APPENDIX I:
Model TMDL Output Files

Summer TMDL LA-QUAL model output I-1
Winter TMDL LA-QUAL model output I-34

Summer TMDL LA-QUAL model output

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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_TMDL_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         TMDL 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
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PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg 0/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg 0/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
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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     0.500     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     0.500     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     1.500     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     0.250     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     0.250     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     0.500     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     1.000     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   0.12333    4.35487   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         6.50      9.75      0.46      0.03      0.01     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          0.15     10.75      0.00      0.00      0.08
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        0.05700    2.01271    1.301   30.00     0.00  3490.000  3490.000
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WSTLD-1       78       1.50  Bayou Trepagnier       0.05700    2.01271    1.301   30.00     0.00  7292.000  7000.000
WSTLD-1       88       0.50  LGLD4                  0.05700    2.01271    1.301   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     25.90      0.00      7.50      3.75      0.00      0.50      0.00
WSTLD-2          47     Bayou Traverse              6.50      4.80      0.00      2.25      0.26      0.00      0.01      0.00
WSTLD-2          78     Bayou Trepagnier            6.50      2.30      0.00      2.25      0.05      0.00      0.01      0.00
WSTLD-2          88     LGLD4                       6.50      2.30      0.00      0.33      0.27      0.00      0.01      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      0.00      0.00      0.00      0.09
WSTLD-3          47     Bayou Traverse              0.15     18.00      0.00      0.00      0.11
WSTLD-3          78     Bayou Trepagnier            0.10      5.80      0.00      0.00      0.03
WSTLD-3          88     LGLD4                       0.06      5.80      0.00      0.00      0.06
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                   =      6.500     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                   =      0.220     mg/L
LOWER BC     AMMONIA NITROGEN                   =      0.030     mg/L
LOWER BC     NITRATE + NITRITE                  =      0.012     mg/L
LOWER BC     PO4 PHOSPHORUS                     =      0.068     mg/L
LOWER BC     ORG PHOSPHORUS                     =      0.032     mg/L
LOWER BC     CHLOROPHYLL A                      =      5.250     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     =     43.45 TO     54.17 MILLIBARS
 WATER DENSITY                        =    994.18 TO    995.57 KILOGRAMS/CUBIC METER
 LATENT HEAT OF VAPORIZATION          =    577.19 TO    579.32 KILOCALORIES/KILOGRAM
 WATER TEMPERATURE                    =      30.4 TO      34.3 DEGREES C

 SOLAR CONSTANT                       =    2851.2 LANGLEYS/DAY
 SOLAR RADIATION AT TOP OF ATMOSPHERE =    1981.4 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    =   -1012.8 TO    -962.2 LANGLEYS/DAY
 EVAPORATIVE HEAT EXCHANGE            =    -259.8 TO    -170.2 LANGLEYS/DAY
 CONDUCTIVE HEAT EXCHANGE             =     -74.7 TO     -54.6 LANGLEYS/DAY
 TOTAL NET FLUX AT AIR-WATER INTERFACE =     18.9 TO     179.2 LANGLEYS/DAY

     .....PHOTOSYNTHETIC RATES CONVERGENT IN   72 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                                                  TMDL Simulation with Algal Dynamics

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

  C1     1     1      6.27     6.19     6.12     6.05     6.00     5.95     5.91     5.88     5.85     5.82
  C1     1    11      5.80     5.78     5.77     5.75     5.75     5.74     5.75     5.76
  C2     2    19      5.79     5.82     5.84     5.87     5.89     5.91     5.92     5.94     5.95     5.96
  C2     2    29      5.97     5.98     5.99     5.99     6.00     6.01     6.01     6.01     6.01     5.98
  C2     2    39      5.92     5.78
  L4     3    41      5.45     5.17     4.93     4.76     4.66     4.71     5.01
  L4     4    48      5.15     5.27     5.37     5.47     5.56     5.65     5.72     5.79     5.86     5.92
  L4     4    58      5.98     6.03     6.07     6.12     6.16     6.20     6.23     6.27
  L3     5    66      6.30     6.33     6.36     6.38     6.40     6.42     6.44     6.45     6.46     6.45
  L3     5    76      6.43     6.38     6.25
  L2     6    79      6.10     5.98     5.84     5.68
  L1     7    83      5.52     5.40     5.31     5.24     5.22     5.24     5.27     5.37     5.57     5.93

INTERMEDIATE REPORT
 Effective BOD1                                            LA-QUAL Model for Bayou LaBranche Watershed
     mg/L                                                  TMDL Simulation with Algal Dynamics

