APPENDIX A:
Point Source Discharge Information

Table A-1. Active point source discharge permit information A-1
Table A-2. Terminated point source discharge permits A-3

Table A-1. Active point source discharge permit information

AI	Permit #	Outfall	Outfall type	Facility name	Facility type	Expiration date	Receiving waterbody
1511	LAR05N807		MSGP stormwater	CP Louisiana, Inc.	Fab. Metal Prod. Exc. Mach. And Trans. Equip.	04/30/11	Lake Pontchartrain
1738	LA0036455	002	Process wastewater, washdown wastewater, boiler blowdown wastewater, cooling tower blowdown, and non-process area stormwater runoff	Bunge North America Inc - Destrehan Oilseed Processing Plant	Food And Kindred Products	07/31/15	Unnamed ditch-Lake Pontchartrain Drainage System
1738	LA0036455	003	Stormwater runoff	Bunge North America Inc - Destrehan Oilseed Processing Plant	Food And Kindred Products	07/31/15	Unnamed ditch-Lake Pontchartrain Drainage System
2212	LAG480332	001	Equipment washwater	Archer Daniel Midland Co - Destrehan Facility	Wholesale Trade-non-durable Goods	07/31/06	Canal to Lake Pontchartrain
3462	LA0054216	002	Non-process area stormwater runoff	Shell Chemical LP - St Rose Refinery	Chemicals And Allied Products	06/30/11	Open ditch-Lake Ponchartrain
26003	LAR10F112	002	Non-process area stormwater runoff, miscellaneous wastewaters including fire system test water, eye wash and safety shower water, and steam trap blowdown; and previously tested hydrostatic test wastewater from Internal Outfall 102	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Bayou Labranche
26003	LAR10F112	003	Non-process area, tank farm, and LPG storage area stormwater runoff; miscellaneous wastewaters including fire system test water, eye wash and safety shower water, and steam trap blowdown; and previously tested hydrostatic test wastewater from Internal Outfall 102	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Bayou Labranche
26003	LAR10F112	004	Non-process area, tank farm, and LPG storage area stormwater runoff; miscellaneous wastewaters including fire system test water, eye wash and safety shower water, and steam trap blowdown; and previously tested hydrostatic test wastewater from Internal Outfall 102	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Bayou Labranche

AI	Permit #	Outfall	Outfall type	Facility name	Facility type	Expiration date	Receiving waterbody
26003	LAR10F112	006	Non-process area, tank farm, and LPG storage area stormwater runoff; miscellaneous wastewaters including fire system test water, eye wash and safety shower water, and steam trap blowdown; and previously tested hydrostatic test wastewater from Internal Outfall 102	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Bayou Labranche
26003	LAR10F112	007	Non-process area, tank farm, and LPG storage area stormwater runoff; miscellaneous wastewaters including fire system test water, eye wash and safety shower water, and steam trap blowdown; and previously tested hydrostatic test wastewater from Internal Outfall 102	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Bayou Labranche
26003	LAR10F112	102	Hydrostatic test wastewater	Valero Refining Co - New Orleans LLC - St Charles Refinery	Petroleum Refining And Related Industries	11/30/14	Lake Pontchartrain Basin and Mississippi River Basin
31351	LAG380015	002	potable water treatment plant filter backwash, clarifier blowdown, water sofening, iron and manganese removal and disinfection of source water	St Charles Parish Waterworks Plant	Electric, Gas, And Sanitary Services	12/31/14	ditch to Bayou La Branche to Lake Ponchatrain
42682	LAG750441	001	Treated exterior vehicle and equipment wash wastewater	Doggett Machinery Services	General Agency Interest	06/14/14	Local drainage- St. Charles Canal
42761	WG040137	001	Treated groundwater and associated wastewaters	Pan American Life Insurance Co	General Agency Interest	05/17/00	Unnamed ditch-local drainage-Bayou Labranche
52404	LAR05M664		MSGP stormwater	B&C Auto Wreckers	Wholesale Trade-durable Goods	04/30/11	
122401	LAG750474	001	Exterior vehicle and equipment wash wastewater	Krystal Klear Carwash LLC	Automotive Repair, Services, And Parking	03/14/14	ditch to St. Charles Parish storm drain to Dunleth Canal to Swamp North hwy 61 to Lake Ponchatrain
123222	LAG750490	001	Exterior vehicle and equipment wash wastewater	Baron Express	Nonclassifiable Establishments	03/15/14	Sub-surface drainage-St. Charles Parish Burrows Canal-Cross Bayou Canal-Lake Pontchartrain
144369	LAG110174	001	Process wastewater	Standard Materials LLC - Robert Ready-Mix Plant	Stone, Clay, Glass, And Concrete Products	03/14/14	Effluent pipe-LA Highway 445 roadside ditch-Pole Bridge Branch-Washley Creek-Tangipahoa River

AI	Permit #	Outfall	Outfall type	Facility name	Facility type	Expiration date	Receiving waterbody
144369	LAG110174	005	Treated sanitary wastewater	Standard Materials LLC - Robert Ready-Mix Plant	Stone, Clay, Glass, And Concrete Products	03/14/14	Effluent pipe-LA Highway 445 roadside ditch-Pole Bridge Branch-Washley Creek-Tangipahoa River
145060	LAG750585	001	Exterior vehicle and equipment washwater	Sudsy's Car Wash	Automotive Repair, Services, And Parking	03/14/14	Parish drainage ditch to Walker Canal
146808	LAG750584	001	Exterior vehicle and equipment wash wastewater	Tony's Car Wash	Automotive Repair, Services, And Parking	03/14/14	River Rd ditch to Parish drainage ditch to Walker Canal to LakePontchartrain
147551	LAR10E264		Construction stormwater	REG Inc - St Rose Biodiesel Production Plant	Chemicals And Allied Products	09/30/14	Labranche wetlands to Lake Pontchartrain
168262	LAR10G076		Construction stormwater	Levee-Reach 2B from Good Hope to Cross Bayou Phase 2 LPV-05.2B - Phylway Const LLC	Nonclassifiable Establishments	12/08/14	ditch to Cross Bayou Canal to Bayou LaBranch to Lake Pontchartrain
170587	LAG533466	001	Treated sanitary wastewater	Metro Investment LLC - WWTP	Nonclassifiable Establishments	11/30/12	Airline HWY ditch to Cross Bayou Canal to Bayou Labranche
171552	LAR10G559		Construction stormwater	Cross Bayou Drainage Structure - Lakeshore Engineering Services	Nonclassifiable Establishments	09/30/14	

Table A-2. Terminated point source discharge permits

AI	Permit #	Facility name	Facility type	Expiration date
4885	LAR10F456	International Matex Tank Terminals - St Rose Terminal	Motor Freight Transportation And Warehousing	Terminated 08/02/2010
43756	LAR10B085	USArmy COE - Interstate-310 Floodwall	Heavy Construction Other Than Bldg. Constr.	Terminated
86250	LAR10B690	St Charles Parish Hurricane Protection Levee	Heavy Construction Other Than Bldg. Constr.	Terminated 4/26/02
115096	LAR10C306	LL&G Construction Inc - St Rose Drainage Structure	Nonclassifiable Establishments	Terminated 2/12/07
125584	LAR10C754	Riverbend Estates - Castjohn Home Construction LLC - Construction Only	Nonclassifiable Establishments	Terminated 6/9/08
158226	LAR10F143	Destrehan High School Athletic Facilities	Nonclassifiable Establishments	Terminated

APPENDIX B:
Monitoring Data Tables and Plots

Tables

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Figure B-3. Continuous specific conductivity data observed at LABR2. ..... B-3
Figure B-4. Continuous pH data observed at LABR2. ..... B-4

Table B-1. In situ data collected during the August 2009 intensive survey

Site ID	Site name	Date	Time	Depth (m)	Temp. (C)	DO (mg/L)	Specific Conductivity (µmhos/cm)	pH (su)	Secchi depth (m)
CROSS-1	Cross Bayou Canal on north side of control structure along US Highway 61	8/4/09	10:06	0.7	29.8	2.0	2688	6.7	0.61
CROSS-2	Cross Bayou Canal 0.57 mi downstream of CROS-1	8/4/09	11:46	0.1	31.5	3.7	2752	6.9	0.52
CROSS-3	Cross Bayou Canal 0.57 mi downstream of CROS-2	8/4/09	12:43	0.1	31.8	3.7	2758	6.9	0.36
CROSS-4	Cross Bayou Canal 0.57 mi downstream of CROS-3	8/4/09	15:19	0.1	32.7	5.3	2914	7.3	0.30
CROSS-5	Cross Bayou Canal 0.57 mi downstream of CROS-4	8/4/09	16:00	0.7	31.4	4.9	5127	7.3	0.30
LABR-1	Bayou Labranche 0.57 mi downstream of CROS-5	8/5/09	10:11	0.1	30.9	3.5	3490	7.0	0.30
TRAV-1	Bayou Traverse 0.1 mi upstream of Bayou Labranche	8/5/09	11:15	0.4	29.6	4.4		7.3	0.20
LABR-2	Bayou Labranche 0.57 mi downstream of LABR-1	8/6/09	12:00	0.1	32.8	6.5	5531	7.8	N/A
LABR-3	Bayou Labranche 0.57 mi downstream of LABR-2	8/6/09	11:40	0.1	32.0	5.2	5896	7.5	0.35
LABR-4	Bayou Labranche 0.57 mi downstream of LABR-3	8/6/09	11:25	0.1	31.9	5.6	5928	7.6	0.30
LABR-5	Bayou Labranche between I-10 twin bridges	8/6/09	8:48	1.1	31.7	3.7	7292	7.1	N/A
LABR-5-D	Lake Pontchartrain north of mouth of Bayou Labranche	8/6/09	10:05	1.1					
PONT-1	Cross Bayou Canal on north side of control structure along US Highway 61	8/6/09	10:41	0.3	31.2	5.4	7570	7.5	0.50

Table B-2. Water quality data from August 2009 intensive survey

Site ID	Date	Time	TKN (mg/L)	NH3 (mg/L)	NO2+ NO3 (mg/L)	Total Phos. (mg/L)	Ortho Phos. (mg/L)	Chloro-phyll a (µg/L)	TSS (mg/L)	TOC (mg/L)
CROSS-1	8/4/09	10:06	1.52	<0.10	<0.040	0.761	0.499	43	8	9.5
CROSS-5	8/4/09	16:00	2.88	<0.10	<0.040	0.701	0.388	75	39	8.5
TRAV-1	8/5/09	11:15	2.53	0.86	<0.040	0.878	0.508	75	59	16.3
LABR-5	8/6/09	8:48	1.26	0.17	0.041	0.427	0.336	44	32	4.4
LABR-5-D	8/6/09	10:05	1.56	0.12	<0.040	0.431	0.273	45	29	5.6
PONT-1	8/6/09	10:41	0.831	0.10	<0.040	0.332	0.225	21	18	4.4

Table B-3. CBOD monitoring results from August 2009 intensive survey

Site ID	Date	Time	CBOD Day 2 (mg/L)	CBOD Day 5 (mg/L)	CBOD Day 9 (mg/L)	CBOD Day 14 (mg/L)	CBOD Day 20 (mg/L)	CBOD Day 27 (mg/L)
CROSS-1	8/4/09	10:06	<2	3	13	21	31	39
CROSS-5	8/4/09	16:00	<2	3	6	8	12	15
TRAV-1	8/5/09	11:15	3	7	10	14	15	19
LABR-5	8/6/09	8:48	<2	2	4	6	7	9
LABR-5-D	8/6/09	10:05	<2	2	4	5	6	9
PONT-1	8/6/09	10:41	<2	2	4	6	6	8

Table B-4. Available data for station 304 (Bayou Labranche north of Norco, Louisiana)

Parameter	Period of record	No. of Obs.	Minimum	Maximum	Average
dissolved oxygen (mg/L)	2/4/91–5/4/10	76	0.32	11.62	5.86
nitrite+nitrate (mg/L)	2/4/91–5/4/10	61	0.02	0.59	0.13
total Kejldahl nitrogen (mg/L)	2/4/91–5/4/10	74	0.03	12.3	1.45
total phosphorus (mg/L)	2/4/91–5/4/10	73	0.01	0.85	0.31
water temperature **(°C)**	2/4/91–5/4/10	77	3.67	31.8	20.5

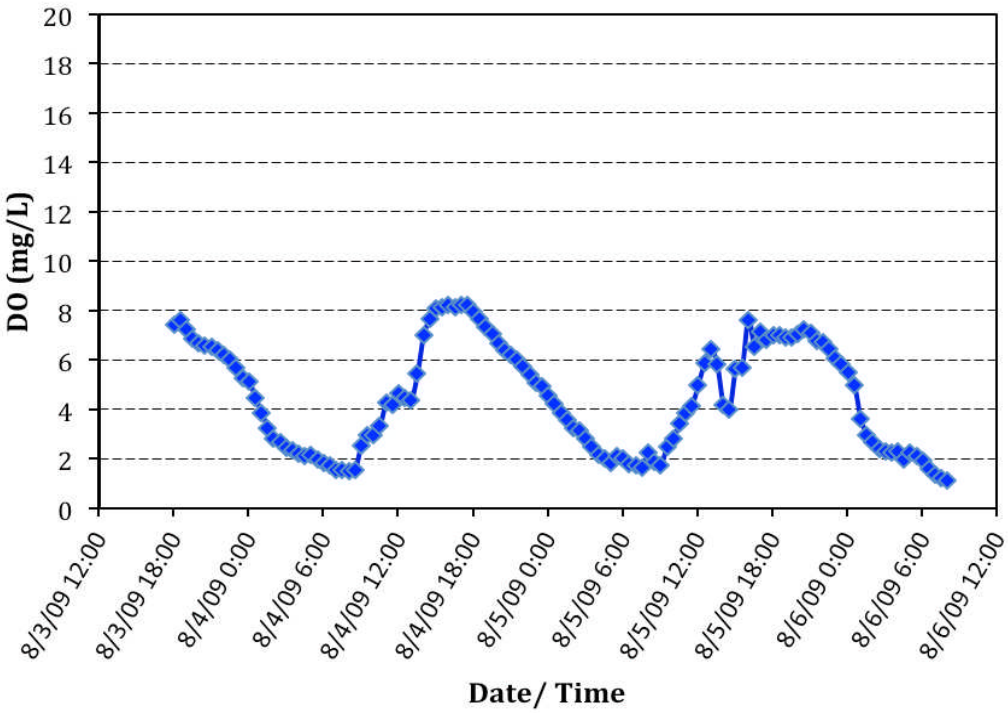

Figure B-1. Continuous dissolved oxygen data observed at LABR2.

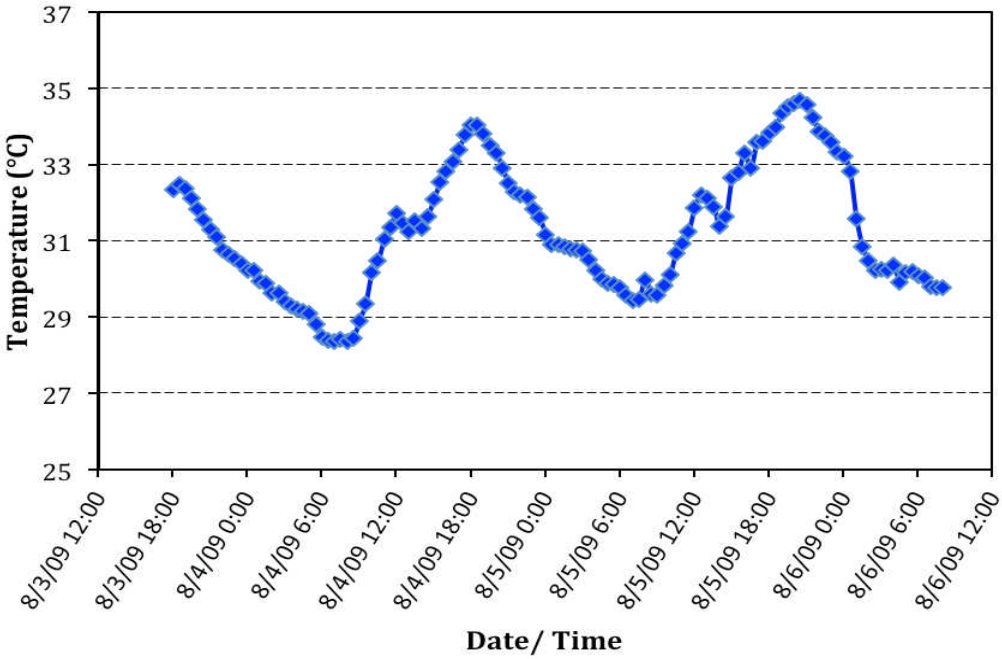

Figure B-2. Continuous temperature data observed at LABR2.

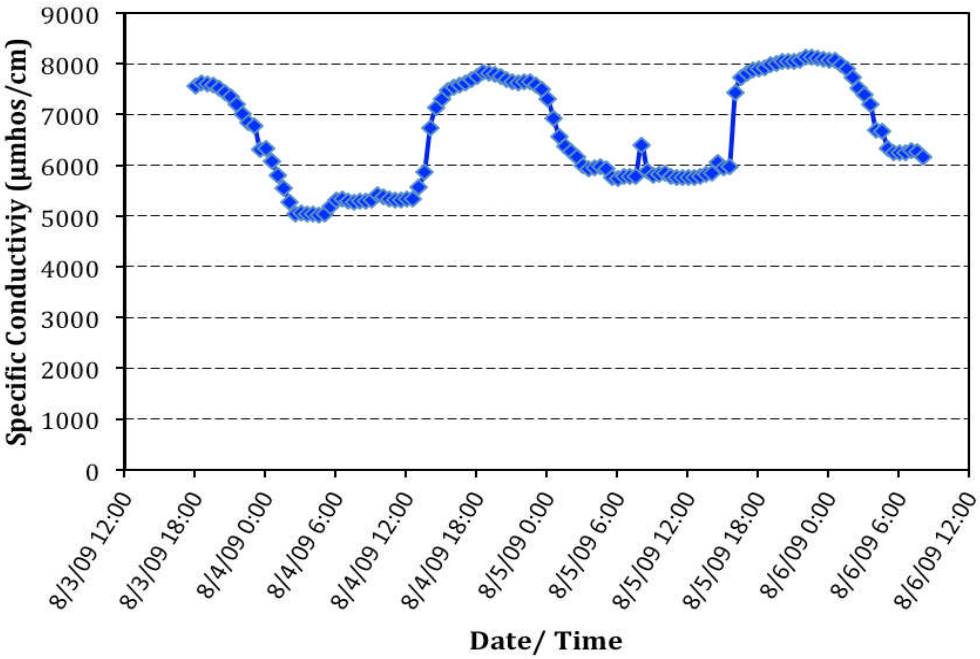

Figure B-3. Continuous specific conductivity data observed at LABR2.

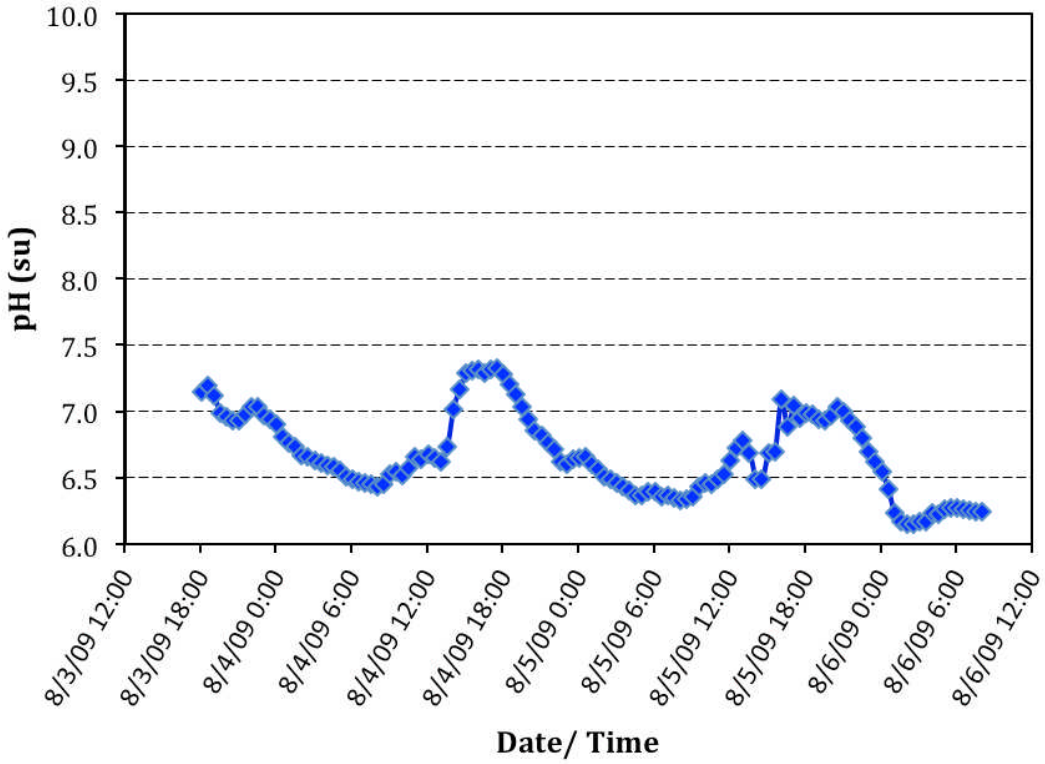

Figure B-4. Continuous pH data observed at LABR2.

APPENDIX C:
Field Survey Notes
(CD-ROM)

This appendix contains large files, which are provided only on a CD-ROM. To obtain a copy of this appendix, please contact EPA.

APPENDIX D:
Model Vector Diagrams

Figure D-1. Vector diagram for subsegment 041201.....D-1

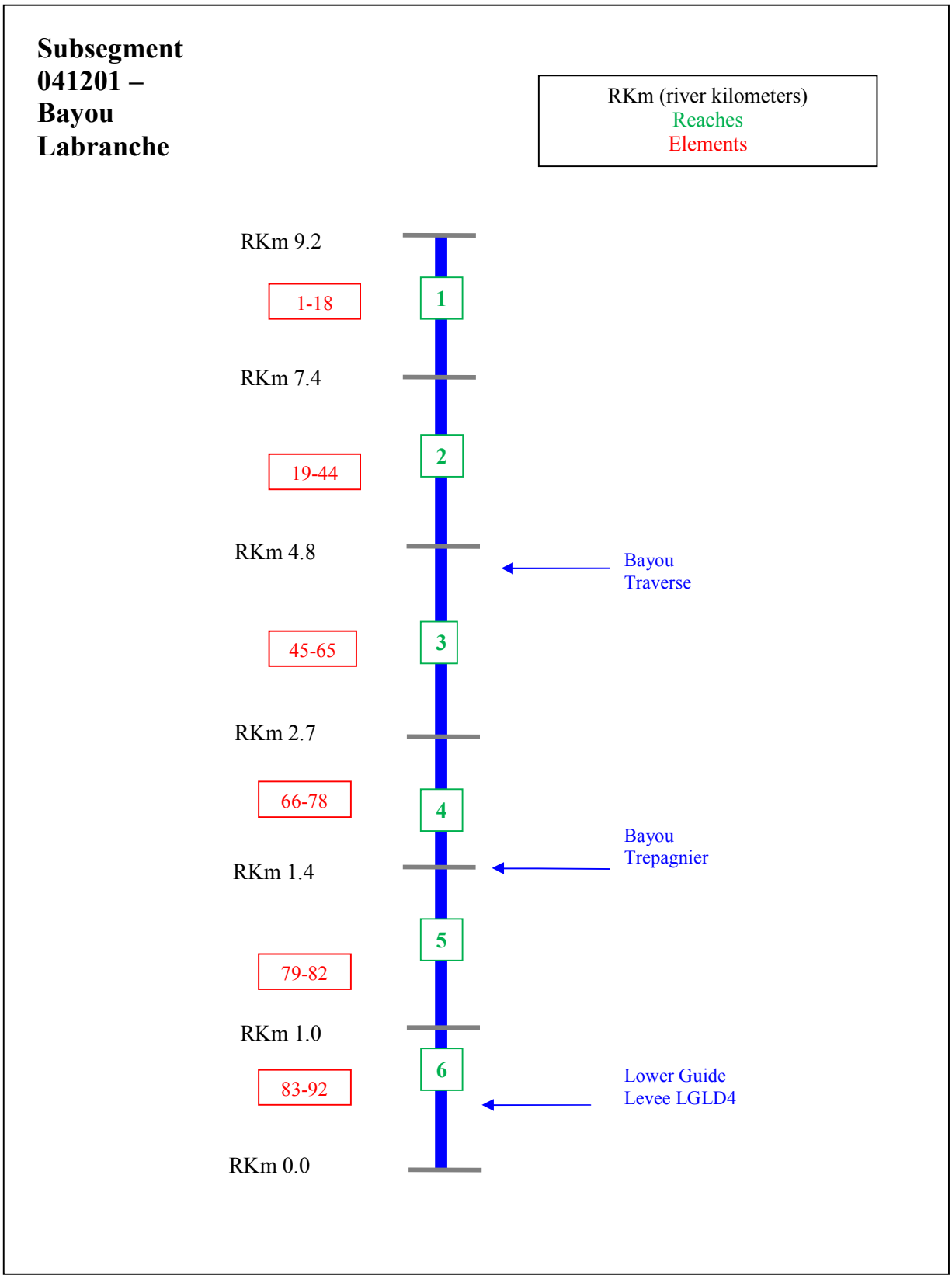

Figure D-1. Vector diagram for subsegment 041201.

