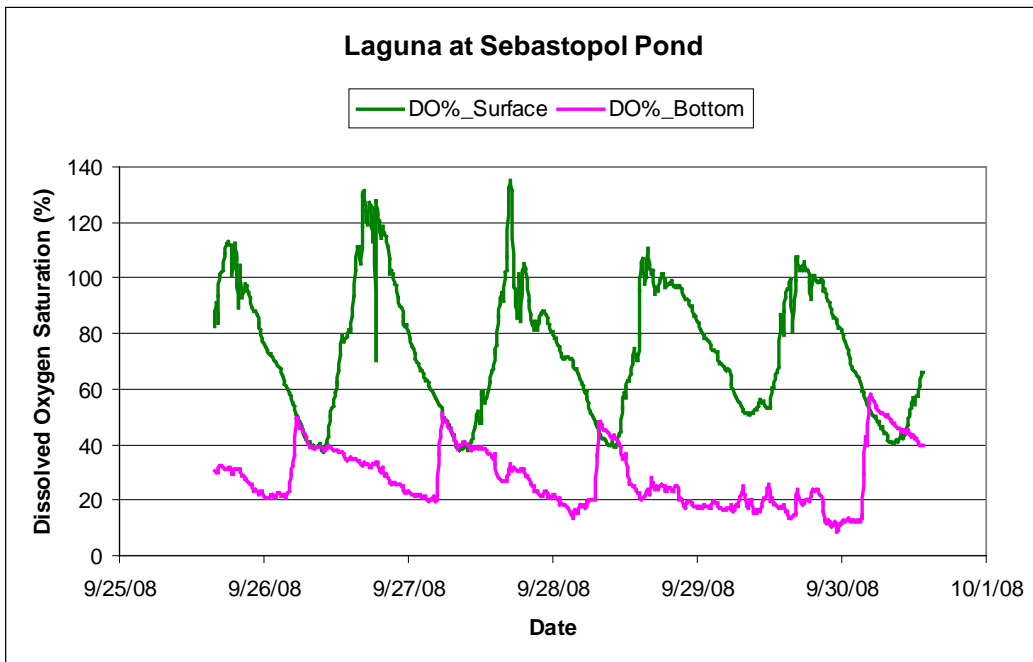
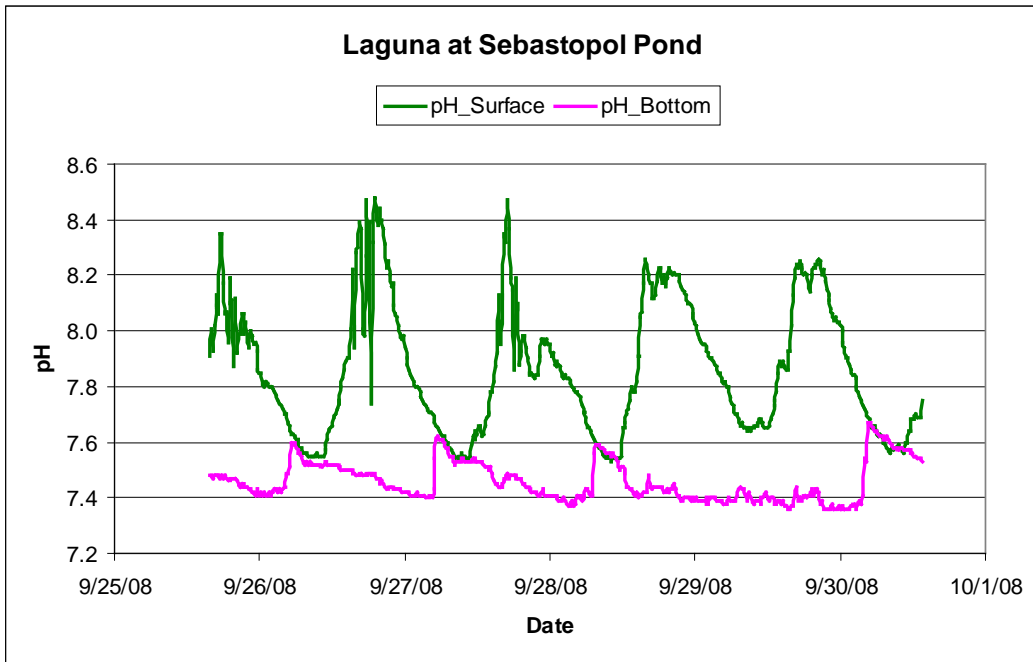
Appendix 2C. Continuous Water Temperature Measurement Summary.

Site ID	MWMT (C)	Daily Max (C)
ABR1	18.69	19.51
BLU1	16.12	16.25
BRU1	29.67	24.73
COL1	19.02	19.67
COP1	19.72	21.1
HIN1	23.36	25.04
LJRT	29.11	32.95
LOR1	24.91	27.38
LRR1	22.02	22.73
LSEB	26.11	27.06
LTOD	27.42	28.84
MWC1	18.53	18.89
PIN1	17.9	18.32
SRHW	20.86	22.23
TUR1	15.09	15.29
VIN1	17.41	17.77
WAS1	18.51	19.46
WIL1	25.63	27.21
WIN1	24.64	25.02

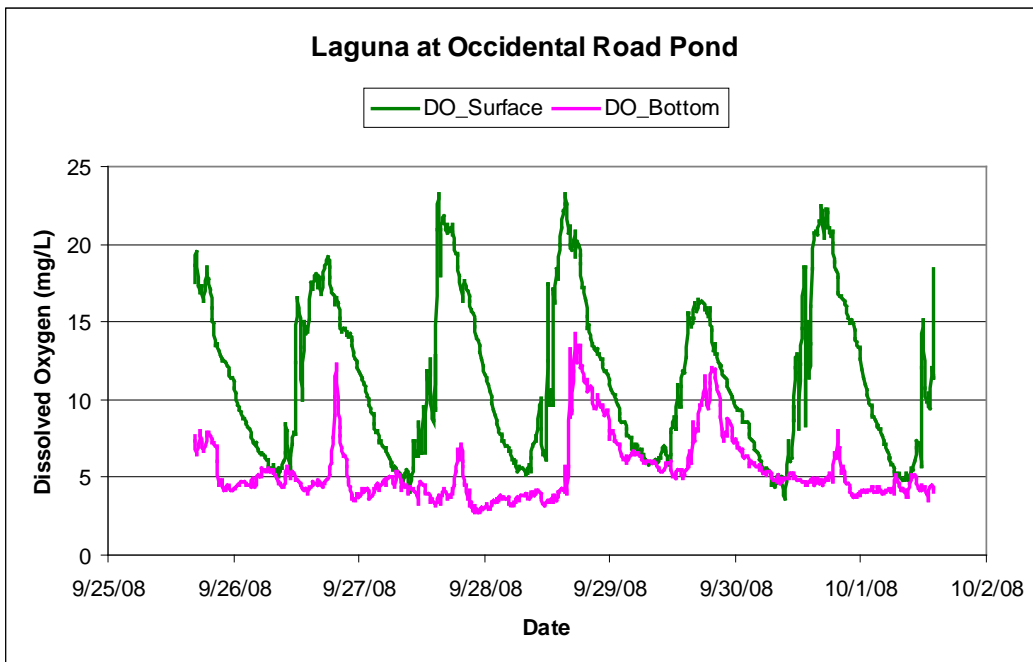
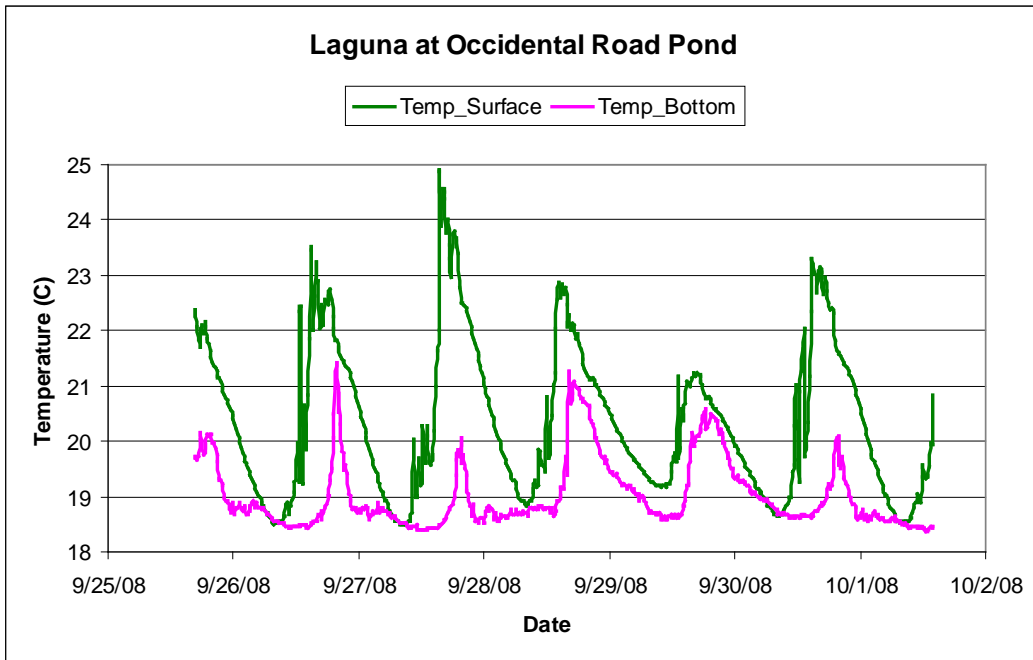
Appendix 3A. Lentic Diel Stratification Measurement Results.



