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State of Louisiana

Department of Environmental Quality

M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

Mr. David E. Cifreo, Secretary-Treasurer
Pointe Coupee Parish Police Jury
P.O. Box 290
New Roads, LA 70760

Re: Pointe Coupee Parish Resolution and Senate Resolution No. 51 on Water Quality Testing On False River Lake

Dear Mr. Cifreo:

As a result of the above captioned resolution, Department personnel have met with Mr. Clement Guidroz and Mr. Don Ray of the False River Lake Commission to address the subject project's specifics. History of the Commission's activity relative to this issue and the involvement with other state (Louisiana Department of Wildlife and Fisheries) and federal (U.S. Army Corps of Engineers) agencies were discussed. More specifically, the meeting detailed the questions the Commission wishes to answer with information obtained from this project. Concerns center on siltation at the north and south ends of the lake and on the apparent nutrient enrichment occurring in False River Lake.

The project will involve 12 monthly sampling events and commence after Labor Day to coincide with the beginning of the autumn season and continue through the end of the Summer 2002. Initial characterization of the lake will include a survey of field measurements (dissolved oxygen, pH, conductivity and temperature) to aid in the identification of sample points. We anticipate a minimum of six sample points in the lake and additional sampling in the inflow points to the lake to characterize influencing water sources. Parameters to be measured were agreed to include total suspended solids, nutrients (nitrogen and phosphorus) and fecal coliform bacteria.

The Department will be coordinating this project plan development with Barton Rogers, U. S. Army Corps of Engineers, and Mark McElroy, Louisiana Department of Wildlife and Fisheries to avoid duplication of effort. A draft work-plan will be developed and discussed with Mr. Guidroz and Mr. Ray prior to implementation.

If the Police Jury has additional concerns relative to this project, please feel free to contact Chris M. Piehler of the Surveillance Division at (225) 765-0592. Thank you for your interest in our environment.

Sincerely,

J. Dale Givens

JDG/lkl

C: Senator Robert Marrioneaux
Michael S. Baer, III
Chris Roberie
JDG Log # 01-074
JDG Log # 01-065

Work Plan to Assess Water Quality Conditions On False River Lake

August 20, 2001

Introduction

The Point Coupee Parish Police Jury and the Louisiana House of Representatives passed resolutions in the spring of 2001 requesting the Louisiana Department of Environmental Quality conduct periodic water quality testing on False River Lake near New Roads, Louisiana. Subsequent communications with False River Lake Commission members indicated that primary concerns relative to the House Resolution 51 included sedimentation, organic enrichment and elevated fecal coliform bacteria levels. This work plan is developed to collect sufficient data from the ambient waters of the lake and from inflow points to determine current ambient lake conditions and potential influences from major inflow points to the lake.

Methods

Sample Stations – Four stations will be selected to represent the ambient water quality conditions on False River: one station each for the north and south ends of the lake and two to represent mid-lake conditions (one each for the east and west sides of the lake). In addition to the four ambient lake stations, stations will be established at two major inflow points to the lake, one at False Bayou at the north end of the lake and one at the mouth of Discharge Bayou at the south end of the lake.

Sample Parameters - Composite water samples at each ambient lake station will be analyzed for turbidity, total suspended solids (TSS), nutrients (nitrate/nitrite nitrogen, total Kjeldahl nitrogen, ammonia nitrogen and total phosphorus). Grab samples at each ambient lake station will be taken for bacteria analysis (fecal coliform bacteria) and water meters will be used at each ambient lake station to gather *in-situ* data on dissolved oxygen, pH, specific conductance and temperature.

Grab samples will be collected at in flow stations for turbidity, total suspended solids (TSS), nutrients (nitrate/nitrite nitrogen, total Kjeldahl nitrogen, ammonia nitrogen and total phosphorus) and bacteria analysis (fecal coliform bacteria). Water meters will be used at each in flow station to gather *in-situ* data on dissolved oxygen, pH, specific conductance and temperature.