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

  C1     1     1      8.74     8.36     7.99     7.65     7.32     7.01     6.71     6.43     6.16     5.91
  C1     1    11      5.66     5.43     5.22     5.01     4.82     4.64     4.47     4.32
  C2     2    19      4.18     4.02     3.88     3.74     3.61     3.49     3.38     3.27     3.16     3.07
```

C2	2	29	2.98	2.89	2.81	2.73	2.66	2.59	2.53	2.47	2.41	2.36
C2	2	39	2.31	2.27								
L4	3	41	2.24	2.22	2.23	2.28	2.42	2.74	3.39			
L4	4	48	3.33	3.28	3.23	3.18	3.14	3.10	3.06	3.03	3.00	2.97
L4	4	58	2.94	2.91	2.89	2.87	2.85	2.84	2.82	2.81		
L3	5	66	2.79	2.78	2.77	2.77	2.76	2.75	2.75	2.74	2.73	2.72
L3	5	76	2.71	2.69	2.66							
L2	6	79	2.62	2.60	2.58	2.59						
L1	7	83	2.61	2.65	2.73	2.86	3.05	3.32	3.73	4.32	5.16	6.34

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	7.59	7.21	6.84	6.50	6.17	5.85	5.55	5.27	5.00	4.74
C1	1	11	4.49	4.26	4.04	3.83	3.63	3.45	3.28	3.12		
C2	2	19	2.97	2.80	2.65	2.50	2.36	2.23	2.11	1.99	1.88	1.78
C2	2	29	1.68	1.59	1.50	1.42	1.34	1.27	1.20	1.13	1.07	1.01
C2	2	39	0.96	0.92								
L4	3	41	0.88	0.85	0.84	0.87	0.98	1.24	1.80			
L4	4	48	1.72	1.65	1.58	1.51	1.45	1.39	1.34	1.28	1.23	1.18
L4	4	58	1.13	1.09	1.05	1.00	0.97	0.93	0.89	0.85		
L3	5	66	0.81	0.78	0.75	0.72	0.69	0.67	0.64	0.63	0.62	0.62
L3	5	76	0.65	0.73	0.89							
L2	6	79	0.87	0.88	0.90	0.94						
L1	7	83	1.00	1.10	1.23	1.42	1.69	2.06	2.56	3.25	4.22	5.57

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.30	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.14	0.13
C1	1	11	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.06		
C2	2	19	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.02
C2	2	29	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
C2	2	39	0.01	0.01								
L4	3	41	0.01	0.02	0.03	0.06	0.13	0.27	0.58			
L4	4	48	0.53	0.49	0.45	0.41	0.38	0.35	0.33	0.30	0.28	0.26
L4	4	58	0.24	0.22	0.20	0.19	0.17	0.16	0.15	0.13		
L3	5	66	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.09	0.11
L3	5	76	0.15	0.24	0.42							
L2	6	79	0.37	0.34	0.31	0.28						
L1	7	83	0.25	0.23	0.21	0.20	0.19	0.18	0.17	0.17	0.16	0.17

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.39	0.36	0.34	0.32	0.30	0.28	0.26	0.25	0.24	0.22
C1	1	11	0.21	0.20	0.19	0.18	0.18	0.17	0.16	0.16		
C2	2	19	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13
C2	2	29	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
C2	2	39	0.12	0.12								
L4	3	41	0.12	0.13	0.14	0.18	0.25	0.39	0.70			
L4	4	48	0.66	0.62	0.58	0.55	0.52	0.49	0.46	0.44	0.42	0.40
L4	4	58	0.38	0.36	0.35	0.33	0.32	0.31	0.30	0.29		
L3	5	66	0.28	0.27	0.26	0.26	0.25	0.25	0.25	0.25	0.26	0.27
L3	5	76	0.31	0.40	0.56							
L2	6	79	0.51	0.48	0.44	0.41						
L1	7	83	0.38	0.35	0.33	0.31	0.30	0.28	0.27	0.25	0.24	0.23

INTERMEDIATE REPORT

Ammonia Nitrogen
mg/L

LA-QUAL Model for Bayou LaBranche Watershed
TMDL 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	0.03	0.03	0.03	0.03	0.03	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	0.02	0.02								
L4	3	41	0.02	0.02	0.02	0.03	0.04	0.06	0.10			
L4	4	48	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09
L4	4	58	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08		
L3	5	66	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06
L3	5	76	0.06	0.06	0.07							
L2	6	79	0.07	0.08	0.08	0.08						
L1	7	83	0.08	0.08	0.08	0.09	0.09	0.09	0.08	0.07	0.06	0.05

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
C1	1	11	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03		
C2	2	19	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
C2	2	29	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
C2	2	39	0.02	0.02								
L4	3	41	0.02	0.02	0.02	0.02	0.02	0.02	0.02			
L4	4	48	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04
L4	4	58	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05		
L3	5	66	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
L3	5	76	0.05	0.05	0.06							
L2	6	79	0.06	0.07	0.07	0.07						
L1	7	83	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.06	0.05	0.03

INTERMEDIATE REPORT
Total Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.35	0.32	0.30	0.28	0.27	0.25	0.23	0.22	0.21	0.20
C1	1	11	0.19	0.18	0.17	0.16	0.15	0.14	0.14	0.13		
C2	2	19	0.12	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08
C2	2	29	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05
C2	2	39	0.05	0.05								
L4	3	41	0.06	0.06	0.08	0.11	0.19	0.35	0.69			
L4	4	48	0.65	0.61	0.58	0.54	0.51	0.48	0.46	0.43	0.41	0.39
L4	4	58	0.37	0.35	0.33	0.32	0.30	0.29	0.27	0.26		
L3	5	66	0.25	0.24	0.23	0.22	0.21	0.20	0.19	0.19	0.20	0.22
L3	5	76	0.26	0.36	0.54							
L2	6	79	0.51	0.48	0.46	0.43						
L1	7	83	0.41	0.39	0.38	0.36	0.35	0.34	0.32	0.30	0.28	0.25

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.44	0.42	0.40	0.38	0.36	0.34	0.33	0.31	0.30	0.29
C1	1	11	0.28	0.27	0.26	0.25	0.24	0.24	0.23	0.22		
C2	2	19	0.22	0.21	0.21	0.20	0.20	0.19	0.19	0.19	0.18	0.18
C2	2	29	0.18	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16
C2	2	39	0.16	0.16								
L4	3	41	0.16	0.17	0.19	0.23	0.31	0.47	0.82			

L4	4	48	0.78	0.74	0.71	0.68	0.65	0.62	0.60	0.57	0.55	0.53
L4	4	58	0.51	0.50	0.48	0.47	0.45	0.44	0.43	0.42		
L3	5	66	0.41	0.40	0.39	0.38	0.37	0.37	0.36	0.36	0.37	0.39
L3	5	76	0.43	0.51	0.69							
L2	6	79	0.65	0.62	0.59	0.56						
L1	7	83	0.54	0.52	0.50	0.48	0.46	0.44	0.42	0.39	0.35	0.31

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.05	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01
C1	1	11	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00		
C2	2	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C2	2	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C2	2	39	0.00	0.00								
L4	3	41	0.00	0.00	0.00	0.00	0.00	0.01	0.02			
L4	4	48	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
L4	4	58	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00		
L3	5	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L3	5	76	0.00	0.00	0.00							
L2	6	79	0.00	0.00	0.00	0.00						
L1	7	83	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03
C1	1	11	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		
C2	2	19	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
C2	2	29	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
C2	2	39	0.02	0.02								
L4	3	41	0.02	0.02	0.02	0.02	0.02	0.03	0.04			
L4	4	48	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
L4	4	58	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03		
L3	5	66	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
L3	5	76	0.03	0.03	0.03							
L2	6	79	0.03	0.03	0.02	0.02						
L1	7	83	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Total Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Chlorophyll a
µg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	10.76	10.77	10.78	10.79	10.81	10.83	10.86	10.88	10.91	10.94
C1	1	11	10.97	11.00	11.04	11.07	11.11	11.15	11.20	11.25		
C2	2	19	11.34	11.43	11.52	11.61	11.70	11.78	11.86	11.94	12.01	12.08
C2	2	29	12.15	12.21	12.27	12.33	12.38	12.43	12.47	12.51	12.56	12.59
C2	2	39	12.64	12.68								
L4	3	41	12.74	12.82	12.95	13.15	13.49	14.04	14.95			
L4	4	48	15.12	15.28	15.44	15.61	15.79	15.97	16.15	16.33	16.52	16.71
L4	4	58	16.90	17.09	17.29	17.48	17.68	17.88	18.09	18.31		
L3	5	66	18.54	18.75	18.97	19.17	19.37	19.55	19.70	19.80	19.82	19.69
L3	5	76	19.28	18.39	16.63							
L2	6	79	16.35	16.10	15.80	15.41						
L1	7	83	15.00	14.58	14.07	13.45	12.70	11.80	11.03	10.06	8.82	7.25

INTERMEDIATE REPORT
Temperature
deg C

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	30.41	30.64	30.86	31.06	31.26	31.44	31.61	31.78	31.93	32.08
C1	1	11	32.22	32.35	32.48	32.59	32.71	32.81	32.91	33.00		
C2	2	19	33.10	33.20	33.30	33.39	33.48	33.55	33.63	33.70	33.76	33.82
C2	2	29	33.88	33.93	33.98	34.03	34.08	34.12	34.15	34.19	34.22	34.25
C2	2	39	34.28	34.31								
L4	3	41	34.32	34.33	34.31	34.26	34.13	33.84	33.22			
L4	4	48	33.30	33.36	33.42	33.48	33.53	33.59	33.64	33.68	33.73	33.77
L4	4	58	33.82	33.86	33.90	33.93	33.97	34.00	34.04	34.07		
L3	5	66	34.10	34.13	34.16	34.19	34.21	34.23	34.25	34.25	34.24	34.20

L3	5	76	34.10	33.90	33.51							
L2	6	79	33.57	33.60	33.64	33.66						
L1	7	83	33.68	33.68	33.66	33.62	33.55	33.45	33.24	32.94	32.53	31.97

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78
C1	1	11	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78		
C2	2	19	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78
C2	2	29	2687.78	2687.78	2687.78	2687.79	2687.80	2687.83	2687.88	2687.98	2688.16	2688.51
C2	2	39	2689.19	2690.47								
L4	3	41	2692.93	2697.65	2706.68	2723.95	2757.01	2820.27	2941.33			
L4	4	48	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33
L4	4	58	2941.34	2941.34	2941.35	2941.37	2941.41	2941.49	2941.64	2941.91		
L3	5	66	2942.40	2943.25	2944.76	2947.48	2952.35	2961.06	2976.67	3004.63	3054.72	3144.42
L3	5	76	3305.10	3592.91	4108.40							
L2	6	79	4169.58	4230.02	4310.37	4417.19						
L1	7	83	4534.80	4662.53	4820.01	5014.16	5253.51	5548.59	5777.03	6071.44	6450.85	6939.83

INTERMEDIATE REPORT
River Distance
km

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C1	1	11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
C2	2	19	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C2	2	29	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C2	2	39	0.1	0.1								
L4	3	41	0.1	0.1	0.1	0.1	0.1	0.1	0.2			
L4	4	48	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
L4	4	58	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
L3	5	66	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
L3	5	76	0.2	0.2	0.2							
L2	6	79	0.2	0.2	0.2	0.2						
L1	7	83	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Bayou LaBranche Watershed
TMDL 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
TMDL 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
TMDL 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
TMDL 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	0.0			
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
TMDL 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	0.0			
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
TMDL 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
TMDL Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.180	1.185	1.189	1.193	1.197	1.201	1.205	1.208	1.211	1.214
C1	1	11	1.217	1.220	1.222	1.225	1.227	1.229	1.231	1.233		
C2	2	19	2.234	2.246	2.260	2.276	2.292	2.310	2.328	2.346	2.365	2.384
C2	2	29	2.403	2.423	2.443	2.463	2.483	2.504	2.524	2.544	2.565	2.586
C2	2	39	2.606	2.627								
L4	3	41	1.811	1.812	1.811	1.810	1.806	1.797	1.779			
L4	4	48	1.216	1.218	1.219	1.220	1.221	1.222	1.223	1.224	1.225	1.226
L4	4	58	1.227	1.228	1.229	1.229	1.230	1.231	1.231	1.232		
L3	5	66	1.233	1.233	1.234	1.235	1.235	1.235	1.236	1.236	1.236	1.235
L3	5	76	1.233	1.229	1.221							
L2	6	79	0.449	0.449	0.449	0.449						
L1	7	83	0.449	0.449	0.449	0.449	0.448	0.448	0.446	0.444	0.441	0.437

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
C1	1	11	1.	1.	1.	1.	1.	1.	1.	1.		
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	4.	4.	4.	4.	4.	4.	3.			
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	1.	1.	1.	1.						
L1	7	83	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.

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	0.123	29.80	0.0	6.50	8.60	39.00	0.37	0.03	0.01	0.41	0.06	0.15	10.8													
WASTELOAD # 001 (LAG533466) ENTERS HERE																												
1	C1 1	9.10	0.123	30.41	0.0	6.27	7.59	0.00	0.30	0.04	0.01	0.35	0.05	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.505	1.180	0.16	0.31	0.00	0.00	0.26	0.96
2	C1 1	9.00	0.123	30.64	0.0	6.19	7.21	0.00	0.27	0.04	0.02	0.32	0.04	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.475	1.185	0.16	0.31	0.00	0.00	0.27	0.98
3	C1 1	8.90	0.123	30.86	0.0	6.12	6.84	0.00	0.25	0.04	0.02	0.30	0.03	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.448	1.189	0.16	0.31	0.00	0.00	0.27	0.99
4	C1 1	8.80	0.123	31.06	0.0	6.05	6.50	0.00	0.23	0.04	0.02	0.28	0.03	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.422	1.193	0.17	0.32	0.00	0.00	0.28	1.00
5	C1 1	8.70	0.123	31.26	0.0	6.00	6.17	0.00	0.21	0.04	0.02	0.27	0.03	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.398	1.197	0.17	0.32	0.00	0.00	0.28	1.02
6	C1 1	8.60	0.123	31.44	0.0	5.95	5.85	0.00	0.19	0.04	0.02	0.25	0.02	0.15	10.8	1.5	0.82	15.5	0.010	0.010	7.375	1.201	0.17	0.32	0.00	0.00	0.28	1.03
7	C1 1	8.50	0.123	31.61	0.0	5.91	5.55	0.00	0.17	0.04	0.02	0.23	0.02	0.15	10.9	1.5	0.82	15.5	0.010	0.010	7.353	1.205	0.17	0.32	0.00	0.00	0.29	1.04
8	C1 1	8.40	0.123	31.78	0.0	5.88	5.27	0.00	0.16	0.04	0.02	0.22	0.02	0.15	10.9	1.5	0.82	15.5	0.010	0.010	7.332	1.208	0.17	0.32	0.00	0.00	0.29	1.05
9	C1 1	8.30	0.123	31.93	0.0	5.85	5.00	0.00	0.14	0.04	0.02	0.21	0.01	0.15	10.9	1.5	0.82	15.5	0.010	0.010	7.313	1.211	0.17	0.32	0.00	0.00	0.29	1.06
10	C1 1	8.20	0.123	32.08	0.0	5.82	4.74	0.00	0.13	0.04	0.02	0.20	0.01	0.15	10.9	1.5	0.82	15.5	0.010	0.010	7.295	1.214	0.17	0.32	0.00	0.00	0.30	1.07
11	C1 1	8.10	0.123	32.22	0.0	5.80	4.49	0.00	0.12	0.04	0.02	0.19	0.01	0.15	11.0	1.5	0.82	15.5	0.010	0.010	7.278	1.217	0.18	0.32	0.00	0.00	0.30	1.08
12	C1 1	8.00	0.123	32.35	0.0	5.78	4.26	0.00	0.11	0.04	0.02	0.18	0.01	0.15	11.0	1.5	0.82	15.5	0.010	0.010	7.262	1.220	0.18	0.33	0.00	0.00	0.30	1.09
13	C1 1	7.90	0.123	32.48	0.0	5.77	4.04	0.00	0.10	0.04	0.02	0.17	0.01	0.15	11.0	1.5	0.82	15.5	0.010	0.010	7.246	1.222	0.18	0.33	0.00	0.00	0.31	1.10
14	C1 1	7.80	0.123	32.59	0.0	5.75	3.83	0.00	0.09	0.04	0.03	0.16	0.01	0.15	11.1	1.5	0.82	15.5	0.010	0.010	7.232	1.225	0.18	0.33	0.00	0.00	0.31	1.11
15	C1 1	7.70	0.123	32.71	0.0	5.75	3.63	0.00	0.08	0.04	0.03	0.15	0.01	0.15	11.1	1.5	0.82	15.5	0.010	0.010	7.218	1.227	0.18	0.33	0.00	0.00	0.31	1.11
16	C1 1	7.60	0.123	32.81	0.0	5.74	3.45	0.00	0.08	0.04	0.03	0.14	0.00	0.15	11.1	1.5	0.82	15.5	0.010	0.010	7.205	1.229	0.18	0.33	0.00	0.00	0.31	1.12
17	C1 1	7.50	0.123	32.91	0.0	5.75	3.28	0.00	0.07	0.04	0.03	0.14	0.00	0.15	11.2	1.5	0.82	15.5	0.010	0.010	7.193	1.231	0.18	0.33	0.00	0.00	0.32	1.13
18	C1 1	7.40	0.123	33.00	0.0	5.76	3.12	0.00	0.06	0.04	0.03	0.13	0.00	0.15	11.3	1.5	0.82	15.5	0.010	0.010	7.182	1.233	0.18	0.33	0.00	0.00	0.32	1.13
19	C2 2	7.30	0.123	33.10	0.0	5.79	2.97	0.00	0.06	0.04	0.03	0.12	0.00	0.15	11.3	1.5	0.49	18.6	0.014	0.014	7.171	2.234	0.18	0.56	0.00	0.00	0.32	1.14
20	C2 2	7.20	0.123	33.20	0.0	5.82	2.80	0.00	0.05	0.04	0.03	0.12	0.00	0.15	11.4	1.5	0.49	18.6	0.014	0.014	7.158	2.246	0.18	0.56	0.00	0.00	0.33	1.15
21	C2 2	7.10	0.123	33.30	0.0	5.84	2.65	0.00	0.05	0.04	0.03	0.11	0.00	0.15	11.5	1.5	0.49	18.6	0.014	0.014	7.147	2.260	0.18	0.56	0.00	0.00	0.33	1.16
22	C2 2	7.00	0.123	33.39	0.0	5.87	2.50	0.00	0.04	0.03	0.03	0.10	0.00	0.15	11.6	1.5	0.49	18.6	0.014	0.015	7.136	2.276	0.18	0.56	0.00	0.00	0.33	1.16
23	C2 2	6.90	0.123	33.48	0.0	5.89	2.36	0.00	0.04	0.03	0.03	0.10	0.00	0.15	11.7	1.5	0.49	18.6	0.014	0.015	7.126	2.292	0.19	0.56	0.00	0.00	0.33	1.17
24	C2 2	6.80	0.123	33.55	0.0	5.91	2.23	0.00	0.03	0.03	0.03	0.09	0.00	0.15	11.8	1.5	0.49	18.6	0.014	0.015	7.116	2.310	0.19	0.57	0.00	0.00	0.34	1.17
25	C2 2	6.70	0.123	33.63	0.0	5.92	2.11	0.00	0.03	0.03	0.03	0.09	0.00	0.15	11.9	1.5	0.49	18.6	0.014	0.016	7.108	2.328	0.19	0.57	0.00	0.00	0.34	1.18
26	C2 2	6.60	0.123	33.70	0.0	5.94	1.99	0.00	0.03	0.03	0.03	0.08	0.00	0.15	11.9	1.5	0.49	18.6	0.014	0.016	7.100	2.346	0.19	0.57	0.00	0.00	0.34	1.18
27	C2 2	6.50	0.123	33.76	0.0	5.95	1.88	0.00	0.03	0.03	0.03	0.08	0.00	0.15	12.0	1.5	0.49	18.6	0.014	0.017	7.092	2.365	0.19	0.57	0.00	0.00	0.34	1.19
28	C2 2	6.40	0.123	33.82	0.0	5.96	1.78	0.00	0.02	0.03	0.03	0.08	0.00	0.15	12.1	1.5	0.49	18.6	0.014	0.017	7.085	2.384	0.19	0.57	0.00	0.00	0.34	1.19
29	C2 2	6.30	0.123	33.88	0.0	5.97	1.68	0.00	0.02	0.03	0.03	0.07	0.00	0.15	12.1	1.5	0.49	18.6	0.014	0.017	7.078	2.403	0.19	0.57	0.00	0.00	0.35	1.20

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  30 C2  2    6.20   0.123 33.93  0.0  5.98   1.59   0.00  0.02  0.03  0.03  0.07  0.00  0.15  12.2    1.5   0.49  18.6  0.014  0.018 7.072  2.423 0.19 0.57 0.00 0.00
0.35  1.20
  31 C2  2    6.10   0.123 33.98  0.0  5.99   1.50   0.00  0.02  0.03  0.03  0.07  0.00  0.15  12.3    1.5   0.49  18.6  0.014  0.018 7.066  2.443 0.19 0.57 0.00 0.00
0.35  1.21
  32 C2  2    6.00   0.123 34.03  0.0  5.99   1.42   0.00  0.02  0.02  0.03  0.07  0.00  0.15  12.3    1.5   0.49  18.6  0.014  0.019 7.061  2.463 0.19 0.57 0.00 0.00
0.35  1.21
  33 C2  2    5.90   0.123 34.08  0.0  6.00   1.34   0.00  0.01  0.02  0.03  0.06  0.00  0.15  12.4    1.5   0.49  18.6  0.014  0.019 7.056  2.483 0.19 0.57 0.00 0.00
0.35  1.21
  34 C2  2    5.80   0.123 34.12  0.0  6.01   1.27   0.00  0.01  0.02  0.02  0.06  0.00  0.15  12.4    1.5   0.49  18.6  0.014  0.020 7.051  2.504 0.19 0.57 0.00 0.00
0.35  1.22
  35 C2  2    5.70   0.123 34.15  0.0  6.01   1.20   0.00  0.01  0.02  0.02  0.06  0.00  0.15  12.5    1.5   0.49  18.6  0.014  0.020 7.046  2.524 0.19 0.57 0.00 0.00
0.35  1.22
  36 C2  2    5.60   0.123 34.19  0.0  6.01   1.13   0.00  0.01  0.02  0.02  0.06  0.00  0.15  12.5    1.5   0.49  18.6  0.014  0.021 7.043  2.544 0.19 0.57 0.00 0.00
0.35  1.22
  37 C2  2    5.50   0.123 34.22  0.0  6.01   1.07   0.00  0.01  0.02  0.02  0.05  0.00  0.15  12.6    1.5   0.49  18.6  0.014  0.021 7.039  2.565 0.19 0.57 0.00 0.00
0.36  1.22
  38 C2  2    5.40   0.123 34.25  0.0  5.98   1.01   0.00  0.01  0.02  0.02  0.05  0.00  0.15  12.6    1.5   0.49  18.6  0.014  0.022 7.035  2.586 0.19 0.57 0.00 0.00
0.36  1.23
  39 C2  2    5.30   0.123 34.28  0.0  5.92   0.96   0.00  0.01  0.02  0.02  0.05  0.00  0.15  12.6    1.5   0.49  18.6  0.014  0.022 7.032  2.606 0.19 0.58 0.00 0.00
0.36  1.23
  40 C2  2    5.20   0.123 34.31  0.0  5.78   0.92   0.00  0.01  0.02  0.02  0.05  0.00  0.14  12.7    1.5   0.49  18.6  0.014  0.023 7.029  2.627 0.19 0.58 0.00 0.00
0.35  1.23
  41 L4  3    5.10   0.123 34.32  0.0  5.45   0.88   0.00  0.01  0.02  0.02  0.06  0.00  0.14  12.7    1.5   0.50  18.0  0.014  0.024 7.027  1.811 0.19 0.56 0.00 0.00
0.35  3.70
  42 L4  3    5.00   0.123 34.33  0.0  5.17   0.85   0.00  0.02  0.02  0.02  0.06  0.00  0.14  12.8    1.5   0.50  18.0  0.014  0.024 7.026  1.812 0.19 0.56 0.00 0.00
0.35  3.70
  43 L4  3    4.90   0.123 34.31  0.0  4.93   0.84   0.00  0.03  0.02  0.02  0.08  0.00  0.14  12.9    1.5   0.50  18.0  0.014  0.025 7.028  1.811 0.19 0.56 0.00 0.00
0.34  3.69
  44 L4  3    4.80   0.123 34.26  0.0  4.76   0.87   0.00  0.06  0.03  0.02  0.11  0.00  0.14  13.2    1.5   0.50  18.0  0.014  0.025 7.034  1.810 0.19 0.56 0.00 0.00
0.34  3.68
  45 L4  3    4.70   0.123 34.13  0.0  4.66   0.98   0.00  0.13  0.04  0.02  0.19  0.00  0.14  13.5    1.5   0.50  18.0  0.014  0.026 7.050  1.806 0.19 0.56 0.00 0.00
0.33  3.65
  46 L4  3    4.60   0.123 33.84  0.0  4.71   1.24   0.00  0.27  0.06  0.02  0.35  0.01  0.14  14.0    1.5   0.50  18.0  0.014  0.026 7.083  1.797 0.19 0.56 0.00 0.00
0.33  3.59
         WASTELOAD # 047 (Bayou Traverse) ENTERS HERE
  47 L4  3    4.50   0.180 33.22  0.0  5.01   1.80   0.00  0.58  0.10  0.02  0.69  0.02  0.15  14.9    1.5   0.50  18.0  0.020  0.028 7.156  1.779 0.18 0.55 0.00 0.00
0.32  3.45
  48 L4  4    4.40   0.180 33.30  0.0  5.15   1.72   0.00  0.53  0.10  0.02  0.65  0.02  0.15  15.1    1.5   0.73  18.3  0.013  0.019 7.148  1.216 0.18 0.37 0.00 0.00
0.32  0.58
  49 L4  4    4.30   0.180 33.36  0.0  5.27   1.65   0.00  0.49  0.10  0.03  0.61  0.02  0.15  15.3    1.5   0.73  18.3  0.013  0.020 7.140  1.218 0.18 0.38 0.00 0.00
0.32  0.58
  50 L4  4    4.20   0.180 33.42  0.0  5.37   1.58   0.00  0.45  0.10  0.03  0.58  0.02  0.15  15.4    1.5   0.73  18.3  0.013  0.020 7.133  1.219 0.19 0.38 0.00 0.00
0.33  0.58
  51 L4  4    4.10   0.180 33.48  0.0  5.47   1.51   0.00  0.41  0.10  0.03  0.54  0.01  0.14  15.6    1.5   0.73  18.3  0.013  0.020 7.126  1.220 0.19 0.38 0.00 0.00
0.33  0.58
  52 L4  4    4.00   0.180 33.53  0.0  5.56   1.45   0.00  0.38  0.10  0.03  0.51  0.01  0.14  15.8    1.5   0.73  18.3  0.013  0.021 7.120  1.221 0.19 0.38 0.00 0.00
0.33  0.59
  53 L4  4    3.90   0.180 33.59  0.0  5.65   1.39   0.00  0.35  0.10  0.03  0.48  0.01  0.14  16.0    1.5   0.73  18.3  0.013  0.021 7.113  1.222 0.19 0.38 0.00 0.00
0.33  0.59
  54 L4  4    3.80   0.180 33.64  0.0  5.72   1.34   0.00  0.33  0.10  0.04  0.46  0.01  0.14  16.1    1.5   0.73  18.3  0.013  0.021 7.107  1.223 0.19 0.38 0.00 0.00
0.34  0.59
  55 L4  4    3.70   0.180 33.68  0.0  5.79   1.28   0.00  0.30  0.10  0.04  0.43  0.01  0.14  16.3    1.5   0.73  18.3  0.013  0.022 7.102  1.224 0.19 0.38 0.00 0.00
0.34  0.59
  56 L4  4    3.60   0.180 33.73  0.0  5.86   1.23   0.00  0.28  0.09  0.04  0.41  0.01  0.14  16.5    1.5   0.73  18.3  0.013  0.022 7.096  1.225 0.19 0.38 0.00 0.00
0.34  0.59
  57 L4  4    3.50   0.180 33.77  0.0  5.92   1.18   0.00  0.26  0.09  0.04  0.39  0.01  0.14  16.7    1.5   0.73  18.3  0.013  0.023 7.091  1.226 0.19 0.38 0.00 0.00
0.34  0.60
  58 L4  4    3.40   0.180 33.82  0.0  5.98   1.13   0.00  0.24  0.09  0.04  0.37  0.01  0.14  16.9    1.5   0.73  18.3  0.013  0.023 7.086  1.227 0.19 0.38 0.00 0.00
0.34  0.60
  59 L4  4    3.30   0.180 33.86  0.0  6.03   1.09   0.00  0.22  0.09  0.04  0.35  0.01  0.14  17.1    1.5   0.73  18.3  0.013  0.023 7.081  1.228 0.19 0.38 0.00 0.00
0.35  0.60
  60 L4  4    3.20   0.180 33.90  0.0  6.07   1.05   0.00  0.20  0.09  0.05  0.33  0.00  0.14  17.3    1.5   0.73  18.3  0.013  0.024 7.077  1.229 0.19 0.38 0.00 0.00
0.35  0.60
  61 L4  4    3.10   0.180 33.93  0.0  6.12   1.00   0.00  0.19  0.09  0.05  0.32  0.00  0.14  17.5    1.5   0.73  18.3  0.013  0.024 7.072  1.229 0.19 0.38 0.00 0.00
0.35  0.60
  62 L4  4    3.00   0.180 33.97  0.0  6.16   0.97   0.00  0.17  0.08  0.05  0.30  0.00  0.14  17.7    1.5   0.73  18.3  0.013  0.024 7.069  1.230 0.19 0.38 0.00 0.00
0.35  0.60
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  63 L4  4    2.90   0.180 34.00  0.0  6.20   0.93   0.00  0.16  0.08  0.05  0.29  0.00  0.14  17.9    1.5   0.73  18.3  0.013  0.025 7.064  1.231 0.19 0.38 0.00 0.00
0.35  0.60
  64 L4  4    2.80   0.180 34.04  0.0  6.23   0.89   0.00  0.15  0.08  0.05  0.27  0.00  0.14  18.1    1.5   0.73  18.3  0.013  0.025 7.060  1.231 0.19 0.38 0.00 0.00
0.35  0.61
  65 L4  4    2.70   0.180 34.07  0.0  6.27   0.85   0.00  0.13  0.08  0.05  0.26  0.00  0.14  18.3    1.5   0.73  18.3  0.013  0.025 7.056  1.232 0.19 0.38 0.00 0.00
0.35  0.61
  66 L3  5    2.60   0.180 34.10  0.0  6.30   0.81   0.00  0.12  0.07  0.05  0.25  0.00  0.14  18.5    1.5   0.73  20.8  0.012  0.023 7.053  1.233 0.19 0.38 0.00 0.00
0.36  0.61
  67 L3  5    2.50   0.180 34.13  0.0  6.33   0.78   0.00  0.11  0.07  0.05  0.24  0.00  0.14  18.8    1.5   0.73  20.8  0.012  0.023 7.049  1.233 0.19 0.38 0.00 0.00
0.36  0.61
  68 L3  5    2.40   0.180 34.16  0.0  6.36   0.75   0.00  0.10  0.07  0.05  0.23  0.00  0.14  19.0    1.5   0.73  20.8  0.012  0.023 7.045  1.234 0.19 0.38 0.00 0.00
0.36  0.61
  69 L3  5    2.30   0.180 34.19  0.0  6.38   0.72   0.00  0.09  0.07  0.05  0.22  0.00  0.14  19.2    1.5   0.73  20.8  0.012  0.024 7.043  1.235 0.19 0.38 0.00 0.00
0.36  0.61
  70 L3  5    2.20   0.180 34.21  0.0  6.40   0.69   0.00  0.09  0.07  0.05  0.21  0.00  0.14  19.4    1.5   0.73  20.8  0.012  0.024 7.040  1.235 0.19 0.38 0.00 0.00
0.36  0.61
  71 L3  5    2.10   0.180 34.23  0.0  6.42   0.67   0.00  0.08  0.06  0.05  0.20  0.00  0.14  19.5    1.5   0.73  20.8  0.012  0.024 7.038  1.235 0.19 0.38 0.00 0.00
0.36  0.61

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   0.180 34.25  0.0  6.44   0.64   0.00  0.08  0.06  0.05  0.19  0.00  0.14  19.7    1.5   0.73  20.8  0.012  0.025 7.036  1.236 0.19 0.38 0.00 0.00
0.36  0.61
  73 L3  5    1.90   0.180 34.25  0.0  6.45   0.63   0.00  0.08  0.06  0.05  0.19  0.00  0.14  19.8    1.5   0.73  20.8  0.012  0.025 7.035  1.236 0.19 0.38 0.00 0.00
0.36  0.61
  74 L3  5    1.80   0.180 34.24  0.0  6.46   0.62   0.00  0.09  0.06  0.05  0.20  0.00  0.13  19.8    1.5   0.73  20.8  0.012  0.026 7.036  1.236 0.19 0.38 0.00 0.00
0.36  0.61
  75 L3  5    1.70   0.180 34.20  0.0  6.45   0.62   0.00  0.11  0.06  0.05  0.22  0.00  0.13  19.7    1.5   0.73  20.8  0.012  0.026 7.041  1.235 0.19 0.38 0.00 0.00
0.36  0.61
  76 L3  5    1.60   0.180 34.10  0.0  6.43   0.65   0.00  0.15  0.06  0.05  0.26  0.00  0.13  19.3    1.5   0.73  20.8  0.012  0.026 7.052  1.233 0.19 0.38 0.00 0.00
0.36  0.61
  77 L3  5    1.50   0.180 33.90  0.0  6.38   0.73   0.00  0.24  0.06  0.05  0.36  0.00  0.13  18.4    1.5   0.73  20.8  0.012  0.027 7.076  1.229 0.19 0.38 0.00 0.00
0.35  0.60
        WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE
  78 L3  5    1.40   0.237 33.51  0.0  6.25   0.89   0.00  0.42  0.07  0.06  0.54  0.00  0.12  16.6    1.5   0.73  20.8  0.016  0.028 7.122  1.221 0.19 0.38 0.00 0.00
0.34  0.59
  79 L2  6    1.30   0.237 33.57  0.0  6.10   0.87   0.00  0.37  0.07  0.06  0.51  0.00  0.12  16.4    1.5   1.99  24.1  0.005  0.009 7.115  0.449 0.19 0.14 0.00 0.00
0.34  1.17
  80 L2  6    1.20   0.237 33.60  0.0  5.98   0.88   0.00  0.34  0.08  0.07  0.48  0.00  0.12  16.1    1.5   1.99  24.1  0.005  0.009 7.111  0.449 0.19 0.14 0.00 0.00
0.34  1.18
  81 L2  6    1.10   0.237 33.64  0.0  5.84   0.90   0.00  0.31  0.08  0.07  0.46  0.00  0.12  15.8    1.5   1.99  24.1  0.005  0.009 7.107  0.449 0.19 0.14 0.00 0.00
0.34  1.18
  82 L2  6    1.00   0.237 33.66  0.0  5.68   0.94   0.00  0.28  0.08  0.07  0.43  0.00  0.12  15.4    1.5   1.99  24.1  0.005  0.009 7.104  0.449 0.19 0.14 0.00 0.00
0.34  1.18
  83 L1  7    0.90   0.237 33.68  0.0  5.52   1.00   0.00  0.25  0.08  0.08  0.41  0.00  0.12  15.0    1.5   1.99  34.1  0.003  0.007 7.103  0.449 0.19 0.14 0.00 0.00
0.33  2.37
  84 L1  7    0.80   0.237 33.68  0.0  5.40   1.10   0.00  0.23  0.08  0.08  0.39  0.00  0.11  14.6    1.5   1.99  34.1  0.003  0.007 7.103  0.449 0.19 0.14 0.00 0.00
0.33  2.37
  85 L1  7    0.70   0.237 33.66  0.0  5.31   1.23   0.00  0.21  0.08  0.08  0.38  0.01  0.11  14.1    1.5   1.99  34.1  0.003  0.007 7.105  0.449 0.19 0.14 0.00 0.00
0.33  2.36
  86 L1  7    0.60   0.237 33.62  0.0  5.24   1.42   0.00  0.20  0.09  0.08  0.36  0.01  0.11  13.4    1.5   1.99  34.1  0.003  0.007 7.110  0.449 0.19 0.14 0.00 0.00
0.33  2.36
  87 L1  7    0.50   0.237 33.55  0.0  5.22   1.69   0.00  0.19  0.09  0.08  0.35  0.01  0.11  12.7    1.5   1.99  34.1  0.003  0.007 7.118  0.448 0.19 0.14 0.00 0.00
0.33  2.35
        WASTELOAD # 088 (LGLD4) ENTERS HERE
  88 L1  7    0.40   0.294 33.45  0.0  5.24   2.06   0.00  0.18  0.09  0.07  0.34  0.01  0.10  11.8    1.5   1.99  34.1  0.004  0.008 7.130  0.448 0.19 0.14 0.00 0.00
0.32  2.33
  89 L1  7    0.30   0.294 33.24  0.0  5.27   2.56   0.00  0.17  0.08  0.07  0.32  0.01  0.10  11.0    1.5   1.99  34.1  0.004  0.008 7.155  0.446 0.18 0.14 0.00 0.00
0.32  2.30
  90 L1  7    0.20   0.294 32.94  0.0  5.37   3.25   0.00  0.17  0.07  0.06  0.30  0.01  0.09  10.1    1.5   1.99  34.1  0.004  0.008 7.190  0.444 0.18 0.14 0.00 0.00
0.31  2.26
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  91 L1  7    0.10   0.294 32.53  0.0  5.57   4.22   0.00  0.16  0.06  0.05  0.28  0.01  0.09   8.8    1.5   1.99  34.1  0.004  0.008 7.240  0.441 0.18 0.14 0.00 0.00
0.31  2.20
  92 L1  7    0.00   0.294 31.97  0.0  5.93   5.57   0.00  0.17  0.05  0.03  0.25  0.02  0.08   7.2    1.5   1.99  34.1  0.004  0.008 7.309  0.437 0.17 0.13 0.00 0.00
0.30  2.12

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  1    Cross Bayou Canal 1                              TMDL 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

    1  HDWTR     0.12333   29.80     0.00  2688.00  2688.00   6.50   8.60  39.00   9.75  39.00   0.46   0.03   0.01   0.15  10.75     0.00     0.00
    1  WSTLD     0.00001   30.00     0.00     0.00     0.00   2.00  25.90   0.00  25.90   0.00   7.50   3.75   0.50   0.34   0.00     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

    1    9.20    9.10    0.12334   0.0   0.00964     0.12     0.12    0.82   15.54   1278.94    1554.00   12.79    93.24   0.000     1.500   0.010
    2    9.10    9.00    0.12334   0.0   0.00964     0.12     0.24    0.82   15.54   1278.94    1554.00   12.79   186.48   0.001     1.500   0.010
    3    9.00    8.90    0.12334   0.0   0.00964     0.12     0.36    0.82   15.54   1278.94    1554.00   12.79   279.72   0.001     1.500   0.010
    4    8.90    8.80    0.12334   0.0   0.00964     0.12     0.48    0.82   15.54   1278.94    1554.00   12.79   372.96   0.001     1.500   0.010
    5    8.80    8.70    0.12334   0.0   0.00964     0.12     0.60    0.82   15.54   1278.94    1554.00   12.79   466.20   0.002     1.500   0.010
    6    8.70    8.60    0.12334   0.0   0.00964     0.12     0.72    0.82   15.54   1278.94    1554.00   12.79   559.44   0.002     1.500   0.010
    7    8.60    8.50    0.12334   0.0   0.00964     0.12     0.84    0.82   15.54   1278.94    1554.00   12.79   652.68   0.002     1.500   0.010
    8    8.50    8.40    0.12334   0.0   0.00964     0.12     0.96    0.82   15.54   1278.94    1554.00   12.79   745.92   0.003     1.500   0.010
    9    8.40    8.30    0.12334   0.0   0.00964     0.12     1.08    0.82   15.54   1278.94    1554.00   12.79   839.16   0.003     1.500   0.010
   10    8.30    8.20    0.12334   0.0   0.00964     0.12     1.20    0.82   15.54   1278.94    1554.00   12.79   932.40   0.003     1.500   0.010
   11    8.20    8.10    0.12334   0.0   0.00964     0.12     1.32    0.82   15.54   1278.94    1554.00   12.79  1025.64   0.004     1.500   0.010
   12    8.10    8.00    0.12334   0.0   0.00964     0.12     1.44    0.82   15.54   1278.94    1554.00   12.79  1118.88   0.004     1.500   0.010
   13    8.00    7.90    0.12334   0.0   0.00964     0.12     1.56    0.82   15.54   1278.94    1554.00   12.79  1212.12   0.004     1.500   0.010
   14    7.90    7.80    0.12334   0.0   0.00964     0.12     1.68    0.82   15.54   1278.94    1554.00   12.79  1305.36   0.005     1.500   0.010
   15    7.80    7.70    0.12334   0.0   0.00964     0.12     1.80    0.82   15.54   1278.94    1554.00   12.79  1398.60   0.005     1.500   0.010
   16    7.70    7.60    0.12334   0.0   0.00964     0.12     1.92    0.82   15.54   1278.94    1554.00   12.79  1491.84   0.005     1.500   0.010
   17    7.60    7.50    0.12334   0.0   0.00964     0.12     2.04    0.82   15.54   1278.94    1554.00   12.79  1585.08   0.006     1.500   0.010
   18    7.50    7.40    0.12334   0.0   0.00964     0.12     2.16    0.82   15.54   1278.94    1554.00   12.79  1678.32   0.006     1.500   0.010

  TOT                                              2.16                           23020.96   27972.00
  AVG                                       0.0096                     0.82   15.54                        12.79

 ************************************************************************** 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

   1    9.100  7.50   1.18  0.16  0.31  0.00  0.00  0.00  0.00  0.00  0.96  0.96  0.96  0.12  0.78  0.26  0.00  0.00  0.06  1.56  0.00  0.08  0.00  0.00  0.00  0.00
   2    9.000  7.48   1.18  0.16  0.31  0.00  0.00  0.00  0.00  0.00  0.98  0.98  0.98  0.12  0.78  0.27  0.00  0.00  0.06  1.56  0.00  0.08  0.00  0.00  0.00  0.00
   3    8.900  7.45   1.19  0.16  0.31  0.00  0.00  0.00  0.00  0.00  0.99  0.99  0.99  0.12  0.79  0.27  0.00  0.00  0.06  1.57  0.00  0.09  0.00  0.00  0.00  0.00
   4    8.800  7.42   1.19  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.00  1.00  1.00  0.12  0.79  0.28  0.00  0.00  0.06  1.58  0.00  0.10  0.00  0.00  0.00  0.00
   5    8.700  7.40   1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.02  1.02  1.02  0.12  0.79  0.28  0.00  0.00  0.06  1.59  0.00  0.10  0.00  0.00  0.00  0.00
   6    8.600  7.37   1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.03  1.03  1.03  0.13  0.80  0.28  0.00  0.00  0.06  1.59  0.00  0.11  0.00  0.00  0.00  0.00
   7    8.500  7.35   1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.04  1.04  1.04  0.13  0.80  0.29  0.00  0.00  0.06  1.60  0.00  0.11  0.00  0.00  0.00  0.00
   8    8.400  7.33   1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.05  1.05  1.05  0.13  0.80  0.29  0.00  0.00  0.06  1.61  0.00  0.12  0.00  0.00  0.00  0.00
   9    8.300  7.31   1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.06  1.06  1.06  0.13  0.81  0.29  0.00  0.00  0.06  1.61  0.00  0.12  0.00  0.00  0.00  0.00
  10    8.200  7.29   1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  1.07  1.07  1.07  0.13  0.81  0.30  0.00  0.00  0.06  1.62  0.00  0.12  0.00  0.00  0.00  0.00
  11    8.100  7.28   1.22  0.18  0.32  0.00  0.00  0.00  0.00  0.00  1.08  1.08  1.08  0.13  0.81  0.30  0.00  0.00  0.06  1.62  0.00  0.13  0.00  0.00  0.00  0.00
  12    8.000  7.26   1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  1.09  1.09  1.09  0.13  0.81  0.30  0.00  0.00  0.06  1.63  0.00  0.13  0.00  0.00  0.00  0.00
  13    7.900  7.25   1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  1.10  1.10  1.10  0.13  0.82  0.31  0.00  0.00  0.06  1.63  0.00  0.13  0.00  0.00  0.00  0.00
  14    7.800  7.23   1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  1.11  1.11  1.11  0.13  0.82  0.31  0.00  0.00  0.06  1.64  0.00  0.13  0.00  0.00  0.00  0.00
  15    7.700  7.22   1.23  0.18  0.33  0.00  0.00  0.00  0.00  0.00  1.11  1.11  1.11  0.13  0.82  0.31  0.00  0.00  0.06  1.64  0.00  0.13  0.00  0.00  0.00  0.00
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16	7.600	7.21	1.23	0.18	0.33	0.00	0.00	0.00	0.00	0.00	1.12	1.12	1.12	0.13	0.82	0.31	0.00	0.00	0.06	1.65	0.00	0.13	0.00	0.00	0.00	0.00
17	7.500	7.19	1.23	0.18	0.33	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.83	0.32	0.00	0.00	0.06	1.65	0.00	0.13	0.00	0.00	0.00	0.00
18	7.400	7.18	1.23	0.18	0.33	0.00	0.00	0.00	0.00	0.00	1.13	1.13	1.13	0.13	0.83	0.32	0.00	0.00	0.06	1.65	0.00	0.13	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.97	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.50			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 #/100mL	NCM
1	9.100	30.41	0.00	2687.78	0.00	6.27	7.59	0.00	8.74	0.00	0.30	0.04	0.01	0.35	0.39	0.44	0.05	0.15	0.20	0.06	0.21	10.8	0.0	0.	0.00
2	9.000	30.64	0.00	2687.78	0.00	6.19	7.21	0.00	8.36	0.00	0.27	0.04	0.02	0.32	0.36	0.42	0.04	0.15	0.19	0.05	0.20	10.8	0.0	0.	0.00
3	8.900	30.86	0.00	2687.78	0.00	6.12	6.84	0.00	7.99	0.00	0.25	0.04	0.02	0.30	0.34	0.40	0.03	0.15	0.18	0.05	0.20	10.8	0.0	0.	0.00
4	8.800	31.06	0.00	2687.78	0.00	6.05	6.50	0.00	7.65	0.00	0.23	0.04	0.02	0.28	0.32	0.38	0.03	0.15	0.18	0.04	0.19	10.8	0.0	0.	0.00
5	8.700	31.26	0.00	2687.78	0.00	6.00	6.17	0.00	7.32	0.00	0.21	0.04	0.02	0.27	0.30	0.36	0.03	0.15	0.18	0.04	0.19	10.8	0.0	0.	0.00
6	8.600	31.44	0.00	2687.78	0.00	5.95	5.85	0.00	7.01	0.00	0.19	0.04	0.02	0.25	0.28	0.34	0.02	0.15	0.17	0.04	0.19	10.8	0.0	0.	0.00
7	8.500	31.61	0.00	2687.78	0.00	5.91	5.55	0.00	6.71	0.00	0.17	0.04	0.02	0.23	0.26	0.33	0.02	0.15	0.17	0.03	0.18	10.9	0.0	0.	0.00
8	8.400	31.78	0.00	2687.78	0.00	5.88	5.27	0.00	6.43	0.00	0.16	0.04	0.02	0.22	0.25	0.31	0.02	0.15	0.17	0.03	0.18	10.9	0.0	0.	0.00
9	8.300	31.93	0.00	2687.78	0.00	5.85	5.00	0.00	6.16	0.00	0.14	0.04	0.02	0.21	0.24	0.30	0.01	0.15	0.16	0.03	0.18	10.9	0.0	0.	0.00
10	8.200	32.08	0.00	2687.78	0.00	5.82	4.74	0.00	5.91	0.00	0.13	0.04	0.02	0.20	0.22	0.29	0.01	0.15	0.16	0.03	0.18	10.9	0.0	0.	0.00
11	8.100	32.22	0.00	2687.78	0.00	5.80	4.49	0.00	5.66	0.00	0.12	0.04	0.02	0.19	0.21	0.28	0.01	0.15	0.16	0.02	0.17	11.0	0.0	0.	0.00
12	8.000	32.35	0.00	2687.78	0.00	5.78	4.26	0.00	5.43	0.00	0.11	0.04	0.02	0.18	0.20	0.27	0.01	0.15	0.16	0.02	0.17	11.0	0.0	0.	0.00
13	7.900	32.48	0.00	2687.78	0.00	5.77	4.04	0.00	5.22	0.00	0.10	0.04	0.02	0.17	0.19	0.26	0.01	0.15	0.16	0.02	0.17	11.0	0.0	0.	0.00
14	7.800	32.59	0.00	2687.78	0.00	5.75	3.83	0.00	5.01	0.00	0.09	0.04	0.03	0.16	0.18	0.25	0.01	0.15	0.16	0.02	0.17	11.1	0.0	0.	0.00
15	7.700	32.71	0.00	2687.78	0.00	5.75	3.63	0.00	4.82	0.00	0.08	0.04	0.03	0.15	0.18	0.24	0.01	0.15	0.16	0.02	0.17	11.1	0.0	0.	0.00
16	7.600	32.81	0.00	2687.78	0.00	5.74	3.45	0.00	4.64	0.00	0.08	0.04	0.03	0.14	0.17	0.24	0.00	0.15	0.15	0.02	0.17	11.1	0.0	0.	0.00
17	7.500	32.91	0.00	2687.78	0.00	5.75	3.28	0.00	4.47	0.00	0.07	0.04	0.03	0.14	0.16	0.23	0.00	0.15	0.15	0.02	0.17	11.2	0.0	0.	0.00
18	7.400	33.00	0.00	2687.78	0.00	5.76	3.12	0.00	4.32	0.00	0.06	0.04	0.03	0.13	0.16	0.22	0.00	0.15	0.15	0.02	0.17	11.3	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
1	9.100	0.00	0.19	0.28	0.15	0.14	0.79	0.24	0.04	0.124	0.065	0.032	0.031	1.5	10.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	9.000	0.00	0.19	0.28	0.15	0.15	0.79	0.25	0.04	0.130	0.065	0.033	0.031	1.6	10.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	8.900	0.00	0.19	0.29	0.15	0.16	0.79	0.26	0.04	0.135	0.066	0.033	0.031	1.6	10.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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    4    8.800   0.00   0.19    0.29 0.15 0.16 0.79 0.27 0.04  0.140  0.066  0.033  0.032   1.7   10.8    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   0.19    0.30 0.15 0.17 0.79 0.27 0.04  0.144  0.067  0.034  0.032   1.7   10.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    6    8.600   0.00   0.19    0.31 0.15 0.17 0.79 0.28 0.04  0.147  0.068  0.034  0.032   1.7   10.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    7    8.500   0.00   0.19    0.31 0.15 0.17 0.79 0.28 0.04  0.150  0.068  0.034  0.032   1.8   10.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    8    8.400   0.00   0.19    0.32 0.15 0.18 0.79 0.29 0.04  0.153  0.069  0.034  0.032   1.8   10.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    9    8.300   0.00   0.19    0.33 0.15 0.18 0.79 0.29 0.04  0.156  0.069  0.035  0.032   1.8   10.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   10    8.200   0.00   0.19    0.34 0.15 0.18 0.79 0.29 0.04  0.158  0.070  0.035  0.032   1.8   10.9    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   0.19    0.35 0.15 0.18 0.79 0.29 0.05  0.159  0.070  0.035  0.032   1.8   11.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   12    8.000   0.00   0.19    0.36 0.15 0.18 0.79 0.29 0.05  0.161  0.071  0.035  0.033   1.8   11.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   13    7.900   0.00   0.19    0.37 0.15 0.18 0.79 0.30 0.05  0.162  0.071  0.035  0.033   1.8   11.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   14    7.800   0.00   0.19    0.38 0.15 0.18 0.79 0.30 0.05  0.163  0.071  0.036  0.033   1.8   11.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   15    7.700   0.00   0.19    0.39 0.15 0.18 0.79 0.30 0.05  0.164  0.072  0.036  0.033   1.8   11.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   16    7.600   0.00   0.19    0.40 0.15 0.18 0.79 0.30 0.05  0.164  0.072  0.036  0.033   1.8   11.1    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   0.19    0.41 0.15 0.18 0.79 0.29 0.05  0.164  0.072  0.036  0.033   1.8   11.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   18    7.400   0.00   0.19    0.42 0.15 0.18 0.79 0.29 0.05  0.164  0.073  0.036  0.033   1.8   11.3    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                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  2    Cross Bayou Canal 2                              TMDL 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

   19  UPR RCH   0.12334   33.00     0.00  2687.78     0.00   5.76   3.12   0.00   4.32   0.00   0.06   0.04   0.03   0.15  11.25     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

   19    7.40    7.30    0.12334   0.0   0.01360     0.09     2.25    0.49   18.59   907.19    1859.00    9.07   1789.86   0.009     1.500   0.014
   20    7.30    7.20    0.12334   0.0   0.01360     0.09     2.33    0.49   18.59   907.19    1859.00    9.07   1901.40   0.010     1.500   0.014
   21    7.20    7.10    0.12334   0.0   0.01360     0.09     2.42    0.49   18.59   907.19    1859.00    9.07   2012.94   0.010     1.500   0.014
   22    7.10    7.00    0.12334   0.0   0.01360     0.09     2.50    0.49   18.59   907.19    1859.00    9.07   2124.48   0.011     1.500   0.015
   23    7.00    6.90    0.12334   0.0   0.01360     0.09     2.59    0.49   18.59   907.19    1859.00    9.07   2236.02   0.011     1.500   0.015
   24    6.90    6.80    0.12334   0.0   0.01360     0.09     2.67    0.49   18.59   907.19    1859.00    9.07   2347.56   0.012     1.500   0.015
   25    6.80    6.70    0.12334   0.0   0.01360     0.09     2.76    0.49   18.59   907.19    1859.00    9.07   2459.10   0.013     1.500   0.016
   26    6.70    6.60    0.12334   0.0   0.01360     0.09     2.84    0.49   18.59   907.19    1859.00    9.07   2570.64   0.013     1.500   0.016
   27    6.60    6.50    0.12334   0.0   0.01360     0.09     2.93    0.49   18.59   907.19    1859.00    9.07   2682.18   0.014     1.500   0.017
   28    6.50    6.40    0.12334   0.0   0.01360     0.09     3.01    0.49   18.59   907.19    1859.00    9.07   2793.72   0.014     1.500   0.017
   29    6.40    6.30    0.12334   0.0   0.01360     0.09     3.10    0.49   18.59   907.19    1859.00    9.07   2905.26   0.015     1.500   0.017
   30    6.30    6.20    0.12334   0.0   0.01360     0.09     3.18    0.49   18.59   907.19    1859.00    9.07   3016.80   0.015     1.500   0.018
   31    6.20    6.10    0.12334   0.0   0.01360     0.09     3.27    0.49   18.59   907.19    1859.00    9.07   3128.34   0.016     1.500   0.018
   32    6.10    6.00    0.12334   0.0   0.01360     0.09     3.35    0.49   18.59   907.19    1859.00    9.07   3239.88   0.017     1.500   0.019
   33    6.00    5.90    0.12334   0.0   0.01360     0.09     3.44    0.49   18.59   907.19    1859.00    9.07   3351.42   0.017     1.500   0.019
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34	5.90	5.80	0.12334	0.0	0.01360	0.09	3.52	0.49	18.59	907.19	1859.00	9.07	3462.96	0.018	1.500	0.020	
35	5.80	5.70	0.12334	0.0	0.01360	0.09	3.61	0.49	18.59	907.19	1859.00	9.07	3574.50	0.018	1.500	0.020	
36	5.70	5.60	0.12334	0.0	0.01360	0.09	3.69	0.49	18.59	907.19	1859.00	9.07	3686.04	0.019	1.500	0.021	
37	5.60	5.50	0.12334	0.0	0.01360	0.09	3.78	0.49	18.59	907.19	1859.00	9.07	3797.58	0.019	1.500	0.021	
38	5.50	5.40	0.12334	0.0	0.01360	0.09	3.86	0.49	18.59	907.19	1859.00	9.07	3909.12	0.020	1.500	0.022	
39	5.40	5.30	0.12334	0.0	0.01360	0.09	3.95	0.49	18.59	907.19	1859.00	9.07	4020.66	0.021	1.500	0.022	
40	5.30	5.20	0.12334	0.0	0.01360	0.09	4.03	0.49	18.59	907.19	1859.00	9.07	4132.20	0.021	1.500	0.023	
TOT						1.87				19958.22	40898.00						
AVG					0.0136			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	7.17	2.23	0.18	0.56	0.00	0.00	0.00	0.00	0.00	1.14	1.14	1.14	0.13	1.40	0.32	0.00	0.00	0.06	2.80	0.00	0.32	0.00	0.00	0.00	0.00
20	7.200	7.16	2.25	0.18	0.56	0.00	0.00	0.00	0.00	0.00	1.15	1.15	1.15	0.13	1.40	0.33	0.00	0.00	0.06	2.80	0.00	0.32	0.00	0.00	0.00	0.00
21	7.100	7.15	2.26	0.18	0.56	0.00	0.00	0.00	0.00	0.00	1.16	1.16	1.16	0.13	1.40	0.33	0.00	0.00	0.07	2.81	0.00	0.32	0.00	0.00	0.00	0.00
22	7.000	7.14	2.28	0.18	0.56	0.00	0.00	0.00	0.00	0.00	1.16	1.16	1.16	0.13	1.41	0.33	0.00	0.00	0.07	2.82	0.00	0.31	0.00	0.00	0.00	0.00
23	6.900	7.13	2.29	0.19	0.56	0.00	0.00	0.00	0.00	0.00	1.17	1.17	1.17	0.13	1.41	0.33	0.00	0.00	0.07	2.82	0.00	0.31	0.00	0.00	0.00	0.00
24	6.800	7.12	2.31	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.17	1.17	1.17	0.13	1.41	0.34	0.00	0.00	0.07	2.83	0.00	0.31	0.00	0.00	0.00	0.00
25	6.700	7.11	2.33	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.18	1.18	1.18	0.13	1.42	0.34	0.00	0.00	0.07	2.83	0.00	0.30	0.00	0.00	0.00	0.00
26	6.600	7.10	2.35	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.18	1.18	1.18	0.13	1.42	0.34	0.00	0.00	0.07	2.84	0.00	0.30	0.00	0.00	0.00	0.00
27	6.500	7.09	2.36	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.19	1.19	1.19	0.13	1.42	0.34	0.00	0.00	0.07	2.84	0.00	0.29	0.00	0.00	0.00	0.00
28	6.400	7.09	2.38	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.19	1.19	1.19	0.13	1.42	0.34	0.00	0.00	0.07	2.84	0.00	0.29	0.00	0.00	0.00	0.00
29	6.300	7.08	2.40	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.20	1.20	1.20	0.13	1.42	0.35	0.00	0.00	0.07	2.85	0.00	0.28	0.00	0.00	0.00	0.00
30	6.200	7.07	2.42	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.20	1.20	1.20	0.13	1.43	0.35	0.00	0.00	0.07	2.85	0.00	0.27	0.00	0.00	0.00	0.00
31	6.100	7.07	2.44	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.21	1.21	1.21	0.13	1.43	0.35	0.00	0.00	0.07	2.86	0.00	0.27	0.00	0.00	0.00	0.00
32	6.000	7.06	2.46	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.21	1.21	1.21	0.13	1.43	0.35	0.00	0.00	0.07	2.86	0.00	0.26	0.00	0.00	0.00	0.00
33	5.900	7.06	2.48	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.21	1.21	1.21	0.13	1.43	0.35	0.00	0.00	0.07	2.86	0.00	0.26	0.00	0.00	0.00	0.00
34	5.800	7.05	2.50	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.22	1.22	1.22	0.13	1.43	0.35	0.00	0.00	0.07	2.86	0.00	0.25	0.00	0.00	0.00	0.00
35	5.700	7.05	2.52	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.22	1.22	1.22	0.13	1.43	0.35	0.00	0.00	0.07	2.87	0.00	0.24	0.00	0.00	0.00	0.00
36	5.600	7.04	2.54	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.22	1.22	1.22	0.13	1.43	0.35	0.00	0.00	0.07	2.87	0.00	0.24	0.00	0.00	0.00	0.00
37	5.500	7.04	2.57	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.22	1.22	1.22	0.13	1.44	0.36	0.00	0.00	0.07	2.87	0.00	0.23	0.00	0.00	0.00	0.00
38	5.400	7.04	2.59	0.19	0.57	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.13	1.44	0.36	0.00	0.00	0.07	2.87	0.00	0.23	0.00	0.00	0.00	0.00
39	5.300	7.03	2.61	0.19	0.58	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.13	1.44	0.36	0.00	0.00	0.07	2.88	0.00	0.22	0.00	0.00	0.00	0.00
40	5.200	7.03	2.63	0.19	0.58	0.00	0.00	0.00	0.00	0.00	1.23	1.23	1.23	0.13	1.44	0.35	0.00	0.00	0.07	2.88	0.00	0.22	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.88	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	0.09	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	33.10	0.00	2687.78	0.00	5.79	2.97	0.00	4.18	0.00	0.06	0.04	0.03	0.12	0.15	0.22	0.00	0.15	0.15	0.02	0.17	11.3	0.0	0.	0.00
20	7.200	33.20	0.00	2687.78	0.00	5.82	2.80	0.00	4.02	0.00	0.05	0.04	0.03	0.12	0.15	0.21	0.00	0.15	0.15	0.02	0.17	11.4	0.0	0.	0.00
21	7.100	33.30	0.00	2687.78	0.00	5.84	2.65	0.00	3.88	0.00	0.05	0.04	0.03	0.11	0.14	0.21	0.00	0.15	0.15	0.02	0.17	11.5	0.0	0.	0.00
22	7.000	33.39	0.00	2687.78	0.00	5.87	2.50	0.00	3.74	0.00	0.04	0.03	0.03	0.10	0.14	0.20	0.00	0.15	0.15	0.02	0.17	11.6	0.0	0.	0.00
23	6.900	33.48	0.00	2687.78	0.00	5.89	2.36	0.00	3.61	0.00	0.04	0.03	0.03	0.10	0.14	0.20	0.00	0.15	0.15	0.02	0.17	11.7	0.0	0.	0.00
24	6.800	33.55	0.00	2687.78	0.00	5.91	2.23	0.00	3.49	0.00	0.03	0.03	0.03	0.09	0.13	0.19	0.00	0.15	0.15	0.02	0.16	11.8	0.0	0.	0.00
25	6.700	33.63	0.00	2687.78	0.00	5.92	2.11	0.00	3.38	0.00	0.03	0.03	0.03	0.09	0.13	0.19	0.00	0.15	0.15	0.02	0.16	11.9	0.0	0.	0.00

26	6.600	33.70	0.00	2687.78	0.00	5.94	1.99	0.00	3.27	0.00	0.03	0.03	0.03	0.08	0.13	0.19	0.00	0.15	0.15	0.02	0.16	11.9	0.0	0.	0.00
27	6.500	33.76	0.00	2687.78	0.00	5.95	1.88	0.00	3.16	0.00	0.03	0.03	0.03	0.08	0.13	0.18	0.00	0.15	0.15	0.02	0.16	12.0	0.0	0.	0.00
28	6.400	33.82	0.00	2687.78	0.00	5.96	1.78	0.00	3.07	0.00	0.02	0.03	0.03	0.08	0.13	0.18	0.00	0.15	0.15	0.02	0.16	12.1	0.0	0.	0.00
29	6.300	33.88	0.00	2687.78	0.00	5.97	1.68	0.00	2.98	0.00	0.02	0.03	0.03	0.07	0.12	0.18	0.00	0.15	0.15	0.02	0.16	12.1	0.0	0.	0.00
30	6.200	33.93	0.00	2687.78	0.00	5.98	1.59	0.00	2.89	0.00	0.02	0.03	0.03	0.07	0.12	0.17	0.00	0.15	0.15	0.02	0.16	12.2	0.0	0.	0.00
31	6.100	33.98	0.00	2687.78	0.00	5.99	1.50	0.00	2.81	0.00	0.02	0.03	0.03	0.07	0.12	0.17	0.00	0.15	0.15	0.02	0.16	12.3	0.0	0.	0.00
32	6.000	34.03	0.00	2687.79	0.00	5.99	1.42	0.00	2.73	0.00	0.02	0.02	0.03	0.07	0.12	0.17	0.00	0.15	0.15	0.02	0.16	12.3	0.0	0.	0.00
33	5.900	34.08	0.00	2687.80	0.00	6.00	1.34	0.00	2.66	0.00	0.01	0.02	0.03	0.06	0.12	0.17	0.00	0.15	0.15	0.02	0.16	12.4	0.0	0.	0.00
34	5.800	34.12	0.00	2687.83	0.00	6.01	1.27	0.00	2.59	0.00	0.01	0.02	0.02	0.06	0.12	0.17	0.00	0.15	0.15	0.02	0.16	12.4	0.0	0.	0.00
35	5.700	34.15	0.00	2687.88	0.00	6.01	1.20	0.00	2.53	0.00	0.01	0.02	0.02	0.06	0.12	0.16	0.00	0.15	0.15	0.02	0.16	12.5	0.0	0.	0.00
36	5.600	34.19	0.00	2687.98	0.00	6.01	1.13	0.00	2.47	0.00	0.01	0.02	0.02	0.06	0.12	0.16	0.00	0.15	0.15	0.02	0.16	12.5	0.0	0.	0.00
37	5.500	34.22	0.00	2688.16	0.00	6.01	1.07	0.00	2.41	0.00	0.01	0.02	0.02	0.05	0.12	0.16	0.00	0.15	0.15	0.02	0.16	12.6	0.0	0.	0.00
38	5.400	34.25	0.00	2688.51	0.00	5.98	1.01	0.00	2.36	0.00	0.01	0.02	0.02	0.05	0.12	0.16	0.00	0.15	0.15	0.02	0.16	12.6	0.0	0.	0.00
39	5.300	34.28	0.00	2689.19	0.00	5.92	0.96	0.00	2.31	0.00	0.01	0.02	0.02	0.05	0.12	0.16	0.00	0.15	0.15	0.02	0.16	12.6	0.0	0.	0.00
40	5.200	34.31	0.00	2690.47	0.00	5.78	0.92	0.00	2.27	0.00	0.01	0.02	0.02	0.05	0.12	0.16	0.00	0.14	0.15	0.02	0.16	12.7	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	0.19	0.42	0.25	0.18	0.79	0.29	0.07	0.267	0.073	0.037	0.056	2.9	11.3	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	7.200	0.00	0.19	0.43	0.25	0.18	0.79	0.29	0.07	0.265	0.073	0.037	0.056	2.9	11.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	7.100	0.00	0.19	0.44	0.25	0.17	0.79	0.28	0.07	0.263	0.074	0.037	0.056	2.9	11.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	7.000	0.00	0.19	0.45	0.25	0.17	0.79	0.28	0.07	0.261	0.074	0.037	0.056	2.8	11.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	6.900	0.00	0.19	0.45	0.25	0.17	0.79	0.28	0.07	0.258	0.074	0.037	0.056	2.8	11.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	6.800	0.00	0.19	0.46	0.25	0.17	0.79	0.27	0.07	0.255	0.075	0.037	0.057	2.7	11.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	6.700	0.00	0.19	0.47	0.25	0.16	0.79	0.27	0.07	0.252	0.075	0.037	0.057	2.7	11.9	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	0.19	0.47	0.25	0.16	0.79	0.27	0.07	0.249	0.075	0.038	0.057	2.7	11.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	6.500	0.00	0.19	0.48	0.25	0.16	0.79	0.26	0.07	0.245	0.075	0.038	0.057	2.6	12.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	6.400	0.00	0.19	0.49	0.25	0.15	0.79	0.26	0.06	0.242	0.075	0.038	0.057	2.6	12.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	6.300	0.00	0.19	0.49	0.25	0.15	0.79	0.25	0.06	0.238	0.076	0.038	0.057	2.5	12.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	6.200	0.00	0.19	0.50	0.25	0.15	0.79	0.25	0.06	0.235	0.076	0.038	0.057	2.5	12.2	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	6.100	0.00	0.19	0.50	0.25	0.15	0.79	0.25	0.06	0.231	0.076	0.038	0.057	2.4	12.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
32	6.000	0.00	0.19	0.51	0.25	0.14	0.79	0.24	0.06	0.228	0.076	0.038	0.057	2.4	12.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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   33    5.900   0.00   0.19    0.51 0.25 0.14 0.79 0.24 0.06  0.224  0.076  0.038  0.057   2.4   12.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   34    5.800   0.00   0.19    0.52 0.25 0.14 0.79 0.23 0.06  0.221  0.076  0.038  0.057   2.3   12.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   35    5.700   0.00   0.19    0.52 0.25 0.13 0.78 0.23 0.06  0.218  0.077  0.038  0.057   2.3   12.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   36    5.600   0.00   0.19    0.53 0.25 0.13 0.78 0.23 0.06  0.215  0.077  0.038  0.057   2.2   12.5    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   0.19    0.53 0.25 0.13 0.78 0.22 0.06  0.212  0.077  0.038  0.057   2.2   12.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   38    5.400   0.00   0.19    0.53 0.25 0.13 0.78 0.22 0.05  0.209  0.077  0.038  0.057   2.2   12.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   39    5.300   0.00   0.19    0.53 0.25 0.12 0.78 0.21 0.05  0.207  0.077  0.039  0.058   2.1   12.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   40    5.200   0.00   0.19    0.53 0.25 0.12 0.78 0.21 0.05  0.205  0.077  0.039  0.058   2.1   12.7    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)                   TMDL 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   0.12334   34.31     0.00  2690.47     0.00   5.78   0.92   0.00   2.27   0.00   0.01   0.02   0.02   0.14  12.68     0.00     0.00
   47  WSTLD     0.05700   30.00     0.00  3490.00  3490.00   6.50   4.80   0.00   4.80   0.00   2.25   0.26   0.01   0.15  18.00     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    0.12334   0.0   0.01370     0.08     4.12    0.50   18.00    900.00    1800.00    9.00   4240.20   0.022     1.500   0.024
   42    5.10    5.00    0.12334   0.0   0.01370     0.08     4.20    0.50   18.00    900.00    1800.00    9.00   4348.20   0.022     1.500   0.024
   43    5.00    4.90    0.12334   0.0   0.01370     0.08     4.29    0.50   18.00    900.00    1800.00    9.00   4456.20   0.023     1.500   0.025
   44    4.90    4.80    0.12334   0.0   0.01370     0.08     4.37    0.50   18.00    900.00    1800.00    9.00   4564.20   0.023     1.500   0.025
   45    4.80    4.70    0.12334   0.0   0.01370     0.08     4.46    0.50   18.00    900.00    1800.00    9.00   4672.20   0.024     1.500   0.026
   46    4.70    4.60    0.12334   0.0   0.01370     0.08     4.54    0.50   18.00    900.00    1800.00    9.00   4780.20   0.025     1.500   0.026
   47    4.60    4.50    0.18034  31.6   0.02004     0.06     4.60    0.50   18.00    900.00    1800.00    9.00   4888.20   0.025     1.500   0.028

  TOT                                                 0.56                            6300.00   12600.00
  AVG                                        0.0144                      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  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.70  3.70  3.70  0.13  1.40  0.35  0.00  0.00  0.07  2.81  0.00  0.21  0.00  0.00  0.00  0.00
  42    5.000  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.70  3.70  3.70  0.13  1.40  0.35  0.00  0.00  0.07  2.81  0.00  0.22  0.00  0.00  0.00  0.00
  43    4.900  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.69  3.69  3.69  0.13  1.40  0.34  0.00  0.00  0.07  2.81  0.00  0.24  0.00  0.00  0.00  0.00
  44    4.800  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.68  3.68  3.68  0.13  1.40  0.34  0.00  0.00  0.07  2.80  0.00  0.27  0.00  0.00  0.00  0.00
  45    4.700  7.05   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.65  3.65  3.65  0.13  1.40  0.33  0.00  0.00  0.07  2.80  0.00  0.34  0.00  0.00  0.00  0.00
  46    4.600  7.08   1.80  0.19  0.56  0.00  0.00  0.00  0.00  0.00  3.59  3.59  3.59  0.13  1.39  0.33  0.00  0.00  0.07  2.78  0.00  0.47  0.00  0.00  0.00  0.00
  47    4.500  7.16   1.78  0.18  0.55  0.00  0.00  0.00  0.00  0.00  3.45  3.45  3.45  0.13  1.37  0.32  0.00  0.00  0.06  2.74  0.00  0.67  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  1.50              0.10  0.14  0.12  0.00  0.02  0.05  0.29  0.00              0.00  0.00  0.00
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 *   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

  41    5.100  34.32  0.00  2692.93     0.00   5.45   0.88   0.00   2.24   0.00   0.01   0.02   0.02   0.06   0.12   0.16   0.00   0.14   0.15   0.02   0.16   12.7
0.0       0.    0.00
  42    5.000  34.33  0.00  2697.65     0.00   5.17   0.85   0.00   2.22   0.00   0.02   0.02   0.02   0.06   0.13   0.17   0.00   0.14   0.15   0.02   0.16   12.8
0.0       0.    0.00
  43    4.900  34.31  0.00  2706.68     0.00   4.93   0.84   0.00   2.23   0.00   0.03   0.02   0.02   0.08   0.14   0.19   0.00   0.14   0.15   0.02   0.16   12.9
0.0       0.    0.00
  44    4.800  34.26  0.00  2723.95     0.00   4.76   0.87   0.00   2.28   0.00   0.06   0.03   0.02   0.11   0.18   0.23   0.00   0.14   0.15   0.02   0.16   13.2
0.0       0.    0.00
  45    4.700  34.13  0.00  2757.01     0.00   4.66   0.98   0.00   2.42   0.00   0.13   0.04   0.02   0.19   0.25   0.31   0.00   0.14   0.15   0.02   0.17   13.5
0.0       0.    0.00
  46    4.600  33.84  0.00  2820.27     0.00   4.71   1.24   0.00   2.74   0.00   0.27   0.06   0.02   0.35   0.39   0.47   0.01   0.14   0.16   0.03   0.17   14.0
0.0       0.    0.00
  47    4.500  33.22  0.00  2941.33     0.00   5.01   1.80   0.00   3.39   0.00   0.58   0.10   0.02   0.69   0.70   0.82   0.02   0.15   0.17   0.04   0.19   14.9
0.0       0.    0.00

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

 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

   41    5.100   0.00   0.19    0.53 0.25 0.12 0.78 0.21 0.05  0.201  0.077  0.039  0.056   2.1   12.7    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   42    5.000   0.00   0.19    0.51 0.25 0.12 0.78 0.22 0.05  0.203  0.077  0.039  0.056   2.1   12.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   43    4.900   0.00   0.19    0.49 0.25 0.13 0.78 0.22 0.06  0.211  0.077  0.039  0.056   2.2   12.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   44    4.800   0.00   0.19    0.44 0.25 0.14 0.78 0.24 0.06  0.226  0.077  0.039  0.056   2.4   13.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   45    4.700   0.00   0.19    0.37 0.25 0.17 0.78 0.28 0.07  0.255  0.077  0.038  0.056   2.7   13.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   46    4.600   0.00   0.19    0.28 0.25 0.21 0.78 0.33 0.08  0.304  0.076  0.038  0.056   3.2   14.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   47    4.500   0.00   0.19    0.19 0.25 0.28 0.78 0.42 0.10  0.370  0.073  0.037  0.055   4.0   14.9    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 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.  4    Bayou LaBranche (CBC to LABR3)                 TMDL 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

   48  UPR RCH   0.18034   33.22     0.00  2941.33     0.00   5.01   1.80   0.00   3.39   0.00   0.58   0.10   0.02   0.15  14.95     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
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NO.	DIST km	DIST km	m³/s	EFF	VELO m/s	TIME days	TIME days	m	m	m³	AREA m²	AREA m²	PRISM m³	VELO m/s	m²/s	VELO m/s
48	4.50	4.40	0.18034	31.6	0.01347	0.09	4.68	0.73	18.29	1338.83	1829.00	13.39	4997.94	0.017	1.500	0.019
49	4.40	4.30	0.18034	31.6	0.01347	0.09	4.77	0.73	18.29	1338.83	1829.00	13.39	5107.68	0.018	1.500	0.020
50	4.30	4.20	0.18034	31.6	0.01347	0.09	4.86	0.73	18.29	1338.83	1829.00	13.39	5217.42	0.018	1.500	0.020
51	4.20	4.10	0.18034	31.6	0.01347	0.09	4.94	0.73	18.29	1338.83	1829.00	13.39	5327.16	0.018	1.500	0.020
52	4.10	4.00	0.18034	31.6	0.01347	0.09	5.03	0.73	18.29	1338.83	1829.00	13.39	5436.90	0.019	1.500	0.021
53	4.00	3.90	0.18034	31.6	0.01347	0.09	5.11	0.73	18.29	1338.83	1829.00	13.39	5546.64	0.019	1.500	0.021
54	3.90	3.80	0.18034	31.6	0.01347	0.09	5.20	0.73	18.29	1338.83	1829.00	13.39	5656.38	0.020	1.500	0.021
55	3.80	3.70	0.18034	31.6	0.01347	0.09	5.29	0.73	18.29	1338.83	1829.00	13.39	5766.12	0.020	1.500	0.022
56	3.70	3.60	0.18034	31.6	0.01347	0.09	5.37	0.73	18.29	1338.83	1829.00	13.39	5875.86	0.020	1.500	0.022
57	3.60	3.50	0.18034	31.6	0.01347	0.09	5.46	0.73	18.29	1338.83	1829.00	13.39	5985.60	0.021	1.500	0.023
58	3.50	3.40	0.18034	31.6	0.01347	0.09	5.54	0.73	18.29	1338.83	1829.00	13.39	6095.34	0.021	1.500	0.023
59	3.40	3.30	0.18034	31.6	0.01347	0.09	5.63	0.73	18.29	1338.83	1829.00	13.39	6205.08	0.021	1.500	0.023
60	3.30	3.20	0.18034	31.6	0.01347	0.09	5.71	0.73	18.29	1338.83	1829.00	13.39	6314.82	0.022	1.500	0.024
61	3.20	3.10	0.18034	31.6	0.01347	0.09	5.80	0.73	18.29	1338.83	1829.00	13.39	6424.56	0.022	1.500	0.024
62	3.10	3.00	0.18034	31.6	0.01347	0.09	5.89	0.73	18.29	1338.83	1829.00	13.39	6534.30	0.023	1.500	0.024
63	3.00	2.90	0.18034	31.6	0.01347	0.09	5.97	0.73	18.29	1338.83	1829.00	13.39	6644.04	0.023	1.500	0.025
64	2.90	2.80	0.18034	31.6	0.01347	0.09	6.06	0.73	18.29	1338.83	1829.00	13.39	6753.78	0.023	1.500	0.025
65	2.80	2.70	0.18034	31.6	0.01347	0.09	6.14	0.73	18.29	1338.83	1829.00	13.39	6863.52	0.024	1.500	0.025
TOT						1.55				24098.91	32922.00					
AVG					0.0135			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	7.15	1.22	0.18	0.37	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.13	0.94	0.32	0.00	0.00	0.07	1.87	0.00	0.41	0.00	0.00	0.00	0.00
49	4.300	7.14	1.22	0.18	0.38	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.13	0.94	0.32	0.00	0.00	0.07	1.88	0.00	0.43	0.00	0.00	0.00	0.00
50	4.200	7.13	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.13	0.94	0.33	0.00	0.00	0.07	1.88	0.00	0.44	0.00	0.00	0.00	0.00
51	4.100	7.13	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.13	0.94	0.33	0.00	0.00	0.07	1.88	0.00	0.45	0.00	0.00	0.00	0.00
52	4.000	7.12	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.94	0.33	0.00	0.00	0.07	1.88	0.00	0.46	0.00	0.00	0.00	0.00
53	3.900	7.11	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.94	0.33	0.00	0.00	0.07	1.89	0.00	0.47	0.00	0.00	0.00	0.00
54	3.800	7.11	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.94	0.34	0.00	0.00	0.07	1.89	0.00	0.48	0.00	0.00	0.00	0.00
55	3.700	7.10	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.94	0.34	0.00	0.00	0.07	1.89	0.00	0.49	0.00	0.00	0.00	0.00
56	3.600	7.10	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.95	0.34	0.00	0.00	0.07	1.89	0.00	0.49	0.00	0.00	0.00	0.00
57	3.500	7.09	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.34	0.00	0.00	0.07	1.89	0.00	0.50	0.00	0.00	0.00	0.00
58	3.400	7.09	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.34	0.00	0.00	0.07	1.90	0.00	0.51	0.00	0.00	0.00	0.00
59	3.300	7.08	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.51	0.00	0.00	0.00	0.00
60	3.200	7.08	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.52	0.00	0.00	0.00	0.00
61	3.100	7.07	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.52	0.00	0.00	0.00	0.00
62	3.000	7.07	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.52	0.00	0.00	0.00	0.00
63	2.900	7.06	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.53	0.00	0.00	0.00	0.00
64	2.800	7.06	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.95	0.35	0.00	0.00	0.07	1.91	0.00	0.53	0.00	0.00	0.00	0.00
65	2.700	7.06	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.95	0.35	0.00	0.00	0.07	1.91	0.00	0.53	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	0.25			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 #/100mL	NCM
48	4.400	33.30	0.00	2941.33	0.00	5.15	1.72	0.00	3.33	0.00	0.53	0.10	0.02	0.65	0.66	0.78	0.02	0.15	0.17	0.04	0.19	15.1	0.0	0.	0.00
49	4.300	33.36	0.00	2941.33	0.00	5.27	1.65	0.00	3.28	0.00	0.49	0.10	0.03	0.61	0.62	0.74	0.02	0.15	0.16	0.04	0.18	15.3	0.0	0.	0.00

50	4.200	33.42	0.00	2941.33	0.00	5.37	1.58	0.00	3.23	0.00	0.45	0.10	0.03	0.58	0.58	0.71	0.02	0.15	0.16	0.04	0.18	15.4	0.0	0.
0.00																								
51	4.100	33.48	0.00	2941.33	0.00	5.47	1.51	0.00	3.18	0.00	0.41	0.10	0.03	0.54	0.55	0.68	0.01	0.14	0.16	0.03	0.18	15.6	0.0	0.
0.00																								
52	4.000	33.53	0.00	2941.33	0.00	5.56	1.45	0.00	3.14	0.00	0.38	0.10	0.03	0.51	0.52	0.65	0.01	0.14	0.16	0.03	0.18	15.8	0.0	0.
0.00																								
53	3.900	33.59	0.00	2941.33	0.00	5.65	1.39	0.00	3.10	0.00	0.35	0.10	0.03	0.48	0.49	0.62	0.01	0.14	0.16	0.03	0.18	16.0	0.0	0.
0.00																								
54	3.800	33.64	0.00	2941.33	0.00	5.72	1.34	0.00	3.06	0.00	0.33	0.10	0.04	0.46	0.46	0.60	0.01	0.14	0.15	0.03	0.17	16.1	0.0	0.
0.00																								
55	3.700	33.68	0.00	2941.33	0.00	5.79	1.28	0.00	3.03	0.00	0.30	0.10	0.04	0.43	0.44	0.57	0.01	0.14	0.15	0.03	0.17	16.3	0.0	0.
0.00																								
56	3.600	33.73	0.00	2941.33	0.00	5.86	1.23	0.00	3.00	0.00	0.28	0.09	0.04	0.41	0.42	0.55	0.01	0.14	0.15	0.03	0.17	16.5	0.0	0.
0.00																								
57	3.500	33.77	0.00	2941.33	0.00	5.92	1.18	0.00	2.97	0.00	0.26	0.09	0.04	0.39	0.40	0.53	0.01	0.14	0.15	0.03	0.17	16.7	0.0	0.
0.00																								
58	3.400	33.82	0.00	2941.34	0.00	5.98	1.13	0.00	2.94	0.00	0.24	0.09	0.04	0.37	0.38	0.51	0.01	0.14	0.15	0.03	0.17	16.9	0.0	0.
0.00																								
59	3.300	33.86	0.00	2941.34	0.00	6.03	1.09	0.00	2.91	0.00	0.22	0.09	0.04	0.35	0.36	0.50	0.01	0.14	0.15	0.03	0.17	17.1	0.0	0.
0.00																								
60	3.200	33.90	0.00	2941.35	0.00	6.07	1.05	0.00	2.89	0.00	0.20	0.09	0.05	0.33	0.35	0.48	0.00	0.14	0.15	0.03	0.17	17.3	0.0	0.
0.00																								
61	3.100	33.93	0.00	2941.37	0.00	6.12	1.00	0.00	2.87	0.00	0.19	0.09	0.05	0.32	0.33	0.47	0.00	0.14	0.15	0.03	0.17	17.5	0.0	0.
0.00																								
62	3.000	33.97	0.00	2941.41	0.00	6.16	0.97	0.00	2.85	0.00	0.17	0.08	0.05	0.30	0.32	0.45	0.00	0.14	0.14	0.03	0.17	17.7	0.0	0.
0.00																								
63	2.900	34.00	0.00	2941.49	0.00	6.20	0.93	0.00	2.84	0.00	0.16	0.08	0.05	0.29	0.31	0.44	0.00	0.14	0.14	0.03	0.17	17.9	0.0	0.
0.00																								
64	2.800	34.04	0.00	2941.64	0.00	6.23	0.89	0.00	2.82	0.00	0.15	0.08	0.05	0.27	0.30	0.43	0.00	0.14	0.14	0.03	0.17	18.1	0.0	0.
0.00																								
65	2.700	34.07	0.00	2941.91	0.00	6.27	0.85	0.00	2.81	0.00	0.13	0.08	0.05	0.26	0.29	0.42	0.00	0.14	0.14	0.03	0.17	18.3	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	0.19	0.20	0.17	0.29	0.78	0.42	0.07	0.263	0.074	0.037	0.037	2.9	15.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	4.300	0.00	0.19	0.21	0.17	0.29	0.78	0.43	0.07	0.267	0.074	0.037	0.038	2.9	15.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
50	4.200	0.00	0.19	0.23	0.17	0.30	0.78	0.43	0.07	0.270	0.074	0.037	0.038	2.9	15.4	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	0.19	0.24	0.17	0.30	0.78	0.43	0.07	0.273	0.074	0.037	0.038	2.9	15.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
52	4.000	0.00	0.19	0.25	0.17	0.30	0.78	0.44	0.07	0.275	0.074	0.037	0.038	3.0	15.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
53	3.900	0.00	0.19	0.26	0.17	0.31	0.78	0.44	0.08	0.277	0.075	0.037	0.038	3.0	16.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	3.800	0.00	0.19	0.27	0.17	0.31	0.78	0.44	0.08	0.279	0.075	0.037	0.038	3.0	16.1	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	0.19	0.29	0.17	0.31	0.78	0.44	0.08	0.280	0.075	0.037	0.038	3.0	16.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
56	3.600	0.00	0.19	0.30	0.17	0.31	0.78	0.44	0.08	0.281	0.075	0.038	0.038	3.0	16.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	3.500	0.00	0.19	0.31	0.17	0.31	0.78	0.44	0.08	0.281	0.075	0.038	0.038	3.0	16.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	3.400	0.00	0.19	0.32	0.17	0.31	0.78	0.44	0.08	0.281	0.075	0.038	0.038	3.0	16.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
59	3.300	0.00	0.19	0.33	0.17	0.31	0.78	0.44	0.08	0.281	0.076	0.038	0.038	3.0	17.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	3.200	0.00	0.19	0.34	0.17	0.31	0.78	0.44	0.08	0.281	0.076	0.038	0.038	3.0	17.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

61	3.100	0.00	0.19	0.35	0.17	0.31	0.78	0.44	0.07	0.281	0.076	0.038	0.038	3.0	17.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	3.000	0.00	0.19	0.36	0.17	0.30	0.78	0.44	0.07	0.280	0.076	0.038	0.038	3.0	17.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
63	2.900	0.00	0.19	0.37	0.17	0.30	0.78	0.44	0.07	0.279	0.076	0.038	0.038	2.9	17.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	2.800	0.00	0.19	0.38	0.17	0.30	0.78	0.43	0.07	0.278	0.076	0.038	0.038	2.9	18.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	2.700	0.00	0.19	0.40	0.17	0.30	0.78	0.43	0.07	0.277	0.076	0.038	0.038	2.9	18.3	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 — LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 5 Bayou LaBranche (LABR3 to BT) — TMDL 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	0.18034	34.07	0.00	2941.91	0.00	6.27	0.85	0.00	2.81	0.00	0.13	0.08	0.05	0.14	18.31	0.00	0.00
78	WSTLD	0.05700	30.00	0.00	7292.00	7000.00	6.50	2.30	0.00	2.30	0.00	2.25	0.05	0.01	0.10	5.80	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	0.18034	31.6	0.01187	0.10	6.24	0.73	20.76	1519.63	2076.00	15.20	6988.08	0.021	1.500	0.023
67	2.60	2.50	0.18034	31.6	0.01187	0.10	6.34	0.73	20.76	1519.63	2076.00	15.20	7112.65	0.022	1.500	0.023
68	2.50	2.40	0.18034	31.6	0.01187	0.10	6.44	0.73	20.76	1519.63	2076.00	15.20	7237.21	0.022	1.500	0.023
69	2.40	2.30	0.18034	31.6	0.01187	0.10	6.53	0.73	20.76	1519.63	2076.00	15.20	7361.77	0.022	1.500	0.024
70	2.30	2.20	0.18034	31.6	0.01187	0.10	6.63	0.73	20.76	1519.63	2076.00	15.20	7486.33	0.023	1.500	0.024
71	2.20	2.10	0.18034	31.6	0.01187	0.10	6.73	0.73	20.76	1519.63	2076.00	15.20	7610.89	0.023	1.500	0.024
72	2.10	2.00	0.18034	31.6	0.01187	0.10	6.83	0.73	20.76	1519.63	2076.00	15.20	7735.45	0.024	1.500	0.025
73	2.00	1.90	0.18034	31.6	0.01187	0.10	6.92	0.73	20.76	1519.63	2076.00	15.20	7860.01	0.024	1.500	0.025
74	1.90	1.80	0.18034	31.6	0.01187	0.10	7.02	0.73	20.76	1519.63	2076.00	15.20	7984.57	0.024	1.500	0.026
75	1.80	1.70	0.18034	31.6	0.01187	0.10	7.12	0.73	20.76	1519.63	2076.00	15.20	8109.13	0.025	1.500	0.026
76	1.70	1.60	0.18034	31.6	0.01187	0.10	7.22	0.73	20.76	1519.63	2076.00	15.20	8233.69	0.025	1.500	0.026
77	1.60	1.50	0.18034	31.6	0.01187	0.10	7.31	0.73	20.76	1519.63	2076.00	15.20	8358.25	0.025	1.500	0.027
78	1.50	1.40	0.23734	48.0	0.01562	0.07	7.39	0.73	20.76	1519.63	2076.00	15.20	8482.80	0.026	1.500	0.028
TOT						1.24				19755.22	26988.00					
AVG					0.0121			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	7.05	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.95	0.36	0.00	0.00	0.07	1.91	0.00	0.53	0.00	0.00	0.00	0.00
67	2.500	7.05	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.54	0.00	0.00	0.00	0.00
68	2.400	7.05	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.54	0.00	0.00	0.00	0.00
69	2.300	7.04	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.54	0.00	0.00	0.00	0.00
70	2.200	7.04	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.53	0.00	0.00	0.00	0.00
71	2.100	7.04	1.24	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.53	0.00	0.00	0.00	0.00
72	2.000	7.04	1.24	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.92	0.00	0.53	0.00	0.00	0.00	0.00
73	1.900	7.04	1.24	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.92	0.00	0.53	0.00	0.00	0.00	0.00
74	1.800	7.04	1.24	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.92	0.00	0.53	0.00	0.00	0.00	0.00
75	1.700	7.04	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.96	0.36	0.00	0.00	0.07	1.91	0.00	0.52	0.00	0.00	0.00	0.00

76	1.600	7.05	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.61	0.61	0.61	0.13	0.95	0.36	0.00	0.00	0.07	1.91	0.00	0.51	0.00	0.00	0.00	0.00
77	1.500	7.08	1.23	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.60	0.13	0.95	0.35	0.00	0.00	0.07	1.90	0.00	0.50	0.00	0.00	0.00	0.00
78	1.400	7.12	1.22	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.13	0.94	0.34	0.00	0.00	0.07	1.88	0.00	0.46	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	0.25			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 COLI #/100mL	PERIP NCM g/m²
66	2.600	34.10	0.00	2942.40	0.00	6.30	0.81	0.00	2.79	0.00	0.12	0.07	0.05	0.25	0.28	0.41	0.00	0.14	0.14	0.03	0.17	18.5	0.	0.0
67	2.500	34.13	0.00	2943.25	0.00	6.33	0.78	0.00	2.78	0.00	0.11	0.07	0.05	0.24	0.27	0.40	0.00	0.14	0.14	0.03	0.17	18.8	0.	0.0
68	2.400	34.16	0.00	2944.76	0.00	6.36	0.75	0.00	2.77	0.00	0.10	0.07	0.05	0.23	0.26	0.39	0.00	0.14	0.14	0.03	0.16	19.0	0.	0.0
69	2.300	34.19	0.00	2947.48	0.00	6.38	0.72	0.00	2.77	0.00	0.09	0.07	0.05	0.22	0.26	0.38	0.00	0.14	0.14	0.03	0.16	19.2	0.	0.0
70	2.200	34.21	0.00	2952.35	0.00	6.40	0.69	0.00	2.76	0.00	0.09	0.07	0.05	0.21	0.25	0.37	0.00	0.14	0.14	0.03	0.16	19.4	0.	0.0
71	2.100	34.23	0.00	2961.06	0.00	6.42	0.67	0.00	2.75	0.00	0.08	0.06	0.05	0.20	0.25	0.37	0.00	0.14	0.14	0.03	0.16	19.5	0.	0.0
72	2.000	34.25	0.00	2976.67	0.00	6.44	0.64	0.00	2.75	0.00	0.08	0.06	0.05	0.19	0.25	0.36	0.00	0.14	0.14	0.03	0.16	19.7	0.	0.0
73	1.900	34.25	0.00	3004.63	0.00	6.45	0.63	0.00	2.74	0.00	0.08	0.06	0.05	0.19	0.25	0.36	0.00	0.14	0.14	0.03	0.16	19.8	0.	0.0
74	1.800	34.24	0.00	3054.72	0.00	6.46	0.62	0.00	2.73	0.00	0.09	0.06	0.05	0.20	0.26	0.37	0.00	0.13	0.14	0.03	0.16	19.8	0.	0.0
75	1.700	34.20	0.00	3144.42	0.00	6.45	0.62	0.00	2.72	0.00	0.11	0.06	0.05	0.22	0.27	0.39	0.00	0.13	0.13	0.03	0.16	19.7	0.	0.0
76	1.600	34.10	0.00	3305.10	0.00	6.43	0.65	0.00	2.71	0.00	0.15	0.06	0.05	0.26	0.31	0.43	0.00	0.13	0.13	0.03	0.16	19.3	0.	0.0
77	1.500	33.90	0.00	3592.91	0.00	6.38	0.73	0.00	2.69	0.00	0.24	0.06	0.05	0.36	0.40	0.51	0.00	0.13	0.13	0.03	0.16	18.4	0.	0.0
78	1.400	33.51	0.00	4108.40	0.00	6.25	0.89	0.00	2.66	0.00	0.42	0.07	0.06	0.54	0.56	0.69	0.00	0.12	0.13	0.03	0.15	16.6	0.	0.0

********** 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	0.19	0.41	0.17	0.30	0.78	0.43	0.07	0.276	0.076	0.038	0.038	2.9	18.5	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	0.19	0.42	0.17	0.29	0.78	0.43	0.07	0.274	0.077	0.038	0.038	2.9	18.8	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	0.19	0.43	0.17	0.29	0.78	0.42	0.07	0.272	0.077	0.038	0.038	2.8	19.0	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	0.19	0.44	0.17	0.29	0.78	0.42	0.07	0.271	0.077	0.038	0.038	2.8	19.2	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	0.19	0.45	0.17	0.28	0.77	0.41	0.07	0.269	0.077	0.038	0.038	2.8	19.4	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	0.19	0.46	0.17	0.28	0.77	0.41	0.07	0.267	0.077	0.038	0.038	2.8	19.5	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	0.19	0.46	0.17	0.28	0.77	0.41	0.07	0.265	0.077	0.038	0.038	2.8	19.7	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
73	1.900	0.00	0.19	0.47	0.17	0.27	0.77	0.41	0.07	0.263	0.077	0.038	0.038	2.7	19.8	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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   74    1.800   0.00   0.19    0.47 0.17 0.27 0.77 0.40 0.07  0.262  0.077  0.038  0.038   2.7   19.8    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   0.19    0.48 0.17 0.27 0.77 0.40 0.07  0.262  0.077  0.038  0.038   2.7   19.7    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   76    1.600   0.00   0.19    0.47 0.17 0.28 0.77 0.41 0.07  0.262  0.076  0.038  0.038   2.7   19.3    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   77    1.500   0.00   0.19    0.47 0.17 0.28 0.76 0.41 0.07  0.264  0.076  0.038  0.038   2.8   18.4    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   78    1.400   0.00   0.19    0.45 0.17 0.29 0.76 0.42 0.07  0.267  0.074  0.037  0.038   2.9   16.6    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 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)                     TMDL 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   0.23734   33.51     0.00  4108.40     0.00   6.25   0.89   0.00   2.66   0.00   0.42   0.07   0.06   0.12  16.63     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    0.23734  48.0   0.00494     0.23     7.62    1.99   24.08   4801.55    2408.00   48.02   8627.29   0.008     1.500   0.009
   80    1.30    1.20    0.23734  48.0   0.00494     0.23     7.86    1.99   24.08   4801.55    2408.00   48.02   8771.77   0.008     1.500   0.009
   81    1.20    1.10    0.23734  48.0   0.00494     0.23     8.09    1.99   24.08   4801.55    2408.00   48.02   8916.25   0.009     1.500   0.009
   82    1.10    1.00    0.23734  48.0   0.00494     0.23     8.33    1.99   24.08   4801.55    2408.00   48.02   9060.73   0.009     1.500   0.009

  TOT                                               0.94                           19206.21    9632.00
  AVG                                     0.0049                     1.99   24.08                          48.02

 ************************************************************************** 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

  79    1.300  7.12   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  1.17  1.17  1.17  0.13  0.35  0.34  0.00  0.00  0.07  0.69  0.00  0.02  0.00  0.00  0.00  0.00
  80    1.200  7.11   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  1.18  1.18  1.18  0.13  0.35  0.34  0.00  0.00  0.07  0.69  0.00  0.03  0.00  0.00  0.00  0.00
  81    1.100  7.11   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  1.18  1.18  1.18  0.13  0.35  0.34  0.00  0.00  0.07  0.69  0.00  0.04  0.00  0.00  0.00  0.00
  82    1.000  7.10   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  1.18  1.18  1.18  0.13  0.35  0.34  0.00  0.00  0.07  0.69  0.00  0.04  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  0.50              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
**************************************************************************

 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  33.57  0.00  4169.58     0.00   6.10   0.87   0.00   2.62   0.00   0.37   0.07   0.06   0.51   0.51   0.65   0.00   0.12   0.13   0.03   0.15   16.4
0.0       0.    0.00
```

```
  80    1.200  33.60  0.00  4230.02     0.00   5.98   0.88   0.00   2.60   0.00   0.34   0.08   0.07   0.48   0.48   0.62   0.00   0.12   0.13   0.03   0.15   16.1
0.0       0.    0.00
  81    1.100  33.64  0.00  4310.37     0.00   5.84   0.90   0.00   2.58   0.00   0.31   0.08   0.07   0.46   0.44   0.59   0.00   0.12   0.12   0.02   0.15   15.8
0.0       0.    0.00
  82    1.000  33.66  0.00  4417.19     0.00   5.68   0.94   0.00   2.59   0.00   0.28   0.08   0.07   0.43   0.41   0.56   0.00   0.12   0.12   0.02   0.14   15.4
0.0       0.    0.00

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

 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   0.19    0.46 0.06 0.31 0.75 0.44 0.03  0.103  0.075  0.037  0.014   1.1   16.4    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   80    1.200   0.00   0.19    0.46 0.06 0.32 0.75 0.45 0.03  0.106  0.075  0.037  0.014   1.1   16.1    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   0.19    0.47 0.06 0.33 0.75 0.46 0.03  0.108  0.075  0.037  0.014   1.2   15.8    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   0.19    0.48 0.06 0.34 0.75 0.47 0.03  0.110  0.075  0.037  0.014   1.2   15.4    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.  7    Bayou LaBranche (LGLD to LP)                     TMDL 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   0.23734   33.66     0.00  4417.19     0.00   5.68   0.94   0.00   2.59   0.00   0.28   0.08   0.07   0.12  15.41     0.00    0.00
   88  WSTLD     0.05700   34.60     0.00  7969.00  7969.00   6.50   2.30   0.00   2.30   0.00   0.33   0.27   0.01   0.06   5.80     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    0.23734  48.0   0.00349     0.33     8.66    1.99   34.08   6795.55    3408.00   67.96   9265.21   0.006     1.500   0.007
   84    0.90    0.80    0.23734  48.0   0.00349     0.33     8.99    1.99   34.08   6795.55    3408.00   67.96   9469.69   0.006     1.500   0.007
   85    0.80    0.70    0.23734  48.0   0.00349     0.33     9.32    1.99   34.08   6795.55    3408.00   67.96   9674.17   0.007     1.500   0.007
   86    0.70    0.60    0.23734  48.0   0.00349     0.33     9.65    1.99   34.08   6795.55    3408.00   67.96   9878.65   0.007     1.500   0.007
   87    0.60    0.50    0.23734  48.0   0.00349     0.33     9.98    1.99   34.08   6795.55    3408.00   67.96  10083.13   0.007     1.500   0.007
   88    0.50    0.40    0.29434  58.1   0.00433     0.27    10.25    1.99   34.08   6795.55    3408.00   67.96  10287.61   0.007     1.500   0.008
   89    0.40    0.30    0.29434  58.1   0.00433     0.27    10.52    1.99   34.08   6795.55    3408.00   67.96  10492.09   0.007     1.500   0.008
   90    0.30    0.20    0.29434  58.1   0.00433     0.27    10.78    1.99   34.08   6795.55    3408.00   67.96  10696.57   0.007     1.500   0.008
   91    0.20    0.10    0.29434  58.1   0.00433     0.27    11.05    1.99   34.08   6795.55    3408.00   67.96  10901.05   0.007     1.500   0.008
   92    0.10    0.00    0.29434  58.1   0.00433     0.27    11.32    1.99   34.08   6795.55    3408.00   67.96  11105.53   0.008     1.500   0.008

  TOT                                                 2.99                           67955.52   34080.00
  AVG                                     0.0039                      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	7.10	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.13	0.35	0.33	0.00	0.00	0.07	0.69	0.00	0.04	0.00	0.00	0.00	0.00
84	0.800	7.10	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.13	0.35	0.33	0.00	0.00	0.07	0.69	0.00	0.04	0.00	0.00	0.00	0.00
85	0.700	7.10	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.36	2.36	2.36	0.13	0.35	0.33	0.00	0.00	0.07	0.69	0.00	0.04	0.00	0.00	0.00	0.00
86	0.600	7.11	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.36	2.36	2.36	0.13	0.35	0.33	0.00	0.00	0.07	0.69	0.00	0.04	0.00	0.00	0.00	0.00
87	0.500	7.12	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.35	2.35	2.35	0.13	0.35	0.33	0.00	0.00	0.07	0.69	0.00	0.04	0.00	0.00	0.00	0.00
88	0.400	7.13	0.45	0.19	0.14	0.00	0.00	0.00	0.00	0.00	2.33	2.33	2.33	0.13	0.34	0.32	0.00	0.00	0.07	0.69	0.00	0.03	0.00	0.00	0.00	0.00
89	0.300	7.15	0.45	0.18	0.14	0.00	0.00	0.00	0.00	0.00	2.30	2.30	2.30	0.13	0.34	0.32	0.00	0.00	0.06	0.69	0.00	0.02	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	2.26	2.26	2.26	0.13	0.34	0.31	0.00	0.00	0.06	0.68	0.00	0.01	0.00	0.00	0.00	0.00
91	0.100	7.24	0.44	0.18	0.14	0.00	0.00	0.00	0.00	0.00	2.20	2.20	2.20	0.13	0.34	0.31	0.00	0.00	0.06	0.68	0.00	0.00	0.00	0.00	0.00	0.00
92	0.000	7.31	0.44	0.17	0.13	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.13	0.33	0.30	0.00	0.00	0.06	0.67	0.00	-0.02	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	1.00			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 #/100mL	NCM
83	0.900	33.68	0.00	4534.80	0.00	5.52	1.00	0.00	2.61	0.00	0.25	0.08	0.08	0.41	0.38	0.54	0.00	0.12	0.12	0.02	0.14	15.0	0.0	0.	0.00
84	0.800	33.68	0.00	4662.53	0.00	5.40	1.10	0.00	2.65	0.00	0.23	0.08	0.08	0.39	0.35	0.52	0.00	0.11	0.12	0.02	0.14	14.6	0.0	0.	0.00
85	0.700	33.66	0.00	4820.01	0.00	5.31	1.23	0.00	2.73	0.00	0.21	0.08	0.08	0.38	0.33	0.50	0.01	0.11	0.12	0.02	0.14	14.1	0.0	0.	0.00
86	0.600	33.62	0.00	5014.16	0.00	5.24	1.42	0.00	2.86	0.00	0.20	0.09	0.08	0.36	0.31	0.48	0.01	0.11	0.12	0.02	0.13	13.4	0.0	0.	0.00
87	0.500	33.55	0.00	5253.51	0.00	5.22	1.69	0.00	3.05	0.00	0.19	0.09	0.08	0.35	0.30	0.46	0.01	0.11	0.11	0.02	0.13	12.7	0.0	0.	0.00
88	0.400	33.45	0.00	5548.59	0.00	5.24	2.06	0.00	3.32	0.00	0.18	0.09	0.07	0.34	0.28	0.44	0.01	0.10	0.11	0.03	0.13	11.8	0.0	0.	0.00
89	0.300	33.24	0.00	5777.03	0.00	5.27	2.56	0.00	3.73	0.00	0.17	0.08	0.07	0.32	0.27	0.42	0.01	0.10	0.11	0.03	0.12	11.0	0.0	0.	0.00
90	0.200	32.94	0.00	6071.44	0.00	5.37	3.25	0.00	4.32	0.00	0.17	0.07	0.06	0.30	0.25	0.39	0.01	0.09	0.10	0.03	0.12	10.1	0.0	0.	0.00
91	0.100	32.53	0.00	6450.85	0.00	5.57	4.22	0.00	5.16	0.00	0.16	0.06	0.05	0.28	0.24	0.35	0.01	0.09	0.10	0.03	0.11	8.8	0.0	0.	0.00
92	0.000	31.97	0.00	6939.83	0.00	5.93	5.57	0.00	6.34	0.00	0.17	0.05	0.03	0.25	0.23	0.31	0.02	0.08	0.10	0.03	0.11	7.2	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	0.19	0.48	0.06	0.35	0.75	0.47	0.03	0.112	0.075	0.037	0.014	1.2	15.0	0.19	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	0.19	0.49	0.06	0.35	0.74	0.48	0.03	0.113	0.075	0.037	0.014	1.2	14.6	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
85	0.700	0.00	0.19	0.49	0.06	0.35	0.74	0.48	0.03	0.113	0.075	0.037	0.014	1.2	14.1	0.20	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	0.19	0.48	0.06	0.36	0.73	0.48	0.03	0.113	0.075	0.037	0.014	1.2	13.4	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
87	0.500	0.00	0.19	0.47	0.06	0.35	0.72	0.48	0.03	0.112	0.075	0.037	0.014	1.2	12.7	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
88	0.400	0.00	0.19	0.44	0.06	0.35	0.72	0.47	0.03	0.110	0.074	0.037	0.014	1.2	11.8	0.21	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	0.19	0.45	0.06	0.33	0.71	0.45	0.03	0.105	0.073	0.037	0.014	1.1	11.0	0.22	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   0.19    0.45 0.06 0.31 0.70 0.43 0.03  0.098  0.072  0.036  0.014   1.1   10.1    0.23 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   0.19    0.43 0.06 0.27 0.68 0.39 0.03  0.088  0.071  0.036  0.014   1.0    8.8    0.25 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   0.19    0.40 0.06 0.22 0.66 0.33 0.02  0.072  0.069  0.035  0.013   0.8    7.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 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
TMDL 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     2.16   0.12334    0.00964   0.823   15.54     4.355      0.032   2.700   50.99
   2 Cross Bayou Canal 2                  7.40      5.20     2.20     1.87   0.12334    0.01360   0.488   18.59     4.355      0.045   1.601   60.99
   3 Bayou LaBranche (CBC to LABR3)       5.20      4.50     0.70     0.56   0.18034    0.01435   0.500   18.00     6.368      0.047   1.640   59.06
   4 Bayou LaBranche (CBC to LABR3)       4.50      2.70     1.80     1.55   0.18034    0.01347   0.732   18.29     6.368      0.044   2.402   60.01
   5 Bayou LaBranche (LABR3 to BT)        2.70      1.40     1.30     1.24   0.23734    0.01209   0.732   20.76     8.380      0.040   2.402   68.11
   6 Bayou LaBranche (BT to LGLD)         1.40      1.00     0.40     0.94   0.23734    0.00494   1.994   24.08     8.380      0.016   6.542   79.01
   7 Bayou LaBranche (LGLD to LP)         1.00      0.00     1.00     2.99   0.29434    0.00387   1.994   34.08    10.393      0.013   6.542  111.82

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

STREAM SUMMARY REPORT: Cross Bayou Canal

 TRAVEL TIME       =          11.32 DAYS
 MAXIMUM EFFLUENT  =          58.10 PERCENT

 FLOW              =   0.12334 TO    0.29434   m³/s
 DISPERSION        =   1.5000  TO    1.5000    m²/s
 VELOCITY          =   0.00349 TO    0.02004   m/s
 DEPTH             =   0.49    TO    1.99      m
 WIDTH             =  15.54    TO   34.08      m

 BOD DECAY         =    0.16   TO    0.19      per day
 NH3 DECAY         =    0.26   TO    0.36      per day
 SOD               =    0.58   TO    3.70      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    2.63      per day
 BOD SETTLING      =    0.13   TO    0.58      per day
 ORG-N DECAY       =    0.12   TO    0.13      per day
 ORG-N SETTLING    =    0.33   TO    1.44      per day

 TEMPERATURE       =   30.41   TO   34.33      deg C
 DISSOLVED OXYGEN  =    4.66   TO    6.46      mg/L

 LA-QUAL Model for Bayou LaBranche Watershed
 TMDL 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                    0.12333       69.26     91.66      0.00      3.93      0.32      0.13      0.68      1.60    114.55                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                        0.17101       96.04     46.32      0.00     23.79      2.86      0.18      0.98      1.55    145.77                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
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FLOW THRU LOWER BNDRY	-0.29434	-150.70	-141.64	0.00	-4.22	-1.25	-0.85	-0.48	-1.98	-184.36		0.00
DISPERSION THRU LOWER BNDRY		50.58	164.65	0.00	0.82	-1.70	-1.87	0.55	-0.91	-176.09		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
NATURAL REAERATION		236.08										
DAM REAERATION		0.00										
SOD BACKGROUND		-250.08										
BOD1 DECAY		-68.79	-68.79									
BOD1 SETTLING		0.00	-102.00									
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			-4.42	4.42						
ORG-N SETTLING					-20.68	0.00						
NH3-N DECAY (NITRIFICATION)		-17.20				-3.97	3.97					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								-0.09	0.09			
ORG-P SETTLING								-1.76	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		71.53				-2.24	-1.56		-0.58	447.07		
PHYTOPLANKTON RESPIRATION/EXCRETION		-36.71				1.56			0.24	-183.56		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	-71.52		
PHYTOPLANKTON DEATH			9.80	0.00	0.78			0.12		-91.78		
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	0.29434	523.49	312.43	0.00	29.33	9.16	4.28	2.34	3.48	707.39	0.00	0.00
TOTAL OUTPUTS	-0.29434	-523.47	-312.43	0.00	-29.33	-9.16	-4.28	-2.34	-3.48	-707.31	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00

.....EXECUTION COMPLETED

Winter TMDL LA-QUAL model output

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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_TMDL_winter_DO5.txt
Running in steady-state mode using LA defaults
Output produced at 14:41 on 11/20/2011

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

CARD TYPE       CONTROL TITLES

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

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

CARD TYPE       MODEL OPTION

MODOPT01   NO   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
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PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg 0/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg 0/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
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INITIAL          1   C1    20.00     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    20.00     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    20.00     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    20.00     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    20.00     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    20.00     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    20.00     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     0.870     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     0.870     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     2.610     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     0.440     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     0.440     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     0.870     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     1.740     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   0.12333    4.35487   20.00     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          6.50     29.52      1.14      0.08      0.03      0.00
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           0.37     32.55      0.00      0.00      0.19
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   20.00     0.00     0.000     0.000
WSTLD-1       47       4.60  Bayou Traverse        0.05700    2.01271    1.301   20.00     0.00  3490.000  3490.000
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WSTLD-1       78       1.50  Bayou Trepagnier       0.05700    2.01271    1.301   20.00     0.00  7292.000  7000.000
WSTLD-1       88       0.50  LGLD4                  0.05700    2.01271    1.301   20.00     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     78.34      0.00      5.63     11.25      0.00      1.50      0.00
WSTLD-2          47     Bayou Traverse              6.50     14.40      0.00      5.63      0.64      0.00      0.03      0.00
WSTLD-2          78     Bayou Trepagnier            6.50      6.80      0.00      5.63      0.13      0.00      0.03      0.00
WSTLD-2          88     LGLD4                       6.50      6.80      0.00      0.83      0.68      0.00      0.03      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                   0.25      7.57      0.00      0.00      0.07
WSTLD-3          47     Bayou Traverse              0.38     56.77      0.00      0.00      0.28
WSTLD-3          78     Bayou Trepagnier            0.25     17.41      0.00      0.00      0.07
WSTLD-3          88     LGLD4                       0.15     17.41      0.00      0.00      0.15
ENDATA26

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

CARD TYPE    CONSTITUENT                     CONCENTRATION

LOWER BC     TEMPERATURE                        =     20.000     deg C
LOWER BC     SALINITY                           =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I            =   7570.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                   =      6.500     mg/L
LOWER BC     BIOCHEMICAL OXYGEN DEMAND          =      6.050     mg/L
LOWER BC     BOD2 BIOCHEMICAL OXYGEN DEMAND     =      0.000     mg/L
LOWER BC     ORGANIC NITROGEN                   =      0.548     mg/L
LOWER BC     AMMONIA NITROGEN                   =      0.075     mg/L
LOWER BC     NITRATE + NITRITE                  =      0.030     mg/L
LOWER BC     PO4 PHOSPHORUS                     =      0.169     mg/L
LOWER BC     ORG PHOSPHORUS                     =      0.080     mg/L
LOWER BC     CHLOROPHYLL A                      =     15.890     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
     .....PHOTOSYNTHETIC RATES CONVERGENT IN    9 ITERATIONS
     .....OXYGEN DEPENDENT RATES CONVERGENT IN    1 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11
```