Appendix 3A. Lentic Diel Stratification Measurement Results.

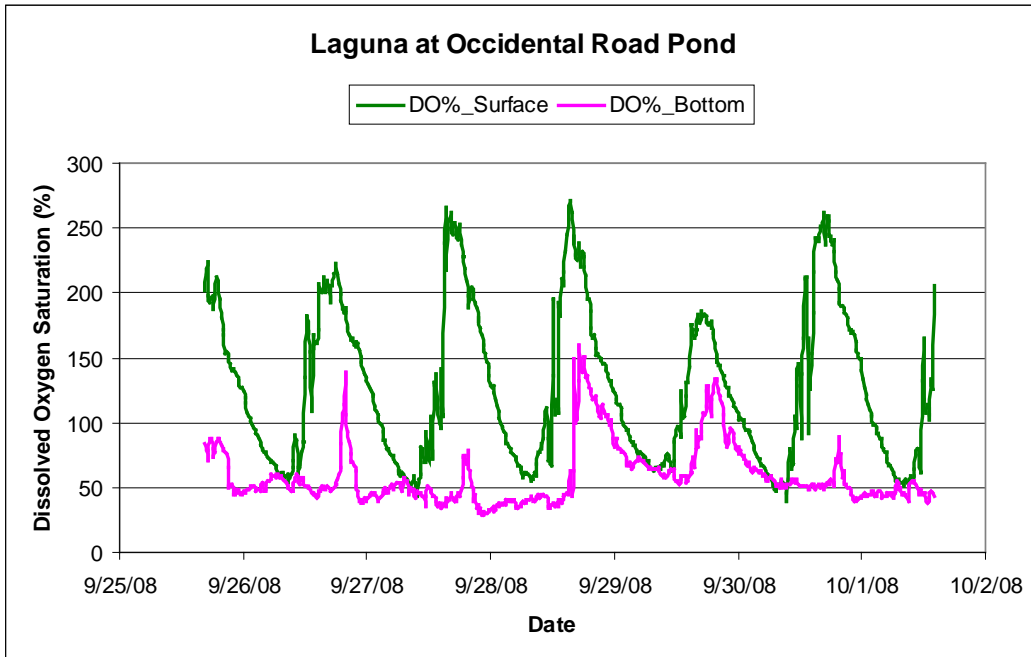
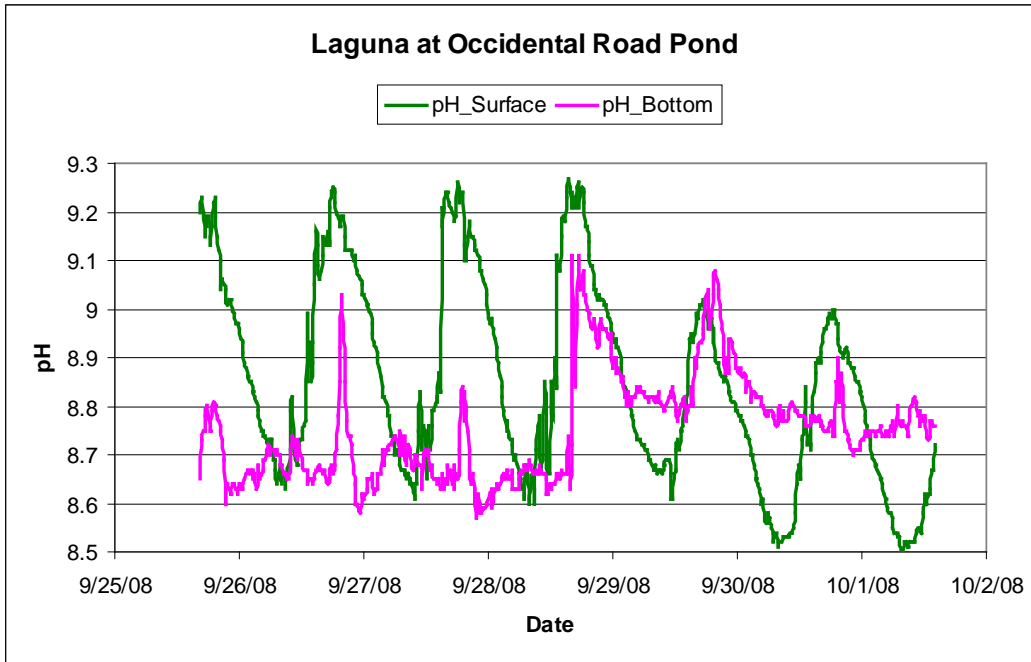


Appendix 3A. Lentic Diel Stratification Measurement Results.



Appendix 3A. Lentic Diel Stratification Measurement Results.

Note: Surface measurements were collected at 1 meter depth. Bottom measurements were collected at 1 meter from bottom.



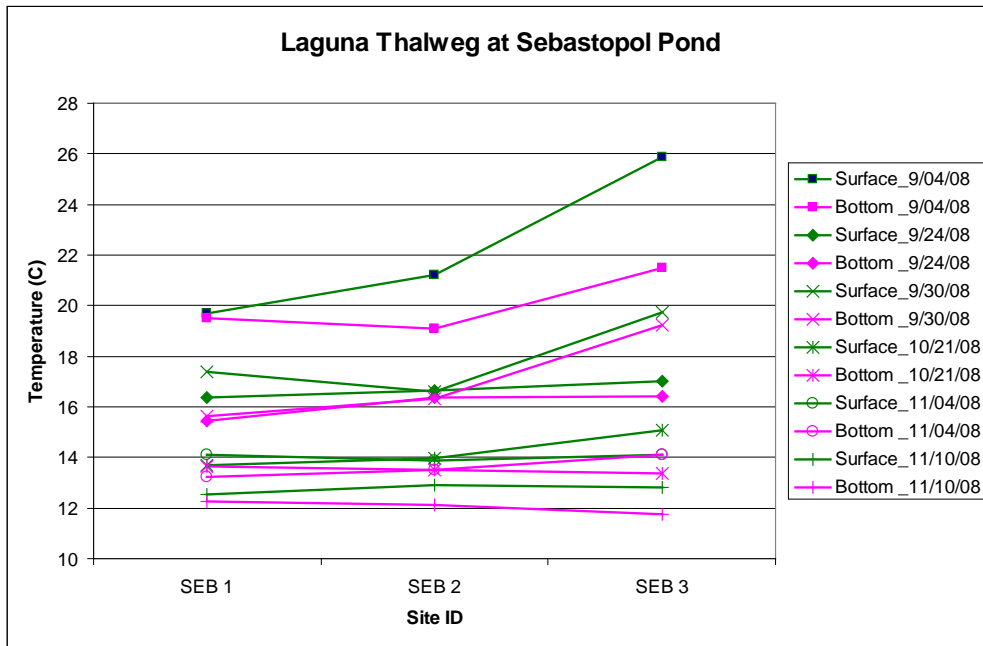
Appendix 3B. Lentic Instantaneous Stratification Measurement Results