Sample Specifications - Composite samples will be taken using a Kemmerer Sampler to composite aliquots from various depths according to the LDEQ "Standard Operating Procedure (SOP) for Water Sample Collection, Preservation, Documentation and Shipping". Grab samples will be taken at a depth of one meter unless water depth is less than two meters, in which case sample depth will be one-half total water depth.

Containers will be certified clean HDPE containers of sufficient volume to conduct nutrient, turbidity and TSS analyses according to U.S.E.P.A.-approved methods.

Bacteria sample containers will be sanitized "Whirl-pak" bags approved for use in fecal coliform sampling by the Louisiana Department of Health and Hospitals.

Sample Frequency – Sampling events will be conducted monthly from September 2001 to August 2002. Sampling events will be roughly scheduled for the third or fourth week of the month on a Monday or Tuesday to accommodate the bacteria analysis laboratory. However, effort will be made to amend the sample schedule to include up to one-half total number of sampling days to be immediately after significant rainfall events.

Sample Analyses – Samples will be analyzed by the LDHH Laboratory in Amite, La. (bacteria) and by the LDEQ Laboratory in Baton Rouge (all other parameters). Analysis will be conducted using EPA-approved methods.

Results

The results of the raw data will be summarized into spreadsheet(s) and made available to the False River Lake Commission, the Point Coupee Parish Police Jury and to the Louisiana House of Representatives within 90 days of the collection of the last sample. A report will be developed to discuss the significance of the collected data and will be made available to the False River Lake Commission, the Point Coupee Parish Police Jury and to the Louisiana House of Representatives before the end of calendar year 2002.

Linda Levy
Chris R.

Three Carre' Laurent
P. O. Box 156
New Roads, Louisiana 70760
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STATE OF LOUISIANA
HOUSE OF REPRESENTATIVES

DONALD J. CAZAYOUX, JR.
District 18

Appropriations
Administration of Criminal Justice
Agriculture
Joint Legislative Committee on the Budget

September 14, 2001

DEPARTMENT OF ENVIRONMENTAL QUALITY
SEP 17 2001
OFFICE OF THE SECRETARY

Secretary J. Dale Givens
Department of Environmental Quality
P.O. Box 82263
Baton Rouge, LA 70884-2263

RE: Pointe Coupee Parish Water Testing of False River

Dear Secretary Givens:

I am in receipt of yours of September 5, 2001 regarding monthly sampling of False River in Pointe Coupee Parish. Thank your for your attention to these very important issues affecting the viability of our great lake. Please let me know if I can be of any assistance in expediting the development and implementation of a plan to solve these pressing problems.

Again, thank you for your assistance in this matter. Please do not hesitate to contact me with any questions or comments. With best personal regards, I am

Sincerely yours,

Donald J. Cazayoux, Jr.

DJC/jch
cc: Pointe Coupee Parish Police Jury

DONALD J. CAZAYOUX, JR.
LOUISIANA HOUSE OF REPRESENTATIVES
District 18
Post Office Box 156
New Roads, Louisiana 70760

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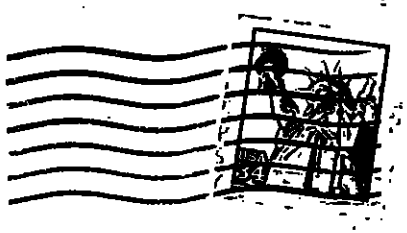

Secretary J. Dale Givens
Department of Environmental Quality
P.O. Box 82263
Baton Rouge, LA 70884-2263

70884-2263

Report on Water Quality Conditions on False River Lake

January 8, 2003

Introduction

The Point Coupee Parish Police Jury and the Louisiana Senate passed resolutions in the spring of 2001 requesting the Louisiana Department of Environmental Quality conduct periodic water quality testing on False River Lake near New Roads, Louisiana. Subsequent communications with False River Lake Commission members indicated that primary concerns relative to the Senate Resolution 51 included sedimentation, organic enrichment and elevated fecal coliform bacteria levels. This work plan was developed to collect sufficient data from the ambient waters of the lake and from inflow points to determine current ambient lake conditions and potential influences from major inflow points to the lake.