INTERMEDIATE REPORT
Dissolved Oxygen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	6.40	6.37	6.35	6.34	6.34	6.35	6.37	6.39	6.41	6.44
C1	1	11	6.47	6.51	6.55	6.59	6.63	6.68	6.74	6.81		
C2	2	19	6.93	7.05	7.15	7.25	7.34	7.42	7.50	7.57	7.63	7.69
C2	2	29	7.74	7.79	7.84	7.88	7.92	7.95	7.98	8.01	8.02	8.02
C2	2	39	8.00	7.90								
L4	3	41	7.67	7.46	7.27	7.12	7.00	6.91	6.86			
L4	4	48	7.00	7.12	7.24	7.35	7.45	7.55	7.64	7.73	7.81	7.89
L4	4	58	7.97	8.04	8.11	8.18	8.24	8.30	8.36	8.42		
L3	5	66	8.48	8.54	8.59	8.64	8.68	8.72	8.75	8.78	8.79	8.77
L3	5	76	8.69	8.51	8.15							
L2	6	79	8.00	7.88	7.74	7.58						
L1	7	83	7.42	7.28	7.15	7.03	6.92	6.82	6.73	6.66	6.59	6.54

INTERMEDIATE REPORT
Effective BOD1
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	27.22	26.36	25.53	24.73	23.96	23.22	22.51	21.83	21.17	20.55
C1	1	11	19.94	19.36	18.80	18.27	17.76	17.28	16.83	16.42		
C2	2	19	16.00	15.56	15.13	14.72	14.33	13.95	13.59	13.24	12.91	12.59
C2	2	29	12.29	12.00	11.72	11.45	11.19	10.94	10.70	10.47	10.25	10.05
C2	2	39	9.85	9.68								
L4	3	41	9.53	9.42	9.37	9.45	9.76	10.52	12.13			
L4	4	48	11.96	11.80	11.65	11.51	11.37	11.24	11.12	11.00	10.89	10.78
L4	4	58	10.68	10.58	10.48	10.40	10.31	10.23	10.15	10.07		
L3	5	66	9.99	9.92	9.86	9.79	9.73	9.68	9.62	9.55	9.48	9.39
L3	5	76	9.27	9.08	8.80							
L2	6	79	8.59	8.43	8.26	8.07						
L1	7	83	7.90	7.75	7.60	7.46	7.32	7.18	6.98	6.77	6.54	6.30

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	23.71	22.83	21.98	21.17	20.38	19.63	18.90	18.20	17.53	16.88
C1	1	11	16.26	15.66	15.08	14.53	14.01	13.51	13.04	12.60		
C2	2	19	12.15	11.67	11.21	10.77	10.35	9.94	9.55	9.18	8.82	8.47
C2	2	29	8.14	7.82	7.52	7.22	6.94	6.67	6.41	6.16	5.93	5.70
C2	2	39	5.49	5.29								
L4	3	41	5.12	4.98	4.89	4.90	5.11	5.70	7.04			
L4	4	48	6.82	6.62	6.43	6.25	6.07	5.89	5.73	5.56	5.40	5.25
L4	4	58	5.10	4.96	4.82	4.68	4.55	4.41	4.28	4.15		
L3	5	66	4.02	3.89	3.77	3.66	3.55	3.45	3.35	3.26	3.19	3.15
L3	5	76	3.15	3.24	3.48							
L2	6	79	3.33	3.23	3.14	3.06						
L1	7	83	3.00	2.97	2.98	3.02	3.12	3.28	3.33	3.44	3.63	3.92

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.72	0.67	0.63	0.58	0.54	0.50	0.47	0.44	0.41	0.38
C1	1	11	0.35	0.33	0.30	0.28	0.26	0.25	0.23	0.21		
C2	2	19	0.20	0.18	0.17	0.16	0.14	0.13	0.12	0.11	0.10	0.10
C2	2	29	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
C2	2	39	0.05	0.05								
L4	3	41	0.06	0.07	0.11	0.20	0.38	0.75	1.52			
L4	4	48	1.43	1.34	1.26	1.19	1.12	1.05	0.99	0.93	0.88	0.83
L4	4	58	0.78	0.73	0.69	0.65	0.61	0.57	0.54	0.51		
L3	5	66	0.47	0.44	0.41	0.39	0.37	0.35	0.34	0.34	0.35	0.40
L3	5	76	0.51	0.74	1.19							
L2	6	79	1.08	1.00	0.93	0.85						
L1	7	83	0.78	0.72	0.67	0.63	0.59	0.56	0.53	0.49	0.46	0.44

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.00	0.95	0.91	0.87	0.83	0.79	0.76	0.72	0.70	0.67
C1	1	11	0.64	0.62	0.60	0.58	0.56	0.55	0.53	0.52		
C2	2	19	0.51	0.49	0.48	0.47	0.46	0.45	0.44	0.44	0.43	0.42
C2	2	29	0.42	0.41	0.41	0.41	0.40	0.40	0.40	0.40	0.39	0.39
C2	2	39	0.39	0.40								
L4	3	41	0.41	0.43	0.47	0.56	0.75	1.13	1.93			
L4	4	48	1.83	1.75	1.68	1.61	1.54	1.48	1.42	1.37	1.31	1.27
L4	4	58	1.22	1.18	1.14	1.10	1.07	1.04	1.01	0.98		
L3	5	66	0.95	0.92	0.90	0.88	0.86	0.85	0.84	0.84	0.85	0.90
L3	5	76	1.00	1.20	1.62							
L2	6	79	1.50	1.42	1.33	1.24						
L1	7	83	1.17	1.10	1.04	0.98	0.93	0.87	0.82	0.76	0.69	0.63

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11
C1	1	11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10		
C2	2	19	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08
C2	2	29	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06
C2	2	39	0.06	0.06								
L4	3	41	0.06	0.06	0.06	0.08	0.10	0.15	0.24			
L4	4	48	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
L4	4	58	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25		
L3	5	66	0.24	0.24	0.24	0.23	0.23	0.23	0.22	0.22	0.22	0.22
L3	5	76	0.22	0.22	0.23							
L2	6	79	0.25	0.26	0.27	0.28						
L1	7	83	0.29	0.29	0.29	0.30	0.30	0.30	0.27	0.24	0.20	0.15

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
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	0.03	0.03	0.03	0.03	0.03	0.03	0.03
C2	2	29	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02
C2	2	39	0.02	0.02								
L4	3	41	0.02	0.02	0.02	0.02	0.02	0.02	0.03			
L4	4	48	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05
L4	4	58	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06		

L3	5	66	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07
L3	5	76	0.07	0.07	0.07							
L2	6	79	0.08	0.09	0.09	0.10						
L1	7	83	0.10	0.10	0.11	0.11	0.10	0.10	0.09	0.08	0.07	0.05

INTERMEDIATE REPORT
Total Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.84	0.80	0.75	0.71	0.68	0.64	0.61	0.58	0.55	0.52
C1	1	11	0.49	0.47	0.45	0.43	0.41	0.39	0.37	0.36		
C2	2	19	0.34	0.32	0.30	0.29	0.27	0.26	0.24	0.23	0.22	0.21
C2	2	29	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.14	0.13	0.13
C2	2	39	0.13	0.13								
L4	3	41	0.13	0.15	0.20	0.29	0.50	0.92	1.79			
L4	4	48	1.70	1.63	1.55	1.48	1.42	1.35	1.29	1.24	1.19	1.13
L4	4	58	1.09	1.04	1.00	0.96	0.92	0.88	0.85	0.81		
L3	5	66	0.77	0.74	0.71	0.68	0.66	0.64	0.62	0.62	0.63	0.68
L3	5	76	0.79	1.03	1.49							
L2	6	79	1.41	1.35	1.29	1.22						
L1	7	83	1.16	1.11	1.07	1.03	0.99	0.96	0.89	0.82	0.74	0.64

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.12	1.08	1.04	1.00	0.96	0.93	0.89	0.87	0.84	0.81
C1	1	11	0.79	0.77	0.74	0.73	0.71	0.69	0.67	0.66		
C2	2	19	0.64	0.63	0.61	0.60	0.59	0.58	0.56	0.55	0.55	0.54
C2	2	29	0.53	0.52	0.51	0.51	0.50	0.49	0.49	0.48	0.48	0.48
C2	2	39	0.47	0.48								
L4	3	41	0.48	0.51	0.55	0.66	0.87	1.31	2.20			
L4	4	48	2.11	2.04	1.97	1.90	1.84	1.78	1.72	1.67	1.62	1.57
L4	4	58	1.53	1.49	1.45	1.41	1.38	1.34	1.31	1.28		
L3	5	66	1.25	1.22	1.19	1.17	1.15	1.13	1.12	1.12	1.13	1.18
L3	5	76	1.28	1.49	1.92							
L2	6	79	1.83	1.76	1.69	1.62						
L1	7	83	1.55	1.50	1.44	1.38	1.33	1.27	1.18	1.08	0.97	0.83

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05	0.04	0.04
C1	1	11	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02		
C2	2	19	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
C2	2	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C2	2	39	0.00	0.00								
L4	3	41	0.00	0.00	0.00	0.01	0.01	0.03	0.07			
L4	4	48	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02
L4	4	58	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01		
L3	5	66	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
L3	5	76	0.01	0.01	0.01							
L2	6	79	0.01	0.01	0.01	0.01						
L1	7	83	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.05

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

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

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

C1	1	1	0.16	0.14	0.13	0.12	0.11	0.11	0.10	0.09	0.09	0.08
C1	1	11	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06		
C2	2	19	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05
C2	2	29	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
C2	2	39	0.05	0.05								
L4	3	41	0.06	0.06	0.06	0.06	0.07	0.09	0.13			
L4	4	48	0.12	0.12	0.11	0.11	0.10	0.10	0.10	0.10	0.09	0.09
L4	4	58	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08		
L3	5	66	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
L3	5	76	0.08	0.08	0.08							
L2	6	79	0.08	0.08	0.08	0.07						
L1	7	83	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.08

