Appendix E
Calibration Input and Overlay Files

Calibration Input File: Bayou Lafourche Calibration.txt

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TITLE01      BAYOU LAFOURCHE DO & NUTRIENTS TMDL MODEL
TITLE02      CALIBRATION MODEL
CONTROL  YES METRIC UNITS
ENDATA01
MODOPT01  NO TEMPERATURE
MODOPT02 YES SALINITY
MODOPT03  NO CONSERVATIVE MATERIAL  I = CHLORIDES           IN MG/L
MODOPT04  NO CONSERVATIVE MATERIAL II = SULFATES            IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES NITROGEN
MODOPT08 YES PHOSPHORUS
MODOPT09 YES CHLOROPHYLL A
MODOPT10  NO MACROPHYTES
MODOPT11  NO COLIFORM
MODOPT12  NO NONCONSERVATIVE MATERIAL =                     IN MG/L
ENDATA02
PROGRAM  HYDRAULIC CALCULATION METHOD      =     2.
PROGRAM  MAXIMUM ITERATION LIMIT           =  2000.
PROGRAM  N INHIBITION EQUATION             =     1.
PROGRAM  P RELAXATION COEFFICIENT          =     0.5
PROGRAM  EFFECTIVE BOD DUE TO ALGAE        =     0.2
PROGRAM  SOD MAXIMUM RATE                  =    10.0
PROGRAM  INHIBITION CONTROL VALUE          =     4.0
PROGRAM  OCEAN EXCHANGE RATIO=                   1.0
ENDATA03
THETA    NH3 DECA   1.07
THETA    REAERATI   1.024
ENDATA04
ENDATA05
ENDATA06
ENDATA07
REACH ID  1    DV DONALSONVILLE TO RK92          108.0     92.0      0.1
REACH ID  2    NP RK92 TO RK54                    92.0     54.0      0.1
REACH ID  3    TH RK54 TO RK12                    54.0     12.0      0.1
REACH ID  4    LR RK12 TO RK0                     12.0      0.0      0.1
ENDATA08
HYDR-1    1    0.000  0.000  27.52  0.000  0.000  0.9500 0.00005 0.021
HYDR-1    2    0.000  0.000  35.42  0.000  0.000  1.1900 0.00001 0.021
HYDR-1    3    0.000  0.000  49.23  0.000  0.000  1.2100 0.00000 0.021
HYDR-1    4    0.000  0.000  71.76  0.000  0.000  2.3300 0.00000 0.021
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ENDATA09
HYDR-2    3            800.
HYDR-2    4            800.
ENDATA10
INITIAL   1    26.46   0.0     7.49    0.05    0.800   0.27    1.0     0.0
INITIAL   2    26.46   0.0     7.49    0.05    0.800   0.27    1.0     0.0
INITIAL   3    26.46   0.0     6.73    0.09    0.700   0.25    7.0     0.0
INITIAL   4    27.48   0.0     5.83    0.08    0.300   0.18    7.0     0.0
ENDATA11
COEF-1    1    1.0  0.60            0.00   0.050  0.000  1.0
COEF-1    2    1.0  0.60            0.00   0.050  0.000  1.0
COEF-1    3    1.0  0.60            0.00   0.050  0.000  1.0
COEF-1    4    1.0  0.60            0.00   0.050  0.000  1.0
ENDATA12
COEF-2    1    0.000  0.00   1.0    0.0005 0.00   0.0    0.000
COEF-2    2    0.000  0.00   1.0    0.0005 0.00   0.0    0.000
COEF-2    3    0.000  0.00   1.0    0.0005 0.00   0.0    0.000
COEF-2    4    0.000  0.00   1.0    0.0005 0.00   0.0    0.000
ENDATA13
COEF-3    1    0.2    0.015  0.20   0.5    2.0    0.05         0.0    0.0
COEF-3    2    0.2    0.015  0.20   0.5    2.0    0.05         0.0    0.0
COEF-3    3    0.2    0.015  0.20   0.5    2.0    0.05         0.0    0.0
COEF-3    4    0.2    0.015  0.20   0.5    2.0    0.05         0.0    0.0
ENDATA14
ENDATA15
INCR-1    1    0.0      0.2306   25.25    0.0      0.00     0.0
INCR-1    2    0.0      0.5381   25.25    0.0      0.00     0.0
ENDATA16
INCR-2    1    4.39     5.05     0.61     0.09     0.00
INCR-2    2    4.39     5.05     0.61     0.09     0.00
ENDATA17
INCR-3    1    0.180    4.000    0.000    00.0000
INCR-3    2    0.180    4.000    0.000    00.0000
ENDATA18
NONPOINT  1    240.0