APPENDIX E:
Model Calibration Output File

```
LA-QUAL Version 9.05
Louisiana Department of Environmental Quality

LA-QUAL Version 9.05
Louisiana Department of Environmental Quality

Input file is E:\EPA_R06\LA TMDL 2006\Phase IV (Lake P)\DO Models\041202_0401201(Trepagnier_Labrache)\Labranche_Calib_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 14:35 on 11/20/2011

$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Model for Bayou LaBranche Watershed
TITLE02         Calibration Simulation with Algal Dynamics
CONTROL   YES   METRIC UNITS
ENDATA01

$$$ DATA TYPE 2 (MODEL OPTIONS) $$$

CARD TYPE       MODEL OPTION

MODOPT01  YES   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03  YES   CONSERVATIVE MATERIAL #1   CONDUCTIVITY          UNITS = umhos/cm Conduct
MODOPT04   NO   CONSERVATIVE MATERIAL #2                         UNITS =mg/L
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09  YES   PHOSPHORUS
MODOPT10  YES   CHLOROPHYLL A
MODOPT11   NO   MACROPHYTES
MODOPT12   NO   COLIFORMS
MODOPT13   NO   NONCONSERVATIVE MATERIAL                         UNITS =
ENDATA02

$$$ DATA TYPE 3 (PROGRAM CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

PROGRAM         HYDRAULIC CALCULATION METHOD       =         2.00000 (widths and depths)
PROGRAM         INHIBITION CONTROL VALUE           =         3.00000 (inhibit all rates but SOD)
PROGRAM         BOD OXYGEN UPTAKE RATE             =         1.00000 mg O/mg BOD
PROGRAM         DISPERSION EQUATION                =         1.00000 (values entered as a constant)
PROGRAM         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.06000 meters
PROGRAM         TIDAL PERIOD                       =        12.00000 hours
PROGRAM         PERIOD OF TIDAL RISE               =         6.00000 hours
ENDATA03

$$$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

$$$ CONSTANTS TYPE 5 (TEMPERATURE DATA) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

PROGRAM         ELEVATION                                     60.96000 meters above MSL
ENDATA05

$$$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE
```

```
PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg O/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg O/mg algae
PROGRAM         C CONTENT                                   0.40000 mg C/mg algae
PROGRAM         N CONTENT                                   0.08500 mg N/mg algae
PROGRAM         P CONTENT                                   0.01300 mg P/mg algae
PROGRAM         N HALF SATURATION CONSTANT                  0.30000 mg/L N
PROGRAM         P HALF SATURATION CONTSTANT                 0.04000 mg/L P
PROGRAM         LIGHT SATURATION CONSTANT                  30.00000 Langleys/hr
PROGRAM         L OPTION                                    3.00000 (Steel Equation)
PROGRAM         COEF LINEAR SELF-SHADING                    0.00800
PROGRAM         COEF NONLINEAR SELF-SHADING                 0.05400
PROGRAM         EXP NONLINEAR SELF-SHADING                  0.66700
PROGRAM         N OPTION                                    1.00000 (Harmonic Mean)
ENDATA06

$$$ DATA TYPE 7 (PERIPHYTON CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                      BEGIN        END     ELEM    REACH     ELEMS   BEGIN    END
CARD TYPE  REACH  ID  NAME                            REACH       REACH   LENGTH   LENGTH   PER RCH   ELEM   ELEM
                                                         km          km       km       km               NUM    NUM

REACH ID      1   C1  Cross Bayou Canal 1              9.20  TO    7.40   0.1000     1.80        18      1     18
REACH ID      2   C2  Cross Bayou Canal 2              7.40  TO    5.20   0.1000     2.20        22     19     40
REACH ID      3   L4  Bayou LaBranche (CBC to LABR3)   5.20  TO    4.50   0.1000     0.70         7     41     47
REACH ID      4   L4  Bayou LaBranche (CBC to LABR3)   4.50  TO    2.70   0.1000     1.80        18     48     65
REACH ID      5   L3  Bayou LaBranche (LABR3 to BT)    2.70  TO    1.40   0.1000     1.30        13     66     78
REACH ID      6   L2  Bayou LaBranche (BT to LGLD)     1.40  TO    1.00   0.1000     0.40         4     79     82
REACH ID      7   L1  Bayou LaBranche (LGLD to LP)     1.00  TO    0.00   0.1000     1.00        10     83     92
ENDATA08

$$$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID       WIDTH       WIDTH       WIDTH       DEPTH       DEPTH       DEPTH      SLOPE    MANNINGS
                            "A"         "B"         "C"         "D"         "E"         "F"                  "N"

HYDR-1        1   C1       0.000       0.000      15.540       0.000       0.000       0.823    0.00010    0.000
HYDR-1        2   C2       0.000       0.000      18.590       0.000       0.000       0.488    0.00010    0.000
HYDR-1        3   L4       0.000       0.000      18.000       0.000       0.000       0.500    0.00010    0.000
HYDR-1        4   L4       0.000       0.000      18.290       0.000       0.000       0.732    0.00010    0.000
HYDR-1        5   L3       0.000       0.000      20.760       0.000       0.000       0.732    0.00010    0.000
HYDR-1        6   L2       0.000       0.000      24.080       0.000       0.000       1.994    0.00010    0.000
HYDR-1        7   L1       0.000       0.000      34.080       0.000       0.000       1.994    0.00010    0.000
ENDATA09

$$$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) $$$

CARD TYPE  REACH  ID     TIDAL     DISPERSION     DISPERSION     DISPERSION     DISPERSION
                        RANGE        "A"            "B"            "C"            "D"

HYDR          1   C1      1.00       1.500          0.000          0.000          0.000
HYDR          2   C2      1.00       1.500          0.000          0.000          0.000
HYDR          3   L4      1.00       1.500          0.000          0.000          0.000
HYDR          4   L4      1.00       1.500          0.000          0.000          0.000
HYDR          5   L3      1.00       1.500          0.000          0.000          0.000
HYDR          6   L2      1.00       1.500          0.000          0.000          0.000
HYDR          7   L1      1.00       1.500          0.000          0.000          0.000
ENDATA10

$$$ DATA TYPE 11 (INITIAL CONDITIONS) $$$

CARD TYPE      REACH  ID     TEMP    SALIN       DO    NH3-N    NO3-N    PO4-P    CHL A    PERIP     BOD1     BOD2    ORG-N    ORG-P     COLI      NCM  Conduct     CM-2
                            deg C      ppt     mg/L     mg/L     mg/L     mg/L     µg/L     g/m²     mg/L     mg/L     mg/L     mg/L  #/100mL           umhos/cm      g/L
```

```
INITIAL          1   C1    30.70     0.00     2.85     0.10     0.04     0.50    43.00     0.00    39.00     0.00     1.42     0.26     0.00     0.00  2688.00  2688.00
INITIAL          2   C2    32.10     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          3   L4    32.10     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          4   L4    32.40     0.00     5.85     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5531.00  5531.00
INITIAL          5   L3    31.90     0.00     5.20     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5928.00  5928.00
INITIAL          6   L2    31.70     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
INITIAL          7   L1    31.70     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$
                                                                                AEROB                SETTLD     ANAER     AEROB                          ANAER      BOD2
CARD     RCH  RCH  K2                    K2        K2        K2    BKGRND       BOD       BOD       SOD       BOD      BOD2      BOD2                   BOD2   HYDR TO
TYPE     NUM   ID  OPT                  "A"       "B"       "C"       SOD     DECAY      SETT     AVAIL     DECAY     DECAY      SETT                  DECAY      BOD1
                                                                     g/m²/d   per day       m/d      frac   per day   per day       m/d                per day   per day

COEFF-1    1   C1  15 LOUISIANA        0.000     0.000     0.000     1.000     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    2   C2  15 LOUISIANA        0.000     0.000     0.000     1.000     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    3   L4   5 THACKSTON-KR     0.000     0.000     0.000     3.000     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    4   L4   5 THACKSTON-KR     0.000     0.000     0.000     0.500     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    5   L3   5 THACKSTON-KR     0.000     0.000     0.000     0.500     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    6   L2   5 THACKSTON-KR     0.000     0.000     0.000     1.000     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    7   L1   5 THACKSTON-KR     0.000     0.000     0.000     2.000     0.100     0.200     0.000     0.000     0.000     0.000                  0.000     0.000
ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$
                                                  SETTLD                BKGRND    BKGRND                                      SETTLD
CARD TYPE      REACH  ID       ORG-N     ORG-N      ORGN       NH3       NH3       PO4     DENIT      ORGP      ORGP      ORGP
                                DECA      SETT     AVAIL      DECA      SRCE      SRCE      RATE      DECA      SETT     AVAIL
                            per day       m/d      frac   per day    g/m²/d    g/m²/d   per day   per day       m/d      frac

COEFF-2          1   C1       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          2   C2       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          3   L4       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          4   L4       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          5   L3       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          6   L2       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
COEFF-2          7   L1       0.100     0.500     0.000     0.120     0.000     0.000     0.020     0.050     1.000     0.000
ENDATA13

$$$ DATA TYPE 14 (ALGAE PHYTOPLANKTON AND PERIPHYTON COEFFICIENTS) $$$
                                                                     MAX                                   MAX
CARD TYPE      REACH  ID      SECCHI    CHL A:     PHYTO     PHYTO     PHYTO     PHYTO     PERIP     PERIP     PERIP      BANK
                              DEPTH     ALGAE      SETT     DEATH      GROW      RESP     DEATH      GROW      RESP   SHADING
                                  m      frac       m/d   per day   per day   per day   per day   per day   per day      frac

COEFF-3          1   C1       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          2   C2       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          3   L4       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          4   L4       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          5   L3       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          6   L2       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
COEFF-3          7   L1       0.200     0.010     0.020     0.020     2.000     0.040     0.000     0.000     0.000     0.000
ENDATA14

$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM
                            DIE-OFF     DECAY      SETT
                            per day   per day       m/d

ENDATA15

$$$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE      REACH  ID       OUTFLOW      INFLOW      TEMP     SALIN   Conduct      CM-2   IN/DIST  OUT/DIST
                                  m³/s        m³/s     deg C       ppt  umhos/cm       g/L
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ENDATA16

$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE      REACH  ID          DO      BOD1     ORG-N     NH3-N     NO3-N      BOD2
                                mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) $$$
                                          PHYTO
 CARD TYPE      REACH  ID         PO4     CHL A      COLI       NCM      ORGP
                                mg/L      µg/L   #/100mL                 mg/L

ENDATA18

$$$ DATA TYPE 19 (NONPOINT SOURCE DATA) $$$

CARD TYPE      REACH  ID        BOD1     ORG-N      COLI       NCM        DO      BOD2     ORG-P
                                kg/d      kg/d     #/day                 kg/d      kg/d      kg/d

NONPOINT          1   C1        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          2   C2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          3   L4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          4   L4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          5   L3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          6   L2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT          7   L1        0.00      0.00      0.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$
                                                                                                  HDW DISP
CARD TYPE     ELEMENT   NAME                  UNIT     FLOW       FLOW    TEMP    SALIN   Conduct      CM-2     EXCHG
                                                        m³/s        cfs   deg C      ppt  umhos/cm       g/L      frac

HDWTR-1           1     Cross Bayou Canal       0   0.37000   13.06497   29.80     0.00  2688.000  2688.000     0.000
ENDATA20

$$$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE     ELEMENT   NAME                          DO     BOD#1     ORG-N     NH3-N     NO3-N      BOD2
                                                     mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     Cross Bayou Canal           2.00     39.00      1.52      0.10      0.04     39.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, PHYTOPLANKTON, COLIFORM, AND NONCONSERVATIVES) $$$
                                                                PHYTO
CARD TYPE     ELEMENT   NAME                        PO4-P     CHL A      COLI       NCM     ORG-P
                                                     mg/L      µg/L   #/100mL                 mg/L

HDWTR-3           1     Cross Bayou Canal            0.50     43.00      0.00      0.00      0.26
ENDATA22

$$$ DATA TYPE 23 (JUNCTION DATA) $$$

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

$$$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) $$$

CARD TYPE  ELEMENT    RKILO  NAME                      FLOW       FLOW     FLOW    TEMP    SALIN   Conduct      CM-2
                                                        m³/s        cfs      MGD   deg C      ppt  umhos/cm       g/L

WSTLD-1        1       9.20  LAG533466              0.00001    0.00035    0.000   30.00     0.00     0.000     0.000
WSTLD-1       47       4.60  Bayou Traverse         0.17000    6.00282    3.880   30.00     0.00  3490.000  3490.000
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WSTLD-1       78       1.50  Bayou Trepagnier       0.17000    6.00282    3.880   30.00     0.00  7292.000  7000.000
WSTLD-1       88       0.50  LGLD4                  0.17000    6.00282    3.880   34.60     0.00  7969.000  7969.000
ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                        % BOD                          %
CARD TYPE     ELEMENT   NAME                          DO       BOD      RMVL     ORG-N     NH3-N    NITRIF     NO3-N      BOD2
                                                     mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2           1     LAG533466                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      0.00
WSTLD-2          47     Bayou Traverse              4.40     19.00      0.00      7.50      0.86      0.00      0.04      0.00
WSTLD-2          78     Bayou Trepagnier            5.60      9.00      0.00      7.50      0.17      0.00      0.04      0.00
WSTLD-2          88     LGLD4                       5.90      9.00      0.00      1.10      0.90      0.00      0.04      0.00
ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, PHYTOPLANTON, COLIFORM, AND NONCONSERVATIVES) $$$
                                                                PHYTO
CARD TYPE     ELEMENT   NAME                        PO4-P     CHL A      COLI       NCM     ORG-P
                                                     mg/L      µg/L   #/100mL                mg/L

WSTLD-3           1     LAG533466                   0.34     10.00      0.00      0.00      0.09
WSTLD-3          47     Bayou Traverse              0.51     75.00      0.00      0.00      0.37
WSTLD-3          78     Bayou Trepagnier            0.34     23.00      0.00      0.00      0.09
WSTLD-3          88     LGLD4                       0.20     23.00      0.00      0.00      0.20
ENDATA26

$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                    CONCENTRATION

LOWER BC     TEMPERATURE                       =     31.200     deg C
LOWER BC     SALINITY                          =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I           =   7570.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                  =      5.400     mg/L
LOWER BC     BIOCHEMICAL OXYGEN DEMAND         =      8.000     mg/L
LOWER BC     BOD2 BIOCHEMICAL OXYGEN DEMAND    =      8.000     mg/L
LOWER BC     ORGANIC NITROGEN                  =      0.730     mg/L
LOWER BC     AMMONIA NITROGEN                  =      0.100     mg/L
LOWER BC     NITRATE + NITRITE                 =      0.040     mg/L
LOWER BC     PO4 PHOSPHORUS                    =      0.225     mg/L
LOWER BC     ORG PHOSPHORUS                    =      0.107     mg/L
LOWER BC     CHLOROPHYLL A                     =     21.000     µg/L
ENDATA27

$$$ DATA TYPE 28 (DAM DATA) $$$

CARD TYPE     ELEMENT   NAME                 EQN      "A"       "B"       "H"

ENDATA28

$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$

CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8

ENDATA29

$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$

NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   7
PLOT RCH  1  2  3  4  5  6  7
ENDATA30

$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$

OVERLAY 1 CBBL.ovl                        :Cross Bayou & Bayou LaBranche
ENDATA31
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     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....TEMPERATURE CONVERGENT IN    2 ITERATIONS

 DAY OF YEAR                          = July **
 SUNRISE (add 1 hr if DLS in effect)  = 05:34a
 SUNSET (add 1 hr if DLS in effect)   = 07:37p
 NUMBER OF DAYLIGHT HOURS             =     14.05 HOURS
 DRY BULB TEMPERATURE                 =      20.0 DEG C ( 68.0 DEG F)
 WET BULB TEMPERATURE                 =      20.0 DEG C ( 68.0 DEG F)
 DEWPOINT                             =      20.0 DEG C  ( 68.0 DEG F)
 HUMIDITY                             =     100.0 PERCENT
 WIND VEOCITY                         =      0.00 METERS/SEC
 ELEVATION                            =     60.96 METERS (  200.0 FEET)
 ATMOSPHERIC PRESSURE                 =   1013.25 MILLIBARS
 ATMOSPHERIC VAPOR PRESSURE           =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT DRY BULB TEMP  =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT WET BULB TEMP  =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT WATER TEMP     =     42.29 TO     50.57 MILLIBARS
 WATER DENSITY                        =    994.64 TO    995.72 KILOGRAMS/CUBIC METER
 LATENT HEAT OF VAPORIZATION          =    577.86 TO    579.58 KILOCALORIES/KILOGRAM
 WATER TEMPERATURE                    =      29.9 TO      33.1 DEGREES C

 SOLAR CONSTANT                       =    2851.2 LANGLEYS/DAY
 SOLAR RADIATION AT TOP OF ATMOSPHERE =     990.7 LANGLEYS/DAY
 NET SOLAR RADIATION BEFORE SHADING   =     691.2 LANGLEYS/DAY

 NET SOLAR RADIATION AFTER SHADING    =     691.2 TO     691.2 LANGLEYS/DAY
 NET ATMOSPHERIC RADIATION            =     674.9              LANGLEYS/DAY
 BACK RADIATION FROM WATER SURFACE    =    -996.6 TO    -956.2 LANGLEYS/DAY
 EVAPORATIVE HEAT EXCHANGE            =    -229.7 TO    -160.5 LANGLEYS/DAY
 CONDUCTIVE HEAT EXCHANGE             =     -68.4 TO     -52.1 LANGLEYS/DAY
 TOTAL NET FLUX AT AIR-WATER INTERFACE =     71.4 TO     197.3 LANGLEYS/DAY

     .....PHOTOSYNTHETIC RATES CONVERGENT IN   12 ITERATIONS
     .....OXYGEN DEPENDENT RATES CONVERGENT IN    1 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

INTERMEDIATE REPORT
 Dissolved Oxygen                                          LA-QUAL Model for Bayou LaBranche Watershed
     mg/L                                                  Calibration Simulation with Algal Dynamics
```

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	2.11	2.19	2.26	2.33	2.40	2.46	2.53	2.59	2.66	2.72
C1	1	11	2.78	2.84	2.89	2.95	3.01	3.06	3.13	3.21		
C2	2	19	3.38	3.55	3.71	3.85	3.99	4.11	4.23	4.33	4.43	4.52
C2	2	29	4.61	4.69	4.76	4.82	4.89	4.94	5.00	5.04	5.09	5.12
C2	2	39	5.14	5.10								
L4	3	41	4.83	4.57	4.32	4.10	3.90	3.78	3.87			
L4	4	48	3.94	4.00	4.07	4.13	4.20	4.26	4.32	4.38	4.45	4.51
L4	4	58	4.57	4.63	4.68	4.74	4.80	4.86	4.92	4.97		
L3	5	66	5.04	5.10	5.16	5.22	5.28	5.34	5.40	5.46	5.51	5.56
L3	5	76	5.61	5.63	5.56							
L2	6	79	5.40	5.25	5.09	4.88						
L1	7	83	4.63	4.42	4.24	4.10	4.02	4.05	3.96	3.95	4.08	4.49

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INTERMEDIATE REPORT
 Effective BOD1                                            LA-QUAL Model for Bayou LaBranche Watershed
     mg/L                                                  Calibration Simulation with Algal Dynamics
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ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	38.10	37.51	36.94	36.37	35.81	35.27	34.73	34.20	33.68	33.17
C1	1	11	32.67	32.18	31.70	31.22	30.76	30.30	29.86	29.45		
C2	2	19	29.03	28.61	28.18	27.77	27.37	26.97	26.58	26.20	25.83	25.46

C2	2	29	25.10	24.75	24.40	24.06	23.73	23.40	23.08	22.77	22.46	22.16
C2	2	39	21.86	21.58								
L4	3	41	21.30	21.03	20.77	20.54	20.41	20.61	22.05			
L4	4	48	21.86	21.68	21.51	21.33	21.17	21.00	20.84	20.68	20.53	20.38
L4	4	58	20.23	20.09	19.95	19.81	19.67	19.54	19.41	19.28		
L3	5	66	19.14	19.00	18.87	18.75	18.62	18.50	18.39	18.27	18.15	18.02
L3	5	76	17.81	17.37	16.12							
L2	6	79	15.88	15.69	15.47	15.23						
L1	7	83	14.96	14.71	14.45	14.15	13.79	13.32	12.97	12.48	11.69	10.36

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	33.48	32.88	32.28	31.70	31.12	30.56	30.00	29.45	28.91	28.38
C1	1	11	27.86	27.34	26.84	26.34	25.85	25.38	24.91	24.47		
C2	2	19	24.03	23.56	23.10	22.65	22.21	21.78	21.36	20.94	20.53	20.13
C2	2	29	19.73	19.34	18.96	18.59	18.22	17.86	17.51	17.16	16.82	16.49
C2	2	39	16.16	15.84								
L4	3	41	15.54	15.24	14.95	14.68	14.47	14.51	15.41			
L4	4	48	15.18	14.95	14.73	14.52	14.30	14.09	13.88	13.68	13.48	13.28
L4	4	58	13.08	12.89	12.70	12.51	12.32	12.14	11.96	11.77		
L3	5	66	11.57	11.38	11.19	11.00	10.81	10.63	10.46	10.28	10.11	9.94
L3	5	76	9.76	9.55	9.24							
L2	6	79	8.99	8.78	8.56	8.32						
L1	7	83	8.06	7.84	7.64	7.47	7.35	7.30	7.09	6.87	6.61	6.26

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.10	1.06	1.02	0.99	0.96	0.92	0.89	0.86	0.83	0.81
C1	1	11	0.78	0.75	0.73	0.70	0.68	0.65	0.63	0.61		
C2	2	19	0.59	0.57	0.54	0.52	0.50	0.48	0.46	0.45	0.43	0.41
C2	2	29	0.40	0.38	0.37	0.35	0.34	0.32	0.31	0.30	0.29	0.28
C2	2	39	0.27	0.26								
L4	3	41	0.25	0.24	0.24	0.26	0.36	0.77	2.39			
L4	4	48	2.32	2.25	2.19	2.13	2.07	2.01	1.95	1.90	1.84	1.79
L4	4	58	1.74	1.69	1.64	1.59	1.55	1.50	1.46	1.42		
L3	5	66	1.37	1.32	1.28	1.24	1.20	1.16	1.12	1.09	1.06	1.05
L3	5	76	1.11	1.37	2.39							
L2	6	79	2.29	2.21	2.12	2.02						
L1	7	83	1.92	1.83	1.74	1.65	1.55	1.44	1.36	1.27	1.13	0.92

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.46	1.43	1.40	1.36	1.33	1.30	1.27	1.24	1.21	1.19
C1	1	11	1.16	1.14	1.11	1.09	1.07	1.05	1.03	1.01		
C2	2	19	0.99	0.97	0.95	0.93	0.91	0.90	0.88	0.86	0.85	0.84
C2	2	29	0.82	0.81	0.80	0.79	0.78	0.77	0.76	0.75	0.74	0.73
C2	2	39	0.72	0.71								
L4	3	41	0.71	0.70	0.70	0.72	0.83	1.25	2.92			
L4	4	48	2.85	2.79	2.73	2.67	2.61	2.56	2.50	2.45	2.40	2.35
L4	4	58	2.31	2.26	2.22	2.17	2.13	2.09	2.05	2.01		
L3	5	66	1.97	1.93	1.89	1.86	1.82	1.79	1.76	1.73	1.70	1.70
L3	5	76	1.75	2.00	2.94							
L2	6	79	2.84	2.76	2.67	2.57						
L1	7	83	2.47	2.37	2.28	2.18	2.06	1.92	1.83	1.71	1.53	1.24

INTERMEDIATE REPORT

Ammonia Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12
C1	1	11	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.12		
C2	2	19	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11
C2	2	29	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09
C2	2	39	0.08	0.08								
L4	3	41	0.08	0.08	0.08	0.08	0.09	0.14	0.32			
L4	4	48	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33
L4	4	58	0.33	0.33	0.32	0.32	0.32	0.32	0.32	0.32		
L3	5	66	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.29	0.29	0.29
L3	5	76	0.28	0.28	0.27							
L2	6	79	0.29	0.30	0.31	0.33						
L1	7	83	0.34	0.36	0.37	0.39	0.42	0.45	0.44	0.42	0.37	0.27

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
C1	1	11	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04		
C2	2	19	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
C2	2	29	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03
C2	2	39	0.03	0.03								
L4	3	41	0.03	0.03	0.03	0.03	0.03	0.03	0.03			
L4	4	48	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
L4	4	58	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07		
L3	5	66	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08
L3	5	76	0.08	0.08	0.08							
L2	6	79	0.09	0.09	0.10	0.11						
L1	7	83	0.12	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.13	0.10

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.24	1.21	1.17	1.14	1.11	1.08	1.05	1.02	1.00	0.97
C1	1	11	0.94	0.92	0.89	0.87	0.84	0.82	0.80	0.78		
C2	2	19	0.75	0.73	0.71	0.68	0.66	0.64	0.62	0.60	0.58	0.56
C2	2	29	0.54	0.52	0.50	0.49	0.47	0.45	0.44	0.42	0.41	0.40
C2	2	39	0.38	0.37								
L4	3	41	0.36	0.35	0.34	0.36	0.47	0.93	2.75			
L4	4	48	2.68	2.62	2.55	2.50	2.44	2.38	2.33	2.27	2.22	2.17
L4	4	58	2.12	2.07	2.02	1.98	1.93	1.89	1.84	1.80		
L3	5	66	1.75	1.71	1.66	1.62	1.58	1.54	1.50	1.47	1.44	1.42
L3	5	76	1.47	1.74	2.74							
L2	6	79	2.66	2.60	2.53	2.46						
L1	7	83	2.38	2.31	2.24	2.18	2.11	2.03	1.95	1.82	1.63	1.29

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.61	1.58	1.55	1.51	1.48	1.46	1.43	1.40	1.38	1.35
C1	1	11	1.33	1.30	1.28	1.26	1.23	1.21	1.19	1.17		
C2	2	19	1.15	1.13	1.11	1.09	1.07	1.05	1.03	1.01	1.00	0.98
C2	2	29	0.97	0.95	0.94	0.92	0.91	0.89	0.88	0.87	0.86	0.85
C2	2	39	0.84	0.83								
L4	3	41	0.82	0.81	0.81	0.83	0.95	1.42	3.27			

L4	4	48	3.21	3.15	3.09	3.04	2.98	2.93	2.88	2.83	2.78	2.73
L4	4	58	2.69	2.64	2.60	2.56	2.52	2.48	2.44	2.40		
L3	5	66	2.35	2.31	2.28	2.24	2.20	2.17	2.13	2.10	2.08	2.07
L3	5	76	2.12	2.36	3.29							
L2	6	79	3.21	3.15	3.08	3.01						
L1	7	83	2.93	2.86	2.79	2.71	2.62	2.51	2.42	2.27	2.03	1.62

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12	0.12	0.11
C1	1	11	0.10	0.10	0.09	0.08	0.08	0.08	0.07	0.07		
C2	2	19	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03
C2	2	29	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
C2	2	39	0.01	0.01								
L4	3	41	0.01	0.01	0.01	0.01	0.02	0.04	0.11			
L4	4	48	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.07	0.07
L4	4	58	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05		
L3	5	66	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
L3	5	76	0.03	0.03	0.04							
L2	6	79	0.03	0.03	0.03	0.03						
L1	7	83	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.06

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.24	0.23	0.22	0.21	0.20	0.20	0.19	0.18	0.17	0.17
C1	1	11	0.16	0.15	0.15	0.14	0.14	0.14	0.13	0.13		
C2	2	19	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10
C2	2	29	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08
C2	2	39	0.08	0.08								
L4	3	41	0.08	0.08	0.08	0.08	0.09	0.11	0.19			
L4	4	48	0.19	0.18	0.18	0.18	0.17	0.17	0.16	0.16	0.16	0.15
L4	4	58	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14		
L3	5	66	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12
L3	5	76	0.12	0.12	0.12							
L2	6	79	0.12	0.12	0.12	0.11						
L1	7	83	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.11	0.11

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
C1	1	11	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
C2	2	19	0.50	0.50	0.50	0.49	0.49	0.49	0.49	0.49	0.49	0.49
C2	2	29	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
C2	2	39	0.49	0.49								
L4	3	41	0.48	0.48	0.48	0.48	0.48	0.48	0.49			
L4	4	48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.48	0.48	0.48
L4	4	58	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48		
L3	5	66	0.48	0.48	0.48	0.47	0.47	0.47	0.47	0.47	0.47	0.47
L3	5	76	0.47	0.46	0.44							
L2	6	79	0.43	0.43	0.43	0.43						
L1	7	83	0.43	0.43	0.42	0.41	0.40	0.38	0.37	0.36	0.34	0.30

INTERMEDIATE REPORT
Total Phosphorus
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.69	0.67	0.66	0.66	0.65	0.64	0.63	0.62	0.61	0.61
C1	1	11	0.60	0.59	0.59	0.58	0.58	0.57	0.57	0.56		
C2	2	19	0.56	0.55	0.55	0.54	0.54	0.54	0.53	0.53	0.53	0.52
C2	2	29	0.52	0.52	0.52	0.51	0.51	0.51	0.51	0.51	0.50	0.50
C2	2	39	0.50	0.50								
L4	3	41	0.50	0.50	0.50	0.50	0.50	0.52	0.60			
L4	4	48	0.60	0.59	0.58	0.58	0.57	0.57	0.56	0.56	0.56	0.55
L4	4	58	0.55	0.54	0.54	0.54	0.53	0.53	0.53	0.52		
L3	5	66	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.50	0.50	0.49
L3	5	76	0.49	0.49	0.47							
L2	6	79	0.47	0.47	0.46	0.46						
L1	7	83	0.46	0.45	0.45	0.45	0.44	0.43	0.42	0.41	0.39	0.36

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.74	0.73	0.72	0.71	0.70	0.69	0.69	0.68	0.67	0.67
C1	1	11	0.66	0.65	0.65	0.64	0.64	0.63	0.63	0.62		
C2	2	19	0.62	0.62	0.61	0.61	0.60	0.60	0.60	0.59	0.59	0.59
C2	2	29	0.59	0.58	0.58	0.58	0.58	0.58	0.58	0.57	0.57	0.57
C2	2	39	0.57	0.57								
L4	3	41	0.57	0.57	0.57	0.57	0.57	0.59	0.68			
L4	4	48	0.68	0.67	0.67	0.66	0.66	0.65	0.65	0.65	0.64	0.64
L4	4	58	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.61		
L3	5	66	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.59	0.59
L3	5	76	0.59	0.58	0.56							
L2	6	79	0.55	0.55	0.55	0.55						
L1	7	83	0.54	0.54	0.53	0.53	0.52	0.50	0.49	0.48	0.45	0.41

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	43.25	43.42	43.59	43.76	43.94	44.13	44.32	44.51	44.70	44.90
C1	1	11	45.10	45.30	45.50	45.71	45.92	46.13	46.35	46.59		
C2	2	19	46.91	47.24	47.58	47.92	48.25	48.59	48.93	49.26	49.59	49.93
C2	2	29	50.26	50.59	50.91	51.23	51.55	51.87	52.19	52.49	52.80	53.10
C2	2	39	53.40	53.69								
L4	3	41	53.96	54.24	54.54	54.92	55.58	57.20	62.15			
L4	4	48	62.58	63.00	63.42	63.84	64.27	64.71	65.15	65.59	66.04	66.50
L4	4	58	66.95	67.41	67.88	68.35	68.82	69.30	69.78	70.30		
L3	5	66	70.86	71.42	71.98	72.55	73.12	73.69	74.26	74.82	75.33	75.67
L3	5	76	75.42	73.21	64.45							
L2	6	79	64.56	64.65	64.71	64.72						
L1	7	83	64.63	64.34	63.72	62.50	60.27	56.34	55.05	52.50	47.59	38.33

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	29.94	30.04	30.13	30.22	30.31	30.39	30.48	30.56	30.64	30.72
C1	1	11	30.80	30.88	30.95	31.03	31.10	31.17	31.24	31.30		
C2	2	19	31.38	31.46	31.53	31.61	31.68	31.75	31.82	31.89	31.96	32.02
C2	2	29	32.08	32.14	32.20	32.26	32.32	32.38	32.43	32.48	32.54	32.59
C2	2	39	32.64	32.69								
L4	3	41	32.73	32.78	32.82	32.85	32.84	32.71	32.07			
L4	4	48	32.11	32.16	32.20	32.24	32.28	32.31	32.35	32.39	32.43	32.46
L4	4	58	32.50	32.54	32.57	32.60	32.64	32.67	32.70	32.74		

L3	5	66	32.77	32.81	32.84	32.88	32.91	32.94	32.98	33.01	33.03	33.05
L3	5	76	33.04	32.92	32.44							
L2	6	79	32.48	32.52	32.56	32.62						
L1	7	83	32.67	32.73	32.79	32.86	32.96	33.09	33.04	32.93	32.67	32.17

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93
C1	1	11	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93		
C2	2	19	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93
C2	2	29	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93	2687.93
C2	2	39	2687.93	2687.95								
L4	3	41	2688.02	2688.27	2689.22	2692.75	2705.97	2755.43	2940.43			
L4	4	48	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43
L4	4	58	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43	2940.43		
L3	5	66	2940.43	2940.43	2940.43	2940.44	2940.49	2940.64	2941.14	2942.83	2948.53	2967.72
L3	5	76	3032.38	3250.22	3984.13							
L2	6	79	3986.82	3991.23	4000.00	4017.42						
L1	7	83	4046.06	4090.44	4165.74	4293.49	4510.22	4877.92	4986.21	5187.99	5563.98	6264.57

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	9.	9.	9.	9.	9.	9.	8.	8.	8.	8.
C1	1	11	8.	8.	8.	8.	8.	8.	7.	7.		
C2	2	19	7.	7.	7.	7.	7.	7.	7.	7.	7.	6.
C2	2	29	6.	6.	6.	6.	6.	6.	6.	6.	6.	5.
C2	2	39	5.	5.								
L4	3	41	5.	5.	5.	5.	5.	5.	5.			
L4	4	48	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
L4	4	58	3.	3.	3.	3.	3.	3.	3.	3.		
L3	5	66	3.	3.	2.	2.	2.	2.	2.	2.	2.	2.
L3	5	76	2.	2.	1.							
L2	6	79	1.	1.	1.	1.						
L1	7	83	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
C1	1	11	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
C2	2	19	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
C2	2	29	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
C2	2	39	0.4	0.4								
L4	3	41	0.4	0.4	0.4	0.4	0.4	0.4	0.5			
L4	4	48	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
L4	4	58	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
L3	5	66	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
L3	5	76	0.5	0.5	0.7							
L2	6	79	0.7	0.7	0.7	0.7						
L1	7	83	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	0.9	0.9

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9

C1	1	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
C1	1	11	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
C2	2	19	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
C2	2	29	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
C2	2	39	1.5	1.5								
L4	3	41	1.5	1.5	1.5	1.5	1.5	1.5	1.5			
L4	4	48	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L4	4	58	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		
L3	5	66	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
L3	5	76	1.5	1.5	1.5							
L2	6	79	1.5	1.5	1.5	1.5						
L1	7	83	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

INTERMEDIATE REPORT
Depth
m

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
C1	1	11	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
C2	2	19	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
C2	2	29	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
C2	2	39	0.5	0.5								
L4	3	41	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
L4	4	48	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
L4	4	58	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7		
L3	5	66	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
L3	5	76	0.7	0.7	0.7							
L2	6	79	2.0	2.0	2.0	2.0						
L1	7	83	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

INTERMEDIATE REPORT
Width
m

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
C1	1	11	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5		
C2	2	19	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
C2	2	29	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
C2	2	39	18.6	18.6								
L4	3	41	18.0	18.0	18.0	18.0	18.0	18.0	18.0			
L4	4	48	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
L4	4	58	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3		
L3	5	66	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
L3	5	76	20.8	20.8	20.8							
L2	6	79	24.1	24.1	24.1	24.1						
L1	7	83	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C1	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
C2	2	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C2	2	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C2	2	39	0.0	0.0								
L4	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
L4	4	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L4	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
L3	5	66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L3	5	76	0.0	0.0	0.0							
L2	6	79	0.0	0.0	0.0	0.0						

L1	7	83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Mean Velocity
m/s

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C1	1	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
C2	2	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C2	2	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C2	2	39	0.0	0.0								
L4	3	41	0.0	0.0	0.0	0.0	0.0	0.0	0.1			
L4	4	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L4	4	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
L3	5	66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
L3	5	76	0.0	0.0	0.0							
L2	6	79	0.0	0.0	0.0	0.0						
L1	7	83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
C1	1	11	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8		
C2	2	19	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
C2	2	29	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
C2	2	39	9.1	9.1								
L4	3	41	9.0	9.0	9.0	9.0	9.0	9.0	9.0			
L4	4	48	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
L4	4	58	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4		
L3	5	66	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
L3	5	76	15.2	15.2	15.2							
L2	6	79	48.0	48.0	48.0	48.0						
L1	7	83	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.573	1.576	1.578	1.581	1.583	1.585	1.588	1.590	1.592	1.594
C1	1	11	1.597	1.599	1.601	1.603	1.605	1.607	1.608	1.610		
C2	2	19	3.147	3.151	3.155	3.159	3.163	3.167	3.171	3.174	3.178	3.181
C2	2	29	3.185	3.188	3.191	3.194	3.197	3.200	3.203	3.206	3.209	3.212
C2	2	39	3.214	3.217								
L4	3	41	1.764	1.765	1.767	1.768	1.767	1.763	1.745			
L4	4	48	1.193	1.193	1.194	1.195	1.196	1.197	1.197	1.198	1.199	1.200
L4	4	58	1.200	1.201	1.202	1.202	1.203	1.204	1.205	1.205		
L3	5	66	1.206	1.207	1.207	1.208	1.209	1.209	1.210	1.211	1.211	1.211
L3	5	76	1.211	1.209	1.199							
L2	6	79	0.441	0.441	0.441	0.442						
L1	7	83	0.442	0.442	0.443	0.443	0.444	0.445	0.445	0.444	0.442	0.438

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C1	1	11	0.	0.	0.	0.	0.	0.	0.	0.		
C2	2	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

C2	2	29	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C2	2	39	0.	0.								
L4	3	41	0.	0.	0.	0.	0.	0.	0.			
L4	4	48	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L4	4	58	0.	0.	0.	0.	0.	0.	0.	0.		
L3	5	66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L3	5	76	0.	0.	0.							
L2	6	79	0.	0.	0.	0.						
L1	7	83	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C1	1	11	0.	0.	0.	0.	0.	0.	0.	0.		
C2	2	19	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
C2	2	29	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
C2	2	39	1.	1.								
L4	3	41	1.	1.	1.	1.	1.	1.	1.			
L4	4	48	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L4	4	58	0.	0.	0.	0.	0.	0.	0.	0.		
L3	5	66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L3	5	76	0.	0.	0.							
L2	6	79	0.	0.	0.	0.						
L1	7	83	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C1	1	11	0.	0.	0.	0.	0.	0.	0.	0.		
C2	2	19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C2	2	29	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
C2	2	39	0.	0.								
L4	3	41	0.	0.	0.	0.	0.	0.	0.			
L4	4	48	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L4	4	58	0.	0.	0.	0.	0.	0.	0.	0.		
L3	5	66	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
L3	5	76	0.	0.	0.							
L2	6	79	0.	0.	0.	0.						
L1	7	83	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

INTERMEDIATE REPORT
Sediment Oxygen Demand
$g/m^2/d$

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
C1	1	11	2.	2.	2.	2.	2.	2.	2.	2.		
C2	2	19	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
C2	2	29	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
C2	2	39	2.	2.								
L4	3	41	7.	7.	7.	7.	7.	7.	6.			
L4	4	48	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
L4	4	58	1.	1.	1.	1.	1.	1.	1.	1.		
L3	5	66	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
L3	5	76	1.	1.	1.							
L2	6	79	2.	2.	2.	2.						
L1	7	83	4.	4.	4.	4.	5.	5.	5.	5.	4.	4.

