APPENDIX A

Maps of the Study Area

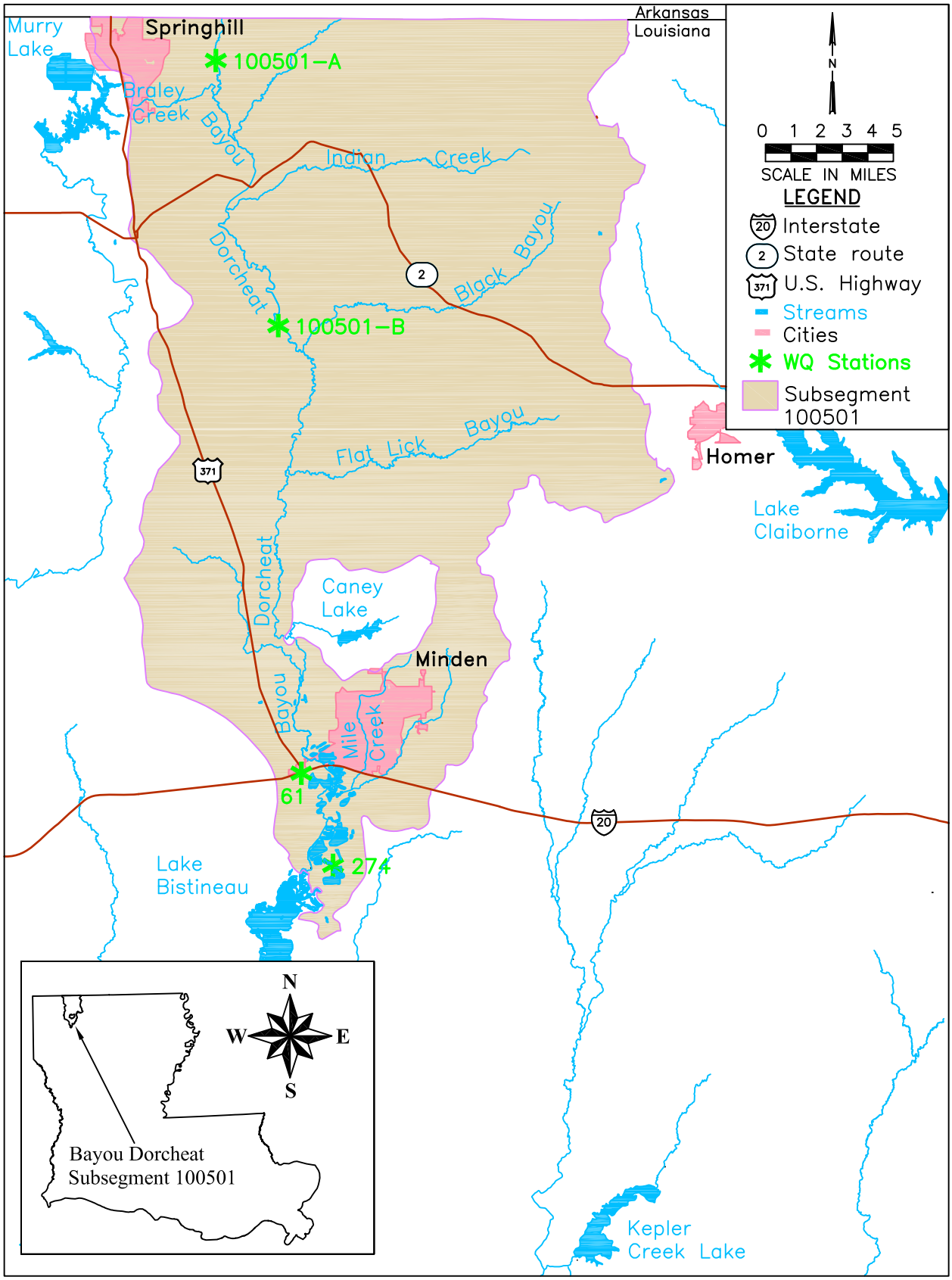

Figure A.1. Watershed map of subsegment 100501.

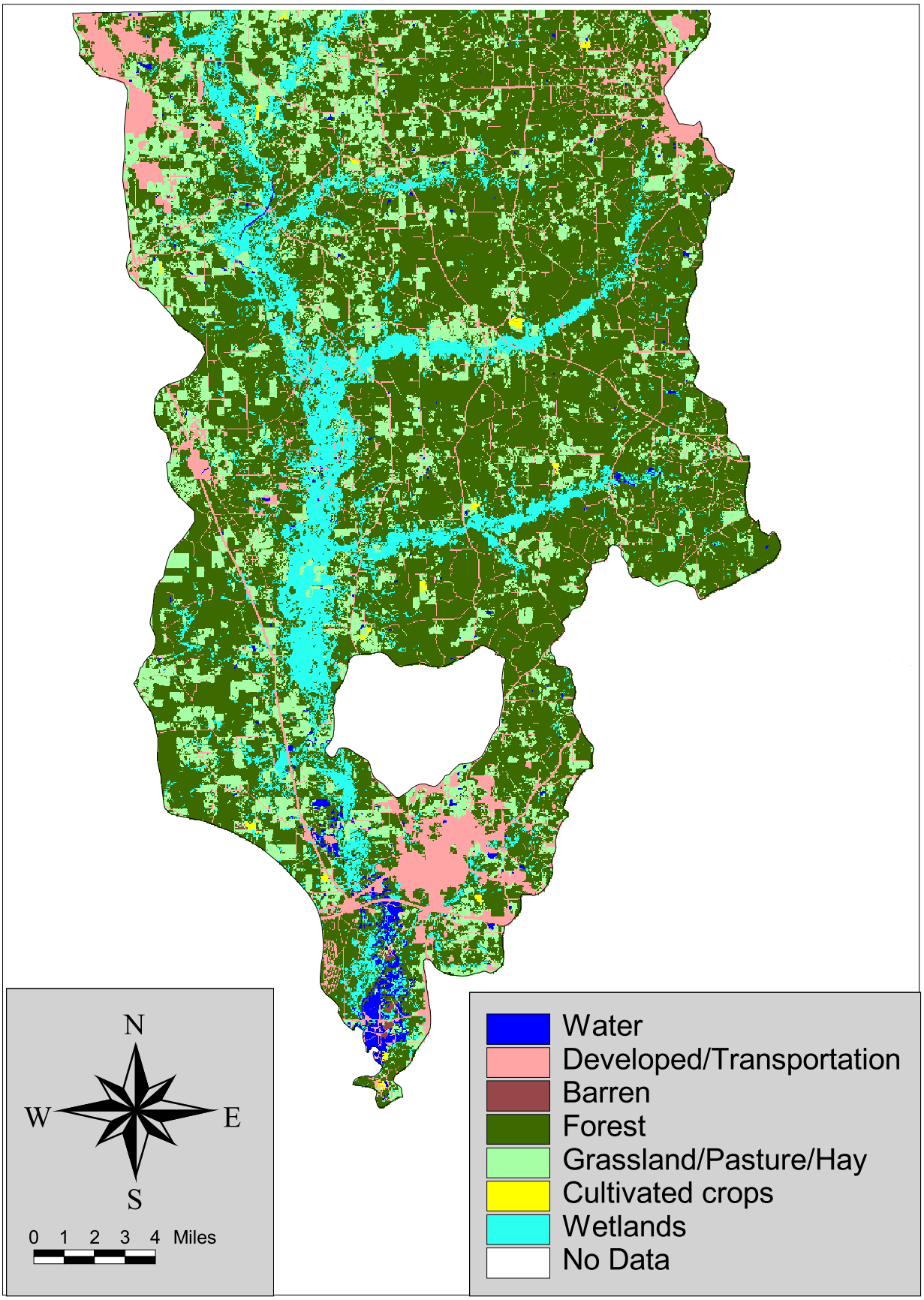

Figure A.2. Land use for subsegment 100501.

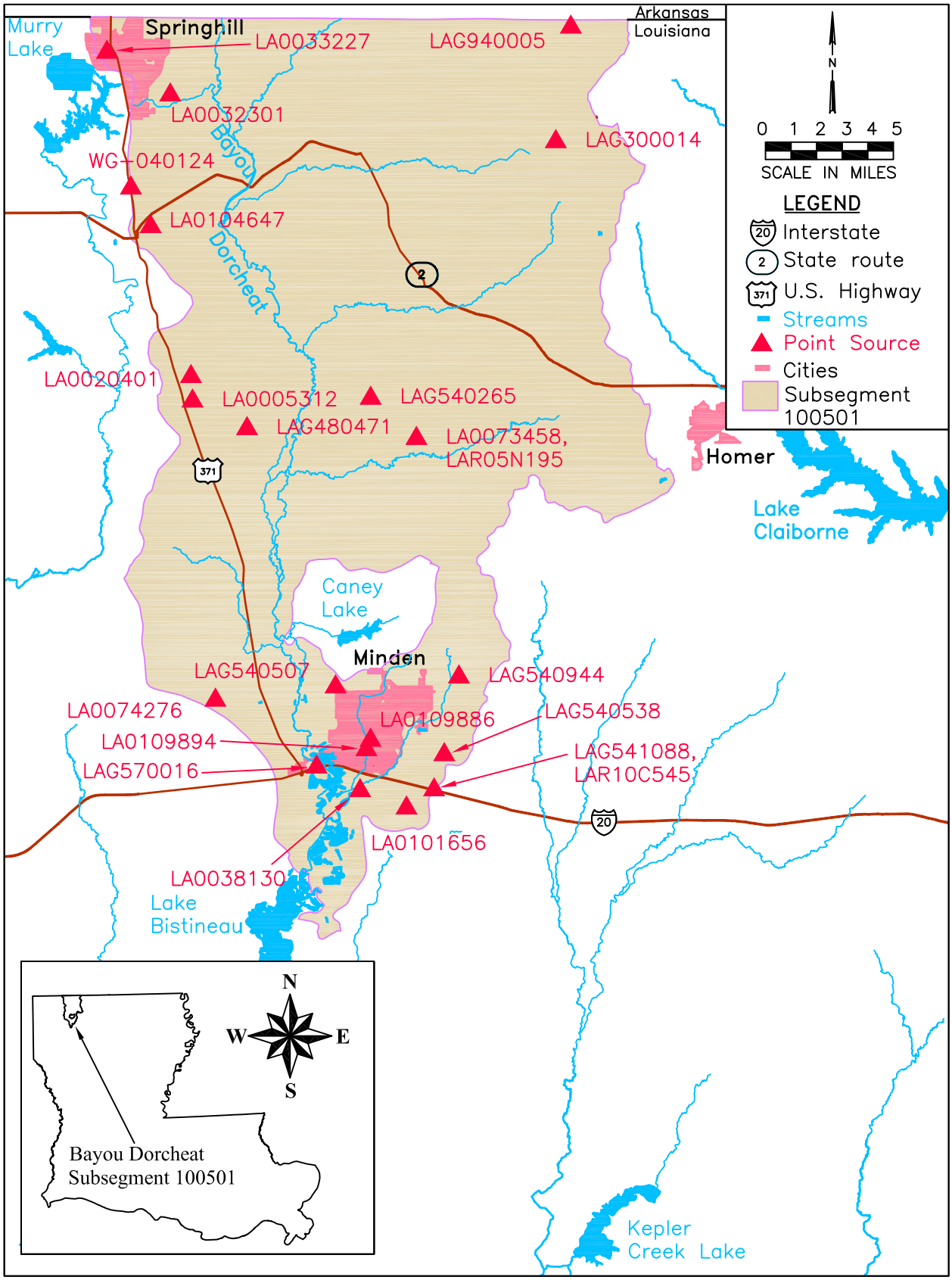

Figure A.3. Point sources in subsegment 100501.

APPENDIX B

List of Point Sources in Subsegment 100501

Table B.1. List of point sources for Bayou Dorcheat (subsegment 100501).

Permit No.	Facility Name	Receiving Water	Type of Discharge	Outfall	Flow (gpd)	Permit Parameter	Permit Limit	Included in Model?	Included in TMDL?
LA0005312 (AI=312)	Cotton Valley Refinery	French Creek	Refinery	001	270,000	TOC Daily Max	5 mg/L	No	Yes
				002	392,000	BOD5 Monthly Avg BOD5 Daily Max BOD5 Daily Max COD Monthly Avg COD Daily Max NH_3-N Monthly Avg NH3-N Daily Max	30 lbs/day 56 lbs/day 15 mg/L 149 lbs/day 288 lbs/day 3.1 lbs/day 6.9 lbs/day		
				003	Intermittent	TOC Daily Max	50 mg/L		
				004	Intermittent	TOC Daily Max	50 mg/L		
				005	Intermittent	TOC Daily Max	50 mg/L		
LA0020401 (AI=33939)	City of Cotton Valley STP	Little French Creek - French Creek	Municpal STP	001	150,000	BOD5 Monthly Avg BOD5 Weekly Avg	10 mg/L 15 mg/L	No	Yes
LA0032301 (AI=19821)	City of Cullen STP	Braley Creek - Bayou Dorcheat	Municpal STP	001	300,000	CBOD5 Monthly Avg CBOD5 Weekly Avg NH3-N Monthly Avg NH3-N Weekly Avg	10 mg/L 15 mg/L 6.08 mg/L 12.15 mg/L	Yes	Yes
LA0033227 (AI=19248)	City of Springhill STP	Crooked Creek - Bayou Dorcheat	POTW	001	1,500,000	BOD5 April-Oct Monthly Avg	5 mg/L	No	Yes
						BOD5 April-Oct Weekly Avg	8 mg/L		
						BOD5 Nov - Mar Monthly Avg	10 mg/L		
						BOD5 Nov - Mar Weekly Avg	15 mg/L		
						NH3-N Monthly Avg	2 mg/L		
						NH3-N Weekly Avg	4 mg/L		

Permit No.	Facility Name	Receiving Water	Type of Discharge	Outfall	Flow (gpd)	Permit Parameter	Permit Limit	Included in Model?	Included in TMDL?
LA0038130 (AI=19396)	City of Minden STP	Bayou Dorcheat to Lake Bistineau	Municpal STP	001	2,440,000	BOD5 Monthly Avg BOD5 Weekly Avg	10 mg/L 15 mg/L	Yes	Yes
LA0073458 LAR05N195 (AI=27985 (both))	FKA Associated Nat Gas	Flat Lick Bayou to Bayou Dorcheat	Natural Gas Refinning	001				No	No
				003					
LA0074276 (AI=85534)	BFI Systems of North America - Webster Parish Solid Waste Landfill	Sausman Creek-Bayou Dorcheat-Lake Bistineau	Municipal Solid Waste Landfill	001	448,000	TOC Daily max	50 mg/L	No	No
				101	89,400	BOD5 Monthly Avg BOD5 Weekly Avg NH3-N Monthly Avg NH3-N Daily Max	30 mg/L 45 mg/L 4.9 mg/L 10 mg/L		
LA0101656 (AI=43903)	Webster Parish Police Jury - Maintenance Barn	Mile Creek - Bayou Dorcheat	Wash Rack / Maintenace Facility	001		COD Monthly Avg COD Daily Max	200 mg/L 300 mg/L	No	No
LAG300014 (AI=2087)	Haynesville Pump Station	Black Bayou to Bayou Dorcheat	Pump Station/Breakout Tankage Facility			TOC Daily max	50 mg/L	No	No
LA0104647 (AI=38078)	City of Sarepta STP	Ditch - Howell Creek - Bayou Dorcheat	2 Cell Oxidatin Pond	001	150,000	BOD5 Monthly Avg BOD5 Weekly Avg	10 mg/L 15 mg/L	No	Yes
LAG480471 (AI=3269)	Cotton Valley Gas Plant	Gray Creek	Boiler blowdown	001				No	No
				002					
LA0109886 (AI=26408)	Minden Diesel Power plant	Mile Creek - Bayou Dorcheat	Electric Generator & Distribution	001	55,000			No	No
LA0109894 (AI=26409)	Minden Steam Power plant	Mile Creek - Bayou Dorcheat	Electric Generator & Distribution	001	2,500			No	No
				002	2,500				
				003	2,500				
				004	2,500				

Table B.1.