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
C1	1	11	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37		
C2	2	19	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.36
C2	2	29	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
C2	2	39	0.36	0.36								
L4	3	41	0.36	0.36	0.36	0.36	0.36	0.36	0.36			
L4	4	48	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
L4	4	58	0.36	0.35	0.35	0.35	0.35	0.35	0.35	0.35		
L3	5	66	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34
L3	5	76	0.33	0.32	0.31							
L2	6	79	0.31	0.31	0.30	0.30						
L1	7	83	0.29	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.21	0.19

INTERMEDIATE REPORT
Total Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.49	0.48	0.47	0.45	0.45	0.44	0.43	0.42	0.42	0.41
C1	1	11	0.41	0.40	0.40	0.40	0.39	0.39	0.39	0.39		
C2	2	19	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37
C2	2	29	0.37	0.37	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36
C2	2	39	0.36	0.36								
L4	3	41	0.36	0.36	0.36	0.36	0.37	0.39	0.43			
L4	4	48	0.42	0.42	0.41	0.40	0.40	0.40	0.39	0.39	0.38	0.38
L4	4	58	0.38	0.37	0.37	0.37	0.37	0.36	0.36	0.36		
L3	5	66	0.36	0.36	0.35	0.35	0.35	0.35	0.35	0.35	0.34	0.34
L3	5	76	0.34	0.33	0.33							
L2	6	79	0.32	0.32	0.32	0.31						
L1	7	83	0.31	0.30	0.30	0.29	0.29	0.28	0.27	0.26	0.25	0.24

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.53	0.52	0.51	0.50	0.49	0.48	0.47	0.47	0.46	0.46
C1	1	11	0.45	0.45	0.45	0.44	0.44	0.44	0.43	0.43		
C2	2	19	0.43	0.43	0.43	0.43	0.42	0.42	0.42	0.42	0.42	0.42
C2	2	29	0.42	0.42	0.42	0.42	0.42	0.42	0.41	0.41	0.41	0.41
C2	2	39	0.41	0.41								
L4	3	41	0.41	0.41	0.42	0.42	0.43	0.45	0.49			
L4	4	48	0.48	0.48	0.47	0.47	0.46	0.46	0.46	0.45	0.45	0.45
L4	4	58	0.45	0.44	0.44	0.44	0.44	0.44	0.43	0.43		
L3	5	66	0.43	0.43	0.43	0.43	0.43	0.43	0.42	0.42	0.42	0.42
L3	5	76	0.41	0.40	0.39							
L2	6	79	0.39	0.38	0.38	0.37						

L1	7	83	0.37	0.36	0.35	0.35	0.34	0.33	0.32	0.30	0.29	0.27

INTERMEDIATE REPORT
Chlorophyll a
µg/L

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	32.89	33.02	33.17	33.32	33.48	33.64	33.80	33.97	34.14	34.31
C1	1	11	34.48	34.65	34.83	35.01	35.19	35.37	35.57	35.78		
C2	2	19	36.06	36.37	36.67	36.96	37.25	37.54	37.81	38.09	38.35	38.61
C2	2	29	38.85	39.09	39.32	39.55	39.76	39.96	40.16	40.34	40.52	40.70
C2	2	39	40.88	41.07								
L4	3	41	41.29	41.58	41.98	42.59	43.55	45.10	47.68			
L4	4	48	48.09	48.48	48.87	49.27	49.68	50.09	50.50	50.92	51.35	51.78
L4	4	58	52.21	52.64	53.08	53.53	53.98	54.44	54.92	55.42		
L3	5	66	55.95	56.45	56.95	57.44	57.91	58.33	58.69	58.91	58.89	58.45
L3	5	76	57.26	54.72	49.77							
L2	6	79	49.22	48.67	47.95	46.99						
L1	7	83	45.92	44.75	43.31	41.51	39.28	36.53	34.20	31.18	27.30	22.31

INTERMEDIATE REPORT
Temperature
deg C

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
C1	1	11	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00		
C2	2	19	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
C2	2	29	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
C2	2	39	20.00	20.00								
L4	3	41	20.00	20.00	20.00	20.00	20.00	20.00	20.00			
L4	4	48	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
L4	4	58	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00		
L3	5	66	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
L3	5	76	20.00	20.00	20.00							
L2	6	79	20.00	20.00	20.00	20.00						
L1	7	83	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00

INTERMEDIATE REPORT
Salinity
ppt

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C1	1	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
C2	2	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C2	2	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C2	2	39	0.00	0.00								
L4	3	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
L4	4	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L4	4	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
L3	5	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
L3	5	76	0.00	0.00	0.00							
L2	6	79	0.00	0.00	0.00	0.00						
L1	7	83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78
C1	1	11	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78		
C2	2	19	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78	2687.78

C2	2	29	2687.78	2687.78	2687.78	2687.79	2687.80	2687.83	2687.88	2687.98	2688.16	2688.51
C2	2	39	2689.19	2690.47								
L4	3	41	2692.93	2697.65	2706.68	2723.95	2757.01	2820.27	2941.33			
L4	4	48	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33	2941.33
L4	4	58	2941.34	2941.34	2941.35	2941.37	2941.41	2941.49	2941.64	2941.91		
L3	5	66	2942.40	2943.25	2944.76	2947.48	2952.35	2961.06	2976.67	3004.63	3054.72	3144.42
L3	5	76	3305.10	3592.91	4108.40							
L2	6	79	4169.58	4230.02	4310.37	4417.19						
L1	7	83	4534.80	4662.53	4820.01	5014.16	5253.51	5548.59	5777.03	6071.44	6450.85	6939.83

INTERMEDIATE REPORT
River Distance
km

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C1	1	11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
C2	2	19	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C2	2	29	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C2	2	39	0.1	0.1								
L4	3	41	0.1	0.1	0.1	0.1	0.1	0.1	0.2			
L4	4	48	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
L4	4	58	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
L3	5	66	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
L3	5	76	0.2	0.2	0.2							
L2	6	79	0.2	0.2	0.2	0.2						
L1	7	83	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Bayou LaBranche Watershed
TMDL 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
TMDL 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
TMDL 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
TMDL 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	0.0			
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
TMDL 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	0.0			

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
TMDL 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
TMDL Simulation with Algal Dynamics

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974
C1	1	11	0.974	0.974	0.974	0.974	0.974	0.974	0.974	0.974		
C2	2	19	1.762	1.768	1.777	1.786	1.797	1.808	1.820	1.832	1.845	1.858
C2	2	29	1.871	1.885	1.899	1.913	1.927	1.942	1.956	1.971	1.986	2.001
C2	2	39	2.016	2.031								
L4	3	41	1.400	1.400	1.400	1.400	1.400	1.400	1.400			
L4	4	48	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956
L4	4	58	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956		
L3	5	66	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956	0.956
L3	5	76	0.956	0.956	0.956							
L2	6	79	0.351	0.351	0.351	0.351						
L1	7	83	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Bayou LaBranche Watershed
TMDL 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
TMDL 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
Ammonia Nitrogen Decay Rate
per day

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

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
C1	1	1	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
C1	1	11	1.	1.	1.	1.	1.	1.	1.	1.		
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	3.	3.	3.	3.	3.	3.	3.			
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	1.	1.	1.	1.						
L1	7	83	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.

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	m^3/s	deg C	ppt	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	m^2/s	m	m	m/s	m/s	mg/L	1/da	1/da	1/da	1/da	1/da	1/da	$g/m^2/d$
		HDWTR	0.123	20.00	0.0	6.50	26.04	0.00	0.86	0.08	0.03	0.97	0.15	0.37	32.5													
		WASTELOAD # 001 (LAG533466) ENTERS HERE																										
1	C1 1	9.10	0.123	20.00	0.0	6.40	23.71	0.00	0.72	0.09	0.03	0.84	0.12	0.37	32.9	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
2	C1 1	9.00	0.123	20.00	0.0	6.37	22.83	0.00	0.67	0.09	0.03	0.80	0.10	0.37	33.0	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87

3	C1	1	8.90	0.123	20.00	0.0	6.35	21.98	0.00	0.63	0.10	0.03	0.75	0.09	0.37	33.2	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
4	C1	1	8.80	0.123	20.00	0.0	6.34	21.17	0.00	0.58	0.10	0.03	0.71	0.08	0.37	33.3	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
5	C1	1	8.70	0.123	20.00	0.0	6.34	20.38	0.00	0.54	0.10	0.03	0.68	0.07	0.37	33.5	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
6	C1	1	8.60	0.123	20.00	0.0	6.35	19.63	0.00	0.50	0.10	0.03	0.64	0.06	0.37	33.6	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
7	C1	1	8.50	0.123	20.00	0.0	6.37	18.90	0.00	0.47	0.11	0.03	0.61	0.06	0.37	33.8	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
8	C1	1	8.40	0.123	20.00	0.0	6.39	18.20	0.00	0.44	0.11	0.03	0.58	0.05	0.37	34.0	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
9	C1	1	8.30	0.123	20.00	0.0	6.41	17.53	0.00	0.41	0.11	0.03	0.55	0.04	0.37	34.1	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
10	C1	1	8.20	0.123	20.00	0.0	6.44	16.88	0.00	0.38	0.11	0.03	0.52	0.04	0.37	34.3	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
11	C1	1	8.10	0.123	20.00	0.0	6.47	16.26	0.00	0.35	0.11	0.04	0.49	0.03	0.37	34.5	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
12	C1	1	8.00	0.123	20.00	0.0	6.51	15.66	0.00	0.33	0.11	0.04	0.47	0.03	0.37	34.7	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
13	C1	1	7.90	0.123	20.00	0.0	6.55	15.08	0.00	0.30	0.11	0.04	0.45	0.03	0.37	34.8	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
14	C1	1	7.80	0.123	20.00	0.0	6.59	14.53	0.00	0.28	0.11	0.04	0.43	0.02	0.37	35.0	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
15	C1	1	7.70	0.123	20.00	0.0	6.63	14.01	0.00	0.26	0.11	0.04	0.41	0.02	0.37	35.2	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
16	C1	1	7.60	0.123	20.00	0.0	6.68	13.51	0.00	0.25	0.11	0.04	0.39	0.02	0.37	35.4	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
17	C1	1	7.50	0.123	20.00	0.0	6.74	13.04	0.00	0.23	0.11	0.04	0.37	0.02	0.37	35.6	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
18	C1	1	7.40	0.123	20.00	0.0	6.81	12.60	0.00	0.21	0.10	0.04	0.36	0.02	0.37	35.8	1.5	0.82	15.5	0.010	0.010	9.092	0.974	0.10	0.24	0.00	0.00	0.12	0.87
19	C2	2	7.30	0.123	20.00	0.0	6.93	12.15	0.00	0.20	0.10	0.04	0.34	0.01	0.37	36.1	1.5	0.49	18.6	0.014	0.014	9.092	1.762	0.10	0.41	0.00	0.00	0.12	0.87
20	C2	2	7.20	0.123	20.00	0.0	7.05	11.67	0.00	0.18	0.10	0.04	0.32	0.01	0.37	36.4	1.5	0.49	18.6	0.014	0.014	9.092	1.768	0.10	0.41	0.00	0.00	0.12	0.87
21	C2	2	7.10	0.123	20.00	0.0	7.15	11.21	0.00	0.17	0.10	0.04	0.30	0.01	0.37	36.7	1.5	0.49	18.6	0.014	0.014	9.092	1.777	0.10	0.41	0.00	0.00	0.12	0.87
22	C2	2	7.00	0.123	20.00	0.0	7.25	10.77	0.00	0.16	0.10	0.03	0.29	0.01	0.37	37.0	1.5	0.49	18.6	0.014	0.015	9.092	1.786	0.10	0.41	0.00	0.00	0.12	0.87
23	C2	2	6.90	0.123	20.00	0.0	7.34	10.35	0.00	0.14	0.09	0.03	0.27	0.01	0.37	37.3	1.5	0.49	18.6	0.014	0.015	9.092	1.797	0.10	0.41	0.00	0.00	0.12	0.87
24	C2	2	6.80	0.123	20.00	0.0	7.42	9.94	0.00	0.13	0.09	0.03	0.26	0.01	0.37	37.5	1.5	0.49	18.6	0.014	0.015	9.092	1.808	0.10	0.41	0.00	0.00	0.12	0.87
25	C2	2	6.70	0.123	20.00	0.0	7.50	9.55	0.00	0.12	0.09	0.03	0.24	0.01	0.37	37.8	1.5	0.49	18.6	0.014	0.016	9.092	1.820	0.10	0.41	0.00	0.00	0.12	0.87
26	C2	2	6.60	0.123	20.00	0.0	7.57	9.18	0.00	0.11	0.09	0.03	0.23	0.01	0.37	38.1	1.5	0.49	18.6	0.014	0.016	9.092	1.832	0.10	0.41	0.00	0.00	0.12	0.87
27	C2	2	6.50	0.123	20.00	0.0	7.63	8.82	0.00	0.10	0.08	0.03	0.22	0.00	0.37	38.3	1.5	0.49	18.6	0.014	0.017	9.092	1.845	0.10	0.41	0.00	0.00	0.12	0.87
28	C2	2	6.40	0.123	20.00	0.0	7.69	8.47	0.00	0.10	0.08	0.03	0.21	0.00	0.36	38.6	1.5	0.49	18.6	0.014	0.017	9.092	1.858	0.10	0.41	0.00	0.00	0.12	0.87
29	C2	2	6.30	0.123	20.00	0.0	7.74	8.14	0.00	0.09	0.08	0.03	0.20	0.00	0.36	38.9	1.5	0.49	18.6	0.014	0.017	9.092	1.871	0.10	0.41	0.00	0.00	0.12	0.87
30	C2	2	6.20	0.123	20.00	0.0	7.79	7.82	0.00	0.08	0.08	0.03	0.19	0.00	0.36	39.1	1.5	0.49	18.6	0.014	0.018	9.092	1.885	0.10	0.41	0.00	0.00	0.12	0.87
31	C2	2	6.10	0.123	20.00	0.0	7.84	7.52	0.00	0.08	0.07	0.03	0.18	0.00	0.36	39.3	1.5	0.49	18.6	0.014	0.018	9.092	1.899	0.10	0.41	0.00	0.00	0.12	0.87
32	C2	2	6.00	0.123	20.00	0.0	7.88	7.22	0.00	0.07	0.07	0.03	0.17	0.00	0.36	39.5	1.5	0.49	18.6	0.014	0.019	9.092	1.913	0.10	0.41	0.00	0.00	0.12	0.87
33	C2	2	5.90	0.123	20.00	0.0	7.92	6.94	0.00	0.07	0.07	0.03	0.16	0.00	0.36	39.8	1.5	0.49	18.6	0.014	0.019	9.092	1.927	0.10	0.41	0.00	0.00	0.12	0.87
34	C2	2	5.80	0.123	20.00	0.0	7.95	6.67	0.00	0.06	0.07	0.03	0.15	0.00	0.36	40.0	1.5	0.49	18.6	0.014	0.020	9.092	1.942	0.10	0.41	0.00	0.00	0.12	0.87
35	C2	2	5.70	0.123	20.00	0.0	7.98	6.41	0.00	0.06	0.06	0.03	0.15	0.00	0.36	40.2	1.5	0.49	18.6	0.014	0.020	9.092	1.956	0.10	0.41	0.00	0.00	0.12	0.87
36	C2	2	5.60	0.123	20.00	0.0	8.01	6.16	0.00	0.05	0.06	0.03	0.14	0.00	0.36	40.3	1.5	0.49	18.6	0.014	0.021	9.092	1.971	0.10	0.41	0.00	0.00	0.12	0.87

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  37 C2  2    5.50   0.123 20.00  0.0  8.02   5.93   0.00  0.05  0.06  0.03  0.13  0.00  0.36  40.5    1.5   0.49  18.6  0.014  0.021 9.092  1.986 0.10 0.41 0.00 0.00
0.12  0.87
  38 C2  2    5.40   0.123 20.00  0.0  8.02   5.70   0.00  0.05  0.06  0.02  0.13  0.00  0.36  40.7    1.5   0.49  18.6  0.014  0.022 9.092  2.001 0.10 0.41 0.00 0.00
0.12  0.87
  39 C2  2    5.30   0.123 20.00  0.0  8.00   5.49   0.00  0.05  0.06  0.02  0.13  0.00  0.36  40.9    1.5   0.49  18.6  0.014  0.022 9.092  2.016 0.10 0.41 0.00 0.00
0.12  0.87
  40 C2  2    5.20   0.123 20.00  0.0  7.90   5.29   0.00  0.05  0.06  0.02  0.13  0.00  0.36  41.1    1.5   0.49  18.6  0.014  0.023 9.092  2.031 0.10 0.41 0.00 0.00
0.12  0.87
  41 L4  3    5.10   0.123 20.00  0.0  7.67   5.12   0.00  0.06  0.06  0.02  0.13  0.00  0.36  41.3    1.5   0.50  18.0  0.014  0.024 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  42 L4  3    5.00   0.123 20.00  0.0  7.46   4.98   0.00  0.07  0.06  0.02  0.15  0.00  0.36  41.6    1.5   0.50  18.0  0.014  0.024 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  43 L4  3    4.90   0.123 20.00  0.0  7.27   4.89   0.00  0.11  0.06  0.02  0.20  0.00  0.36  42.0    1.5   0.50  18.0  0.014  0.025 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  44 L4  3    4.80   0.123 20.00  0.0  7.12   4.90   0.00  0.20  0.08  0.02  0.29  0.01  0.36  42.6    1.5   0.50  18.0  0.014  0.025 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  45 L4  3    4.70   0.123 20.00  0.0  7.00   5.11   0.00  0.38  0.10  0.02  0.50  0.01  0.36  43.5    1.5   0.50  18.0  0.014  0.026 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  46 L4  3    4.60   0.123 20.00  0.0  6.91   5.70   0.00  0.75  0.15  0.02  0.92  0.03  0.36  45.1    1.5   0.50  18.0  0.014  0.026 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
        WASTELOAD # 047 (Bayou Traverse) ENTERS HERE
  47 L4  3    4.50   0.180 20.00  0.0  6.86   7.04   0.00  1.52  0.24  0.03  1.79  0.07  0.36  47.7    1.5   0.50  18.0  0.020  0.028 9.092  1.400 0.10 0.40 0.00 0.00
0.12  2.61
  48 L4  4    4.40   0.180 20.00  0.0  7.00   6.82   0.00  1.43  0.25  0.03  1.70  0.06  0.36  48.1    1.5   0.73  18.3  0.013  0.019 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  49 L4  4    4.30   0.180 20.00  0.0  7.12   6.62   0.00  1.34  0.25  0.03  1.63  0.05  0.36  48.5    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  50 L4  4    4.20   0.180 20.00  0.0  7.24   6.43   0.00  1.26  0.26  0.03  1.55  0.05  0.36  48.9    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  51 L4  4    4.10   0.180 20.00  0.0  7.35   6.25   0.00  1.19  0.26  0.04  1.48  0.04  0.36  49.3    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  52 L4  4    4.00   0.180 20.00  0.0  7.45   6.07   0.00  1.12  0.26  0.04  1.42  0.04  0.36  49.7    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  53 L4  4    3.90   0.180 20.00  0.0  7.55   5.89   0.00  1.05  0.26  0.04  1.35  0.04  0.36  50.1    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  54 L4  4    3.80   0.180 20.00  0.0  7.64   5.73   0.00  0.99  0.26  0.04  1.29  0.03  0.36  50.5    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  55 L4  4    3.70   0.180 20.00  0.0  7.73   5.56   0.00  0.93  0.26  0.04  1.24  0.03  0.36  50.9    1.5   0.73  18.3  0.013  0.022 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  56 L4  4    3.60   0.180 20.00  0.0  7.81   5.40   0.00  0.88  0.26  0.04  1.19  0.03  0.36  51.3    1.5   0.73  18.3  0.013  0.022 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  57 L4  4    3.50   0.180 20.00  0.0  7.89   5.25   0.00  0.83  0.26  0.05  1.13  0.02  0.36  51.8    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  58 L4  4    3.40   0.180 20.00  0.0  7.97   5.10   0.00  0.78  0.26  0.05  1.09  0.02  0.36  52.2    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  59 L4  4    3.30   0.180 20.00  0.0  8.04   4.96   0.00  0.73  0.26  0.05  1.04  0.02  0.35  52.6    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  60 L4  4    3.20   0.180 20.00  0.0  8.11   4.82   0.00  0.69  0.26  0.05  1.00  0.02  0.35  53.1    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  61 L4  4    3.10   0.180 20.00  0.0  8.18   4.68   0.00  0.65  0.26  0.05  0.96  0.02  0.35  53.5    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  62 L4  4    3.00   0.180 20.00  0.0  8.24   4.55   0.00  0.61  0.26  0.05  0.92  0.01  0.35  54.0    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  63 L4  4    2.90   0.180 20.00  0.0  8.30   4.41   0.00  0.57  0.25  0.05  0.88  0.01  0.35  54.4    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  64 L4  4    2.80   0.180 20.00  0.0  8.36   4.28   0.00  0.54  0.25  0.06  0.85  0.01  0.35  54.9    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  65 L4  4    2.70   0.180 20.00  0.0  8.42   4.15   0.00  0.51  0.25  0.06  0.81  0.01  0.35  55.4    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  66 L3  5    2.60   0.180 20.00  0.0  8.48   4.02   0.00  0.47  0.24  0.06  0.77  0.01  0.35  55.9    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  67 L3  5    2.50   0.180 20.00  0.0  8.54   3.89   0.00  0.44  0.24  0.06  0.74  0.01  0.35  56.5    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  68 L3  5    2.40   0.180 20.00  0.0  8.59   3.77   0.00  0.41  0.24  0.06  0.71  0.01  0.35  57.0    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  69 L3  5    2.30   0.180 20.00  0.0  8.64   3.66   0.00  0.39  0.23  0.06  0.68  0.01  0.35  57.4    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
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  70 L3  5    2.20   0.180 20.00  0.0  8.68   3.55   0.00  0.37  0.23  0.06  0.66  0.01  0.34  57.9    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  71 L3  5    2.10   0.180 20.00  0.0  8.72   3.45   0.00  0.35  0.23  0.06  0.64  0.01  0.34  58.3    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44

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   0.180 20.00  0.0  8.75   3.35   0.00  0.34  0.22  0.06  0.62  0.01  0.34  58.7    1.5   0.73  20.8  0.012  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  73 L3  5    1.90   0.180 20.00  0.0  8.78   3.26   0.00  0.34  0.22  0.06  0.62  0.01  0.34  58.9    1.5   0.73  20.8  0.012  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  74 L3  5    1.80   0.180 20.00  0.0  8.79   3.19   0.00  0.35  0.22  0.06  0.63  0.01  0.34  58.9    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  75 L3  5    1.70   0.180 20.00  0.0  8.77   3.15   0.00  0.40  0.22  0.07  0.68  0.01  0.34  58.5    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  76 L3  5    1.60   0.180 20.00  0.0  8.69   3.15   0.00  0.51  0.22  0.07  0.79  0.01  0.33  57.3    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  77 L3  5    1.50   0.180 20.00  0.0  8.51   3.24   0.00  0.74  0.22  0.07  1.03  0.01  0.32  54.7    1.5   0.73  20.8  0.012  0.027 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
         WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE
  78 L3  5    1.40   0.237 20.00  0.0  8.15   3.48   0.00  1.19  0.23  0.07  1.49  0.01  0.31  49.8    1.5   0.73  20.8  0.016  0.028 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.44
  79 L2  6    1.30   0.237 20.00  0.0  8.00   3.33   0.00  1.08  0.25  0.08  1.41  0.01  0.31  49.2    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  0.87
  80 L2  6    1.20   0.237 20.00  0.0  7.88   3.23   0.00  1.00  0.26  0.09  1.35  0.01  0.31  48.7    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  0.87
  81 L2  6    1.10   0.237 20.00  0.0  7.74   3.14   0.00  0.93  0.27  0.09  1.29  0.01  0.30  48.0    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  0.87
  82 L2  6    1.00   0.237 20.00  0.0  7.58   3.06   0.00  0.85  0.28  0.10  1.22  0.01  0.30  47.0    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  0.87
  83 L1  7    0.90   0.237 20.00  0.0  7.42   3.00   0.00  0.78  0.29  0.10  1.16  0.01  0.29  45.9    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  84 L1  7    0.80   0.237 20.00  0.0  7.28   2.97   0.00  0.72  0.29  0.10  1.11  0.01  0.29  44.8    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  85 L1  7    0.70   0.237 20.00  0.0  7.15   2.98   0.00  0.67  0.29  0.11  1.07  0.02  0.28  43.3    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  86 L1  7    0.60   0.237 20.00  0.0  7.03   3.02   0.00  0.63  0.30  0.11  1.03  0.02  0.27  41.5    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  87 L1  7    0.50   0.237 20.00  0.0  6.92   3.12   0.00  0.59  0.30  0.10  0.99  0.02  0.26  39.3    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
         WASTELOAD # 088 (LGLD4) ENTERS HERE
  88 L1  7    0.40   0.294 20.00  0.0  6.82   3.28   0.00  0.56  0.30  0.10  0.96  0.03  0.25  36.5    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  89 L1  7    0.30   0.294 20.00  0.0  6.73   3.33   0.00  0.53  0.27  0.09  0.89  0.03  0.24  34.2    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  90 L1  7    0.20   0.294 20.00  0.0  6.66   3.44   0.00  0.49  0.24  0.08  0.82  0.03  0.23  31.2    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  91 L1  7    0.10   0.294 20.00  0.0  6.59   3.63   0.00  0.46  0.20  0.07  0.74  0.04  0.21  27.3    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74
  92 L1  7    0.00   0.294 20.00  0.0  6.54   3.92   0.00  0.44  0.15  0.05  0.64  0.05  0.19  22.3    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.74

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  1    Cross Bayou Canal 1                              TMDL 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

    1  HDWTR     0.12333   20.00     0.00  2688.00  2688.00   6.50  26.04   0.00  29.52   0.00   1.14   0.08   0.03   0.37  32.55     0.00     0.00
```

1	WSTLD	0.00001	20.00	0.00	0.00	0.00	2.00	78.34	0.00	78.34	0.00	5.63	11.25	1.50	0.25	7.57	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	0.12334	0.0	0.00964	0.12	0.12	0.82	15.54	1278.94	1554.00	12.79	93.24	0.000	1.500	0.010
2	9.10	9.00	0.12334	0.0	0.00964	0.12	0.24	0.82	15.54	1278.94	1554.00	12.79	186.48	0.001	1.500	0.010
3	9.00	8.90	0.12334	0.0	0.00964	0.12	0.36	0.82	15.54	1278.94	1554.00	12.79	279.72	0.001	1.500	0.010
4	8.90	8.80	0.12334	0.0	0.00964	0.12	0.48	0.82	15.54	1278.94	1554.00	12.79	372.96	0.001	1.500	0.010
5	8.80	8.70	0.12334	0.0	0.00964	0.12	0.60	0.82	15.54	1278.94	1554.00	12.79	466.20	0.002	1.500	0.010
6	8.70	8.60	0.12334	0.0	0.00964	0.12	0.72	0.82	15.54	1278.94	1554.00	12.79	559.44	0.002	1.500	0.010
7	8.60	8.50	0.12334	0.0	0.00964	0.12	0.84	0.82	15.54	1278.94	1554.00	12.79	652.68	0.002	1.500	0.010
8	8.50	8.40	0.12334	0.0	0.00964	0.12	0.96	0.82	15.54	1278.94	1554.00	12.79	745.92	0.003	1.500	0.010
9	8.40	8.30	0.12334	0.0	0.00964	0.12	1.08	0.82	15.54	1278.94	1554.00	12.79	839.16	0.003	1.500	0.010
10	8.30	8.20	0.12334	0.0	0.00964	0.12	1.20	0.82	15.54	1278.94	1554.00	12.79	932.40	0.003	1.500	0.010
11	8.20	8.10	0.12334	0.0	0.00964	0.12	1.32	0.82	15.54	1278.94	1554.00	12.79	1025.64	0.004	1.500	0.010
12	8.10	8.00	0.12334	0.0	0.00964	0.12	1.44	0.82	15.54	1278.94	1554.00	12.79	1118.88	0.004	1.500	0.010
13	8.00	7.90	0.12334	0.0	0.00964	0.12	1.56	0.82	15.54	1278.94	1554.00	12.79	1212.12	0.004	1.500	0.010
14	7.90	7.80	0.12334	0.0	0.00964	0.12	1.68	0.82	15.54	1278.94	1554.00	12.79	1305.36	0.005	1.500	0.010
15	7.80	7.70	0.12334	0.0	0.00964	0.12	1.80	0.82	15.54	1278.94	1554.00	12.79	1398.60	0.005	1.500	0.010
16	7.70	7.60	0.12334	0.0	0.00964	0.12	1.92	0.82	15.54	1278.94	1554.00	12.79	1491.84	0.005	1.500	0.010
17	7.60	7.50	0.12334	0.0	0.00964	0.12	2.04	0.82	15.54	1278.94	1554.00	12.79	1585.08	0.006	1.500	0.010
18	7.50	7.40	0.12334	0.0	0.00964	0.12	2.16	0.82	15.54	1278.94	1554.00	12.79	1678.32	0.006	1.500	0.010
TOT						2.16				23020.96	27972.00					
AVG					0.0096			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	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.34	0.00	0.00	0.00	0.00
2	9.000	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.35	0.00	0.00	0.00	0.00
3	8.900	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.36	0.00	0.00	0.00	0.00
4	8.800	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.37	0.00	0.00	0.00	0.00
5	8.700	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.38	0.00	0.00	0.00	0.00
6	8.600	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.39	0.00	0.00	0.00	0.00
7	8.500	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.40	0.00	0.00	0.00	0.00
8	8.400	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.40	0.00	0.00	0.00	0.00
9	8.300	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.41	0.00	0.00	0.00	0.00
10	8.200	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.41	0.00	0.00	0.00	0.00
11	8.100	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
12	8.000	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
13	7.900	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
14	7.800	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
15	7.700	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
16	7.600	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
17	7.500	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
18	7.400	9.09	0.97	0.10	0.24	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.61	0.12	0.00	0.00	0.05	1.22	0.00	0.42	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.97	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.87			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 #/100mL	NCM

1	9.100	20.00	0.00	2687.78	0.00	6.40	23.71	0.00	27.22	0.00	0.72	0.09	0.03	0.84	1.00	1.12	0.12	0.37	0.49	0.16	0.53	32.9	0.0	0.	0.00
2	9.000	20.00	0.00	2687.78	0.00	6.37	22.83	0.00	26.36	0.00	0.67	0.09	0.03	0.80	0.95	1.08	0.10	0.37	0.48	0.14	0.52	33.0	0.0	0.	0.00
3	8.900	20.00	0.00	2687.78	0.00	6.35	21.98	0.00	25.53	0.00	0.63	0.10	0.03	0.75	0.91	1.04	0.09	0.37	0.47	0.13	0.51	33.2	0.0	0.	0.00
4	8.800	20.00	0.00	2687.78	0.00	6.34	21.17	0.00	24.73	0.00	0.58	0.10	0.03	0.71	0.87	1.00	0.08	0.37	0.45	0.12	0.50	33.3	0.0	0.	0.00
5	8.700	20.00	0.00	2687.78	0.00	6.34	20.38	0.00	23.96	0.00	0.54	0.10	0.03	0.68	0.83	0.96	0.07	0.37	0.45	0.11	0.49	33.5	0.0	0.	0.00
6	8.600	20.00	0.00	2687.78	0.00	6.35	19.63	0.00	23.22	0.00	0.50	0.10	0.03	0.64	0.79	0.93	0.06	0.37	0.44	0.11	0.48	33.6	0.0	0.	0.00
7	8.500	20.00	0.00	2687.78	0.00	6.37	18.90	0.00	22.51	0.00	0.47	0.11	0.03	0.61	0.76	0.89	0.06	0.37	0.43	0.10	0.47	33.8	0.0	0.	0.00
8	8.400	20.00	0.00	2687.78	0.00	6.39	18.20	0.00	21.83	0.00	0.44	0.11	0.03	0.58	0.72	0.87	0.05	0.37	0.42	0.09	0.47	34.0	0.0	0.	0.00
9	8.300	20.00	0.00	2687.78	0.00	6.41	17.53	0.00	21.17	0.00	0.41	0.11	0.03	0.55	0.70	0.84	0.04	0.37	0.42	0.09	0.46	34.1	0.0	0.	0.00
10	8.200	20.00	0.00	2687.78	0.00	6.44	16.88	0.00	20.55	0.00	0.38	0.11	0.03	0.52	0.67	0.81	0.04	0.37	0.41	0.08	0.46	34.3	0.0	0.	0.00
11	8.100	20.00	0.00	2687.78	0.00	6.47	16.26	0.00	19.94	0.00	0.35	0.11	0.04	0.49	0.64	0.79	0.03	0.37	0.41	0.08	0.45	34.5	0.0	0.	0.00
12	8.000	20.00	0.00	2687.78	0.00	6.51	15.66	0.00	19.36	0.00	0.33	0.11	0.04	0.47	0.62	0.77	0.03	0.37	0.40	0.08	0.45	34.7	0.0	0.	0.00
13	7.900	20.00	0.00	2687.78	0.00	6.55	15.08	0.00	18.80	0.00	0.30	0.11	0.04	0.45	0.60	0.74	0.03	0.37	0.40	0.07	0.45	34.8	0.0	0.	0.00
14	7.800	20.00	0.00	2687.78	0.00	6.59	14.53	0.00	18.27	0.00	0.28	0.11	0.04	0.43	0.58	0.73	0.02	0.37	0.40	0.07	0.44	35.0	0.0	0.	0.00
15	7.700	20.00	0.00	2687.78	0.00	6.63	14.01	0.00	17.76	0.00	0.26	0.11	0.04	0.41	0.56	0.71	0.02	0.37	0.39	0.07	0.44	35.2	0.0	0.	0.00
16	7.600	20.00	0.00	2687.78	0.00	6.68	13.51	0.00	17.28	0.00	0.25	0.11	0.04	0.39	0.55	0.69	0.02	0.37	0.39	0.07	0.44	35.4	0.0	0.	0.00
17	7.500	20.00	0.00	2687.78	0.00	6.74	13.04	0.00	16.83	0.00	0.23	0.11	0.04	0.37	0.53	0.67	0.02	0.37	0.39	0.06	0.43	35.6	0.0	0.	0.00
18	7.400	20.00	0.00	2687.78	0.00	6.81	12.60	0.00	16.42	0.00	0.21	0.10	0.04	0.36	0.52	0.66	0.02	0.37	0.39	0.06	0.43	35.8	0.0	0.	0.00

********** PHYTOPLANKTON AND PERIPHYTON DATA
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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
1	9.100	0.00	0.18	0.26	0.13	0.28	0.90	0.43	0.06	0.115	0.040	0.020	0.024	2.3	32.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	9.000	0.00	0.18	0.25	0.13	0.29	0.90	0.44	0.06	0.117	0.040	0.020	0.024	2.3	33.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	8.900	0.00	0.18	0.25	0.13	0.30	0.90	0.45	0.06	0.119	0.040	0.020	0.024	2.4	33.2	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	8.800	0.00	0.18	0.24	0.13	0.30	0.90	0.46	0.06	0.120	0.040	0.020	0.024	2.4	33.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	8.700	0.00	0.18	0.24	0.13	0.31	0.90	0.46	0.06	0.122	0.040	0.020	0.024	2.4	33.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	8.600	0.00	0.18	0.24	0.13	0.31	0.90	0.47	0.06	0.123	0.040	0.020	0.024	2.5	33.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
7	8.500	0.00	0.18	0.24	0.13	0.32	0.90	0.47	0.06	0.124	0.040	0.020	0.024	2.5	33.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	8.400	0.00	0.18	0.24	0.13	0.32	0.90	0.47	0.06	0.124	0.040	0.020	0.024	2.5	34.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	8.300	0.00	0.18	0.24	0.13	0.32	0.90	0.47	0.06	0.125	0.040	0.020	0.024	2.5	34.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	8.200	0.00	0.18	0.24	0.13	0.32	0.90	0.48	0.06	0.125	0.040	0.020	0.024	2.5	34.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

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   11    8.100   0.00   0.18    0.24 0.13 0.32 0.90 0.48 0.06  0.125  0.040  0.020  0.024   2.5   34.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   12    8.000   0.00   0.18    0.25 0.13 0.33 0.90 0.48 0.06  0.126  0.040  0.020  0.024   2.5   34.7    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   13    7.900   0.00   0.18    0.25 0.13 0.33 0.90 0.48 0.06  0.126  0.040  0.020  0.024   2.5   34.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   14    7.800   0.00   0.18    0.25 0.13 0.33 0.90 0.48 0.06  0.126  0.040  0.020  0.024   2.5   35.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   15    7.700   0.00   0.18    0.25 0.13 0.32 0.90 0.48 0.06  0.125  0.040  0.020  0.024   2.5   35.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   16    7.600   0.00   0.18    0.25 0.13 0.32 0.90 0.48 0.06  0.125  0.040  0.020  0.024   2.5   35.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   17    7.500   0.00   0.18    0.26 0.13 0.32 0.90 0.48 0.06  0.125  0.040  0.020  0.024   2.5   35.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   18    7.400   0.00   0.18    0.26 0.13 0.32 0.90 0.47 0.06  0.124  0.040  0.020  0.024   2.5   35.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 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.  2    Cross Bayou Canal 2                              TMDL 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

   19  UPR RCH   0.12334   20.00     0.00  2687.78     0.00   6.81  12.60   0.00  16.42   0.00   0.21   0.10   0.04   0.37  35.78     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

   19    7.40    7.30    0.12334   0.0   0.01360     0.09     2.25    0.49   18.59    907.19   1859.00    9.07   1789.86   0.009     1.500   0.014
   20    7.30    7.20    0.12334   0.0   0.01360     0.09     2.33    0.49   18.59    907.19   1859.00    9.07   1901.40   0.010     1.500   0.014
   21    7.20    7.10    0.12334   0.0   0.01360     0.09     2.42    0.49   18.59    907.19   1859.00    9.07   2012.94   0.010     1.500   0.014
   22    7.10    7.00    0.12334   0.0   0.01360     0.09     2.50    0.49   18.59    907.19   1859.00    9.07   2124.48   0.011     1.500   0.015
   23    7.00    6.90    0.12334   0.0   0.01360     0.09     2.59    0.49   18.59    907.19   1859.00    9.07   2236.02   0.011     1.500   0.015
   24    6.90    6.80    0.12334   0.0   0.01360     0.09     2.67    0.49   18.59    907.19   1859.00    9.07   2347.56   0.012     1.500   0.015
   25    6.80    6.70    0.12334   0.0   0.01360     0.09     2.76    0.49   18.59    907.19   1859.00    9.07   2459.10   0.013     1.500   0.016
   26    6.70    6.60    0.12334   0.0   0.01360     0.09     2.84    0.49   18.59    907.19   1859.00    9.07   2570.64   0.013     1.500   0.016
   27    6.60    6.50    0.12334   0.0   0.01360     0.09     2.93    0.49   18.59    907.19   1859.00    9.07   2682.18   0.014     1.500   0.017
   28    6.50    6.40    0.12334   0.0   0.01360     0.09     3.01    0.49   18.59    907.19   1859.00    9.07   2793.72   0.014     1.500   0.017
   29    6.40    6.30    0.12334   0.0   0.01360     0.09     3.10    0.49   18.59    907.19   1859.00    9.07   2905.26   0.015     1.500   0.017
   30    6.30    6.20    0.12334   0.0   0.01360     0.09     3.18    0.49   18.59    907.19   1859.00    9.07   3016.80   0.015     1.500   0.018
   31    6.20    6.10    0.12334   0.0   0.01360     0.09     3.27    0.49   18.59    907.19   1859.00    9.07   3128.34   0.016     1.500   0.018
   32    6.10    6.00    0.12334   0.0   0.01360     0.09     3.35    0.49   18.59    907.19   1859.00    9.07   3239.88   0.017     1.500   0.019
   33    6.00    5.90    0.12334   0.0   0.01360     0.09     3.44    0.49   18.59    907.19   1859.00    9.07   3351.42   0.017     1.500   0.019
   34    5.90    5.80    0.12334   0.0   0.01360     0.09     3.52    0.49   18.59    907.19   1859.00    9.07   3462.96   0.018     1.500   0.020
   35    5.80    5.70    0.12334   0.0   0.01360     0.09     3.61    0.49   18.59    907.19   1859.00    9.07   3574.50   0.018     1.500   0.020
   36    5.70    5.60    0.12334   0.0   0.01360     0.09     3.69    0.49   18.59    907.19   1859.00    9.07   3686.04   0.019     1.500   0.021
   37    5.60    5.50    0.12334   0.0   0.01360     0.09     3.78    0.49   18.59    907.19   1859.00    9.07   3797.58   0.019     1.500   0.021
   38    5.50    5.40    0.12334   0.0   0.01360     0.09     3.86    0.49   18.59    907.19   1859.00    9.07   3909.12   0.020     1.500   0.022
   39    5.40    5.30    0.12334   0.0   0.01360     0.09     3.95    0.49   18.59    907.19   1859.00    9.07   4020.66   0.021     1.500   0.022
   40    5.30    5.20    0.12334   0.0   0.01360     0.09     4.03    0.49   18.59    907.19   1859.00    9.07   4132.20   0.021     1.500   0.023

  TOT                                                 1.87                            19958.22  40898.00
  AVG                                       0.0136                      0.49   18.59                          9.07

 ************************************************************************** BIOLOGICAL AND PHYSICAL COEFFICIENTS
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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	9.09	1.76	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.88	0.00	0.00	0.00	0.00
20	7.200	9.09	1.77	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.88	0.00	0.00	0.00	0.00
21	7.100	9.09	1.78	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.87	0.00	0.00	0.00	0.00
22	7.000	9.09	1.79	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.87	0.00	0.00	0.00	0.00
23	6.900	9.09	1.80	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.86	0.00	0.00	0.00	0.00
24	6.800	9.09	1.81	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.85	0.00	0.00	0.00	0.00
25	6.700	9.09	1.82	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.84	0.00	0.00	0.00	0.00
26	6.600	9.09	1.83	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.83	0.00	0.00	0.00	0.00
27	6.500	9.09	1.84	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.82	0.00	0.00	0.00	0.00
28	6.400	9.09	1.86	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.81	0.00	0.00	0.00	0.00
29	6.300	9.09	1.87	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.80	0.00	0.00	0.00	0.00
30	6.200	9.09	1.88	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.79	0.00	0.00	0.00	0.00
31	6.100	9.09	1.90	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.77	0.00	0.00	0.00	0.00
32	6.000	9.09	1.91	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.76	0.00	0.00	0.00	0.00
33	5.900	9.09	1.93	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.74	0.00	0.00	0.00	0.00
34	5.800	9.09	1.94	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.72	0.00	0.00	0.00	0.00
35	5.700	9.09	1.96	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.71	0.00	0.00	0.00	0.00
36	5.600	9.09	1.97	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.69	0.00	0.00	0.00	0.00
37	5.500	9.09	1.99	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.67	0.00	0.00	0.00	0.00
38	5.400	9.09	2.00	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.66	0.00	0.00	0.00	0.00
39	5.300	9.09	2.02	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.64	0.00	0.00	0.00	0.00
40	5.200	9.09	2.03	0.10	0.41	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	1.02	0.12	0.00	0.00	0.05	2.05	0.00	0.63	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.88	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.87			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	20.00	0.00	2687.78	0.00	6.93	12.15	0.00	16.00	0.00	0.20	0.10	0.04	0.34	0.51	0.64	0.01	0.37	0.38	0.06	0.43	36.1	0.0	0.	0.00
20	7.200	20.00	0.00	2687.78	0.00	7.05	11.67	0.00	15.56	0.00	0.18	0.10	0.04	0.32	0.49	0.63	0.01	0.37	0.38	0.06	0.43	36.4	0.0	0.	0.00
21	7.100	20.00	0.00	2687.78	0.00	7.15	11.21	0.00	15.13	0.00	0.17	0.10	0.04	0.30	0.48	0.61	0.01	0.37	0.38	0.06	0.43	36.7	0.0	0.	0.00
22	7.000	20.00	0.00	2687.78	0.00	7.25	10.77	0.00	14.72	0.00	0.16	0.10	0.03	0.29	0.47	0.60	0.01	0.37	0.38	0.06	0.43	37.0	0.0	0.	0.00
23	6.900	20.00	0.00	2687.78	0.00	7.34	10.35	0.00	14.33	0.00	0.14	0.09	0.03	0.27	0.46	0.59	0.01	0.37	0.38	0.06	0.42	37.3	0.0	0.	0.00
24	6.800	20.00	0.00	2687.78	0.00	7.42	9.94	0.00	13.95	0.00	0.13	0.09	0.03	0.26	0.45	0.58	0.01	0.37	0.37	0.06	0.42	37.5	0.0	0.	0.00
25	6.700	20.00	0.00	2687.78	0.00	7.50	9.55	0.00	13.59	0.00	0.12	0.09	0.03	0.24	0.44	0.56	0.01	0.37	0.37	0.06	0.42	37.8	0.0	0.	0.00
26	6.600	20.00	0.00	2687.78	0.00	7.57	9.18	0.00	13.24	0.00	0.11	0.09	0.03	0.23	0.44	0.55	0.01	0.37	0.37	0.05	0.42	38.1	0.0	0.	0.00
27	6.500	20.00	0.00	2687.78	0.00	7.63	8.82	0.00	12.91	0.00	0.10	0.08	0.03	0.22	0.43	0.55	0.00	0.37	0.37	0.05	0.42	38.3	0.0	0.	0.00
28	6.400	20.00	0.00	2687.78	0.00	7.69	8.47	0.00	12.59	0.00	0.10	0.08	0.03	0.21	0.42	0.54	0.00	0.36	0.37	0.05	0.42	38.6	0.0	0.	0.00
29	6.300	20.00	0.00	2687.78	0.00	7.74	8.14	0.00	12.29	0.00	0.09	0.08	0.03	0.20	0.42	0.53	0.00	0.36	0.37	0.05	0.42	38.9	0.0	0.	0.00
30	6.200	20.00	0.00	2687.78	0.00	7.79	7.82	0.00	12.00	0.00	0.08	0.08	0.03	0.19	0.41	0.52	0.00	0.36	0.37	0.05	0.42	39.1	0.0	0.	0.00
31	6.100	20.00	0.00	2687.78	0.00	7.84	7.52	0.00	11.72	0.00	0.08	0.07	0.03	0.18	0.41	0.51	0.00	0.36	0.37	0.05	0.42	39.3	0.0	0.	0.00
32	6.000	20.00	0.00	2687.79	0.00	7.88	7.22	0.00	11.45	0.00	0.07	0.07	0.03	0.17	0.41	0.51	0.00	0.36	0.37	0.05	0.42	39.5	0.0	0.	0.00

33	5.900	20.00	0.00	2687.80	0.00	7.92	6.94	0.00	11.19	0.00	0.07	0.07	0.03	0.16	0.40	0.50	0.00	0.36	0.36	0.05	0.42	39.8	0.0	0.	0.00
34	5.800	20.00	0.00	2687.83	0.00	7.95	6.67	0.00	10.94	0.00	0.06	0.07	0.03	0.15	0.40	0.49	0.00	0.36	0.36	0.05	0.42	40.0	0.0	0.	0.00
35	5.700	20.00	0.00	2687.88	0.00	7.98	6.41	0.00	10.70	0.00	0.06	0.06	0.03	0.15	0.40	0.49	0.00	0.36	0.36	0.05	0.41	40.2	0.0	0.	0.00
36	5.600	20.00	0.00	2687.98	0.00	8.01	6.16	0.00	10.47	0.00	0.05	0.06	0.03	0.14	0.40	0.48	0.00	0.36	0.36	0.05	0.41	40.3	0.0	0.	0.00
37	5.500	20.00	0.00	2688.16	0.00	8.02	5.93	0.00	10.25	0.00	0.05	0.06	0.03	0.13	0.39	0.48	0.00	0.36	0.36	0.05	0.41	40.5	0.0	0.	0.00
38	5.400	20.00	0.00	2688.51	0.00	8.02	5.70	0.00	10.05	0.00	0.05	0.06	0.02	0.13	0.39	0.48	0.00	0.36	0.36	0.05	0.41	40.7	0.0	0.	0.00
39	5.300	20.00	0.00	2689.19	0.00	8.00	5.49	0.00	9.85	0.00	0.05	0.06	0.02	0.13	0.39	0.47	0.00	0.36	0.36	0.05	0.41	40.9	0.0	0.	0.00
40	5.200	20.00	0.00	2690.47	0.00	7.90	5.29	0.00	9.68	0.00	0.05	0.06	0.02	0.13	0.40	0.48	0.00	0.36	0.36	0.05	0.41	41.1	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	0.26	0.22	0.32	0.90	0.47	0.10	0.203	0.040	0.020	0.041	4.1	36.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	7.200	0.00	0.18	0.26	0.22	0.31	0.90	0.46	0.10	0.201	0.040	0.020	0.041	4.0	36.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
21	7.100	0.00	0.18	0.27	0.22	0.31	0.90	0.46	0.10	0.199	0.040	0.020	0.041	4.0	36.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	7.000	0.00	0.18	0.27	0.22	0.30	0.90	0.45	0.10	0.197	0.040	0.020	0.041	3.9	37.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	6.900	0.00	0.18	0.27	0.22	0.30	0.90	0.45	0.10	0.194	0.040	0.020	0.041	3.9	37.3	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	0.27	0.22	0.29	0.90	0.44	0.10	0.192	0.040	0.020	0.041	3.8	37.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	6.700	0.00	0.18	0.27	0.22	0.29	0.90	0.44	0.09	0.189	0.040	0.020	0.041	3.8	37.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
26	6.600	0.00	0.18	0.28	0.22	0.28	0.90	0.43	0.09	0.187	0.040	0.020	0.041	3.7	38.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	6.500	0.00	0.18	0.28	0.22	0.28	0.90	0.42	0.09	0.184	0.040	0.020	0.041	3.7	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
28	6.400	0.00	0.18	0.28	0.22	0.27	0.90	0.42	0.09	0.181	0.040	0.020	0.041	3.6	38.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	6.300	0.00	0.18	0.28	0.22	0.27	0.90	0.41	0.09	0.178	0.040	0.020	0.041	3.6	38.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	6.200	0.00	0.18	0.29	0.22	0.26	0.90	0.40	0.09	0.176	0.040	0.020	0.041	3.5	39.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
31	6.100	0.00	0.18	0.29	0.22	0.25	0.90	0.40	0.09	0.173	0.040	0.020	0.041	3.5	39.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
32	6.000	0.00	0.18	0.29	0.22	0.25	0.90	0.39	0.08	0.170	0.040	0.020	0.041	3.4	39.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
33	5.900	0.00	0.18	0.29	0.22	0.24	0.90	0.38	0.08	0.166	0.040	0.020	0.041	3.3	39.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
34	5.800	0.00	0.18	0.29	0.22	0.24	0.90	0.38	0.08	0.163	0.040	0.020	0.041	3.3	40.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
35	5.700	0.00	0.18	0.29	0.22	0.23	0.90	0.37	0.08	0.160	0.040	0.020	0.041	3.2	40.2	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	0.30	0.22	0.23	0.90	0.36	0.08	0.157	0.040	0.020	0.041	3.1	40.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
37	5.500	0.00	0.18	0.30	0.22	0.22	0.90	0.35	0.08	0.154	0.040	0.020	0.041	3.1	40.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
38	5.400	0.00	0.18	0.30	0.22	0.22	0.90	0.35	0.07	0.151	0.040	0.020	0.041	3.0	40.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
39	5.300	0.00	0.18	0.30	0.22	0.21	0.90	0.34	0.07	0.148	0.040	0.020	0.041	3.0	40.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0