NONPOINT  2    570.0
ENDATA19
HDWTR-1  1     MISS RIVER          0.  5.49    26.46   0.0     0.00    0.0
ENDATA20
HDWTR-2  1     7.49     4.5      0.455    0.050   0.8
ENDATA21
HDWTR-3  1     0.2700   1.0      0.0000   0.0000
ENDATA22
ENDATA23
WSTLD-1     1  W357              -0.0526
WSTLD-1    40  PS47               0.0015
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WSTLD-1	40	PS34	0.0001
WSTLD-1	110	W382	-0.0000
WSTLD-1	160	PS50	0.0000
WSTLD-1	160	PS46	0.0011
WSTLD-1	250	W381	-0.0000
WSTLD-1	270	W387	-0.1102
WSTLD-1	282	PS13	0.0002
WSTLD-1	305	W383	-0.2262
WSTLD-1	404	PS53	0.0000
WSTLD-1	410	PS36	0.0008
WSTLD-1	410	PS35	0.0008
WSTLD-1	444	PS52	0.0000
WSTLD-1	450	PS57	0.0001
WSTLD-1	450	PS43	0.0001
WSTLD-1	450	PS41	0.0001
WSTLD-1	450	PS33	0.0001
WSTLD-1	450	PS23	0.0000
WSTLD-1	470	PS16	0.0000
WSTLD-1	480	PS38	0.0005
WSTLD-1	480	PS1	0.0005
WSTLD-1	485	W194	-0.0000
WSTLD-1	500	W195	-0.0011
WSTLD-1	520	PS4	0.0001
WSTLD-1	535	W191	-0.0747
WSTLD-1	535	PS18	0.0000
WSTLD-1	555	PS5	0.0035
WSTLD-1	585	W189	-0.3703
WSTLD-1	620	W239	-0.3958
WSTLD-1	670	PS51	0.0000
WSTLD-1	670	PS29	0.0002
WSTLD-1	770	PS9	0.0000
WSTLD-1	770	PS48	0.0008
WSTLD-1	770	PS44	0.0001
WSTLD-1	770	PS40	0.0004
WSTLD-1	770	PS31	0.0000
WSTLD-1	770	PS27	0.0000
WSTLD-1	770	PS26	0.0000
WSTLD-1	770	PS19	0.0000
WSTLD-1	790	W1993	-0.0000
WSTLD-1	805	PS14	0.0001
WSTLD-1	825	PS37	0.0004
WSTLD-1	825	PS30	0.0000
WSTLD-1	850	PS56	0.0000
WSTLD-1	850	PS42	0.0002
WSTLD-1	850	PS39	0.0004
WSTLD-1	850	PS32	0.0000

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WSTLD-1   850  PS15              0.0002
WSTLD-1   870  W1804             -0.0148
WSTLD-1   900  W190              -0.0095
WSTLD-1   900  PS8               0.0005
WSTLD-1   900  PS49              0.0000
WSTLD-1   900  PS28              0.0000
WSTLD-1   900  PS17              0.0002
WSTLD-1   940  PS24              0.0000
WSTLD-1   940  PS20              0.0000
WSTLD-1   950  W1805             -0.0935
WSTLD-1   960  PS45              0.0011
WSTLD-1   960  PS2               0.0020
WSTLD-1   995  PS22              0.0000
WSTLD-1  1020  PS25              0.0000
WSTLD-1  1020  PS12              0.0000
WSTLD-1  1080  PS21              0.0000
ENDATA24
WSTLD-2     1
WSTLD-2    40  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2    40  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   110
WSTLD-2   160  2.0     489.900  0.0  7.50     15.00    00.0 10.0
WSTLD-2   160  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   250
WSTLD-2   270
WSTLD-2   282  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   305
WSTLD-2   404  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   410  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   410  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   444  2.0     489.900  0.0  7.50     15.00    00.0 10.0
WSTLD-2   450  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   450  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   450  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   450  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   450  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   470  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   480  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   480  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   485
WSTLD-2   500
WSTLD-2   520  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   535