Methods

Sample Stations – Three stations were selected to represent the ambient water quality conditions on False River: one station each for the north and south ends of the lake and one to represent mid-lake conditions. In addition to the three ambient lake stations, stations were established at three inflow points to the lake, one at the La. Hwy. 413 bridge over Patin Dyke Slough, one at the La. Hwy. 413 bridge over False Bayou (both at the north end of the lake) and one at the mouth of Discharge Bayou (at the south end of the lake).

Sample Parameters - Composite water samples at each ambient lake station were analyzed for turbidity, total suspended solids (TSS), nutrients (nitrate/nitrite nitrogen, total Kjeldahl nitrogen, ammonia nitrogen, total phosphorus and total organic carbon). Grab samples at each ambient lake station (taken at mid-lake since bacteria samples cannot be composited) were taken for bacteria analysis (fecal coliform bacteria) and water quality meters were used at each ambient lake station to gather *in-situ* data on dissolved oxygen, pH, specific conductance and temperature.

Grab samples were collected at inflow stations for turbidity, total suspended solids (TSS), nutrients (nitrate/nitrite nitrogen, total Kjeldahl nitrogen, ammonia nitrogen, total phosphorus and total organic carbon) and bacteria analysis (fecal coliform bacteria). Water meters were used at each inflow station to gather *in-situ* data on dissolved oxygen, pH, specific conductance and temperature.

Sample Specifications - Composite samples were taken using a Kemmerer Sampler to composite aliquots from various depths according to the LDEQ "Standard Operating Procedure (SOP) for Water Sample Collection, Preservation, Documentation and Shipping". Grab samples will be taken at a depth of one meter unless water depth is less than two meters, in which case sample depth will be one-half total water depth.

Containers were certified clean HDPE containers of sufficient volume to conduct nutrient, turbidity and TSS analyses according to U.S.E.P.A.-approved methods. Bacteria sample containers used were sanitized "Whirl-pak" bags approved for use in fecal coliform sampling by the Louisiana Department of Health and Hospitals.

Sample Frequency – Sampling events were conducted monthly from October 2001 to September 2002. Sampling events were roughly scheduled for the third or fourth week of the month on a Monday or Tuesday to accommodate the bacteria analysis laboratory. Effort was made to amend the sample schedule to include up to one-half total number of sampling days to be immediately after significant rainfall events, however only two of the 13 sampling events were conducted within two days of a significant rainfall event.

Sample Analyses – Samples were analyzed by the LDHH Laboratory in Amite, La. (bacteria) and by the LDEQ Laboratory in Baton Rouge (all other parameters). Analyses were conducted using EPA-approved methods.

Results

The results of the 13 sampling events are stated in the spreadsheets attached to this report. All data appear to pass scrutiny for quality control except for the pH values for the month of May 2002, which were vacated as inaccurate and labeled "N/A". The spreadsheets are arranged by sample location.

Discussion

The following parameters were measured and used to characterize False River Lake water quality for the purposes of this study: total suspended solids, turbidity, nitrate/nitrite nitrogen, total phosphorus, total Kjeldahl nitrogen, ammonia nitrogen, total organic carbon, fecal coliform bacteria, temperature, pH, dissolved oxygen and specific conductance.

Total suspended solids (TSS) in the main body of the lake appeared generally lower in concentration than in the inflow points measured during this study. The mid-lake station, were water depth was greatest, appeared to have consistently lower TSS values than those taken from the more shallow south and north flats where high winds and choppy surface conditions can contribute to suspension of solids. Mid-lake TSS values may have been influenced by water-borne algal populations more than inorganic sediments especially during times of warm, stable weather patterns accompanied by lake stratification. TSS values at the inflow points were higher than main-lake station values on the average, but did not consistently elevate with rainfall events. This was more likely due to the timing of the sampling, and it is likely that TSS values did elevate somewhat after rainfall events, but the phenomenon was not captured during the time of the sampling events.