Permit No.	Facility Name	Receiving Water	Type of Discharge	Outfall	Flow (gpd)	Permit Parameter	Permit Limit	Included in Model?	Included in TMDL?
				005	variable				
LAG541088, LAR10C545 (AI=26704)	Minden Truck Center	Bayou Dorcheat	Truck Stop and Casino	001	7,200	BOD5 Monthly Avg BOD5 Weekly Avg	30 mg/L 45 mg/L	No	Yes
LAG570016 (AI=19798)	City of Dixie Inn STP	Black Bayou to Bayou Dorcheat	POTW	001	75,000	BOD5 Monthly Avg BOD5 Weekly Avg	10 mg/L 15 mg/L	Yes	Yes
LAG540265 (AI=41221)	Meadowbrook Residential Subdivision	Holder Creek	Hospital	001	4,800	BOD5 Monthly Avg BOD5 Weekly Avg	30 mg/L 45 mg/L	No	Yes
LAG540507 (AI=42514)	Twin Oaks Residential Subdivision	Unnamed Tributary to Bayou Dorcheat	Subdivision - Oxidation pond	001	19,200	BOD5 Monthly Avg BOD5 Weekly Avg	30 mg/L 45 mg/L	No	Yes
LAG540538 (AI=42695)	Oaktree Apartments	Cooley Branch - Bayou Dorcheat	Extended Aeration Plant	001	10,717	BOD5 Monthly Avg BOD5 Weekly Avg	30 mg/L 45 mg/L	No	Yes
LAG540944 (AI=34007)	Mousers Home Place	Cooley Branch	Mobile Home Park	001	16,200	BOD5 Monthly Avg BOD5 Weekly Avg	30 mg/L 45 mg/L	No	Yes
LAG940005 (AI=2410)	Duke Energy Field Services INC - Haynesville Gas Plant	Eventually into Lake Bistineau	Groundwater Remediation	001				No	No
WG-040124 (AI=98642)	Sarepta Mobil gas station	Ditch - Howell Creek - Bayou Dorcheat	USTGWR					No	No

FILE: R:\WP_FILES\2110-616\DORCHEAT DO TMDL\WORD FILES\APPENDICES\APPENDIX B\APPENDIX B REVISED\POINT SOURCE TABLE FOR BAYOU DORCHEAT-REV.XLS

Table B.1.

APPENDIX C

LDEQ and ADEQ Water Quality Data

Table C.1. LDEQ historical water quality data for Bayou Dorcheat west of Minden, Louisiana (LDEQ 0061).

Date	DO (mg/L)
6/1/58	3.6
7/1/58	2.6
9/1/58	4.9
10/1/58	5.9
11/1/58	7.6
12/1/58	9.6
1/1/59	9.3
2/1/59	9.2
3/1/59	6.7
4/1/59	6.1
5/1/59	4.9
7/1/59	6.2
8/1/59	5.8
10/1/59	6.2
11/1/59	5.6
12/1/59	7.8
1/1/60	11.2
2/1/60	10.4
3/1/60	11.8
4/1/60	8.0
5/1/60	6.8
6/1/60	6.5
7/1/60	6.5
8/1/60	7.2
9/1/60	7.0
10/1/60	7.0
11/1/60	8.9
12/1/60	9.3
1/1/61	10.1
2/1/61	10.9
3/1/61	7.9
4/1/61	6.2
5/1/61	5.7
6/1/61	7.5
7/1/61	5.9
8/1/61	5.0
9/1/61	5.9
10/1/61	6.0
11/1/61	5.3
12/1/61	7.9
1/1/62	9.5
2/1/62	8.0
4/1/62	8.7
5/1/62	5.6
6/1/62	6.1
7/1/62	5.8
8/1/62	7.2
9/1/62	8.5
10/1/62	7.6
11/1/62	10.3

Date	DO (mg/L)
12/1/62	8.0
1/1/63	11.6
2/1/63	11.9
3/1/63	9.2
4/1/63	6.0
5/1/63	5.0
6/1/63	7.6
7/1/63	6.9
8/1/63	7.0
9/1/63	7.7
10/1/63	7.6
11/1/63	8.4
12/1/63	8.4
1/1/64	10.0
2/1/64	9.9
3/1/64	7.8
4/1/64	8.5
5/1/64	4.0
6/1/64	8.5
7/1/64	6.2
8/1/64	7.6
9/1/64	6.0
10/1/64	8.3
11/1/64	6.8
12/1/64	7.6
1/1/65	8.5
2/1/65	8.4
3/1/65	8.1
4/1/65	6.1
5/1/65	6.0
6/1/65	5.2
7/1/65	5.5
8/1/65	5.9
9/1/65	6.9
10/1/65	7.2
11/1/65	8.6
12/1/65	7.2
1/1/66	8.9
2/1/66	6.8
3/1/66	10.7
4/1/66	7.4
5/1/66	5.1
6/1/66	6.0
7/1/66	5.6
8/1/66	6.6
9/1/66	7.2
10/1/66	7.7
12/1/66	9.2
1/1/67	11.5
2/1/67	10.2
3/1/67	9.3

Date	DO (mg/L)
4/1/67	6.7
5/1/67	6.9
6/1/67	5.5
7/1/67	5.4
8/1/67	5.3
9/1/67	7.0
10/1/67	7.0
11/1/67	8.1
12/1/67	7.9
1/1/68	11.1
2/1/68	7.4
3/1/68	9.6
4/1/68	6.0
5/1/68	6.0
6/1/68	4.5
7/1/68	7.0
8/1/68	5.8
9/1/68	5.5
10/1/68	6.1
11/1/68	9.8
12/1/68	8.6
1/1/69	11.0
2/1/69	7.8
3/1/69	9.0
4/1/69	5.4
5/1/69	6.0
6/1/69	5.0
7/1/69	7.8
8/1/69	5.8
9/1/69	6.0
10/1/69	6.6
11/1/69	8.0
12/1/69	9.0
1/1/70	10.5
2/1/70	10.0
3/1/70	6.6
4/1/70	7.7
5/1/70	6.1
6/1/70	6.0
7/1/70	9.0
8/1/70	6.5
9/1/70	6.6
10/1/70	7.5
11/1/70	9.7
12/1/70	7.6
1/1/71	9.0
2/1/71	11.1
3/1/71	8.9
4/1/71	8.1
5/1/71	6.0
6/1/71	4.8

Date	DO (mg/L)
7/1/71	5.8
8/1/71	2.4
9/1/71	7.4
10/1/71	5.9
11/1/71	6.5
12/1/71	9.1
1/1/72	8.8
2/1/72	9.2
3/1/72	8.6
4/1/72	6.4
5/1/72	5.7
6/1/72	6.5
7/1/72	5.8
8/1/72	6.9
9/1/72	5.7
10/1/72	5.4
11/1/72	6.3
12/1/72	8.9
1/1/73	11.6
2/1/73	8.2
3/1/73	7.5
4/1/73	5.7
5/1/73	5.2
6/1/73	5.0
7/1/73	4.2
8/1/73	1.9
9/1/73	5.0
10/1/73	5.0
11/1/73	6.1
12/1/73	7.0
1/7/74	11.6
2/4/74	7.5
3/12/74	6.0
4/1/74	7.0
5/1/74	5.8
6/10/74	5.3
7/2/74	4.0
8/1/74	6.0
9/4/74	6.8
10/1/74	6.0
11/14/74	7.4
12/3/74	9.6
1/2/75	9.6
2/4/75	8.7
3/4/75	9.1
4/2/75	8.1
5/1/75	6.2
6/2/75	5.3
7/2/75	5.2
8/4/75	5.0
9/1/75	5.4

Date	DO (mg/L)
10/1/75	7.0
11/3/75	6.7
12/5/75	10.0
1/6/76	11.0
2/6/76	9.5
3/1/76	7.8
4/1/76	7.0
6/1/76	6.1
7/2/76	6.1
8/2/76	4.3
9/6/76	4.4
10/4/76	7.0
12/2/76	8.2
1/6/77	11.0
2/4/77	10.6
3/1/77	9.1
4/5/77	6.6
5/3/77	5.5
6/1/77	6.1
7/5/77	4.5
8/4/77	6.5
9/2/77	7.1
10/3/77	5.0
11/2/77	5.5
12/2/77	5.3
1/3/78	9.5
3/6/78	11.0
4/10/78	5.5
5/8/78	5.6
6/12/78	5.7
7/10/78	6.8
8/14/78	4.9
9/11/78	6.7
10/6/78	5.7
11/13/78	6.0
12/11/78	9.9
1/8/79	7.5
2/12/79	5.8
3/13/79	11.0
4/16/79	7.1
5/14/79	10.0
6/11/79	5.7
7/9/79	6.4
8/13/79	5.1
9/10/79	6.5
12/10/79	10.0
1/14/80	9.8
2/11/80	10.5
3/10/80	8.2
4/14/80	8.4
5/12/80	7.5

Date	DO (mg/L)
6/9/80	4.5
8/11/80	5.5
9/15/80	3.9
10/13/80	7.2
11/17/80	6.3
12/8/80	7.1
1/12/81	6.5
2/9/81	12.0
3/9/81	5.3
4/14/81	6.0
5/11/81	7.5
6/8/81	4.0
7/13/81	6.6
8/10/81	5.5
9/14/81	6.6
10/12/81	7.5
11/16/81	9.0
12/14/81	11.0
1/11/82	8.0
2/9/82	6.0
3/8/82	10.0
4/12/82	9.6
5/10/82	7.0
6/14/82	5.3
7/12/82	5.5
8/9/82	6.5
9/13/82	5.5
10/11/82	4.0
11/15/82	8.5
12/13/82	10.0
1/10/83	10.0
2/7/83	10.6
3/14/83	8.4
4/11/83	9.0
5/10/83	9.0
6/13/83	5.5
7/11/83	7.2
8/8/83	5.0
9/12/83	4.5
10/10/83	6.9
11/14/83	8.0
12/12/83	8.0
1/9/84	8.0
2/13/84	5.4
3/12/84	20.1
4/9/84	8.9
5/14/84	6.0
6/11/84	4.0
7/9/84	6.1
8/13/84	8.5
9/10/84	7.9

Date	DO (mg/L)
10/8/84	7.3
11/13/84	8.5
12/10/84	8.0
1/14/85	7.9
2/11/85	8.2
3/11/85	9.8
4/9/85	6.3
5/13/85	5.2
6/10/85	6.0
7/8/85	7.2
8/12/85	6.8
9/9/85	6.8
10/14/85	10.0
11/18/85	5.0
12/9/85	10.2
1/13/86	10.5
2/17/86	8.5
3/17/86	6.7
4/14/86	5.8
5/12/86	4.6
6/9/86	4.8
7/14/86	3.7
8/11/86	3.7
9/8/86	5.7
10/13/86	5.0
11/17/86	7.8
12/8/86	8.4
1/12/87	10.8
2/16/87	6.4
3/9/87	6.8
4/13/87	5.7
5/11/87	5.0
7/13/87	5.4
8/11/87	4.2
9/14/87	2.4
10/12/87	4.4
11/17/87	7.9
12/14/87	8.2
1/11/88	12.1
2/8/88	10.4
3/14/88	8.4
4/11/88	5.2
5/9/88	4.7
6/14/88	6.3
7/11/88	4.8
8/8/88	4.1
9/12/88	2.5
10/10/88	3.2
11/15/88	6.5
12/12/88	8.2
1/9/89	8.1

Date	DO (mg/L)
2/13/89	9.3
3/13/89	7.5
4/10/89	3.8
5/8/89	4.8
6/12/89	4.8
7/11/89	4.2
8/14/89	4.2
9/11/89	3.5
10/9/89	3.9
11/13/89	5.1
12/11/89	8.2
1/7/02	10.5
1/7/02	10.5
2/5/02	8.9
3/5/02	9.3
4/2/02	5.9
4/2/02	5.9
5/7/02	5.5
6/4/02	5.0
7/16/02	4.3
7/16/02	4.3
8/6/02	6.2
9/10/02	4.2
10/8/02	3.8
10/8/02	3.8
11/6/02	6.0
12/3/02	6.7
1/29/07	9.1

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Table C.1

Table C.2. LDEQ historical water quality data for Bayou Dorcheat west of Sibley, Louisiana (LDEQ 0274).

Date	DO (mg/L)
2/12/90	7.2
4/9/90	7.2
6/11/90	4.3
8/13/90	8.1
10/15/90	5.0
12/10/90	8.4
2/4/91	8.4
4/15/91	5.4
6/10/91	3.4
8/12/91	7.4
10/15/91	8.4
12/9/91	8.0
2/11/92	9.8
4/7/92	7.3
6/16/92	4.7
8/11/92	7.0
10/12/92	9.8
12/15/92	8.9
2/8/93	8.2
4/12/93	5.5
6/15/93	8.6
8/10/93	3.9
10/12/93	3.1
12/13/93	8.3
2/7/94	9.1
4/11/94	6.9
6/14/94	5.4
8/9/94	5.8
10/10/94	4.1
12/12/94	8.1
2/13/95	8.1
4/3/95	7.4
6/13/95	4.0
8/14/95	4.1
10/10/95	3.4
12/12/95	8.2
2/12/96	9.1
4/9/96	8.3
6/11/96	5.2
8/12/96	4.5
10/14/96	5.4
12/10/96	9.7
2/17/97	8.8
4/14/97	8.5
6/10/97	5.9
8/11/97	7.1
10/13/97	6.8
12/8/97	8.3
2/9/98	10.7
4/13/98	7.9

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Table C.3. Data collected by ADEQ at RED0015A (Bayou Dorcheat near Taylor).

Date	DO (mg/L)
10/16/1990	6.50
11/6/1990	2.70
12/11/1990	9.30
1/22/1991	10.00
2/19/1991	7.80
3/26/1991	6.10
4/16/1991	6.60
5/21/1991	4.40
6/18/1991	6.20
7/16/1991	2.80
8/20/1991	5.70
11/12/1991	8.70
12/10/1991	7.20
1/21/1992	11.60
2/25/1992	8.00
3/17/1992	7.20
4/21/1992	5.80
5/19/1992	3.40
6/16/1992	4.80
7/21/1992	3.10
8/18/1992	2.00
9/15/1992	4.20
10/13/1992	3.40
11/9/1992	9.40
12/8/1992	8.80
1/26/1993	7.10
2/23/1993	7.20
3/23/1993	VOID
5/4/1993	4.70
5/17/1993	4.50
6/29/1993	VOID
7/13/1993	5.40
8/10/1993	6.40
9/7/1993	2.80
10/12/1993	5.40
11/9/1993	6.50
12/21/1993	VOID
1/25/1994	9.20
2/14/1994	8.00
3/14/1994	10.40
4/18/1994	6.70
5/23/1994	7.30
6/27/1994	5.40
7/18/1994	4.80
8/15/1994	5.20
9/26/1994	6.50
10/24/1994	7.20
11/29/1994	6.10
12/20/1994	7.10
1/9/1995	7.10

Date	DO (mg/L)
2/13/1995	7.80
3/27/1995	6.40
4/24/1995	6.60
5/22/1995	5.60
6/19/1995	5.70
8/7/1995	6.00
9/18/1995	6.10
10/16/1995	6.80
11/14/1995	7.40
11/28/1995	6.30
1/2/1996	6.70
2/13/1996	5.20
3/5/1996	7.70
4/2/1996	8.00
5/14/1996	3.50
6/11/1996	4.30
7/16/1996	6.78
8/20/1996	3.20
10/22/1996	4.50
11/19/1996	5.00
12/17/1996	6.30
1/28/1997	7.10
2/25/1997	6.30
5/12/1997	5.47
6/16/1997	5.44
7/14/1997	4.16
8/25/1997	5.04
9/15/1997	4.77
10/21/1997	6.30
11/18/1997	0.00
12/16/1997	6.60
1/27/1998	8.60
2/17/1998	8.40
5/5/1998	6.90
6/2/1998	5.30
7/21/1998	6.30
8/11/1998	5.50
9/22/1998	5.60
10/27/1998	7.30
11/17/1998	7.80
12/21/1998	7.30
1/26/1999	7.70
2/16/1999	7.70
3/23/1999	7.20
4/27/1999	0.00
5/18/1999	4.13
6/29/1999	6.78
7/27/1999	7.14
8/31/1999	7.25
12/14/1999	8.95
1/18/2000	5.21

Date	DO (mg/L)
2/15/2000	7.94
3/21/2000	0.00
4/18/2000	6.93
5/23/2000	5.03
6/20/2000	5.73
11/14/2000	8.93
12/18/2000	8.50
1/29/2001	8.20
2/26/2001	7.40
3/27/2001	7.40
4/16/2001	6.71
5/22/2001	4.83
6/19/2001	4.98
7/17/2001	0.00
8/21/2001	6.80
9/18/2001	6.00
10/23/2001	4.69
11/19/2001	8.22
12/11/2001	7.51
1/2/2002	9.01
2/19/2002	12.15
3/19/2002	17.38
4/16/2002	4.37
5/21/2002	7.13
6/4/2002	6.34
7/1/2002	6.27
8/6/2002	6.20
9/3/2002	6.74
11/5/2002	7.04
12/3/2002	8.58
1/7/2003	8.20
2/4/2003	8.98
3/3/2003	13.20
4/8/2003	9.67
5/6/2003	7.65
6/10/2003	7.06
7/15/2003	8.50
8/12/2003	6.50
9/23/2003	10.20
10/21/2003	7.22
11/18/2003	8.29
12/16/2003	14.10
1/27/2004	12.60
2/24/2004	6.53
3/30/2004	5.76
4/27/2004	6.42
5/25/2004	4.90
6/29/2004	5.71
7/27/2004	9.74
8/17/2004	6.35
9/21/2004	8.09

Date	DO (mg/L)
10/26/2004	5.75
11/16/2004	7.21
12/7/2004	8.34
2/22/2005	8.52
3/29/2005	7.10
4/26/2005	6.36
5/16/2005	6.72
6/28/2005	9.12
7/26/2005	8.29
8/30/2005	7.77
9/27/2005	4.11
1/31/2006	10.20
3/14/2006	8.04
4/11/2006	7.51
5/16/2006	6.94
1/23/2007	10.10
2/12/2007	9.64
2/20/2007	11.40
3/27/2007	5.41
4/23/2007	5.30
4/24/2007	5.69
5/15/2007	4.65

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Table C.4. Data collected by ADEQ at UWBDT01 (Bayou Dorcheat at Hwy 355).