WSTLD-2   535  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   555  2.0      69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   585
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WSTLD-2   620
WSTLD-2   670  2.0      489.900  0.0  7.50     15.00    00.0 10.0
WSTLD-2   670  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   770  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   790
WSTLD-2   805  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   825  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   825  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   850  2.0      489.900  0.0  7.50     15.00    00.0 10.0
WSTLD-2   850  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   850  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   850  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   850  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   870
WSTLD-2   900
WSTLD-2   900  2.0     3266.00  0.0  7.50     15.00    00.0 10.0
WSTLD-2   900  2.0      489.900  0.0  7.50     15.00    00.0 10.0
WSTLD-2   900  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   900  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   940  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   940  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   950
WSTLD-2   960  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   960  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2   995  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2  1020  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2  1020  2.0       69.000  0.0  5.00     10.00    00.0 10.0
WSTLD-2  1080  2.0       69.000  0.0  5.00     10.00    00.0 10.0
ENDATA25
WSTLD-3     1
WSTLD-3    40  0.000    0.000    0.000    00.0000
WSTLD-3    40  0.000    0.000    0.000    00.0000
WSTLD-3   110
WSTLD-3   160  0.000    0.000    0.000    00.0000
WSTLD-3   160  0.000    0.000    0.000    00.0000
WSTLD-3   250
WSTLD-3   270
WSTLD-3   282  0.000    0.000    0.000    00.0000
WSTLD-3   305
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WSTLD-3	404	0.000	0.000	0.000	00.0000
WSTLD-3	410	0.000	0.000	0.000	00.0000
WSTLD-3	410	0.000	0.000	0.000	00.0000
WSTLD-3	444	0.000	0.000	0.000	00.0000
WSTLD-3	450	0.000	0.000	0.000	00.0000
WSTLD-3	450	0.000	0.000	0.000	00.0000
WSTLD-3	450	0.000	0.000	0.000	00.0000
WSTLD-3	450	0.000	0.000	0.000	00.0000
WSTLD-3	450	0.000	0.000	0.000	00.0000
WSTLD-3	470	0.000	0.000	0.000	00.0000
WSTLD-3	480	0.000	0.000	0.000	00.0000
WSTLD-3	480	0.000	0.000	0.000	00.0000
WSTLD-3	485				
WSTLD-3	500				
WSTLD-3	520	0.000	0.000	0.000	00.0000
WSTLD-3	535				
WSTLD-3	535	0.000	0.000	0.000	00.0000
WSTLD-3	555	0.000	0.000	0.000	00.0000
WSTLD-3	585				
WSTLD-3	620				
WSTLD-3	670	0.000	0.000	0.000	00.0000
WSTLD-3	670	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	770	0.000	0.000	0.000	00.0000
WSTLD-3	790				
WSTLD-3	805	0.000	0.000	0.000	00.0000
WSTLD-3	825	0.000	0.000	0.000	00.0000
WSTLD-3	825	0.000	0.000	0.000	00.0000
WSTLD-3	850	0.000	0.000	0.000	00.0000
WSTLD-3	850	0.000	0.000	0.000	00.0000
WSTLD-3	850	0.000	0.000	0.000	00.0000
WSTLD-3	850	0.000	0.000	0.000	00.0000
WSTLD-3	850	0.000	0.000	0.000	00.0000
WSTLD-3	870				
WSTLD-3	900				
WSTLD-3	900	0.000	0.000	0.000	00.0000
WSTLD-3	900	0.000	0.000	0.000	00.0000
WSTLD-3	900	0.000	0.000	0.000	00.0000
WSTLD-3	900	0.000	0.000	0.000	00.0000
WSTLD-3	940	0.000	0.000	0.000	00.0000

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WSTLD-3   940  0.000    0.000    0.000    00.0000