Results from turbidity analyses seemed to parallel those for TSS in that main lake station values appeared generally lower than those for inflow points. The average turbidity contributions appeared greatest from Patin Dyke Slough and Discharge Bayou. Some elevated turbidity values were noted from the north flats of the main lake that exceeded values seen from the northern inflow points. These elevated values may have been due in part to the shallow nature of the north flats, which would allow for re-suspension of particulate matter during times of high winds and lake surface chop.

Three parameters measured different forms of nitrogen in the samples and one parameter measured total phosphorus. Collectively, the four parameters provide information on nutrient levels in the subject surface waters. Although nitrogen and phosphorus are essential elements for plant and animal life, the concentrations needed to maintain ecosystem health are actually quite low. Reid and Wood (1976)[i] state that the mean total phosphorus content of most lakes ranges from 0.010 to 0.030 ppm. Most data points for phosphorus in this study were approximately ten times that average. The quoted reference further states that the world average for nitrate nitrogen in freshwaters is 0.30 ppm. Although data on nitrogen compounds from this study do not routinely exceed this average, it is apparent that nitrogen compounds are present in sufficient quantities so as not to be limiting to aquatic plant growth. The data appears to support that False River Lake is experiencing organic enrichment, and that conclusion is supported by frequent observations of significant algal populations as evidenced by elevated pH readings (frequently above 8 s.u.) and the frequent visible "pea-green" color of the lake water.

Total organic carbon (TOC) was measured as an indicator of organic content of the lake. The values obtained for TOC support that the lake waters are fairly rich in organic matter, although not to the extreme of some highly "nutrient over-enriched" (eutrophic/dystrophic) waters. An "average" value for organic content of fresh waters is believed to be approximately 6 to 8 ppm (Reid and Wood, 1976), and these average values were occasionally exceeded in the inflow points of the lake. Main lake stations appear to fall within the average range for TOC.

For waters with primary contact (swimming) as a designated use, such as False River Lake, the fecal coliform bacteria standard is 200 to 400 cfu/100ml. Sample results for this parameter from the main lake stations were generally well below these numbers with one exception of a 500 cfu/100ml at the north flats. All inflow points appeared to contribute to bacteria loading to the lake, but data from the False Bayou station was consistently high. It is important to note that due to sampling limitations, the main lake stations were sampled for fecal coliform bacteria away from shoreline activity influences. It is quite possible that near shore samples would demonstrate bacteria contributions from camps and residences in the littoral (near-shore) zone of the lake. Although the lake samples in this study did not result in a water quality standard violation for fecal coliform bacteria, there may be localized areas of higher bacteria counts near sources of sewage discharge to the lake.

Of the field parameters measured with a water quality meter at the time of sample collection, the two of most significance are pH and dissolved oxygen. The frequently

elevated pH levels encountered in this study are typical of waters that are dominated by algal blooms, which in turn supports the conclusion that the lake is experiencing organic enrichment. The dissolved oxygen levels in the lake (taken at one meter depth) demonstrated sufficient oxygen to support aquatic life, seldom falling below the 5 mg/l standard set for waters such as False River Lake. However, of interest is the data derived from the initial survey in August 2001 that demonstrated the degree of stratification the lake experiences. During that initial survey, the dissolved oxygen concentrations were observed to fall sharply below a thermocline depth of approximately 6 to 7 meters.