Date	Site ID	Time	Depth (ft)	Temperature (°C)	DO (mg/L)	DO Saturation (%)	pH
8/27/2008	LOR 1	1050	1.50	24.58	21.29	257	9.11
8/27/2008	LOR 1	1050	3.62	21.82	7.24	82	8.65
8/27/2008	LOR 2	1120	2.16	28.27	28.92	368	9.14
8/27/2008	LOR 2	1120	5.31	21.58	3.88	44	8.39
8/27/2008	LOR 3	1150	2.40	23.45	11.3	134	8.68
8/27/2008	LOR 3	1150	4.87	22.41	7.23	83	8.51
8/27/2008	LOR 4	1220	2.23	27.18	24.96	316	9.01
8/27/2008	LOR 4	1220	4.57	22.9	6.23	74	8.21
8/27/2008	LOR 5	1305	1.59	27.83	21.6	274	8.87
8/27/2008	LOR 5	1305	--	--	--	--	--
9/2/2008	LOR 1	1210	2.20	23.2	11.82	138	8.81
9/2/2008	LOR 1	1210	6.05	21.73	5.57	64	8.36
9/2/2008	LOR 2	1235	2.53	22.5	9.65	113	8.71
9/2/2008	LOR 2	1235	7.39	21.77	4.35	50	8.25
9/2/2008	LOR 3	1249	2.62	22.18	10.43	122	8.87
9/2/2008	LOR 3	1249	7.33	20.85	3.25	36	8.38
9/2/2008	LOR 4	1310	2.54	25.35	22.1	265	9.21
9/2/2008	LOR 4	1310	5.37	19.73	3.19	36	8.22
9/2/2008	LOR 5	1323	2.49	24.99	14.48	176	8.85
9/2/2008	LOR 5	1323	3.11	21.62	4.81	56	7.9
9/4/2008	SEB 1	1355	1.93	19.71	8.95	98	--
9/4/2008	SEB 1	1355	3.09	19.52	8.5	92	--
9/4/2008	SEB 2	1425	1.77	21.23	8.71	98	--
9/4/2008	SEB 2	1425	4.37	19.1	3.08	33	--
9/4/2008	SEB 3	1440	1.34	25.89	7.3	89	--
9/4/2008	SEB 3	1440	2.61	21.51	4.08	45	--
9/23/2008	LOR 1	1140	2.37	19.96	14.21	155	9.02
9/23/2008	LOR 1	1140	5.22	18.46	8.66	93	8.73
9/23/2008	LOR 2	1205	2.48	20.7	19.39	215	9.29
9/23/2008	LOR 2	1205	7.12	18.28	6.47	69	8.67
9/23/2008	LOR 3	1230	2.25	19.62	12.09	134	8.9
9/23/2008	LOR 3	1230	8.02	18.88	1.31	15	8.57
9/23/2008	LOR 4	1250	2.27	20.1	10.87	123	8.84
9/23/2008	LOR 4	1250	4.74	18.67	6	64	8.63
9/23/2008	LOR 5	1315	2.20	22.1	9.07	104	8.52
9/23/2008	LOR 5	1315	2.95	18.3	6.08	65	7.52
9/24/2008	SEB 1	1045	2.28	16.36	6.94	71	7.75
9/24/2008	SEB 1	1045	4.02	15.44	6.79	68	7.62
9/24/2008	SEB 2	1115	1.97	16.64	4.72	49	7.52
9/24/2008	SEB 2	1115	5.28	16.36	4.54	46	7.47
9/24/2008	SEB 3	1136	1.61	17.03	4.16	44	7.51
9/24/2008	SEB 3	1136	3.08	16.43	3.45	35	7.45

Date	Site ID	Time	Depth (ft)	Temperature (°C)	DO (mg/L)	DO Saturation (%)	pH
9/30/2008	SEB 1	1320	1.97	17.38	10.23	107	8.3
9/30/2008	SEB 1	1320	4.20	15.62	7.78	79	7.79
9/30/2008	SEB 2	1350	2.19	16.6	5.38	55	7.54
9/30/2008	SEB 2	1350	5.47	16.31	4.52	46	7.46
9/30/2008	SEB 3	1410	1.72	19.75	8.75	97	8
9/30/2008	SEB 3	1410	2.96	19.23	8.33	90	7.9
10/1/2008	LOR 1	1351	2.05	20.88	16.23	183	9.34
10/1/2008	LOR 1	1351	4.21	18.35	10.45	109	8.83
10/1/2008	LOR 2	1401	2.01	20.25	14.39	165	9.24
10/1/2008	LOR 2	1401	4.25	17.84	7.68	81	8.88
10/1/2008	LOR 3	1414	2.05	20.82	15.23	171	9.24
10/1/2008	LOR 3	1414	8.92	18.16	4.04	43	8.67
10/1/2008	LOR 4	1430	2.05	21.3	13.8	156	9.2
10/1/2008	LOR 4	1430	4.33	18.51	5.52	59	8.77
10/1/2008	LOR 5	1438	1.77	23.32	17.45	205	9.35
10/1/2008	LOR 5	1438	--	--	--	--	--
10/21/2008	SEB 1	1220	2.40	13.71	4.4	42	7.38
10/21/2008	SEB 1	1220	3.10	13.65	4.36	43	7.37
10/21/2008	SEB 2	1240	2.03	13.98	6.53	63	7.55
10/21/2008	SEB 2	1240	4.84	13.52	6.56	64	7.59
10/21/2008	SEB 3	1255	2.32	15.1	10.93	108	8.16
10/21/2008	SEB 3	1255	4.36	13.37	9	86	7.63
10/22/2008	LOR 1	1140	2.07	15.89	11.98	119	9.01
10/22/2008	LOR 1	1140	6.80	14.9	5.75	57	8.55
10/22/2008	LOR 2	1155	2.04	15.74	13.22	135	9.07
10/22/2008	LOR 2	1155	6.72	15.24	8.91	89	8.84
10/22/2008	LOR 3	1215	2.06	16.2	14.41	148	9.1
10/22/2008	LOR 3	1215	9.79	15.43	1.77	18	8.57
10/22/2008	LOR 4	1235	1.98	16.96	16.1	165	9.1
10/22/2008	LOR 4	1235	5.78	14.39	4.48	44	8.49
10/22/2008	LOR 5	1250	2.05	17.88	21.37	226	9.22
10/22/2008	LOR 5	1250	3.21	13.75	6.28	61	7.84
11/4/2008	SEB 1	1428	2.00	14.12	2.48	25	6.98
11/4/2008	SEB 1	1428	7.39	13.22	1.91	18	6.97
11/4/2008	SEB 3	1459	2.00	14.1	2.39	23	6.93
11/4/2008	SEB 3	1459	4.81	14.09	2.38	23	6.93
11/4/2008	SEB 4	1456	2.03	14.11	2.43	24	6.93
11/4/2008	SEB 4	1456	6.27	14.11	2.42	24	6.93
11/4/2008	SEB 5	1501	2.03	14.12	2.44	24	6.92
11/4/2008	SEB 5	1501	4.50	14.13	2.43	24	6.93
11/4/2008	SEB2	1438	2.00	13.87	2.43	24	6.95
11/4/2008	SEB2	1438	7.78	13.51	2.47	24	6.99
11/5/2008	LOR 1	1310	1.99	13.87	2.63	26	6.97
11/5/2008	LOR 1	1310	8.45	12.66	2.41	23	6.94
11/5/2008	LOR 2	1321	2.03	14.83	2.15	21	6.99

Date	Site ID	Time	Depth (ft)	Temperature (°C)	DO (mg/L)	DO Saturation (%)	pH
11/5/2008	LOR 2	1321	10.06	12.48	2.55	24	6.9
11/5/2008	LOR 3	1340	2.05	14.73	1.86	18	6.99
11/5/2008	LOR 3	1340	11.86	13.24	1.71	16	7.01
11/5/2008	LOR 4	1359	2.07	15.2	1.76	18	7.03
11/5/2008	LOR 4	1359	7.43	13.48	1.25	12	6.96
11/5/2008	LOR 5	1412	2.07	14.5	1.49	15	6.99
11/5/2008	LOR 5	1412	4.92	13.5	1.08	10	6.94
11/10/2008	LOR 1	1437	1.97	14.46	2.96	29	7.08
11/10/2008	LOR 1	1437	8.41	12.49	1.77	17	7.02
11/10/2008	LOR 2	1448	1.96	15.23	3.69	37	7.1
11/10/2008	LOR 2	1448	8.89	12.12	2.01	19	6.96
11/10/2008	LOR 3	1512	1.98	15.71	3.08	31	7.12
11/10/2008	LOR 3	1512	10.46	12.61	1.01	10	6.98
11/10/2008	LOR 4	1527	1.97	16.04	2.87	29	7.11
11/10/2008	LOR 4	1527	6.68	12.51	0.87	8	6.98
11/10/2008	LOR 5	1539	2.01	16.6	2.96	30	7.1
11/10/2008	LOR 5	1539	4.55	12.75	0.84	8	6.99
11/10/2008	SEB 1	1220	2.03	12.54	3.11	29	7.02
11/10/2008	SEB 1	1220	3.71	12.25	2.7	25	7.01
11/10/2008	SEB 2	1227	2.01	12.93	3.25	31	7.02
11/10/2008	SEB 2	1227	6.74	12.12	3.28	31	7.02
11/10/2008	SEB 3	1230	2.09	12.8	3.82	36	7.03
11/10/2008	SEB 3	1230	5.09	11.74	3.83	35	7.03

Appendix 3C. Lentic Instantaneous Stratification Measurement Result Plots



Appendix 4A. Diel Range of Instantaneous DO Measurements.

Note: AM is 00:00 to 12:00 hours. PM is 12:01 to 23:59 hours

SITE ID	Median AM DO (mg/L)	Median PM DO (mg/L)	Range between Median DO values (mg/L)	Range of all DO values (mg/L)
ABR1	5.4	4.4	1.0	1.0
BLU1	4.6	4.3	0.3	4.3
BRU1	6.7	6.2	0.5	10.5
COL1	6.8	--	--	0.0
COP1	3.1	3.0	0.1	2.3
DSEB	8.5	7.5	1.1	1.9
GOS1	2.3	5.1	2.9	3.6
HIN1	7.0	10.1	3.1	9.0
LHW1	--	5.6	5.6	8.3
LJRT	7.6	8.0	0.4	6.8
LOR1	4.8	10.4	5.5	12.9
LRR1	3.9	2.2	1.8	3.9
LSEB	1.0	7.6	6.6	10.4
LSPR	4.0	--	--	0.0
LTH1	5.4	6.4	1.0	2.8
LTOD	6.0	9.8	3.8	5.4
MAT1	8.9	5.6	3.3	6.2
MWC1	8.6	--	8.6	3.9
PET1	6.6	--	6.6	0.0
PIN1	6.3	7.5	1.2	6.1
SRFU	9.5	12.9	3.4	5.6
SRHW	9.1	8.4	0.7	6.2
SRWR	8.3	7.8	0.5	5.5
VIN1	10.2	9.6	0.6	1.1
WAS1	6.1	1.3	4.7	9.9
WIL1	4.1	8.1	4.0	15.1
WIN1	5.6	3.0	2.6	5.8

Appendix 4B. Diel Range of Temperature Measurements.