CAPSULE SUMMARY FOR Cross Bayou Canal

IOR	REACH		DIST	FLOW	TEMP	SALN	DO	BOD1	BOD2	ORG-N	NH3-N	NO3-N	TOT-N	ORG-P	PO4-P	CHLA	DISP	DEPTH	WIDTH	ADVEC VELO	MEAN VELO	DO SAT	REAER RATE	BOD1 DECA	BOD1 SETT	BOD2 DECA	BOD2 SETT	NH3 DECA	SOD
			km	m³/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	m²/s	m	m	m/s	m/s	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	g/m²/d
			HDWTR	0.370	29.80	0.0	2.00	34.41	39.00	1.15	0.10	0.04	1.29	0.20	0.50	43.0													
			WASTELOAD # 001 (LAG533466) ENTERS HERE																										
1	C1	1	9.10	0.370	29.94	0.0	2.11	33.48	0.00	1.10	0.11	0.04	1.24	0.19	0.50	43.2	1.5	0.82	15.5	0.029	0.029	7.566	1.573	0.16	0.31	0.00	0.00	0.18	1.87
2	C1	1	9.00	0.370	30.04	0.0	2.19	32.88	0.00	1.06	0.11	0.04	1.21	0.18	0.50	43.4	1.5	0.82	15.5	0.029	0.029	7.554	1.576	0.16	0.31	0.00	0.00	0.19	1.88
3	C1	1	8.90	0.370	30.13	0.0	2.26	32.28	0.00	1.02	0.11	0.04	1.17	0.17	0.50	43.6	1.5	0.82	15.5	0.029	0.029	7.542	1.578	0.16	0.31	0.00	0.00	0.19	1.89
4	C1	1	8.80	0.370	30.22	0.0	2.33	31.70	0.00	0.99	0.11	0.04	1.14	0.16	0.50	43.8	1.5	0.82	15.5	0.029	0.029	7.530	1.581	0.16	0.31	0.00	0.00	0.19	1.90
5	C1	1	8.70	0.370	30.31	0.0	2.40	31.12	0.00	0.96	0.11	0.04	1.11	0.15	0.50	43.9	1.5	0.82	15.5	0.029	0.029	7.519	1.583	0.16	0.31	0.00	0.00	0.20	1.91
6	C1	1	8.60	0.370	30.39	0.0	2.46	30.56	0.00	0.92	0.12	0.04	1.08	0.14	0.50	44.1	1.5	0.82	15.5	0.029	0.029	7.508	1.585	0.16	0.31	0.00	0.00	0.20	1.92
7	C1	1	8.50	0.370	30.48	0.0	2.53	30.00	0.00	0.89	0.12	0.04	1.05	0.13	0.50	44.3	1.5	0.82	15.5	0.029	0.029	7.496	1.588	0.16	0.31	0.00	0.00	0.21	1.93
8	C1	1	8.40	0.370	30.56	0.0	2.59	29.45	0.00	0.86	0.12	0.04	1.02	0.12	0.50	44.5	1.5	0.82	15.5	0.029	0.029	7.485	1.590	0.16	0.31	0.00	0.00	0.21	1.94
9	C1	1	8.30	0.370	30.64	0.0	2.66	28.91	0.00	0.83	0.12	0.04	1.00	0.12	0.50	44.7	1.5	0.82	15.5	0.029	0.029	7.475	1.592	0.16	0.31	0.00	0.00	0.21	1.95
10	C1	1	8.20	0.370	30.72	0.0	2.72	28.38	0.00	0.81	0.12	0.04	0.97	0.11	0.50	44.9	1.5	0.82	15.5	0.029	0.029	7.465	1.594	0.16	0.31	0.00	0.00	0.22	1.96
11	C1	1	8.10	0.370	30.80	0.0	2.78	27.86	0.00	0.78	0.12	0.04	0.94	0.10	0.50	45.1	1.5	0.82	15.5	0.029	0.029	7.455	1.597	0.16	0.31	0.00	0.00	0.22	1.97
12	C1	1	8.00	0.370	30.88	0.0	2.84	27.34	0.00	0.75	0.12	0.04	0.92	0.10	0.50	45.3	1.5	0.82	15.5	0.029	0.029	7.445	1.599	0.16	0.31	0.00	0.00	0.22	1.98
13	C1	1	7.90	0.370	30.95	0.0	2.89	26.84	0.00	0.73	0.12	0.04	0.89	0.09	0.50	45.5	1.5	0.82	15.5	0.029	0.029	7.436	1.601	0.17	0.32	0.00	0.00	0.22	1.99
14	C1	1	7.80	0.370	31.03	0.0	2.95	26.34	0.00	0.70	0.12	0.04	0.87	0.08	0.50	45.7	1.5	0.82	15.5	0.029	0.029	7.427	1.603	0.17	0.32	0.00	0.00	0.23	2.00
15	C1	1	7.70	0.370	31.10	0.0	3.01	25.85	0.00	0.68	0.13	0.04	0.84	0.08	0.50	45.9	1.5	0.82	15.5	0.029	0.029	7.418	1.605	0.17	0.32	0.00	0.00	0.23	2.01
16	C1	1	7.60	0.370	31.17	0.0	3.06	25.38	0.00	0.65	0.13	0.04	0.82	0.08	0.50	46.1	1.5	0.82	15.5	0.029	0.029	7.409	1.607	0.17	0.32	0.00	0.00	0.23	2.02
17	C1	1	7.50	0.370	31.24	0.0	3.13	24.91	0.00	0.63	0.13	0.04	0.80	0.07	0.50	46.4	1.5	0.82	15.5	0.029	0.029	7.400	1.608	0.17	0.32	0.00	0.00	0.24	2.03
18	C1	1	7.40	0.370	31.30	0.0	3.21	24.47	0.00	0.61	0.12	0.04	0.78	0.07	0.50	46.6	1.5	0.82	15.5	0.029	0.029	7.391	1.610	0.17	0.32	0.00	0.00	0.24	2.04
19	C2	2	7.30	0.370	31.38	0.0	3.38	24.03	0.00	0.59	0.12	0.04	0.75	0.06	0.50	46.9	1.5	0.49	18.6	0.041	0.041	7.382	3.147	0.17	0.54	0.00	0.00	0.24	2.05
20	C2	2	7.20	0.370	31.46	0.0	3.55	23.56	0.00	0.57	0.12	0.04	0.73	0.06	0.50	47.2	1.5	0.49	18.6	0.041	0.041	7.372	3.151	0.17	0.54	0.00	0.00	0.25	2.06
21	C2	2	7.10	0.370	31.53	0.0	3.71	23.10	0.00	0.54	0.12	0.04	0.71	0.05	0.50	47.6	1.5	0.49	18.6	0.041	0.041	7.363	3.155	0.17	0.54	0.00	0.00	0.25	2.07
22	C2	2	7.00	0.370	31.61	0.0	3.85	22.65	0.00	0.52	0.12	0.04	0.68	0.05	0.49	47.9	1.5	0.49	18.6	0.041	0.041	7.353	3.159	0.17	0.54	0.00	0.00	0.26	2.08
23	C2	2	6.90	0.370	31.68	0.0	3.99	22.21	0.00	0.50	0.12	0.04	0.66	0.05	0.49	48.3	1.5	0.49	18.6	0.041	0.041	7.344	3.163	0.17	0.54	0.00	0.00	0.26	2.09
24	C2	2	6.80	0.370	31.75	0.0	4.11	21.78	0.00	0.48	0.12	0.04	0.64	0.04	0.49	48.6	1.5	0.49	18.6	0.041	0.041	7.335	3.167	0.17	0.54	0.00	0.00	0.27	2.10
25	C2	2	6.70	0.370	31.82	0.0	4.23	21.36	0.00	0.46	0.11	0.04	0.62	0.04	0.49	48.9	1.5	0.49	18.6	0.041	0.041	7.327	3.171	0.17	0.54	0.00	0.00	0.27	2.11
26	C2	2	6.60	0.370	31.89	0.0	4.33	20.94	0.00	0.45	0.11	0.04	0.60	0.04	0.49	49.3	1.5	0.49	18.6	0.041	0.041	7.318	3.174	0.17	0.54	0.00	0.00	0.27	2.11
27	C2	2	6.50	0.370	31.96	0.0	4.43	20.53	0.00	0.43	0.11	0.04	0.58	0.03	0.49	49.6	1.5	0.49	18.6	0.041	0.041	7.310	3.178	0.17	0.54	0.00	0.00	0.28	2.12
28	C2	2	6.40	0.370	32.02	0.0	4.52	20.13	0.00	0.41	0.11	0.04	0.56	0.03	0.49	49.9	1.5	0.49	18.6	0.041	0.041	7.302	3.181	0.17	0.55	0.00	0.00	0.28	2.13
29	C2	2	6.30	0.370	32.08	0.0	4.61	19.73	0.00	0.40	0.11	0.04	0.54	0.03	0.49	50.3	1.5	0.49	18.6	0.041	0.041	7.294	3.185	0.17	0.55	0.00	0.00	0.28	2.14
30	C2	2	6.20	0.370	32.14	0.0	4.69	19.34	0.00	0.38	0.10	0.04	0.52	0.03	0.49	50.6	1.5	0.49	18.6	0.041	0.041	7.287	3.188	0.17	0.55	0.00	0.00	0.28	2.15

31	C2	2	6.10	0.370	32.20	0.0	4.76	18.96	0.00	0.37	0.10	0.04	0.50	0.03	0.49	50.9	1.5	0.49	18.6	0.041	0.041	7.279	3.191	0.18	0.55	0.00	0.00	0.29	2.16
32	C2	2	6.00	0.370	32.26	0.0	4.82	18.59	0.00	0.35	0.10	0.04	0.49	0.02	0.49	51.2	1.5	0.49	18.6	0.041	0.041	7.272	3.194	0.18	0.55	0.00	0.00	0.29	2.16
33	C2	2	5.90	0.370	32.32	0.0	4.89	18.22	0.00	0.34	0.10	0.04	0.47	0.02	0.49	51.6	1.5	0.49	18.6	0.041	0.041	7.265	3.197	0.18	0.55	0.00	0.00	0.29	2.17
34	C2	2	5.80	0.370	32.38	0.0	4.94	17.86	0.00	0.32	0.09	0.04	0.45	0.02	0.49	51.9	1.5	0.49	18.6	0.041	0.041	7.258	3.200	0.18	0.55	0.00	0.00	0.29	2.18
35	C2	2	5.70	0.370	32.43	0.0	5.00	17.51	0.00	0.31	0.09	0.04	0.44	0.02	0.49	52.2	1.5	0.49	18.6	0.041	0.041	7.252	3.203	0.18	0.55	0.00	0.00	0.30	2.19
36	C2	2	5.60	0.370	32.48	0.0	5.04	17.16	0.00	0.30	0.09	0.03	0.42	0.02	0.49	52.5	1.5	0.49	18.6	0.041	0.041	7.245	3.206	0.18	0.55	0.00	0.00	0.30	2.20
37	C2	2	5.50	0.370	32.54	0.0	5.09	16.82	0.00	0.29	0.09	0.03	0.41	0.02	0.49	52.8	1.5	0.49	18.6	0.041	0.041	7.239	3.209	0.18	0.55	0.00	0.00	0.30	2.20
38	C2	2	5.40	0.370	32.59	0.0	5.12	16.49	0.00	0.28	0.09	0.03	0.40	0.02	0.49	53.1	1.5	0.49	18.6	0.041	0.041	7.233	3.212	0.18	0.55	0.00	0.00	0.30	2.21
39	C2	2	5.30	0.370	32.64	0.0	5.14	16.16	0.00	0.27	0.08	0.03	0.38	0.01	0.49	53.4	1.5	0.49	18.6	0.041	0.041	7.227	3.214	0.18	0.55	0.00	0.00	0.30	2.22
40	C2	2	5.20	0.370	32.69	0.0	5.10	15.84	0.00	0.26	0.08	0.03	0.37	0.01	0.49	53.7	1.5	0.49	18.6	0.041	0.041	7.221	3.217	0.18	0.55	0.00	0.00	0.30	2.22
41	L4	3	5.10	0.370	32.73	0.0	4.83	15.54	0.00	0.25	0.08	0.03	0.36	0.01	0.48	54.0	1.5	0.50	18.0	0.041	0.041	7.215	1.764	0.18	0.54	0.00	0.00	0.30	6.69
42	L4	3	5.00	0.370	32.78	0.0	4.57	15.24	0.00	0.24	0.08	0.03	0.35	0.01	0.48	54.2	1.5	0.50	18.0	0.041	0.041	7.210	1.765	0.18	0.54	0.00	0.00	0.30	6.71
43	L4	3	4.90	0.370	32.82	0.0	4.32	14.95	0.00	0.24	0.08	0.03	0.34	0.01	0.48	54.5	1.5	0.50	18.0	0.041	0.041	7.205	1.767	0.18	0.54	0.00	0.00	0.29	6.72
44	L4	3	4.80	0.370	32.85	0.0	4.10	14.68	0.00	0.26	0.08	0.03	0.36	0.01	0.48	54.9	1.5	0.50	18.0	0.041	0.041	7.201	1.768	0.18	0.54	0.00	0.00	0.29	6.74
45	L4	3	4.70	0.370	32.84	0.0	3.90	14.47	0.00	0.36	0.09	0.03	0.47	0.02	0.48	55.6	1.5	0.50	18.0	0.041	0.041	7.202	1.767	0.18	0.54	0.00	0.00	0.29	6.74
46	L4	3	4.60	0.370	32.71	0.0	3.78	14.51	0.00	0.77	0.14	0.03	0.93	0.04	0.48	57.2	1.5	0.50	18.0	0.041	0.041	7.218	1.763	0.18	0.54	0.00	0.00	0.28	6.68
	WASTELOAD # 047 (Bayou Traverse) ENTERS HERE																												
47	L4	3	4.50	0.540	32.07	0.0	3.87	15.41	0.00	2.39	0.32	0.03	2.75	0.11	0.49	62.1	1.5	0.50	18.0	0.060	0.060	7.296	1.745	0.17	0.53	0.00	0.00	0.27	6.42
48	L4	4	4.40	0.540	32.11	0.0	3.94	15.18	0.00	2.32	0.32	0.04	2.68	0.11	0.49	62.6	1.5	0.73	18.3	0.040	0.040	7.291	1.193	0.17	0.36	0.00	0.00	0.27	1.07
49	L4	4	4.30	0.540	32.16	0.0	4.00	14.95	0.00	2.25	0.32	0.04	2.62	0.10	0.49	63.0	1.5	0.73	18.3	0.040	0.040	7.285	1.193	0.17	0.36	0.00	0.00	0.27	1.08
50	L4	4	4.20	0.540	32.20	0.0	4.07	14.73	0.00	2.19	0.32	0.04	2.55	0.10	0.49	63.4	1.5	0.73	18.3	0.040	0.040	7.281	1.194	0.18	0.36	0.00	0.00	0.28	1.08
51	L4	4	4.10	0.540	32.24	0.0	4.13	14.52	0.00	2.13	0.33	0.04	2.50	0.09	0.49	63.8	1.5	0.73	18.3	0.040	0.040	7.275	1.195	0.18	0.37	0.00	0.00	0.28	1.08
52	L4	4	4.00	0.540	32.28	0.0	4.20	14.30	0.00	2.07	0.33	0.04	2.44	0.09	0.49	64.3	1.5	0.73	18.3	0.040	0.040	7.270	1.196	0.18	0.37	0.00	0.00	0.28	1.08
53	L4	4	3.90	0.540	32.31	0.0	4.26	14.09	0.00	2.01	0.33	0.05	2.38	0.08	0.49	64.7	1.5	0.73	18.3	0.040	0.040	7.265	1.197	0.18	0.37	0.00	0.00	0.28	1.09
54	L4	4	3.80	0.540	32.35	0.0	4.32	13.88	0.00	1.95	0.33	0.05	2.33	0.08	0.49	65.1	1.5	0.73	18.3	0.040	0.040	7.261	1.197	0.18	0.37	0.00	0.00	0.28	1.09
55	L4	4	3.70	0.540	32.39	0.0	4.38	13.68	0.00	1.90	0.33	0.05	2.27	0.08	0.48	65.6	1.5	0.73	18.3	0.040	0.040	7.256	1.198	0.18	0.37	0.00	0.00	0.29	1.09
56	L4	4	3.60	0.540	32.43	0.0	4.45	13.48	0.00	1.84	0.33	0.05	2.22	0.07	0.48	66.0	1.5	0.73	18.3	0.040	0.040	7.252	1.199	0.18	0.37	0.00	0.00	0.29	1.09
57	L4	4	3.50	0.540	32.46	0.0	4.51	13.28	0.00	1.79	0.33	0.05	2.17	0.07	0.48	66.5	1.5	0.73	18.3	0.040	0.040	7.247	1.200	0.18	0.37	0.00	0.00	0.29	1.10
58	L4	4	3.40	0.540	32.50	0.0	4.57	13.08	0.00	1.74	0.33	0.06	2.12	0.06	0.48	67.0	1.5	0.73	18.3	0.040	0.040	7.243	1.200	0.18	0.37	0.00	0.00	0.29	1.10
59	L4	4	3.30	0.540	32.54	0.0	4.63	12.89	0.00	1.69	0.33	0.06	2.07	0.06	0.48	67.4	1.5	0.73	18.3	0.040	0.040	7.239	1.201	0.18	0.37	0.00	0.00	0.29	1.10
60	L4	4	3.20	0.540	32.57	0.0	4.68	12.70	0.00	1.64	0.32	0.06	2.02	0.06	0.48	67.9	1.5	0.73	18.3	0.040	0.040	7.235	1.202	0.18	0.37	0.00	0.00	0.29	1.10
61	L4	4	3.10	0.540	32.60	0.0	4.74	12.51	0.00	1.59	0.32	0.06	1.98	0.06	0.48	68.3	1.5	0.73	18.3	0.040	0.040	7.231	1.202	0.18	0.37	0.00	0.00	0.30	1.11
62	L4	4	3.00	0.540	32.64	0.0	4.80	12.32	0.00	1.55	0.32	0.06	1.93	0.05	0.48	68.8	1.5	0.73	18.3	0.040	0.040	7.227	1.203	0.18	0.37	0.00	0.00	0.30	1.11
63	L4	4	2.90	0.540	32.67	0.0	4.86	12.14	0.00	1.50	0.32	0.06	1.89	0.05	0.48	69.3	1.5	0.73	18.3	0.040	0.040	7.223	1.204	0.18	0.37	0.00	0.00	0.30	1.11

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  64 L4  4    2.80   0.540 32.70  0.0  4.92  11.96   0.00  1.46  0.32  0.07  1.84  0.05  0.48  69.8    1.5   0.73  18.3  0.040  0.040 7.218  1.205 0.18 0.37 0.00 0.00 0.30
1.11
  65 L4  4    2.70   0.540 32.74  0.0  4.97  11.77   0.00  1.42  0.32  0.07  1.80  0.05  0.48  70.3    1.5   0.73  18.3  0.040  0.040 7.215  1.205 0.18 0.37 0.00 0.00 0.30
1.12
  66 L3  5    2.60   0.540 32.77  0.0  5.04  11.57   0.00  1.37  0.31  0.07  1.75  0.04  0.48  70.9    1.5   0.73  20.8  0.036  0.036 7.210  1.206 0.18 0.37 0.00 0.00 0.30
1.12
  67 L3  5    2.50   0.540 32.81  0.0  5.10  11.38   0.00  1.32  0.31  0.07  1.71  0.04  0.48  71.4    1.5   0.73  20.8  0.036  0.036 7.206  1.207 0.18 0.37 0.00 0.00 0.31
1.12
  68 L3  5    2.40   0.540 32.84  0.0  5.16  11.19   0.00  1.28  0.31  0.07  1.66  0.04  0.48  72.0    1.5   0.73  20.8  0.036  0.036 7.202  1.207 0.18 0.37 0.00 0.00 0.31
1.12
  69 L3  5    2.30   0.540 32.88  0.0  5.22  11.00   0.00  1.24  0.31  0.07  1.62  0.04  0.47  72.5    1.5   0.73  20.8  0.036  0.036 7.198  1.208 0.18 0.37 0.00 0.00 0.31
1.13
  70 L3  5    2.20   0.540 32.91  0.0  5.28  10.81   0.00  1.20  0.30  0.08  1.58  0.03  0.47  73.1    1.5   0.73  20.8  0.036  0.036 7.193  1.209 0.18 0.37 0.00 0.00 0.31
1.13
  71 L3  5    2.10   0.540 32.94  0.0  5.34  10.63   0.00  1.16  0.30  0.08  1.54  0.03  0.47  73.7    1.5   0.73  20.8  0.036  0.036 7.190  1.209 0.18 0.37 0.00 0.00 0.31
1.13

CAPSULE SUMMARY FOR Cross Bayou Canal
                                                                                                                ADVEC   MEAN   DO   REAER BOD1 BOD1 BOD2 BOD2  NH3
 IOR REACH    DIST   FLOW   TEMP SALN   DO   BOD1   BOD2 ORG-N NH3-N NO3-N TOT-N ORG-P PO4-P  CHLA   DISP  DEPTH WIDTH  VELO   VELO   SAT   RATE DECA SETT DECA SETT DECA
SOD
              km    m³/s  deg C  ppt  mg/L  mg/L   mg/L  mg/L  mg/L  mg/L  mg/L  mg/L  mg/L  µg/L   m²/s     m     m    m/s    m/s  mg/L  1/da 1/da 1/da 1/da 1/da 1/da
g/m²/d

  72 L3  5    2.00   0.540 32.98  0.0  5.40  10.46   0.00  1.12  0.30  0.08  1.50  0.03  0.47  74.3    1.5   0.73  20.8  0.036  0.036 7.186  1.210 0.18 0.37 0.00 0.00 0.31
1.13
  73 L3  5    1.90   0.540 33.01  0.0  5.46  10.28   0.00  1.09  0.29  0.08  1.47  0.03  0.47  74.8    1.5   0.73  20.8  0.036  0.036 7.182  1.211 0.18 0.37 0.00 0.00 0.32
1.13
  74 L3  5    1.80   0.540 33.03  0.0  5.51  10.11   0.00  1.06  0.29  0.08  1.44  0.03  0.47  75.3    1.5   0.73  20.8  0.036  0.036 7.179  1.211 0.18 0.37 0.00 0.00 0.32
1.14
  75 L3  5    1.70   0.540 33.05  0.0  5.56   9.94   0.00  1.05  0.29  0.08  1.42  0.03  0.47  75.7    1.5   0.73  20.8  0.036  0.036 7.177  1.211 0.18 0.37 0.00 0.00 0.32
1.14
  76 L3  5    1.60   0.540 33.04  0.0  5.61   9.76   0.00  1.11  0.28  0.08  1.47  0.03  0.47  75.4    1.5   0.73  20.8  0.036  0.036 7.178  1.211 0.18 0.37 0.00 0.00 0.32
1.14
  77 L3  5    1.50   0.540 32.92  0.0  5.63   9.55   0.00  1.37  0.28  0.08  1.74  0.03  0.46  73.2    1.5   0.73  20.8  0.036  0.036 7.193  1.209 0.18 0.37 0.00 0.00 0.32
1.13
         WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE
  78 L3  5    1.40   0.710 32.44  0.0  5.56   9.24   0.00  2.39  0.27  0.08  2.74  0.04  0.44  64.4    1.5   0.73  20.8  0.047  0.047 7.251  1.199 0.18 0.37 0.00 0.00 0.30
1.09
  79 L2  6    1.30   0.710 32.48  0.0  5.40   8.99   0.00  2.29  0.29  0.09  2.66  0.03  0.43  64.6    1.5   1.99  24.1  0.015  0.015 7.246  0.441 0.18 0.13 0.00 0.00 0.30
2.19
  80 L2  6    1.20   0.710 32.52  0.0  5.25   8.78   0.00  2.21  0.30  0.09  2.60  0.03  0.43  64.6    1.5   1.99  24.1  0.015  0.015 7.241  0.441 0.18 0.13 0.00 0.00 0.30
2.20
  81 L2  6    1.10   0.710 32.56  0.0  5.09   8.56   0.00  2.12  0.31  0.10  2.53  0.03  0.43  64.7    1.5   1.99  24.1  0.015  0.015 7.236  0.441 0.18 0.14 0.00 0.00 0.30
2.21
  82 L2  6    1.00   0.710 32.62  0.0  4.88   8.32   0.00  2.02  0.33  0.11  2.46  0.03  0.43  64.7    1.5   1.99  24.1  0.015  0.015 7.229  0.442 0.18 0.14 0.00 0.00 0.30
2.21
  83 L1  7    0.90   0.710 32.67  0.0  4.63   8.06   0.00  1.92  0.34  0.12  2.38  0.03  0.43  64.6    1.5   1.99  34.1  0.010  0.010 7.223  0.442 0.18 0.14 0.00 0.00 0.30
4.44
  84 L1  7    0.80   0.710 32.73  0.0  4.42   7.84   0.00  1.83  0.36  0.13  2.31  0.03  0.43  64.3    1.5   1.99  34.1  0.010  0.010 7.216  0.442 0.18 0.14 0.00 0.00 0.29
4.46
  85 L1  7    0.70   0.710 32.79  0.0  4.24   7.64   0.00  1.74  0.37  0.13  2.24  0.03  0.42  63.7    1.5   1.99  34.1  0.010  0.010 7.208  0.443 0.18 0.14 0.00 0.00 0.29
4.48
  86 L1  7    0.60   0.710 32.86  0.0  4.10   7.47   0.00  1.65  0.39  0.14  2.18  0.03  0.41  62.5    1.5   1.99  34.1  0.010  0.010 7.200  0.443 0.18 0.14 0.00 0.00 0.29
4.50
  87 L1  7    0.50   0.710 32.96  0.0  4.02   7.35   0.00  1.55  0.42  0.14  2.11  0.04  0.40  60.3    1.5   1.99  34.1  0.010  0.010 7.187  0.444 0.18 0.14 0.00 0.00 0.29
4.52
         WASTELOAD # 088 (LGLD4) ENTERS HERE
  88 L1  7    0.40   0.880 33.09  0.0  4.05   7.30   0.00  1.44  0.45  0.14  2.03  0.05  0.38  56.3    1.5   1.99  34.1  0.013  0.013 7.172  0.445 0.18 0.14 0.00 0.00 0.30
4.56
  89 L1  7    0.30   0.880 33.04  0.0  3.96   7.09   0.00  1.36  0.44  0.14  1.95  0.05  0.37  55.0    1.5   1.99  34.1  0.013  0.013 7.178  0.445 0.18 0.14 0.00 0.00 0.29
4.55
  90 L1  7    0.20   0.880 32.93  0.0  3.95   6.87   0.00  1.27  0.42  0.14  1.82  0.05  0.36  52.5    1.5   1.99  34.1  0.013  0.013 7.192  0.444 0.18 0.14 0.00 0.00 0.29
4.51
  91 L1  7    0.10   0.880 32.67  0.0  4.08   6.61   0.00  1.13  0.37  0.13  1.63  0.05  0.34  47.6    1.5   1.99  34.1  0.013  0.013 7.223  0.442 0.18 0.14 0.00 0.00 0.29
4.44
  92 L1  7    0.00   0.880 32.17  0.0  4.49   6.26   0.00  0.92  0.27  0.10  1.29  0.06  0.30  38.3    1.5   1.99  34.1  0.013  0.013 7.284  0.438 0.17 0.13 0.00 0.00 0.28
4.31
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FINAL REPORT Cross Bayou Canal LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 1 Cross Bayou Canal 1 Calibration Simulation with Algal Dynamics

********** REACH INPUTS
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ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.37000	29.80	0.00	2688.00	2688.00	2.00	34.41	39.00	39.00	39.00	1.52	0.10	0.04	0.50	43.00	0.00	0.00
1	WSTLD	0.00001	30.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.34	10.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES
****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	9.20	9.10	0.37001	0.0	0.02893	0.04	0.04	0.82	15.54	1278.94	1554.00	12.79	93.24	0.000	1.500	0.029
2	9.10	9.00	0.37001	0.0	0.02893	0.04	0.08	0.82	15.54	1278.94	1554.00	12.79	186.48	0.001	1.500	0.029
3	9.00	8.90	0.37001	0.0	0.02893	0.04	0.12	0.82	15.54	1278.94	1554.00	12.79	279.72	0.001	1.500	0.029
4	8.90	8.80	0.37001	0.0	0.02893	0.04	0.16	0.82	15.54	1278.94	1554.00	12.79	372.96	0.001	1.500	0.029
5	8.80	8.70	0.37001	0.0	0.02893	0.04	0.20	0.82	15.54	1278.94	1554.00	12.79	466.20	0.002	1.500	0.029
6	8.70	8.60	0.37001	0.0	0.02893	0.04	0.24	0.82	15.54	1278.94	1554.00	12.79	559.44	0.002	1.500	0.029
7	8.60	8.50	0.37001	0.0	0.02893	0.04	0.28	0.82	15.54	1278.94	1554.00	12.79	652.68	0.002	1.500	0.029
8	8.50	8.40	0.37001	0.0	0.02893	0.04	0.32	0.82	15.54	1278.94	1554.00	12.79	745.92	0.003	1.500	0.029
9	8.40	8.30	0.37001	0.0	0.02893	0.04	0.36	0.82	15.54	1278.94	1554.00	12.79	839.16	0.003	1.500	0.029
10	8.30	8.20	0.37001	0.0	0.02893	0.04	0.40	0.82	15.54	1278.94	1554.00	12.79	932.40	0.003	1.500	0.029
11	8.20	8.10	0.37001	0.0	0.02893	0.04	0.44	0.82	15.54	1278.94	1554.00	12.79	1025.64	0.004	1.500	0.029
12	8.10	8.00	0.37001	0.0	0.02893	0.04	0.48	0.82	15.54	1278.94	1554.00	12.79	1118.88	0.004	1.500	0.029
13	8.00	7.90	0.37001	0.0	0.02893	0.04	0.52	0.82	15.54	1278.94	1554.00	12.79	1212.12	0.004	1.500	0.029
14	7.90	7.80	0.37001	0.0	0.02893	0.04	0.56	0.82	15.54	1278.94	1554.00	12.79	1305.36	0.005	1.500	0.029
15	7.80	7.70	0.37001	0.0	0.02893	0.04	0.60	0.82	15.54	1278.94	1554.00	12.79	1398.60	0.005	1.500	0.029
16	7.70	7.60	0.37001	0.0	0.02893	0.04	0.64	0.82	15.54	1278.94	1554.00	12.79	1491.84	0.005	1.500	0.029
17	7.60	7.50	0.37001	0.0	0.02893	0.04	0.68	0.82	15.54	1278.94	1554.00	12.79	1585.08	0.006	1.500	0.029
18	7.50	7.40	0.37001	0.0	0.02893	0.04	0.72	0.82	15.54	1278.94	1554.00	12.79	1678.32	0.006	1.500	0.029
TOT						0.72				23020.96	27972.00					
AVG					0.0289			0.82	15.54			12.79				