Date	DO (mg/L)
6/20/1994	2.30
9/14/1994	3.40
1/9/1995	10.70
4/3/1995	7.30
7/25/1995	4.50
10/9/1995	5.80
2/26/1996	5.00
5/14/1996	4.20
10/8/1996	5.20

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Table C.5. Data collected by ADEQ at UWBDT02 (Bayou Dorcheat at Hwy 82).

Date	DO (mg/L)
6/20/1994	3.70
9/14/1994	3.20
1/9/1995	11.30
4/3/1995	8.00
7/25/1995	5.60
10/9/1995	7.20
2/26/1996	5.30
5/14/1996	1.50
10/8/1996	3.60
5/12/1997	5.40
6/16/1997	4.60
7/14/1997	4.25
8/25/1997	4.59
9/15/1997	5.13
10/18/1999	3.90
2/7/2000	9.70
4/24/2000	4.30
6/19/2000	3.52
8/28/2000	4.40
9/18/2000	6.20

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APPENDIX D

FTN Field Survey Data

Table D.1. Field data collection sites for FTN Field survey for Red and Sabine basins.

SUBSEG. NUMBER	SITE NO.	SITE NAME	DIRECTIONS	TYPE OF DATA COLLECTED
Red River basin				
100404	100404-A	Cypress Bayou Reservoir at upper end	At LA Hwy 162 bridge east of Benton	In situ
100404	1181	Cypress Bayou Reservoir southeast of Benton, LA	At spillway on Parks Road, 3.1 miles southeast of Benton, 3.5 miles southwest of Bellevue, 9.1 miles north of Bossier	In situ, sample
100405	100405-A	Black Bayou near Benton, LA	At LA Hwy 162 on east edge of Benton	In situ, sample
100405	1182	Black Bayou Reservoir at Linton Road, southeast of Benton, LA	4.4 miles southeast of Benton, 3.2 miles northeast of Dukedale, 4.3 miles southwest of Linton	In situ, sample
100406	363	Flat River Drainage Canal north of Bossier City, LA	At Airline Drive bridge, 4.0 miles south-southeast of Benton, LA	In situ, sample, flow, width
100406	389	Flat River Drainage Canal northeast of Bossier City, LA	At Swan Lake Road bridge 7.5 miles north-northeast of City Hall in Bossier City, LA	In situ, width, flow
100406	390	Flat River Drainage Canal NE of Shreveport	At Deer Point Road bridge 5.75 miles southeast of Benton, LA	In situ, width
100406	272	Flat River east of Taylortown, LA	At State Highway 527 bridge, 13 miles southeast of Shreveport, LA	In situ, flow, width, contin.
100406	100406-A	Flat River east of Poole, LA	At Poole Rd, 3 miles southeast of intersection of Poole Rd and US Hwy 71	In situ, flow, width
100501	100501-A	Bayou Dorcheat south of AR state line	At LA Hwy 157 several miles south of AR state line, east of Springhill, LA	In situ, sample, flow, width
100501	100501-B	Bayou Dorcheat NE of Cotton Valley	At LA Hwy 160 about 4-5 miles northeast of Cotton Valley, LA	In situ, sample, flow, width
100501	61	Bayou Dorcheat west of Minden, LA	At bridge on US Hwy 80, 3.0 miles west of Minden	In situ, flow, width
100501	274	Bayou Dorcheat west of Sibley, LA	At State Highway 164 bridge, 2.0 miles west of Sibley, LA, 6.0 miles southwest of Minden, LA	In situ, flow, width,
100601	100601-A	Wallace Bayou upstream of Bayou Pierre	At White Springs Rd, about 4 miles southwest of Gayles, LA, about 2 miles downstream of Wallace Lake	In situ, sample, flow, width
100601	278	Bayou Pierre near Shreveport, LA	At State Highway 526 bridge, 0.75 mile northeast of Forbing, LA, 8.0 miles south of Shreveport, LA	In situ, sample, flow, width
100601	1183	Bayou Pierre at Ellerbee Road, S of Gayles	3.2 miles south of Gayles, 2.4 miles southwest of Cecile, 5 miles northeast of Frierson	In situ, sample, flow, width
100601	100601-B	Bayou Pierre southwest of Williams, LA	At highway 509, about 4 miles southwest of Williams, LA, about 9 miles south of Caddo/Red River Parish line	In situ, flow, width
100602	100602-A	Boggy Bayou SE of Hicks Crossing, LA	At LA Hwy 169, about 2-3 miles southeast of Hicks Crossing	In situ, sample, flow, width
100602	1207	Boggy Bayou southwest of Shreveport, LA	6.4 miles southwest of Shreveport, 3.1 miles north of Keithville, 2.9 miles southeast of Reservoir	In situ, sample, flow, width
100702	100702-A	Black Lake Bayou west of Mt. Lebanon	At LA Hwy 793 about 5-6 miles west of Mt. Lebanon (in 100701)	In situ, flow, width

SUBSEG. NUMBER	SITE NO.	SITE NAME	DIRECTIONS	TYPE OF DATA COLLECTED
100702	100702-B	Leatherman Creek west of Mt. Lebanon	At LA Hwy 793 about 4 miles west of Mt. Lebanon	In situ, sample, flow, width
100702	282	Black Lake Bayou west of Castor, LA	At LA Highway 4, 2.5 miles west of Castor, LA, 18.5 miles northeast of Coushatta, LA	In situ, sample, flow, width
100702	1187	Black Lake Bayou at Hwy 155, E of Martin	At bridge on State Hwy 155, 3.5 miles east of Martin, 6.2 miles west of Skidder, 5 miles SW of Ashland	In situ, sample, flow, width
100703	100703-A	Black Lake northeast of Campti, LA	On LA Hwy 9 bridge about 6 miles northeast of Campti, LA	In situ, sample
100703	100703-B	Clear Lake outlet northeast of Clarence, LA	At LA Hwy 1226, just downstream of Chivery Dam at outlet of Clear Lake, about 5 miles northeast of Clarence	In situ, sample, flow, width
100803	100803-A	Saline Bayou northeast of Clarence, LA	Access point at end of LA Hwy 1227 at Allen Dam, about 5.5 miles NE of Clarence	In situ, sample, flow, width
100803	1214	Saline Bayou southeast of Clarence, LA	At US Hwy 71, 7 miles east of Natchitoches, 5.1 miles southeast of Clarence, 3.4 miles south of Trichell	In situ, sample, flow, width, contin.
101301	556	Cress Creek west of Oak Grove, LA	At bridge on LA Hwy 8, 2.8 miles W of Oak Grove, 4 miles S of Fairfield, 3.7 miles N of Bagdad	In situ, sample
101301	101301-A	Rigolette Bayou WNW of Bagdad, LA	At LA Hwy 492, about 1 mile WNW of Bagdad, about 7 miles southeast of Colfax	In situ, sample, flow, width
101301	1220	Rigolette Bayou northwest of Pineville, LA	Bridge on Rigolette Rd., 4.8 miles NW of Pineville, 1.6 miles NE of Barrett, 3.9 miles SW of Tio	In situ, sample, flow, width, contin.
101302	101302-A	Iatt Creek near upstream end of Iatt Lake	At LA Hwy 122 about 10 miles east of Montgomery, LA	In situ, sample
101302	570	Beaver Creek south of Faircloth, LA	0.35 miles west of Faircloth, 2 miles northwest of Fairfield, 4.5 miles southwest of Wilhana	In situ, sample
101302	1221	Iatt Lake southwest of Fairfield, LA	Public boat launch near spillway, 4.4 miles southwest Fairfield, 7.1 miles northwest of Oak Grove, 3.7 miles northeast	In situ, sample
101503	371	Saline Bayou east of Alexandria, LA	9.0 miles east of Buckeye, LA, 1.5 mile northeast of Saline Lake, 0.5 mile south of entrance to Bushyhead Bayou	In situ
101503	101503-A	Saline Bayou southeast of Saline Lake	At local road about 1-2 miles southeast of east end of Saline Lake	In situ, sample
101604	1231	Lake Concordia at Ferriday, LA	Sportsman's Marina, 1.7 miles NW of Ridgecrest, 6.8 miles S of Clayton, 16 miles E of Jonesville	In situ, sample
101604	101604-A	Bayou Cocodrie at Ferriday, LA	At US Hwy 65 bridge, about 0.5 miles SW of Lake Concordia	In situ, width, xcs
Sabine River basin				
110401	110401-A	Toro Creek southeast of Florien, LA	At Plainview Road, about 3-4 miles southeast of Florien, LA	In situ, sample, flow, width
110401	1160	Bayou Toro northeast of Toro, LA	At LA Hwy 473, about 2 miles northeast of Toro, LA	In situ, sample, flow, width

Note: “contin.” = continuous in situ monitoring

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Table D.2. In situ data for FTN field survey in Red River and Sabine River basins.

Subsegment Number	Site No.	Site Name	Date	Time	Water Temp. (C)	DO (mg/L)	Conductivity (umhos/cm)	pH (su)
100404	1181	Cypress Bayou Reservoir southeast of Benton	09/01/05	10:44	30.8	7.3	54	7.3
	100404-A	Cypress Bayou Reservoir @ Hwy 162	09/01/05	11:20	30.4	6.1	51	7.0
100405	1182	Black Bayou Reservoir @ Linton Rd	09/01/05	10:20	29.8	5.5	75	7.2
	100405-A	Black Bayou @ Hwy 162	09/01/05	11:45	24.9	1.0	440	6.9
100406	272	Flat River @ Hwy 527	09/02/05	08:15	25.5	2.9	811	7.1
	363	Flat River Airline Dr. bridge	09/01/05	09:30	29.3	5.2	90	7.1
	389	Flat River Dr. Canal Swan L. Rd.	09/01/05	07:54	26.9	1.4	336	7.6
	390	Flat River @ Deer Pt. Road	09/01/05	08:40	27.1	0.4	179	7.2
	100406-A	Flat River @ Swan Lake Bridge	08/31/05	19:00	30.6	5.3	888	7.3
100501	61	Bayou Dorcheat @ Hwy 80	09/01/05	18:45	32.6	7.1	127	6.7
	274	Bayou Dorcheat @ Hwy 164	09/02/05	09:40	29.1	6.2	193	7.6
	100501-A	Bayou Dorcheat	09/01/05	14:35	27.1	3.2	418	7.1
	100501-B	Bayou Dorcheat @ Hwy 160	09/01/05	15:55	31.8	5.9	76	7.2
100601	278	Bayou Pierre nr Shreveport	08/31/05	12:20	31.0	6.8	498	7.0
	1183	Bayou Pierre @ Ellerbee Rd	08/31/05	10:10	25.0	3.7	476	7.2
	100601-A	Wallace Bayou	08/31/05	11:10	29.5	5.9	214	7.6
	100601-B	Bayou Pierre	08/31/05	08:45	26.6	4.9	338	7.4
100602	1207	Boggy Bayou Hwy 171	08/31/05	14:40	31.5	5.2	156	7.1
	100602-A	Boggy Bayou @ Hwy 169	08/31/05	13:45	27.2	4.4	208	7.1
100702	282	Black Lake Bayou Hwy 4	09/07/05	09:20	24.7	5.3	35	6.1
	1187	Black Lake Bayou Hwy 155	09/07/05	10:25	24.9	5.3	40	6.3
	100702-A	Black Lake Bayou Hwy 793	09/07/05	07:20	23.4	2.9	167	6.3
	100702-B	Leatherman Creek	09/07/05	08:05	23.3	3.4	54	6.3
100703	100703-A	Black Lake @ Hwy 9	09/07/05	11:20	27.6	5.3	71	6.4
	100703-B	Clear Lake outlet	09/07/05	12:40	29.8	6.9	96	6.9
100803	1214	Saline Bayou @ Hwy 71	09/07/05	14:40	30.2	5.4	105	6.8
	100803-A	Saline Bayou @ Allen Dam	09/07/05	13:40	30.6	8.3	82	7.8
101301	556	Cress Creek @ Hwy 8	09/08/05	11:30	21.7	7.5	22	6.5
	1220	Rigolette Bayou @ Rig. Road	09/08/05	09:35	27.4	4.3	108	6.8
	101301-A	Rigolette Bayou @ hwy 492	09/08/05	10:20	24.2	5.0	54	6.6
101302	570	Beaver Creek	09/08/05	12:30	20.3	8.3	29	6.5
	1221	Iatt Lake	09/08/05	11:05	26.5	3.2	6	6.3
	101302-A	Iatt Creek @ Hwy 122	09/08/05	12:05	24.2	1.2	129	6.4
101503	101503-A	Saline Bayou on Farm Rd.	09/09/05	07:05	24.0	3.3	179	6.9
101504	371	Saline Bayou @ WMA boatramp	09/08/05	15:30	30.6	8.3	47	8.0
101604	1231	Lake Concordia @ Sportmans Lodge	09/09/05	08:45	28.9	7.5	251	8.3
	101604-A	Bayou Cocodrie @ Hwy 65	09/09/05	08:30	27.2	2.2	282	6.9
110401	1160	Bayou Toro @ Hwy 473	09/08/05	07:30	24.4	4.8	99	6.4
	110401-A	Toro Creek @ Plainview Rd.	09/08/05	06:40	21.8	1.3	81	6.3

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Table D.3 Analytical laboratory results from samples collected in FTN field survey for Red River and Sabine River basins.

Subsegment Number	Site Number	Site Name	Sampling Date	TSS (mg/L	TKN (mg/L)	Total Phos. (mg/L)	TOC (mg/L)	Chlorophyll a (mg/L)	Ammonia as N (mg/L)	NO3 + NO2 N (mg/L)
100404	1181	Cypress Bayou Reservoir nr Benton	09/01/05	7.7	1.8	0.045	9.1	0.035	0.24	<0.05
100405	1182	Black Bayou Reservoir nr Linden Rd	09/01/05	8	1.9	0.061	10	0.051	0.14	<0.05
	100405-A	Black Bayou nr Benton	09/01/05	8.4	2.4	0.082	12	<0.02	0.56	<0.05
100406	363-1	Flat River Dr. Canal nr Bossier City	09/01/05	26	2.5	0.093	10	0.027	0.39	<0.05
	363-2	Flat River Dr. Canal nr Bossier City	09/01/05	26	2.2	0.074	11	0.03	0.36	<0.05
100501	100501-A	Bayou Dorcheat nr AR line	09/01/05	11	1.6	0.15	5.7	<0.02	0.2	0.26
	100501-B	Bayou Dorcheat NE Cotton Valley	09/01/05	4.4	1.7	0.048	8.3	0.021	0.18	<0.05
100601	278	Bayou Pierre nr Shreveport	08/31/05	9.8	1.4	0.25	7.6	<0.02	0.13	<0.05
	1183	Bayou Pierre at Ellerbee Rd.	08/31/05	16	2.3	0.22	2.6	<0.02	0.22	0.39
	100601-A-1	Wallace Bayou u/s B. Pierre	08/31/05	19	1.6	0.085	6.8	<0.02	<0.1	<0.05
	100601-A-2	Wallace Bayou u/s B. Pierre	08/31/05	18	1.8	0.085	6.7	<0.02	<0.1	0.06
100602	1207	Boggy Bayou SW of Shreveport	08/31/05	19	1.5	0.14	6.1	<0.02	<0.1	<0.05
	100602-A	Boggy Bayou SE of Hicks Crossing	08/31/05	78	1.8	0.15	8.1	<0.02	<0.1	<0.05
100702	100702-B	Leatherman Creek	09/07/05	18	2.4	0.11	7.5	0.076	0.32	<0.05
	282	Black Lake Bayou w of Castor	09/07/05	4.8	1.6	0.048	5.9	<0.02	0.22	0.064
	1187	Black Lake Bayou @ Hwy 155	09/07/05	5.2	1.7	0.064	6	<0.02	0.17	0.096
100703	100703-A-1	Black Lake NE Campti	09/07/05	73	1.7	0.048	7.7	<0.02	0.17	<0.05
	100703-A-2	Black Lake NE Campti	09/07/05	4.4	1.9	0.05	7.8	<0.02	0.17	<0.05
	100703-B	Clear Lake outlet	09/07/05	16	1.9	0.12	9.2	0.1	0.25	<0.05
100803	1214	Saline Bayou SE of Clarence	09/07/05	22	1.9	0.08	8.6	0.034	0.23	<0.05
	100803-A	Saline Bayou NE of Clarence	09/07/05	16	3	0.098	8.7	0.05	0.21	<0.05
101301	556	Cress Creek	09/08/05	<4	<1	<0.02	3.1	<0.02	0.16	<0.05
	1220	Rigolette Bayou NE of Pineville	09/08/05	13	1.1	0.082	4.9	<0.02	0.12	<0.05
	570	Beaver Creek	09/08/05	6.2	<1	<0.02	1.5	<0.02	<0.1	0.1
	101301-A	Rigolette Bayou WNW of Bagdad	09/08/05	41	1.3	0.08	3.2	<0.02	0.19	<0.05
101302	1221	Iatt Lake	09/08/05	<4	<1	<0.02	9	<0.02	0.19	<0.05
	101302-A-1	Iatt Creek	09/08/05	5.4	1.4	0.048	11	<0.02	0.22	0.059
	101302-A-2	Iatt Creek	09/08/05	5.2	<1	0.048	11	<0.02	0.14	<0.05
101503	101503-A	Saline Bayou SE of Saline L.	09/09/05	280	2.2	0.15	6.8	0.026	0.58	0.068
101604	1231	Lake Concordia	09/09/05	12	1.9	0.15	7.9	0.049	0.23	<0.05
110401	1160	Bayou Toro NE of Toro	09/08/05	16	1.7	0.1	6.4	<0.02	0.14	<0.05
	110401-A	Toro Creek	09/08/05	6.8	1.4	0.11	7.3	<0.02	0.16	<0.05

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Table D.4. Summary of CBOD time series data from FTN field survey of Red River and Sabine River basins..