SITE ID	Instantaneous Median AM Temperature (°C)	Instantaneous Median PM Temperature (°C)	Instantaneous Median Temperature Range (°C)	Continuous Median Diel Temperature Range (°C)
ABR1	11.6	15.7	4.0	1.3
BLU1	10.3	14.2	3.9	0.4
BRU1	15.1	18.4	3.3	4.9
COL1	11.2	--	--	1.9
COP1	13.7	16.4	2.7	2.9
DSEB	13.0	14.6	1.6	--
GOS1	12.6	14.5	1.9	--
HIN1	12.3	20.0	7.8	3.6
LHW1	16.3	14.8	1.5	--
LJRT	11.6	15.9	4.3	5.6
LOR1	14.8	21.4	6.7	6.4
LRR1	13.1	17.4	4.3	2.8
LSEB	20.5	18.9	1.6	4.9
LSPR	13.0	--	--	--
LTH1	17.2	15.2	2.0	--
LTOD	13.0	18.3	5.3	7.3
MAT1	15.1	15.3	0.2	--
MWC1	12.3	17.2	4.9	0.8
PET1	8.9	25.6	16.7	--
PIN1	12.7	16.3	3.6	0.6
SRFU	13.2	13.1	0.1	--
SRHW	12.8	15.6	2.8	3.4
SRWR	11.9	16.8	4.8	--
VIN1	11.7	14.3	2.5	2.7
WAS1	12.7	14.6	1.9	1.2
WIL1	18.5	18.3	0.3	4.0
WIN1	14.1	14.1	0.0	2.9

Appendix 4C. Diel Range of Instantaneous pH Measurements

SITE ID	Median AM pH	Median PM pH	Range between Median pH values	Range of all pH values
ABR1	7.0	7.9	0.9	0.9
BLU1	7.5	7.1	0.5	0.7
BRU1	7.5	7.7	0.1	0.9
COL1	7.3	--	--	0.0
COP1	7.6	7.7	0.1	0.4
DSEB	7.5	7.4	0.1	0.4
GOS1	7.9	7.6	0.3	1.1
HIN1	7.7	8.0	0.3	0.8
LHW1	7.8	7.1	0.7	0.8
LJRT	7.3	7.5	0.2	0.6
LOR1	7.9	8.7	0.8	2.0
LRR1	7.3	7.4	0.1	0.4
LSEB	7.6	7.6	0.0	1.1
LSPR	7.2	--	--	0.0
LTH1	7.8	7.6	0.1	0.8
LTOD	7.5	8.6	1.1	1.7
MAT1	7.8	7.6	0.2	0.4
MWC1	7.5	7.4	0.1	0.4
PET1	7.4	8.3	0.9	0.9
PIN1	7.4	7.7	0.2	0.5
SRFU	7.8	8.1	0.3	0.5
SRHW	7.8	7.7	0.1	0.4
SRWR	7.6	7.8	0.2	0.4
VIN1	7.6	7.8	0.1	0.3
WAS1	7.3	7.3	0.0	1.1
WIL1	7.7	8.2	0.5	1.6
WIN1	7.5	7.3	0.2	0.4

Appendix 4D. Median Daily Range of Continuous Lentic Sonde Measurements collected 25-30 September 2008.

Constituent	LOR1		LSEB	
	Surface	Bottom	Surface	Bottom
DO (mg/L)	16.2	5.7	5.7	3.0
Temperature (°C)	4.3	1.9	2.6	0.4
pH	0.6	0.3	0.7	0.2

Appendix 5A. Instantaneous Stream Flow Measurement Results

Site ID	Date	Flow (cfs)
BLU1	24-Jul-08	0.08
BLU1	29-Jul-08	0.24
BLU1	2-Oct-08	0.06
BLU1	23-Oct-08	0.16
BLU1	25-Nov-08	0.64
BRU1	6-Oct-08	0.09
GOS1	24-Jul-08	0.91
GOS1	28-Jul-08	0.48
GOS1	25-Sep-08	0.02
LHW1	24-Jul-08	0.02
LRR1	16-Jul-08	1.09
LRR1	16-Jul-08	1.75
LRR1	5-Aug-08	0.20
LTH1	5-Aug-08	1.02
LTH1	9-Oct-08	4.18
MAT1	28-Jul-08	0.17
MAT1	6-Oct-08	0.21
PIN1	28-Jul-08	2.76
SRFU	28-Jul-08	0.71
SRFU	26-Nov-08	1.92
SRHW	28-Jul-08	0.45
SRHW	25-Sep-08	0.08
SRHW	6-Oct-08	0.55
SRHW	16-Oct-08	0.10
SRHW	26-Nov-08	2.05
VIN1	25-Jul-08	0.44
VIN1	5-Aug-08	0.33
VIN1	29-Sep-08	0.50
WAS1	23-Oct-08	0.49
WIL1	24-Jul-08	0.09
WIN1	25-Jul-08	0.08
WIN1	9-Oct-08	0.36

Appendix 6A. Conventional Constituent Sample Results.

Below minimum detection limit (MDL) results are shown as < MDL value.

Site ID	Date Sampled	BOD ₅ (mg/L)	TSS (mg/L)	NO ₃ +NO ₂ (mg/L)	TKN (mg/L)	NH ₃ (mg/L)	TP (mg/L)	OP (mg/L)
ABR1	11-Jun-08	< 3	10	0.29	0.5	0.16	0.30	0.30
ABR1	18-Jun-08	10	19	0.26	1.6	0.35	0.41	0.25
ABR1	24-Jun-08	6	13	0.17	0.7	0.11	0.40	0.32
BLU1	11-Jun-08	< 3	7	0.18	0.5	0.14	0.42	0.38
BLU1	18-Jun-08	5	6	0.13	0.6	0.12	0.51	0.47
BLU1	24-Jun-08	3	3	0.07	0.6	0.13	0.63	0.61
BRU1	11-Jun-08	< 3	3	0.02	0.4	0.07	0.06	0.03
BRU1	18-Jun-08	5	21	0.02	0.3	0.09	0.05	0.02
BRU1	24-Jun-08	5	7	0.02	0.5	0.10	0.06	0.01
COL1	11-Jun-08	3	14	11.30	1.4	0.13	0.82	0.78
COL1	18-Jun-08	4	24	9.05	1.7	0.11	0.27	0.10
COL1	24-Jun-08	10	71	9.93	1.9	0.13	0.24	0.07
COP1	11-Jun-08	< 3	7	0.10	0.2	0.13	0.14	0.11
COP1	18-Jun-08	6	7	0.10	0.4	0.10	0.14	0.11
COP1	24-Jun-08	3	3	0.06	0.4	0.11	0.18	0.15
COT1	11-Jun-08	< 3	13	0.07	0.8	0.36	0.32	0.23
COT1	18-Jun-08	4	17	0.08	2.1	1.10	0.52	0.41
COT1	24-Jun-08	5	92	0.06	2.8	1.40	0.84	0.46
DSEB	11-Sep-08	< 3	6	1.70	0.6	0.18	0.18	0.16
DSEB	17-Sep-08	< 3	6	1.90	0.4	0.24	0.44	0.46
DSEB	29-Sep-08	< 3	< 2	1.73	0.3	0.12	0.15	0.11
GOS1	11-Jun-08	< 3	6	0.28	0.7	0.17	0.82	0.78
GOS1	18-Jun-08	4	9	0.23	0.1	0.13	0.99	0.92
GOS1	24-Jun-08	6	36	0.20	1.3	0.18	3.04	1.00
GOS1	11-Sep-08	< 3	6	0.06	1.3	0.15	1.31	1.01
GOS1	17-Sep-08	< 3	8	0.06	0.5	0.15	0.77	0.80
GOS1	29-Sep-08	5	12	0.08	0.6	0.07	0.73	0.59
HIN1	11-Jun-08	< 3	29	0.05	0.5	0.10		0.15
HIN1	18-Jun-08	< 3	33	0.05	0.5	0.09	0.23	0.18
HIN1	24-Jun-08	3	27	0.08	0.4	0.14	0.25	0.16
HIN1	11-Sep-08	< 3	18	0.05	0.5	0.09	0.23	0.21
HIN1	17-Sep-08	4	37	0.03	0.5	0.13	0.22	0.13
HIN1	29-Sep-08	< 3	9	0.03	0.2	0.13	0.20	0.16
LHW1	11-Jun-08	< 3	2	0.11	0.4	0.17	0.26	0.22
LHW1	18-Jun-08	< 3	3	0.07	0.5	0.14	0.27	0.22
LHW1	24-Jun-08	3	3	0.06	0.6	0.14	0.26	0.22
LJRT	11-Jun-08	< 3	15	< 0.01	0.5	0.11	0.30	0.52
LJRT	18-Jun-08	4	44	1.76	0.3	0.07	0.22	0.22
LJRT	24-Jun-08	3	5	1.51	1.1	0.10	0.41	0.29
LJRT	11-Sep-08	< 3	31	0.99	0.6	0.16	0.10	0.21
LJRT	17-Sep-08	< 3	74	1.18	0.6	0.25	0.21	0.13
LJRT	29-Sep-08	< 3	20	1.34	0.5	0.11	0.19	0.14