```
   40    5.200   0.00   0.18    0.29 0.22 0.21 0.90 0.34 0.07  0.146  0.040  0.020  0.041   2.9   41.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 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)                 TMDL 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

   41  UPR RCH   0.12334   20.00     0.00  2690.47     0.00   7.90   5.29   0.00   9.68   0.00   0.05   0.06   0.02   0.36  41.07     0.00    0.00
   47  WSTLD     0.05700   20.00     0.00  3490.00  3490.00   6.50  14.40   0.00  14.40   0.00   5.63   0.64   0.03   0.38  56.77     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

   41    5.20    5.10    0.12334   0.0   0.01370     0.08     4.12    0.50   18.00    900.00    1800.00    9.00   4240.20   0.022     1.500   0.024
   42    5.10    5.00    0.12334   0.0   0.01370     0.08     4.20    0.50   18.00    900.00    1800.00    9.00   4348.20   0.022     1.500   0.024
   43    5.00    4.90    0.12334   0.0   0.01370     0.08     4.29    0.50   18.00    900.00    1800.00    9.00   4456.20   0.023     1.500   0.025
   44    4.90    4.80    0.12334   0.0   0.01370     0.08     4.37    0.50   18.00    900.00    1800.00    9.00   4564.20   0.023     1.500   0.025
   45    4.80    4.70    0.12334   0.0   0.01370     0.08     4.46    0.50   18.00    900.00    1800.00    9.00   4672.20   0.024     1.500   0.026
   46    4.70    4.60    0.12334   0.0   0.01370     0.08     4.54    0.50   18.00    900.00    1800.00    9.00   4780.20   0.025     1.500   0.026
   47    4.60    4.50    0.18034  31.6   0.02004     0.06     4.60    0.50   18.00    900.00    1800.00    9.00   4888.20   0.025     1.500   0.028

  TOT                                                0.56                            6300.00   12600.00
  AVG                                     0.0144                      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  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.61  0.00  0.00  0.00  0.00
  42    5.000  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.63  0.00  0.00  0.00  0.00
  43    4.900  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.67  0.00  0.00  0.00  0.00
  44    4.800  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.77  0.00  0.00  0.00  0.00
  45    4.700  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.94  0.00  0.00  0.00  0.00
  46    4.600  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  1.20  0.00  0.00  0.00  0.00
  47    4.500  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  2.61  2.61  2.61  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  1.57  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  2.61              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
*******************************************************************************