Subsegment Number	Sample No.	CBOD 1, 2-day	CBOD 2, 5-day	CBOD 3, 9-day	CBOD 4, 14-Day	CBOD 5, 20-day	k rate (1/day)	CBODu (mg/L)
100404	1181	<2	3.3	5	5.3	5.2	0.22	5.49
100405	1182	2.9	4.8	6.7	8.1	12	0.06	15.61
	100405-A	<2	<2	3.3	5.1	6.9	0.05	12.47
100406	363-1	<2	<2	4.3	5.7	6.6	0.12	7.50
	363-2	<2	<2	4.2	5.8	6.8	0.12	7.69
100501	100501-A	2.4	3.2	3.9	4.2	4.8	0.30	4.43
	100501-B	5.2	6.5	7.6	7.9	12	0.21	10.13
100601	278	<2	<2	2.3	4.6	6.8	0.04	13.85
	1183	<2	<2	<2	5.1	3.9	0.60	4.50
	100601-A-1	<2	<2	<2	2.8	4.4	0.16	5.38
	100601-A-2	<2	2.1	2.3	4.1	5.4	0.04	9.83
100602	1207	<2	<2	2.1	3.4	6	0.04	13.05
	100602-A	2.7	3.9	5	7.8	9.4	0.07	11.99
100702	282	<2	<2	<2	<2	2.2	--	--
	1187	<2	<2	<2	<2	<2	--	--
	100702-B	<2	2.1	3.7	4.6	6.2	0.05	9.62
100703	100703-A-1	<2	<2	<2	2.5	4	0.05	8.69
	100703-A-2	<2	<2	<2	2.3	3.1	0.05	5.60
	100703-B	2.4	5.9	8.9	9.6	14	0.08	16.99
100803	1214	<2	2.7	7.1	7.3	8.9	0.31	8.42
	100803-A	<2	<2	3.9	4.8	6.6	0.05	10.75
101301	556	<2	<2	<2	<2	<2	--	--
	1220	<2	<2	<2	3.1	3.9	0.15	4.43
	101301-A	<2	<2	<2	<2	<2	--	--
101302	570	<2	<2	<2	<2	<2	--	--
	1221	<2	<2	<2	<2	2.2	--	--
	101302-A-1	<2	<2	2.7	3.6	4.3	0.10	5.04
	101302-A-2	<2	<2	<2	2.5	3.4	0.05	5.75
101503	101503-A	<2	<2	3.6	6.2	6.9	0.22	7.29
101604	1231	<2	3.6	7.3	9.9	12	0.06	18.50
110401	1160	<2	<2	<2	<2	2	--	--
	110401-A	<2	<2	<2	<2	2.3	--	--

FILE: R:\PROJECTS\2110-616\TECH\FIELD_STUDIES\RED AND SABINE SUMMARY GSBOD TABLE.XLS

Table D.5. Continuous DO data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01
8/30/05 19:45	8.1				
8/30/05 20:00	8.0				
8/30/05 20:15	7.8				
8/30/05 20:30	7.8				
8/30/05 20:45	7.4				
8/30/05 21:00	7.4				
8/30/05 21:15	7.0				
8/30/05 21:30	6.6				
8/30/05 21:45	6.6				
8/30/05 22:00	6.4				
8/30/05 22:15	6.0				
8/30/05 22:30	5.9				
8/30/05 22:45	5.6				
8/30/05 23:00	5.5				
8/30/05 23:15	5.3				
8/30/05 23:30	5.0				
8/30/05 23:45	5.0				
8/31/05 00:00	4.7	0.77		1.88	
8/31/05 00:15	4.6	0.75		1.84	
8/31/05 00:30	4.5	0.73		1.80	
8/31/05 00:45	4.3	0.70		1.72	
8/31/05 01:00	4.0	0.65		1.60	
8/31/05 01:15	4.0	0.65		1.60	
8/31/05 01:30	3.7	0.60		1.48	
8/31/05 01:45	3.7	0.60		1.48	
8/31/05 02:00	3.6	0.59		1.44	
8/31/05 02:15	3.4	0.55		1.36	
8/31/05 02:30	3.2	0.52		1.28	
8/31/05 02:45	3.3	0.54		1.32	
8/31/05 03:00	3.2	0.52		1.28	
8/31/05 03:15	3.2	0.52		1.28	
8/31/05 03:30	2.9	0.47		1.16	
8/31/05 03:45	2.9	0.47		1.16	
8/31/05 04:00	2.8	0.46		1.12	
8/31/05 04:15	2.8	0.46		1.12	
8/31/05 04:30	2.7	0.44		1.08	
8/31/05 04:45	2.7	0.44		1.08	
8/31/05 05:00	2.8	0.46		1.12	
8/31/05 05:15	2.7	0.44		1.08	

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily ı DO + 1 mg/L (mg/L)

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily n DO + 1 mg/L (mg/L)
8/31/05 05:30	2.6	0.42		1.04								
8/31/05 05:45	2.5	0.41		1.00								
8/31/05 06:00	2.7	0.44		1.08								
8/31/05 06:15	2.7	0.44		1.08								
8/31/05 06:30	2.7	0.44		1.08								
8/31/05 06:45	2.7	0.44		1.08								
8/31/05 07:00	2.8	0.46		1.12								
8/31/05 07:15	2.8	0.46		1.12								
8/31/05 07:30	2.8	0.46		1.12								
8/31/05 07:45	2.8	0.46		1.12								
8/31/05 08:00	2.8	0.46		1.12								
8/31/05 08:15	2.9	0.47		1.16								
8/31/05 08:30	3.1	0.51		1.24								
8/31/05 08:45	3.2	0.52		1.28								
8/31/05 09:00	3.2	0.52		1.28								
8/31/05 09:15	3.4	0.55		1.36								
8/31/05 09:30	3.6	0.59		1.44								
8/31/05 09:45	3.7	0.60		1.48								
8/31/05 10:00	4.1	0.67		1.64								
8/31/05 10:15	4.2	0.68		1.68								
8/31/05 10:30	4.6	0.75		1.84								
8/31/05 10:45	4.8	0.78		1.92								
8/31/05 11:00	5.1	0.83		2.04								
8/31/05 11:15	5.4	0.88		2.16								
8/31/05 11:30	5.8	0.94		2.32								
8/31/05 11:45	6.0	0.98		2.40								
8/31/05 12:00	6.4	1.04		2.56								
8/31/05 12:15	6.7	1.09		2.68								
8/31/05 12:30	7.1	1.16		2.84								
8/31/05 12:45	7.5	1.22		3.00								
8/31/05 13:00	7.6	1.24		3.04								
8/31/05 13:15	8.2	1.34		3.28								
8/31/05 13:30	8.4	1.37		3.36								
8/31/05 13:45	8.9	1.45		3.56		100602-A	08/31/05	1:45 PM	4.4	3.0	1.2	2.2
8/31/05 14:00	9.0	1.47		3.60								
8/31/05 14:15	8.9	1.45		3.56								
8/31/05 14:30	9.0	1.47		3.60								
8/31/05 14:45	9.3	1.52		3.72		1207	08/31/05	2:40 PM	5.2	3.4	1.4	2.4
8/31/05 15:00	9.6	1.56		3.84								
8/31/05 15:15	9.9	1.61		3.96								
8/31/05 15:30	10.1	1.65		4.04								
8/31/05 15:45	10.3	1.68		4.12								

Table D.5. Continuous data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily n DO + 1 mg/L (mg/L)
8/31/05 16:00	10.6	1.73		4.24								
8/31/05 16:15	10.7	1.74		4.28								
8/31/05 16:30	10.8	1.76		4.32								
8/31/05 16:45	11.1	1.81		4.44								
8/31/05 17:00	10.9	1.78		4.36								
8/31/05 17:15	11.0	1.79		4.40								
8/31/05 17:30	10.9	1.78		4.36								
8/31/05 17:45	10.9	1.78		4.36								
8/31/05 18:00	10.7	1.74		4.28								
8/31/05 18:15	10.6	1.73		4.24								
8/31/05 18:30	10.4	1.69		4.16								
8/31/05 18:45	10.1	1.65		4.04								
8/31/05 19:00	9.8	1.60		3.92		100406-A	8/31/2005	19:00	5.26	3.3	1.3	2.3
8/31/05 19:15	9.7	1.58		3.88								
8/31/05 19:30	9.5	1.55		3.80								
8/31/05 19:45	9.2	1.50		3.68								
8/31/05 20:00	9.2	1.50		3.68								
8/31/05 20:15	8.7	1.42		3.48								
8/31/05 20:30	8.6	1.40		3.44								
8/31/05 20:45	8.4	1.37		3.36								
8/31/05 21:00	8.1	1.32		3.24								
8/31/05 21:15	7.9	1.29		3.16								
8/31/05 21:30	7.8	1.27		3.12								
8/31/05 21:45	7.5	1.22		3.00								
8/31/05 22:00	7.2	1.17		2.88								
8/31/05 22:15	6.7	1.09		2.68								
8/31/05 22:30	6.6	1.08		2.64								
8/31/05 22:45	6.6	1.08		2.64								
8/31/05 23:00	6.3	1.03		2.52								
8/31/05 23:15	6.0	0.98		2.40								
8/31/05 23:30	5.8	0.94		2.32								
8/31/05 23:45	5.4	0.88		2.16								
9/01/05 00:00	5.4		0.83		2.25							
9/01/05 00:15	5.3		0.81		2.21							
9/01/05 00:30	5.1		0.78		2.13							
9/01/05 00:45	5.0		0.77		2.08							
9/01/05 01:00	4.7		0.72		1.96							
9/01/05 01:15	4.7		0.72		1.96							
9/01/05 01:30	4.6		0.71		1.92							
9/01/05 01:45	4.4		0.68		1.83							
9/01/05 02:00	4.3		0.66		1.79							
9/01/05 02:15	4.1		0.63		1.71							

Table D.5. Continuous data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily n DO + 1 mg/L (mg/L)
9/01/05 02:30	3.8		0.58		1.58							
9/01/05 02:45	3.8		0.58		1.58							
9/01/05 03:00	3.6		0.55		1.50							
9/01/05 03:15	3.5		0.54		1.46							
9/01/05 03:30	3.3		0.51		1.38							
9/01/05 03:45	3.3		0.51		1.38							
9/01/05 04:00	3.2		0.49		1.33							
9/01/05 04:15	3.1		0.48		1.29							
9/01/05 04:30	3.1		0.48		1.29							
9/01/05 04:45	3.0		0.46		1.25							
9/01/05 05:00	2.8		0.43		1.17							
9/01/05 05:15	2.9		0.45		1.21							
9/01/05 05:30	2.9		0.45		1.21							
9/01/05 05:45	2.7		0.41		1.13							
9/01/05 06:00	2.7		0.41		1.13							
9/01/05 06:15	2.6		0.40		1.08							
9/01/05 06:30	2.6		0.40		1.08							
9/01/05 06:45	2.6		0.40		1.08							
9/01/05 07:00	2.4		0.37		1.00							
9/01/05 07:15	2.4		0.37		1.00							
9/01/05 07:30	2.4		0.37		1.00							
9/01/05 07:45	2.6		0.40		1.08							
9/01/05 08:00	2.5		0.38		1.04							
9/01/05 08:15	2.7		0.41		1.13							
9/01/05 08:30	2.8		0.43		1.17							
9/01/05 08:45	2.8		0.43		1.17							
9/01/05 09:00	3.0		0.46		1.25							
9/01/05 09:15	3.1		0.48		1.29							
9/01/05 09:30	3.3		0.51		1.38							
9/01/05 09:45	3.6		0.55		1.50							
9/01/05 10:00	3.8		0.58		1.58							
9/01/05 10:15	4.0		0.61		1.67							
9/01/05 10:30	4.4		0.68		1.83							
9/01/05 10:45	4.8		0.74		2.00							
9/01/05 11:00	5.1		0.78		2.13							
9/01/05 11:15	5.5		0.84		2.29							
9/01/05 11:30	6.0		0.92		2.50							
9/01/05 11:45	6.2		0.95		2.58	100405-A	9/1/2005	11:45	0.97	1.0	0.4	1.4
9/01/05 12:00	6.7		1.03		2.79							
9/01/05 12:15	7.0		1.08		2.92							
9/01/05 12:30	7.5		1.15		3.13							
9/01/05 12:45	7.7		1.18		3.21							

Table D.5. Continuous data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01
9/01/05 13:00	7.8		1.20		3.25
9/01/05 13:15	8.2		1.26		3.42
9/01/05 13:30	8.5		1.31		3.54
9/01/05 13:45	9.3		1.43		3.88
9/01/05 14:00	9.7		1.49		4.04
9/01/05 14:15	9.6		1.47		4.00
9/01/05 14:30	10.1		1.55		4.21
9/01/05 14:45	10.7		1.64		4.46
9/01/05 15:00	10.0		1.54		4.17
9/01/05 15:15	10.4		1.60		4.33
9/01/05 15:30	10.5		1.61		4.38
9/01/05 15:45	10.8		1.66		4.50
9/01/05 16:00	10.5		1.61		4.38
9/01/05 16:15	11.8		1.81		4.92
9/01/05 16:30	11.8		1.81		4.92
9/01/05 16:45	12.3		1.89		5.13
9/01/05 17:00	11.9		1.83		4.96
9/01/05 17:15	12.7		1.95		5.29
9/01/05 17:30	11.9		1.83		4.96
9/01/05 17:45	12.1		1.86		5.04
9/01/05 18:00	10.8		1.66		4.50
9/01/05 18:15	10.0		1.54		4.17
9/01/05 18:30	10.1		1.55		4.21
9/01/05 18:45	9.3		1.43		3.88
9/01/05 19:00	9.5		1.46		3.96
9/01/05 19:15	9.8		1.51		4.08
9/01/05 19:30	9.3		1.43		3.88
9/01/05 19:45	10.3		1.58		4.29
9/01/05 20:00	10.2		1.57		4.25
9/01/05 20:15	10.1		1.55		4.21
9/01/05 20:30	9.6		1.47		4.00
9/01/05 20:45	8.5		1.31		3.54
9/01/05 21:00	8.5		1.31		3.54
9/01/05 21:15	8.1		1.24		3.38
9/01/05 21:30	8.2		1.26		3.42
9/01/05 21:45	8.2		1.26		3.42
9/01/05 22:00	7.6		1.17		3.17
9/01/05 22:15	7.8		1.20		3.25
9/01/05 22:30	7.6		1.17		3.17
9/01/05 22:45	7.6		1.17		3.17
9/01/05 23:00	7.3		1.12		3.04
9/01/05 23:15	6.9		1.06		2.88

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily DO + 1 mg/L (mg/L)

Table D.5. Continuous data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily DO + 1 mg/L (mg/L)
9/01/05 23:30	6.9		1.06		2.88							
9/01/05 23:45	6.7		1.03		2.79							
9/02/05 00:00	6.5											
9/02/05 00:15	6.5											
9/02/05 00:30	6.1											
9/02/05 00:45	5.8											
9/02/05 01:00	5.9											
9/02/05 01:15	5.6											
9/02/05 01:30	5.1											
9/02/05 01:45	5.3											
9/02/05 02:00	5.0											
9/02/05 02:15	5.1											
9/02/05 02:30	4.8											
9/02/05 02:45	4.6											
9/02/05 03:00	4.4											
9/02/05 03:15	4.4											
9/02/05 03:30	4.1											
9/02/05 03:45	4.0											
9/02/05 04:00	3.9											
9/02/05 04:15	3.8											
9/02/05 04:30	3.5											
9/02/05 04:45	3.5											
9/02/05 05:00	3.5											
9/02/05 05:15	3.1											
9/02/05 05:30	3.3											
9/02/05 05:45	3.0											
9/02/05 06:00	3.0											
9/02/05 06:15	2.8											
9/02/05 06:30	2.8											
9/02/05 06:45	2.7											
9/02/05 07:00	2.5											
9/02/05 07:15	2.5											
9/02/05 07:30	2.5											
9/02/05 07:45	2.3											
9/02/05 08:00	2.4											
9/02/05 08:15	2.5											
9/02/05 08:30	2.3											
9/02/05 08:45	6.8											
9/02/05 09:00	6.3											
9/02/05 09:15	8.4											
9/02/05 09:30	8.3											
9/02/05 09:45	8.5											

Table D.5. Continuous data collected at Station 272.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 8/31	Ratio of instantaneous DO to daily mean DO For 9/01	Ratio of instantaneous DO to daily min DO For 8/31	Ratio of instantaneous DO to daily min DO For 9/01	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily n DO + 1 mg/L (mg/L)
9/02/05 10:00	8.5											
9/02/05 10:15	8.4											
9/02/05 10:30	8.5											
9/02/05 10:45	8.4											
9/02/05 11:00	8.1											
9/02/05 11:15	8.1											
9/02/05 11:30	8.3											
9/02/05 11:45	8.3											
9/02/05 12:00	8.3											
9/02/05 12:15	8.3											
9/02/05 12:30	8.3											
9/02/05 12:45	8.3											
9/02/05 13:00	8.3											
9/02/05 13:15	8.4											
9/02/05 13:30	8.3											
9/02/05 13:45	8.1											
9/02/05 14:00	8.0											
9/02/05 14:15	7.9											
9/02/05 14:30	7.9											
9/02/05 14:45	8.2											

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Table D.5. Continuous data collected at Station 272.