Site ID	Date Sampled	BOD ₅ (mg/L)	TSS (mg/L)	NO ₃ +NO ₂ (mg/L)	TKN (mg/L)	NH ₃ (mg/L)	TP (mg/L)	OP (mg/L)
LOR1	18-Jun-08	4	55	< 0.01	0.9	0.08	0.51	0.42
LOR1	11-Sep-08	14	115	< 0.01	6.0	0.58	0.67	0.30
LOR1	17-Sep-08	6	102	0.04	1.7	0.68	0.45	0.25
LOR1	29-Sep-08	14	19	0.07	3.6	0.33	0.51	0.36
LRR1	11-Jun-08	< 3	16	0.07	0.5	0.08	0.39	0.45
LRR1	11-Sep-08	30	242	< 0.01	2.5	0.09	2.03	1.66
LRR1	17-Sep-08	3	6	< 0.01	0.4	0.18	0.82	0.82
LRR1	29-Sep-08	< 3	8	0.01	0.3	0.06	0.48	0.42
LSEB	11-Sep-08	< 3	40	0.06	1.1	0.18	0.23	0.30
LSEB	17-Sep-08	3	35	< 0.01	0.1	0.15	0.33	0.18
LSEB	29-Sep-08	5	26	< 0.01	1.0	0.08	0.25	0.17
LSPR	11-Jun-08	13	129	0.01	4.6	0.51	0.65	0.25
LSPR	11-Sep-08	5	36	0.02	1.3	0.21	0.62	0.52
LSPR	17-Sep-08	< 3	6	< 0.01	0.7	0.19	0.35	0.31
LSPR	29-Sep-08	5	10	0.01	1.1	0.12	0.35	0.28
LTH1	11-Jun-08	< 3	11	0.07	0.4	0.14	0.38	0.45
LTH1	18-Jun-08	< 3	11	0.05	0.1	0.13	0.42	0.37
LTH1	24-Jun-08	3	9	0.04	0.6	0.08	0.53	0.48
LTH1	11-Sep-08	< 3	13	0.02	0.5	0.12	0.96	0.92
LTH1	17-Sep-08	3	37	0.02	0.4	0.28	0.94	0.97
LTH1	29-Sep-08	< 3	7	0.01	0.4	0.11	0.70	0.62
LTOD	11-Jun-08	3	16	0.01	1.1	0.19	1.13	1.10
LTOD	18-Jun-08	3	23	< 0.01	1.1	0.23	1.43	1.37
LTOD	24-Jun-08	6	18	< 0.01	1.1	0.11	1.55	1.45
LTOD	11-Sep-08	3	14	0.02	1.0	0.18	1.96	1.84
LTOD	17-Sep-08	6	37	0.02	0.9	0.21	1.57	1.64
LTOD	29-Sep-08	3	63	< 0.01	2.3	0.12	2.09	1.50
MAT1	11-Jun-08	< 3	3	0.18	0.2	0.07	0.04	0.01
MAT1	18-Jun-08	3	4	0.13	0.1	0.13	0.16	0.13
MAT1	24-Jun-08	< 3	2	0.07	0.2	0.07	0.17	0.15
MAT1	11-Sep-08	< 3	3	0.12	0.3	0.12	0.19	0.20
MAT1	17-Sep-08	< 3	15	0.13	0.3	0.08	0.17	0.18
MAT1	29-Sep-08	< 3	7	0.16	0.7	0.13	0.25	0.22
MWC1	11-Jun-08	< 3	< 2	0.02	0.1	0.08	0.08	0.08
MWC1	18-Jun-08	< 3	< 2	0.02	< 0.1	0.07	0.08	0.07
MWC1	24-Jun-08	< 3	6	0.06	0.2	0.07	0.09	0.07
PET1	11-Jun-08	< 3	16	0.02	0.7	0.12	0.25	0.24
PET1	18-Jun-08	6	42	< 0.01	0.8	0.10	0.35	0.21
PET1	24-Jun-08	7	41	0.01	1.3	0.16	0.40	0.25
PIN1	11-Jun-08	< 3	7	0.02	0.4	0.10	0.17	0.14
PIN1	18-Jun-08	< 3	8	< 0.01	0.4	0.08	0.14	0.10
PIN1	24-Jun-08	< 3	8	0.01	0.4	0.11	0.18	0.13
PIN1	11-Sep-08	< 3	43	0.02	0.1	0.08	0.19	0.09
PIN1	17-Sep-08	< 3	5	< 0.01	0.2	0.12	0.10	0.06
PIN1	29-Sep-08	< 3	5	0.01	0.4	0.13	0.08	0.05
SRFU	11-Jun-08	< 3	< 2	0.02	0.2	0.06	0.17	0.14

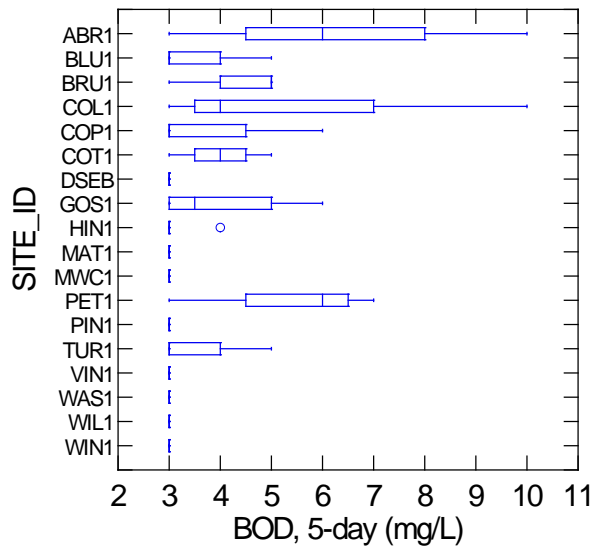
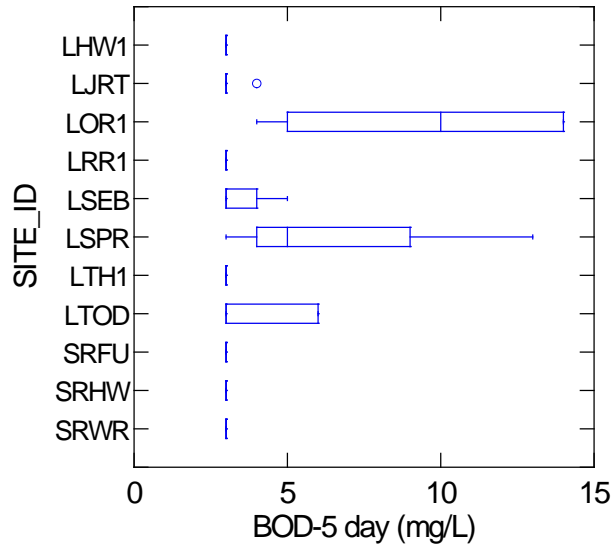
Site ID	Date Sampled	BOD ₅ (mg/L)	TSS (mg/L)	NO ₃ +NO ₂ (mg/L)	TKN (mg/L)	NH ₃ (mg/L)	TP (mg/L)	OP (mg/L)
SRFU	11-Sep-08	< 3	2	0.02	0.2	0.11	0.04	0.02
SRFU	17-Sep-08	< 3	2	0.01	0.2	0.07	< 0.02	< 0.01
SRFU	29-Sep-08	< 3	4	< 0.01	0.2	0.07	0.03	0.01
SRHW	11-Jun-08	< 3	< 2	0.08	0.2	0.07	0.08	0.06
SRHW	18-Jun-08	< 3	< 2	0.07	0.3	0.07	0.07	0.05
SRHW	24-Jun-08	< 3	2	0.07	0.4	0.10	0.07	0.05
SRWR	11-Jun-08	< 3	< 2	0.03	0.2	0.07	0.10	0.10
SRWR	11-Sep-08	< 3	< 2	0.06	0.2	0.07	0.13	0.12
SRWR	17-Sep-08	< 3	< 2	0.02	0.2	0.15	0.10	0.10
SRWR	29-Sep-08	< 3	< 2	0.03	0.3	0.09	0.12	0.09
TUR1	11-Jun-08	< 3	8	0.04	1.3	0.52	0.24	0.10
TUR1	18-Jun-08	< 3	4	0.02	2.3	1.09	1.69	1.52
TUR1	24-Jun-08	5	10	0.02	2.8	0.19	1.87	1.65
VIN1	11-Jun-08	< 3	3	0.47	0.2	0.08	0.16	0.17
VIN1	18-Jun-08	< 3	3	0.43	0.4	0.08	0.25	0.15
VIN1	24-Jun-08	3	4	0.23	0.2	0.10	0.16	0.13
VIN1	11-Sep-08	< 3	3	0.34	0.2	0.07	0.15	0.14
VIN1	17-Sep-08	< 3	3	0.42	0.1	0.08	0.12	0.14
VIN1	29-Sep-08	< 3	2	0.39	0.1	0.06	0.15	0.13
WAS1	11-Jun-08	< 3	2	0.07	0.3	0.10	0.46	0.43
WAS1	18-Jun-08	< 3	10	0.02	0.6	0.14	0.62	0.56
WAS1	24-Jun-08	3	37	0.07	0.6	0.16	0.41	0.38
WIL1	11-Jun-08	< 3	9	0.01	0.8	0.17	0.89	0.79
WIL1	18-Jun-08	3	111	< 0.01	0.9	0.14	1.05	1.05
WIL1	24-Jun-08	3	26	0.03	1.0	0.11	1.24	1.32
WIN1	11-Jun-08	< 3	< 2	0.04	0.3	0.11	0.21	0.23
WIN1	18-Jun-08	< 3	10	0.02	0.2	0.09	0.23	0.19
WIN1	24-Jun-08	< 3	3	0.02	0.4	0.10	0.24	0.21