Conclusions

The data appear to support the conclusion that False River Lake is nutrient-rich lake with total phosphorus levels sufficient to support frequent algal blooms. Inflow points appear to contribute elevated bacteria concentrations, although the lake itself does not appear to be in violation of the water quality standard for fecal coliform bacteria. The sample collection methods employed, however, do not address the possibility of near-shore, localized areas that may be influenced by sewage discharges from water front camps and residences. Data on TSS and turbidity seem to indicate that contributions of these parameters from the inflow points on the lake are occurring and the highest averages for TSS appear to be from all inflow points and the north flats area. The relationship between rainfall events and increased contribution of sediment/solids to the lake was not clearly demonstrated, but waters coming into False River Lake appear to be higher in suspended solids and turbidity than ambient lake conditions.

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[i] *Ecology of Inland Waters and Estuaries*, 2nd ed. 1976. Reid, George K. and Richard D. Wood. D. Van Nostrand Company. New York, New York. 485pp.

Initial Survey of False River (August 29, 2001)

Location	Station ID	Latitude	Longitude	Time	Depth of sample	Dissolved oxygen	pH		Temp	Cond	comments
Mouth of Patin Dyke Slough		N30-41.527	W91-24.904	0941	1 meter	3.8	8.13		28.32	229	1.5 meters deep
Mouth of False Bayou		N30-41.334	W91-25.039	0949	1 meter	3.82	7.94		28.24	217	1.5 meters deep
North end of lake (flats)	01011144	N30-41.310	W91-25.782	0954	1 meter	4.39	8.63		29.3	208	
North end of lake (flats)	01011144	N30-41.310	W91-25.782	0954	3 meters	4.11	8.59		29.12	206	near bottom
North end of lake (flats)	01011144	N30-41.310	W91-25.782	1125	1 meter	5.41					
North Mid-lake, east side		N30-39.855	W91-28.309	1011	1 meter	5.29	8.71		29.18	206	
North Mid-lake, east side		N30-39.855	W91-28.309	1011	5 meters	4.1	8.56		29.42	209	near bottom
North Mid-lake, west side		N30-39.614	W91-28.902	1019	1 meter	4.72	8.63		29.64	210	
North Mid-lake, west side		N30-39.614	W91-28.902	1019	12 meters	0.3	7.2		21.72	291	Dissolved oxygen falls abruptly at 7 meters
South Mid-lake, east side		N30-38.172	W91-28.937	1030	1 meter	5.4	8.69		29.64	209	
South Mid-lake, east side		N30-38.172	W91-28.937	1030	8 meters	0.2	7.39		26.5	241	Dissolved oxygen falls abruptly at 6 meters
South Mid-lake, west side		N30-37.561	W91-28.872	1038	1 meter	6.27	8.76		29.82	207	
South Mid-lake, west side		N30-37.561	W91-28.872	1038	19 meters	0.27	7.16		18.9	306	Dissolved oxygen falls abruptly at 7 meters
South end of lake (flats)	01011146	N30-36.774	W91-26.241	1052	1 meter	4.9	8.47		29.36	212	
South end of lake (flats)	01011146	N30-36.774	W91-26.241	1052	5 meters	4.37	8.32		29.16	209	near bottom
Mouth of Discharge Bayou	01011149	N30-36.924	W91-25.924	1100	1 meter	3.7	7.34		26.99	149	2.5 meters deep
False Bayou @ Hwy 413	01011148			1300	1 meter	3.85	7.3		27.1	275	
Patin Dyke Slough @ Hwy 413	01011147			1310	1 meter	4.23	7.42		27.12	307	
The Chenal @Hwy 413				1340	1 meter	2.84	7.41		27.89	327	