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/06/05 18:20	7.6				
9/06/05 18:35	7.9				
9/06/05 18:50	7.6				
9/06/05 19:05	7.5				
9/06/05 19:20	7.4				
9/06/05 19:35	7.5				
9/06/05 19:50	7.3				
9/06/05 20:05	7.4				
9/06/05 20:20	7.3				
9/06/05 20:35	7.2				
9/06/05 20:50	7.2				
9/06/05 21:05	7.2				
9/06/05 21:20	7.1				
9/06/05 21:35	6.6				
9/06/05 21:50	6.8				
9/06/05 22:05	6.8				
9/06/05 22:20	6.8				
9/06/05 22:35	6.7				
9/06/05 22:50	6.6				
9/06/05 23:05	6.5				
9/06/05 23:20	6.5				
9/06/05 23:35	6.6				
9/06/05 23:50	6.7				
9/07/05 00:05	6.6	1.06046		2.129032	
9/07/05 00:20	6.6	1.061692		2.129032	
9/07/05 00:35	6.4	1.030544		2.064516	
9/07/05 00:50	6.6	1.063985		2.129032	
9/07/05 01:05	6.5	1.049434		2.096774	
9/07/05 01:20	6.3	1.017991		2.032258	
9/07/05 01:35	6.2	1.0025		2	
9/07/05 01:50	6.0	0.970971		1.935484	
9/07/05 02:05	5.2	0.84193		1.677419	
9/07/05 02:20	5.5	0.889908		1.774194	
9/07/05 02:35	6.0	0.970647		1.935484	
9/07/05 02:50	6.0	0.971133		1.935484	
9/07/05 03:05	5.9	0.955585		1.903226	
9/07/05 03:20	5.8	0.940174		1.870968	
9/07/05 03:35	5.7	0.924737		1.83871	

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/07/05 03:50	5.7	0.925201		1.83871	
9/07/05 04:05	5.3	0.860851		1.709677	
9/07/05 04:20	5.3	0.860995		1.709677	
9/07/05 04:35	5.2	0.844891		1.677419	
9/07/05 04:50	5.2	0.845033		1.677419	
9/07/05 05:05	5.2	0.845599		1.677419	
9/07/05 05:20	4.8	0.781077		1.548387	
9/07/05 05:35	4.1	0.667282		1.322581	
9/07/05 05:50	3.9	0.634306		1.258065	
9/07/05 06:05	4.9	0.796147		1.580645	
9/07/05 06:20	4.9	0.796948		1.580645	
9/07/05 06:35	4.9	0.797885		1.580645	
9/07/05 06:50	4.8	0.782784		1.548387	
9/07/05 07:05	4.9	0.800034		1.580645	
9/07/05 07:20	4.8	0.785028		1.548387	
9/07/05 07:35	4.8	0.786221		1.548387	
9/07/05 07:50	4.8	0.786619		1.548387	
9/07/05 08:05	4.6	0.754353		1.483871	
9/07/05 08:20	4.5	0.738079		1.451613	
9/07/05 08:35	4.6	0.754736		1.483871	
9/07/05 08:50	4.7	0.771927		1.516129	
9/07/05 09:05	4.7	0.772843		1.516129	
9/07/05 09:20	4.8	0.790358		1.548387	
9/07/05 09:35	5.0	0.824549		1.612903	
9/07/05 09:50	5.0	0.825813		1.612903	
9/07/05 10:05	5.2	0.860017		1.677419	
9/07/05 10:20	5.2	0.861192		1.677419	
9/07/05 10:35	4.9	0.812201		1.580645	
9/07/05 10:50	5.3	0.879104		1.709677	
9/07/05 11:05	5.4	0.896764		1.741935	
9/07/05 11:20	5.5	0.913371		1.774194	
9/07/05 11:35	5.8	0.964182		1.870968	
9/07/05 11:50	6.0	0.998456		1.935484	
9/07/05 12:05	5.8	0.966003		1.870968	
9/07/05 12:20	6.0	0.999656		1.935484	
9/07/05 12:35	4.7	0.783737		1.516129	
9/07/05 12:50	6.2	1.032269		2	
9/07/05 13:05	6.2	1.032978		2	
9/07/05 13:20	6.0	1.000344		1.935484	

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/07/05 13:35	6.6	1.100567		2.129032	
9/07/05 13:50	6.8	1.134503		2.193548	
9/07/05 14:05	7.2	1.202065		2.322581	
9/07/05 14:20	7.3	1.221073		2.354839	
9/07/05 14:35	7.3	1.222759		2.354839	
9/07/05 14:50	7.2	1.207678		2.322581	
9/07/05 15:05	7.4	1.242513		2.387097	
9/07/05 15:20	7.3	1.227422		2.354839	
9/07/05 15:35	7.2	1.211869		2.322581	
9/07/05 15:50	7.5	1.263021		2.419355	
9/07/05 16:05	7.8	1.314454		2.516129	
9/07/05 16:20	7.9	1.333623		2.548387	
9/07/05 16:35	7.5	1.268305		2.419355	
9/07/05 16:50	7.4	1.254456		2.387097	
9/07/05 17:05	7.6	1.290165		2.451613	
9/07/05 17:20	7.9	1.342502		2.548387	
9/07/05 17:35	7.7	1.311271		2.483871	
9/07/05 17:50	7.9	1.349833		2.548387	
9/07/05 18:05	7.6	1.301094		2.451613	
9/07/05 18:20	8.0	1.37248		2.580645	
9/07/05 18:35	8.0	1.37833		2.580645	
9/07/05 18:50	8.0	1.38152		2.580645	
9/07/05 19:05	7.8	1.348904		2.516129	
9/07/05 19:20	7.8	1.349866		2.516129	
9/07/05 19:35	7.8	1.351071		2.516129	
9/07/05 19:50	8.0	1.386705		2.580645	
9/07/05 20:05	7.8	1.358836		2.516129	
9/07/05 20:20	7.6	1.33261		2.451613	
9/07/05 20:35	7.8	1.370901		2.516129	
9/07/05 20:50	7.3	1.285585		2.354839	
9/07/05 21:05	7.5	1.321286		2.419355	
9/07/05 21:20	7.4	1.305328		2.387097	
9/07/05 21:35	7.2	1.271205		2.322581	
9/07/05 21:50	7.3	1.289565		2.354839	
9/07/05 22:05	7.1	1.255149		2.290323	
9/07/05 22:20	7.1	1.256064		2.290323	
9/07/05 22:35	7.1	1.256752		2.290323	
9/07/05 22:50	7.0	1.239956		2.258065	
9/07/05 23:05	7.0	1.240183		2.258065	

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/07/05 23:20	6.6	1.169742		2.129032	
9/07/05 23:35	6.2	1.098849		2	
9/07/05 23:50	3.1	0.549224		1	
9/08/05 00:05	5.2	0.915593		1.333333	
9/08/05 00:20	5.9		1.0364		1.512821
9/08/05 00:35	6.0		1.053966		1.538462
9/08/05 00:50	5.7		1.001268		1.461538
9/08/05 01:05	5.7		1.001268		1.461538
9/08/05 01:20	6.0		1.053966		1.538462
9/08/05 01:35	5.9		1.0364		1.512821
9/08/05 01:50	5.7		1.001268		1.461538
9/08/05 02:05	5.7		1.001268		1.461538
9/08/05 02:20	5.6		0.983702		1.435897
9/08/05 02:35	5.6		0.983702		1.435897
9/08/05 02:50	5.7		1.001268		1.461538
9/08/05 03:05	5.6		0.983702		1.435897
9/08/05 03:20	5.4		0.948569		1.384615
9/08/05 03:35	5.3		0.931003		1.358974
9/08/05 03:50	5.4		0.948569		1.384615
9/08/05 04:05	5.3		0.931003		1.358974
9/08/05 04:20	5.2		0.913437		1.333333
9/08/05 04:35	5.2		0.913437		1.333333
9/08/05 04:50	5.1		0.895871		1.307692
9/08/05 05:05	4.8		0.843173		1.230769
9/08/05 05:20	4.8		0.843173		1.230769
9/08/05 05:35	4.7		0.825607		1.205128
9/08/05 05:50	4.5		0.790474		1.153846
9/08/05 06:05	4.5		0.790474		1.153846
9/08/05 06:20	4.3		0.755342		1.102564
9/08/05 06:35	4.2		0.737776		1.076923
9/08/05 06:50	4.0		0.702644		1.025641
9/08/05 07:05	4.1		0.72021		1.051282
9/08/05 07:20	3.9		0.685078		1
9/08/05 07:35	3.9		0.685078		1
9/08/05 07:50	4.5		0.790474		1.153846
9/08/05 08:05	4.4		0.772908		1.128205
9/08/05 08:20	4.5		0.790474		1.153846
9/08/05 08:35	4.3		0.755342		1.102564
9/08/05 08:50	4.0		0.702644		1.025641

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/08/05 09:05	4.0		0.702644		1.025641
9/08/05 09:20	3.9		0.685078		1
9/08/05 09:35	3.9		0.685078		1
9/08/05 09:50	4.1		0.72021		1.051282
9/08/05 10:05	4.2		0.737776		1.076923
9/08/05 10:20	4.4		0.772908		1.128205
9/08/05 10:35	4.7		0.825607		1.205128
9/08/05 10:50	4.5		0.790474		1.153846
9/08/05 11:05	4.6		0.808041		1.179487
9/08/05 11:20	5.4		0.948569		1.384615
9/08/05 11:35	4.9		0.860739		1.25641
9/08/05 11:50	5.2		0.913437		1.333333
9/08/05 12:05	5.5		0.966135		1.410256
9/08/05 12:20	5.6		0.983702		1.435897
9/08/05 12:35	5.5		0.966135		1.410256
9/08/05 12:50	5.6		0.983702		1.435897
9/08/05 13:05	5.8		1.018834		1.487179
9/08/05 13:20	5.8		1.018834		1.487179
9/08/05 13:35	5.9		1.0364		1.512821
9/08/05 13:50	6.3		1.106664		1.615385
9/08/05 14:05	6.4		1.12423		1.641026
9/08/05 14:20	6.1		1.071532		1.564103
9/08/05 14:35	6.5		1.141796		1.666667
9/08/05 14:50	6.5		1.141796		1.666667
9/08/05 15:05	6.6		1.159363		1.692308
9/08/05 15:20	6.6		1.159363		1.692308
9/08/05 15:35	6.7		1.176929		1.717949
9/08/05 15:50	6.9		1.212061		1.769231
9/08/05 16:05	7.1		1.247193		1.820513
9/08/05 16:20	6.8		1.194495		1.74359
9/08/05 16:35	6.9		1.212061		1.769231
9/08/05 16:50	6.1		1.071532		1.564103
9/08/05 17:05	6.6		1.159363		1.692308
9/08/05 17:20	7.0		1.229627		1.794872
9/08/05 17:35	6.7		1.176929		1.717949
9/08/05 17:50	5.8		1.018834		1.487179
9/08/05 18:05	6.8		1.194495		1.74359
9/08/05 18:20	6.4		1.12423		1.641026
9/08/05 18:35	5.6		0.983702		1.435897

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
101302-A	9/8/2005	12:05	1.16	1.2	0.82	1.82
570	9/8/2005	12:30	8.33	8.62	5.91	6.91

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/08/05 18:50	6.7		1.176929		1.717949
9/08/05 19:05	7.2		1.264759		1.846154
9/08/05 19:20	7.4		1.299891		1.897436
9/08/05 19:35	7.3		1.282325		1.871795
9/08/05 19:50	7.4		1.299891		1.897436
9/08/05 20:05	5.2		0.913437		1.333333
9/08/05 20:20	4.2		0.737776		1.076923
9/08/05 20:35	6.3		1.106664		1.615385
9/08/05 20:50	6.7		1.176929		1.717949
9/08/05 21:05	7.1		1.247193		1.820513
9/08/05 21:20	6.8		1.194495		1.74359
9/08/05 21:35	6.9		1.212061		1.769231
9/08/05 21:50	6.9		1.212061		1.769231
9/08/05 22:05	6.9		1.212061		1.769231
9/08/05 22:20	6.7		1.176929		1.717949
9/08/05 22:35	6.8		1.194495		1.74359
9/08/05 22:50	6.7		1.176929		1.717949
9/08/05 23:05	6.9		1.212061		1.769231
9/08/05 23:20	6.8		1.194495		1.74359
9/08/05 23:35	6.6		1.159363		1.692308
9/08/05 23:50	6.4		1.12423		1.641026
9/09/05 00:05	6.5		1.141796		1.666667
9/09/05 00:20	6.5		1.141796		1.666667
9/09/05 00:35	6.5				
9/09/05 00:50	6.5				
9/09/05 01:05	6.5				
9/09/05 01:20	6.4				
9/09/05 01:35	6.2				
9/09/05 01:50	6.2				
9/09/05 02:05	6.1				
9/09/05 02:20	6.1				
9/09/05 02:35	6.0				
9/09/05 02:50	6.0				
9/09/05 03:05	5.7				
9/09/05 03:20	5.8				
9/09/05 03:35	5.8				
9/09/05 03:50	5.9				
9/09/05 04:05	5.8				
9/09/05 04:20	5.9				

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08
9/09/05 04:35	5.8				
9/09/05 04:50	5.7				
9/09/05 05:05	5.6				
9/09/05 05:20	5.5				
9/09/05 05:35	5.6				
9/09/05 05:50	5.5				
9/09/05 06:05	5.4				
9/09/05 06:20	5.3				
9/09/05 06:35	5.0				
9/09/05 06:50	4.9				
9/09/05 07:05	4.7				
9/09/05 07:20	4.7				
9/09/05 07:35	4.9				
9/09/05 07:50	5.0				
9/09/05 08:05	4.8				
9/09/05 08:20	4.7				
9/09/05 08:35	4.7				
9/09/05 08:50	4.7				
9/09/05 09:05	4.8				
9/09/05 09:20	4.9				
9/09/05 09:35	5.1				
9/09/05 09:50	4.9				
9/09/05 10:05	5.0				
9/09/05 10:20	5.0				
9/09/05 10:35	7.8				
9/09/05 10:50	8.3				
9/09/05 11:05	8.2				
9/09/05 11:20	8.2				
9/09/05 11:35	8.2				
9/09/05 11:50	8.3				
9/09/05 12:05	8.0				
9/09/05 12:20	8.0				
9/09/05 12:35	7.8				
9/09/05 12:50	7.8				
9/09/05 13:05	7.8				
9/09/05 13:20	7.7				
9/09/05 13:35	7.8				
9/09/05 13:50	7.8				
9/09/05 14:05	7.7				

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

Table D.6. Continuous DO data collected at Station 1220.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO		Ratio of instantaneous DO to daily min DO	
		For 9/07	For 9/08	For 9/07	For 9/08
9/09/05 14:20	7.8				
9/09/05 14:35	7.8				
9/09/05 14:50	7.7				
9/09/05 15:05	7.8				
9/09/05 15:20	7.7				
9/09/05 15:35	7.6				
9/09/05 15:50	7.7				
9/09/05 16:05	7.6				
9/09/05 16:20	7.5				
9/09/05 16:35	7.6				
9/09/05 16:50	7.5				
9/09/05 17:05	7.5				
9/09/05 17:20	7.5				
9/09/05 17:35	7.4				
9/09/05 17:50	7.5				
9/09/05 18:05	7.8				
9/09/05 18:20	7.9				
9/09/05 18:35	7.9				
9/09/05 18:50	7.9				

Estimation of daily mean DO values at other stations

Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)

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Table D.6. Continuous DO data collected at Station 1220.