Appendix 6B. Summary Statistics of Conventional Constituent Results.

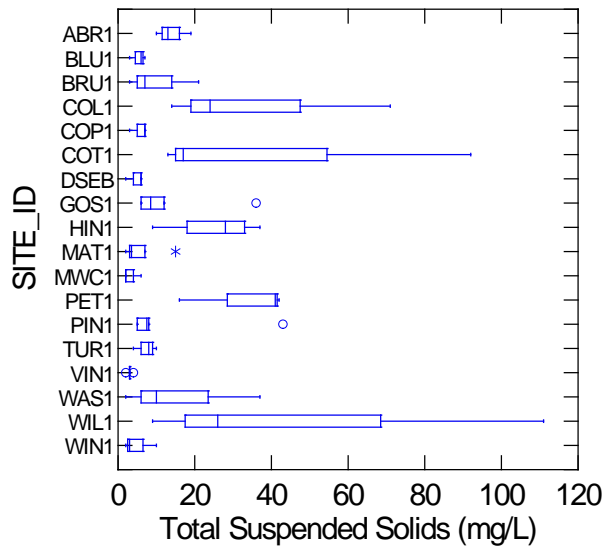
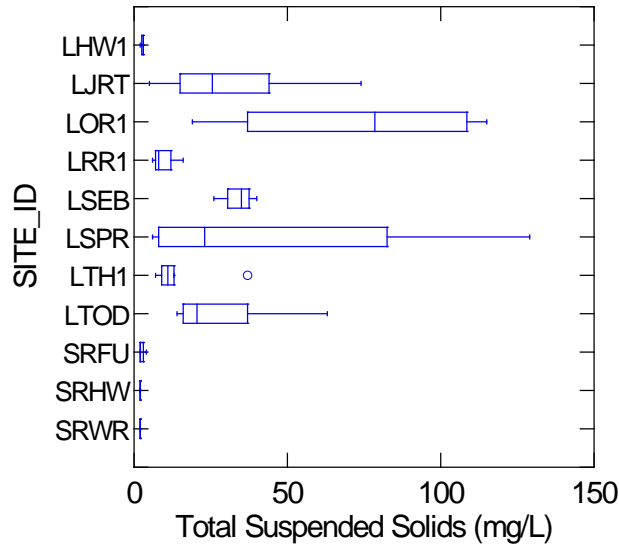
Non-detect results for BOD₅, TSS, and NO₃ were estimated using ROS.

Constituent	BOD₅ (mg/L)	TSS (mg/L)	NO₃ (mg/L)	TKN (mg/L)	NH₃ (mg/L)	TP (mg/L)	OP (mg/L)
Laguna							
Median	3.0	18.5	0.02	0.7	0.14	0.47	0.40
Mean	4.4	36.1	0.21	1.1	0.19	0.68	0.60
Lower Quartile	1.1	9.8	0.01	0.5	0.11	0.29	0.24
Upper Quartile	5.0	37.8	0.07	1.1	0.20	0.85	0.85
Santa Rosa Creek							
Median	0.5	1.5	0.03	0.2	0.07	0.08	0.06
Mean	0.5	1.8	0.04	0.2	0.08	0.08	0.07
Lower Quartile	0.4	1.4	0.02	0.2	0.07	0.06	0.04
Upper Quartile	0.5	2.0	0.07	0.3	0.10	0.11	0.10
Tributaries							
Median	1.4	7.0	0.06	0.5	0.12	0.24	0.18
Mean	2.1	13.3	0.53	0.7	0.18	0.43	0.34
Lower Quartile	0.5	3.0	0.02	0.3	0.09	0.16	0.13
Upper Quartile	3.0	14.3	0.16	0.7	0.14	0.47	0.43

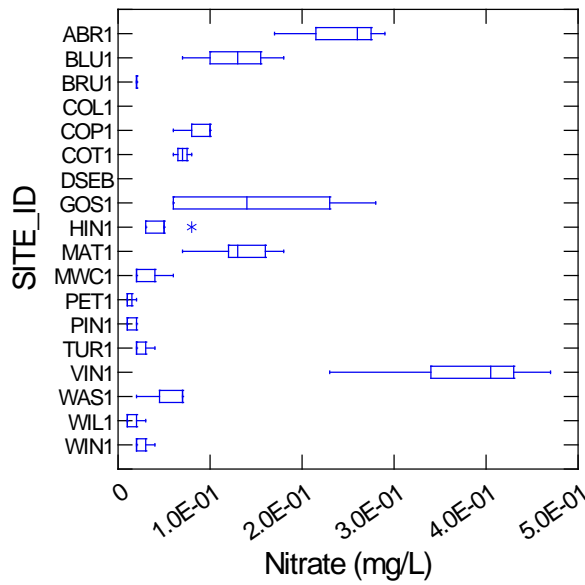
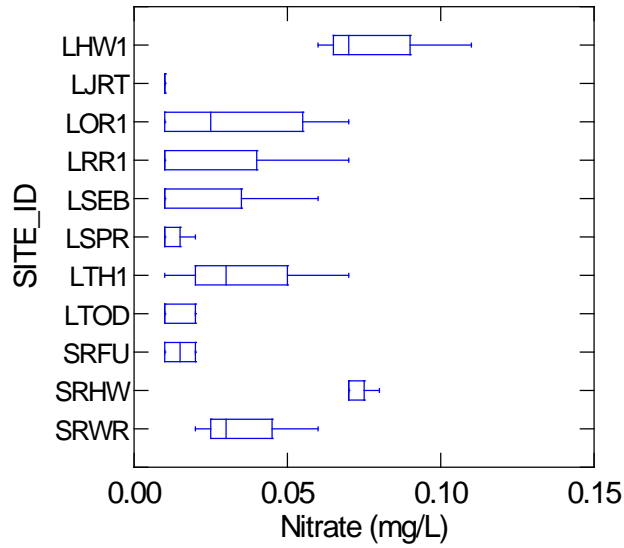
Appendix 6C. Box Plots of Conventional Constituent Results - BOD₅



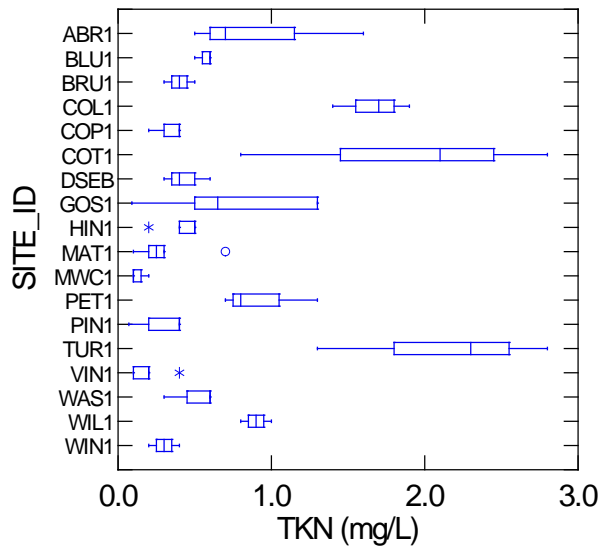
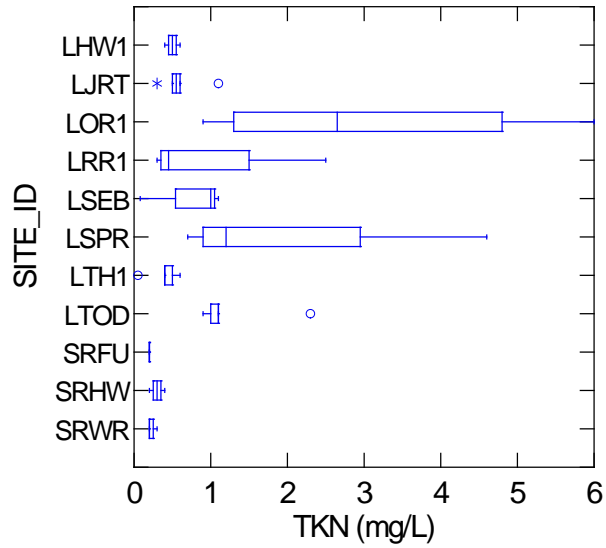
Appendix 6C. Box Plots of Conventional Constituent Results - TSS