Mouth of Discharge Bayou

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	16	12	ND	0.16	1.2	ND	8.9	70
10/30/2001	20.5	6.6	0.13	0.15	0.95	ND	8.9	30
11/27/2001	21	17	0.1	0.1	1.18	0.11	7.6	23
12/18/2001	*22*	*22*	*0.35*	*0.31*	*1.58*	*0.25*	*14.4*	*500*
1/29/2002	26	18	0.22	0.15	1.19	0.15	9.5	3000
2/25/2002	26	21	0.16	0.13	1.14	ND	9.6	300
3/25/2002	25	20	0.08	0.13	1.02	ND	8.4	130
4/22/2002	31.5	19	0.09	0.16	0.78	ND	9.3	90
5/21/2002	26	14	0.05	0.13	0.59	ND	6.9	36
6/25/2002	*27.3*	*19*	*ND*	*0.16*	*0.96*	*ND*	*6.2*	*80*
7/30/2002	26	19	ND	0.11	1.08	ND	7.7	170
8/27/2002	22	12	ND	0.16	1.19	ND	6.8	220
9/24/2002	17.3	10	0.06	0.14	1.22	0.16	8.8	30
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductance(umhos/cm)
10/2/2001	23.32	8.54	6.3	205
10/30/2001	18.32	7.41	7.45	220
11/27/2001	20.61	7.16	6.05	230
12/18/2001	*17.29*	*8.02*	*2.77*	*186*
1/29/2002	15.59	7.03	5.82	316
2/25/2002	14.96	7.26	7.72	339
3/25/2002	18.3	7.29	8.15	297
4/22/2002	25.37	7.14	3.36	301
5/21/2002	22.9	N/A	5.89	304
6/25/2002	*28.05*	*8.49*	*7.25*	*253*
7/30/2002	29.74	7.62	2.98	239
8/27/2002	29.65	8.16	6.35	242
9/24/2002	26.73	7.87	6.02	239

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted

False Bayou at Hwy 413

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	10.5	8.6	0.07	0.16	1.19	0.14	7.7	2400
10/30/2001	5	4.6	0.06	0.12	0.67	ND	6.8	300
11/27/2001	ND	3.4	ND	0.19	0.59	ND	10.1	300
12/18/2001	*5*	*8*	*0.3*	*0.19*	*1.47*	*0.48*	*10.1*	*3000*
1/29/2002	16.6	14	0.12	0.16	1.38	0.56	7.4	1300
2/25/2002	25	21	0.07	0.21	1.44	0.27	10.7	2400
3/25/2002	24	24	0.06	0.21	1.88	0.25	10.1	1300
4/22/2002	12	10	0.06	0.2	1.01	0.29	9.8	1300
5/21/2002	17.3	11	ND	0.14	0.81	ND	9.2	300
6/25/2002	*5.5*	*4.8*	*ND*	*0.23*	*0.79*	*0.11*	*7.9*	*5000*
7/30/2002	26	10	ND	0.68	1.52	0.15	10.6	3000
8/27/2002	20	10	0.05	0.5	1.86	ND	14.1	230
9/24/2002	50	25	ND	1.51	13.9	0.21	16.8	280
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductance(umhos/cm)
10/2/2001	21.99	7.41	4.48	527
10/30/2001	15.51	7.27	12.44	456
11/27/2001	21.95	7.25	8.08	605
12/18/2001	*16.07*	*8.02*	*3.75*	*278*
1/29/2002	19.14	7.08	2.65	413
2/25/2002	14.56	7.21	7.29	432
3/25/2002	19.11	7.4	6.4	475
4/22/2002	26.46	7.38	2.6	403
5/21/2002	22.61	N/A	5.91	400
6/25/2002	*27.29*	*7.37*	*2.27*	*333*
7/30/2002	28.68	7.55	5.23	319
8/27/2002	29.39	7.78	5.24	366
9/24/2002	25.43	7.56	2.22	330