 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

  41    5.100  20.00  0.00  2692.93     0.00   7.67   5.12   0.00   9.53   0.00   0.06   0.06   0.02   0.13   0.41   0.48   0.00   0.36   0.36   0.06   0.41   41.3
0.0       0.    0.00
  42    5.000  20.00  0.00  2697.65     0.00   7.46   4.98   0.00   9.42   0.00   0.07   0.06   0.02   0.15   0.43   0.51   0.00   0.36   0.36   0.06   0.41   41.6
0.0       0.    0.00
```

43	4.900	20.00	0.00	2706.68	0.00	7.27	4.89	0.00	9.37	0.00	0.11	0.06	0.02	0.20	0.47	0.55	0.00	0.36	0.36	0.06	0.42	42.0	0.0	0.	0.00
44	4.800	20.00	0.00	2723.95	0.00	7.12	4.90	0.00	9.45	0.00	0.20	0.08	0.02	0.29	0.56	0.66	0.01	0.36	0.36	0.06	0.42	42.6	0.0	0.	0.00
45	4.700	20.00	0.00	2757.01	0.00	7.00	5.11	0.00	9.76	0.00	0.38	0.10	0.02	0.50	0.75	0.87	0.01	0.36	0.37	0.07	0.43	43.5	0.0	0.	0.00
46	4.600	20.00	0.00	2820.27	0.00	6.91	5.70	0.00	10.52	0.00	0.75	0.15	0.02	0.92	1.13	1.31	0.03	0.36	0.39	0.09	0.45	45.1	0.0	0.	0.00
47	4.500	20.00	0.00	2941.33	0.00	6.86	7.04	0.00	12.13	0.00	1.52	0.24	0.03	1.79	1.93	2.20	0.07	0.36	0.43	0.13	0.49	47.7	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
41	5.100	0.00	0.18	0.29	0.21	0.21	0.90	0.34	0.07	0.143	0.040	0.020	0.040	2.9	41.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
42	5.000	0.00	0.18	0.28	0.21	0.21	0.90	0.34	0.07	0.144	0.040	0.020	0.040	2.9	41.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
43	4.900	0.00	0.18	0.26	0.21	0.22	0.90	0.36	0.07	0.150	0.040	0.020	0.040	3.0	42.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
44	4.800	0.00	0.18	0.23	0.21	0.25	0.90	0.39	0.08	0.162	0.040	0.020	0.040	3.2	42.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
45	4.700	0.00	0.18	0.19	0.21	0.29	0.90	0.44	0.09	0.184	0.040	0.020	0.040	3.7	43.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
46	4.600	0.00	0.18	0.14	0.21	0.37	0.90	0.52	0.11	0.216	0.040	0.020	0.040	4.3	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
47	4.500	0.00	0.18	0.10	0.21	0.47	0.90	0.62	0.13	0.255	0.040	0.020	0.040	5.1	47.7	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. 4 Bayou LaBranche (CBC to LABR3) — TMDL 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	0.18034	20.00	0.00	2941.33	0.00	6.86	7.04	0.00	12.13	0.00	1.52	0.24	0.03	0.36	47.68	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	0.18034	31.6	0.01347	0.09	4.68	0.73	18.29	1338.83	1829.00	13.39	4997.94	0.017	1.500	0.019
49	4.40	4.30	0.18034	31.6	0.01347	0.09	4.77	0.73	18.29	1338.83	1829.00	13.39	5107.68	0.018	1.500	0.020
50	4.30	4.20	0.18034	31.6	0.01347	0.09	4.86	0.73	18.29	1338.83	1829.00	13.39	5217.42	0.018	1.500	0.020
51	4.20	4.10	0.18034	31.6	0.01347	0.09	4.94	0.73	18.29	1338.83	1829.00	13.39	5327.16	0.018	1.500	0.020
52	4.10	4.00	0.18034	31.6	0.01347	0.09	5.03	0.73	18.29	1338.83	1829.00	13.39	5436.90	0.019	1.500	0.021
53	4.00	3.90	0.18034	31.6	0.01347	0.09	5.11	0.73	18.29	1338.83	1829.00	13.39	5546.64	0.019	1.500	0.021
54	3.90	3.80	0.18034	31.6	0.01347	0.09	5.20	0.73	18.29	1338.83	1829.00	13.39	5656.38	0.020	1.500	0.021
55	3.80	3.70	0.18034	31.6	0.01347	0.09	5.29	0.73	18.29	1338.83	1829.00	13.39	5766.12	0.020	1.500	0.022
56	3.70	3.60	0.18034	31.6	0.01347	0.09	5.37	0.73	18.29	1338.83	1829.00	13.39	5875.86	0.020	1.500	0.022
57	3.60	3.50	0.18034	31.6	0.01347	0.09	5.46	0.73	18.29	1338.83	1829.00	13.39	5985.60	0.021	1.500	0.023
58	3.50	3.40	0.18034	31.6	0.01347	0.09	5.54	0.73	18.29	1338.83	1829.00	13.39	6095.34	0.021	1.500	0.023

59	3.40	3.30	0.18034	31.6	0.01347	0.09	5.63	0.73	18.29	1338.83	1829.00	13.39	6205.08	0.021	1.500	0.023
60	3.30	3.20	0.18034	31.6	0.01347	0.09	5.71	0.73	18.29	1338.83	1829.00	13.39	6314.82	0.022	1.500	0.024
61	3.20	3.10	0.18034	31.6	0.01347	0.09	5.80	0.73	18.29	1338.83	1829.00	13.39	6424.56	0.022	1.500	0.024
62	3.10	3.00	0.18034	31.6	0.01347	0.09	5.89	0.73	18.29	1338.83	1829.00	13.39	6534.30	0.023	1.500	0.024
63	3.00	2.90	0.18034	31.6	0.01347	0.09	5.97	0.73	18.29	1338.83	1829.00	13.39	6644.04	0.023	1.500	0.025
64	2.90	2.80	0.18034	31.6	0.01347	0.09	6.06	0.73	18.29	1338.83	1829.00	13.39	6753.78	0.023	1.500	0.025
65	2.80	2.70	0.18034	31.6	0.01347	0.09	6.14	0.73	18.29	1338.83	1829.00	13.39	6863.52	0.024	1.500	0.025
TOT						1.55				24098.91	32922.00					
AVG					0.0135			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	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	0.99	0.00	0.00	0.00	0.00
49	4.300	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.00	0.00	0.00	0.00	0.00
50	4.200	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.02	0.00	0.00	0.00	0.00
51	4.100	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.03	0.00	0.00	0.00	0.00
52	4.000	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.05	0.00	0.00	0.00	0.00
53	3.900	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.06	0.00	0.00	0.00	0.00
54	3.800	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.07	0.00	0.00	0.00	0.00
55	3.700	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.08	0.00	0.00	0.00	0.00
56	3.600	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.09	0.00	0.00	0.00	0.00
57	3.500	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.10	0.00	0.00	0.00	0.00
58	3.400	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.11	0.00	0.00	0.00	0.00
59	3.300	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.12	0.00	0.00	0.00	0.00
60	3.200	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.13	0.00	0.00	0.00	0.00
61	3.100	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.14	0.00	0.00	0.00	0.00
62	3.000	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.15	0.00	0.00	0.00	0.00
63	2.900	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.15	0.00	0.00	0.00	0.00
64	2.800	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.16	0.00	0.00	0.00	0.00
65	2.700	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.17	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	0.44			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 #/100mL	NCM
48	4.400	20.00	0.00	2941.33	0.00	7.00	6.82	0.00	11.96	0.00	1.43	0.25	0.03	1.70	1.83	2.11	0.06	0.36	0.42	0.12	0.48	48.1	0.0	0.	0.00
49	4.300	20.00	0.00	2941.33	0.00	7.12	6.62	0.00	11.80	0.00	1.34	0.25	0.03	1.63	1.75	2.04	0.05	0.36	0.42	0.12	0.48	48.5	0.0	0.	0.00
50	4.200	20.00	0.00	2941.33	0.00	7.24	6.43	0.00	11.65	0.00	1.26	0.26	0.03	1.55	1.68	1.97	0.05	0.36	0.41	0.11	0.47	48.9	0.0	0.	0.00
51	4.100	20.00	0.00	2941.33	0.00	7.35	6.25	0.00	11.51	0.00	1.19	0.26	0.04	1.48	1.61	1.90	0.04	0.36	0.40	0.11	0.47	49.3	0.0	0.	0.00
52	4.000	20.00	0.00	2941.33	0.00	7.45	6.07	0.00	11.37	0.00	1.12	0.26	0.04	1.42	1.54	1.84	0.04	0.36	0.40	0.10	0.46	49.7	0.0	0.	0.00
53	3.900	20.00	0.00	2941.33	0.00	7.55	5.89	0.00	11.24	0.00	1.05	0.26	0.04	1.35	1.48	1.78	0.04	0.36	0.40	0.10	0.46	50.1	0.0	0.	0.00
54	3.800	20.00	0.00	2941.33	0.00	7.64	5.73	0.00	11.12	0.00	0.99	0.26	0.04	1.29	1.42	1.72	0.03	0.36	0.39	0.10	0.46	50.5	0.0	0.	0.00
55	3.700	20.00	0.00	2941.33	0.00	7.73	5.56	0.00	11.00	0.00	0.93	0.26	0.04	1.24	1.37	1.67	0.03	0.36	0.39	0.10	0.45	50.9	0.0	0.	0.00
56	3.600	20.00	0.00	2941.33	0.00	7.81	5.40	0.00	10.89	0.00	0.88	0.26	0.04	1.19	1.31	1.62	0.03	0.36	0.38	0.09	0.45	51.3	0.0	0.	0.00

57	3.500	20.00	0.00	2941.33	0.00	7.89	5.25	0.00	10.78	0.00	0.83	0.26	0.05	1.13	1.27	1.57	0.02	0.36	0.38	0.09	0.45	51.8	0.0	0. 0.00
58	3.400	20.00	0.00	2941.34	0.00	7.97	5.10	0.00	10.68	0.00	0.78	0.26	0.05	1.09	1.22	1.53	0.02	0.36	0.38	0.09	0.45	52.2	0.0	0. 0.00
59	3.300	20.00	0.00	2941.34	0.00	8.04	4.96	0.00	10.58	0.00	0.73	0.26	0.05	1.04	1.18	1.49	0.02	0.35	0.37	0.09	0.44	52.6	0.0	0. 0.00
60	3.200	20.00	0.00	2941.35	0.00	8.11	4.82	0.00	10.48	0.00	0.69	0.26	0.05	1.00	1.14	1.45	0.02	0.35	0.37	0.09	0.44	53.1	0.0	0. 0.00
61	3.100	20.00	0.00	2941.37	0.00	8.18	4.68	0.00	10.40	0.00	0.65	0.26	0.05	0.96	1.10	1.41	0.02	0.35	0.37	0.09	0.44	53.5	0.0	0. 0.00
62	3.000	20.00	0.00	2941.41	0.00	8.24	4.55	0.00	10.31	0.00	0.61	0.26	0.05	0.92	1.07	1.38	0.01	0.35	0.37	0.08	0.44	54.0	0.0	0. 0.00
63	2.900	20.00	0.00	2941.49	0.00	8.30	4.41	0.00	10.23	0.00	0.57	0.25	0.05	0.88	1.04	1.34	0.01	0.35	0.36	0.08	0.44	54.4	0.0	0. 0.00
64	2.800	20.00	0.00	2941.64	0.00	8.36	4.28	0.00	10.15	0.00	0.54	0.25	0.06	0.85	1.01	1.31	0.01	0.35	0.36	0.08	0.43	54.9	0.0	0. 0.00
65	2.700	20.00	0.00	2941.91	0.00	8.42	4.15	0.00	10.07	0.00	0.51	0.25	0.06	0.81	0.98	1.28	0.01	0.35	0.36	0.08	0.43	55.4	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	0.18	0.11	0.14	0.48	0.90	0.63	0.09	0.178	0.040	0.020	0.027	3.6	48.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
49	4.300	0.00	0.18	0.11	0.14	0.49	0.90	0.63	0.09	0.179	0.040	0.020	0.027	3.6	48.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
50	4.200	0.00	0.18	0.11	0.14	0.49	0.90	0.64	0.09	0.180	0.040	0.020	0.027	3.6	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
51	4.100	0.00	0.18	0.12	0.14	0.49	0.90	0.64	0.09	0.181	0.040	0.020	0.027	3.6	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
52	4.000	0.00	0.18	0.12	0.14	0.50	0.90	0.64	0.09	0.182	0.040	0.020	0.027	3.6	49.7	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
53	3.900	0.00	0.18	0.13	0.14	0.50	0.90	0.64	0.09	0.182	0.040	0.020	0.027	3.6	50.1	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
54	3.800	0.00	0.18	0.13	0.14	0.50	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	50.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
55	3.700	0.00	0.18	0.14	0.14	0.50	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	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
56	3.600	0.00	0.18	0.14	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	51.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
57	3.500	0.00	0.18	0.15	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	51.8	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
58	3.400	0.00	0.18	0.15	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	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
59	3.300	0.00	0.18	0.16	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	52.6	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
60	3.200	0.00	0.18	0.16	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	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
61	3.100	0.00	0.18	0.17	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	53.5	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
62	3.000	0.00	0.18	0.17	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	54.0	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
63	2.900	0.00	0.18	0.18	0.14	0.51	0.90	0.65	0.09	0.183	0.040	0.020	0.027	3.7	54.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
64	2.800	0.00	0.17	0.18	0.14	0.50	0.90	0.65	0.09	0.182	0.040	0.020	0.027	3.6	54.9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
65	2.700	0.00	0.17	0.19	0.14	0.50	0.90	0.64	0.09	0.182	0.040	0.020	0.027	3.6	55.4	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
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. 5 Bayou LaBranche (LABR3 to BT) — TMDL 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	0.18034	20.00	0.00	2941.91	0.00	8.42	4.15	0.00	10.07	0.00	0.51	0.25	0.06	0.35	55.42	0.00	0.00
78	WSTLD	0.05700	20.00	0.00	7292.00	7000.00	6.50	6.80	0.00	6.80	0.00	5.63	0.13	0.03	0.25	17.41	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	0.18034	31.6	0.01187	0.10	6.24	0.73	20.76	1519.63	2076.00	15.20	6988.08	0.021	1.500	0.023
67	2.60	2.50	0.18034	31.6	0.01187	0.10	6.34	0.73	20.76	1519.63	2076.00	15.20	7112.65	0.022	1.500	0.023
68	2.50	2.40	0.18034	31.6	0.01187	0.10	6.44	0.73	20.76	1519.63	2076.00	15.20	7237.21	0.022	1.500	0.023
69	2.40	2.30	0.18034	31.6	0.01187	0.10	6.53	0.73	20.76	1519.63	2076.00	15.20	7361.77	0.022	1.500	0.024
70	2.30	2.20	0.18034	31.6	0.01187	0.10	6.63	0.73	20.76	1519.63	2076.00	15.20	7486.33	0.023	1.500	0.024
71	2.20	2.10	0.18034	31.6	0.01187	0.10	6.73	0.73	20.76	1519.63	2076.00	15.20	7610.89	0.023	1.500	0.024
72	2.10	2.00	0.18034	31.6	0.01187	0.10	6.83	0.73	20.76	1519.63	2076.00	15.20	7735.45	0.024	1.500	0.025
73	2.00	1.90	0.18034	31.6	0.01187	0.10	6.92	0.73	20.76	1519.63	2076.00	15.20	7860.01	0.024	1.500	0.025
74	1.90	1.80	0.18034	31.6	0.01187	0.10	7.02	0.73	20.76	1519.63	2076.00	15.20	7984.57	0.024	1.500	0.026
75	1.80	1.70	0.18034	31.6	0.01187	0.10	7.12	0.73	20.76	1519.63	2076.00	15.20	8109.13	0.025	1.500	0.026
76	1.70	1.60	0.18034	31.6	0.01187	0.10	7.22	0.73	20.76	1519.63	2076.00	15.20	8233.69	0.025	1.500	0.026
77	1.60	1.50	0.18034	31.6	0.01187	0.10	7.31	0.73	20.76	1519.63	2076.00	15.20	8358.25	0.025	1.500	0.027
78	1.50	1.40	0.23734	48.0	0.01562	0.07	7.39	0.73	20.76	1519.63	2076.00	15.20	8482.80	0.026	1.500	0.028
TOT						1.24				19755.22	26988.00					
AVG					0.0121			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	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.17	0.00	0.00	0.00	0.00
67	2.500	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.18	0.00	0.00	0.00	0.00
68	2.400	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.19	0.00	0.00	0.00	0.00
69	2.300	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.19	0.00	0.00	0.00	0.00
70	2.200	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
71	2.100	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
72	2.000	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
73	1.900	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
74	1.800	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
75	1.700	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.20	0.00	0.00	0.00	0.00
76	1.600	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.18	0.00	0.00	0.00	0.00
77	1.500	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.14	0.00	0.00	0.00	0.00
78	1.400	9.09	0.96	0.10	0.27	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.10	0.68	0.12	0.00	0.00	0.05	1.37	0.00	1.07	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	0.44			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	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	mg/L	µg/L	g/m²	#/100mL
66	2.600	20.00	0.00	2942.40	0.00	8.48	4.02	0.00	9.99	0.00	0.47	0.24	0.06	0.77	0.95	1.25	0.01	0.35	0.36	0.08	0.43	55.9	0.0	0.	0.00
67	2.500	20.00	0.00	2943.25	0.00	8.54	3.89	0.00	9.92	0.00	0.44	0.24	0.06	0.74	0.92	1.22	0.01	0.35	0.36	0.08	0.43	56.5	0.0	0.	0.00
68	2.400	20.00	0.00	2944.76	0.00	8.59	3.77	0.00	9.86	0.00	0.41	0.24	0.06	0.71	0.90	1.19	0.01	0.35	0.35	0.08	0.43	57.0	0.0	0.	0.00
69	2.300	20.00	0.00	2947.48	0.00	8.64	3.66	0.00	9.79	0.00	0.39	0.23	0.06	0.68	0.88	1.17	0.01	0.35	0.35	0.08	0.43	57.4	0.0	0.	0.00
70	2.200	20.00	0.00	2952.35	0.00	8.68	3.55	0.00	9.73	0.00	0.37	0.23	0.06	0.66	0.86	1.15	0.01	0.34	0.35	0.08	0.43	57.9	0.0	0.	0.00
71	2.100	20.00	0.00	2961.06	0.00	8.72	3.45	0.00	9.68	0.00	0.35	0.23	0.06	0.64	0.85	1.13	0.01	0.34	0.35	0.08	0.43	58.3	0.0	0.	0.00
72	2.000	20.00	0.00	2976.67	0.00	8.75	3.35	0.00	9.62	0.00	0.34	0.22	0.06	0.62	0.84	1.12	0.01	0.34	0.35	0.08	0.42	58.7	0.0	0.	0.00
73	1.900	20.00	0.00	3004.63	0.00	8.78	3.26	0.00	9.55	0.00	0.34	0.22	0.06	0.62	0.84	1.12	0.01	0.34	0.35	0.08	0.42	58.9	0.0	0.	0.00
74	1.800	20.00	0.00	3054.72	0.00	8.79	3.19	0.00	9.48	0.00	0.35	0.22	0.06	0.63	0.85	1.13	0.01	0.34	0.34	0.08	0.42	58.9	0.0	0.	0.00
75	1.700	20.00	0.00	3144.42	0.00	8.77	3.15	0.00	9.39	0.00	0.40	0.22	0.07	0.68	0.90	1.18	0.01	0.34	0.34	0.08	0.42	58.5	0.0	0.	0.00
76	1.600	20.00	0.00	3305.10	0.00	8.69	3.15	0.00	9.27	0.00	0.51	0.22	0.07	0.79	1.00	1.28	0.01	0.33	0.34	0.08	0.41	57.3	0.0	0.	0.00
77	1.500	20.00	0.00	3592.91	0.00	8.51	3.24	0.00	9.08	0.00	0.74	0.22	0.07	1.03	1.20	1.49	0.01	0.32	0.33	0.08	0.40	54.7	0.0	0.	0.00
78	1.400	20.00	0.00	4108.40	0.00	8.15	3.48	0.00	8.80	0.00	1.19	0.23	0.07	1.49	1.62	1.92	0.01	0.31	0.33	0.08	0.39	49.8	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 g/m²
		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	
66	2.600	0.00	0.17	0.19	0.14	0.50	0.90	0.64	0.09	0.181	0.040	0.020	0.027	3.6	55.9	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	0.20	0.14	0.50	0.90	0.64	0.09	0.181	0.040	0.020	0.027	3.6	56.5	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	0.20	0.14	0.50	0.90	0.64	0.09	0.180	0.040	0.020	0.027	3.6	57.0	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	0.21	0.14	0.49	0.90	0.64	0.09	0.180	0.040	0.020	0.027	3.6	57.4	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	0.21	0.14	0.49	0.90	0.63	0.09	0.179	0.040	0.020	0.027	3.6	57.9	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	0.22	0.14	0.49	0.90	0.63	0.09	0.179	0.040	0.020	0.027	3.6	58.3	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
72	2.000	0.00	0.17	0.22	0.14	0.49	0.90	0.63	0.09	0.178	0.040	0.020	0.027	3.6	58.7	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
73	1.900	0.00	0.17	0.22	0.14	0.48	0.89	0.63	0.09	0.178	0.040	0.020	0.027	3.6	58.9	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	0.23	0.14	0.48	0.89	0.63	0.09	0.178	0.040	0.020	0.027	3.6	58.9	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	0.23	0.14	0.48	0.89	0.63	0.09	0.178	0.040	0.020	0.027	3.6	58.5	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
76	1.600	0.00	0.17	0.23	0.14	0.49	0.89	0.63	0.09	0.179	0.040	0.020	0.027	3.6	57.3	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
77	1.500	0.00	0.17	0.24	0.14	0.49	0.89	0.63	0.09	0.181	0.040	0.020	0.027	3.6	54.7	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	0.18	0.24	0.14	0.50	0.89	0.64	0.09	0.184	0.040	0.020	0.027	3.7	49.8	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) — TMDL 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