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS
****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SETT 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SETT 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SETT 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SETT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	9.100	7.57	1.57	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.87	1.87	1.87	0.12	0.77	0.18	0.00	0.00	0.06	1.54	0.00	0.97	0.00	0.00	0.00	0.00
2	9.000	7.55	1.58	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.88	1.88	1.88	0.12	0.77	0.19	0.00	0.00	0.06	1.54	0.00	0.99	0.00	0.00	0.00	0.00
3	8.900	7.54	1.58	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.89	1.89	1.89	0.12	0.77	0.19	0.00	0.00	0.06	1.54	0.00	1.01	0.00	0.00	0.00	0.00
4	8.800	7.53	1.58	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.90	1.90	1.90	0.12	0.77	0.19	0.00	0.00	0.06	1.55	0.00	1.03	0.00	0.00	0.00	0.00
5	8.700	7.52	1.58	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.91	1.91	1.91	0.12	0.78	0.20	0.00	0.00	0.06	1.55	0.00	1.05	0.00	0.00	0.00	0.00
6	8.600	7.51	1.59	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.92	1.92	1.92	0.12	0.78	0.20	0.00	0.00	0.06	1.55	0.00	1.06	0.00	0.00	0.00	0.00
7	8.500	7.50	1.59	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.93	1.93	1.93	0.12	0.78	0.21	0.00	0.00	0.06	1.56	0.00	1.08	0.00	0.00	0.00	0.00
8	8.400	7.49	1.59	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.94	1.94	1.94	0.12	0.78	0.21	0.00	0.00	0.06	1.56	0.00	1.10	0.00	0.00	0.00	0.00
9	8.300	7.48	1.59	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.95	1.95	1.95	0.12	0.78	0.21	0.00	0.00	0.06	1.56	0.00	1.11	0.00	0.00	0.00	0.00
10	8.200	7.47	1.59	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.96	1.96	1.96	0.12	0.78	0.22	0.00	0.00	0.06	1.57	0.00	1.13	0.00	0.00	0.00	0.00
11	8.100	7.45	1.60	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.12	0.78	0.22	0.00	0.00	0.06	1.57	0.00	1.14	0.00	0.00	0.00	0.00
12	8.000	7.45	1.60	0.16	0.31	0.00	0.00	0.00	0.00	0.00	1.98	1.98	1.98	0.12	0.79	0.22	0.00	0.00	0.06	1.57	0.00	1.15	0.00	0.00	0.00	0.00
13	7.900	7.44	1.60	0.17	0.32	0.00	0.00	0.00	0.00	0.00	1.99	1.99	1.99	0.12	0.79	0.22	0.00	0.00	0.06	1.58	0.00	1.16	0.00	0.00	0.00	0.00
14	7.800	7.43	1.60	0.17	0.32	0.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	0.12	0.79	0.23	0.00	0.00	0.06	1.58	0.00	1.18	0.00	0.00	0.00	0.00
15	7.700	7.42	1.60	0.17	0.32	0.00	0.00	0.00	0.00	0.00	2.01	2.01	2.01	0.12	0.79	0.23	0.00	0.00	0.06	1.58	0.00	1.19	0.00	0.00	0.00	0.00
16	7.600	7.41	1.61	0.17	0.32	0.00	0.00	0.00	0.00	0.00	2.02	2.02	2.02	0.12	0.79	0.23	0.00	0.00	0.06	1.58	0.00	1.20	0.00	0.00	0.00	0.00
17	7.500	7.40	1.61	0.17	0.32	0.00	0.00	0.00	0.00	0.00	2.03	2.03	2.03	0.12	0.79	0.24	0.00	0.00	0.06	1.59	0.00	1.21	0.00	0.00	0.00	0.00
18	7.400	7.39	1.61	0.17	0.32	0.00	0.00	0.00	0.00	0.00	2.04	2.04	2.04	0.13	0.79	0.24	0.00	0.00	0.06	1.59	0.00	1.21	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 1.31 0.10 0.01 0.00 0.00 0.00 0.00 0.00 1.00 0.10 0.03 0.12 0.00 0.02 0.05 0.07 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI NCM #/100mL
1	9.100	29.94	0.00	2687.93	0.00	2.11	33.48	0.00	38.10	0.00	1.10	0.11	0.04	1.24	1.46	1.61	0.19	0.50	0.69	0.24	0.74	43.2	0.0	0. 0.00
2	9.000	30.04	0.00	2687.93	0.00	2.19	32.88	0.00	37.51	0.00	1.06	0.11	0.04	1.21	1.43	1.58	0.18	0.50	0.67	0.23	0.73	43.4	0.0	0. 0.00
3	8.900	30.13	0.00	2687.93	0.00	2.26	32.28	0.00	36.94	0.00	1.02	0.11	0.04	1.17	1.40	1.55	0.17	0.50	0.66	0.22	0.72	43.6	0.0	0. 0.00
4	8.800	30.22	0.00	2687.93	0.00	2.33	31.70	0.00	36.37	0.00	0.99	0.11	0.04	1.14	1.36	1.51	0.16	0.50	0.66	0.21	0.71	43.8	0.0	0. 0.00
5	8.700	30.31	0.00	2687.93	0.00	2.40	31.12	0.00	35.81	0.00	0.96	0.11	0.04	1.11	1.33	1.48	0.15	0.50	0.65	0.20	0.70	43.9	0.0	0. 0.00
6	8.600	30.39	0.00	2687.93	0.00	2.46	30.56	0.00	35.27	0.00	0.92	0.12	0.04	1.08	1.30	1.46	0.14	0.50	0.64	0.20	0.69	44.1	0.0	0. 0.00
7	8.500	30.48	0.00	2687.93	0.00	2.53	30.00	0.00	34.73	0.00	0.89	0.12	0.04	1.05	1.27	1.43	0.13	0.50	0.63	0.19	0.69	44.3	0.0	0. 0.00
8	8.400	30.56	0.00	2687.93	0.00	2.59	29.45	0.00	34.20	0.00	0.86	0.12	0.04	1.02	1.24	1.40	0.12	0.50	0.62	0.18	0.68	44.5	0.0	0. 0.00
9	8.300	30.64	0.00	2687.93	0.00	2.66	28.91	0.00	33.68	0.00	0.83	0.12	0.04	1.00	1.21	1.38	0.12	0.50	0.61	0.17	0.67	44.7	0.0	0. 0.00
10	8.200	30.72	0.00	2687.93	0.00	2.72	28.38	0.00	33.17	0.00	0.81	0.12	0.04	0.97	1.19	1.35	0.11	0.50	0.61	0.17	0.67	44.9	0.0	0. 0.00
11	8.100	30.80	0.00	2687.93	0.00	2.78	27.86	0.00	32.67	0.00	0.78	0.12	0.04	0.94	1.16	1.33	0.10	0.50	0.60	0.16	0.66	45.1	0.0	0. 0.00
12	8.000	30.88	0.00	2687.93	0.00	2.84	27.34	0.00	32.18	0.00	0.75	0.12	0.04	0.92	1.14	1.30	0.10	0.50	0.59	0.15	0.65	45.3	0.0	0. 0.00
13	7.900	30.95	0.00	2687.93	0.00	2.89	26.84	0.00	31.70	0.00	0.73	0.12	0.04	0.89	1.11	1.28	0.09	0.50	0.59	0.15	0.65	45.5	0.0	0. 0.00
14	7.800	31.03	0.00	2687.93	0.00	2.95	26.34	0.00	31.22	0.00	0.70	0.12	0.04	0.87	1.09	1.26	0.08	0.50	0.58	0.14	0.64	45.7	0.0	0. 0.00
15	7.700	31.10	0.00	2687.93	0.00	3.01	25.85	0.00	30.76	0.00	0.68	0.13	0.04	0.84	1.07	1.23	0.08	0.50	0.58	0.14	0.64	45.9	0.0	0. 0.00
16	7.600	31.17	0.00	2687.93	0.00	3.06	25.38	0.00	30.30	0.00	0.65	0.13	0.04	0.82	1.05	1.21	0.08	0.50	0.57	0.14	0.63	46.1	0.0	0. 0.00
17	7.500	31.24	0.00	2687.93	0.00	3.13	24.91	0.00	29.86	0.00	0.63	0.13	0.04	0.80	1.03	1.19	0.07	0.50	0.57	0.13	0.63	46.4	0.0	0. 0.00
18	7.400	31.30	0.00	2687.93	0.00	3.21	24.47	0.00	29.45	0.00	0.61	0.12	0.04	0.78	1.01	1.17	0.07	0.50	0.56	0.13	0.62	46.6	0.0	0. 0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
1	9.100	0.00	0.18	0.28	0.14	0.33	0.93	0.48	0.07	0.219	0.063	0.032	0.031	2.8	43.2	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	9.000	0.00	0.18	0.27	0.14	0.33	0.93	0.49	0.07	0.221	0.063	0.032	0.031	2.8	43.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	8.900	0.00	0.18	0.27	0.14	0.33	0.93	0.49	0.07	0.224	0.064	0.032	0.031	2.8	43.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	8.800	0.00	0.18	0.26	0.14	0.34	0.93	0.49	0.07	0.227	0.064	0.032	0.031	2.8	43.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	8.700	0.00	0.18	0.26	0.14	0.34	0.93	0.50	0.07	0.229	0.064	0.032	0.031	2.9	43.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

6	8.600	0.00	0.18	0.26	0.14	0.34	0.93	0.50	0.07	0.231	0.064	0.032	0.031	2.9	44.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
7	8.500	0.00	0.18	0.25	0.14	0.35	0.93	0.50	0.07	0.233	0.065	0.032	0.031	2.9	44.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	8.400	0.00	0.18	0.25	0.14	0.35	0.93	0.51	0.07	0.235	0.065	0.032	0.031	2.9	44.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	8.300	0.00	0.18	0.25	0.14	0.35	0.93	0.51	0.07	0.237	0.065	0.033	0.031	2.9	44.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	8.200	0.00	0.18	0.25	0.14	0.35	0.93	0.51	0.07	0.238	0.065	0.033	0.031	2.9	44.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
11	8.100	0.00	0.18	0.25	0.14	0.35	0.93	0.51	0.07	0.240	0.066	0.033	0.031	2.9	45.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
12	8.000	0.00	0.18	0.25	0.14	0.35	0.93	0.51	0.07	0.241	0.066	0.033	0.031	2.9	45.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
13	7.900	0.00	0.18	0.25	0.14	0.36	0.93	0.51	0.07	0.243	0.066	0.033	0.032	2.9	45.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
14	7.800	0.00	0.18	0.25	0.14	0.36	0.93	0.51	0.07	0.244	0.066	0.033	0.032	2.9	45.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
15	7.700	0.00	0.18	0.25	0.14	0.36	0.93	0.52	0.07	0.245	0.067	0.033	0.032	2.9	45.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
16	7.600	0.00	0.18	0.25	0.14	0.36	0.93	0.52	0.07	0.246	0.067	0.033	0.032	2.9	46.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
17	7.500	0.00	0.18	0.25	0.14	0.36	0.93	0.52	0.07	0.247	0.067	0.034	0.032	2.9	46.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
18	7.400	0.00	0.18	0.25	0.14	0.36	0.93	0.52	0.07	0.247	0.067	0.034	0.032	2.9	46.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										2.000	0.040	0.020	0.020										0.000	0.000	0.000		

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Cross Bayou Canal
REACH NO. 2 Cross Bayou Canal 2

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
19	UPR RCH	0.37001	31.30	0.00	2687.93	0.00	3.21	24.47	0.00	29.45	0.00	0.61	0.12	0.04	0.50	46.59	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
19	7.40	7.30	0.37001	0.0	0.04079	0.03	0.75	0.49	18.59	907.19	1859.00	9.07	1789.86	0.009	1.500	0.041
20	7.30	7.20	0.37001	0.0	0.04079	0.03	0.78	0.49	18.59	907.19	1859.00	9.07	1901.40	0.010	1.500	0.041
21	7.20	7.10	0.37001	0.0	0.04079	0.03	0.81	0.49	18.59	907.19	1859.00	9.07	2012.94	0.010	1.500	0.041
22	7.10	7.00	0.37001	0.0	0.04079	0.03	0.83	0.49	18.59	907.19	1859.00	9.07	2124.48	0.011	1.500	0.041
23	7.00	6.90	0.37001	0.0	0.04079	0.03	0.86	0.49	18.59	907.19	1859.00	9.07	2236.02	0.011	1.500	0.041
24	6.90	6.80	0.37001	0.0	0.04079	0.03	0.89	0.49	18.59	907.19	1859.00	9.07	2347.56	0.012	1.500	0.041
25	6.80	6.70	0.37001	0.0	0.04079	0.03	0.92	0.49	18.59	907.19	1859.00	9.07	2459.10	0.013	1.500	0.041
26	6.70	6.60	0.37001	0.0	0.04079	0.03	0.95	0.49	18.59	907.19	1859.00	9.07	2570.64	0.013	1.500	0.041
27	6.60	6.50	0.37001	0.0	0.04079	0.03	0.98	0.49	18.59	907.19	1859.00	9.07	2682.18	0.014	1.500	0.041
28	6.50	6.40	0.37001	0.0	0.04079	0.03	1.00	0.49	18.59	907.19	1859.00	9.07	2793.72	0.014	1.500	0.041
29	6.40	6.30	0.37001	0.0	0.04079	0.03	1.03	0.49	18.59	907.19	1859.00	9.07	2905.26	0.015	1.500	0.041
30	6.30	6.20	0.37001	0.0	0.04079	0.03	1.06	0.49	18.59	907.19	1859.00	9.07	3016.80	0.015	1.500	0.041
31	6.20	6.10	0.37001	0.0	0.04079	0.03	1.09	0.49	18.59	907.19	1859.00	9.07	3128.34	0.016	1.500	0.041
32	6.10	6.00	0.37001	0.0	0.04079	0.03	1.12	0.49	18.59	907.19	1859.00	9.07	3239.88	0.017	1.500	0.041
33	6.00	5.90	0.37001	0.0	0.04079	0.03	1.15	0.49	18.59	907.19	1859.00	9.07	3351.42	0.017	1.500	0.041
34	5.90	5.80	0.37001	0.0	0.04079	0.03	1.17	0.49	18.59	907.19	1859.00	9.07	3462.96	0.018	1.500	0.041
35	5.80	5.70	0.37001	0.0	0.04079	0.03	1.20	0.49	18.59	907.19	1859.00	9.07	3574.50	0.018	1.500	0.041
36	5.70	5.60	0.37001	0.0	0.04079	0.03	1.23	0.49	18.59	907.19	1859.00	9.07	3686.04	0.019	1.500	0.041
37	5.60	5.50	0.37001	0.0	0.04079	0.03	1.26	0.49	18.59	907.19	1859.00	9.07	3797.58	0.019	1.500	0.041

38	5.50	5.40	0.37001	0.0	0.04079	0.03	1.29	0.49	18.59	907.19	1859.00	9.07	3909.12	0.020	1.500	0.041
39	5.40	5.30	0.37001	0.0	0.04079	0.03	1.32	0.49	18.59	907.19	1859.00	9.07	4020.66	0.021	1.500	0.041
40	5.30	5.20	0.37001	0.0	0.04079	0.03	1.34	0.49	18.59	907.19	1859.00	9.07	4132.20	0.021	1.500	0.041
TOT						0.62				19958.22	40898.00					
AVG					0.0408			0.49	18.59			9.07				

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SETT 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SETT 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SETT 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SETT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
19	7.300	7.38	3.15	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.05	2.05	2.05	0.13	1.34	0.24	0.00	0.00	0.06	2.68	0.00	2.42	0.00	0.00	0.00	0.00
20	7.200	7.37	3.15	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.06	2.06	2.06	0.13	1.34	0.25	0.00	0.00	0.06	2.69	0.00	2.43	0.00	0.00	0.00	0.00
21	7.100	7.36	3.16	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.07	2.07	2.07	0.13	1.35	0.25	0.00	0.00	0.06	2.69	0.00	2.44	0.00	0.00	0.00	0.00
22	7.000	7.35	3.16	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.08	2.08	2.08	0.13	1.35	0.26	0.00	0.00	0.06	2.70	0.00	2.45	0.00	0.00	0.00	0.00
23	6.900	7.34	3.16	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.09	2.09	2.09	0.13	1.35	0.26	0.00	0.00	0.06	2.70	0.00	2.45	0.00	0.00	0.00	0.00
24	6.800	7.34	3.17	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.10	2.10	2.10	0.13	1.35	0.27	0.00	0.00	0.06	2.71	0.00	2.45	0.00	0.00	0.00	0.00
25	6.700	7.33	3.17	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.11	2.11	2.11	0.13	1.36	0.27	0.00	0.00	0.06	2.71	0.00	2.45	0.00	0.00	0.00	0.00
26	6.600	7.32	3.17	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.11	2.11	2.11	0.13	1.36	0.27	0.00	0.00	0.06	2.72	0.00	2.45	0.00	0.00	0.00	0.00
27	6.500	7.31	3.18	0.17	0.54	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.13	1.36	0.28	0.00	0.00	0.06	2.72	0.00	2.45	0.00	0.00	0.00	0.00
28	6.400	7.30	3.18	0.17	0.55	0.00	0.00	0.00	0.00	0.00	2.13	2.13	2.13	0.13	1.36	0.28	0.00	0.00	0.06	2.73	0.00	2.45	0.00	0.00	0.00	0.00
29	6.300	7.29	3.18	0.17	0.55	0.00	0.00	0.00	0.00	0.00	2.14	2.14	2.14	0.13	1.36	0.28	0.00	0.00	0.06	2.73	0.00	2.44	0.00	0.00	0.00	0.00
30	6.200	7.29	3.19	0.17	0.55	0.00	0.00	0.00	0.00	0.00	2.15	2.15	2.15	0.13	1.37	0.28	0.00	0.00	0.06	2.73	0.00	2.44	0.00	0.00	0.00	0.00
31	6.100	7.28	3.19	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.16	2.16	2.16	0.13	1.37	0.29	0.00	0.00	0.06	2.74	0.00	2.43	0.00	0.00	0.00	0.00
32	6.000	7.27	3.19	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.16	2.16	2.16	0.13	1.37	0.29	0.00	0.00	0.06	2.74	0.00	2.42	0.00	0.00	0.00	0.00
33	5.900	7.26	3.20	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.17	2.17	2.17	0.13	1.37	0.29	0.00	0.00	0.06	2.74	0.00	2.41	0.00	0.00	0.00	0.00
34	5.800	7.26	3.20	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.18	2.18	2.18	0.13	1.37	0.29	0.00	0.00	0.06	2.75	0.00	2.40	0.00	0.00	0.00	0.00
35	5.700	7.25	3.20	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.19	2.19	2.19	0.13	1.38	0.30	0.00	0.00	0.06	2.75	0.00	2.38	0.00	0.00	0.00	0.00
36	5.600	7.25	3.21	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.20	2.20	2.20	0.13	1.38	0.30	0.00	0.00	0.06	2.76	0.00	2.36	0.00	0.00	0.00	0.00
37	5.500	7.24	3.21	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.20	2.20	2.20	0.13	1.38	0.30	0.00	0.00	0.06	2.76	0.00	2.34	0.00	0.00	0.00	0.00
38	5.400	7.23	3.21	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.21	2.21	2.21	0.13	1.38	0.30	0.00	0.00	0.06	2.76	0.00	2.32	0.00	0.00	0.00	0.00
39	5.300	7.23	3.21	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.22	2.22	2.22	0.13	1.38	0.30	0.00	0.00	0.06	2.77	0.00	2.30	0.00	0.00	0.00	0.00
40	5.200	7.22	3.22	0.18	0.55	0.00	0.00	0.00	0.00	0.00	2.22	2.22	2.22	0.13	1.38	0.30	0.00	0.00	0.06	2.77	0.00	2.28	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			2.55	0.10	0.02	0.00	0.00	0.00	0.00	0.00	1.00			0.10	0.05	0.12	0.00	0.02	0.05	0.09	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
19	7.300	31.38	0.00	2687.93	0.00	3.38	24.03	0.00	29.03	0.00	0.59	0.12	0.04	0.75	0.99	1.15	0.06	0.50	0.56	0.12	0.62	46.9	0.0	0.	0.00
20	7.200	31.46	0.00	2687.93	0.00	3.55	23.56	0.00	28.61	0.00	0.57	0.12	0.04	0.73	0.97	1.13	0.06	0.50	0.55	0.12	0.62	47.2	0.0	0.	0.00
21	7.100	31.53	0.00	2687.93	0.00	3.71	23.10	0.00	28.18	0.00	0.54	0.12	0.04	0.71	0.95	1.11	0.05	0.50	0.55	0.12	0.61	47.6	0.0	0.	0.00
22	7.000	31.61	0.00	2687.93	0.00	3.85	22.65	0.00	27.77	0.00	0.52	0.12	0.04	0.68	0.93	1.09	0.05	0.49	0.54	0.11	0.61	47.9	0.0	0.	0.00
23	6.900	31.68	0.00	2687.93	0.00	3.99	22.21	0.00	27.37	0.00	0.50	0.12	0.04	0.66	0.91	1.07	0.05	0.49	0.54	0.11	0.60	48.3	0.0	0.	0.00
24	6.800	31.75	0.00	2687.93	0.00	4.11	21.78	0.00	26.97	0.00	0.48	0.12	0.04	0.64	0.90	1.05	0.04	0.49	0.54	0.11	0.60	48.6	0.0	0.	0.00
25	6.700	31.82	0.00	2687.93	0.00	4.23	21.36	0.00	26.58	0.00	0.46	0.11	0.04	0.62	0.88	1.03	0.04	0.49	0.53	0.10	0.60	48.9	0.0	0.	0.00
26	6.600	31.89	0.00	2687.93	0.00	4.33	20.94	0.00	26.20	0.00	0.45	0.11	0.04	0.60	0.86	1.01	0.04	0.49	0.53	0.10	0.59	49.3	0.0	0.	0.00
27	6.500	31.96	0.00	2687.93	0.00	4.43	20.53	0.00	25.83	0.00	0.43	0.11	0.04	0.58	0.85	1.00	0.03	0.49	0.53	0.10	0.59	49.6	0.0	0.	0.00

28	6.400	32.02	0.00	2687.93	0.00	4.52	20.13	0.00	25.46	0.00	0.41	0.11	0.04	0.56	0.84	0.98	0.03	0.49	0.52	0.10	0.59	49.9	0.0	0.0	0.00
29	6.300	32.08	0.00	2687.93	0.00	4.61	19.73	0.00	25.10	0.00	0.40	0.11	0.04	0.54	0.82	0.97	0.03	0.49	0.52	0.10	0.59	50.3	0.0	0.0	0.00
30	6.200	32.14	0.00	2687.93	0.00	4.69	19.34	0.00	24.75	0.00	0.38	0.10	0.04	0.52	0.81	0.95	0.03	0.49	0.52	0.09	0.58	50.6	0.0	0.0	0.00
31	6.100	32.20	0.00	2687.93	0.00	4.76	18.96	0.00	24.40	0.00	0.37	0.10	0.04	0.50	0.80	0.94	0.03	0.49	0.52	0.09	0.58	50.9	0.0	0.0	0.00
32	6.000	32.26	0.00	2687.93	0.00	4.82	18.59	0.00	24.06	0.00	0.35	0.10	0.04	0.49	0.79	0.92	0.02	0.49	0.51	0.09	0.58	51.2	0.0	0.0	0.00
33	5.900	32.32	0.00	2687.93	0.00	4.89	18.22	0.00	23.73	0.00	0.34	0.10	0.04	0.47	0.78	0.91	0.02	0.49	0.51	0.09	0.58	51.6	0.0	0.0	0.00
34	5.800	32.38	0.00	2687.93	0.00	4.94	17.86	0.00	23.40	0.00	0.32	0.09	0.04	0.45	0.77	0.89	0.02	0.49	0.51	0.09	0.58	51.9	0.0	0.0	0.00
35	5.700	32.43	0.00	2687.93	0.00	5.00	17.51	0.00	23.08	0.00	0.31	0.09	0.04	0.44	0.76	0.88	0.02	0.49	0.51	0.09	0.58	52.2	0.0	0.0	0.00
36	5.600	32.48	0.00	2687.93	0.00	5.04	17.16	0.00	22.77	0.00	0.30	0.09	0.03	0.42	0.75	0.87	0.02	0.49	0.51	0.09	0.57	52.5	0.0	0.0	0.00
37	5.500	32.54	0.00	2687.93	0.00	5.09	16.82	0.00	22.46	0.00	0.29	0.09	0.03	0.41	0.74	0.86	0.02	0.49	0.50	0.09	0.57	52.8	0.0	0.0	0.00
38	5.400	32.59	0.00	2687.93	0.00	5.12	16.49	0.00	22.16	0.00	0.28	0.09	0.03	0.40	0.73	0.85	0.02	0.49	0.50	0.08	0.57	53.1	0.0	0.0	0.00
39	5.300	32.64	0.00	2687.93	0.00	5.14	16.16	0.00	21.86	0.00	0.27	0.08	0.03	0.38	0.72	0.84	0.01	0.49	0.50	0.08	0.57	53.4	0.0	0.0	0.00
40	5.200	32.69	0.00	2687.95	0.00	5.10	15.84	0.00	21.58	0.00	0.26	0.08	0.03	0.37	0.71	0.83	0.01	0.49	0.50	0.08	0.57	53.7	0.0	0.0	0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE	SECCHI DEPTH	PHYT N	PHYT LIT	PHYT N	PHYT P	PHYT N&P	PHYT TOT	PHYT GROW	PHYT RESP	PHYT DEATH	PHYT SETT	PHYT P/R	PHYTO	PERI N	PERI LIT	PERI N	PERI P	PERI N&P	PERI SPC	PERI TOT	PERI GROW	PERI RESP	PERI DEATH	PERI P/R	PERIP
		frac	m	PREF	LIM	LIM	LIM	LIM	LIM	1/da	1/da	1/da	1/da	RATIO	µg/L	PREF	LIM	LIM	LIM	LIM	LIM	LIM	1/da	1/da	1/da	RATIO	g/m²
19	7.300	0.00	0.18	0.25	0.24	0.35	0.93	0.51	0.12	0.407	0.067	0.034	0.054	4.8	46.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	7.200	0.00	0.18	0.25	0.24	0.35	0.93	0.51	0.12	0.407	0.068	0.034	0.054	4.8	47.2	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	7.100	0.00	0.18	0.25	0.24	0.35	0.93	0.51	0.12	0.405	0.068	0.034	0.054	4.8	47.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	7.000	0.00	0.18	0.25	0.24	0.35	0.93	0.50	0.12	0.404	0.068	0.034	0.054	4.7	47.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	6.900	0.00	0.18	0.26	0.24	0.34	0.93	0.50	0.12	0.403	0.068	0.034	0.054	4.7	48.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	6.800	0.00	0.18	0.26	0.24	0.34	0.93	0.50	0.12	0.401	0.069	0.034	0.054	4.7	48.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	6.700	0.00	0.18	0.26	0.23	0.34	0.92	0.49	0.12	0.400	0.069	0.034	0.054	4.6	48.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
26	6.600	0.00	0.18	0.26	0.23	0.33	0.92	0.49	0.12	0.398	0.069	0.035	0.054	4.6	49.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	6.500	0.00	0.18	0.26	0.23	0.33	0.92	0.49	0.11	0.396	0.069	0.035	0.054	4.6	49.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	6.400	0.00	0.18	0.26	0.23	0.33	0.92	0.48	0.11	0.394	0.069	0.035	0.055	4.5	49.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	6.300	0.00	0.18	0.27	0.23	0.32	0.92	0.48	0.11	0.391	0.070	0.035	0.055	4.5	50.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	6.200	0.00	0.18	0.27	0.23	0.32	0.92	0.47	0.11	0.389	0.070	0.035	0.055	4.4	50.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	6.100	0.00	0.18	0.27	0.23	0.31	0.92	0.47	0.11	0.386	0.070	0.035	0.055	4.4	50.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
32	6.000	0.00	0.18	0.27	0.23	0.31	0.92	0.47	0.11	0.383	0.070	0.035	0.055	4.4	51.2	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
33	5.900	0.00	0.18	0.27	0.23	0.31	0.92	0.46	0.11	0.380	0.070	0.035	0.055	4.3	51.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
34	5.800	0.00	0.18	0.27	0.23	0.30	0.92	0.46	0.11	0.377	0.071	0.035	0.055	4.3	51.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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   35    5.700   0.00   0.18    0.28 0.23 0.30 0.92 0.45 0.11  0.374  0.071  0.035  0.055   4.2   52.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   36    5.600   0.00   0.18    0.28 0.23 0.29 0.92 0.45 0.10  0.370  0.071  0.035  0.055   4.2   52.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   37    5.500   0.00   0.18    0.28 0.23 0.29 0.92 0.44 0.10  0.366  0.071  0.036  0.055   4.1   52.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   38    5.400   0.00   0.18    0.28 0.23 0.28 0.92 0.43 0.10  0.363  0.071  0.036  0.055   4.1   53.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   39    5.300   0.00   0.18    0.28 0.23 0.28 0.92 0.43 0.10  0.359  0.071  0.036  0.055   4.0   53.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   40    5.200   0.00   0.18    0.28 0.23 0.27 0.92 0.42 0.10  0.355  0.072  0.036  0.055   4.0   53.7    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                     0.000  0.000  0.000

 NOTE ON NITR PREF:  1.0=NO3 ; 0.0=NH3

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  3    Bayou LaBranche (CBC to LABR3)                   Calibration Simulation with Algal Dynamics

 ******************************************************************************************** REACH INPUTS
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 ELEM  TYPE        FLOW     TEMP     SALN  Conduct     CM-2     DO   BOD1   BOD2  EBOD1  EBOD2  ORG-N  NH3-N  NO3-N  PO4-P  CHL A     COLI     NCM
 NO.                       deg C     ppt umhos/cm      g/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L  #/100mL

   41  UPR RCH   0.37001   32.69     0.00  2687.95     0.00   5.10  15.84   0.00  21.58   0.00   0.26   0.08   0.03   0.49  53.69     0.00     0.00
   47  WSTLD     0.17000   30.00     0.00  3490.00  3490.00   4.40  19.00   0.00  19.00   0.00   7.50   0.86   0.04   0.51  75.00     0.00     0.00

 ****************************************************************************** HYDRAULIC PARAMETER VALUES
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 ELEM   BEGIN  ENDING       FLOW   PCT    ADVCTV   TRAVEL      CUM   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF      VELO     TIME     TIME                                  AREA    AREA     PRISM    VELO               VELO
          km      km        m³/s             m/s     days     days       m       m        m³         m²      m²        m³     m/s      m²/s     m/s