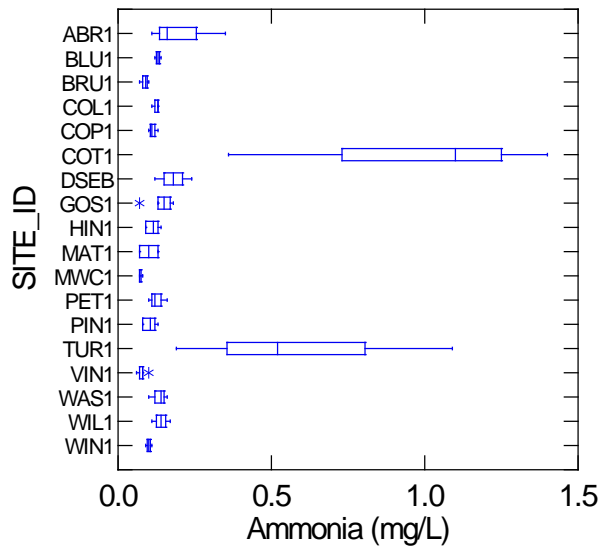
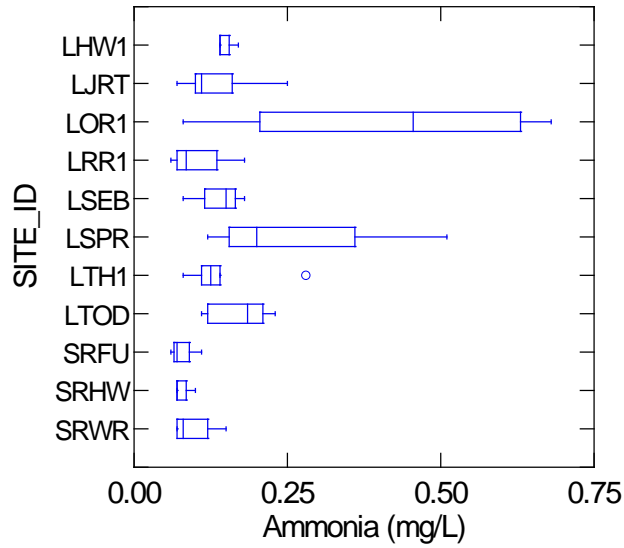
Appendix 6C. Box Plots of Conventional Constituent Results - NO₃



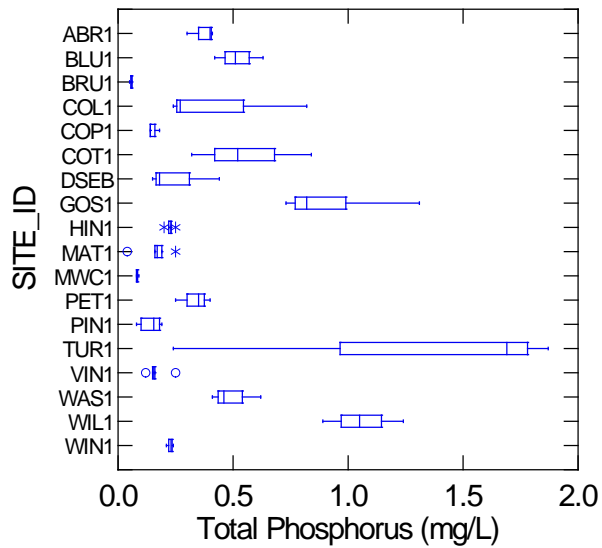
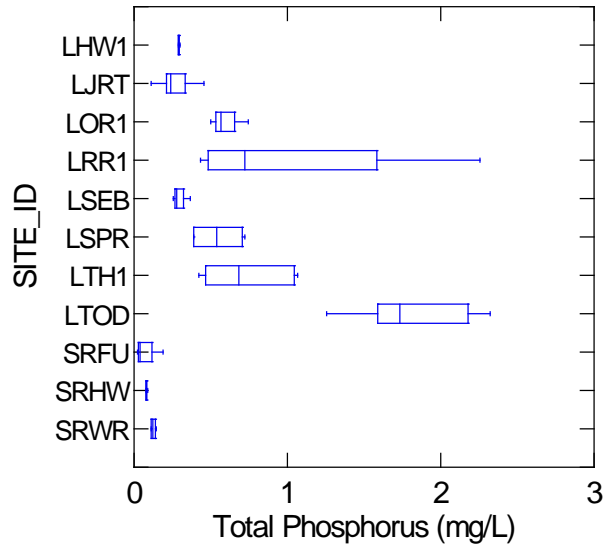
Appendix 6C. Box Plots of Conventional Constituent Results - TKN



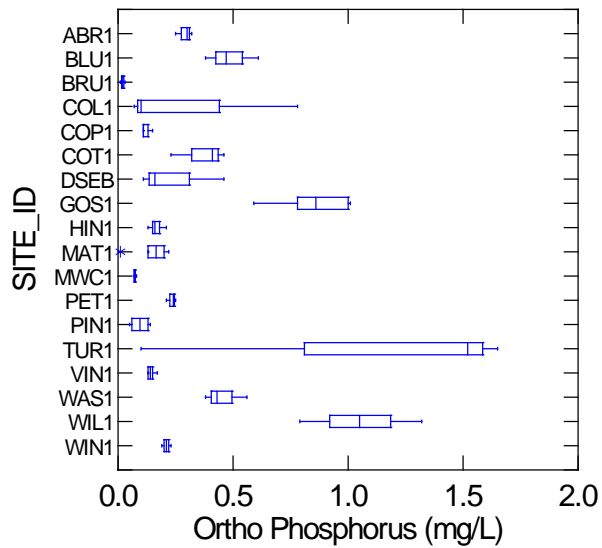
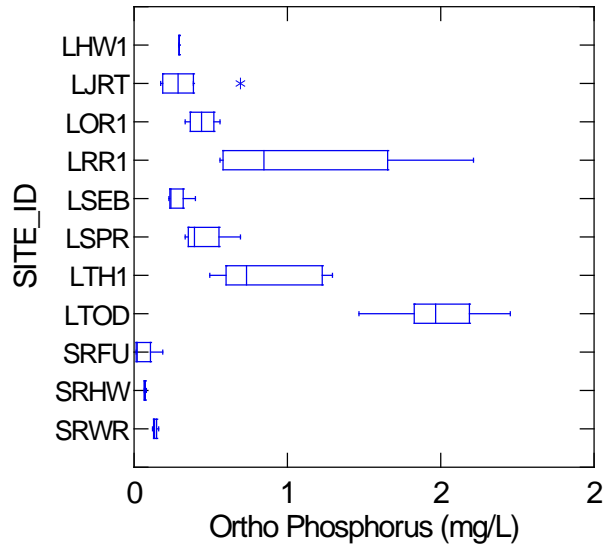
Appendix 6C. Box Plots of Conventional Constituent Results - NH₃



Appendix 6C. Box Plots of Conventional Constituent Results - TP



Appendix 6C. Box Plots of Conventional Constituent Results - OP



Appendix 6D. Significantly Different Results between Months.
 Probability shown for Mann-Whitney U hypothesis Test

Pollutant	Site-ID	Probability	June Median	Sept. Median
NO ₃	GOS1	0.046	0.23	0.06
NO ₃	LTH1	0.046	0.05	0.02
TKN	MAT1	0.043	0.02	0.03
OP	LJRT	0.050	0.29	0.14
OP	LTH1	0.050	0.45	0.92
OP	LTOD	0.050	1.45	1.64
OP	MAT1	0.050	0.13	0.20
OP	PIN1	0.050	0.13	0.06
TP	LJRT	0.050	0.30	0.19
TP	LTH1	0.050	0.42	0.94
TP	LTOD	0.050	1.43	1.96
TP	VIN1	0.043	0.16	0.15

Appendix 6E. Mercury Sample Results.

Minimum detection limit (MDL) = 0.020 ng/L.