WSTLD-3   950
WSTLD-3   960  0.000    0.000    0.000    00.0000
WSTLD-3   960  0.000    0.000    0.000    00.0000
WSTLD-3   995  0.000    0.000    0.000    00.0000
WSTLD-3  1020  0.000    0.000    0.000    00.0000
WSTLD-3  1020  0.000    0.000    0.000    00.0000
WSTLD-3  1080  0.000    0.000    0.000    00.0000
ENDATA26
LOWER BC TEMPERATURE                    =  27.48
LOWER BC SALINITY                       =  00.00
LOWER BC CONSERVATIVE MATERIAL I        =   0.00
LOWER BC CONSERVATIVE MATERIAL II       =   0.00
LOWER BC DISSOLVED OXYGEN               =   5.83
LOWER BC BIOCHEMICAL OXYGEN DEMAND      =   5.05
LOWER BC ORGANIC NITROGEN               =   0.62
LOWER BC AMMONIA NITROGEN               =   0.08
LOWER BC NITRATE + NITRITE              =   0.30
LOWER BC PHOSPHORUS                     =   0.18
LOWER BC CHLOROPHYLL A                  =   7.00
LOWER BC COLIFORM                       =   0.00
LOWER BC NONCONSERVATIVE MATERIAL       =   0.00
ENDATA27
DAM DATA 541   THIB WEIR          1  1.3     1.05    0.6
ENDATA28
SENSITIV HDW FLOW  -30.0  30.0
SENSITIV HDW DO    -30.0  30.0
SENSITIV HDW BOD   -30.0  30.0
SENSITIV HDW CHLO  -30.0  30.0
SENSITIV HDW NH3   -30.0  30.0
SENSITIV HDW NO3   -30.0  30.0
SENSITIV HDW PO4   -30.0  30.0
SENSITIV HDW ORGN  -30.0  30.0
SENSITIV DEPTH     -30.0  30.0
SENSITIV REAERATI  -30.0  30.0
SENSITIV BOD DECA  -30.0  30.0
SENSITIV ARATIO    -30.0  30.0
SENSITIV NH3 DECA  -30.0  30.0
SENSITIV ORGN DEC  -30.0  30.0
SENSITIV ALG GROW  -30.0  30.0
SENSITIV ALG RESP  -30.0  30.0
SEBSITIV ALG SETT  -30.0  30.0
SENSITIV INC INFL  -30.0  30.0
SENSITIV INC DO    -30.0  30.0
SENSITIV INC BOD   -30.0  30.0
SENSITIV INC CHLO  -30.0  30.0
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SENSITIV INC NH3   -30.0  30.0
SENSITIV INC NO3   -30.0  30.0
SENSITIV INC PO4   -30.0  30.0
SENSITIV INC ORGN  -30.0  30.0
SENSITIV WSL FLOW  -30.0  30.0
SENSITIV WSL DO    -30.0  30.0
SENSITIV WSL BOD   -30.0  30.0
SENSITIV WSL NH3   -30.0  30.0
SENSITIV WSL NO3   -30.0  30.0
SENSITIV WSL PO4   -30.0  30.0
SENSITIV WSL ORGN  -30.0  30.0
SENSITIV TEMPERAT   -2.0   2.0
SENSITIV DISPERSI  -30.0  30.0
SENSITIV LBC TEMP   -2.0   2.0
SENSITIV LBC DO    -30.0  30.0
SENSITIV LBC BOD   -30.0  30.0
SENSITIV LBC CHLO  -30.0  30.0
SENSITIV LBC NH3   -30.0  30.0
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH 1  2  3  4
ENDATA30
OVERLAY 1 CALQOV1.TXT
ENDATA31
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Overlay File: Calqov1.txt

```
STATION  A  KILOMETER  106.0
5    5.99      7.49      8.99
6    3.64      4.55      5.46
8    0.36      0.455     0.55
9    0.04      0.05      0.06
10   0.64      0.8       0.96
11   1.04      1.30      1.56
12   0.22      0.27      0.32
13   0.80      1.0       1.2
31   4.35      5.44      6.53
STATION  B  KILOMETER   54.0
5    5.38      6.73      8.08
6    4.04      5.05      6.06
8    0.41      0.51      0.61
9    0.07      0.09      0.11
10   0.56      0.7       0.84
11   1.04      1.30      1.56
12   0.20      0.25      0.30
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13   0.8       1.0       1.2
31   4.64      5.80      6.96
STATION  C  KILOMETER    0.0
5    4.66      5.83      7.00
6    4.04      5.05      6.06
8    0.50      0.62      0.74
9    0.06      0.08      0.10
10   0.24      0.3       0.36
11   0.8       1.0       1.2
12   0.14      0.18      0.22
13   5.6       7.0       8.40
END
```