79	UPR RCH	0.23734	20.00	0.00	4108.40	0.00	8.15	3.48	0.00	8.80	0.00	1.19	0.23	0.07	0.31	49.77	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
79	1.40	1.30	0.23734	48.0	0.00494	0.23	7.62	1.99	24.08	4801.55	2408.00	48.02	8627.29	0.008	1.500	0.009
80	1.30	1.20	0.23734	48.0	0.00494	0.23	7.86	1.99	24.08	4801.55	2408.00	48.02	8771.77	0.008	1.500	0.009
81	1.20	1.10	0.23734	48.0	0.00494	0.23	8.09	1.99	24.08	4801.55	2408.00	48.02	8916.25	0.009	1.500	0.009
82	1.10	1.00	0.23734	48.0	0.00494	0.23	8.33	1.99	24.08	4801.55	2408.00	48.02	9060.73	0.009	1.500	0.009
TOT						0.94				19206.21	9632.00					
AVG					0.0049			1.99	24.08			48.02				

********** 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
79	1.300	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.15	0.00	0.00	0.00	0.00
80	1.200	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.16	0.00	0.00	0.00	0.00
81	1.100	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.16	0.00	0.00	0.00	0.00
82	1.000	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.17	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	0.87			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

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
79	1.300	20.00	0.00	4169.58	0.00	8.00	3.33	0.00	8.59	0.00	1.08	0.25	0.08	1.41	1.50	1.83	0.01	0.31	0.32	0.08	0.39	49.2	0.0	0.	0.00
80	1.200	20.00	0.00	4230.02	0.00	7.88	3.23	0.00	8.43	0.00	1.00	0.26	0.09	1.35	1.42	1.76	0.01	0.31	0.32	0.08	0.38	48.7	0.0	0.	0.00
81	1.100	20.00	0.00	4310.37	0.00	7.74	3.14	0.00	8.26	0.00	0.93	0.27	0.09	1.29	1.33	1.69	0.01	0.30	0.32	0.08	0.38	48.0	0.0	0.	0.00
82	1.000	20.00	0.00	4417.19	0.00	7.58	3.06	0.00	8.07	0.00	0.85	0.28	0.10	1.22	1.24	1.62	0.01	0.30	0.31	0.07	0.37	47.0	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																										
79	1.300	0.00	0.18	0.24	0.05	0.52	0.89	0.66	0.03	0.069	0.040	0.020	0.010	1.4	49.2	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	0.18	0.25	0.05	0.53	0.88	0.67	0.04	0.070	0.040	0.020	0.010	1.4	48.7	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0
0.0																										
81	1.100	0.00	0.18	0.25	0.05	0.55	0.88	0.67	0.04	0.071	0.040	0.020	0.010	1.4	48.0	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	0.18	0.26	0.05	0.56	0.88	0.68	0.04	0.072	0.040	0.020	0.010	1.4	47.0	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) — TMDL 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
83	UPR RCH	0.23734	20.00	0.00	4417.19	0.00	7.58	3.06	0.00	8.07	0.00	0.85	0.28	0.10	0.30	46.99	0.00	0.00
88	WSTLD	0.05700	20.00	0.00	7969.00	7969.00	6.50	6.80	0.00	6.80	0.00	0.83	0.68	0.03	0.15	17.41	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
83	1.00	0.90	0.23734	48.0	0.00349	0.33	8.66	1.99	34.08	6795.55	3408.00	67.96	9265.21	0.006	1.500	0.007
84	0.90	0.80	0.23734	48.0	0.00349	0.33	8.99	1.99	34.08	6795.55	3408.00	67.96	9469.69	0.006	1.500	0.007
85	0.80	0.70	0.23734	48.0	0.00349	0.33	9.32	1.99	34.08	6795.55	3408.00	67.96	9674.17	0.007	1.500	0.007
86	0.70	0.60	0.23734	48.0	0.00349	0.33	9.65	1.99	34.08	6795.55	3408.00	67.96	9878.65	0.007	1.500	0.007
87	0.60	0.50	0.23734	48.0	0.00349	0.33	9.98	1.99	34.08	6795.55	3408.00	67.96	10083.13	0.007	1.500	0.007
88	0.50	0.40	0.29434	58.1	0.00433	0.27	10.25	1.99	34.08	6795.55	3408.00	67.96	10287.61	0.007	1.500	0.008
89	0.40	0.30	0.29434	58.1	0.00433	0.27	10.52	1.99	34.08	6795.55	3408.00	67.96	10492.09	0.007	1.500	0.008
90	0.30	0.20	0.29434	58.1	0.00433	0.27	10.78	1.99	34.08	6795.55	3408.00	67.96	10696.57	0.007	1.500	0.008
91	0.20	0.10	0.29434	58.1	0.00433	0.27	11.05	1.99	34.08	6795.55	3408.00	67.96	10901.05	0.007	1.500	0.008
92	0.10	0.00	0.29434	58.1	0.00433	0.27	11.32	1.99	34.08	6795.55	3408.00	67.96	11105.53	0.008	1.500	0.008
TOT						2.99				67955.52	34080.00					
AVG					0.0039			1.99	34.08			67.96				

********** 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
83	0.900	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.17	0.00	0.00	0.00	0.00
84	0.800	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.17	0.00	0.00	0.00	0.00
85	0.700	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.16	0.00	0.00	0.00	0.00
86	0.600	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.16	0.00	0.00	0.00	0.00
87	0.500	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.15	0.00	0.00	0.00	0.00
88	0.400	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.14	0.00	0.00	0.00	0.00
89	0.300	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.12	0.00	0.00	0.00	0.00
90	0.200	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.10	0.00	0.00	0.00	0.00
91	0.100	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.07	0.00	0.00	0.00	0.00
92	0.000	9.09	0.35	0.10	0.10	0.00	0.00	0.00	0.00	0.00	1.74	1.74	1.74	0.10	0.25	0.12	0.00	0.00	0.05	0.50	0.00	0.03	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	1.74			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  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

  83    0.900  20.00  0.00  4534.80     0.00   7.42   3.00   0.00   7.90   0.00   0.78   0.29   0.10   1.16   1.17   1.55   0.01   0.29   0.31   0.07   0.37   45.9
0.0       0.    0.00
  84    0.800  20.00  0.00  4662.53     0.00   7.28   2.97   0.00   7.75   0.00   0.72   0.29   0.10   1.11   1.10   1.50   0.01   0.29   0.30   0.07   0.36   44.8
0.0       0.    0.00
  85    0.700  20.00  0.00  4820.01     0.00   7.15   2.98   0.00   7.60   0.00   0.67   0.29   0.11   1.07   1.04   1.44   0.02   0.28   0.30   0.07   0.35   43.3
0.0       0.    0.00
  86    0.600  20.00  0.00  5014.16     0.00   7.03   3.02   0.00   7.46   0.00   0.63   0.30   0.11   1.03   0.98   1.38   0.02   0.27   0.29   0.07   0.35   41.5
0.0       0.    0.00
  87    0.500  20.00  0.00  5253.51     0.00   6.92   3.12   0.00   7.32   0.00   0.59   0.30   0.10   0.99   0.93   1.33   0.02   0.26   0.29   0.07   0.34   39.3
0.0       0.    0.00
  88    0.400  20.00  0.00  5548.59     0.00   6.82   3.28   0.00   7.18   0.00   0.56   0.30   0.10   0.96   0.87   1.27   0.03   0.25   0.28   0.08   0.33   36.5
0.0       0.    0.00
  89    0.300  20.00  0.00  5777.03     0.00   6.73   3.33   0.00   6.98   0.00   0.53   0.27   0.09   0.89   0.82   1.18   0.03   0.24   0.27   0.07   0.32   34.2
0.0       0.    0.00
  90    0.200  20.00  0.00  6071.44     0.00   6.66   3.44   0.00   6.77   0.00   0.49   0.24   0.08   0.82   0.76   1.08   0.03   0.23   0.26   0.07   0.30   31.2
0.0       0.    0.00
  91    0.100  20.00  0.00  6450.85     0.00   6.59   3.63   0.00   6.54   0.00   0.46   0.20   0.07   0.74   0.69   0.97   0.04   0.21   0.25   0.07   0.29   27.3
0.0       0.    0.00
  92    0.000  20.00  0.00  6939.83     0.00   6.54   3.92   0.00   6.30   0.00   0.44   0.15   0.05   0.64   0.63   0.83   0.05   0.19   0.24   0.08   0.27   22.3
0.0       0.    0.00

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

 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

   83    0.900   0.00   0.18    0.26 0.05 0.56 0.88 0.69 0.04  0.073  0.040  0.020  0.010   1.5   45.9    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   0.18    0.26 0.05 0.57 0.88 0.69 0.04  0.073  0.040  0.020  0.010   1.5   44.8    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   0.18    0.26 0.05 0.57 0.88 0.69 0.04  0.073  0.040  0.020  0.010   1.5   43.3    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   86    0.600   0.00   0.18    0.26 0.05 0.57 0.87 0.69 0.04  0.073  0.040  0.020  0.010   1.5   41.5    0.21 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   0.18    0.26 0.05 0.57 0.87 0.69 0.04  0.074  0.040  0.020  0.010   1.5   39.3    0.22 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   0.18    0.25 0.05 0.57 0.86 0.68 0.04  0.073  0.040  0.020  0.010   1.5   36.5    0.23 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   0.18    0.25 0.05 0.55 0.86 0.67 0.04  0.072  0.040  0.020  0.010   1.4   34.2    0.24 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    0.26 0.05 0.52 0.85 0.65 0.04  0.070  0.040  0.020  0.010   1.4   31.2    0.25 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 0.48 0.84 0.61 0.03  0.066  0.040  0.020  0.010   1.3   27.3    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   0.19    0.27 0.06 0.40 0.83 0.54 0.03  0.060  0.040  0.020  0.010   1.2   22.3    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
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TMDL Simulation with Algal Dynamics

REACH SUMMARY REPORT: Cross Bayou Canal

RCH NO.	REACH NAME	BEGIN DIST km	ENDING DIST km	REACH LENGTH km	TRAVEL TIME days	FLOW AT RCH END m3/s	AVG VELO m/s	AVG DEPTH m	AVG WIDTH m	FLOW AT RCH END cfs	AVG VELO fps	AVG DEPTH ft	AVG WIDTH ft
1	Cross Bayou Canal 1	9.20	7.40	1.80	2.16	0.12334	0.00964	0.823	15.54	4.355	0.032	2.700	50.99
2	Cross Bayou Canal 2	7.40	5.20	2.20	1.87	0.12334	0.01360	0.488	18.59	4.355	0.045	1.601	60.99
3	Bayou LaBranche (CBC to LABR3)	5.20	4.50	0.70	0.56	0.18034	0.01435	0.500	18.00	6.368	0.047	1.640	59.06
4	Bayou LaBranche (CBC to LABR3)	4.50	2.70	1.80	1.55	0.18034	0.01347	0.732	18.29	6.368	0.044	2.402	60.01
5	Bayou LaBranche (LABR3 to BT)	2.70	1.40	1.30	1.24	0.23734	0.01209	0.732	20.76	8.380	0.040	2.402	68.11
6	Bayou LaBranche (BT to LGLD)	1.40	1.00	0.40	0.94	0.23734	0.00494	1.994	24.08	8.380	0.016	6.542	79.01
7	Bayou LaBranche (LGLD to LP)	1.00	0.00	1.00	2.99	0.29434	0.00387	1.994	34.08	10.393	0.013	6.542	111.82

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

STREAM SUMMARY REPORT: Cross Bayou Canal

TRAVEL TIME	=	11.32	DAYS		
MAXIMUM EFFLUENT	=	58.10	PERCENT		
FLOW	=	0.12334	TO	0.29434	m^3/s
DISPERSION	=	1.5000	TO	1.5000	m^2/s
VELOCITY	=	0.00349	TO	0.02004	m/s
DEPTH	=	0.49	TO	1.99	m
WIDTH	=	15.54	TO	34.08	m
BOD DECAY	=	0.10	TO	0.10	per day
NH3 DECAY	=	0.12	TO	0.12	per day
SOD	=	0.44	TO	2.61	$g/m^2/d$
NH3 SED SOURCE	=	0.00	TO	0.00	$g/m^2/d$
PO4 SED SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.35	TO	2.03	per day
BOD SETTLING	=	0.10	TO	0.41	per day
ORG-N DECAY	=	0.10	TO	0.10	per day
ORG-N SETTLING	=	0.25	TO	1.02	per day
TEMPERATURE	=	20.00	TO	20.00	deg C
DISSOLVED OXYGEN	=	6.34	TO	8.79	mg/L

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

INPUT/OUTPUT LOADING SUMMARY

	FLOW m^3/s	DO kg/d	BOD1 kg/d	BOD2 kg/d	ORG-N kg/d	NH3-N kg/d	NO3-N kg/d	ORG-P kg/d	PO4-P kg/d	CHL A	PERIP	NCM
HEADWATER FLOW	0.12333	69.26	277.51	0.00	9.20	0.80	0.32	1.63	3.99	346.84		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	0.17101	96.04	137.96	0.00	59.55	7.14	0.44	2.45	3.86	451.07		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	-0.29434	-166.30	-99.66	0.00	-11.07	-3.74	-1.37	-1.19	-4.95	-567.33		0.00
DISPERSION THRU LOWER BNDRY		-3.44	38.22	0.00	-2.02	-6.36	-2.11	1.13	-2.27	-565.28		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
NATURAL REAERATION		227.84										
DAM REAERATION		0.00										
SOD BACKGROUND		-186.84										
BOD1 DECAY		-108.44	-108.44									
BOD1 SETTLING		0.00	-261.87									
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			-10.39	10.39						
ORG-N SETTLING					-46.55	0.00						
NH3-N DECAY (NITRIFICATION)		-19.59				-4.52	4.52					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								-0.21	0.21			
ORG-P SETTLING								-4.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		152.68				-6.31	-1.80		-1.24	954.22		
PHYTOPLANKTON RESPIRATION/EXCRETION		-60.96				2.59			0.40	-304.80		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	-160.81		
PHYTOPLANKTON DEATH			16.28	0.00	1.30			0.20		-152.40		
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	0.29434	545.81	469.97	0.00	70.04	20.92	5.29	5.40	8.45	1752.13	0.00	0.00
TOTAL OUTPUTS	-0.29434	-545.57	-469.97	0.00	-70.04	-20.94	-5.28	-5.40	-8.46	-1750.62	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.24	0.00	0.00	0.00	-0.02	0.01	0.00	0.00	1.52	0.00	0.00

.....EXECUTION COMPLETED

APPENDIX J:
Baseline Water Quality Plots

Figure J-1. Summer DO baseline results for subsegment 041201. ..... J-1
Figure J-2. Summer $CBOD_u$ baseline results for subsegment 041201. ..... J-1
Figure J-3. Summer ammonia baseline results for subsegment 041201. ..... J-2
Figure J-4. Summer organic nitrogen baseline results for subsegment 041201. ..... J-2
Figure J-5. Summer organic phosphorus baseline results for subsegment 041201..... J-3
Figure J-6. Summer dissolved inorganic phosphorus baseline results for subsegment 041201. ..... J-3
Figure J-7. Summer chlorophyl *a* baseline results for subsegment 041201..... J-4
Figure J-8. Winter DO baseline results for subsegment 041201. ..... J-4
Figure J-9. Winter $CBOD_u$ baseline results for subsegment 041201. ..... J-5
Figure J-10. Winter ammonia baseline results for subsegment 041201. ..... J-5
Figure J-11. Winter organic nitrogen baseline results for subsegment 041201..... J-6
Figure J-12. Winter organic phosphorus baseline results for subsegment 041201..... J-6
Figure J-13. Winter dissolved inorganic phosphorus baseline results for subsegment 041201. ..... J-7
Figure J-14. Winter chlorophyl *a* baseline results for subsegment 041201..... J-7

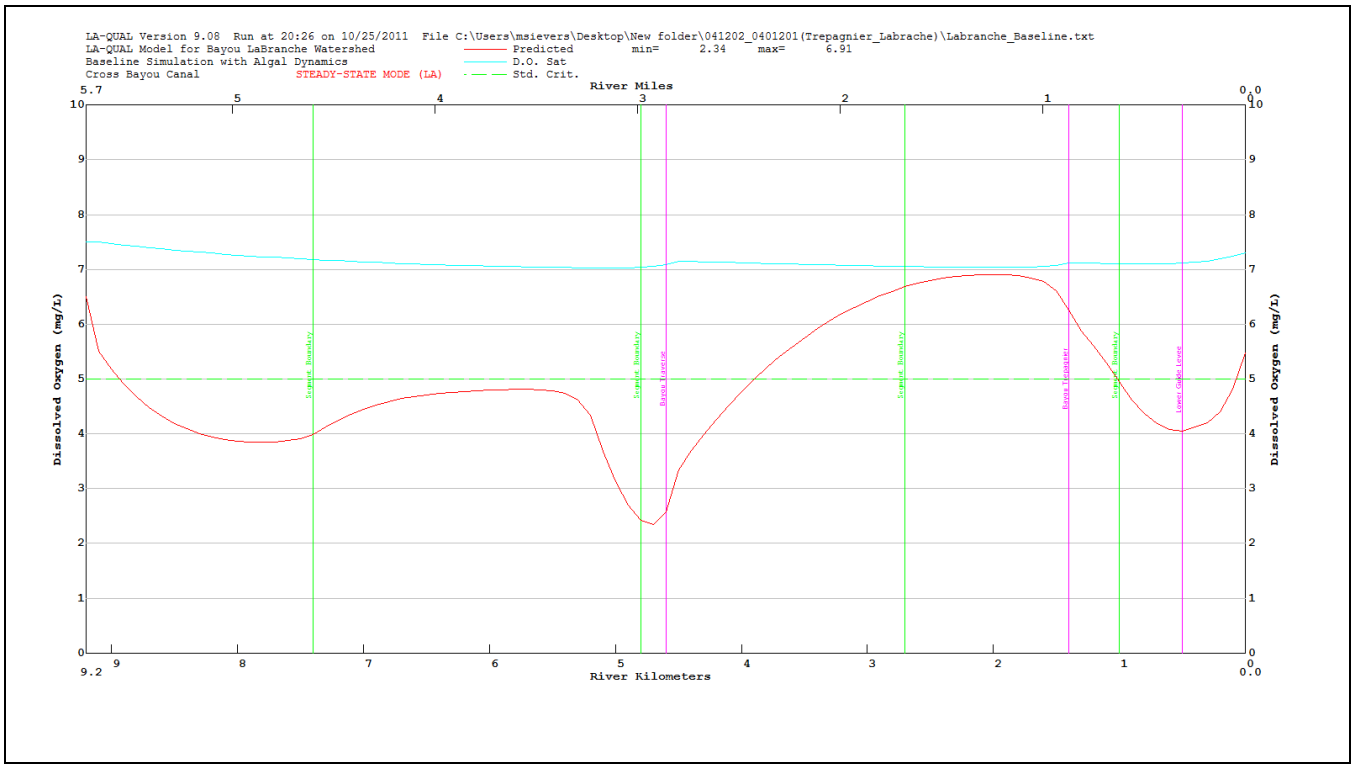

Figure J-1. Summer DO baseline results for subsegment 041201.

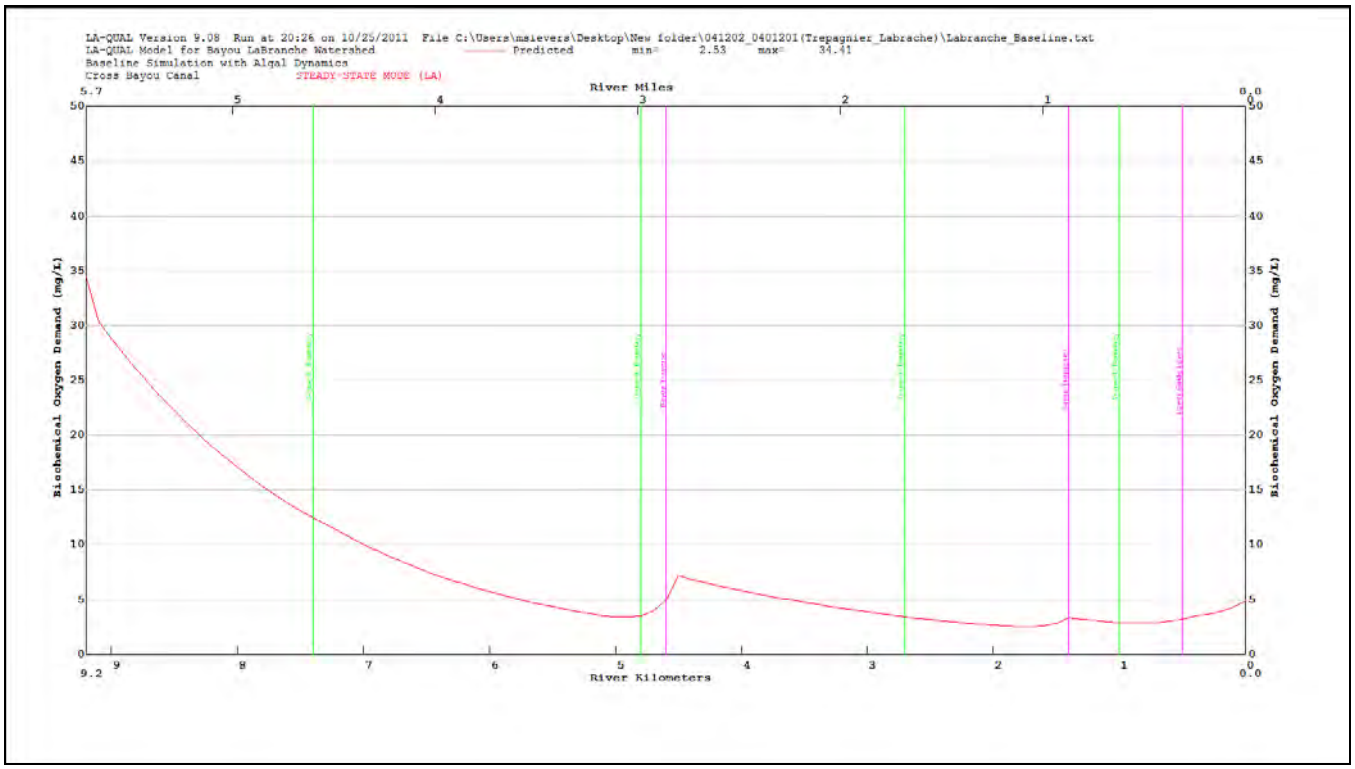

Figure J-2. Summer $CBOD_u$ baseline results for subsegment 041201.

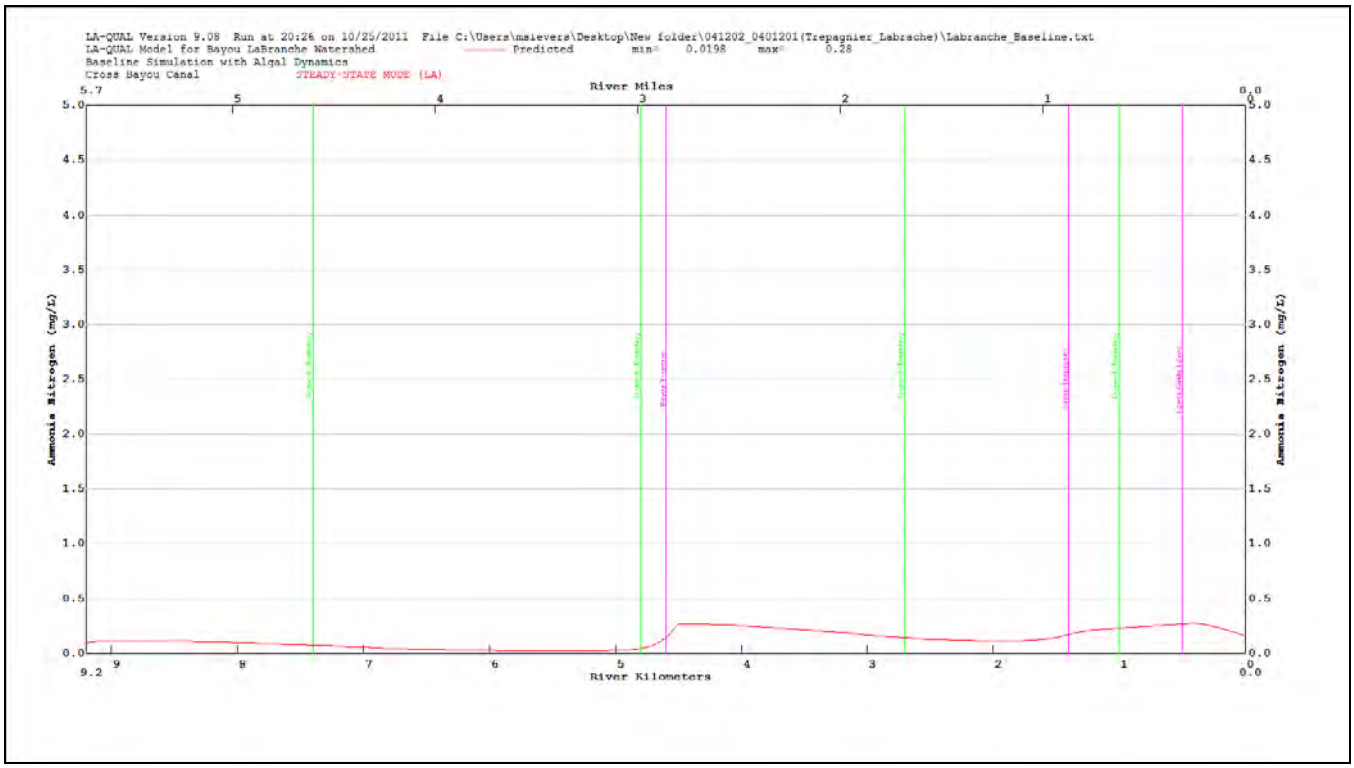

Figure J-3. Summer ammonia baseline results for subsegment 041201.

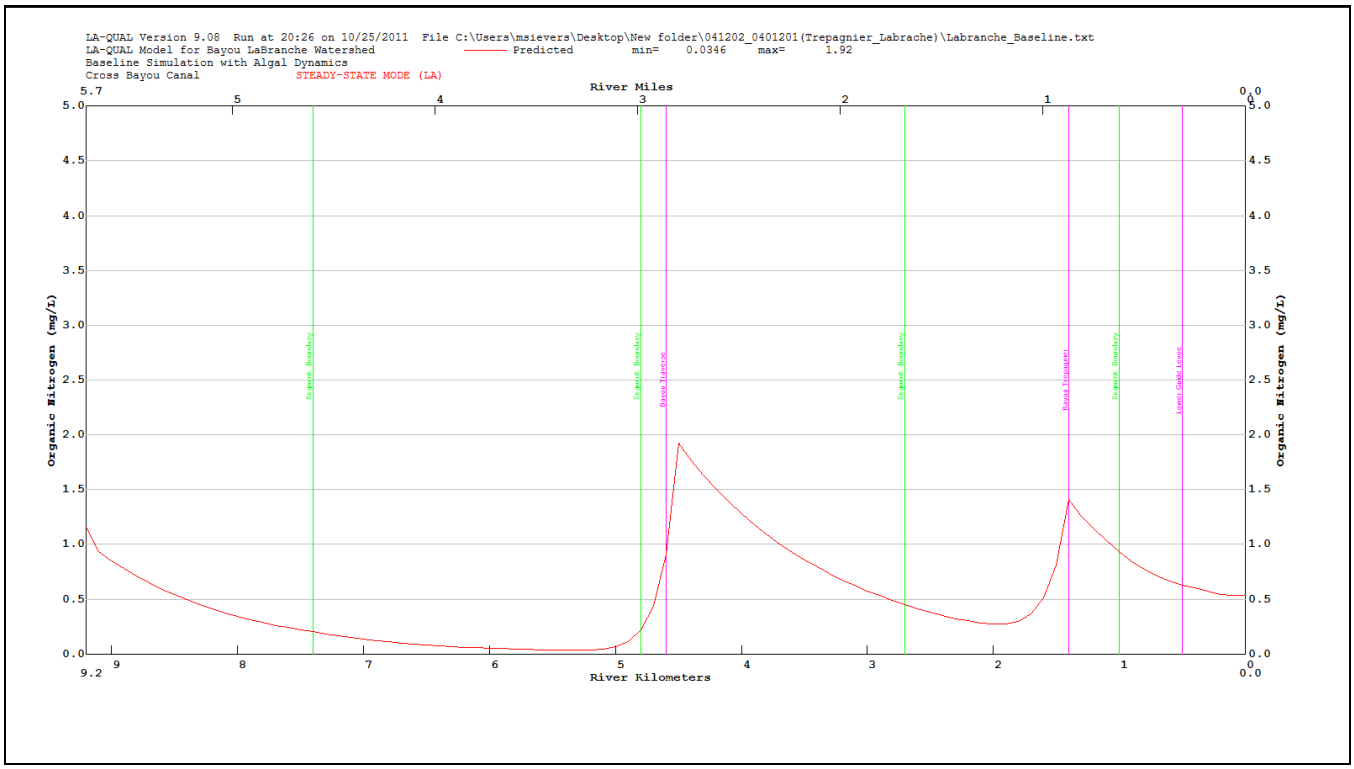

Figure J-4. Summer organic nitrogen baseline results for subsegment 041201.

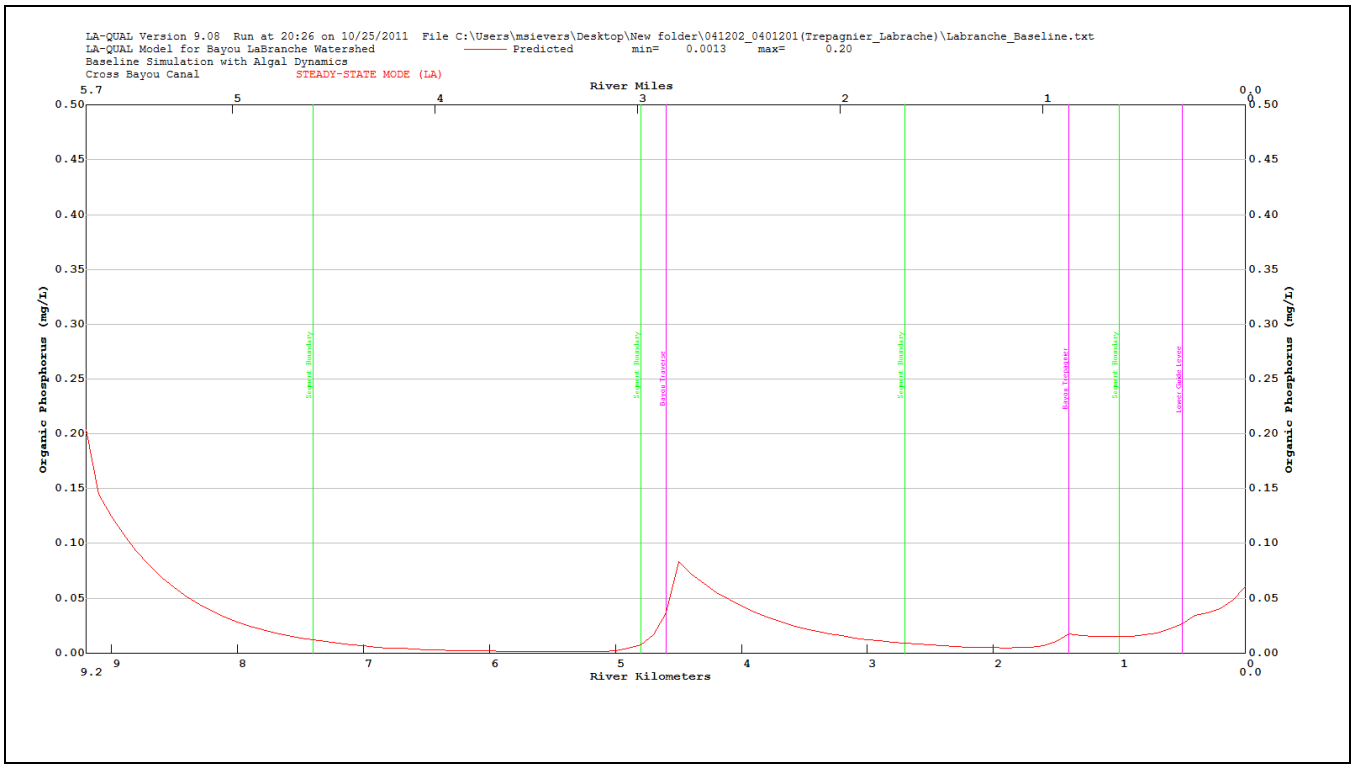

Figure J-5. Summer organic phosphorus baseline results for subsegment 041201.

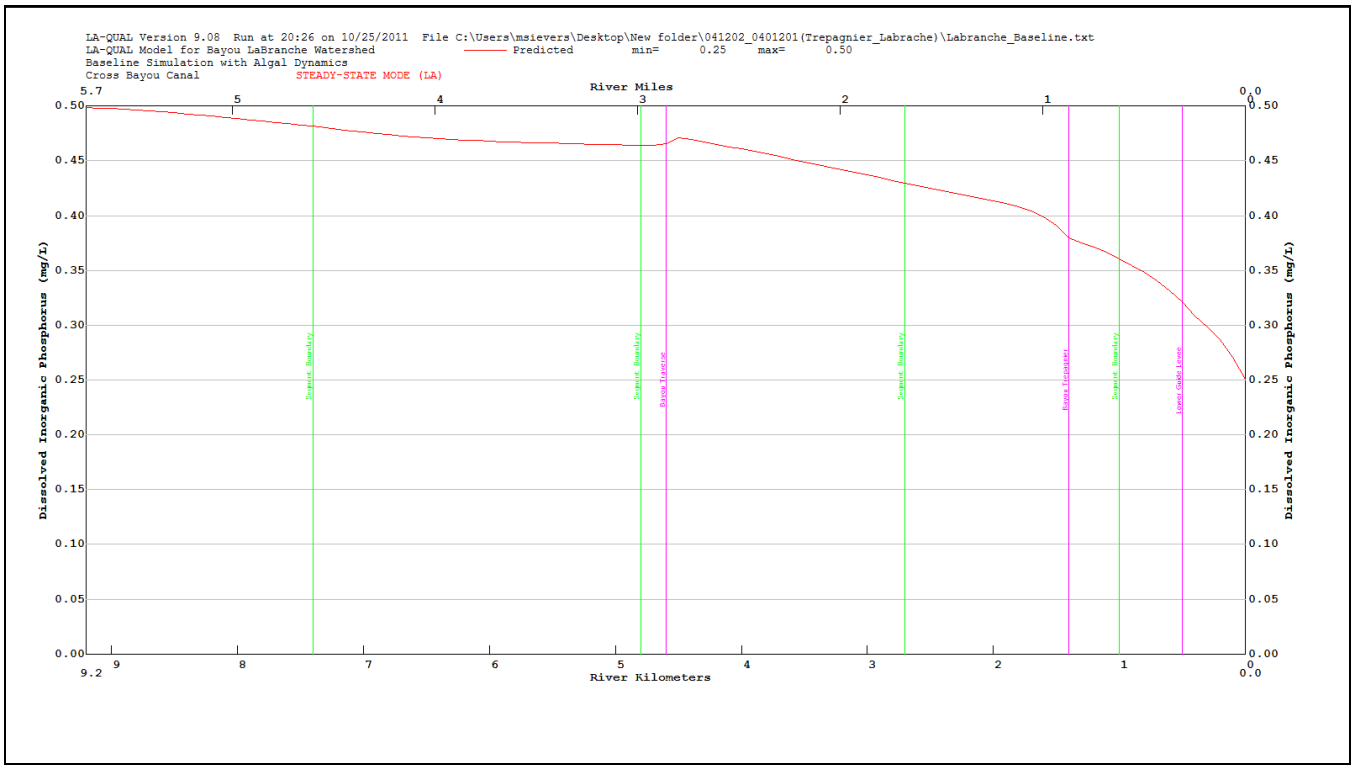

Figure J-6. Summer dissolved inorganic phosphorus baseline results for subsegment 041201.

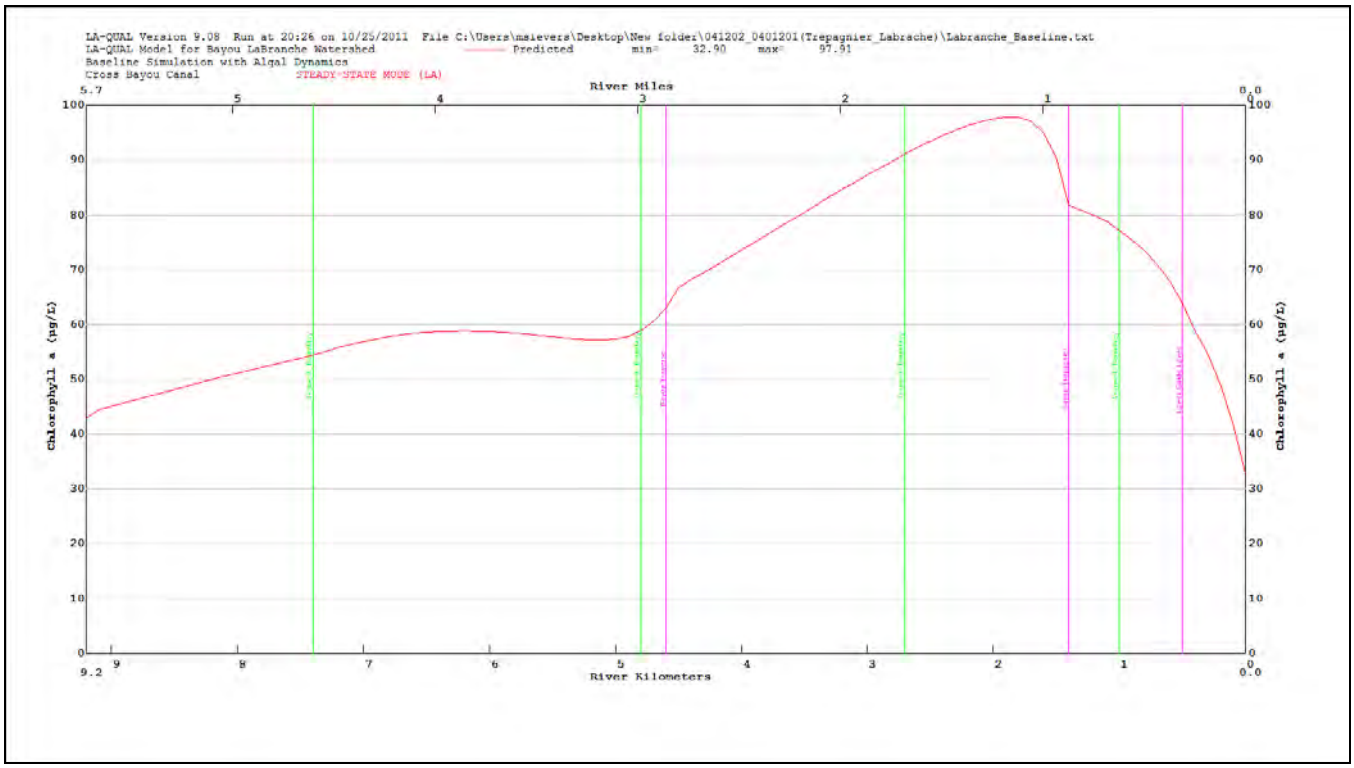

Figure J-7. Summer chlorophyl *a* baseline results for subsegment 041201.

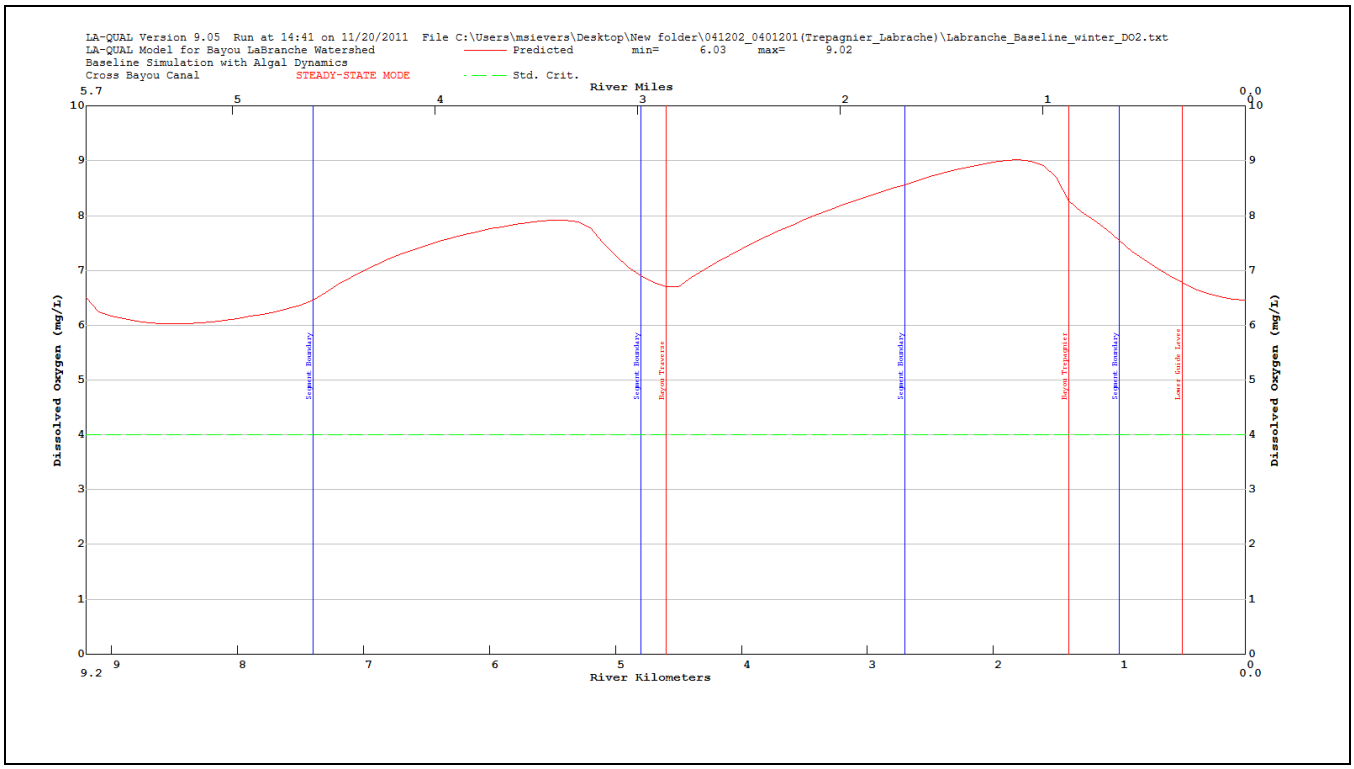

Figure J-8. Winter DO baseline results for subsegment 041201.

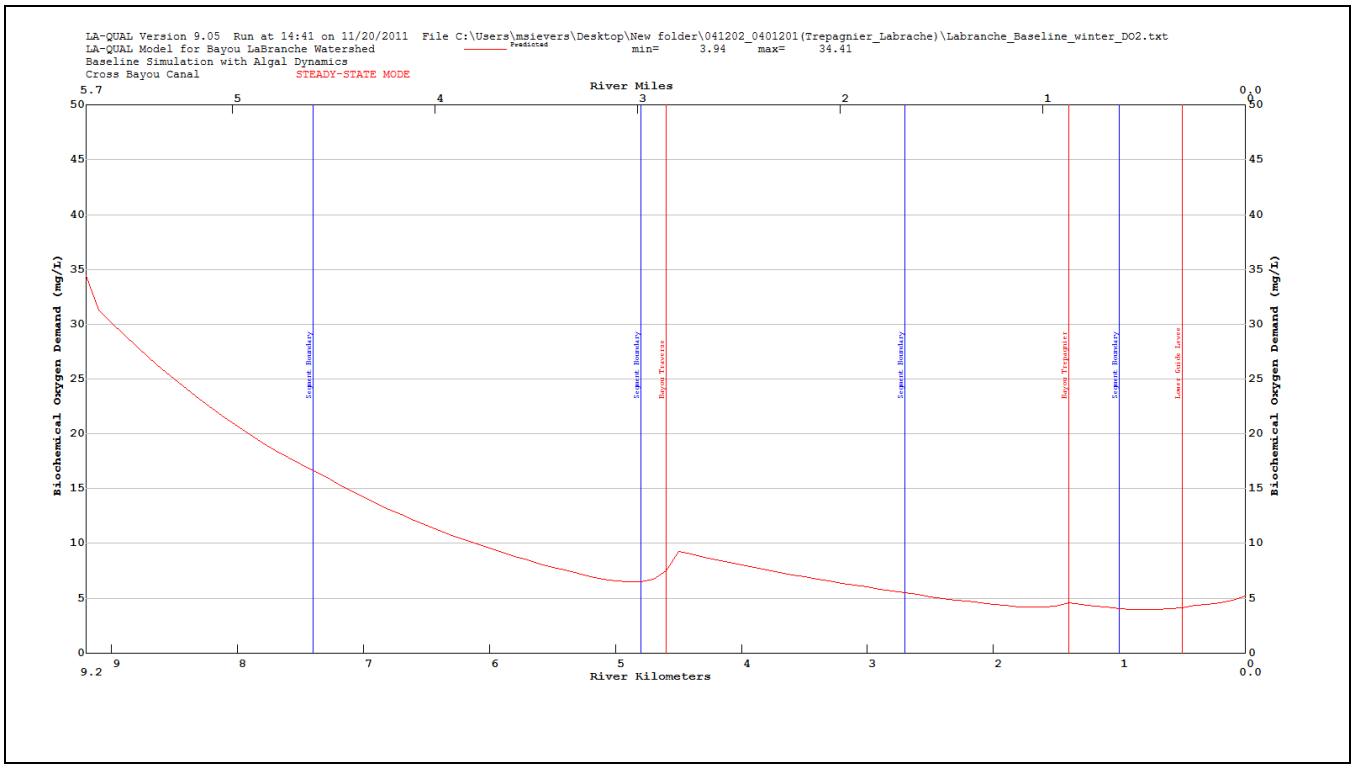

Figure J-9. Winter $CBOD_u$ baseline results for subsegment 041201.

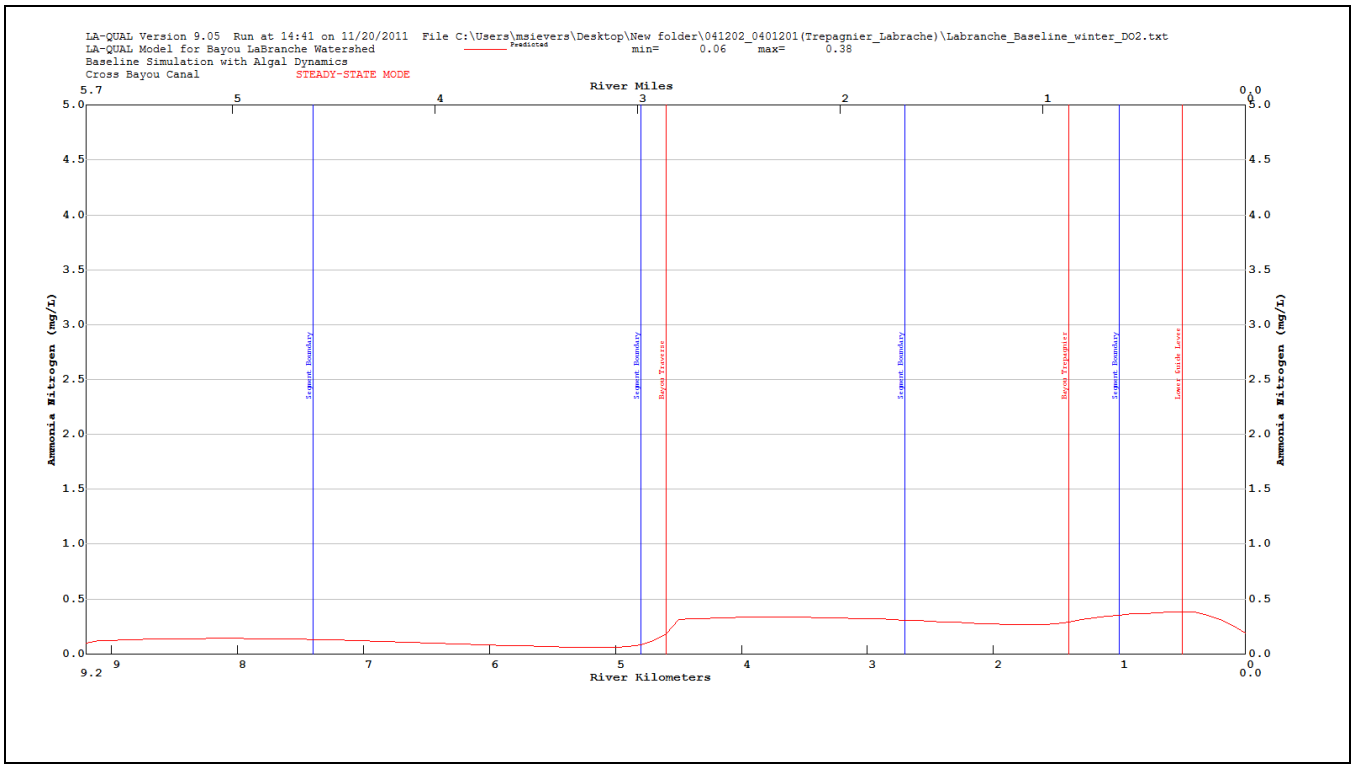

Figure J-10. Winter ammonia baseline results for subsegment 041201.

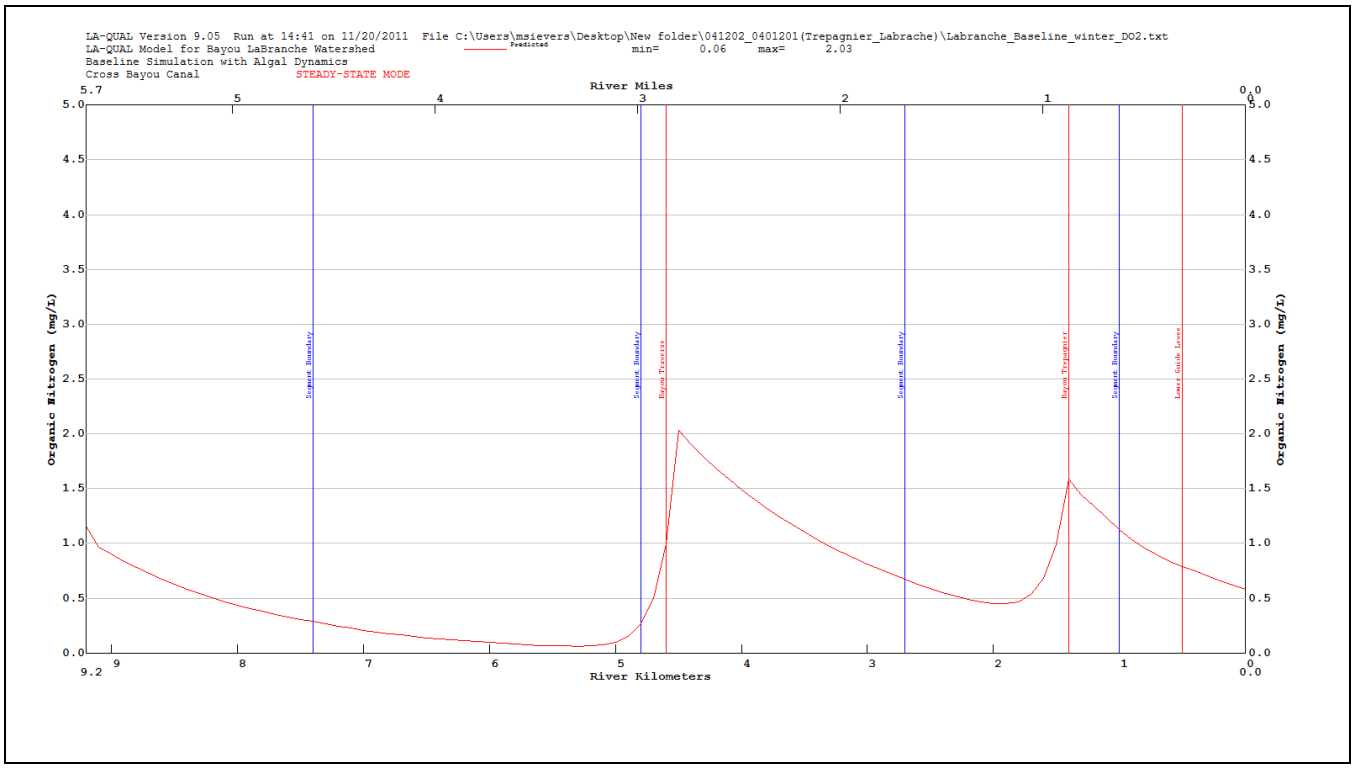

Figure J-11. Winter organic nitrogen baseline results for subsegment 041201.

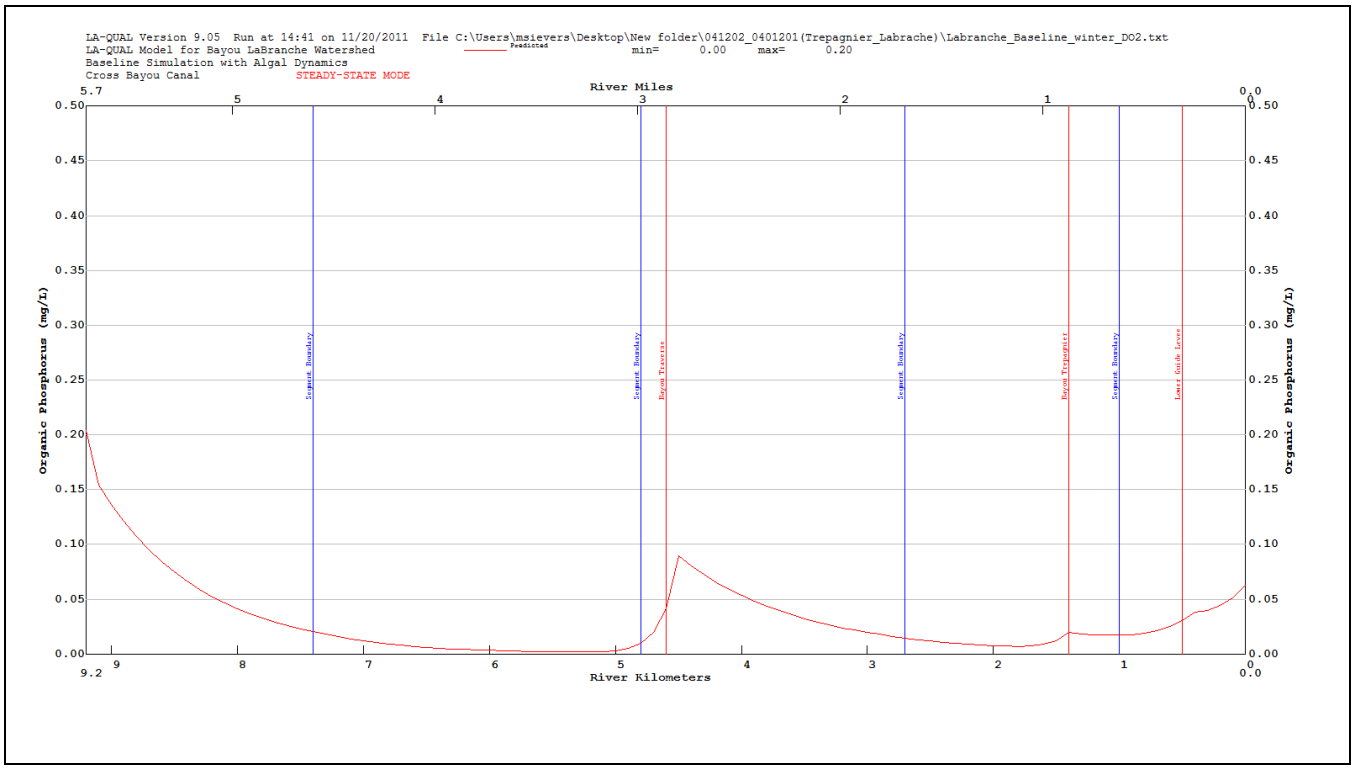

Figure J-12. Winter organic phosphorus baseline results for subsegment 041201.

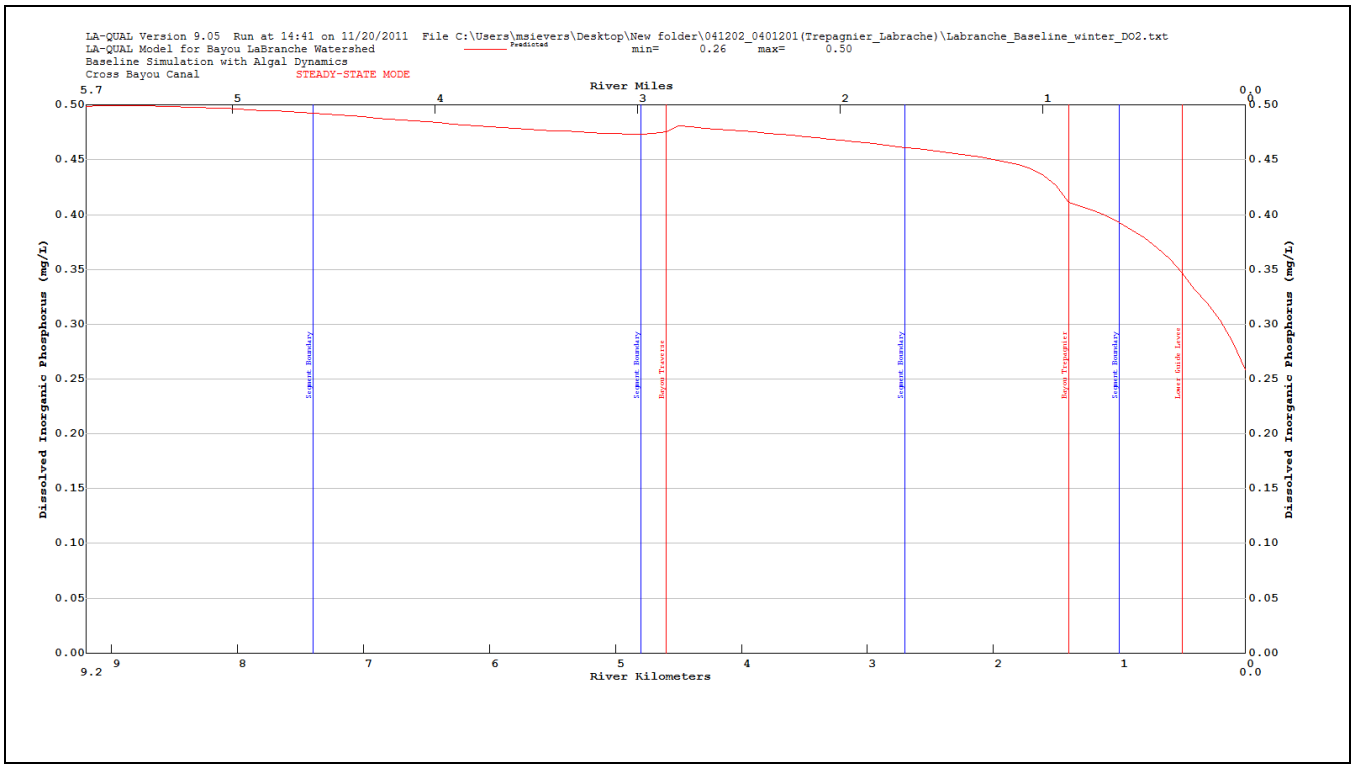

Figure J-13. Winter dissolved inorganic phosphorus baseline results for subsegment 041201.

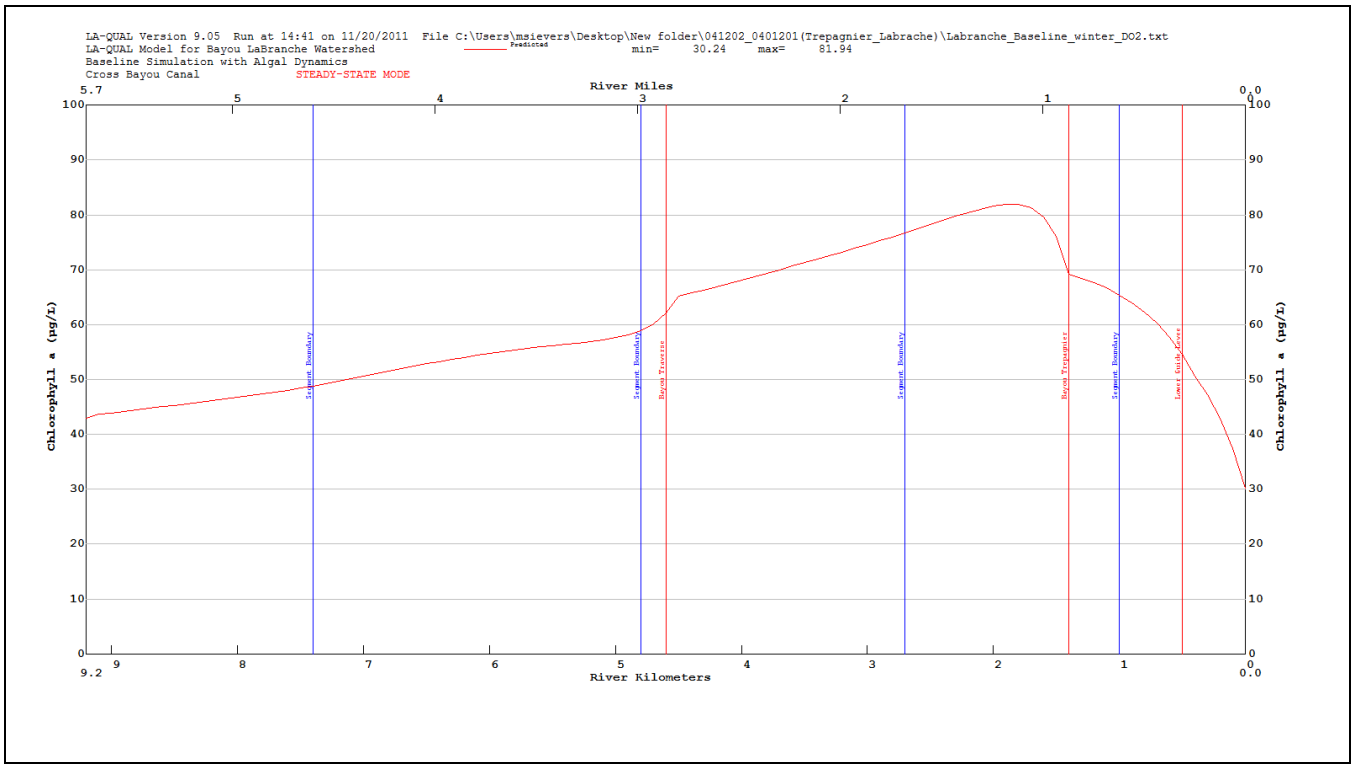

Figure J-14. Winter chlorophyl *a* baseline results for subsegment 041201.

APPENDIX K:
TMDL Water Quality Plots

Figure K-1. Summer DO TMDL results for subsegment 041201. .....K-1
Figure K-2. Summer $CBOD_u$ TMDL results for subsegment 041201. .....K-1
Figure K-3. Summer ammonia TMDL results for subsegment 041201. .....K-2
Figure K-4. Summer organic nitrogen TMDL results for subsegment 041201. .....K-2
Figure K-5. Summer organic phosphorus TMDL results for subsegment 041201.....K-3
Figure K-6. Summer dissolved inorganic phosphorus TMDL results for subsegment 041201. .....K-3
Figure K-7. Summer conductivity TMDL results for subsegment 041201. .....K-4
Figure K-8. Summer temperature TMDL results for subsegment 041201.....K-4
Figure K-9. Summer chlorophyll *a* TMDL results for subsegment 041201.....K-5
Figure K-10. Winter DO TMDL results for subsegment 041201. .....K-5
Figure K-11. Winter $CBOD_u$ TMDL results for subsegment 041201. .....K-6
Figure K-12. Winter ammonia TMDL results for subsegment 041201. .....K-6
Figure K-13. Winter organic nitrogen TMDL results for subsegment 041201. .....K-7
Figure K-14. Winter organic phosphorus TMDL results for subsegment 041201.....K-7
Figure K-15. Winter dissolved inorganic phosphorus TMDL results for subsegment 041201. .....K-8
Figure K-16. Winter conductivity TMDL results for subsegment 041201. .....K-8
Figure K-17. Winter temperature TMDL results for subsegment 041201.....K-9
Figure K-18. Winter chlorophyll *a* TMDL results for subsegment 041201.....K-9

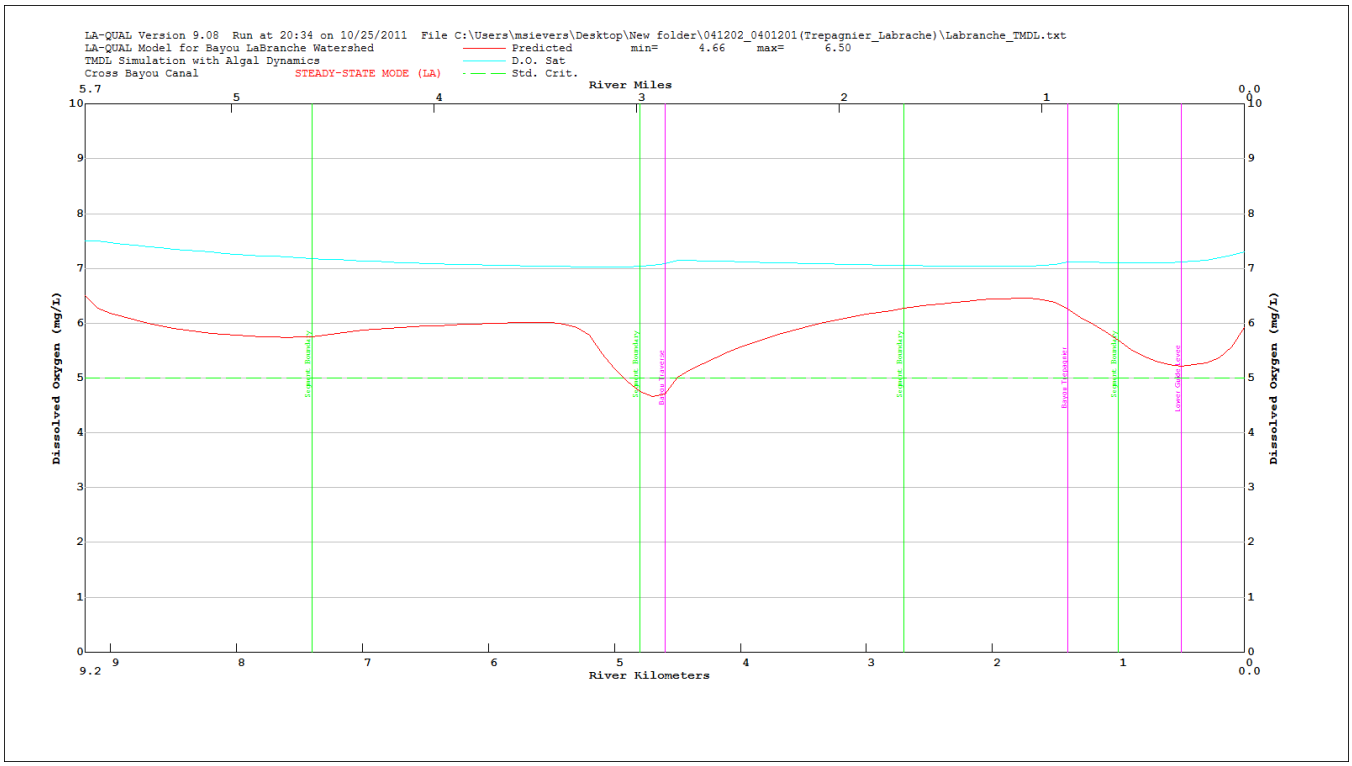

Figure K-1. Summer DO TMDL results for subsegment 041201.

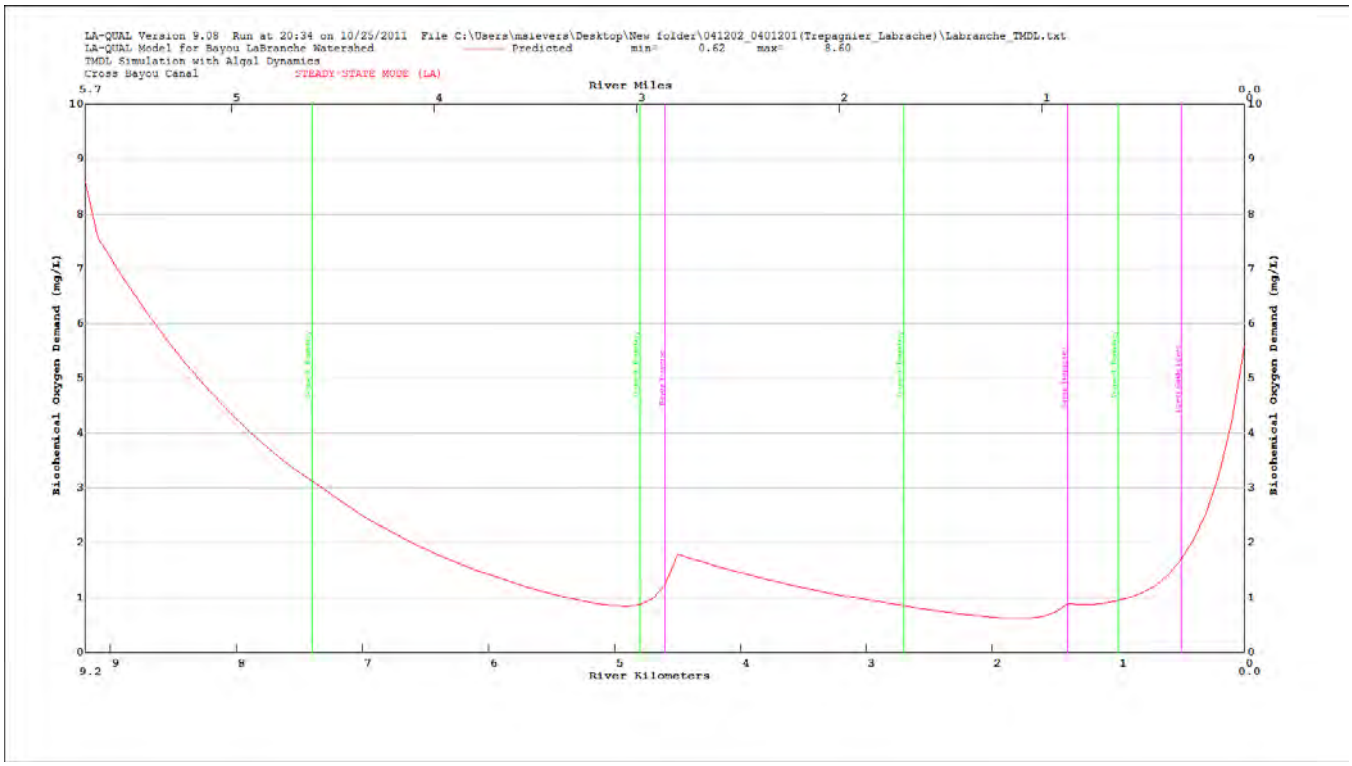

Figure K-2. Summer $CBOD_u$ TMDL results for subsegment 041201.

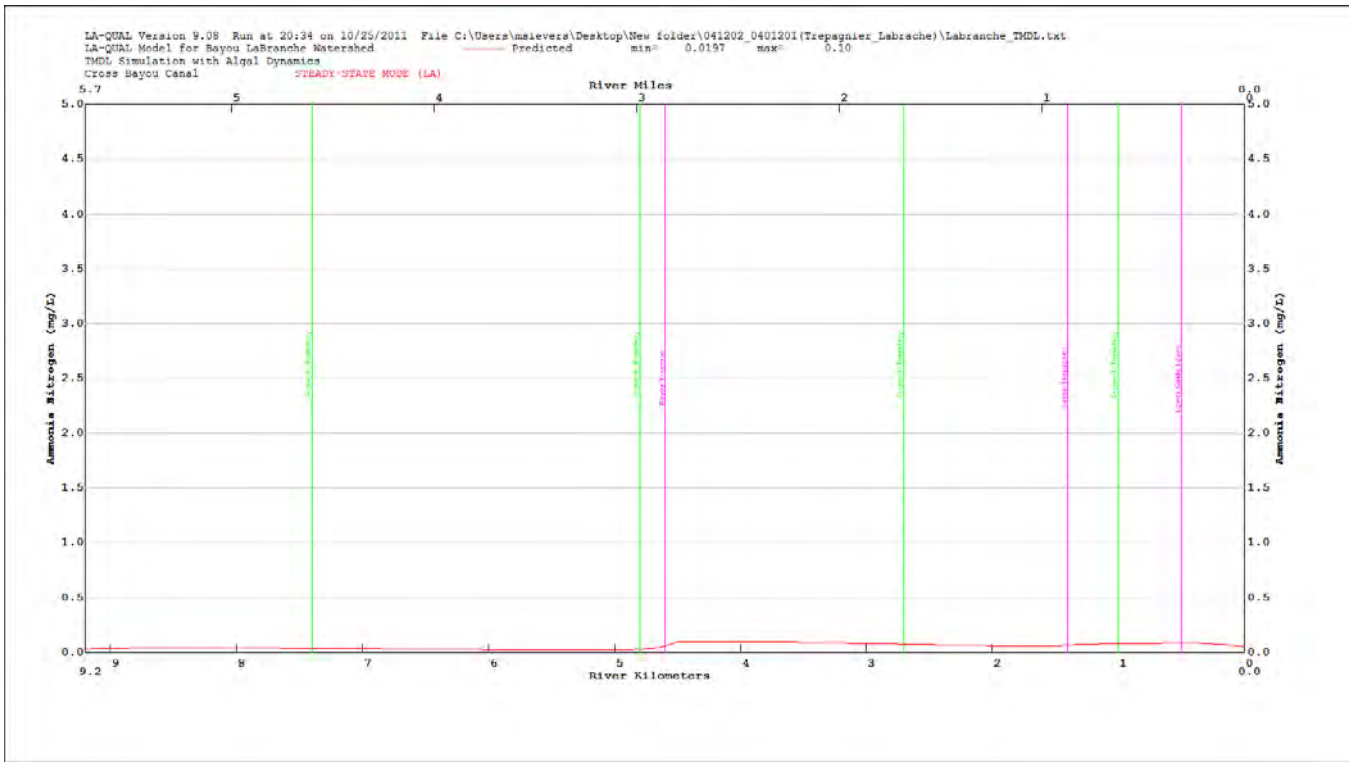

Figure K-3. Summer ammonia TMDL results for subsegment 041201.

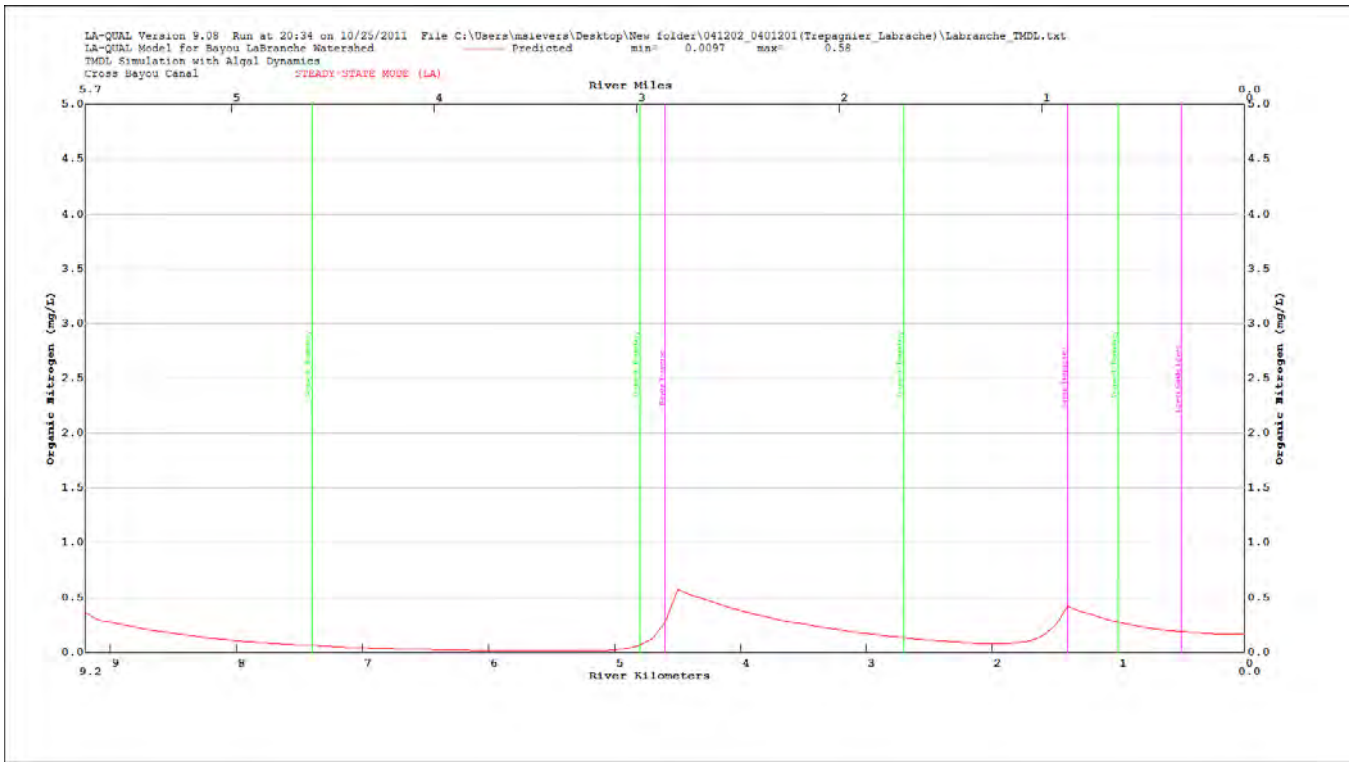

Figure K-4. Summer organic nitrogen TMDL results for subsegment 041201.

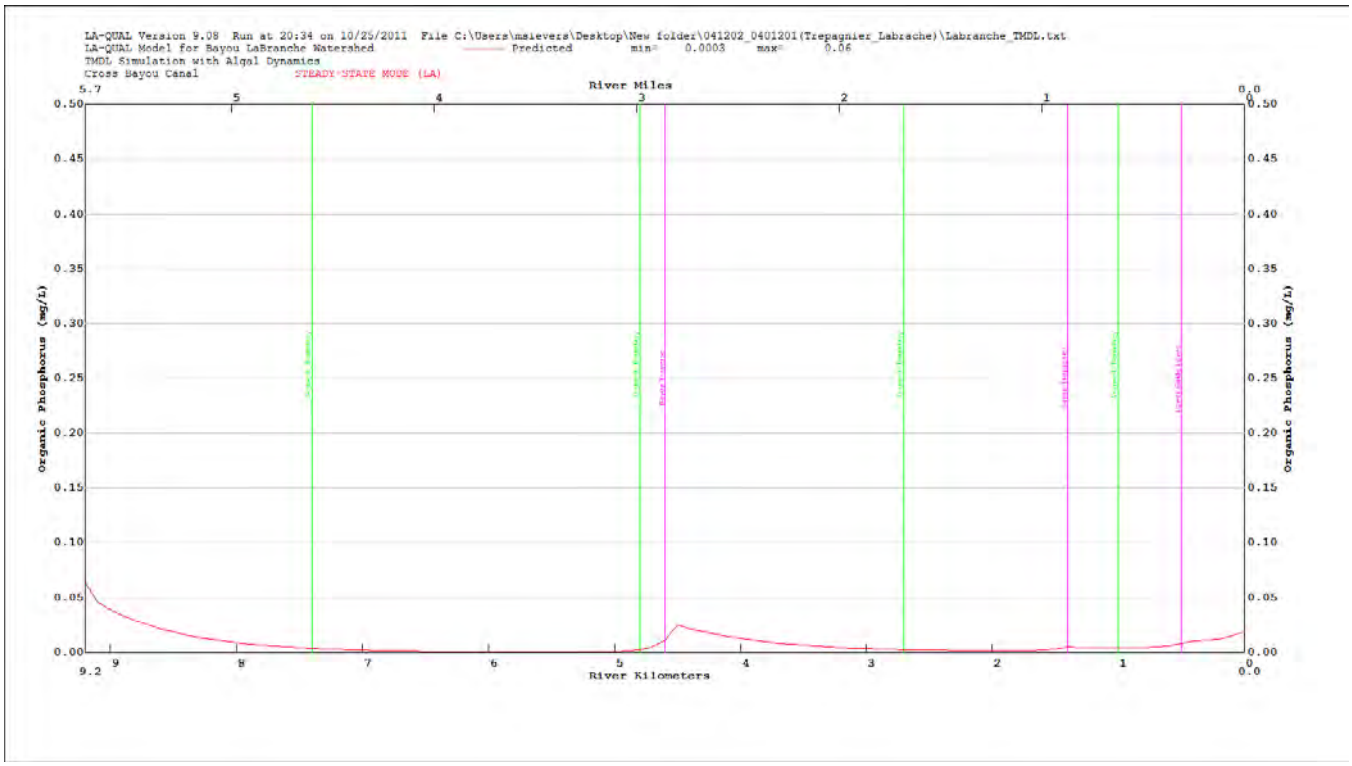

Figure K-5. Summer organic phosphorus TMDL results for subsegment 041201.

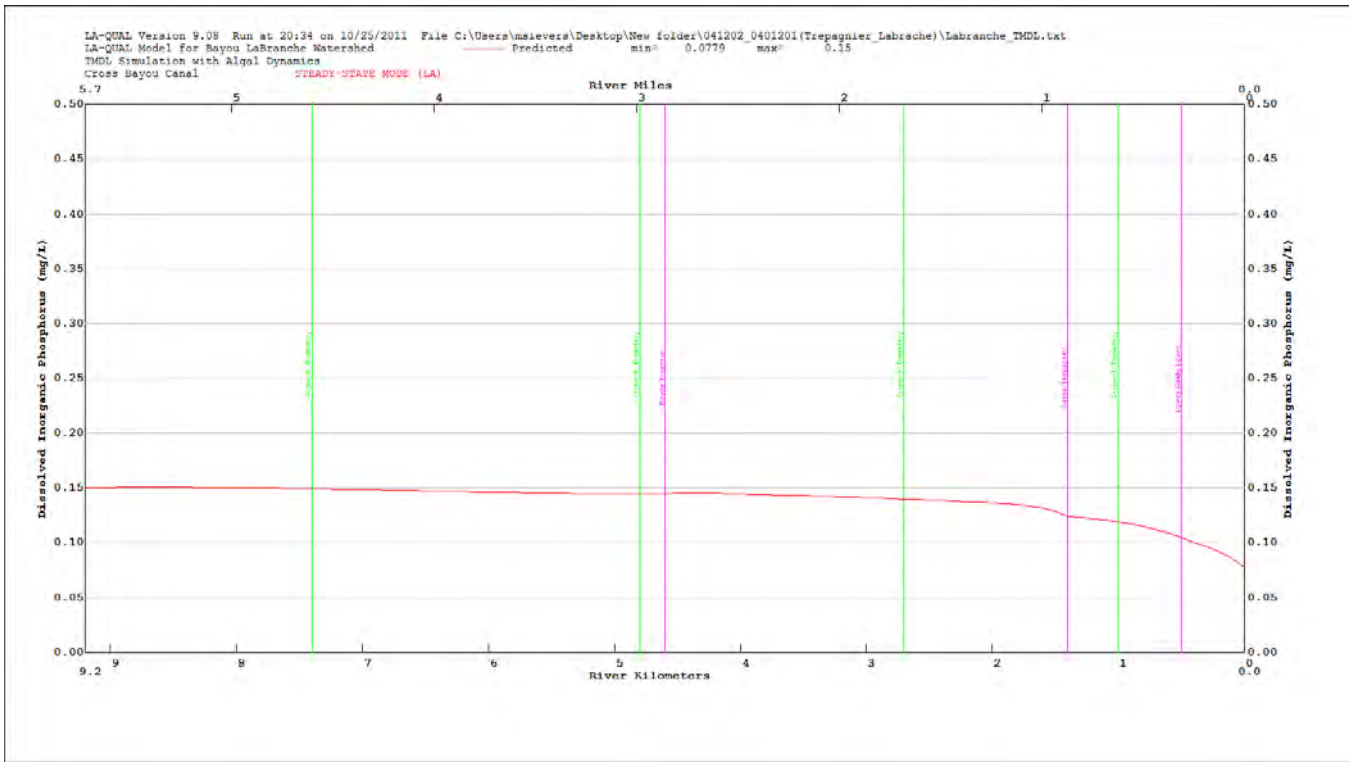

Figure K-6. Summer dissolved inorganic phosphorus TMDL results for subsegment 041201.

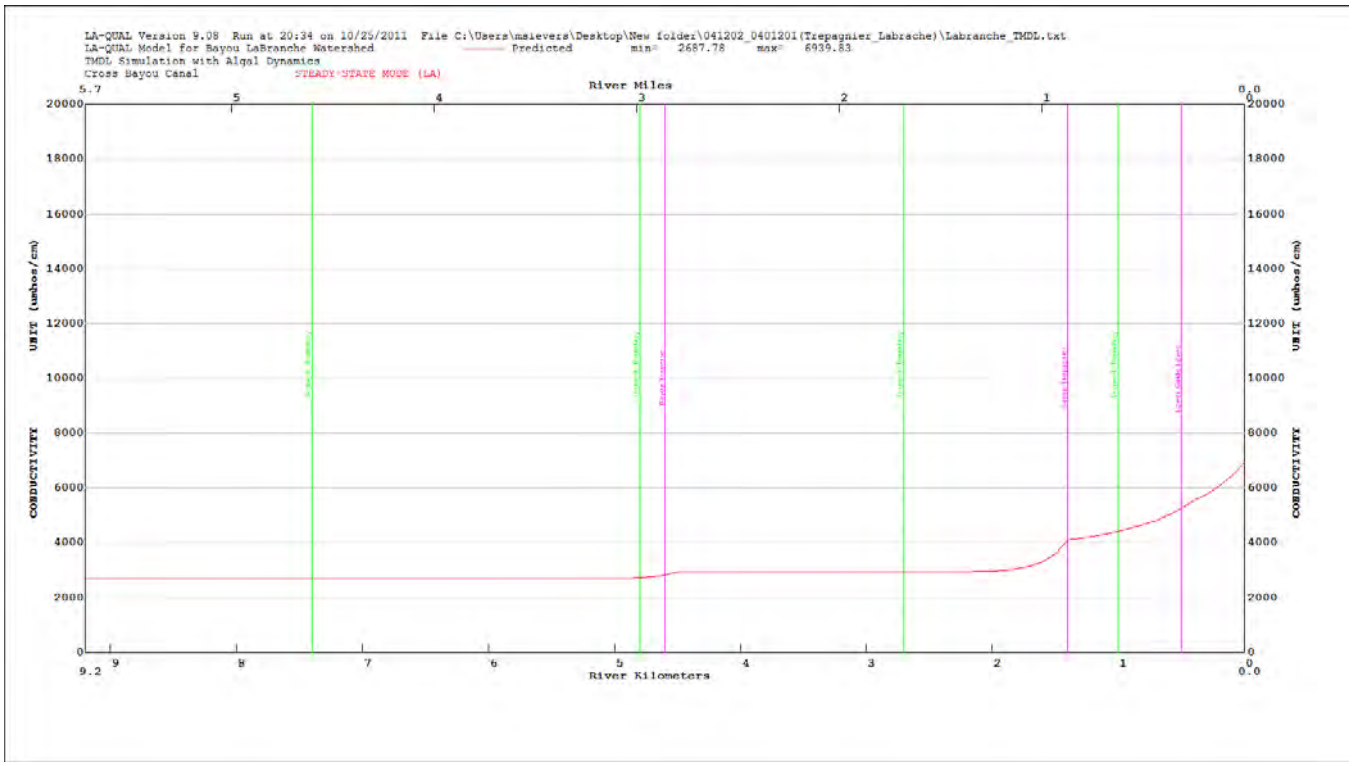

Figure K-7. Summer conductivity TMDL results for subsegment 041201.

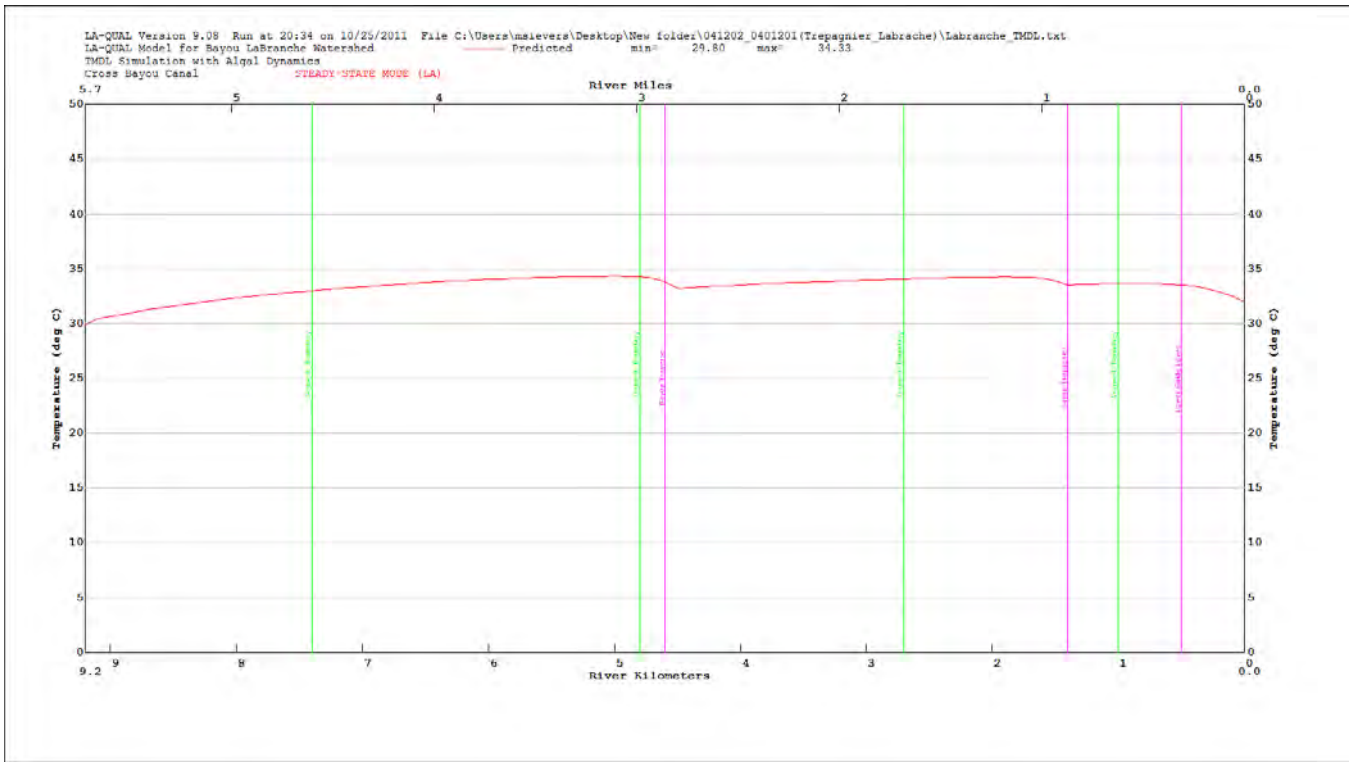

Figure K-8. Summer temperature TMDL results for subsegment 041201.

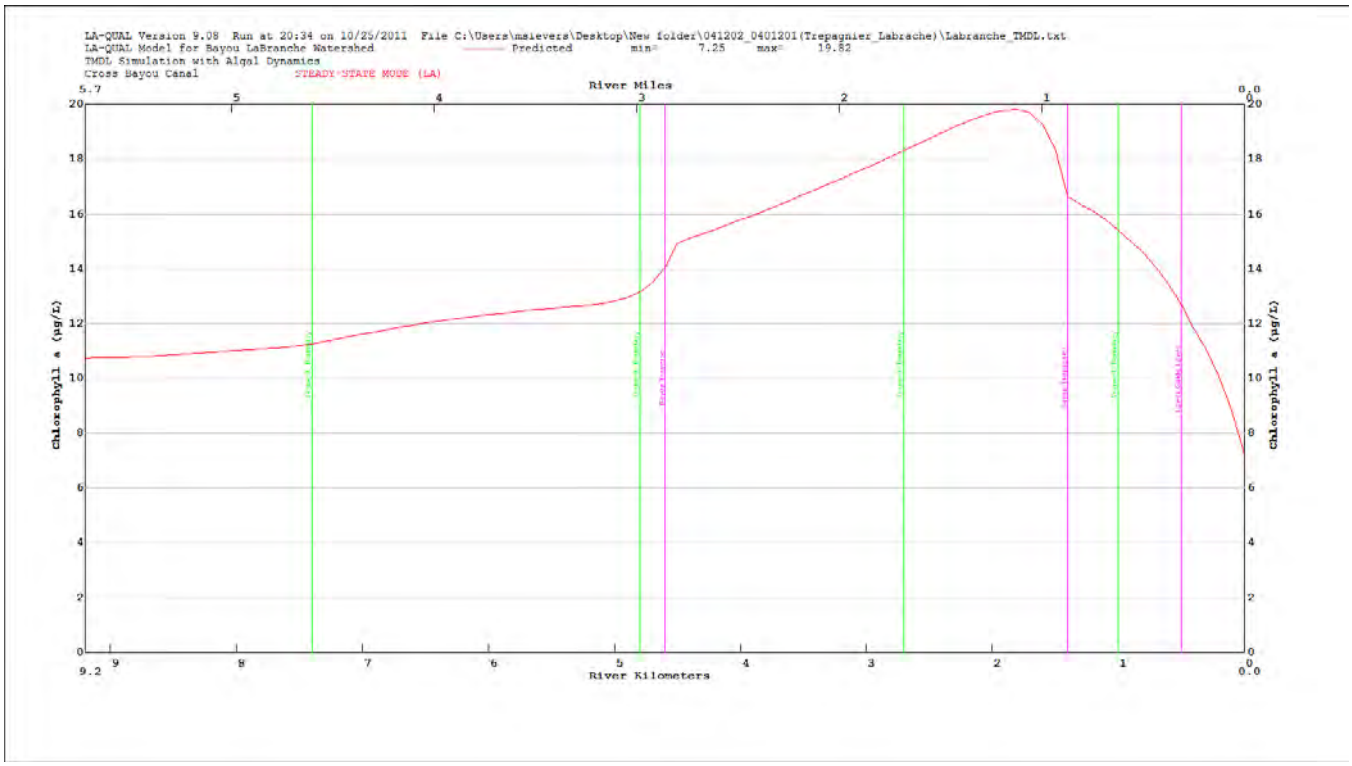

Figure K-9. Summer chlorophyll *a* TMDL results for subsegment 041201.

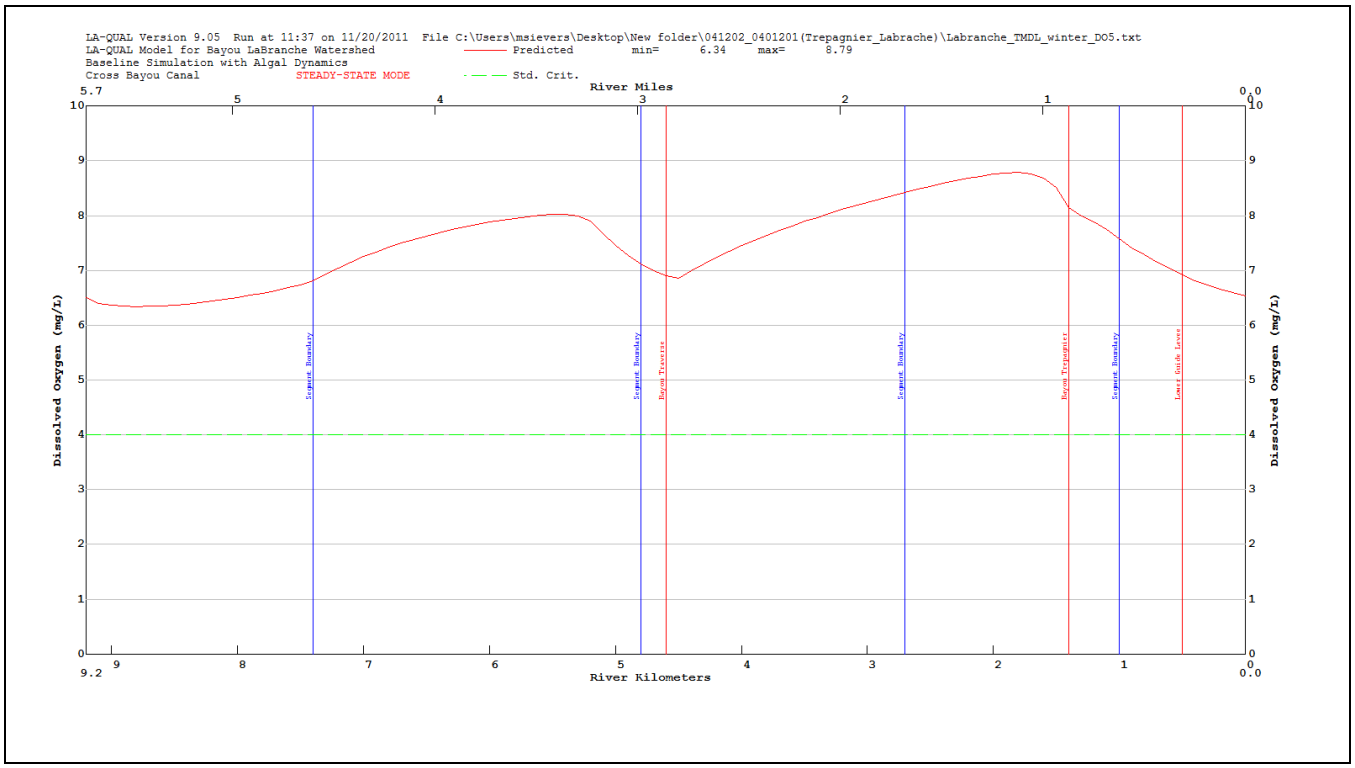

Figure K-10. Winter DO TMDL results for subsegment 041201.

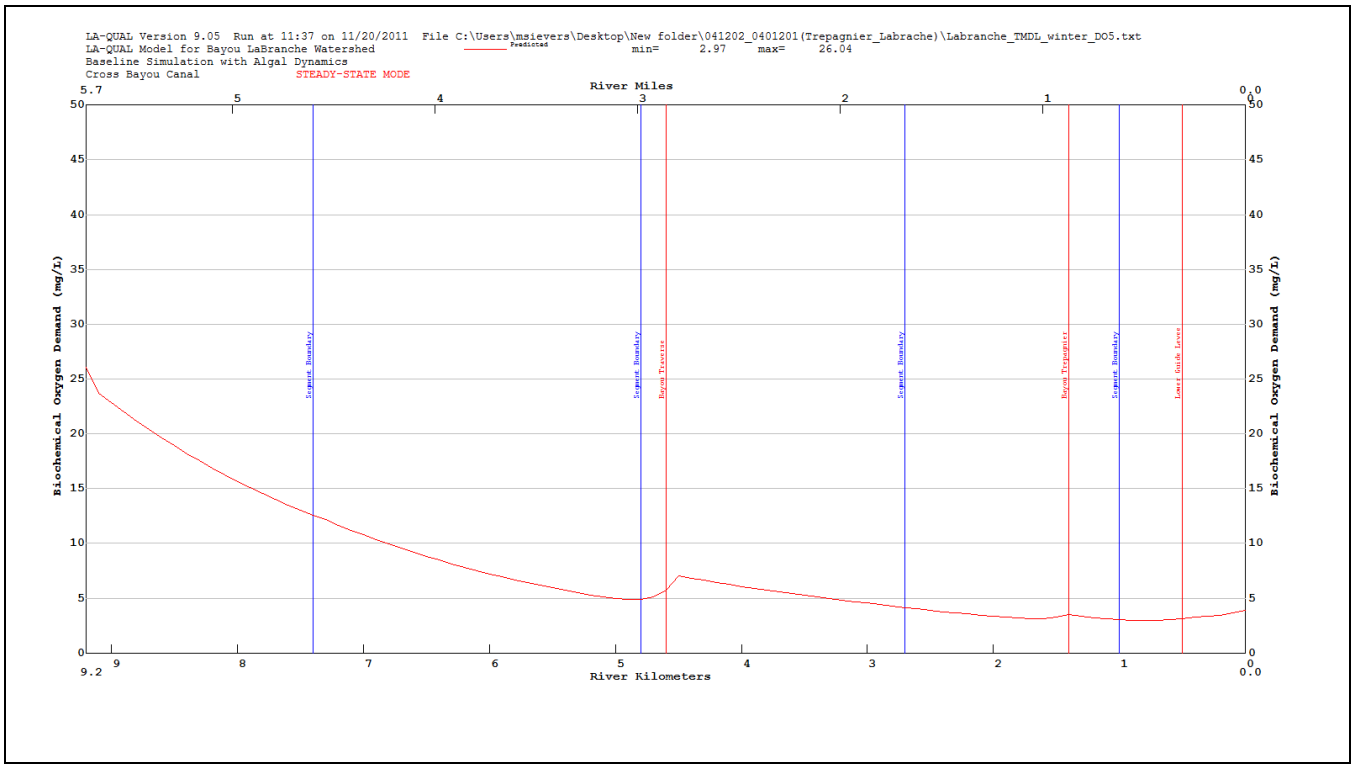

Figure K-11. Winter $CBOD_u$ TMDL results for subsegment 041201.

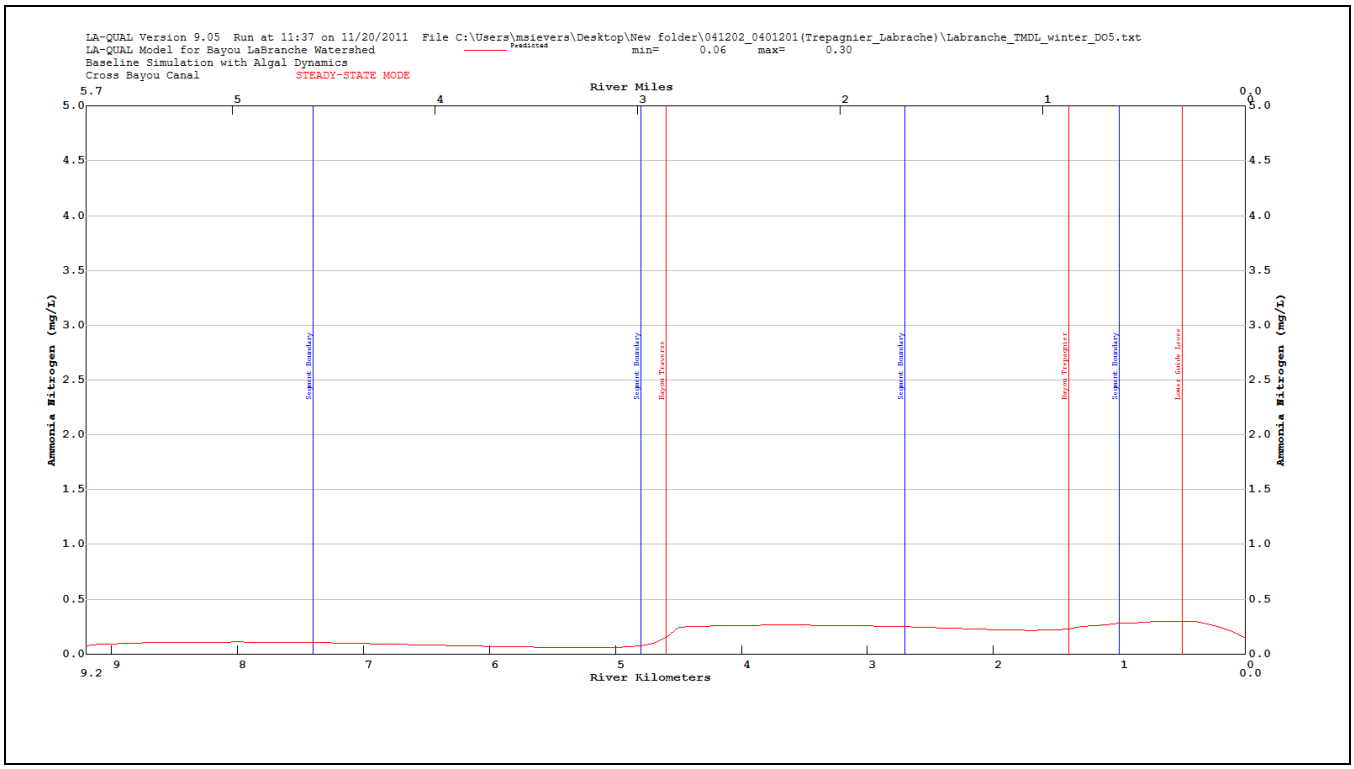

Figure K-12. Winter ammonia TMDL results for subsegment 041201.

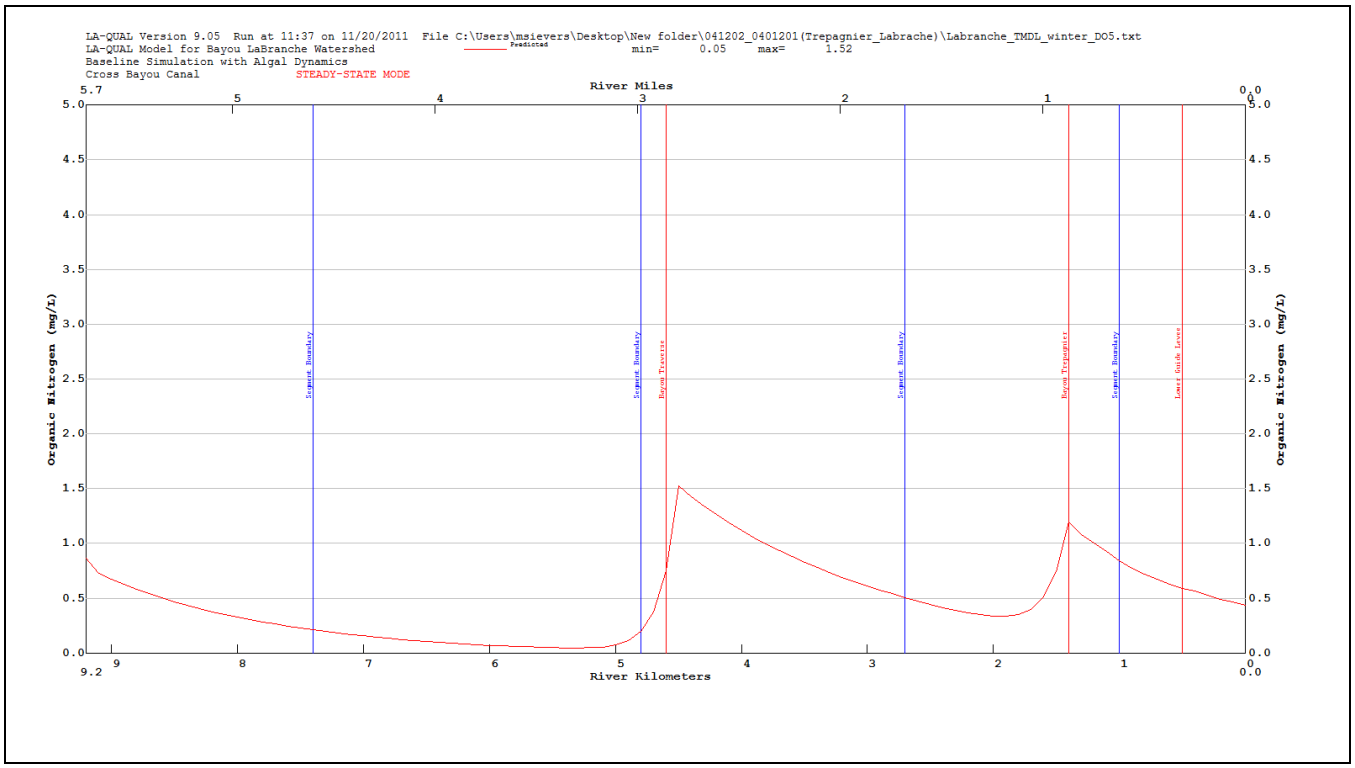