Site ID	Date Sampled	THg (ng/L)	MMHg (ng/L)
ABR1	26-Jun-08	7.580	0.299
BLU1	26-Jun-08	2.822	0.489
BRU1	26-Jun-08	4.082	0.202
GOS1	26-Jun-08	2.846	0.640
HIN1	26-Jun-08	6.045	0.280
LHW1	26-Jun-08	1.491	0.269
LJRT	26-Jun-08	7.614	0.234
LOR1	26-Jun-08	5.449	0.276
LRR1	26-Jun-08	2.573	0.215
LTH1	26-Jun-08	2.190	0.180
LTOD	26-Jun-08	5.461	0.484
MAT1	26-Jun-08	1.109	--
MWC1	26-Jun-08	1.214	4.100
PIN1	26-Jun-08	2.990	0.360
SRFU	26-Jun-08	2.699	0.401
SRHW	26-Jun-08	1.342	0.216
SRWR	26-Jun-08	1.092	0.294
VINI	26-Jun-08	2.105	0.192
WAS1	26-Jun-08	0.965	0.098
WIL1	26-Jun-08	12.86	0.957
WINI	26-Jun-08	1.479	0.266

Appendix 6F. Replicate Sample Results.

Below minimum detection limit (MDL) results are shown as < MDL value.

Constituent	June Replicates			June CV	September Replicates			Sept. CV
	1	2	3		1	2	3	
BOD₅ (mg/L)	< 3	< 3	< 3	NA	< 3	< 3	< 3	NA
TSS (mg/L)	125	129	914	117%	36	36	37	2%
NO₃ (mg/L)	0.02	0.01	0.01	43%	0.02	0.01	0.01	43%
TKN (mg/L)	0.6	0.4	0.4	25%	0.6	0.3	0.6	35%
NH₃ (mg/L)	0.05	0.07	0.08	23%	0.14	0.22	0.18	22%
TP (mg/L)	0.91	0.89	0.88	2%	0.23	0.15	0.23	23%
OP (mg/L)	1.1	1.09	1.1	1%	1.01	1.06	0.84	12%
THg (ng/L)	5.45	4.99	5.74	7%	--	--	--	--
MMHg (ng/L)	0.32	0.28	0.26	10%	--	--	--	--

Appendix 6G. Blank Sample Results.

Below minimum detection limit (MDL) results are shown as < MDL value.

Constituent	June 2008	Sept. 2008
BOD₅ (mg/L)	< 3	< 3
TSS (mg/L)	< 2	< 2
NO₃ (mg/L)	0.01	< 0.01
TKN (mg/L)	< 0.1	< 0.1
NH₃ (mg/L)	0.21	0.10
TP (mg/L)	< 0.02	< 0.02
OP (mg/L)	< 0.01	< 0.01
THg (ng/L)	< 0.20	--
MMHg (ng/L)	< 0.20	--

Appendix 7A. Lentic Sampling Locations.

Site ID	Latitude (N)	Longitude (W)	Sampling Location
LOR1	38.41572	122.82257	Southern most end of Occidental Road Pond. Site is farthest from Occidental Road bridge.
LOR2	38.41661	122.82515	Midway between LOR1 and LOR3
LOR3	38.42014	122.82340	Middle reach of Occidental Road Pond
LOR4	38.42316	122.82787	Midway between LOR3 and LOR5
LOR5	38.42509	122.82941	Northern most end of the pond near the Occidental Road bridge.
SEB1	38.41039	122.81642	Northern most end of Sebastopol Pond
SEB2	38.40881	122.81815	Middle reach of Sebastopol Pond.
SEB3	38.40657	122.81789	Southern reach of the pond, just south of the Pedsetrian Bridge. Access to lentic areas further south were blocked by woody debris during low water depths.
SEB4	38.40723	122.81817	10 yards south of SEB 3. Flows in November were high enough (due to rain) to allow access south of the snag blocking access south of SEB 3.
SEB5	38.40667	122.81796	10 yards south of SEB 4. Flows in November were high enough (due to rain) to allow access south of the snag blocking access south of SEB 3.

Appendix 7B. Chlorophyll and Phaeophytin Results.

Below minimum detection limit (MDL) results are shown as < MDL value.

The Median values are reported for samples collected in triplicate.

Samples identified with * indicate near surface collection at 2cm depth.

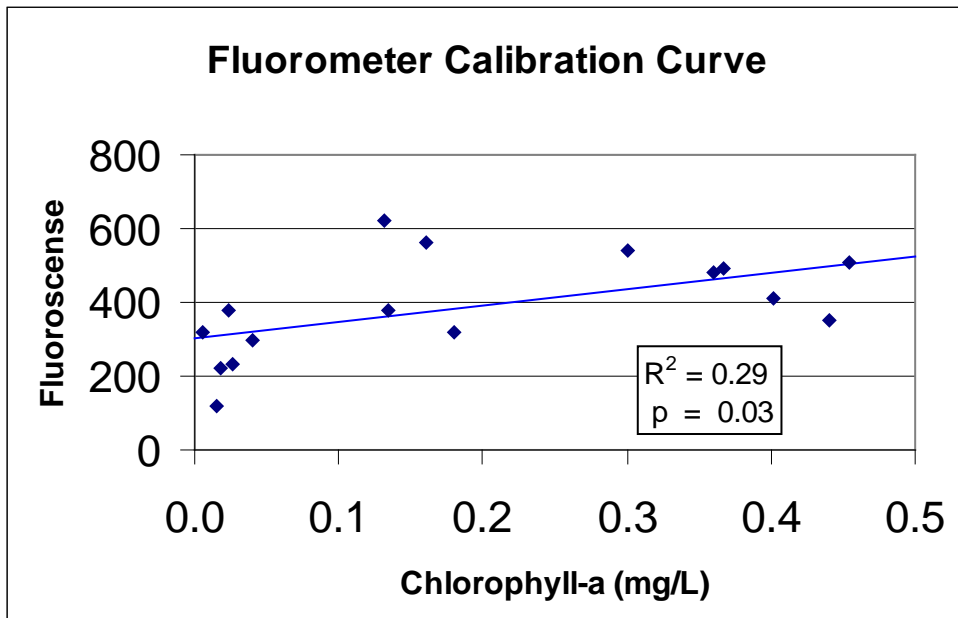
Date	Site ID	Chlorophyll-a (mg/L)	Phaeophytin-a (mg/L)
27-Aug-08	LOR1	0.367	< 0.018
27-Aug-08	LOR2	0.360	< 0.018
27-Aug-08	LOR3	0.454	< 0.036
27-Aug-08	LOR4	0.441	< 0.036
27-Aug-08	LOR5	0.401	< 0.036
27-Aug-08	SEB1	0.018	< 0.012
27-Aug-08	SEB2	0.027	< 0.012
27-Aug-08	SEB3	0.132	0.016
2-Sep-08	LTOD	< 0.024	< 0.024
4-Sep-08	LTH1 Median	0.015	< 0.014
4-Sep-08	SRWR	< 0.006	< 0.006
23-Sep-08	LOR1	0.180	< 0.017
23-Sep-08	LOR2	0.300	< 0.033
23-Sep-08	LOR3	0.160	< 0.033
23-Sep-08	LOR4	0.134	0.035
23-Sep-08	LOR5	0.040	0.063
24-Sep-08	LTHR	< 0.012	< 0.012
24-Sep-08	LTOD	0.023	0.049
24-Sep-08	SEB1	0.050	< 0.025
24-Sep-08	SEB2	0.080	< 0.025
24-Sep-08	SEB3 Median	0.107	0.033
24-Sep-08	SRWR	< 0.006	< 0.006
21-Oct-08	LTH1	< 0.008	< 0.008
21-Oct-08	LTOD	< 0.025	< 0.025
21-Oct-08	SEB2	< 0.025	< 0.025
21-Oct-08	SEB3	0.017	< 0.025
21-Oct-08	SEB1 Median	0.080	0.046
21-Oct-08	SRWR	< 0.008	< 0.008
22-Oct-08	LOR1	0.401	< 0.066
22-Oct-08	LOR2 *	2.480	< 0.2
22-Oct-08	LOR3 *	0.481	< 0.2
22-Oct-08	LOR4 *	0.881	< 0.2
22-Oct-08	LOR5 *	2.000	< 0.2

Appendix 7C. Replicate Sample Results.

CV calculations used MDL values used for results reported as '< MDL' value.

Date	Site ID	Sample / CV	Chlorophyll-a (mg/L)	Phaeophytin-a (mg/L)
4-Sep-08	LTHR	Replicate 1	0.015	0.014
		Replicate 2	0.014	0.014
		Replicate 3	0.020	0.014
		CV	20%	0%
24-Sep-08	SEB3	Replicate 1	0.107	0.033
		Replicate 2	0.160	0.033
		Replicate 3	0.053	0.049
		CV	50%	24%
21-Oct-08	SEB1	Replicate 1	0.080	0.046
		Replicate 2	0.100	0.033
		Replicate 3	0.070	0.025
		CV	18%	31%
Median CV			20%	24%

Appendix 7D. Fluorescence – Chlorophyll-*a* Calibration Curve



Appendix 7E. Spatial Variability of Surface Chlorophyll-a in Lentic Areas.