   41    5.20    5.10    0.37001   0.0   0.04111     0.03     1.37    0.50   18.00    900.00    1800.00    9.00   4240.20   0.022     1.500   0.041
   42    5.10    5.00    0.37001   0.0   0.04111     0.03     1.40    0.50   18.00    900.00    1800.00    9.00   4348.20   0.022     1.500   0.041
   43    5.00    4.90    0.37001   0.0   0.04111     0.03     1.43    0.50   18.00    900.00    1800.00    9.00   4456.20   0.023     1.500   0.041
   44    4.90    4.80    0.37001   0.0   0.04111     0.03     1.46    0.50   18.00    900.00    1800.00    9.00   4564.20   0.023     1.500   0.041
   45    4.80    4.70    0.37001   0.0   0.04111     0.03     1.49    0.50   18.00    900.00    1800.00    9.00   4672.20   0.024     1.500   0.041
   46    4.70    4.60    0.37001   0.0   0.04111     0.03     1.51    0.50   18.00    900.00    1800.00    9.00   4780.20   0.025     1.500   0.041
   47    4.60    4.50    0.54001  31.5   0.06000     0.02     1.53    0.50   18.00    900.00    1800.00    9.00   4888.20   0.025     1.500   0.060

  TOT                                                 0.19                                    6300.00   12600.00
  AVG                                        0.0430                       0.50   18.00                          9.00

 ************************************************************************** BIOLOGICAL AND PHYSICAL COEFFICIENTS
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 ELEM  ENDING   SAT  REAER  BOD1  BOD1 ABOD1  BOD1  BOD2  BOD2 ABOD2  BKGD  FULL  CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P   PO4 PHYTO PERIP  COLI   NCM   NCM
 NO.     DIST  D.O.   RATE DECAY  SETT DECAY  HYDR DECAY  SETT DECAY   SOD   SOD   SOD  HYDR  SETT DECAY  SRCE  RATE  HYDR  SETT  SRCE  PROD  PROD DECAY DECAY  SETT
                mg/L   1/da  1/da  1/da  1/da  1/da  1/da  1/da  1/da     *     *     *  1/da  1/da  1/da     *  1/da  1/da  1/da     *    **    **  1/da  1/da  1/da

  41    5.100  7.22   1.76  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.69  6.69  6.69  0.13  1.35  0.30  0.00  0.00  0.06  2.70  0.00  2.19  0.00  0.00  0.00  0.00
  42    5.000  7.21   1.77  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.71  6.71  6.71  0.13  1.35  0.30  0.00  0.00  0.06  2.71  0.00  2.17  0.00  0.00  0.00  0.00
  43    4.900  7.21   1.77  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.72  6.72  6.72  0.13  1.36  0.29  0.00  0.00  0.06  2.71  0.00  2.16  0.00  0.00  0.00  0.00
  44    4.800  7.20   1.77  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.74  6.74  6.74  0.13  1.36  0.29  0.00  0.00  0.06  2.71  0.00  2.19  0.00  0.00  0.00  0.00
  45    4.700  7.20   1.77  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.74  6.74  6.74  0.13  1.36  0.29  0.00  0.00  0.06  2.71  0.00  2.38  0.00  0.00  0.00  0.00
  46    4.600  7.22   1.76  0.18  0.54  0.00  0.00  0.00  0.00  0.00  6.68  6.68  6.68  0.13  1.35  0.28  0.00  0.00  0.06  2.70  0.00  3.02  0.00  0.00  0.00  0.00
  47    4.500  7.30   1.74  0.17  0.53  0.00  0.00  0.00  0.00  0.00  6.42  6.42  6.42  0.13  1.33  0.27  0.00  0.00  0.06  2.66  0.00  4.42  0.00  0.00  0.00  0.00

 AVG 20 DEG C RATE    1.40  0.10  0.06  0.00  0.00  0.00  0.00  0.00  3.00              0.10  0.14  0.12  0.00  0.02  0.05  0.29  0.00              0.00  0.00  0.00

 *   g/m²/d            **   mg/L/day

 ********************************************************************************** WATER QUALITY CONSTITUENT VALUES
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ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI #/100mL	NCM
41	5.100	32.73	0.00	2688.02	0.00	4.83	15.54	0.00	21.30	0.00	0.25	0.08	0.03	0.36	0.71	0.82	0.01	0.48	0.50	0.08	0.57	54.0	0.0	0.	0.00
42	5.000	32.78	0.00	2688.27	0.00	4.57	15.24	0.00	21.03	0.00	0.24	0.08	0.03	0.35	0.70	0.81	0.01	0.48	0.50	0.08	0.57	54.2	0.0	0.	0.00
43	4.900	32.82	0.00	2689.22	0.00	4.32	14.95	0.00	20.77	0.00	0.24	0.08	0.03	0.34	0.70	0.81	0.01	0.48	0.50	0.08	0.57	54.5	0.0	0.	0.00
44	4.800	32.85	0.00	2692.75	0.00	4.10	14.68	0.00	20.54	0.00	0.26	0.08	0.03	0.36	0.72	0.83	0.01	0.48	0.50	0.08	0.57	54.9	0.0	0.	0.00
45	4.700	32.84	0.00	2705.97	0.00	3.90	14.47	0.00	20.41	0.00	0.36	0.09	0.03	0.47	0.83	0.95	0.02	0.48	0.50	0.09	0.57	55.6	0.0	0.	0.00
46	4.600	32.71	0.00	2755.43	0.00	3.78	14.51	0.00	20.61	0.00	0.77	0.14	0.03	0.93	1.25	1.42	0.04	0.48	0.52	0.11	0.59	57.2	0.0	0.	0.00
47	4.500	32.07	0.00	2940.43	0.00	3.87	15.41	0.00	22.05	0.00	2.39	0.32	0.03	2.75	2.92	3.27	0.11	0.49	0.60	0.19	0.68	62.1	0.0	0.	0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERIP g/m²	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO
41	5.100	0.00	0.18	0.28	0.23	0.27	0.92	0.42	0.10	0.343	0.072	0.036	0.054	3.8	54.0	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
42	5.000	0.00	0.18	0.28	0.23	0.27	0.92	0.41	0.09	0.340	0.072	0.036	0.054	3.8	54.2	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
43	4.900	0.00	0.18	0.28	0.23	0.26	0.92	0.41	0.09	0.337	0.072	0.036	0.054	3.7	54.5	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
44	4.800	0.00	0.17	0.28	0.23	0.27	0.92	0.41	0.09	0.339	0.072	0.036	0.054	3.8	54.9	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
45	4.700	0.00	0.17	0.25	0.23	0.28	0.92	0.44	0.10	0.358	0.072	0.036	0.054	4.0	55.6	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
46	4.600	0.00	0.17	0.18	0.23	0.36	0.92	0.52	0.12	0.419	0.072	0.036	0.054	4.7	57.2	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
47	4.500	0.00	0.17	0.10	0.22	0.54	0.92	0.68	0.15	0.531	0.070	0.035	0.053	6.1	62.1	0.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
20 DEG C RATE										2.000	0.040	0.020	0.020											0.000	0.000	0.000	

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Cross Bayou Canal
REACH NO. 4 Bayou LaBranche (CBC to LABR3)

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
48	UPR RCH	0.54001	32.07	0.00	2940.43	0.00	3.87	15.41	0.00	22.05	0.00	2.39	0.32	0.03	0.49	62.15	0.00	0.00

********** HYDRAULIC PARAMETER VALUES **********

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
48	4.50	4.40	0.54001	31.5	0.04033	0.03	1.56	0.73	18.29	1338.83	1829.00	13.39	4997.94	0.017	1.500	0.040

49	4.40	4.30	0.54001	31.5	0.04033	0.03	1.59	0.73	18.29	1338.83	1829.00	13.39	5107.68	0.018	1.500	0.040
50	4.30	4.20	0.54001	31.5	0.04033	0.03	1.62	0.73	18.29	1338.83	1829.00	13.39	5217.42	0.018	1.500	0.040
51	4.20	4.10	0.54001	31.5	0.04033	0.03	1.65	0.73	18.29	1338.83	1829.00	13.39	5327.16	0.018	1.500	0.040
52	4.10	4.00	0.54001	31.5	0.04033	0.03	1.68	0.73	18.29	1338.83	1829.00	13.39	5436.90	0.019	1.500	0.040
53	4.00	3.90	0.54001	31.5	0.04033	0.03	1.70	0.73	18.29	1338.83	1829.00	13.39	5546.64	0.019	1.500	0.040
54	3.90	3.80	0.54001	31.5	0.04033	0.03	1.73	0.73	18.29	1338.83	1829.00	13.39	5656.38	0.020	1.500	0.040
55	3.80	3.70	0.54001	31.5	0.04033	0.03	1.76	0.73	18.29	1338.83	1829.00	13.39	5766.12	0.020	1.500	0.040
56	3.70	3.60	0.54001	31.5	0.04033	0.03	1.79	0.73	18.29	1338.83	1829.00	13.39	5875.86	0.020	1.500	0.040
57	3.60	3.50	0.54001	31.5	0.04033	0.03	1.82	0.73	18.29	1338.83	1829.00	13.39	5985.60	0.021	1.500	0.040
58	3.50	3.40	0.54001	31.5	0.04033	0.03	1.85	0.73	18.29	1338.83	1829.00	13.39	6095.34	0.021	1.500	0.040
59	3.40	3.30	0.54001	31.5	0.04033	0.03	1.88	0.73	18.29	1338.83	1829.00	13.39	6205.08	0.021	1.500	0.040
60	3.30	3.20	0.54001	31.5	0.04033	0.03	1.91	0.73	18.29	1338.83	1829.00	13.39	6314.82	0.022	1.500	0.040
61	3.20	3.10	0.54001	31.5	0.04033	0.03	1.93	0.73	18.29	1338.83	1829.00	13.39	6424.56	0.022	1.500	0.040
62	3.10	3.00	0.54001	31.5	0.04033	0.03	1.96	0.73	18.29	1338.83	1829.00	13.39	6534.30	0.023	1.500	0.040
63	3.00	2.90	0.54001	31.5	0.04033	0.03	1.99	0.73	18.29	1338.83	1829.00	13.39	6644.04	0.023	1.500	0.040
64	2.90	2.80	0.54001	31.5	0.04033	0.03	2.02	0.73	18.29	1338.83	1829.00	13.39	6753.78	0.023	1.500	0.040
65	2.80	2.70	0.54001	31.5	0.04033	0.03	2.05	0.73	18.29	1338.83	1829.00	13.39	6863.52	0.024	1.500	0.040
TOT						0.52				24098.91	32922.00					
AVG					0.0403			0.73	18.29			13.39				

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS **********

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SETT 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SETT 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SETT 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SETT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
48	4.400	7.29	1.19	0.17	0.36	0.00	0.00	0.00	0.00	0.00	1.07	1.07	1.07	0.13	0.91	0.27	0.00	0.00	0.06	1.82	0.00	2.83	0.00	0.00	0.00	0.00
49	4.300	7.29	1.19	0.17	0.36	0.00	0.00	0.00	0.00	0.00	1.08	1.08	1.08	0.13	0.91	0.27	0.00	0.00	0.06	1.82	0.00	2.86	0.00	0.00	0.00	0.00
50	4.200	7.28	1.19	0.18	0.36	0.00	0.00	0.00	0.00	0.00	1.08	1.08	1.08	0.13	0.91	0.28	0.00	0.00	0.06	1.82	0.00	2.90	0.00	0.00	0.00	0.00
51	4.100	7.28	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.08	1.08	1.08	0.13	0.91	0.28	0.00	0.00	0.06	1.83	0.00	2.93	0.00	0.00	0.00	0.00
52	4.000	7.27	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.08	1.08	1.08	0.13	0.91	0.28	0.00	0.00	0.06	1.83	0.00	2.96	0.00	0.00	0.00	0.00
53	3.900	7.27	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.13	0.91	0.28	0.00	0.00	0.06	1.83	0.00	2.99	0.00	0.00	0.00	0.00
54	3.800	7.26	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.13	0.92	0.28	0.00	0.00	0.06	1.83	0.00	3.02	0.00	0.00	0.00	0.00
55	3.700	7.26	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.13	0.92	0.29	0.00	0.00	0.06	1.83	0.00	3.05	0.00	0.00	0.00	0.00
56	3.600	7.25	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.13	0.92	0.29	0.00	0.00	0.06	1.83	0.00	3.07	0.00	0.00	0.00	0.00
57	3.500	7.25	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.13	0.92	0.29	0.00	0.00	0.06	1.84	0.00	3.10	0.00	0.00	0.00	0.00
58	3.400	7.24	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.13	0.92	0.29	0.00	0.00	0.06	1.84	0.00	3.13	0.00	0.00	0.00	0.00
59	3.300	7.24	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.13	0.92	0.29	0.00	0.00	0.06	1.84	0.00	3.16	0.00	0.00	0.00	0.00
60	3.200	7.23	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.13	0.92	0.29	0.00	0.00	0.06	1.84	0.00	3.18	0.00	0.00	0.00	0.00
61	3.100	7.23	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.13	0.92	0.30	0.00	0.00	0.06	1.84	0.00	3.21	0.00	0.00	0.00	0.00
62	3.000	7.23	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.13	0.92	0.30	0.00	0.00	0.06	1.84	0.00	3.23	0.00	0.00	0.00	0.00
63	2.900	7.22	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.13	0.92	0.30	0.00	0.00	0.06	1.85	0.00	3.26	0.00	0.00	0.00	0.00
64	2.800	7.22	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.11	1.11	1.11	0.13	0.92	0.30	0.00	0.00	0.06	1.85	0.00	3.28	0.00	0.00	0.00	0.00
65	2.700	7.21	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.12	1.12	1.12	0.13	0.92	0.30	0.00	0.00	0.06	1.85	0.00	3.31	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.96	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.50			0.10	0.04	0.12	0.00	0.02	0.05	0.08	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI NCM #/100mL
48	4.400	32.11	0.00	2940.43	0.00	3.94	15.18	0.00	21.86	0.00	2.32	0.32	0.04	2.68	2.85	3.21	0.11	0.49	0.60	0.19	0.68	62.6	0.0	0. 0.00
49	4.300	32.16	0.00	2940.43	0.00	4.00	14.95	0.00	21.68	0.00	2.25	0.32	0.04	2.62	2.79	3.15	0.10	0.49	0.59	0.18	0.67	63.0	0.0	0. 0.00
50	4.200	32.20	0.00	2940.43	0.00	4.07	14.73	0.00	21.51	0.00	2.19	0.32	0.04	2.55	2.73	3.09	0.10	0.49	0.58	0.18	0.67	63.4	0.0	0. 0.00
51	4.100	32.24	0.00	2940.43	0.00	4.13	14.52	0.00	21.33	0.00	2.13	0.33	0.04	2.50	2.67	3.04	0.09	0.49	0.58	0.18	0.66	63.8	0.0	0. 0.00

52	4.000	32.28	0.00	2940.43	0.00	4.20	14.30	0.00	21.17	0.00	2.07	0.33	0.04	2.44	2.61	2.98	0.09	0.49	0.57	0.17	0.66	64.3	0.0	0.0	0.00	
53	3.900	32.31	0.00	2940.43	0.00	4.26	14.09	0.00	21.00	0.00	2.01	0.33	0.05	2.38	2.56	2.93	0.08	0.49	0.57	0.17	0.65	64.7	0.0	0.0	0.00	
54	3.800	32.35	0.00	2940.43	0.00	4.32	13.88	0.00	20.84	0.00	1.95	0.33	0.05	2.33	2.50	2.88	0.08	0.49	0.56	0.16	0.65	65.1	0.0	0.0	0.00	
55	3.700	32.39	0.00	2940.43	0.00	4.38	13.68	0.00	20.68	0.00	1.90	0.33	0.05	2.27	2.45	2.83	0.08	0.48	0.56	0.16	0.65	65.6	0.0	0.0	0.00	
56	3.600	32.43	0.00	2940.43	0.00	4.45	13.48	0.00	20.53	0.00	1.84	0.33	0.05	2.22	2.40	2.78	0.07	0.48	0.56	0.16	0.64	66.0	0.0	0.0	0.00	
57	3.500	32.46	0.00	2940.43	0.00	4.51	13.28	0.00	20.38	0.00	1.79	0.33	0.05	2.17	2.35	2.73	0.07	0.48	0.55	0.15	0.64	66.5	0.0	0.0	0.00	
58	3.400	32.50	0.00	2940.43	0.00	4.57	13.08	0.00	20.23	0.00	1.74	0.33	0.06	2.12	2.31	2.69	0.06	0.48	0.55	0.15	0.63	67.0	0.0	0.0	0.00	
59	3.300	32.54	0.00	2940.43	0.00	4.63	12.89	0.00	20.09	0.00	1.69	0.33	0.06	2.07	2.26	2.64	0.06	0.48	0.54	0.15	0.63	67.4	0.0	0.0	0.00	
60	3.200	32.57	0.00	2940.43	0.00	4.68	12.70	0.00	19.95	0.00	1.64	0.32	0.06	2.02	2.22	2.60	0.06	0.48	0.54	0.15	0.63	67.9	0.0	0.0	0.00	
61	3.100	32.60	0.00	2940.43	0.00	4.74	12.51	0.00	19.81	0.00	1.59	0.32	0.06	1.98	2.17	2.56	0.06	0.48	0.54	0.14	0.63	68.3	0.0	0.0	0.00	
62	3.000	32.64	0.00	2940.43	0.00	4.80	12.32	0.00	19.67	0.00	1.55	0.32	0.06	1.93	2.13	2.52	0.05	0.48	0.53	0.14	0.62	68.8	0.0	0.0	0.00	
63	2.900	32.67	0.00	2940.43	0.00	4.86	12.14	0.00	19.54	0.00	1.50	0.32	0.06	1.89	2.09	2.48	0.05	0.48	0.53	0.14	0.62	69.3	0.0	0.0	0.00	
64	2.800	32.70	0.00	2940.43	0.00	4.92	11.96	0.00	19.41	0.00	1.46	0.32	0.07	1.84	2.05	2.44	0.05	0.48	0.53	0.14	0.62	69.8	0.0	0.0	0.00	
65	2.700	32.74	0.00	2940.43	0.00	4.97	11.77	0.00	19.28	0.00	1.42	0.32	0.07	1.80	2.01	2.40	0.05	0.48	0.52	0.14	0.61	70.3	0.0	0.0	0.00	

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE	SECCHI DEPTH	PHYT N	PHYT LIT	PHYT N	PHYT P	PHYT N&P	PHYT TOT	PHYT GROW	PHYT RESP	PHYT DEATH	PHYT SETT	PHYT P/R	PHYTO	PERI N	PERI LIT	PERI N	PERI P	PERI N&P	PERI SPC	PERI TOT	PERI GROW	PERI RESP	PERI DEATH	PERI P/R	PERIP
		frac	m	PREF	LIM	LIM	LIM	LIM	LIM	1/da	1/da	1/da	1/da	RATIO	µg/L	PREF	LIM	LIM	LIM	LIM	LIM	LIM	1/da	1/da	1/da	RATIO	g/m²
48	4.400	0.00	0.17	0.10	0.16	0.54	0.92	0.68	0.11	0.370	0.070	0.035	0.036	4.2	62.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	4.300	0.00	0.17	0.11	0.16	0.55	0.92	0.69	0.11	0.372	0.070	0.035	0.036	4.3	63.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
50	4.200	0.00	0.17	0.11	0.16	0.55	0.92	0.69	0.11	0.373	0.070	0.035	0.036	4.3	63.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
51	4.100	0.00	0.17	0.12	0.16	0.55	0.92	0.69	0.11	0.374	0.070	0.035	0.037	4.3	63.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	4.000	0.00	0.17	0.12	0.16	0.55	0.92	0.69	0.11	0.375	0.070	0.035	0.037	4.3	64.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
53	3.900	0.00	0.17	0.12	0.16	0.55	0.92	0.69	0.11	0.377	0.070	0.035	0.037	4.3	64.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	3.800	0.00	0.17	0.13	0.16	0.56	0.92	0.69	0.11	0.378	0.071	0.035	0.037	4.3	65.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
55	3.700	0.00	0.17	0.13	0.16	0.56	0.92	0.69	0.11	0.379	0.071	0.035	0.037	4.3	65.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
56	3.600	0.00	0.17	0.14	0.15	0.56	0.92	0.70	0.11	0.379	0.071	0.035	0.037	4.3	66.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	3.500	0.00	0.17	0.14	0.15	0.56	0.92	0.70	0.11	0.380	0.071	0.035	0.037	4.3	66.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	3.400	0.00	0.17	0.15	0.15	0.56	0.92	0.70	0.11	0.381	0.071	0.036	0.037	4.3	67.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
59	3.300	0.00	0.17	0.15	0.15	0.56	0.92	0.70	0.11	0.382	0.071	0.036	0.037	4.3	67.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	3.200	0.00	0.17	0.15	0.15	0.56	0.92	0.70	0.11	0.382	0.071	0.036	0.037	4.3	67.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
61	3.100	0.00	0.17	0.16	0.15	0.56	0.92	0.70	0.11	0.383	0.071	0.036	0.037	4.3	68.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	3.000	0.00	0.17	0.16	0.15	0.56	0.92	0.70	0.11	0.383	0.071	0.036	0.037	4.3	68.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

63	2.900	0.00	0.17	0.17	0.15	0.56	0.92	0.70	0.11	0.383	0.072	0.036	0.037	4.3	69.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	2.800	0.00	0.17	0.17	0.15	0.56	0.92	0.70	0.11	0.384	0.072	0.036	0.037	4.3	69.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	2.700	0.00	0.17	0.18	0.15	0.56	0.92	0.70	0.11	0.384	0.072	0.036	0.037	4.3	70.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20 DEG C RATE										2.000	0.040	0.020	0.020										0.000	0.000	0.000		

NOTE ON NITR PREF: 1.0=NO3 ; 0.0=NH3

FINAL REPORT Cross Bayou Canal
REACH NO. 5 Bayou LaBranche (LABR3 to BT)

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

********** REACH INPUTS

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
66	UPR RCH	0.54001	32.74	0.00	2940.43	0.00	4.97	11.77	0.00	19.28	0.00	1.42	0.32	0.07	0.48	70.30	0.00	0.00
78	WSTLD	0.17000	30.00	0.00	7292.00	7000.00	5.60	9.00	0.00	9.00	0.00	7.50	0.17	0.04	0.34	23.00	0.00	0.00

********** HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
66	2.70	2.60	0.54001	31.5	0.03554	0.03	2.08	0.73	20.76	1519.63	2076.00	15.20	6988.08	0.021	1.500	0.036
67	2.60	2.50	0.54001	31.5	0.03554	0.03	2.11	0.73	20.76	1519.63	2076.00	15.20	7112.65	0.022	1.500	0.036
68	2.50	2.40	0.54001	31.5	0.03554	0.03	2.15	0.73	20.76	1519.63	2076.00	15.20	7237.21	0.022	1.500	0.036
69	2.40	2.30	0.54001	31.5	0.03554	0.03	2.18	0.73	20.76	1519.63	2076.00	15.20	7361.77	0.022	1.500	0.036
70	2.30	2.20	0.54001	31.5	0.03554	0.03	2.21	0.73	20.76	1519.63	2076.00	15.20	7486.33	0.023	1.500	0.036
71	2.20	2.10	0.54001	31.5	0.03554	0.03	2.24	0.73	20.76	1519.63	2076.00	15.20	7610.89	0.023	1.500	0.036
72	2.10	2.00	0.54001	31.5	0.03554	0.03	2.28	0.73	20.76	1519.63	2076.00	15.20	7735.45	0.024	1.500	0.036
73	2.00	1.90	0.54001	31.5	0.03554	0.03	2.31	0.73	20.76	1519.63	2076.00	15.20	7860.01	0.024	1.500	0.036
74	1.90	1.80	0.54001	31.5	0.03554	0.03	2.34	0.73	20.76	1519.63	2076.00	15.20	7984.57	0.024	1.500	0.036
75	1.80	1.70	0.54001	31.5	0.03554	0.03	2.37	0.73	20.76	1519.63	2076.00	15.20	8109.13	0.025	1.500	0.036
76	1.70	1.60	0.54001	31.5	0.03554	0.03	2.41	0.73	20.76	1519.63	2076.00	15.20	8233.69	0.025	1.500	0.036
77	1.60	1.50	0.54001	31.5	0.03554	0.03	2.44	0.73	20.76	1519.63	2076.00	15.20	8358.25	0.025	1.500	0.036
78	1.50	1.40	0.71001	47.9	0.04672	0.02	2.46	0.73	20.76	1519.63	2076.00	15.20	8482.80	0.026	1.500	0.047
TOT						0.42				19755.22	26988.00					
AVG					0.0362			0.73	20.76			15.20				

********** BIOLOGICAL AND PHYSICAL COEFFICIENTS

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD1 DECAY 1/da	BOD1 SETT 1/da	ABOD1 DECAY 1/da	BOD1 HYDR 1/da	BOD2 DECAY 1/da	BOD2 SETT 1/da	ABOD2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORG-N HYDR 1/da	ORG-N SETT 1/da	NH3-N DECAY 1/da	NH3-N SRCE *	DENIT RATE 1/da	ORG-P HYDR 1/da	ORG-P SETT 1/da	PO4 SRCE *	PHYTO PROD **	PERIP PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
66	2.600	7.21	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.12	1.12	1.12	0.13	0.92	0.30	0.00	0.00	0.06	1.85	0.00	3.34	0.00	0.00	0.00	0.00
67	2.500	7.21	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.12	1.12	1.12	0.13	0.93	0.31	0.00	0.00	0.06	1.85	0.00	3.36	0.00	0.00	0.00	0.00
68	2.400	7.20	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.12	1.12	1.12	0.13	0.93	0.31	0.00	0.00	0.06	1.85	0.00	3.39	0.00	0.00	0.00	0.00
69	2.300	7.20	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.31	0.00	0.00	0.06	1.85	0.00	3.42	0.00	0.00	0.00	0.00
70	2.200	7.19	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.31	0.00	0.00	0.06	1.86	0.00	3.44	0.00	0.00	0.00	0.00
71	2.100	7.19	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.31	0.00	0.00	0.06	1.86	0.00	3.47	0.00	0.00	0.00	0.00
72	2.000	7.19	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.31	0.00	0.00	0.06	1.86	0.00	3.49	0.00	0.00	0.00	0.00
73	1.900	7.18	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.32	0.00	0.00	0.06	1.86	0.00	3.51	0.00	0.00	0.00	0.00
74	1.800	7.18	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.14	1.14	1.14	0.13	0.93	0.32	0.00	0.00	0.06	1.86	0.00	3.53	0.00	0.00	0.00	0.00
75	1.700	7.18	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.14	1.14	1.14	0.13	0.93	0.32	0.00	0.00	0.06	1.86	0.00	3.54	0.00	0.00	0.00	0.00
76	1.600	7.18	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.14	1.14	1.14	0.13	0.93	0.32	0.00	0.00	0.06	1.86	0.00	3.52	0.00	0.00	0.00	0.00
77	1.500	7.19	1.21	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.93	0.32	0.00	0.00	0.06	1.86	0.00	3.40	0.00	0.00	0.00	0.00
78	1.400	7.25	1.20	0.18	0.37	0.00	0.00	0.00	0.00	0.00	1.09	1.09	1.09	0.13	0.92	0.30	0.00	0.00	0.06	1.83	0.00	2.94	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.96 0.10 0.02 0.00 0.00 0.00 0.00 0.00 0.50 0.10 0.05 0.12 0.00 0.02 0.05 0.11 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI NCM #/100mL
66	2.600	32.77	0.00	2940.43	0.00	5.04	11.57	0.00	19.14	0.00	1.37	0.31	0.07	1.75	1.97	2.35	0.04	0.48	0.52	0.13	0.61	70.9	0.0	0. 0.00
67	2.500	32.81	0.00	2940.43	0.00	5.10	11.38	0.00	19.00	0.00	1.32	0.31	0.07	1.71	1.93	2.31	0.04	0.48	0.52	0.13	0.61	71.4	0.0	0. 0.00
68	2.400	32.84	0.00	2940.43	0.00	5.16	11.19	0.00	18.87	0.00	1.28	0.31	0.07	1.66	1.89	2.28	0.04	0.48	0.51	0.13	0.61	72.0	0.0	0. 0.00
69	2.300	32.88	0.00	2940.44	0.00	5.22	11.00	0.00	18.75	0.00	1.24	0.31	0.07	1.62	1.86	2.24	0.04	0.47	0.51	0.13	0.60	72.5	0.0	0. 0.00
70	2.200	32.91	0.00	2940.49	0.00	5.28	10.81	0.00	18.62	0.00	1.20	0.30	0.08	1.58	1.82	2.20	0.03	0.47	0.51	0.13	0.60	73.1	0.0	0. 0.00
71	2.100	32.94	0.00	2940.64	0.00	5.34	10.63	0.00	18.50	0.00	1.16	0.30	0.08	1.54	1.79	2.17	0.03	0.47	0.50	0.13	0.60	73.7	0.0	0. 0.00
72	2.000	32.98	0.00	2941.14	0.00	5.40	10.46	0.00	18.39	0.00	1.12	0.30	0.08	1.50	1.76	2.13	0.03	0.47	0.50	0.13	0.60	74.3	0.0	0. 0.00
73	1.900	33.01	0.00	2942.83	0.00	5.46	10.28	0.00	18.27	0.00	1.09	0.29	0.08	1.47	1.73	2.10	0.03	0.47	0.50	0.13	0.60	74.8	0.0	0. 0.00
74	1.800	33.03	0.00	2948.53	0.00	5.51	10.11	0.00	18.15	0.00	1.06	0.29	0.08	1.44	1.70	2.08	0.03	0.47	0.50	0.13	0.59	75.3	0.0	0. 0.00
75	1.700	33.05	0.00	2967.72	0.00	5.56	9.94	0.00	18.02	0.00	1.05	0.29	0.08	1.42	1.70	2.07	0.03	0.47	0.49	0.12	0.59	75.7	0.0	0. 0.00
76	1.600	33.04	0.00	3032.38	0.00	5.61	9.76	0.00	17.81	0.00	1.11	0.28	0.08	1.47	1.75	2.12	0.03	0.47	0.49	0.12	0.59	75.4	0.0	0. 0.00
77	1.500	32.92	0.00	3250.22	0.00	5.63	9.55	0.00	17.37	0.00	1.37	0.28	0.08	1.74	2.00	2.36	0.03	0.46	0.49	0.12	0.58	73.2	0.0	0. 0.00
78	1.400	32.44	0.00	3984.13	0.00	5.56	9.24	0.00	16.12	0.00	2.39	0.27	0.08	2.74	2.94	3.29	0.04	0.44	0.47	0.12	0.56	64.4	0.0	0. 0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
66	2.600	0.00	0.17	0.18	0.15	0.56	0.92	0.70	0.11	0.384	0.072	0.036	0.037	4.3	70.9	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
67	2.500	0.00	0.17	0.18	0.15	0.56	0.92	0.70	0.11	0.384	0.072	0.036	0.037	4.3	71.4	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
68	2.400	0.00	0.17	0.19	0.15	0.56	0.92	0.70	0.11	0.385	0.072	0.036	0.037	4.3	72.0	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
69	2.300	0.00	0.17	0.19	0.15	0.56	0.92	0.70	0.11	0.385	0.072	0.036	0.037	4.3	72.5	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
70	2.200	0.00	0.17	0.20	0.15	0.56	0.92	0.70	0.11	0.385	0.072	0.036	0.037	4.3	73.1	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
71	2.100	0.00	0.17	0.20	0.15	0.56	0.92	0.69	0.11	0.385	0.072	0.036	0.037	4.2	73.7	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
72	2.000	0.00	0.17	0.21	0.15	0.56	0.92	0.69	0.11	0.384	0.073	0.036	0.037	4.2	74.3	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
73	1.900	0.00	0.17	0.21	0.15	0.56	0.92	0.69	0.11	0.384	0.073	0.036	0.037	4.2	74.8	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
74	1.800	0.00	0.17	0.22	0.15	0.55	0.92	0.69	0.11	0.384	0.073	0.036	0.037	4.2	75.3	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
75	1.700	0.00	0.17	0.22	0.15	0.55	0.92	0.69	0.11	0.383	0.073	0.036	0.037	4.2	75.7	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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   76    1.600   0.00   0.17    0.22 0.15 0.55 0.92 0.69 0.11  0.383  0.073  0.036  0.037   4.2   75.4    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   77    1.500   0.00   0.17    0.23 0.15 0.55 0.92 0.69 0.11  0.381  0.072  0.036  0.037   4.2   73.2    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   78    1.400   0.00   0.17    0.23 0.16 0.54 0.92 0.68 0.11  0.373  0.071  0.035  0.037   4.2   64.4    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