Table D.7. Continuous DO data collected at Station 1214.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Estimation of daily mean DO values at other stations: Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/06/05 19:50	7.0											
9/06/05 20:05	6.4											
9/06/05 20:20	6.3											
9/06/05 20:35	6.2											
9/06/05 20:50	6.1											
9/06/05 21:05	5.9											
9/06/05 21:20	5.7											
9/06/05 21:35	5.5											
9/06/05 21:50	5.3											
9/06/05 22:05	5.3											
9/06/05 22:20	5.1											
9/06/05 22:35	5.1											
9/06/05 22:50	5.0											
9/06/05 23:05	4.7											
9/06/05 23:20	4.7											
9/06/05 23:35	4.7											
9/06/05 23:50	4.5	1.030133		2.368421								
9/07/05 00:05	4.3	0.984349		2.263158								
9/07/05 00:20	4.4	1.007241		2.315789								
9/07/05 00:35	4.3	0.984349		2.263158								
9/07/05 00:50	4.2	0.961458		2.210526								
9/07/05 01:05	4.0	0.915674		2.105263								
9/07/05 01:20	3.9	0.892782		2.052632								
9/07/05 01:35	4.0	0.915674		2.105263								
9/07/05 01:50	4.0	0.915674		2.105263								
9/07/05 02:05	4.1	0.938566		2.157895								
9/07/05 02:20	3.9	0.892782		2.052632								
9/07/05 02:35	3.7	0.846998		1.947368								
9/07/05 02:50	3.8	0.86989		2								
9/07/05 03:05	3.7	0.846998		1.947368								
9/07/05 03:20	3.6	0.824107		1.894737								
9/07/05 03:35	3.1	0.709647		1.631579								
9/07/05 03:50	2.9	0.663864		1.526316								
9/07/05 04:05	2.9	0.663864		1.526316								
9/07/05 04:20	2.9	0.663864		1.526316								

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Estimation of daily mean DO values at other stations: Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/07/05 04:35	2.7	0.61808		1.421053								
9/07/05 04:50	2.7	0.61808		1.421053								
9/07/05 05:05	2.5	0.572296		1.315789								
9/07/05 05:20	2.5	0.572296		1.315789								
9/07/05 05:35	2.4	0.549404		1.263158								
9/07/05 05:50	2.3	0.526512		1.210526								
9/07/05 06:05	2.2	0.503621		1.157895								
9/07/05 06:20	2.0	0.457837		1.052632								
9/07/05 06:35	1.9	0.434945		1								
9/07/05 06:50	2.2	0.503621		1.157895								
9/07/05 07:05	2.1	0.480729		1.105263								
9/07/05 07:20	2.1	0.480729		1.105263								
9/07/05 07:35	2.0	0.457837		1.052632								
9/07/05 07:50	2.0	0.457837		1.052632								
9/07/05 08:05	2.0	0.457837		1.052632		100702-B	9/7/2005	8:05	3.35	7.32	3.18	4.18
9/07/05 08:20	2.0	0.457837		1.052632								
9/07/05 08:35	2.2	0.503621		1.157895								
9/07/05 08:50	2.1	0.480729		1.105263								
9/07/05 09:05	2.1	0.480729		1.105263								
9/07/05 09:20	2.1	0.480729		1.105263		282	9/7/2005	9:20	5.33	11.09	4.82	5.82
9/07/05 09:35	2.2	0.503621		1.157895								
9/07/05 09:50	2.4	0.549404		1.263158								
9/07/05 10:05	2.4	0.549404		1.263158								
9/07/05 10:20	2.5	0.572296		1.315789		1187	9/7/2005	10:25	5.34	9.33	4.06	5.06
9/07/05 10:35	2.7	0.61808		1.421053								
9/07/05 10:50	2.8	0.640972		1.473684								
9/07/05 11:05	2.9	0.663864		1.526316								
9/07/05 11:20	3.2	0.732539		1.684211		100703-A	9/7/2005	11:20	5.25	7.17	3.12	4.12
9/07/05 11:35	3.4	0.778323		1.789474								
9/07/05 11:50	3.3	0.755431		1.736842								
9/07/05 12:05	3.8	0.86989		2								
9/07/05 12:20	3.9	0.892782		2.052632								
9/07/05 12:35	3.5	0.801215		1.842105								
9/07/05 12:50	4.2	0.961458		2.210526								
9/07/05 13:05	4.6	1.053025		2.421053								
9/07/05 13:20	4.5	1.030133		2.368421								
9/07/05 13:35	4.7	1.075917		2.473684								

Table D.7. Continuous DO data collected at Station 1214.

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Estimation of daily mean DO values at other stations: Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/07/05 13:50	5.3	1.213268		2.789474								
9/07/05 14:05	4.9	1.121701		2.578947								
9/07/05 14:20	5.2	1.190376		2.736842								
9/07/05 14:35	5.0	1.144592		2.631579								
9/07/05 14:50	5.5	1.259052		2.894737								
9/07/05 15:05	5.4	1.23616		2.842105								
9/07/05 15:20	5.4	1.23616		2.842105								
9/07/05 15:35	6.1	1.396403		3.210526								
9/07/05 15:50	6.3	1.442186		3.315789								
9/07/05 16:05	6.1	1.396403		3.210526								
9/07/05 16:20	6.0	1.373511		3.157895								
9/07/05 16:35	6.5	1.48797		3.421053								
9/07/05 16:50	6.4	1.465078		3.368421								
9/07/05 17:05	6.8	1.556646		3.578947								
9/07/05 17:20	6.8	1.556646		3.578947								
9/07/05 17:35	6.7	1.533754		3.526316								
9/07/05 17:50	6.4	1.465078		3.368421								
9/07/05 18:05	7.3	1.671105		3.842105								
9/07/05 18:20	6.5	1.48797		3.421053								
9/07/05 18:35	6.9	1.579537		3.631579								
9/07/05 18:50	6.8	1.556646		3.578947								
9/07/05 19:05	6.9	1.579537		3.631579								
9/07/05 19:20	6.7	1.533754		3.526316								
9/07/05 19:35	6.6	1.510862		3.473684								
9/07/05 19:50	6.7	1.533754		3.526316								
9/07/05 20:05	6.5	1.48797		3.421053								
9/07/05 20:20	6.3	1.442186		3.315789								
9/07/05 20:35	6.4	1.465078		3.368421								
9/07/05 20:50	6.4	1.465078		3.368421								
9/07/05 21:05	6.2	1.419295		3.263158								
9/07/05 21:20	6.1	1.396403		3.210526								
9/07/05 21:35	6.0	1.373511		3.157895								
9/07/05 21:50	5.8	1.327727		3.052632								
9/07/05 22:05	5.7	1.304835		3								
9/07/05 22:20	5.9	1.350619		3.105263								
9/07/05 22:35	5.8	1.327727		3.052632								
9/07/05 22:50	5.6	1.281943		2.947368								

Table D.7. Continuous DO data collected at Station 1214.

Estimation of daily mean DO values at other stations

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/07/05 23:05	5.5	1.259052		2.894737								
9/07/05 23:20	5.5	1.259052		2.894737								
9/07/05 23:35	5.4	1.23616		2.842105								
9/07/05 23:50	5.3	1.213268		2.789474								
9/08/05 00:05	5.2	1.190376		2.736842								
9/08/05 00:20	5.1		1.014769		2.42857							
9/08/05 00:35	5.1		1.014769		2.42857							
9/08/05 00:50	5.0		0.994872		2.38095							
9/08/05 01:05	4.9		0.974974		2.33333							
9/08/05 01:20	5.0		0.994872		2.38095							
9/08/05 01:35	4.9		0.974974		2.33333							
9/08/05 01:50	4.5		0.895385		2.14286							
9/08/05 02:05	4.4		0.875487		2.09524							
9/08/05 02:20	4.4		0.875487		2.09524							
9/08/05 02:35	4.5		0.895385		2.14286							
9/08/05 02:50	4.5		0.895385		2.14286							
9/08/05 03:05	4.2		0.835692		2							
9/08/05 03:20	4.1		0.815795		1.95238							
9/08/05 03:35	3.8		0.756103		1.80952							
9/08/05 03:50	3.9		0.776		1.85714							
9/08/05 04:05	3.7		0.736205		1.7619							
9/08/05 04:20	3.3		0.656615		1.57143							
9/08/05 04:35	3.2		0.636718		1.52381							
9/08/05 04:50	2.8		0.557128		1.33333							
9/08/05 05:05	2.8		0.557128		1.33333							
9/08/05 05:20	2.6		0.517333		1.2381							
9/08/05 05:35	2.8		0.557128		1.33333							
9/08/05 05:50	2.7		0.537231		1.28571							
9/08/05 06:05	2.5		0.497436		1.19048							
9/08/05 06:20	2.2		0.437744		1.04762							
9/08/05 06:35	2.3		0.457641		1.09524	110401-A	9/8/2005	6:40	1.32	2.88	1.21	2.21
9/08/05 06:50	2.3		0.457641		1.09524							
9/08/05 07:05	2.1		0.417846		1							
9/08/05 07:20	2.3		0.457641		1.09524							
9/08/05 07:35	2.2		0.437744		1.04762	1160	9/8/2005	7:30	4.79	10.94	4.57	5.57
9/08/05 07:50	2.1		0.417846		1							
9/08/05 08:05	2.1		0.417846		1							

Table D.7. Continuous DO data collected at Station 1214.

Estimation of daily mean DO values at other stations

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/08/05 08:20	2.2		0.437744		1.04762							
9/08/05 08:35	2.2		0.437744		1.04762							
9/08/05 08:50	2.2		0.437744		1.04762							
9/08/05 09:05	2.1		0.417846		1							
9/08/05 09:20	2.1		0.417846		1							
9/08/05 09:35	2.2		0.437744		1.04762							
9/08/05 09:50	2.3		0.457641		1.09524							
9/08/05 10:05	2.5		0.497436		1.19048							
9/08/05 10:20	2.6		0.517333		1.2381							
9/08/05 10:35	2.9		0.577026		1.38095							
9/08/05 10:50	3.0		0.596923		1.42857							
9/08/05 11:05	3.3		0.656615		1.57143							
9/08/05 11:20	3.5		0.69641		1.66667							
9/08/05 11:35	3.7		0.736205		1.7619							
9/08/05 11:50	3.0		0.596923		1.42857							
9/08/05 12:05	3.9		0.776		1.85714							
9/08/05 12:20	4.3		0.85559		2.04762							
9/08/05 12:35	4.3		0.85559		2.04762							
9/08/05 12:50	4.5		0.895385		2.14286							
9/08/05 13:05	4.5		0.895385		2.14286							
9/08/05 13:20	4.6		0.915282		2.19048							
9/08/05 13:35	4.8		0.955077		2.28571							
9/08/05 13:50	4.8		0.955077		2.28571							
9/08/05 14:05	5.6		1.114256		2.66667							
9/08/05 14:20	5.1		1.014769		2.42857							
9/08/05 14:35	6.2		1.233641		2.95238							
9/08/05 14:50	5.9		1.173949		2.80952							
9/08/05 15:05	6.8		1.353026		3.2381							
9/08/05 15:20	6.9		1.372923		3.28571							
9/08/05 15:35	6.5		1.293333		3.09524							
9/08/05 15:50	7.1		1.412718		3.38095							
9/08/05 16:05	7.4		1.47241		3.52381							
9/08/05 16:20	7.1		1.412718		3.38095							
9/08/05 16:35	7.2		1.432615		3.42857							
9/08/05 16:50	7.4		1.47241		3.52381							
9/08/05 17:05	7.3		1.452513		3.47619							
9/08/05 17:20	7.7		1.532103		3.66667							

Table D.7. Continuous DO data collected at Station 1214.

Estimation of daily mean DO values at other stations

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/08/05 17:35	7.8		1.552		3.71429							
9/08/05 17:50	7.7		1.532103		3.66667							
9/08/05 18:05	7.7		1.532103		3.66667							
9/08/05 18:20	7.8		1.552		3.71429							
9/08/05 18:35	8.0		1.591795		3.80952							
9/08/05 18:50	7.8		1.552		3.71429							
9/08/05 19:05	7.9		1.571897		3.7619							
9/08/05 19:20	8.0		1.591795		3.80952							
9/08/05 19:35	8.1		1.611692		3.85714							
9/08/05 19:50	8.1		1.611692		3.85714							
9/08/05 20:05	7.9		1.571897		3.7619							
9/08/05 20:20	7.8		1.552		3.71429							
9/08/05 20:35	7.6		1.512205		3.61905							
9/08/05 20:50	7.6		1.512205		3.61905							
9/08/05 21:05	7.5		1.492308		3.57143							
9/08/05 21:20	7.4		1.47241		3.52381							
9/08/05 21:35	7.4		1.47241		3.52381							
9/08/05 21:50	7.2		1.432615		3.42857							
9/08/05 22:05	7.1		1.412718		3.38095							
9/08/05 22:20	7.0		1.392821		3.33333							
9/08/05 22:35	6.9		1.372923		3.28571							
9/08/05 22:50	6.6		1.313231		3.14286							
9/08/05 23:05	6.7		1.333128		3.19048							
9/08/05 23:20	6.6		1.313231		3.14286							
9/08/05 23:35	6.4		1.273436		3.04762							
9/08/05 23:50	6.4		1.273436		3.04762							
9/09/05 00:05	6.2		1.233641		2.95238							
9/09/05 00:20	6.3		1.253538		3							
9/09/05 00:35	5.9											
9/09/05 00:50	6.0											
9/09/05 01:05	6.0											
9/09/05 01:20	5.8											
9/09/05 01:35	5.6											
9/09/05 01:50	5.5											
9/09/05 02:05	5.5											
9/09/05 02:20	5.4											
9/09/05 02:35	5.2											

Table D.7. Continuous DO data collected at Station 1214.

Date and time	DO mg/L
9/09/05 02:50	5.1
9/09/05 03:05	4.9
9/09/05 03:20	4.8
9/09/05 03:35	4.9
9/09/05 03:50	4.7
9/09/05 04:05	4.5
9/09/05 04:20	4.3
9/09/05 04:35	4.5
9/09/05 04:50	3.8
9/09/05 05:05	3.6
9/09/05 05:20	3.2
9/09/05 05:35	3.2
9/09/05 05:50	3.1
9/09/05 06:05	2.6
9/09/05 06:20	2.5
9/09/05 06:35	2.7
9/09/05 06:50	2.5
9/09/05 07:05	2.4
9/09/05 07:20	2.3
9/09/05 07:35	2.2
9/09/05 07:50	2.1
9/09/05 08:05	2.1
9/09/05 08:20	2.1
9/09/05 08:35	2.1
9/09/05 08:50	2.1
9/09/05 09:05	2.2
9/09/05 09:20	2.3
9/09/05 09:35	2.5
9/09/05 09:50	2.6
9/09/05 10:05	2.7
9/09/05 10:20	2.8
9/09/05 10:35	3.2
9/09/05 10:50	2.7
9/09/05 11:05	3.9
9/09/05 11:20	4.1
9/09/05 11:35	7.5
9/09/05 11:50	7.5

Estimation of daily mean DO values at other stations

Ratio of instantaneous DO to daily mean DO		Ratio of instantaneous DO to daily min DO		Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
For 9/07	For 9/08	For 9/07	For 9/08							

Table D.7. Continuous DO data collected at Station 1214.

Estimation of daily mean DO values at other stations

Date and time	DO mg/L	Ratio of instantaneous DO to daily mean DO For 9/07	Ratio of instantaneous DO to daily mean DO For 9/08	Ratio of instantaneous DO to daily min DO For 9/07	Ratio of instantaneous DO to daily min DO For 9/08	Station	Date	Time	DO at time of measurement (mg/L)	Estimated daily mean DO (mg/L)	Estimated daily min DO (mg/L)	Estimated daily min DO + 1 (mg/L)
9/09/05 12:05	7.3											
9/09/05 12:20	7.2											
9/09/05 12:35	7.1											
9/09/05 12:50	7.4											
9/09/05 13:05	7.3											
9/09/05 13:20	7.1											
9/09/05 13:35	7.3											
9/09/05 13:50	7.1											
9/09/05 14:05	7.1											
9/09/05 14:20	7.0											
9/09/05 14:35	7.0											
9/09/05 14:50	7.0											
9/09/05 15:05	6.9											
9/09/05 15:20	6.9											
9/09/05 15:35	6.9											
9/09/05 15:50	6.8											
9/09/05 16:05	6.8											
9/09/05 16:20	6.8											
9/09/05 16:35	6.8											
9/09/05 16:50	6.8											
9/09/05 17:05	6.7											
9/09/05 17:20	6.6											
9/09/05 17:35	6.4											
9/09/05 17:50	6.4											
9/09/05 18:05	6.5											
9/09/05 18:20	6.5											
9/09/05 18:35	6.6											
9/09/05 18:50	6.8											
9/09/05 19:05	6.7											
9/09/05 19:20	6.7											
9/09/05 19:35	6.7											
9/09/05 19:50	6.8											

FILE: R:\PROJECTS\2110-616\TECH\FIELD_STUDIES\CONTINUOUS IN SITU\RED_SABINE\EST MIN DO CONTIN_MONITOR_1214-DORCHEAT REPORT.XLS

Table D.7. Continuous DO data collected at Station 1214.