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted

Patin Dyke Slough at Hwy 413

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	18	14	ND	0.13	1.21	ND	9.5	300
10/30/2001	20	12	ND	0.19	0.91	ND	10.6	50
11/27/2001	26	20	0.08	0.15	0.8	0.13	8.8	300
12/18/2001	*34*	*45*	*0.34*	*0.28*	*1.2*	*0.29*	*17.9*	*500*
1/29/2002	18.6	22	0.07	0.27	0.99	0.25	15	130
2/25/2002	20	27	0.06	0.22	1.12	0.29	12.2	110
3/25/2002	13.3	11	ND	0.13	1.21	0.1	10	80
4/22/2002	19	13	0.06	0.22	0.85	0.15	11.2	30
5/21/2002	30	21	0.06	0.18	0.91	ND	5.7	80
6/25/2002	*11*	*12*	*0.08*	*0.67*	*1.03*	*0.27*	*13*	*2200*
7/30/2002	39	26	ND	0.16	1.17	0.22	4.9	22
8/27/2002	19.3	13	0.06	0.18	0.9	0.12	6.7	23
9/24/2002	38.6	25	0.06	0.16	1.21	0.23	9.8	17
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductance(Umhos/cm)
10/2/2001	22.38	7.2	5.44	239
10/30/2001	16.26	7.13	6.21	248
11/27/2001	19.78	7.11	5.37	312
12/18/2001	*16.92*	*8.14*	*3.52*	*237*
1/29/2002	16.48	6.88	3.4	344
2/25/2002	15.18	7.08	4.48	439
3/25/2002	18.73	7.31	3.85	489
4/22/2002	25.63	7.34	4.6	451
5/21/2002	22.64	N/A	4.68	600
6/25/2002	*29.22*	*7.25*	*3.03*	*233*
7/30/2002	30.06	7.4	2.25	446
8/27/2002	30.28	7.96	4.03	420
9/24/2002	26.66	7.54	4.89	405

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted

South Flats of False River

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	15.5	9.1	ND	0.08	1.28	ND	9	2
10/30/2001	ND	6	0.15	0.15	1.14	ND	8.5	11
11/27/2001	7.5	5.2	0.2	0.06	0.84	0.44	7.3	240
12/18/2001	*8.5*	*5.7*	*0.61*	*0.1*	*0.73*	*ND*	*6.9*	*8*
1/29/2002	14	7.6	0.45	0.11	0.9	ND	6.9	17
2/25/2002	32	18	0.26	0.12	1.11	ND	6.4	4
3/25/2002	11	6.9	0.17	0.07	0.98	ND	7.8	11
4/22/2002	12.5	7.4	0.05	0.07	0.77	ND	7.3	8
5/21/2002	9	6.5	ND	0.09	1.08	ND	6.7	23
6/25/2002	*10*	*8.4*	*ND*	*0.11*	*1*	*ND*	*7.8*	*17*
7/30/2002	75.3	7.7	ND	0.14	1.24	ND	6.8	8
8/27/2002	39	4.4	0.09	0.17	1.54	0.16	6.7	4
9/24/2002	12.6	7.6	ND	0.1	1.02	ND	8.2	23
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductance(Umhos/cm)
10/2/2001	25.6	9.05	9.17	200
10/30/2001	20.32	7.98	8.24	215
11/27/2001	19.33	7.07	4.15	226
12/18/2001	*17.7*	*7.97*	*4.08*	*187*
1/29/2002	13.51	7.52	7.85	246
2/25/2002	14.3	7.79	9.13	259
3/25/2002	17.64	8.3	11.35	264
4/22/2002	23.65	8.11	7.24	264
5/21/2002	23.83	N/A	6.59	280
6/25/2002	*28.05*	*8.68*	*6.72*	*252*
7/30/2002	29.85	8.02	4.01	237
8/27/2002	30.19	8.97	7.68	228
9/24/2002	27.72	8.45	7.47	233