 NOTE ON NITR PREF:  1.0=NO3 ; 0.0=NH3

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  6    Bayou LaBranche (BT to LGLD)                     Calibration Simulation with Algal Dynamics

 ******************************************************************************************** REACH INPUTS
*******************************************************************************************

 ELEM  TYPE        FLOW     TEMP     SALN  Conduct     CM-2     DO   BOD1   BOD2  EBOD1  EBOD2  ORG-N  NH3-N  NO3-N  PO4-P  CHL A     COLI     NCM
 NO.                       deg C     ppt umhos/cm      g/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L  #/100mL

   79  UPR RCH   0.71001   32.44     0.00  3984.13     0.00   5.56   9.24   0.00  16.12   0.00   2.39   0.27   0.08   0.44  64.45     0.00     0.00

 ************************************************************************************** HYDRAULIC PARAMETER VALUES
*****************************************************************************************

 ELEM   BEGIN  ENDING       FLOW   PCT    ADVCTV   TRAVEL     CUM   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF      VELO     TIME    TIME                                  AREA    AREA     PRISM    VELO               VELO
          km      km        m³/s             m/s     days    days       m       m        m³         m²      m²        m³     m/s      m²/s     m/s

   79    1.40    1.30    0.71001  47.9   0.01479     0.08    2.54    1.99   24.08   4801.55    2408.00   48.02   8627.29   0.008     1.500   0.015
   80    1.30    1.20    0.71001  47.9   0.01479     0.08    2.62    1.99   24.08   4801.55    2408.00   48.02   8771.77   0.008     1.500   0.015
   81    1.20    1.10    0.71001  47.9   0.01479     0.08    2.70    1.99   24.08   4801.55    2408.00   48.02   8916.25   0.009     1.500   0.015
   82    1.10    1.00    0.71001  47.9   0.01479     0.08    2.78    1.99   24.08   4801.55    2408.00   48.02   9060.73   0.009     1.500   0.015

  TOT                                                0.31                           19206.21    9632.00
  AVG                                     0.0148                     1.99   24.08                          48.02

 ************************************************************************** BIOLOGICAL AND PHYSICAL COEFFICIENTS
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 ELEM  ENDING   SAT  REAER  BOD1  BOD1 ABOD1  BOD1  BOD2  BOD2 ABOD2  BKGD  FULL  CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P   PO4 PHYTO PERIP  COLI   NCM   NCM
 NO.     DIST  D.O.   RATE DECAY  SETT DECAY  HYDR DECAY  SETT DECAY   SOD   SOD   SOD  HYDR  SETT DECAY  SRCE  RATE  HYDR  SETT  SRCE  PROD  PROD DECAY DECAY  SETT
               mg/L   1/da  1/da  1/da  1/da  1/da  1/da  1/da  1/da     *     *     *  1/da  1/da  1/da     *  1/da  1/da  1/da     *    **    **  1/da  1/da  1/da

  79    1.300  7.25   0.44  0.18  0.13  0.00  0.00  0.00  0.00  0.00  2.19  2.19  2.19  0.13  0.34  0.30  0.00  0.00  0.06  0.67  0.00  0.53  0.00  0.00  0.00  0.00
  80    1.200  7.24   0.44  0.18  0.13  0.00  0.00  0.00  0.00  0.00  2.20  2.20  2.20  0.13  0.34  0.30  0.00  0.00  0.06  0.67  0.00  0.55  0.00  0.00  0.00  0.00
  81    1.100  7.24   0.44  0.18  0.14  0.00  0.00  0.00  0.00  0.00  2.21  2.21  2.21  0.13  0.34  0.30  0.00  0.00  0.06  0.68  0.00  0.57  0.00  0.00  0.00  0.00
  82    1.000  7.23   0.44  0.18  0.14  0.00  0.00  0.00  0.00  0.00  2.21  2.21  2.21  0.13  0.34  0.30  0.00  0.00  0.06  0.68  0.00  0.59  0.00  0.00  0.00  0.00

 AVG 20 DEG C RATE    0.35  0.10  0.03  0.00  0.00  0.00  0.00  0.00  1.00              0.10  0.06  0.12  0.00  0.02  0.05  0.13  0.00              0.00  0.00  0.00

 *   g/m²/d            **   mg/L/day

 ********************************************************************************** WATER QUALITY CONSTITUENT VALUES
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 ELEM  ENDING   TEMP  SALN  Conduct     CM-2     DO    BOD1   BOD2  EBOD1  EBOD2  ORG-N  NH3-N  NO3-N  TOT-N EORG-N ETOT-N  ORG-P  PO4-P  TOT-P EORG-P ETOT-P  CHL A    PERIP
COLI     NCM
 NO.     DIST  deg C   ppt umhos/cm      g/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L     g/m²
#/100mL

  79    1.300  32.48  0.00  3986.82     0.00   5.40   8.99   0.00  15.88   0.00   2.29   0.29   0.09   2.66   2.84   3.21   0.03   0.43   0.47   0.12   0.55   64.6      0.0
0.    0.00
  80    1.200  32.52  0.00  3991.23     0.00   5.25   8.78   0.00  15.69   0.00   2.21   0.30   0.09   2.60   2.76   3.15   0.03   0.43   0.47   0.12   0.55   64.6      0.0
0.    0.00
  81    1.100  32.56  0.00  4000.00     0.00   5.09   8.56   0.00  15.47   0.00   2.12   0.31   0.10   2.53   2.67   3.08   0.03   0.43   0.46   0.12   0.55   64.7      0.0
0.    0.00
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  82    1.000  32.62  0.00  4017.42     0.00   4.88   8.32   0.00  15.23   0.00   2.02   0.33   0.11   2.46   2.57   3.01   0.03   0.43   0.46   0.11   0.55   64.7      0.0
0.    0.00

 ************************************************************************** PHYTOPLANKTON AND PERIPHYTON DATA
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 ELEM   ENDING   BANK SECCHI     PHYT PHYT PHYT PHYT PHYT PHYT   PHYT   PHYT   PHYT   PHYT  PHYT           PERI PERI PERI PERI PERI PERI PERI   PERI   PERI   PERI  PERI
 NO.      DIST  SHADE  DEPTH        N  LIT   N    P   N&P  TOT   GROW   RESP  DEATH   SETT   P/R  PHYTO        N  LIT   N    P   N&P  SPC  TOT   GROW   RESP  DEATH   P/R
PERIP
                frac     m      PREF  LIM  LIM  LIM  LIM  LIM   1/da   1/da   1/da   1/da RATIO   µg/L     PREF  LIM  LIM  LIM  LIM  LIM  LIM   1/da   1/da   1/da RATIO
g/m²

   79    1.300   0.00   0.17    0.23 0.06 0.56 0.92 0.69 0.04  0.140  0.071  0.035  0.013   1.6   64.6    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   80    1.200   0.00   0.17    0.24 0.06 0.57 0.92 0.70 0.04  0.142  0.071  0.036  0.013   1.6   64.6    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   81    1.100   0.00   0.17    0.24 0.06 0.58 0.92 0.71 0.04  0.144  0.071  0.036  0.014   1.6   64.7    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   82    1.000   0.00   0.17    0.25 0.06 0.59 0.92 0.72 0.04  0.147  0.071  0.036  0.014   1.6   64.7    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                  2.000  0.040  0.020  0.020                                                      0.000  0.000  0.000

 NOTE ON NITR PREF:  1.0=NO3 ; 0.0=NH3

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  7    Bayou LaBranche (LGLD to LP)                     Calibration Simulation with Algal Dynamics

 ************************************************************************************** REACH INPUTS
*******************************************************************************************

 ELEM  TYPE        FLOW     TEMP     SALN  Conduct     CM-2     DO   BOD1   BOD2  EBOD1  EBOD2  ORG-N  NH3-N  NO3-N  PO4-P  CHL A     COLI     NCM
 NO.                       deg C     ppt umhos/cm      g/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L  #/100mL

   83  UPR RCH   0.71001   32.62     0.00  4017.42     0.00   4.88   8.32   0.00  15.23   0.00   2.02   0.33   0.11   0.43  64.72     0.00     0.00
   88  WSTLD     0.17000   34.60     0.00  7969.00  7969.00   5.90   9.00   0.00   9.00   0.00   1.10   0.90   0.04   0.20  23.00     0.00     0.00

 ********************************************************************************** HYDRAULIC PARAMETER VALUES
*******************************************************************************************

 ELEM   BEGIN  ENDING       FLOW   PCT    ADVCTV   TRAVEL      CUM   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
  NO.    DIST    DIST               EFF      VELO     TIME     TIME                                   AREA    AREA     PRISM    VELO                VELO
          km      km        m³/s              m/s     days     days       m       m        m³         m²      m²        m³     m/s      m²/s     m/s

   83    1.00    0.90    0.71001  47.9   0.01045     0.11     2.89    1.99   34.08   6795.55    3408.00   67.96   9265.21   0.006     1.500   0.010
   84    0.90    0.80    0.71001  47.9   0.01045     0.11     3.00    1.99   34.08   6795.55    3408.00   67.96   9469.69   0.006     1.500   0.010
   85    0.80    0.70    0.71001  47.9   0.01045     0.11     3.11    1.99   34.08   6795.55    3408.00   67.96   9674.17   0.007     1.500   0.010
   86    0.70    0.60    0.71001  47.9   0.01045     0.11     3.22    1.99   34.08   6795.55    3408.00   67.96   9878.65   0.007     1.500   0.010
   87    0.60    0.50    0.71001  47.9   0.01045     0.11     3.33    1.99   34.08   6795.55    3408.00   67.96  10083.13   0.007     1.500   0.010
   88    0.50    0.40    0.88001  58.0   0.01295     0.09     3.42    1.99   34.08   6795.55    3408.00   67.96  10287.61   0.007     1.500   0.013
   89    0.40    0.30    0.88001  58.0   0.01295     0.09     3.51    1.99   34.08   6795.55    3408.00   67.96  10492.09   0.007     1.500   0.013
   90    0.30    0.20    0.88001  58.0   0.01295     0.09     3.60    1.99   34.08   6795.55    3408.00   67.96  10696.57   0.007     1.500   0.013
   91    0.20    0.10    0.88001  58.0   0.01295     0.09     3.69    1.99   34.08   6795.55    3408.00   67.96  10901.05   0.007     1.500   0.013
   92    0.10    0.00    0.88001  58.0   0.01295     0.09     3.78    1.99   34.08   6795.55    3408.00   67.96  11105.53   0.008     1.500   0.013

  TOT                                                 1.00                            67955.52   34080.00
  AVG                                        0.0116                       1.99   34.08                        67.96

 ************************************************************************** BIOLOGICAL AND PHYSICAL COEFFICIENTS
*****************************************************************************

 ELEM  ENDING   SAT  REAER  BOD1  BOD1 ABOD1  BOD1  BOD2  BOD2 ABOD2  BKGD  FULL  CORR ORG-N ORG-N NH3-N NH3-N DENIT ORG-P ORG-P   PO4 PHYTO PERIP  COLI   NCM   NCM
 NO.     DIST  D.O.  RATE DECAY  SETT DECAY  HYDR DECAY  SETT DECAY   SOD   SOD   SOD  HYDR  SETT DECAY  SRCE  RATE  HYDR  SETT   SRCE  PROD  PROD DECAY DECAY  SETT
              mg/L  1/da  1/da  1/da  1/da  1/da  1/da  1/da  1/da     *     *     *  1/da  1/da  1/da     *  1/da  1/da  1/da     *    **    ** 1/da  1/da  1/da

  83    0.900  7.22  0.44  0.18  0.14  0.00  0.00  0.00  0.00  0.00  4.44  4.44  4.44  0.13  0.34  0.30  0.00  0.00  0.06  0.68  0.00  0.61  0.00  0.00  0.00  0.00
  84    0.800  7.22  0.44  0.18  0.14  0.00  0.00  0.00  0.00  0.00  4.46  4.46  4.46  0.13  0.34  0.29  0.00  0.00  0.06  0.68  0.00  0.63  0.00  0.00  0.00  0.00
  85    0.700  7.21  0.44  0.18  0.14  0.00  0.00  0.00  0.00  0.00  4.48  4.48  4.48  0.13  0.34  0.29  0.00  0.00  0.06  0.68  0.00  0.64  0.00  0.00  0.00  0.00
```

86	0.600	7.20	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.50	4.50	4.50	0.13	0.34	0.29	0.00	0.00	0.06	0.68	0.00	0.65	0.00	0.00	0.00	0.00
87	0.500	7.19	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.52	4.52	4.52	0.13	0.34	0.29	0.00	0.00	0.06	0.68	0.00	0.65	0.00	0.00	0.00	0.00
88	0.400	7.17	0.45	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.56	4.56	4.56	0.13	0.34	0.30	0.00	0.00	0.06	0.68	0.00	0.63	0.00	0.00	0.00	0.00
89	0.300	7.18	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.55	4.55	4.55	0.13	0.34	0.29	0.00	0.00	0.06	0.68	0.00	0.61	0.00	0.00	0.00	0.00
90	0.200	7.19	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.51	4.51	4.51	0.13	0.34	0.29	0.00	0.00	0.06	0.68	0.00	0.57	0.00	0.00	0.00	0.00
91	0.100	7.22	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	4.44	4.44	4.44	0.13	0.34	0.29	0.00	0.00	0.06	0.68	0.00	0.49	0.00	0.00	0.00	0.00
92	0.000	7.28	0.44	0.17	0.13	0.00	0.00	0.00	0.00	0.00	4.31	4.31	4.31	0.13	0.33	0.28	0.00	0.00	0.06	0.67	0.00	0.34	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.35	0.10	0.01	0.00	0.00	0.00	0.00	0.00	2.00			0.10	0.03	0.12	0.00	0.02	0.05	0.05	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

********** WATER QUALITY CONSTITUENT VALUES **********

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2 g/L	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	EORG-N mg/L	ETOT-N mg/L	ORG-P mg/L	PO4-P mg/L	TOT-P mg/L	EORG-P mg/L	ETOT-P mg/L	CHL A µg/L	PERIP g/m²	COLI NCM #/100mL
83	0.900	32.67	0.00	4046.06	0.00	4.63	8.06	0.00	14.96	0.00	1.92	0.34	0.12	2.38	2.47	2.93	0.03	0.43	0.46	0.11	0.54	64.6	0.0	0. 0.00
84	0.800	32.73	0.00	4090.44	0.00	4.42	7.84	0.00	14.71	0.00	1.83	0.36	0.13	2.31	2.37	2.86	0.03	0.43	0.45	0.11	0.54	64.3	0.0	0. 0.00
85	0.700	32.79	0.00	4165.74	0.00	4.24	7.64	0.00	14.45	0.00	1.74	0.37	0.13	2.24	2.28	2.79	0.03	0.42	0.45	0.11	0.53	63.7	0.0	0. 0.00
86	0.600	32.86	0.00	4293.49	0.00	4.10	7.47	0.00	14.15	0.00	1.65	0.39	0.14	2.18	2.18	2.71	0.03	0.41	0.45	0.11	0.53	62.5	0.0	0. 0.00
87	0.500	32.96	0.00	4510.22	0.00	4.02	7.35	0.00	13.79	0.00	1.55	0.42	0.14	2.11	2.06	2.62	0.04	0.40	0.44	0.12	0.52	60.3	0.0	0. 0.00
88	0.400	33.09	0.00	4877.92	0.00	4.05	7.30	0.00	13.32	0.00	1.44	0.45	0.14	2.03	1.92	2.51	0.05	0.38	0.43	0.12	0.50	56.3	0.0	0. 0.00
89	0.300	33.04	0.00	4986.21	0.00	3.96	7.09	0.00	12.97	0.00	1.36	0.44	0.14	1.95	1.83	2.42	0.05	0.37	0.42	0.12	0.49	55.0	0.0	0. 0.00
90	0.200	32.93	0.00	5187.99	0.00	3.95	6.87	0.00	12.48	0.00	1.27	0.42	0.14	1.82	1.71	2.27	0.05	0.36	0.41	0.12	0.48	52.5	0.0	0. 0.00
91	0.100	32.67	0.00	5563.98	0.00	4.08	6.61	0.00	11.69	0.00	1.13	0.37	0.13	1.63	1.53	2.03	0.05	0.34	0.39	0.11	0.45	47.6	0.0	0. 0.00
92	0.000	32.17	0.00	6264.57	0.00	4.49	6.26	0.00	10.36	0.00	0.92	0.27	0.10	1.29	1.24	1.62	0.06	0.30	0.36	0.11	0.41	38.3	0.0	0. 0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA **********

ELEM NO.	ENDING DIST	BANK SHADE frac	SECCHI DEPTH m	PHYT N PREF	PHYT LIT LIM	PHYT N LIM	PHYT P LIM	PHYT N&P LIM	PHYT TOT LIM	PHYT GROW 1/da	PHYT RESP 1/da	PHYT DEATH 1/da	PHYT SETT 1/da	PHYT P/R RATIO	PHYTO µg/L	PERI N PREF	PERI LIT LIM	PERI N LIM	PERI P LIM	PERI N&P LIM	PERI SPC LIM	PERI TOT LIM	PERI GROW 1/da	PERI RESP 1/da	PERI DEATH 1/da	PERI P/R RATIO	PERIP g/m²
83	0.900	0.00	0.17	0.26	0.06	0.61	0.91	0.73	0.04	0.149	0.072	0.036	0.014	1.7	64.6	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
84	0.800	0.00	0.17	0.26	0.06	0.62	0.91	0.74	0.04	0.151	0.072	0.036	0.014	1.7	64.3	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
85	0.700	0.00	0.17	0.26	0.06	0.63	0.91	0.74	0.04	0.153	0.072	0.036	0.014	1.7	63.7	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
86	0.600	0.00	0.17	0.26	0.06	0.64	0.91	0.75	0.04	0.155	0.072	0.036	0.014	1.7	62.5	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
87	0.500	0.00	0.17	0.26	0.06	0.65	0.91	0.76	0.04	0.158	0.073	0.036	0.014	1.7	60.3	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
88	0.400	0.00	0.17	0.24	0.06	0.66	0.90	0.77	0.04	0.161	0.073	0.036	0.014	1.8	56.3	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
89	0.300	0.00	0.17	0.25	0.06	0.66	0.90	0.76	0.04	0.161	0.073	0.036	0.014	1.8	55.0	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
90	0.200	0.00	0.18	0.25	0.06	0.65	0.90	0.76	0.04	0.159	0.072	0.036	0.014	1.8	52.5	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
91	0.100	0.00	0.18	0.26	0.06	0.62	0.89	0.73	0.04	0.154	0.072	0.036	0.014	1.7	47.6	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

```
   92    0.000   0.00   0.18    0.27 0.06 0.56 0.88 0.68 0.04  0.142  0.070  0.035  0.013   1.6   38.3    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

 NOTE ON NITR PREF:  1.0=NO3 ; 0.0=NH3

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

REACH SUMMARY REPORT: Cross Bayou Canal

 RCH REACH NAME                          BEGIN    ENDING    REACH   TRAVEL   FLOW AT        AVG     AVG     AVG   FLOW AT        AVG     AVG     AVG
 NO.                                      DIST      DIST   LENGTH     TIME   RCH END       VELO   DEPTH   WIDTH   RCH END       VELO   DEPTH   WIDTH
                                           km        km       km     days      m3/s        m/s       m       m       cfs        fps      ft      ft

   1 Cross Bayou Canal 1                 9.20      7.40     1.80     0.72   0.37001    0.02893   0.823   15.54    13.065      0.095   2.700   50.99
   2 Cross Bayou Canal 2                 7.40      5.20     2.20     0.62   0.37001    0.04079   0.488   18.59    13.065      0.134   1.601   60.99
   3 Bayou LaBranche (CBC to LABR3)      5.20      4.50     0.70     0.19   0.54001    0.04305   0.500   18.00    19.068      0.141   1.640   59.06
   4 Bayou LaBranche (CBC to LABR3)      4.50      2.70     1.80     0.52   0.54001    0.04033   0.732   18.29    19.068      0.132   2.402   60.01
   5 Bayou LaBranche (LABR3 to BT)       2.70      1.40     1.30     0.42   0.71001    0.03620   0.732   20.76    25.070      0.119   2.402   68.11
   6 Bayou LaBranche (BT to LGLD)        1.40      1.00     0.40     0.31   0.71001    0.01479   1.994   24.08    25.070      0.049   6.542   79.01
   7 Bayou LaBranche (LGLD to LP)        1.00      0.00     1.00     1.00   0.88001    0.01157   1.994   34.08    31.073      0.038   6.542  111.82

LA-QUAL Model for Bayou LaBranche Watershed
Calibration Simulation with Algal Dynamics

STREAM SUMMARY REPORT: Cross Bayou Canal

 TRAVEL TIME       =           3.78 DAYS
 MAXIMUM EFFLUENT  =          57.96 PERCENT

 FLOW              =   0.37001 TO    0.88001   m³/s
 DISPERSION        =   1.5000  TO    1.5000    m²/s
 VELOCITY          =   0.01045 TO    0.06000   m/s
 DEPTH             =   0.49    TO    1.99      m
 WIDTH             =  15.54    TO   34.08      m

 BOD DECAY         =    0.16   TO    0.18      per day
 NH3 DECAY         =    0.18   TO    0.32      per day
 SOD               =    1.07   TO    6.74      g/m²/d
 NH3 SED SOURCE    =    0.00   TO    0.00      g/m²/d
 PO4 SED SOURCE    =    0.00   TO    0.00      g/m²/d
 REAERATION        =    0.44   TO    3.22      per day
 BOD SETTLING      =    0.13   TO    0.55      per day
 ORG-N DECAY       =    0.12   TO    0.13      per day
 ORG-N SETTLING    =    0.33   TO    1.38      per day

 TEMPERATURE       =   29.94   TO   33.09      deg C
 DISSOLVED OXYGEN  =    2.11   TO    5.63      mg/L

 LA-QUAL Model for Bayou LaBranche Watershed
 Calibration Simulation with Algal Dynamics

INPUT/OUTPUT LOADING SUMMARY

                                      FLOW          DO      BOD1      BOD2     ORG-N     NH3-N     NO3-N     ORG-P     PO4-P     CHL A     PERIP       NCM
                                      m³/s        kg/d      kg/d      kg/d      kg/d      kg/d      kg/d      kg/d      kg/d

 HEADWATER FLOW                    0.37000       63.94   1099.94      0.00     36.91      3.20      1.28      6.52     15.95   1374.62              0.00
 INCREMENTAL INFLOW                0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 INCREMENTAL OUTFLOW               0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 WASTELOADS                        0.51001      233.54    543.55      0.00    236.48     28.36      1.76      9.74     15.35   1777.26              0.00
 WITHDRAWLS                        0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 FLOW THRU LOWER BNDRY            -0.88001     -341.23   -476.15      0.00    -69.70    -20.89     -7.59     -4.62    -22.79  -2914.18              0.00
 DISPERSION THRU LOWER BNDRY                     80.33    -44.49      0.00    -32.16    -15.39     -5.27      1.67     -6.58  -1526.08              0.00
 DISPERSION THRU HDWTR BNDRY                      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 NON-POINT INPUT                                  0.00      0.00      0.00      0.00                                0.00                              0.00
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NATURAL REAERATION		618.14										
DAM REAERATION		0.00										
SOD BACKGROUND		-466.58										
BOD1 DECAY		-405.88	-405.88									
BOD1 SETTLING		0.00	-756.77									
ANAEROBIC BOD1 DECAY			0.00									
BOD2 DECAY		0.00		0.00								
BOD2 SETTLING		0.00		0.00								
ANAEROBIC BOD2 DECAY				0.00								
BOD2 HYDROLYSIS			0.00	0.00								
ORG-N DECAY		0.00			-31.11	31.11						
ORG-N SETTLING					-143.59	0.00						
NH3-N DECAY (NITRIFICATION)		-64.19				-14.82	14.82					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								-0.59	0.59			
ORG-P SETTLING								-13.20	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		431.30				-17.91	-5.00		-3.50	2695.64		
PHYTOPLANKTON RESPIRATION/EXCRETION		-149.06				6.34			0.97	-745.31		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	-287.33		
PHYTOPLANKTON DEATH			39.80	0.00	3.17			0.48		-372.65		
PERIPHYTON GROWTH/PHOTOSYNTHESIS		0.00				0.00	0.00		0.00		0.00	
PERIPHYTON RESPIRATION/EXCRETION		0.00				0.00			0.00		0.00	
PERIPHYTON DEATH			0.00	0.00	0.00			0.00			0.00	
NCM DECAY		0.00										0.00
NCM SETTLING		0.00										0.00
TOTAL INPUTS	0.88001	1427.24	1683.29	0.00	276.56	69.00	17.87	18.41	32.86	5847.52	0.00	0.00
TOTAL OUTPUTS	-0.88001	-1426.94	-1683.29	0.00	-276.56	-69.01	-17.87	-18.41	-32.87	-5845.55	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.31	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	1.97	0.00	0.00

.....EXECUTION COMPLETED

APPENDIX F:
Calibration Water Quality Plots

Figure F-1. Temperature calibration results for subsegment 041201. ..... F-1
Figure F-2. Ammonia calibration results for subsegment 041201..... F-1
Figure F-3. $CBOD_u$ calibration results for subsegment 041201. ..... F-2
Figure F-4. DO calibration results for subsegment 041201. ..... F-2
Figure F-5. Organic nitrogen calibration results for subsegment 041201. ..... F-3
Figure F-6. Conductivity calibration results for subsegment 041201. ..... F-3
Figure F-7. Organic phosphorus calibration results for subsegment 041201..... F-4
Figure F-8. Dissolved organic phosphorus calibration results for subsegment 041201. ..... F-4
Figure F-9. Chlorophyll *a* calibration results for subsegment 041201. ..... F-5

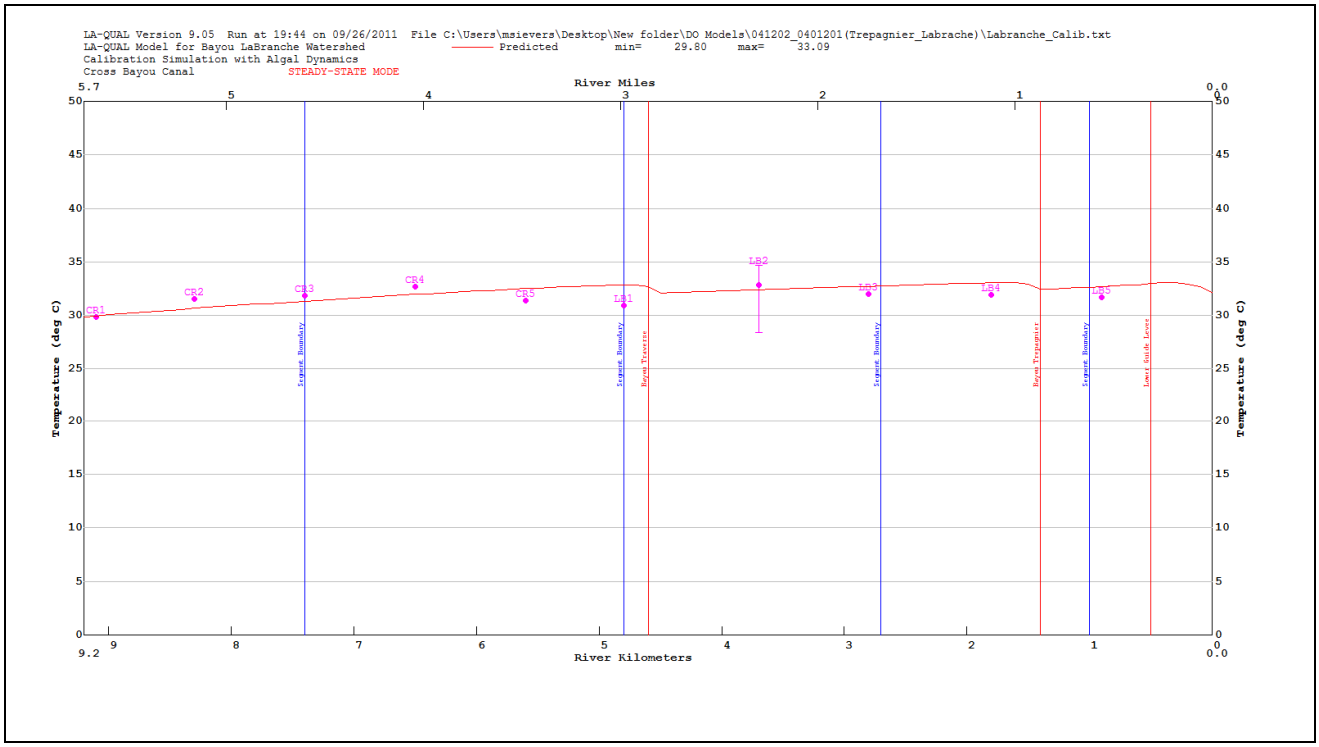

Figure F-1. Temperature calibration results for subsegment 041201.

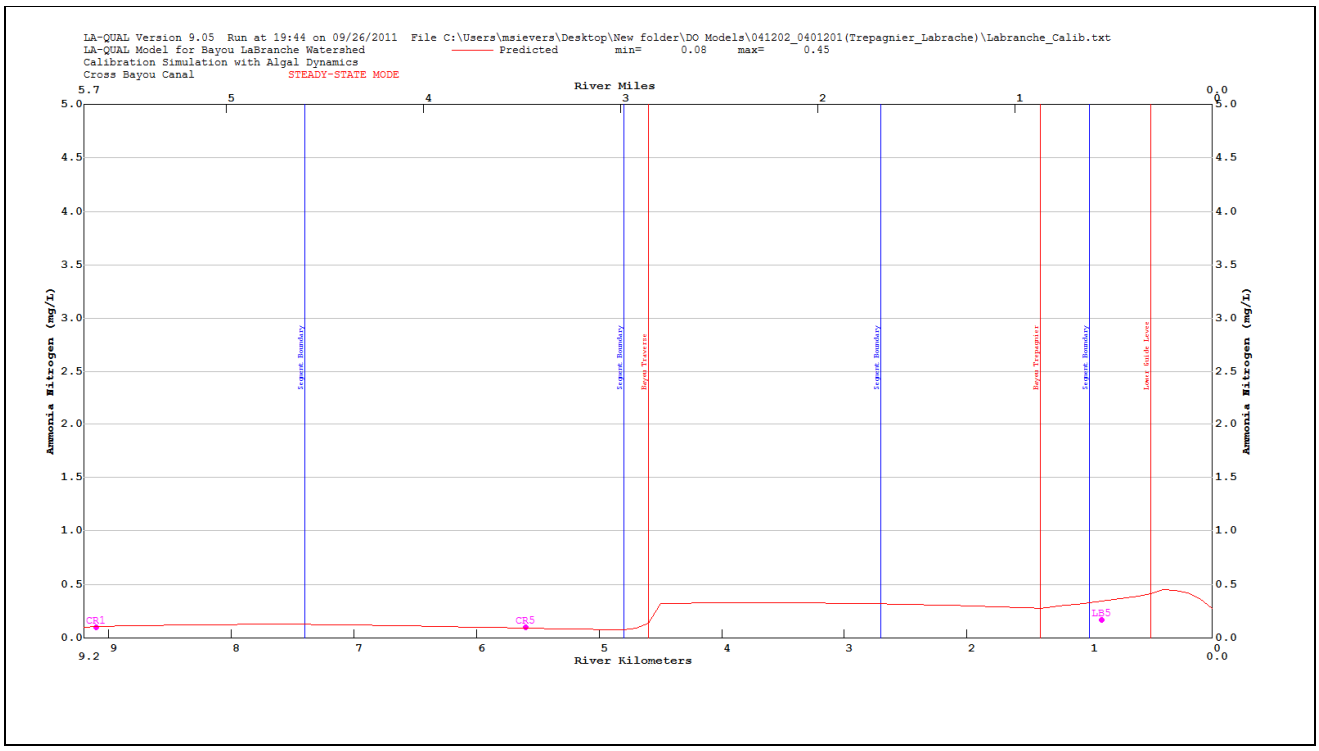

Figure F-2. Ammonia calibration results for subsegment 041201.