FIELD SHEETS ARE AVAILABLE FROM EPA UPON REQUEST.

APPENDIX E

LA-QUAL Vector Diagram

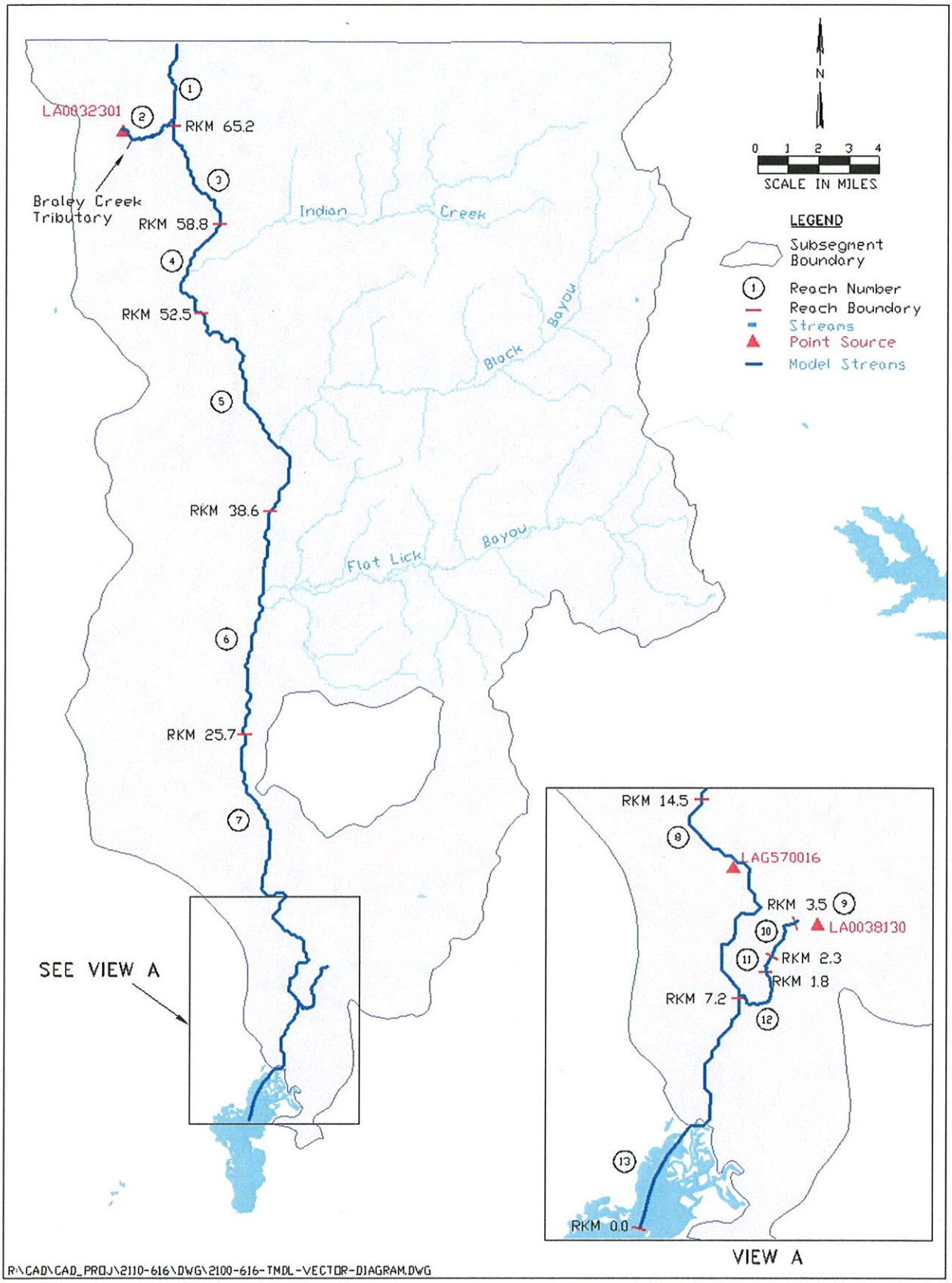

Figure E.1. LA-QUAL vector for Bayou Dorcheat.

APPENDIX F

LA-QUAL Calibration Model Inputs

APPENDIX F. CALIBRATION MODEL INPUT DATA AND SOURCES

Table F.1. Calibration Inputs for Hydraulics (Data Type 9).

Parameter name or description	Reach(es)	Value used in model	Data Source /Comment
Width Coefficient A and B	1-13	0	used to maintain a constant width
Width Coefficient C	1	25.30	average of DOQQ cross sections 2 and 6
	2	3.18	average of all the widths from City of Springhill WWTP LIMNOSS model for Little Crooked Creek
	3	25.30	average of DOQQ cross sections 2 and 6
	4	65.22	average of DOQQ cross sections 3,5, and 15
	5	35.96	average of DOQQ cross sections 1,7,4,14, and 100501-B
	6	20.42	average of DOQQ cross sections 11,12, and 13
	7	18.29	average of DOQQ cross sections 8,9, and 10
	8	33.83	average of DOQQ cross sections M13 and LDEQ Stn 0061
	9	5.39	widths back-calculated from City of Minden WWTP LIMNOSS model where width = flow / (velocity *depth)
	10	5.76	
	11	15.48	
	12	16.67	
	13	50.29	average of cross sections M14 and LDEQ Stn 0274
Depth Coefficients D and E	1-13	0	used to maintain a constant depth
Depth Coefficient F	1	3.14	average depth from 100501-B
	2	0.54	average of all the depths from City of Springhill WWTP LIMNOSS model for Little Crooked Creek
	3-5	3.14	average depth from 100501-B
	6	3.08	Combination of depth in reaches 8 and 5 (depth of reach 8 plus 2/3 of differences between depths in reaches 8 and 5)
	7	3.02	Combination of depth in reaches 8 and 5 (depth of reach 8 plus 1/3 of differences between depths in reaches 8 and 5)
	8	2.96	Average of depths for 10-MN-13, 10-MN-14, and 0274
	9	0.23	Depths from City of Minden WWTP model
	10	0.37	
	11	0.58	
	12	1.43	
	13	2.96	average of depths for 10-MN-13, 10-MN-14, and 0274

Table F.2. Calibration Inputs for Initial Conditions (Data Type 11).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Temperature (°C)	1	27.1	From FTN station 100501-A
	2	27.1	Based on estimated water quality for small forested watersheds
	3	28.7	Combination of temperature in reaches 2 and 5 (temperature of reach 2 plus 1/3 of difference between temperature in reaches 2 and 5)
	4	30.2	Combination of temperature in reaches 2 and 5 (temperature of reach 2 plus 2/3 of difference between temperature in reaches 2 and 5)
	5	31.8	From FTN station 100501-B
	6	32.1	Combination of temperature in reaches 5 and 8 (temperature of reach 5 plus 1/3 of difference between temperature in reaches 5 and 8)
	7	32.3	Combination of temperature in reaches 5 and 8 (temperature of reach 5 plus 2/3 of difference between temperature in reaches 5 and 8)
	8	32.6	From FTN station 0061
	9-12	27.1	Based on estimated water quality for small forested watersheds
	13	29.1	From FTN station 0274
DO (mg/L)	1	1.80	From estimated min DO + 1 mg/L for FTN station 100501-A
	2	5.36	Based on estimated water quality for small forested watersheds
	3	1.97	Approximate interpolation of min DO + 1 mg/L estimated for 100501-A and 100501-B
	4	2.13	Approximate interpolation of min DO + 1 mg/L estimated for 100501-A and 100501-B
	5	2.30	From estimated min DO + 1 mg/L for FTN station 100501-B
	6	2.47	Approximate interpolation of min DO + 1 mg/L estimated for 100501-B and 0061
	7	2.63	Approximate interpolation of min DO + 1 mg/L estimated for 100501-B and 0061
	8	2.80	From estimated min DO + 1 mg/L for FTN station 0061
	9-12	5.36	Based on estimated water quality for small forested watersheds
	13	5.10	From estimated min DO + 1 mg/L for FTN station 0274
Ammonia (mg/L)	1-13	0.19	average of values measured at 100501-A and 100501-B
Chlorophyll a (µg/L)	1-13	16	Average values measured at 100501-A and 100501-B

Table F.3. Calibration Inputs for Kinetic Coefficients (Data Types 12 and 13).

Parameter name or description	Reach(es)	Option	Value used in model	Data Source / Comment
Reaeration option	1	20	0.84	interpolation of reaeration based on width of reach 1
	2,9-12	15	--	Louisiana Equation (automatically calculated by the model-no input needed)
	3	20	0.84	interpolation of reaeration based on width of reach 3
	4	20	0.97	interpolation of reaeration based on width of reach 4
	5	20	0.89	interpolation of reaeration based on width of reach 5
	6	20	0.81	interpolation of reaeration based on width of reach 6
	7	20	0.80	interpolation of reaeration based on width of reach 7
	8	20	0.88	interpolation of reaeration based on width of reach 8
	13	20	0.97	interpolation of reaeration based on width of reach 13
CBOD decay rate	1-13	0.15/day		Based on analysis of FTN survey data and LDEQ intensive survey data (see section 4.6)
Nitrification rate	1-13	0.08/day		Based on estimated decay rate typical of a forested area (see section 4.6)
Organic N decay rate	1-13	0.02/day		Based on information in Table 5-3 “Rates, Constants, Kinetics” (see section 4.6)

Table F.4. Calibration Inputs for NPS Loads (Data Types 12, 13, and 19).

Parameter name or description	Reach	Value used in model	Data Source / Comment
Sediment oxygen demand	1	3.60 gm/m^2/day	These values were treated as calibration parameters by adjusting them until the model output was similar to the calibration target values. The order in which each parameter was calibrated is discussed in Section 4.7.
	2	0.50 gm/m^2/day	
	3	2.50 gm/m^2/day	
	4	1.80 gm/m^2/day	
	5	0.65 gm/m^2/day	
	6	0.50 gm/m^2/day	
	7	0.50 gm/m^2/day	
	8	1.30 gm/m^2/day	
	9	0.50 gm/m^2/day	
	10	0.50 gm/m^2/day	
	11	0.50 gm/m^2/day	
	12	0.50 gm/m^2/day	
	13	0.50 gm/m^2/day	
Benthic ammonia source rates	1-13	0.0 gm/m^2/day	
CBODu mass loads	1	350 kg/day	
	2	10 kg/day	
	3	700 kg/day	
	4	2,600 kg/day	
	5	4,000 kg/day	
	6	2,000 kg/day	
	7	1,400 kg/day	
	8	1,400 kg/day	
	9	0 kg/day	
	10	0 kg/day	
	11	0 kg/day	
	12	40 kg/day	
	13	1,900 kg/day	
Organic N mass loads	1	12 kg/day	
	2	0 kg/day	
	3	20 kg/day	
	4	50 kg/day	
	5	60 kg/day	
	6	30 kg/day	
	7	23 kg/day	
	8	26 kg/day	
	9	0 kg/day	
	10	0 kg/day	
	11	0 kg/day	
	12	0 kg/day	
	13	38 kg/day	

Table F.5. Calibration Inputs for Headwaters (Data Types 20 and 21).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Bayou Dorcheat	Flow rate	0.057 m^3/sec	Average flow per unit area at USGS 07348700 during the intensive survey (8/31-9/1/05) times drainage area at Bayou Dorcheat at state line
	DO	2.10 mg/L	Values measured at 100501-A during FTN intensive survey.
	CBODu	4.43 mg/L	
	Organic N	1.40 mg/L	
	Ammonia N	0.20 mg/L	
Braley Creek	Flow rate	$6.215*10^{-5}$ m^3/sec	Average flow per unit area at USGS 07348700 during the intensive survey (8/31-9/1/05) times drainage area upstream of the headwater.
Ten Mile Creek	Flow rate	0.004 m^3/sec	
Braley and Ten Mile Creeks	DO	3.78 mg/L	Values representative of a small forested watershed based on data collected at several stations during intensive survey.
	CBODu	12.5 mg/L	
	Organic N	1.42 mg/L	
	Ammonia N	0.20 mg/L	

Table F.6. Calibration Flow Rates for Tributaries (Data Types 24).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Braley Creek Tributary	Flow rate	0.0002 m^3/sec	Average flow per unit area at USGS 07348700 during the intensive survey (8/31-9/1/05) times drainage area of tributary.
Indian Creek	Flow rate	0.0053 m^3/sec	
Black Bayou	Flow rate	0.0089 m^3/sec	
Flat Lick Creek	Flow rate	0.0109 m^3/sec	

Table F.7. Calibration Inputs for Tributaries (Data Types 25).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Braley Creek Tributary	DO	3.78 mg/L	Values representative of a small forested watershed based on data collected at several stations during intensive survey.
	CBODu	12.5 mg/L	
	Organic N	1.42 mg/L	
	Ammonia N	0.20 mg/L	
Indian Creek, Black Bayou and Flat Lick Creek	DO	7.84 mg/L	Values representative of a large forested watershed based on data collected at several stations during intensive survey.
	CBODu	6.80 mg/L	
	Organic N	1.65 mg/L	
	Ammonia N	0.20 mg/L	

Table F.8. Calibration Inputs for Point Source Wasteloads (Data Types 24 and 25).

Name of Point Source	Parameter name	Value used in model	Data Source / Comment
City of Cullen WWTP (LA0032301)	Flow rate	0.0087 m^3/sec	Average of monthly flows for August and September from DMRs.
	DO	5.0 mg/L	LTP value for advanced treatment
	CBODu	10.3 mg/L	4.355 (average of monthly CBOD5 values for August and September) * 2.3 ($CBOD_5$:CBODu ratio from LTP)
	Ammonia N	3.65 mg/L	Ammonia nitrogen concentration from DMR
	Organic N	1.825 mg/L	Half of ammonia nitrogen (based on LTP assuming mechanical treatment plant)
City of Minden WWTP (LA0038130)	Flow rate	0.065 m^3/sec	Average of monthly flows for August and September from DMRs.
	DO	5.0 mg/L	LTP value for advanced treatment
	CBODu	7.6 mg/L	3.31 (average of monthly CBOD5 values for August and September) * 2.3 ($CBOD_5$:CBODu ratio from LTP)
	Organic N	1.67 mg/L	One third of total nitrogen concentration of 5 mg/L (based on advanced treatment) Half of ammonia nitrogen (from LTP)
	Ammonia N	3.33 mg/L	Two thirds of total nitrogen concentration of 5 mg/L (based on advanced treatment) Half of ammonia nitrogen (from LTP)
Dixie Inn Sewer Treatment (LAG570016)	Flow rate	0.0019 m^3/sec	Average of monthly flows for August and September from DMRs.
	DO	5.0 mg/L	LTP value for advanced treatment
	CBODu	18.7 mg/L	8.11 (average of monthly CBOD5 values for August and September) * 2.3 ($CBOD_5$:CBODu ratio from LTP)
	Organic N	1.67 mg/L	One third of total nitrogen concentration of 5 mg/L (based on advanced treatment) Half of ammonia nitrogen (from LTP)
	Ammonia N	3.33 mg/L	Two thirds of total nitrogen concentration of 5 mg/L (based on advanced treatment) Half of ammonia nitrogen (from LTP)

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APPENDIX G

Calculation of Minimum K_L for Calibration Model

Wind Aided Reaeration for Bayou Dorcheat

Wind Aided Reaeration Coefficient Equation (Eq.3-23 from Rates, Constants, and Kinetics publication)

$K_{L\ with\ wind} = K_{L\ without\ wind}\ [1+(0.2395V_w^{1.643})]$ **Equation 1**

V_w = wind velocity in meters per second
K_2 = reaeration in 1/day that does not account for wind effects. For Louisiana equation use K_2 = 0.664/D.
D = depth in meters
$K_L = K_2 * D$ (=oxygen transfer coefficient "a" in model)

Formula to correct wind speed for elevation (obtained from LDEQ):

$V_{w@\ height\ z} = V_{w@\ height\ s}\ [(z/s)^{0.143}]$ **Equation 2**

CALCULATIONS FOR CALIBRATION PERIOD:

Shreveport Regional Airport

Station	Average Wind Speed (knots)	Average Wind Speed (m/s)	Height of Wind Measurement (m)	Height for Calculating Wind-Aided K_L (m)	Wind Speed at Surface using Eqn 2 (m/s)	K_L without wind (m/day)	K_L with wind using Eqn 1 (m/day)
1-Sep-05	5.0	2.6	10	0.1	1.3	0.7	0.97

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APPENDIX H

LDEQ BOD Survey Data

Table H.1. Summary of data from LDEQ surveys of Calcasieu and Ouachita river basins.