Figure K-13. Winter organic nitrogen TMDL results for subsegment 041201.

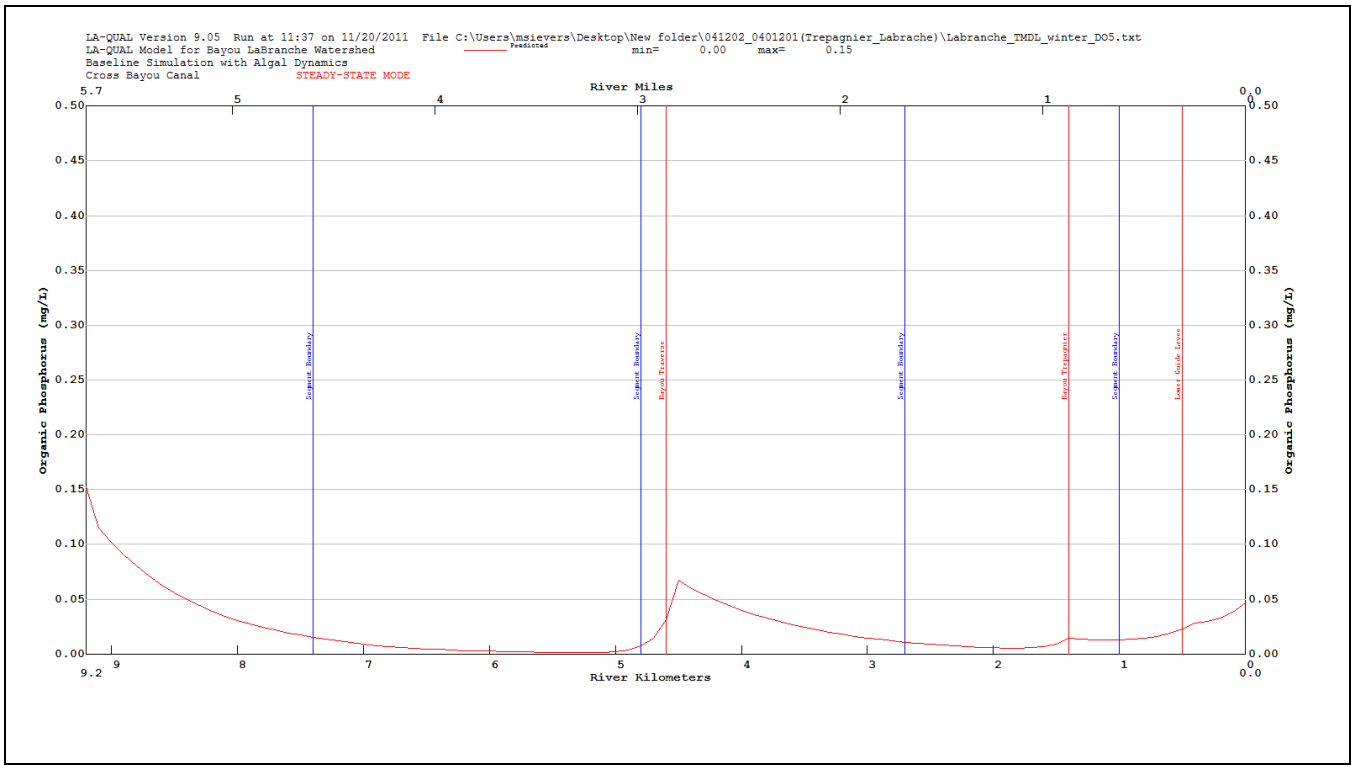

Figure K-14. Winter organic phosphorus TMDL results for subsegment 041201.

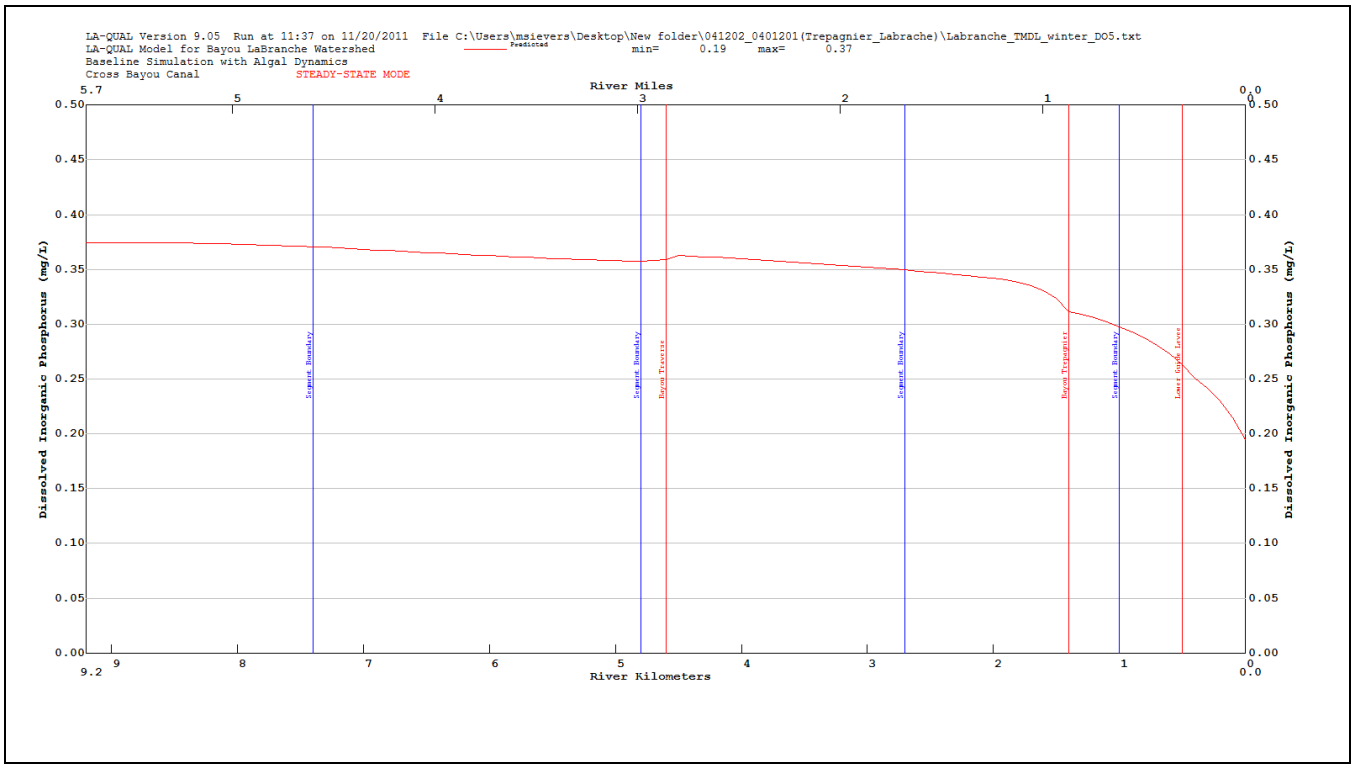

Figure K-15. Winter dissolved inorganic phosphorus TMDL results for subsegment 041201.

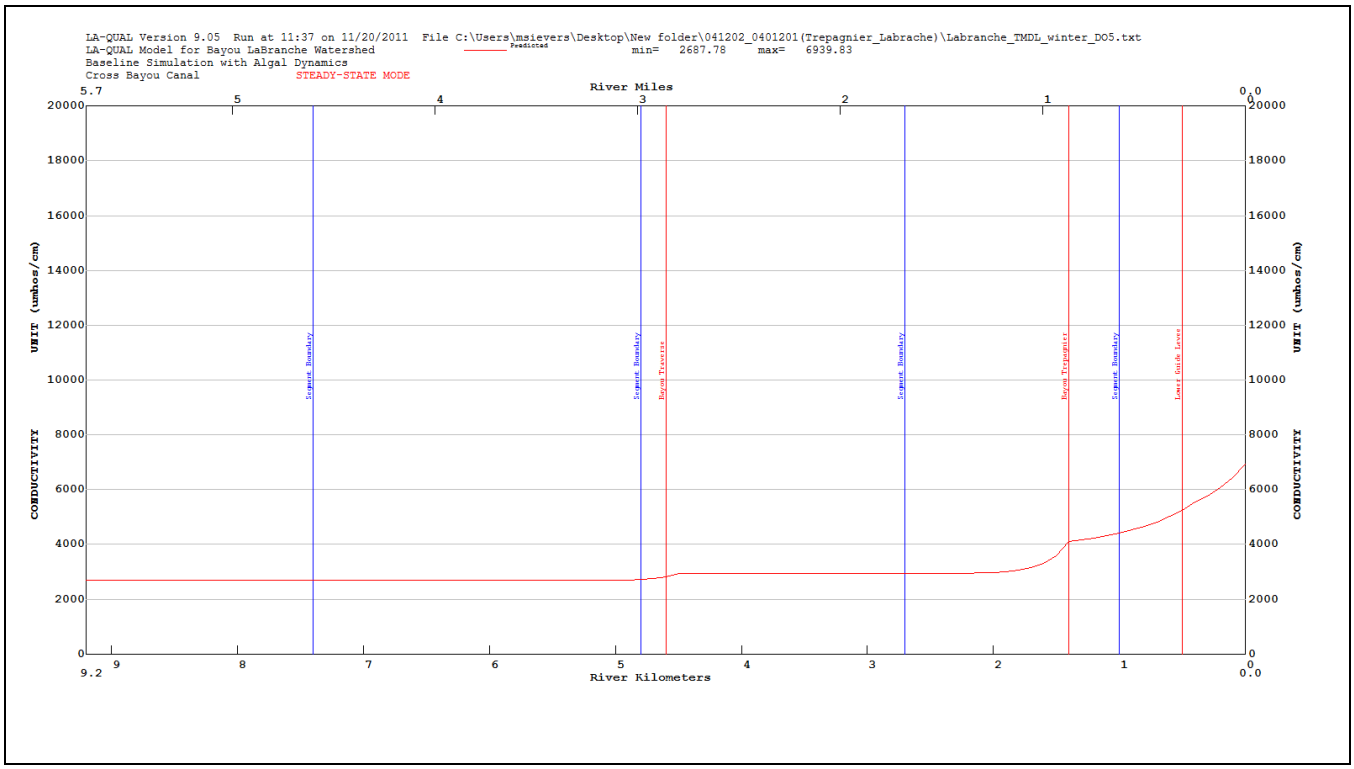

Figure K-16. Winter conductivity TMDL results for subsegment 041201.

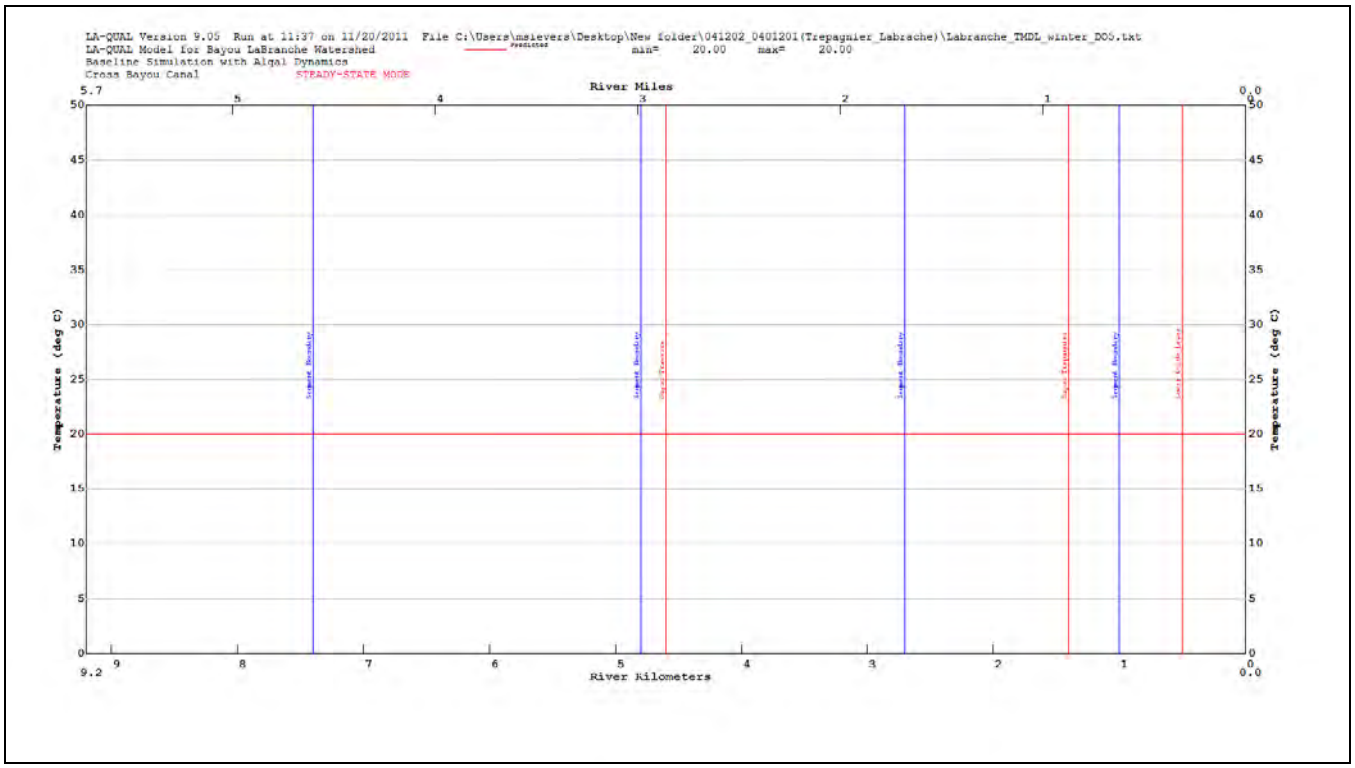

Figure K-17. Winter temperature TMDL results for subsegment 041201.

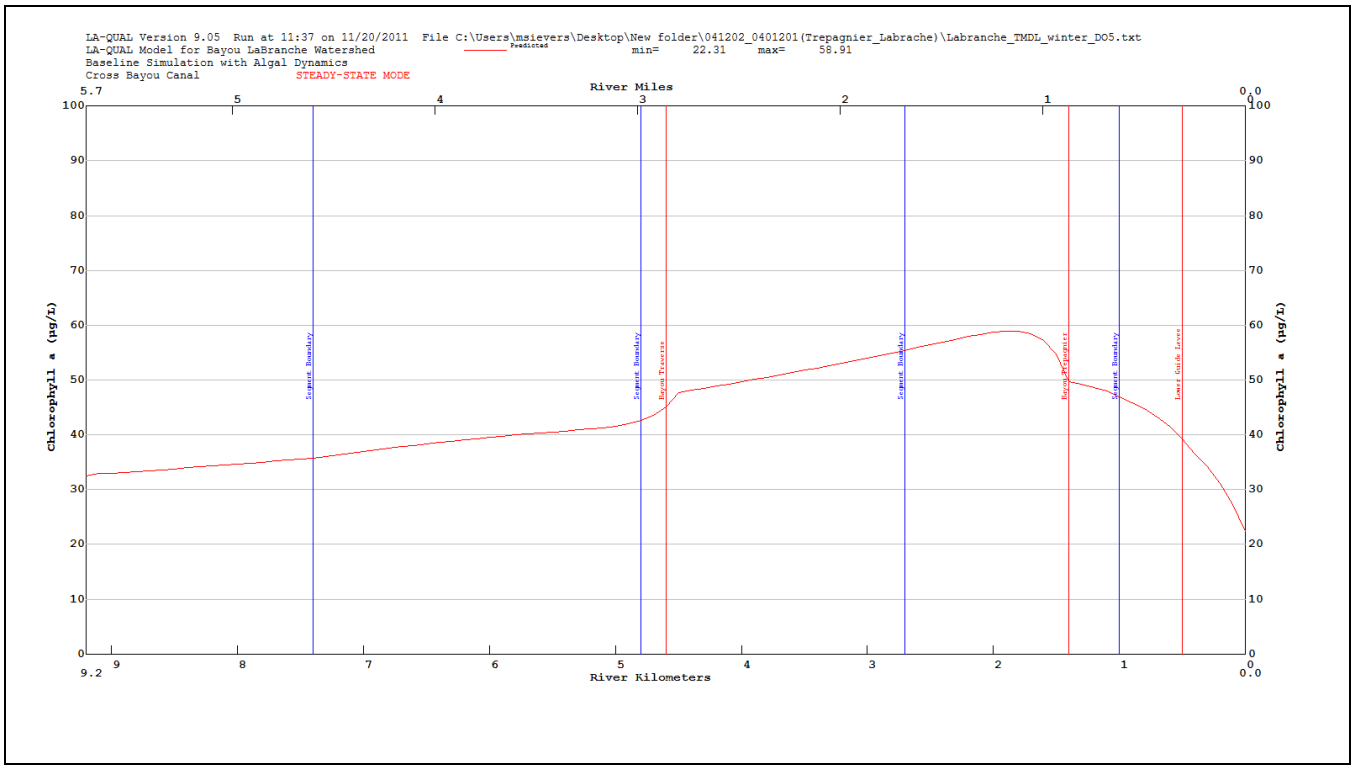

Figure K-18. Winter chlorophyll *a* TMDL results for subsegment 041201.

APPENDIX L:
Original Public Comment Letters

BOBBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

January 11, 2012

Ms. Diane Smith (6WQ)
Water Quality Protection Division
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Comments on Federal Register: December 6, 2011 (Volume 76, Number 234) [FRC-9505-4] Clean Water Act Section 303(d): TMDLs for Dissolved Oxygen for Selected Subsegments in the Lake Pontchartrain Basin

Dear Ms. Smith:

The Louisiana Department of Environmental Quality hereby submits comments on the TMDLs prepared for EPA Region 6 for TMDLs for dissolved oxygen in Selected Subsegments in the Lake Pontchartrain Basin, Louisiana (Subsegments 040505, 041201, and 041805).

LDEQ appreciates the opportunity that EPA provided for review of these draft TMDLs.

If you have any questions or comments, please contact me at 225-219-3366.

Sincerely,

William C. Berger, Jr.

William C. Berger, Jr., P.E.
TMDL/Water Quality Manager
Attachment

Ec with attachment:
Melvin Mitchell, LDEQ
Yvonne Baker, LDEQ
Claudia Hosch, EPA (6WQ)
Richard Wooster, EPA (6SF)
Brian Mueller, EPA (6WQ)

LDEQ Comments Concerning the following TMDLs submitted to EPA by Tetra Tech:

TMDL for Dissolved Oxygen for Bayou Labranche (Subsegment 041201)

By – Tetra Tech, Inc., November 18, 2011

General Comments

The 2010 303(d) list is now final. The report should be adjusted accordingly.

The report states that a 27 day carbonaceous BOD analysis was utilized for this TMDL. In this case, the 27 day BOD value was assumed to be equivalent to the ultimate BOD. In addition, the nitrogenous BOD typically begins to exert itself after about 7 – 10 days. The report should state whether or not a nitrogen suppressant was used. If it was not used, the measured carbonaceous BOD as noted in the report may actually include some of the nitrogenous BOD, making the modeling inaccurate and misrepresentative of the conditions. In addition, both the carbonaceous BOD1 and BOD2 values for the headwater of Cross Bayou Canal were set to 39 mg/L. The BOD2 value for Cross Bayou Canal should be 0.0 mg/L.

This TMDL included the modeling of nutrients and algae. As of the 2010 303(d) list, both EPA and LDEQ agreed that all nutrient impairments would receive a listing category of 3 (insufficient data). LDEQ believes that is not appropriate to conduct nutrient modeling at this time.

LDEQ feels that the model input does not achieve an adequate calibration for many of the parameters.

LDEQ has begun the practice of placing final public comments and responses to the appendices of the final TMDL report. LDEQ suggests that EPA do the same.

Table A-1 in Appendix 1 is confusing because it lists all dischargers. LDEQ requests that the discharger table clearly state those that are allocated to in this TMDL and those that were not.

Specific Comments

- Executive Summary should include percent reduction for projections and reductions to point sources should be stated.
- Section 2.5.1 Point Sources, page 2-4, paragraph 1: The paragraphs states that 25 permitted point source dischargers were located within subsegment 041201. However, Section 6.2 indicates that only one facility was provided with a WLA. This can be confusing. LDEQ requests that Section 2.5.1 clearly indicate that 25 permitted dischargers were located within the subsegment, but only one facility was provided with a WLA.

- Section 4.1, page 4-1, paragraph 4 states that the delta method presented by Di Toro was used to depict the diurnal swing. LDEQ recognized that the Di Toro method is an acceptable method, however, LDEQ standard practice is to calibrate to 1+DOmin for a diurnal swing of >2 and <9 mg/L. LDEQ would prefer that our standard practice be followed for this TMDL.
- Section 4.9, page 4-5, paragraph 1 states that the DO was set to 5.0 for point sources. This indicates post aeration will be required and that a limit for DO will be placed in the permits. LDEQ standard practice is to set DO to 2.0 for point sources unless post aeration is required in order to meet the water quality criterion for dissolved oxygen in the stream. Otherwise reaeration may be recommended. This must be clearly indicated in the TMDL report. Additionally, LDEQ standard practice is to use expected flow rather than design flow where applicable.
- Section 5.1, page 5-1, paragraph 1 states that for tidal creeks, on-third of flow under calibration condition was considered as the background flow for baseline conditions. This is a simplification of what the LTP actually states. The LTP states that the *critical* flow for tidal streams is 1/3 of the average or typical flow averaged over one tidal cycle irrespective of flow direction. If the flow is a one time measurement and not measurements done through a complete tidal cycle, it is not considered an acceptable *critical* flow for baseline conditions. LDEQ requests that the documentation for this flow calculation be provided in the report for verification.
- LDEQ requests that all phased approach language be deleted from this TMDL because as stated in Section 6.1.1, paragraph 3, Page 6-2, "The point source did not need to be reduced".

TMDL for Dissolved Oxygen for Ponchatoula Creek and Ponchatoula River (Subsegment 040505)

By – Tetra Tech, Inc., November 30, 2011

General Comments:

The 2010 list is now final and the report should be adjusted accordingly.

The report states that a 27-day carbonaceous BOD analysis was utilized for this TMDL. LDEQ prefers to use a 60 day BOD analysis (Method 5210 C in Standard Methods) which would produce a UCBOD and UNBOD. In this case, the 27 day BOD value was assumed to be equivalent to the ultimate BOD. In addition, the nitrogenous BOD typically begins to exert itself after about 7 – 10 days. The report should state whether or not a nitrogen suppressant was used. If it was not used, the measured carbonaceous BOD as noted in the report may actually include some of the nitrogenous BOD, making the modeling inaccurate and misrepresentative of the conditions. In addition, LDEQ has learned that the nitrogen suppressant can fail, producing erroneous results.

Specific Comments:

- Executive Summary, sixth paragraph, page I and Table ES-2: LDEQ disagrees with the development of TMDLs for SOD, ammonia, and organic nitrogen.
- Section 6.1.1, Wasteload Allocation, page 6-1 and 6-2 and Table 6-2, page 6-2 and 6-3: As previously stated, nutrient impairment listings were changed to Category 3 (insufficient data) for the draft 2010 303(d) list. This TMDL report is intended to address dissolved oxygen. Ammonia typically represents the primary oxygen-demanding load in the nitrogen series. Therefore, LDEQ feels that it is inappropriate to develop WLAs for organic nitrogen and requests the removal of these WLAs. This comment also applies to the DO TMDL reports developed by EPA for subsegments 041201, 041805, and 041401.
- In Section 7.2.2, Page 7-3, please remove the following:

"If new criteria are not developed and promulgated within five years from the TMDL approval date, LDEQ intends to proceed in the following manner:

Case 1: The UAA study indicates that the current DO criterion is appropriate the TMDL will be fully implemented based on the existing DO criteria.

Case 2: The UAA is not likely to be completed and/or approved the TMDL will be fully implemented based on the existing DO criteria.

Case 3: The UAA is in process and is expected to be approved – Phase II of the TMDL will be postponed for a maximum period of 2 years. If the UAA has not been completed at the end of this period, the UAA status will be reviewed again according Cases 1 – 3."

and replace with:

"These new criteria are expected to be developed and promulgated no later than five (5) years after the TMDL approval date."

DRAFT TMDL for Dissolved Oxygen for Violet Canal (Subsegments 041805)

By – Tetra Tech, Inc., November 30, 2011

General Comments

The 2010 303(d) list is now final. The report should be adjusted accordingly.

LDEQ will be responsible for the implementation of this TMDL and future updates to this TMDL. Therefore, LDEQ requests that complete documentation, including all appendices be provided to LDEQ upon approval of the TMDL.

The report states that a 27 day carbonaceous BOD analysis was utilized for this TMDL. In this case, the 27 day BOD value was assumed to be equivalent to the ultimate BOD. In addition, the nitrogenous BOD typically begins to exert itself after about 7 – 10 days. The report should state whether or not a nitrogen suppressant was used. If it was not

used, the measured carbonaceous BOD as noted in the report may actually include some of the nitrogenous BOD, making the modeling inaccurate and misrepresentative of the conditions. In addition, both the carbonaceous BOD1 and BOD2 values for the headwater of Cross Bayou Canal were set to 39 mg/L. The BOD2 value for Cross Bayou Canal should be 0.0 mg/L.

This TMDL included the modeling of nutrients and algae. As of the Draft 2010 303(d) list, both EPA and LDEQ agreed that all nutrient impairments would receive a listing category of 3 (insufficient data). LDEQ believes that it is not appropriate to conduct nutrient modeling at this time.

Adequate calibrations were not achieved for the CBOD, Organic Nitrogen, Nitrate+Nitrite nitrogen. A more robust calibration might be achieved by modeling CBOD and NBOD.

LDEQ has begun the practice of placing all public comments and responses to comments in the appendices of the final TMDL report. LDEQ suggests that EPA contractors do the same.

Table A-1 in Appendix 1 is confusing because it lists all dischargers. LDEQ requests that the discharger table clearly indicate those that are allocated to in this TMDL and those that were not.

Specific Comments:

- Section 2.3, page 2-1, paragraph 1 sites personal communication from Max Forbes. A copy of this communication should be placed in the appendices.
- Section 6.1.1, Paragraph 1, Page 6-2 states that there were no reductions in point sources. Therefore, LDEQ requests that all language referring to a phased approach should be removed.

APPENDIX M:
EPA Responses to Public Comments

Table M-1. EPA responses to public comments received from Louisiana Department of Environmental Quality..... M-1

NOTE: Full public comment letters are included in Appendix L.

Table M-1. EPA responses to public comments received from Louisiana Department of Environmental Quality

#	Comment	EPA response
General comments		
1	The 2010 303(d) list is now final. The report should be adjusted accordingly.	The report will be updated accordingly.
2	The report states that a 27-day CBOD analysis was used for this TMDL. In this case, the 27-day BOD value was assumed to be equivalent to the ultimate BOD. In addition, the NBOD typically begins to exert itself after about 7–10 days. The report should state whether a nitrogen suppressant was used. If it was not used, the measured carbonaceous BOD as noted in the report might actually include some of the NBOD, making the modeling inaccurate and misrepresentative of the conditions. In addition, both the CBOD1 and CBOD2 values for the headwater of Cross Bayou Canal were set to 39 mg/L. The BOD2 value for Cross Bayou Canal should be 0.0 mg/L.	As stated in Section 3.1, a nitrogen suppressant was used. The BOD2 simulation was not turned on in the model, and therefore the values entered had no effect on the model.
3	This TMDL included the modeling of nutrients and algae. As of the 2010 303(d) list, both EPA and LDEQ agreed that all nutrient impairments would receive a listing category of 3 (insufficient data). LDEQ believes that it is not appropriate to conduct nutrient modeling at this time.	The observed water quality data, especially the continuous DO data, reveal that the violation of DO criteria is caused by excessive levels of algae. Without modeling nutrients and algae, the minimum DO will not be captured.
4	LDEQ feels that the model input does not achieve an adequate calibration for many of the parameters.	Comment noted. Calibration is not data-matching. The magnitudes and spatial trends are all captured with reasonable assignment of kinetic rates. In addition, EPA does not purposely change rates in each reach to match the data.
5	LDEQ has begun the practice of placing final public comments and responses in the appendices of the final TMDL report. LDEQ suggests that EPA do the same.	As stated in Section 8 of the draft TMDL report, "All comments and EPA responses will be included in an appendix to the final TMDL document."
6	Table A-1 in Appendix A is confusing because it lists all dischargers. LDEQ requests that the discharger table clearly state those that receive allocations in this TMDL and those that do not.	The appendix will indicate which permits received a WLA in Table 6-2.
Specific comments		
1	The executive summary should include percent reduction for projections, and reductions to point sources should be stated.	Table ES-2 in the draft TMDL report included the percent reduction based on the critical period. A statement regarding point source reductions will be added.
2	Section 2.5.1, Point Sources, page 2-4, paragraph 1: The paragraph states that 25 permitted point source dischargers were located within subsegment 041201. However, Section 6.2 indicates that only one facility received a WLA. This could be confusing. LDEQ requests that Section 2.5.1 clearly indicate that 25 permitted dischargers were located within the subsegment but only one facility was provided with a WLA.	Section 2 provides background information such as land use, hydrology, and criteria. Section 2.5.1 specifically identifies only the point sources in the subsegments; it does not discuss the WLAs. WLAs are covered in Section 6.2.
3	Section 4.1, page 4-1, paragraph 4, states that the delta method presented by Di Toro was used to depict the diurnal swing. LDEQ recognizes that the Di Toro method is an acceptable method; however, LDEQ's standard practice is to calibrate to 1+DOmin for a diurnal swing between 2 and 9 mg/L. LDEQ would prefer that its standard practice be followed for this TMDL.	With the delta method, the actual fluctuation of DO can be computed. EPA believes this method more accurately represents the water body, resulting in a TMDL that is more meaningful, more scientifically defensible, and more reliable.
4	Section 4.9, page 4-5, paragraph 1, states that the DO was set to 5.0 for point sources. This indicates that post-aeration will be required and that a limit for DO will be placed in the permits. LDEQ's standard practice is to set DO to 2.0 for point sources unless post-aeration is required in order to meet the water quality criterion for DO in the stream. Otherwise, reaeration may be recommended. This must be clearly indicated in the TMDL report. Additionally, LDEQ's standard practice is to use expected flow rather than design flow where applicable.	A DO of 2.0 was used in the model, as shown in the model output. Although Table 4-4 accurately relays this information, the text does not. The text will be updated. The flow used was the average expected flow. The text will be updated to indicate this.

#	Comment	EPA response
5	Section 5.1, page 5-1, paragraph 1, states that for tidal creeks, one-third of the flow under calibration condition was considered as the background flow for baseline conditions. This is a simplification of what the LTP actually states. The LTP states that the critical flow for tidal streams is one-third of the average or typical flow averaged over one tidal cycle irrespective of flow direction. If the flow is a one-time measurement and not multiple measurements done through a complete tidal cycle, it is not considered an acceptable critical flow for baseline conditions. LDEQ requests that the documentation for this flow calculation be provided in the report for verification.	Flow measurements were conducted at different times and locations along the bayou. EPA used elevation data to identify the relationship between flow and water elevation. Even though the flows were observed at different locations, the timing was more important for the flow direction and magnitudes. Therefore, EPA lumped all the flow measurement together and assumed that those measurements covered the tidal periods. EPA used those data to calculate the average flow.
6	LDEQ requests that all phased approach language be deleted from this TMDL because, as stated in Section 6.1.1, paragraph 3, page 6-2, “The point source did not need to be reduced.”	This section was added verbatim, with minor editorial changes, at LDEQ’s request. It will be removed.