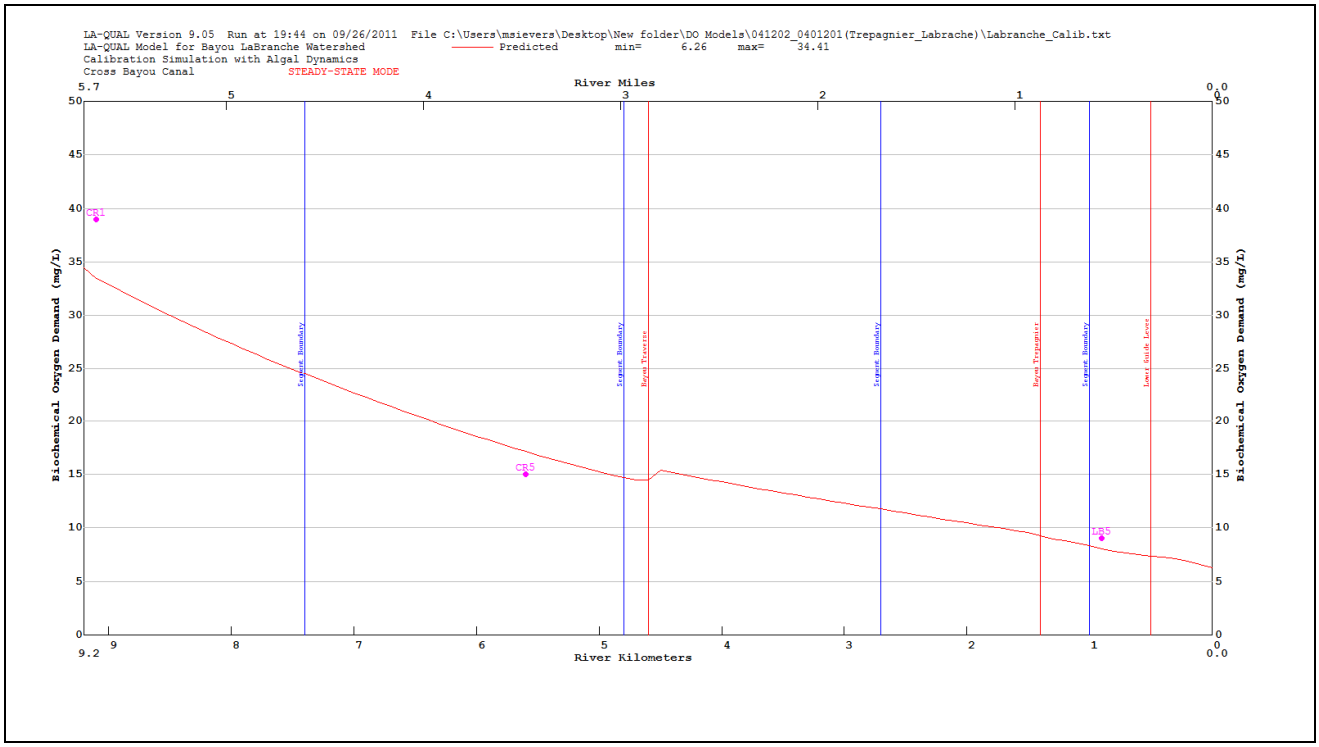

Figure F-3. $CBOD_u$ calibration results for subsegment 041201.

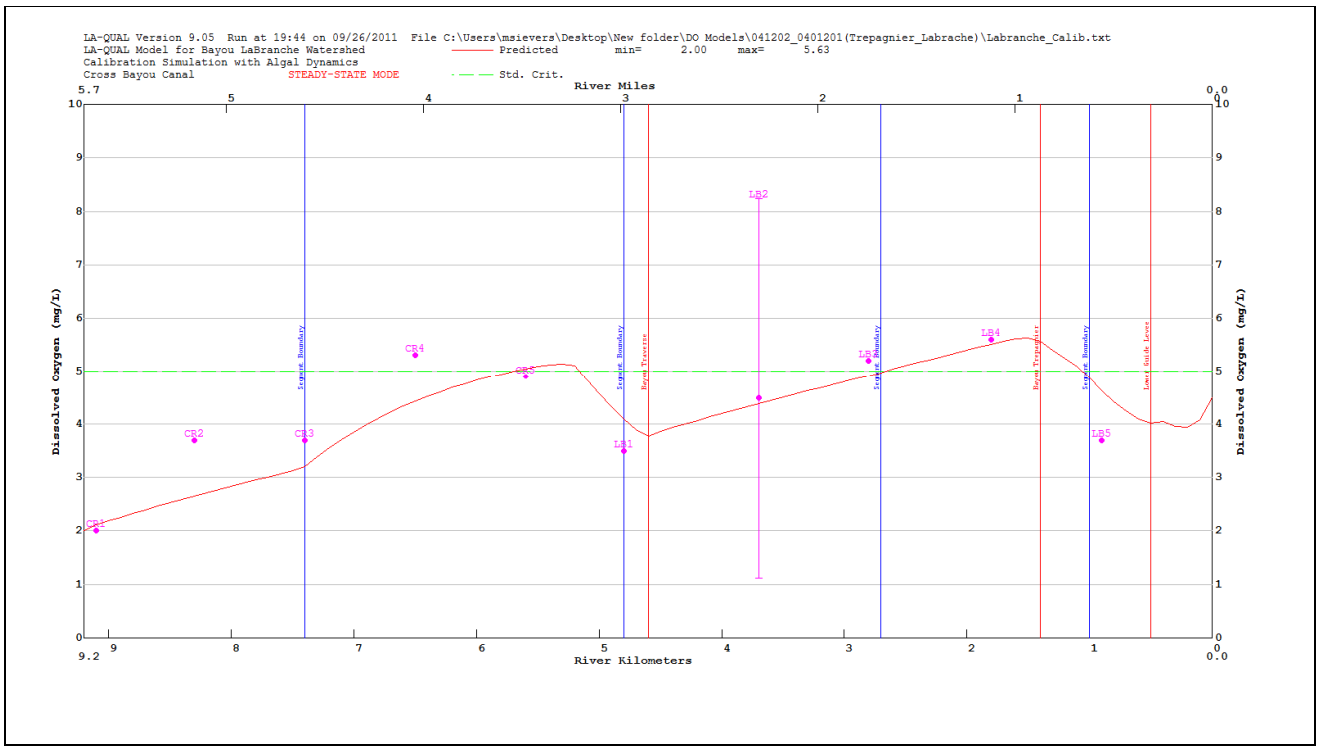

Figure F-4. DO calibration results for subsegment 041201.

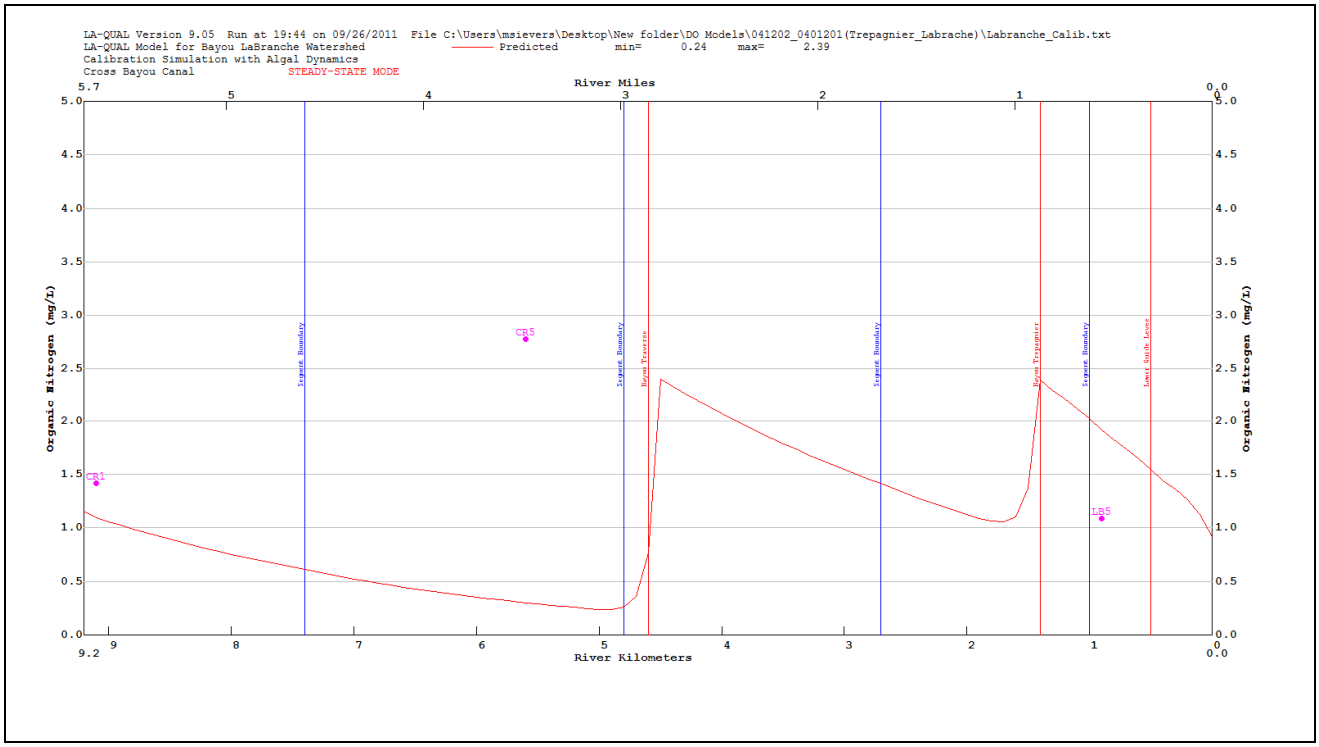

Figure F-5. Organic nitrogen calibration results for subsegment 041201.

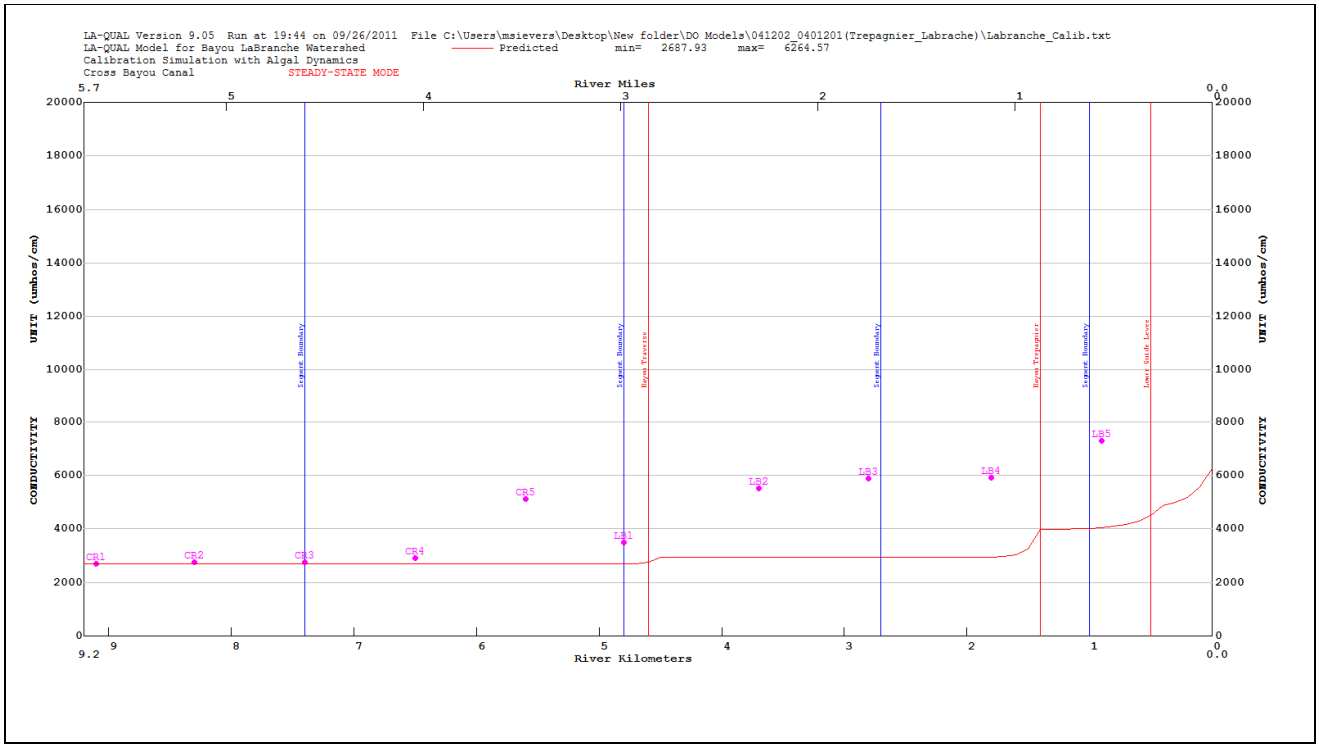

Figure F-6. Conductivity calibration results for subsegment 041201.

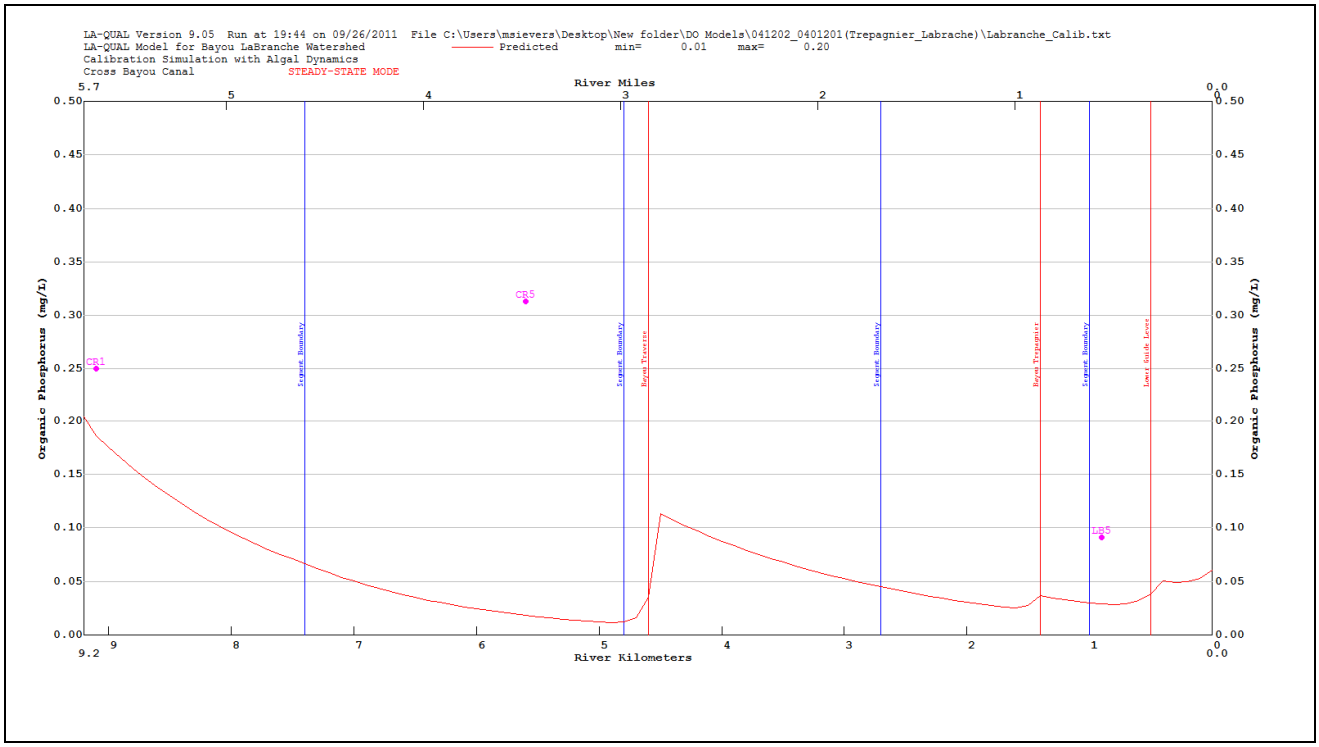

Figure F-7. Organic phosphorus calibration results for subsegment 041201.

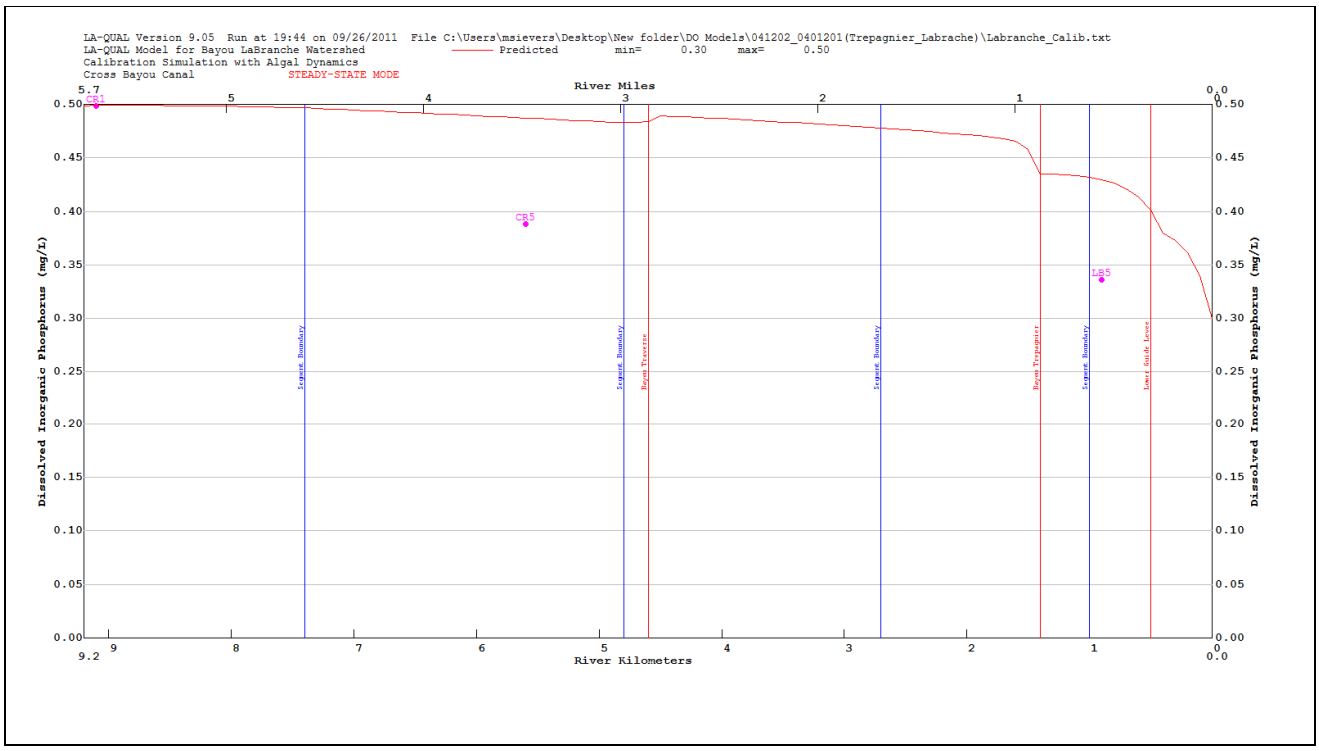

Figure F-8. Dissolved organic phosphorus calibration results for subsegment 041201.

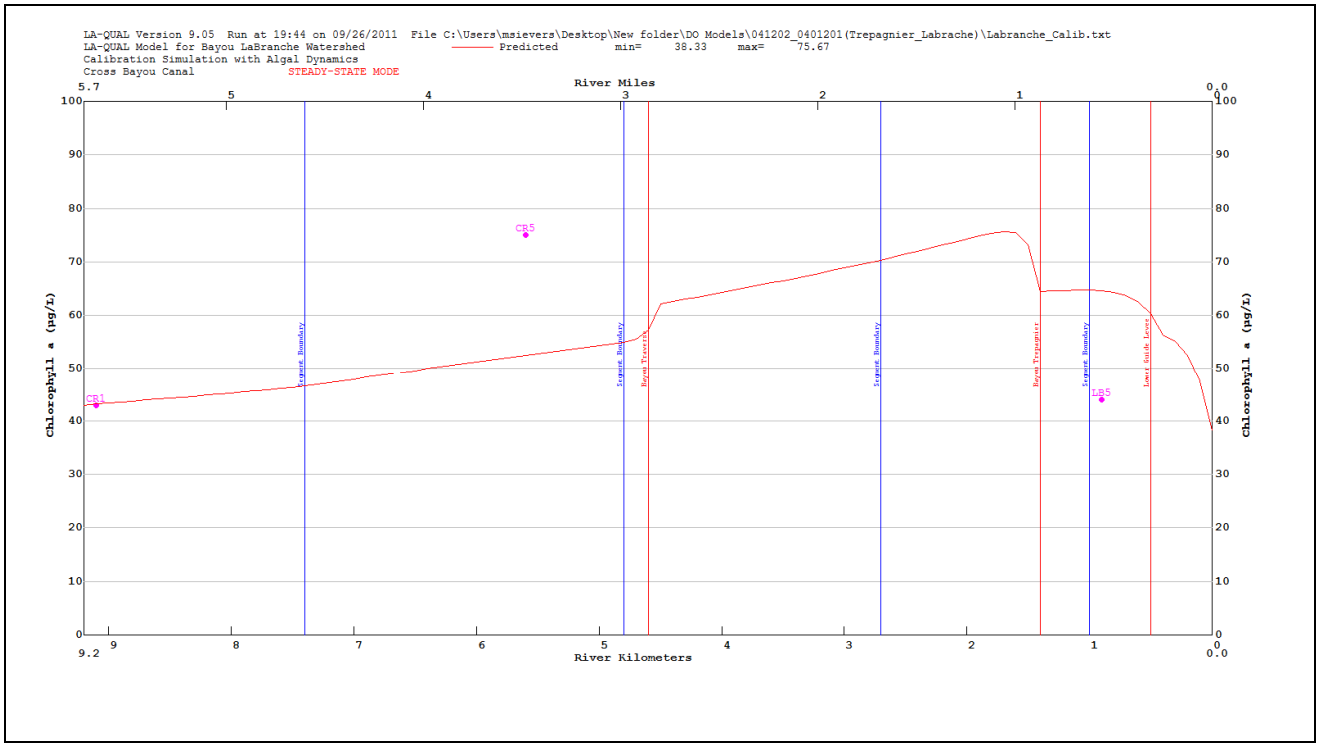

Figure F-9. Chlorophyll *a* calibration results for subsegment 041201.

APPENDIX G:
Sensitivity Analysis Plots

Figure G-1. DO sensitivity results (CBOD aerobic decay rate) for subsegment 041201. ..... G-1
Figure G-2. DO sensitivity results (dispersion) for subsegment 041201. ..... G-1
Figure G-3. DO sensitivity results (reaeration) for subsegment 041201. ..... G-2
Figure G-4. DO sensitivity results (background SOD) for subsegment 041201. ..... G-2
Figure G-5. DO sensitivity results (stream velocity) for subsegment 041201..... G-3
Figure G-6. DO sensitivity results (phytoplankton growth rate) for subsegment 041201..... G-3
Figure G-7. CBOD sensitivity results (CBOD aerobic decay rate) for subsegment 041201. ..... G-4
Figure G-8. CBOD sensitivity results (dispersion) for subsegment 041201. ..... G-4
Figure G-9. CBOD sensitivity results (reaeration) for subsegment 041201. ..... G-5
Figure G-10. CBOD sensitivity results (background SOD) for subsegment 041201. ..... G-5
Figure G-11. CBOD sensitivity results (stream velocity) for subsegment 041201. ..... G-6
Figure G-12. CBOD sensitivity results (phytoplankton growth rate) for subsegment 041201..... G-6

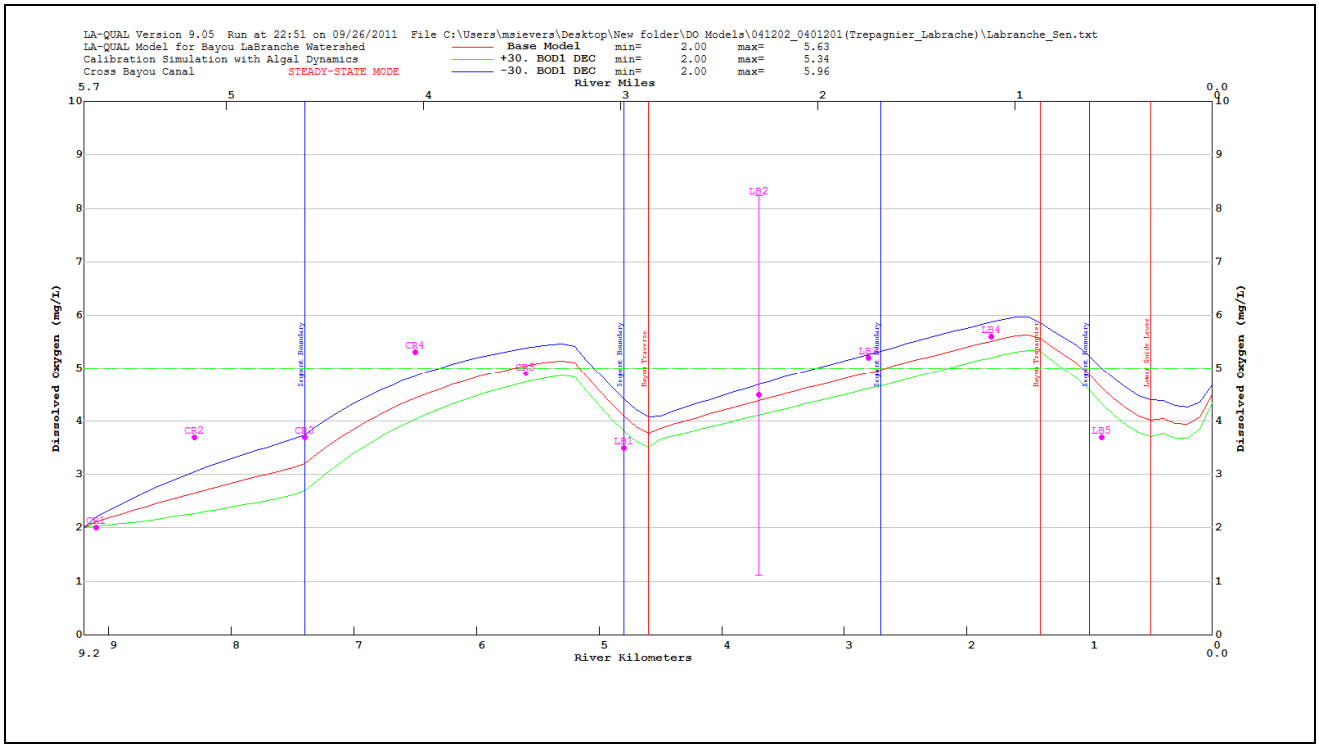

Figure G-1. DO sensitivity results (CBOD aerobic decay rate) for subsegment 041201.

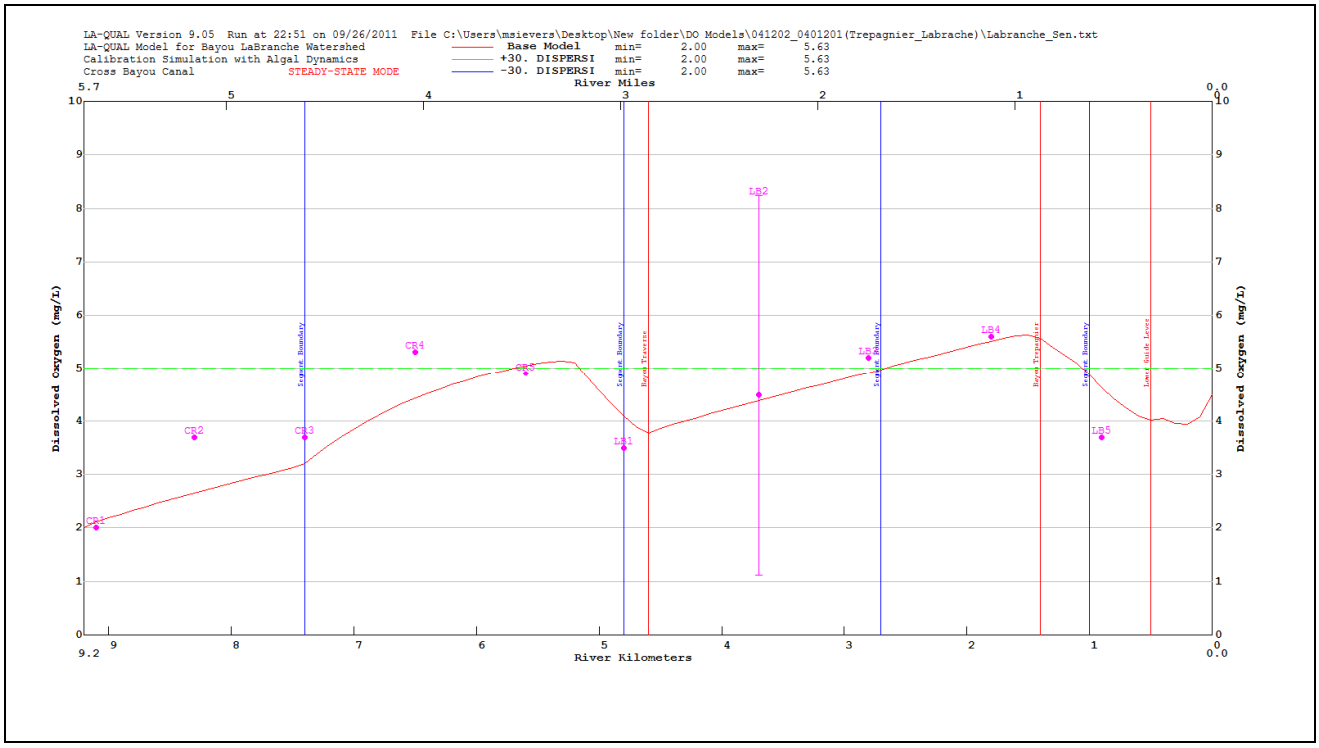

Figure G-2. DO sensitivity results (dispersion) for subsegment 041201.