Sample No.	CBOD decay rate	UCBOD (mg/L)
Bayou Chauvin @ Hwy. 139 Bridge	0.06	25.33
Bayou Chauvin @ Leisure Village1	0.07	10.04
Bayou Chauvin @ Leisure Village2	0.06	10.13
Bayou Chauvin @ Ouachita Levee	0.10	21.30
Bayou Chauvin @ USGS Control Structure	0.08	16.93
Bayou Chauvin @ West Elmwood Rd.	0.07	17.11
Bayou Desiard @ USGS Wier	0.08	10.31
Mill Creek @ Highway 112	0.07	6.49
Mill Creek @ iron bridge	0.04	13.22
Mill Creek @ Oakdale Road	0.06	5.49
Mill Creek @ Tower Road	0.04	16.42
Mill Creek Just above the confluence with Calcasieu	0.04	10.37
Marsh Bayou @ confluence of Calcasieu River	0.05	3.42
Marsh Bayou @ Marsh Bayou Road	0.08	22.92
Marsh Bayou @ Topsy Road	0.08	24.00
Marsh Bayou @ Welcome Road	0.06	12.19
Marsh Bayou Calcasieu River below confluence of Mars	0.05	3.48
Marsh Bayou Site 1 Duplicate	0.06	3.52
Indian Bayou - INDB1	0.04	9.87
Indian Bayou - INDB2	0.05	10.79
Indian Bayou - INDB3	0.09	11.41
Indian Bayou - INDB4	0.06	17.83
Indian Bayou - INDB5	0.08	10.98
Little River - LR1	0.04	9.34
Little River - LR2	0.03	15.44
Little River - LR3	0.03	11.29
Little River - LR4	0.04	14.61
Little River - LR5	0.03	13.78
Little River - LR7	0.03	22.10
FLCR1 / Flat Creek @ Hwy. 147	0.04	15.66
FLCR2 / Flat Creek @ Hwy. 127	0.03	14.71
FLCR3 / Flat Creek @ confluence with Castor Creek-~ 3 miles	0.05	8.75
BS10 / Bayou Serpent Upstream of confluence with Thompson Gul	0.03	10.25
BS12 / Bayou Serpent Upstream of the confluence with Little B	0.03	10.33
BS13 / Bayou Serpent Midway between Little Bayou and Unnamed	0.03	9.86
BS14 / Bayou Serpent @ Hwy. 383	0.03	9.36
BS16 / Bayou Serpent @ Hecker Rd.	0.04	8.83
BS18 / Bayou Serpent @ Segment boundary	0.04	7.65
BS19 / Bayou Serpent Bayou Alligator @ Lauderdale Rd (Hwy. 99	0.04	24.46
BS25 / Bayou Serpent Unnamed Trib 5 at Country Rd.	0.04	8.43
BS26 / Bayou Serpent Unnamed Trib 5 @ US Hwy. 165	0.04	9.84
BS27 / Bayou Serpent Cow Bayou @ Parish Line Rd.	0.04	7.82
BS29 / Bayou Serpent Little Bayou Upstream of Confluence with	0.06	12.04
BS3 / Bayou Serpent @ Neilson Rd.	0.05	9.25
BS5 / Bayou Serpent Upstream of weir	0.03	12.66
BS6 / Bayou Serpent @ Hwy. 3086 Downstream of the weir	0.03	12.12
BS8 / Bayou Serpent Bayou Serpent @ Upstream of US Hwy. 165	0.03	10.15

Sample No.	CBOD decay rate	UCBOD (mg/L)
DR10 / Dugdemona River Smurfit-Stone outfall canal sampling sit	0.05	37.90
DR12 / Dugdemona River @ LA 4 located W. of Jonesboro	0.03	20.91
DR13 / Dugdemona River @ Parish Rd. W of Evergreen Rd. S. of LA	0.03	13.83
DR14 / Dugdemona River @ LA 126 located just E of Brewtons Mill	0.03	11.15
DR15 / Dugdemona River @ Carter Crossing Rd. located off Hwy. 5	0.03	7.21
DR16 / Dugdemona River just past Restriction below Big Creek do	0.03	7.39
DR19 / Dugdemona River Cypress Creek in Jackson-Bienville Wildl	0.05	6.59
DR32 / Dugdemona River Little Dugdemona River @ Hwy. 167 betwee	0.05	9.07
DR41 / Dugdemona River Big Creek @ LA 505 SW of Dodson	0.05	11.13
DR5 / Dugdemona River @ Union Church Rd. (Parish Rd. 122)	0.03	6.72
DR6 / Dugdemona River located just W. of Quitman	0.04	7.12
DR7 / Dugdemona River located just W. of Hodge	0.05	9.32
DR9 / Dugdemona River "In canal, upstream of Smurfit-Stone outf"	0.04	135.26
DR25 / Dugdemona River Madden Creek/Redwine Creek @ Turner Rd.	0.03	6.72
CC1 / Castor Creek @ Hwy. 124 above spillway	0.03	9.58
CC2 / Castor Creek @ Hwy. 127	0.03	10.13
CC3 / Castor Creek @ Hwy. 506	0.03	9.19
CC4 / Castor Creek @ Hwy. 126	0.04	14.15
CC5 / Castor Creek @ Hwy. 846	0.03	16.37
CC6 / Castor Creek @ Hwy. 4	0.07	11.74
CC7 / Castor Creek @ Hwy. 34	0.03	14.85
CC8 / Castor Creek @ Chatham Cemetery Road	0.04	14.74
TC12 / Turkey Creek unnamed tributary at Main Street	0.14	7.79
TC13 / Turkey Creek Winnsboro Municipal POTW effluent ditch	0.11	2.95
TC15 / Turkey Creek Unnamed Trib #2 on Hwy. 865	0.10	2.25
TC19 / Turkey Creek Unnamed Trib at Dummy Line Rd.	0.07	7.67
TC2 / Turkey Creek @ Alice Shaw Rd.	0.08	8.35
TC4 / Turkey Creek @ Hwy. 15	0.10	4.52
TC6 / Turkey Creek @ Green Light Rd.	0.09	5.60
TC9 / Turkey Creek @ Hwy. 128	0.08	6.50
TC99 / Turkey Creek above dam	0.08	6.64
LBR202 / Lower Boeuf River End of Peckerwood Rd. off Hwy. 561	0.10	8.50
LBR204 / Lower Boeuf River Downstream of Muddy Bayou	0.07	13.41
LBR205 / Lower Boeuf River Downstream of Big Creek	0.11	7.98
LBR207 / Lower Boeuf River Downstream of Upper Goose Creek	0.11	12.98
LBR209 / Lower Boeuf River Upstream of Bayou Marengo	0.12	16.26
LBR211 / Lower Boeuf River Downstream of Bayou Lafourche Cutoff @ H	0.10	9.80
LBR214 / Lower Boeuf River Downstream of Lower Eagle Creek	0.08	6.70
LBR216 / Lower Boeuf River Downstream of Grassy and Big Grassy Bayo	0.08	5.47
LBR218 / Lower Boeuf River Downstream of Lower Goose Creek	0.09	5.76
LBR220 / Lower Boeuf River Downstream of Duck Creek	0.09	6.70
LBR222 / Lower Boeuf River Upstream of Turkey Creek	0.08	6.77
LBR224 / Lower Boeuf River Downstream of Deer Creek	0.08	5.83
LBR226 / Lower Boeuf River Dave's Bayou: Upstream from Boeuf River	0.11	8.60
LBR228 / Lower Boeuf River Big Creek: Upstream from Boeuf River	0.10	6.83
LBR229 / Lower Boeuf River Upper Goose Creek: Upstream from Boeuf	0.14	42.65
LBR231 / Lower Boeuf River Bayou Lafourche Cutoff: Upstream from B	0.10	6.52
LBR232 / Lower Boeuf River Lower Eagle Creek: Upstream from Boeuf	0.09	8.44
LBR233 / Lower Boeuf River Big Grassy Bayou: Upstream from Boeuf Ri	0.11	7.28
LBR234 / Lower Boeuf River Grassy Bayou: Upstream from Boeuf River	0.08	5.67
LBR237 / Lower Boeuf River Turkey Creek: Upstream from Boeuf River	0.08	7.44
LBR238 / Lower Boeuf River Deer Creek: Upstream from Boeuf River	0.09	11.19

Table H.1.

Sample No.	CBOD decay rate	UCBOD (mg/L)
HR1 / Houston River @ Edgerly Dequincy Rd.	0.04	11.96
HR2 / Houston River @ Hwy. 27 #1	0.05	19.88
HR2 / Houston River @ Hwy. 27 #2	0.05	19.16
HR3 / Houston River ~ 500 yds. above confluence of West Fork	0.09	14.03
HR4 / Houston River Buxton Creek on Route 66	0.04	9.77
BCH1 / Bear Head Creek @ Hwy. 110 SE of Merryville	0.05	15.60
BCH2 / Bear Head Creek @ Hwy. 109 SW of Singer	0.04	21.35
BCH3 / Bear Head Creek @ Hwy. 389 E of Fields	0.06	18.37
BCH4 / Bear Head Creek @ Green Island Rd. N of Starks	0.04	20.43
BCH5 / Bear Head Creek @ Hwy. 12 NE of Starks	0.05	21.49
BCH6 / Bear Head Creek @ Creek Rd.	0.04	14.90
BDS1 / Bayou Desiard Bayou Bartholomew @ Lake Bartholomew pum	0.05	5.12
BDS10 / Bayou Desiard Bayou Desiard @ Treasure Island Rd nr La	0.15	15.95
BDS11 / Bayou Desiard Bayou Desiard @ overflow to Bayou Chauvi	0.07	12.80
BDS13 / Bayou Desiard Bayou Desiard 200 ft to 300 ft downstrea	0.08	17.69
BDS14 / Bayou Desiard Bayou Desiard @ Stadium Dr	0.07	18.35
BDS15 / Bayou Desiard Bayou Desiard @ Phillips Bridge	0.07	13.17
BDS16 / Bayou Desiard Hog Bayou outlet from Bayou Desiard	0.06	11.91
BDS17 / Bayou Desiard Intake to the City of Monroe WTP	0.06	9.68
BDS2 / Bayou Desiard Bayou Bartholomew @ Lake Bartholomew lak	0.08	7.05
BDS20 / Bayou Desiard Control structure between Black Bayou La	0.06	17.95
BDS21 / Bayou Desiard Hannah Run @ the control structure betwe	0.07	14.04
BDS3 / Bayou Desiard Midpoint on Lake Bartholomew right fork	0.10	8.01
BDS4 / Bayou Desiard Midpoint on Lake Bartholomew left fork	0.07	9.69
BDS6 / Bayou Desiard Lake Bartholomew @ US 165 control struct	0.09	8.60
BDS7 / Bayou Desiard Bayou Desiard @ US 165 control structure	0.10	13.78
BDS8 / Bayou Desiard "Bayou Desiard @ LA 134 near Fairbanks, L"	0.11	17.41
BDS9 / Bayou Desiard Bayou Desiard @ Richland Drive off US 16	0.08	12.10
CL1 - N of Start, LA (Culverts at Conley Rd)	0.09	5.35
CL1 - N of Start, LA (Culverts at Conley Rd)	0.09	5.83
CL2 - N of Start, LA (@ Hwy 595 Bridge)	0.10	8.67
CL3 - W of Start, LA (on Crew Lake Loop Rd)	0.11	8.24
CL4 - Southwest of Start, LA (@ boat launch of	0.11	7.37
Big Creek Survey Site 1 (A)	0.05	10.09
Big Creek Survey Site 13 (A)	0.04	16.44
Big Creek Survey Site 3 (A)	0.04	9.66
Big Creek Survey Site 7 (A)	0.05	10.86
Big Creek Survey Site 1 (B)	0.06	8.13
Big Creek Survey Site 13 (B)	0.04	17.59
Big Creek Survey Site 3 (B)	0.06	9.21
Big Creek Survey Site 7 (B)	0.08	14.71
Median	**0.06**	**10.14**
Average	**0.06**	**12.63**
Maximum	**0.15**	**135.26**
Minimum	**0.03**	**2.25**
Standard Deviation	**0.03**	**12.04**

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Table H.1.

Table H.2. LDEQ intensive survey data for subsegments in the Ouachita and Calcasieu basins with at least 70% forest.

Subseg #	Sample No.	CBOD decay rate	UCBOD (mg/L)	Initial TOC (mg/L)	NBOD decay rate	UNBOD (mg/L)	Ratio CBODu / TOC
030401	Mill Creek @ Highway 112	0.07	6.49	6.10	0.06	1.20	1.06
	Mill Creek @ iron bridge	0.04	13.22	15.30	0.08	1.84	0.86
	Mill Creek @ Oakdale Road	0.06	5.49	7.80	0.06	0.80	0.70
	Mill Creek @ Tower Road	0.04	16.42	18.00	0.09	2.18	0.91
	Mill Creek Just above the confluence with Calcasieu	0.04	10.37	12.10	0.05	0.64	0.86
030807	BCH1 / Bear Head Creek @ Hwy. 110 SE of Merryville	0.05	15.60	10.80	0.18	1.42	1.44
	BCH2 / Bear Head Creek @ Hwy. 109 SW of Singer	0.04	21.35	15.90	0.06	1.05	1.34
	BCH3 / Bear Head Creek @ Hwy. 389 E of Fields	0.06	18.37	17.90	0.17	1.71	1.03
	BCH4 / Bear Head Creek @ Green Island Rd. N of Starks	0.04	20.43	20.10	0.06	1.61	1.02
	BCH5 / Bear Head Creek @ Hwy. 12 NE of Starks	0.05	21.49	16.40	0.13	1.53	1.31
	BCH6 / Bear Head Creek @ Creek Rd.	0.04	14.90	2.00	0.09	1.29	7.45
081501	CC1 / Castor Creek @ Hwy. 124 above spillway	0.03	9.58	12.10	0.09	0.62	0.79
	CC2 / Castor Creek @ Hwy. 127	0.03	10.13	11.80	0.03	1.17	0.86
	CC3 / Castor Creek @ Hwy. 506	0.03	9.19	14.00	0.15	0.84	0.66
	CC4 / Castor Creek @ Hwy. 126	0.04	14.15	15.30	0.09	1.76	0.92
	CC5 / Castor Creek @ Hwy. 846	0.03	16.37	16.10	0.11	0.92	1.02
	CC6 / Castor Creek @ Hwy. 4	0.07	11.74	14.40	0.17	2.04	0.82
	CC7 / Castor Creek @ Hwy. 34	0.03	14.85	14.70	0.18	0.67	1.01
	CC8 / Castor Creek @ Chatham Cemetery Road	0.04	14.74	14.50	0.04	0.58	1.02
081401	DR10 / Dugdemona River Smurfit-Stone outfall canal sampling sit	0.05	37.90	29.00	0.10	5.87	1.31
	DR12 / Dugdemona River @ LA 4 located W. of Jonesboro	0.03	20.91	26.90	0.06	1.39	0.78
	DR13 / Dugdemona River @ Parish Rd. W of Evergreen Rd. S. of LA	0.03	13.83	22.60	0.05	0.91	0.61
	DR14 / Dugdemona River @ LA 126 located just E of Brewtons Mill	0.03	11.15	21.70	0.09	0.78	0.51
	DR15 / Dugdemona River @ Carter Crossing Rd. located off Hwy. 5	0.03	7.21	15.40	0.03	0.67	0.47
	DR16 / Dugdemona River just past Restriction below Big Creek do	0.03	7.39	14.40	0.04	0.65	0.51
	DR19 / Dugdemona River Cypress Creek in Jackson-Bienville Wildl	0.05	6.59	6.60	0.04	0.89	1.00
	DR32 / Dugdemona River Little Dugdemona River @ Hwy. 167 betwee	0.05	9.07	2.00	0.07	1.33	4.53
	DR41 / Dugdemona River Big Creek @ LA 505 SW of Dodson	0.05	11.13	12.00	0.05	0.96	0.93
	DR5 / Dugdemona River @ Union Church Rd. (Parish Rd. 122)	0.03	6.72	2.00	0.04	0.52	3.36
	DR6 / Dugdemona River located just W. of Quitman	0.04	7.12	8.00	0.04	0.69	0.89
	DR7 / Dugdemona River located just W. of Hodge	0.05	9.32	8.00	0.03	0.87	1.16
	DR9 / Dugdemona River "In canal, upstream of Smurfit-Stone outf"	0.04	135.26	51.30	0.13	29.26	2.64
	DR25 / Dugdemona River Madden Creek/Redwine Creek @ Turner Rd.	0.03	6.72	7.50	0.03	0.85	0.90
081504	FLCR1 / Flat Creek @ Hwy. 147	0.04	15.66	20.30	0.04	3.79	0.77
	FLCR2 / Flat Creek @ Hwy. 127	0.03	14.71	15.70	0.05	1.18	0.94
	FLCR3 / Flat Creek @ confluence with Castor Creek-~ 3 miles	0.05	8.75	12.80	0.09	1.30	0.68
	Count	36	36	36	36	36	36
	Min	0.03	5.49	2.00	0.03	0.52	0.47
	Average	0.04	16.51	14.76	0.08	2.11	1.31
	Median	0.04	12.48	14.45	0.06	1.11	0.93
	Max	0.07	135.26	51.30	0.18	29.26	7.45

FILE: R:\PROJECTS\2110-616\TECH\LDEQ SURVEYS\NITRIFIC RATES\NBOD DATA 2001-RRB.XLS