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted

False River Mid-Lake

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	10.5	6.3	ND	0.1	1.4	ND	7.2	<2
10/30/2001	22	5.7	0.14	0.17	1.39	0.27	9.6	2
11/27/2001	8	5.5	0.2	0.11	0.9	0.28	7.6	130
12/18/2001	*6*	*4.9*	*0.62*	*0.07*	*0.83*	*0.1*	*7.1*	*8*
1/29/2002	12	4.9	0.38	0.1	0.96	ND	7.6	17
2/25/2002	8	6.3	0.3	ND	1.02	ND	7.4	2
3/25/2002	12	7.7	0.06	0.08	0.98	ND	7.5	2
4/22/2002	7.3	5.5	0.05	0.09	0.6	ND	6.8	11
5/21/2002	9.5	4.8	ND	0.09	0.66	ND	6.5	4
6/25/2002	*7.3*	*6.4*	*ND*	*0.11*	*0.8*	*ND*	*7.1*	*22*
7/30/2002	9.3	5.8	ND	0.12	1.36	0.14	7.1	<2
8/27/2002	11	22	ND	0.19	1.61	0.53	8.3	2
9/24/2002	9.3	5.9	ND	0.1	1.36	0.12	8	17
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductance(umhos/cm)
10/2/2001	24.94	7.89	4.03	206
10/30/2001	20.74	7.42	5.35	221
11/27/2001	19.76	7.25	6.31	222
12/18/2001	*18.21*	*8.07*	*3.88*	*186*
1/29/2002	14.46	8.3	10.45	246
2/25/2002	14.61	7.94	9.67	260
3/25/2002	17.75	8.45	12.05	264
4/22/2002	24.54	8.37	7.71	263
5/21/2002	24.4	N/A	7.71	281
6/25/2002	*28.61*	*8.01*	*7.29*	*248*
7/30/2002	30.54	8.36	6.8	230
8/27/2002	30.24	8.99	8.71	219
9/24/2002	27.83	8.15	6.29	238

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted

North Flats of False River

Date	TSS	Turbidity(NTU)	Nitrate/Nitrite Nitrogen	Total Phosphorus	Total Kjeldahl Nitrogen	Ammonia Nitrogen	Total Organic Carbon	Fecal Coliform(cfu/100ml)
10/2/2001	13	8.5	ND	0.1	1.47	ND	8.6	8
10/30/2001	9.5	7.8	0.08	0.18	1.27	0.41	8.6	11
11/27/2001	19	8.6	0.18	0.1	0.54	0.15	9	130
12/18/2001	*10.5*	*7.9*	*0.59*	*0.08*	*0.99*	*0.1*	*7.5*	*220*
1/29/2002	14	7.8	0.3	ND	1.14	ND	7.7	500
2/25/2002	82	70	0.13	0.22	1.77	ND	7.9	300
3/25/2002	17.3	12	ND	0.07	1.08	ND	8	23
4/22/2002	68	29	0.07	0.16	0.78	ND	6.1	13
5/21/2002	36.6	18	ND	0.13	0.88	ND	5.8	2
6/25/2002	*16*	*14*	*ND*	*0.12*	*0.82*	*ND*	*7.4*	*17*
7/30/2002	67	20	ND	0.18	1.96	ND	8.9	<2
8/27/2002	23	10	ND	0.14	1.46	ND	10	2
9/24/2002	13.3	7.1	ND	0.15	1.62	0.33	7.7	4
MDLs	4	1	0.05	0.05	0.1	0.1	2	2

Field Parameters

Date	Temperature(Deg C)	pH(S.U.)	Dissolved Oxygen	Specific Conductarice(umhos/cm)
10/2/2001	24.06	8.14	7.14	208
10/30/2001	19.71	7.51	6.77	223
11/27/2001	20	7.43	7.26	225
12/18/2001	*18.47*	*8.16*	*4.11*	*192*
1/29/2002	15.55	8.3	11.06	251
2/25/2002	14.71	8.13	10.66	267
3/25/2002	18.04	8.55	12.35	266
4/22/2002	27.49	8.59	7.52	271
5/21/2002	23.52	N/A	8.15	283
6/25/2002	*28.33*	*8.83*	*8.22*	*259*
7/30/2002	31.48	8.59	7.21	219
8/27/2002	30.28	8.97	6.79	220
9/24/2002	27.06	7.9	3.97	243

**italics indicates samples were taken within 48 hrs of a rainfall event*

All values in parts per million (ppm) unless otherwise noted