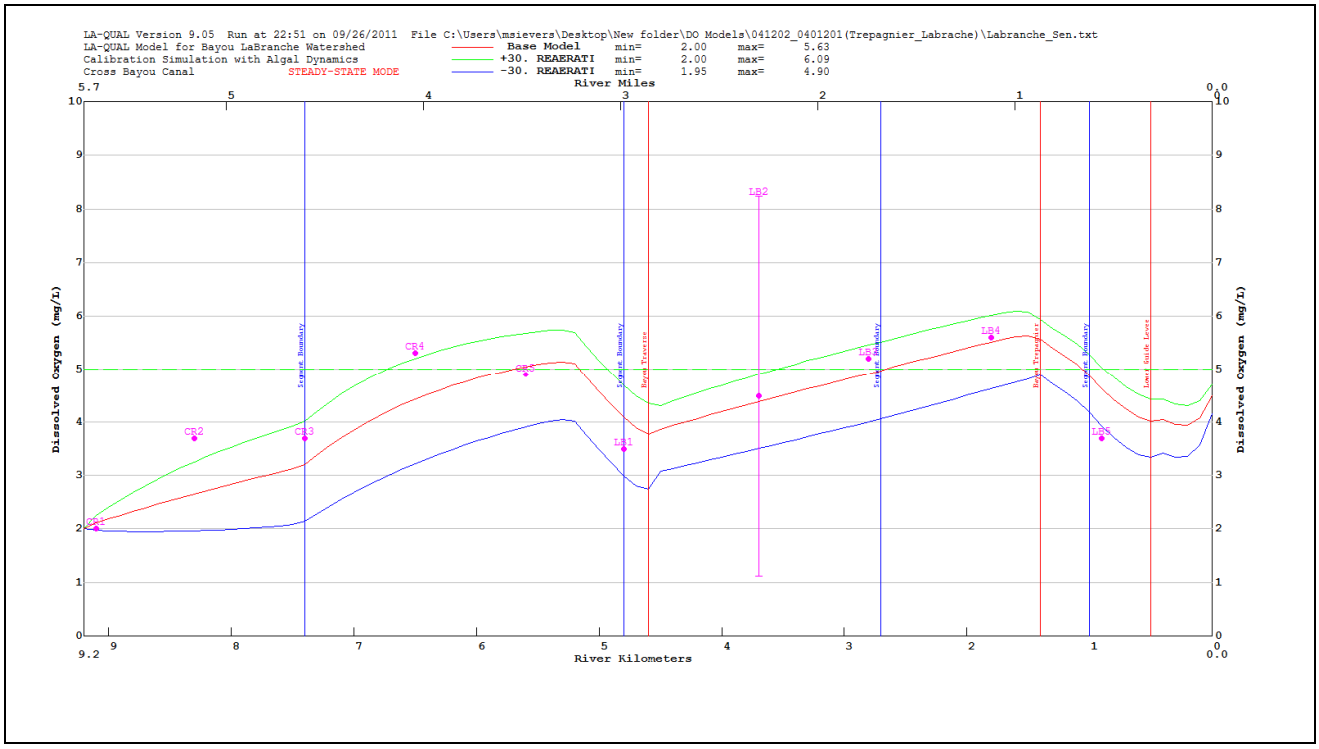

Figure G-3. DO sensitivity results (reaeration) for subsegment 041201.

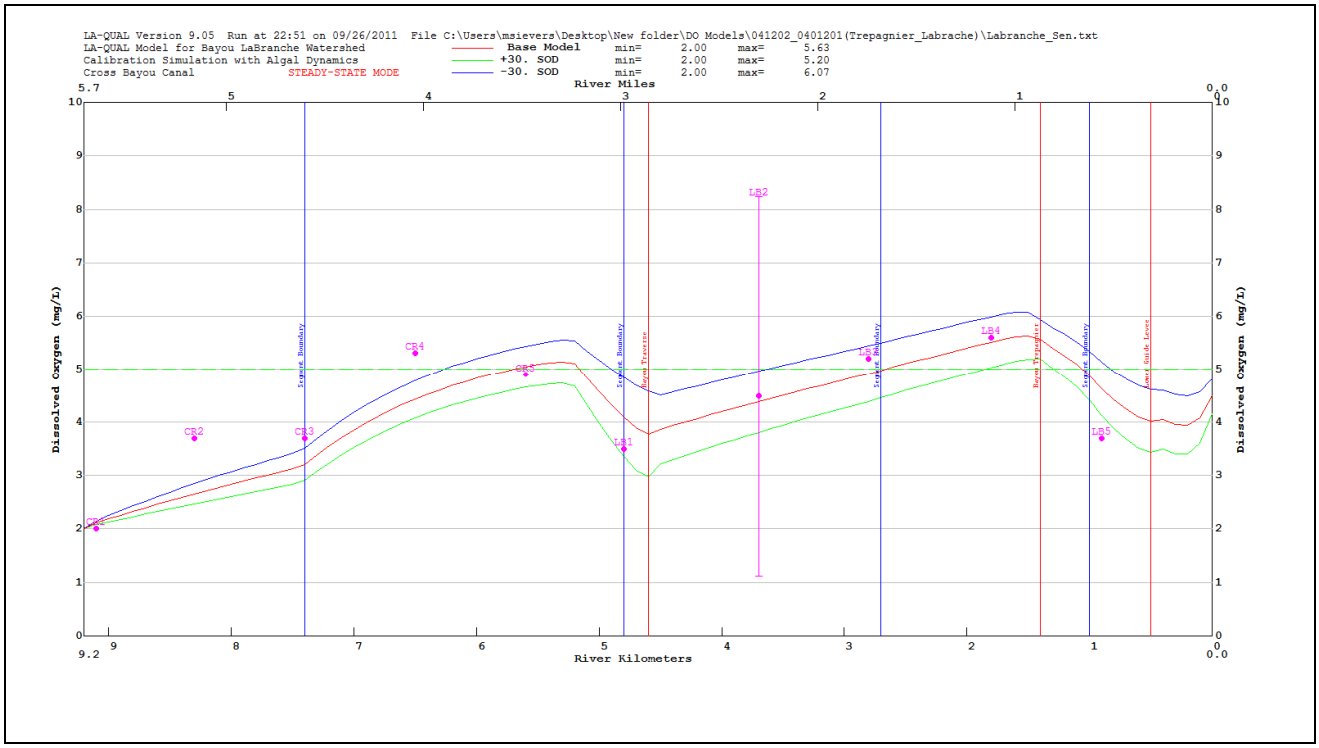

Figure G-4. DO sensitivity results (background SOD) for subsegment 041201.

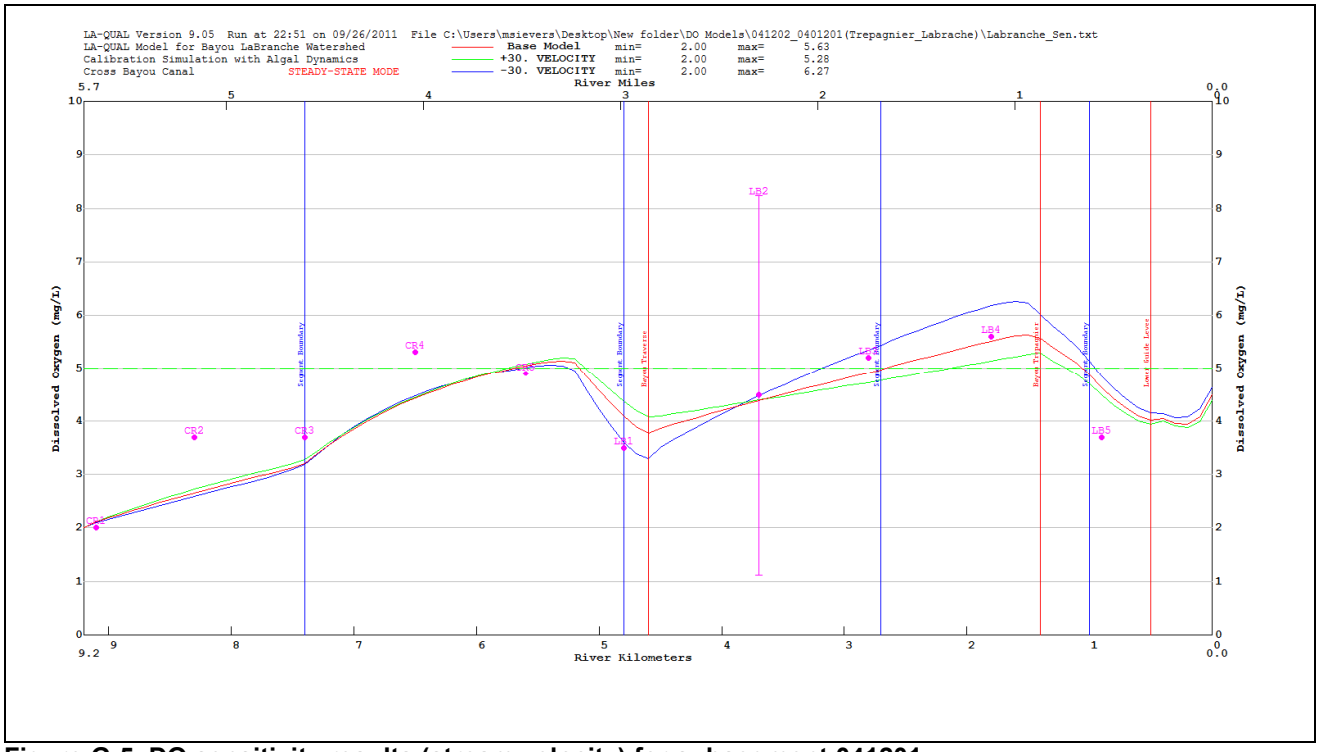

Figure G-5. DO sensitivity results (stream velocity) for subsegment 041201.

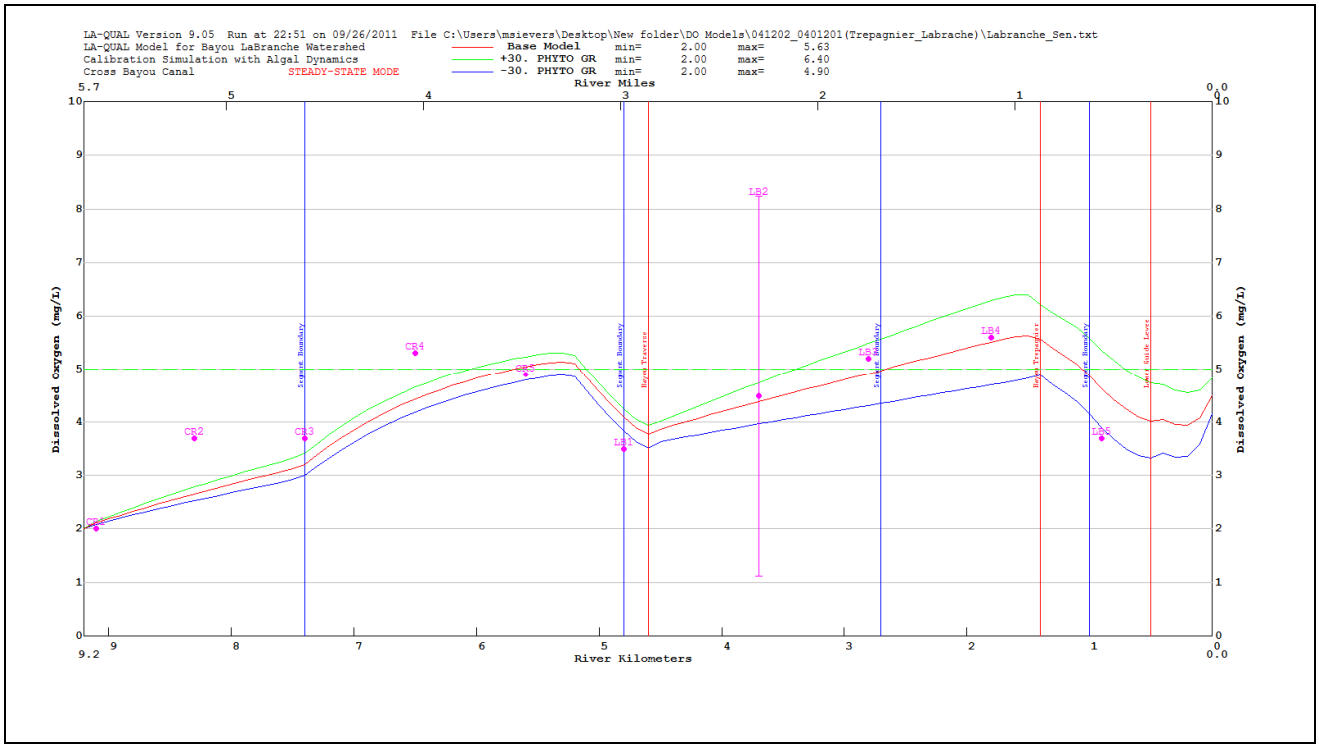

Figure G-6. DO sensitivity results (phytoplankton growth rate) for subsegment 041201.

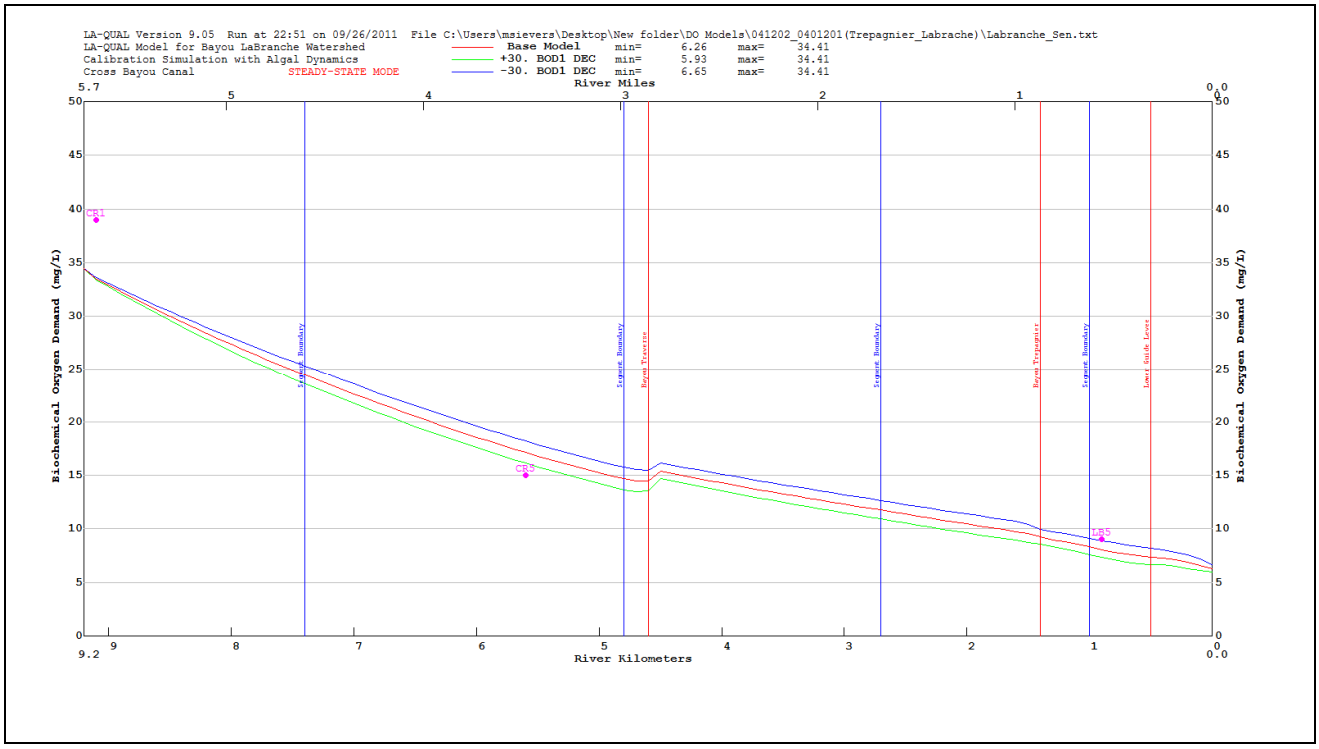

Figure G-7. CBOD sensitivity results (CBOD aerobic decay rate) for subsegment 041201.

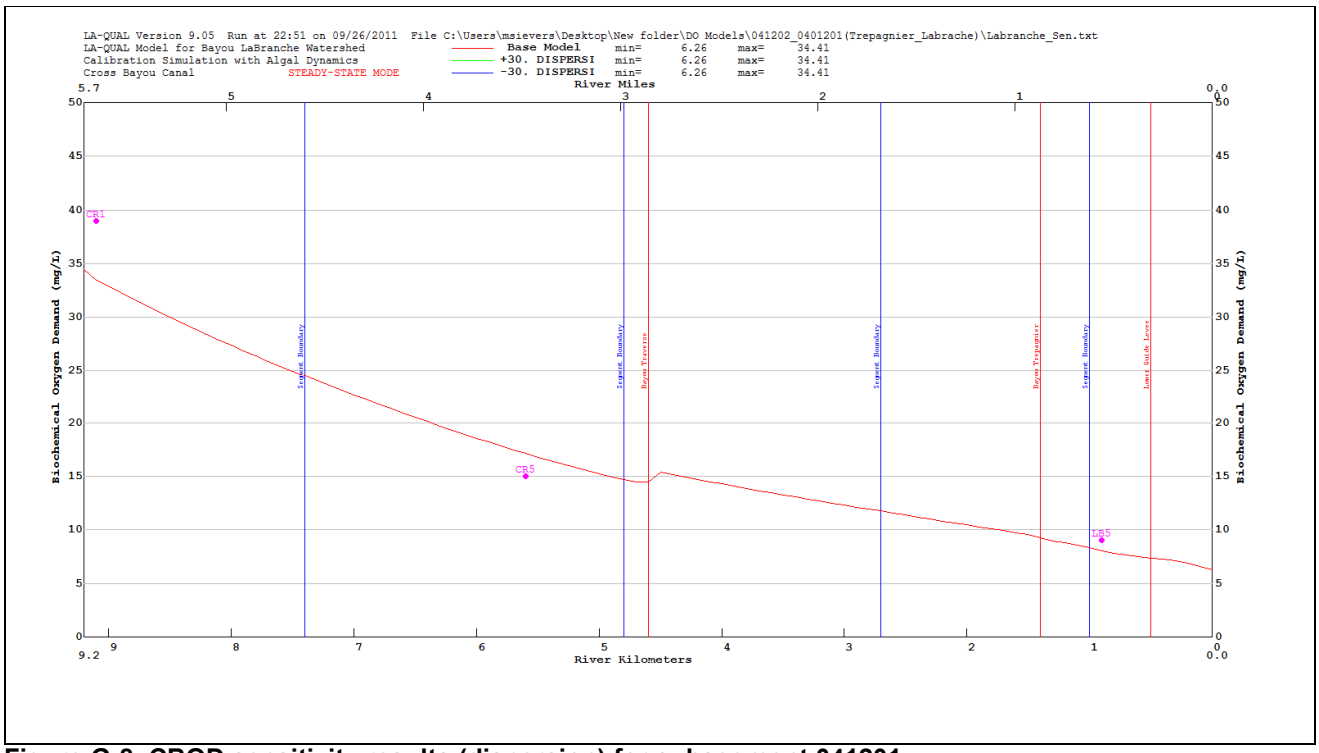

Figure G-8. CBOD sensitivity results (dispersion) for subsegment 041201.

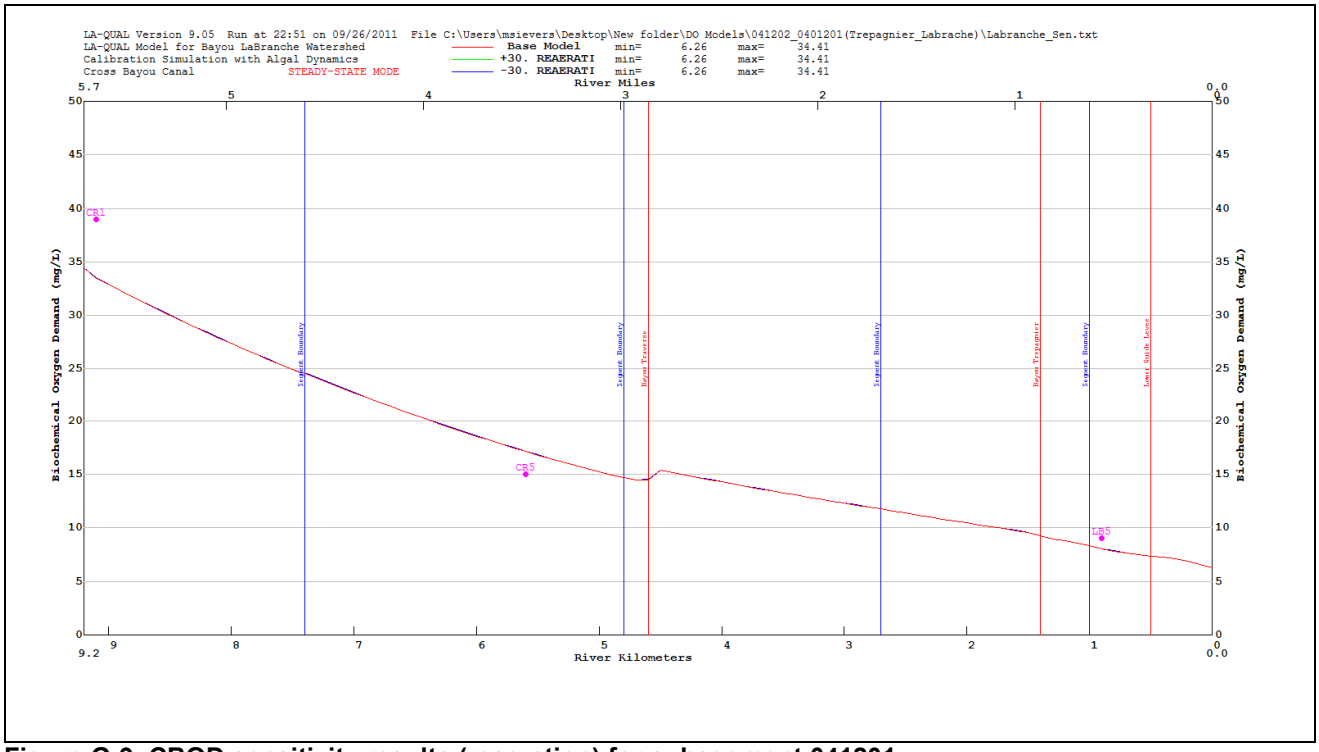

Figure G-9. CBOD sensitivity results (reaeration) for subsegment 041201.

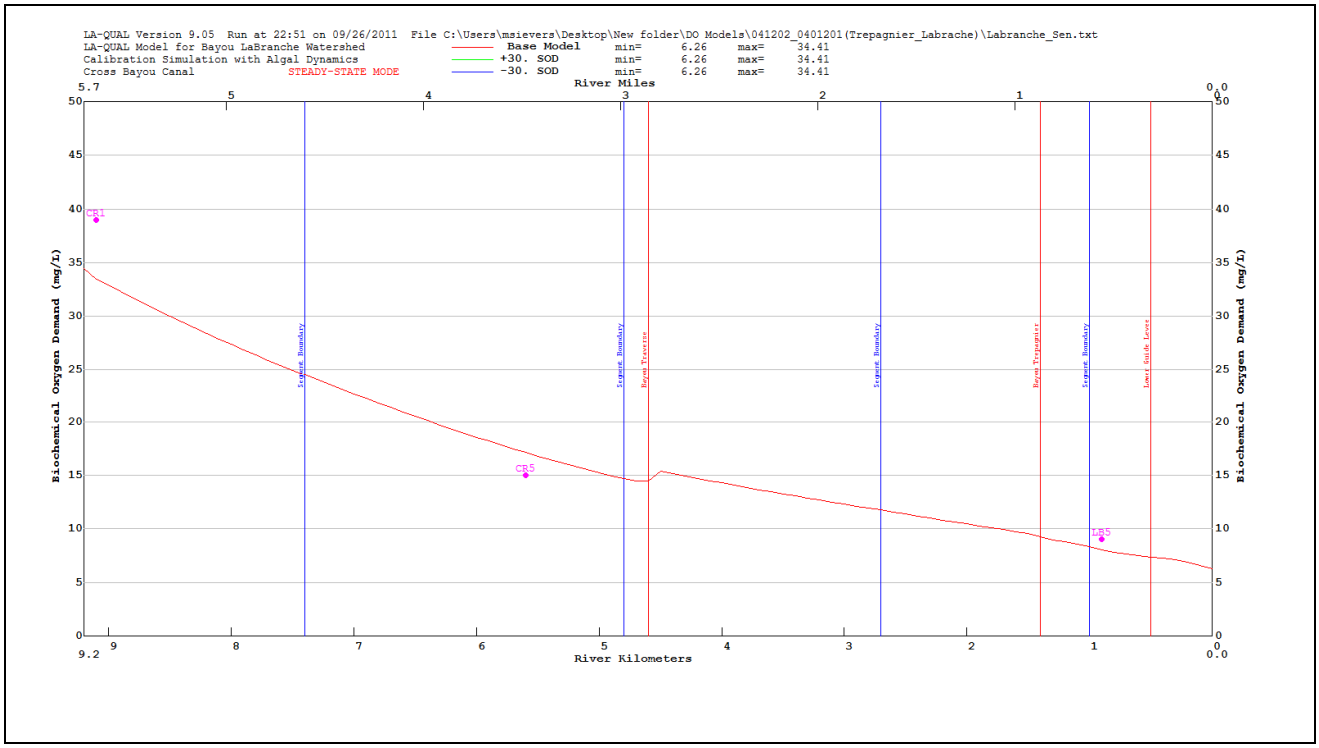

Figure G-10. CBOD sensitivity results (background SOD) for subsegment 041201.

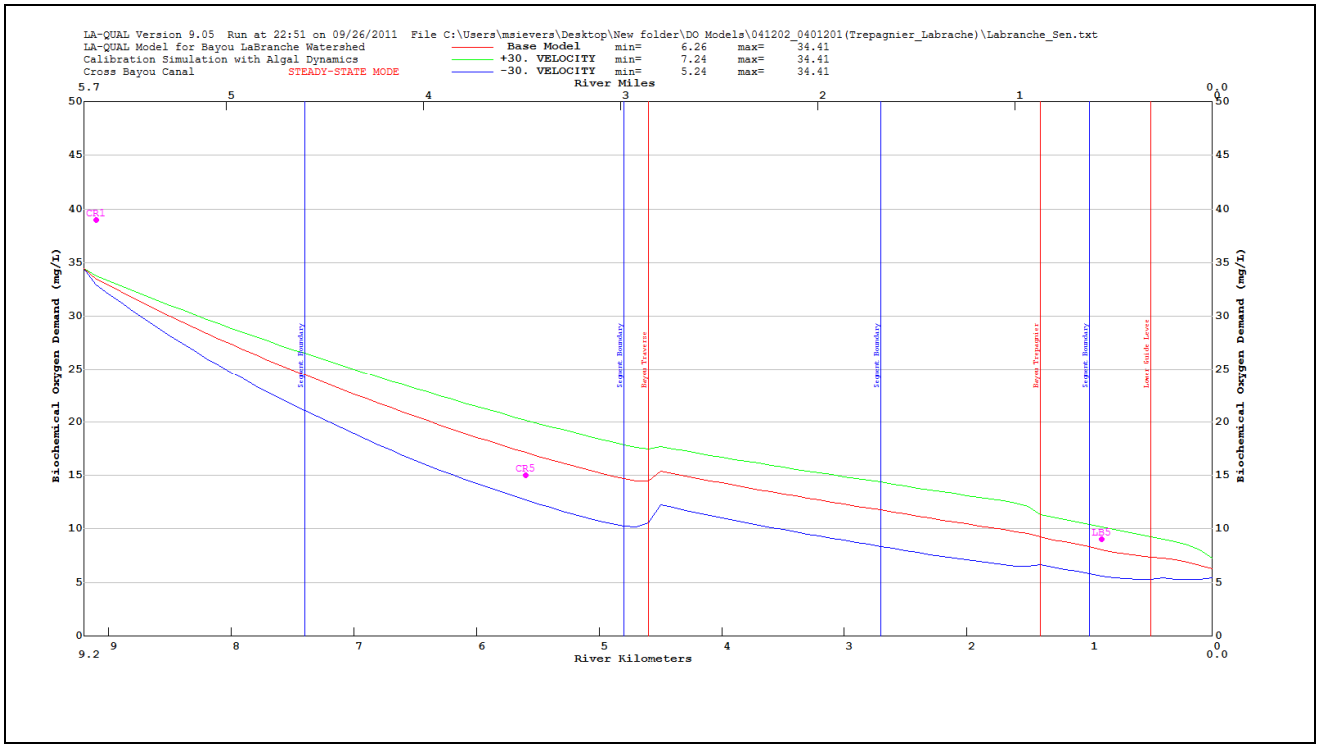

Figure G-11. CBOD sensitivity results (stream velocity) for subsegment 041201.

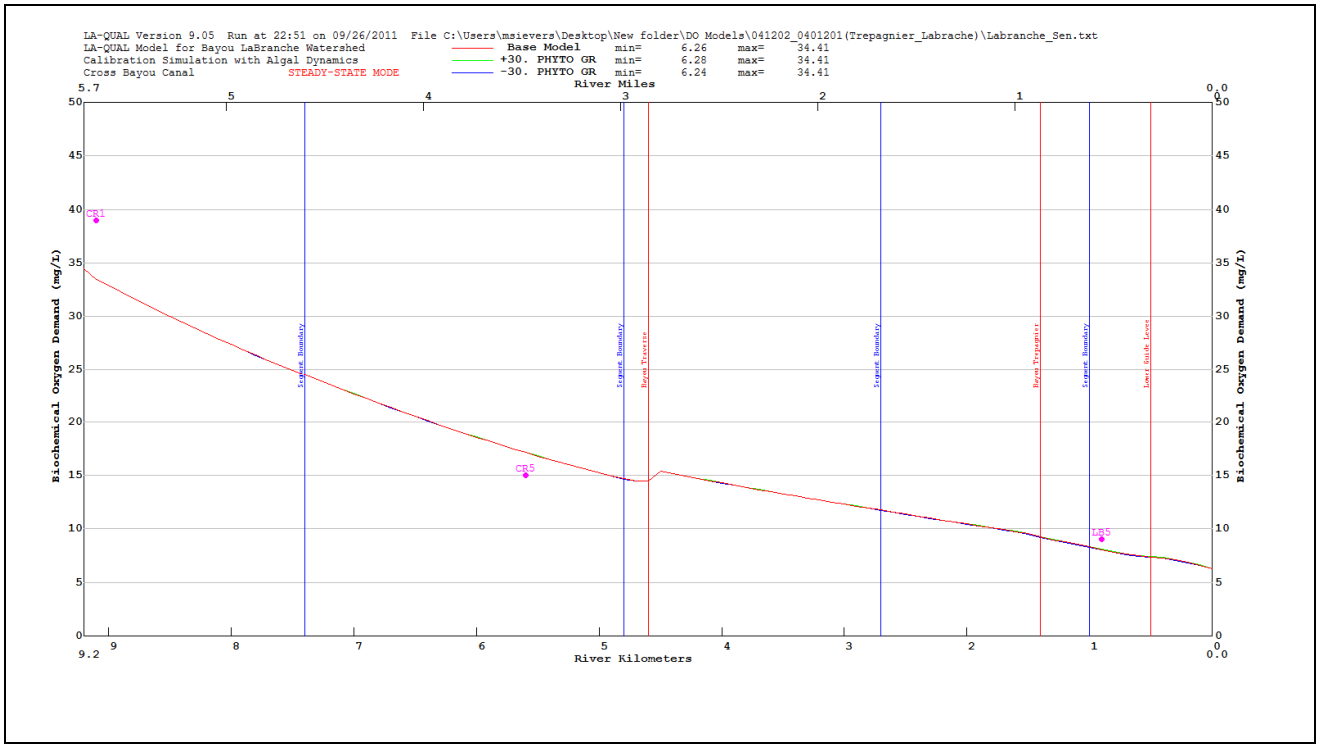

Figure G-12. CBOD sensitivity results (phytoplankton growth rate) for subsegment 041201.