APPENDIX A:
Monitoring Data Tables and Plots

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Table A-1. In situ data collected during the July 2009 intensive survey

Site ID	Site name	Date	Time	Sample depth (m)	Water Temp. (°C)	Specific Conductivity (umhos/cm)	DO (mg/L)	pH (su)
VIOLET-1	Violet Canal near Mississippi River siphon	7/9/09	15:02	1.0	30.1	392	5.2	7.5
VIOLET-2	Violet Canal near LA Hwy 38 bridge	7/9/09	15:03	0.1	30.6	394	5.3	7.4
VIOLET-3	Violet Canal just west of Forty Arpent Canal	7/9/09	16:20	1.0	30.7	391	5.5	7.7
VIOLET-4	Violet Canal halfway between VIOLET-3 and VIOLET-5	7/9/09	18:15	0.1	30.9	654	4.9	7.6
VIOLET-5	Violet Canal near eastern end of subsegment	7/9/09	19:05	0.85	30.2	4397	4.4	7.4

Note: DO = dissolved oxygen

Table A-2. Water quality data from July 2009 intensive survey

Site ID	Date	Time	TKN (mg/L)	NH_3 (mg/L)	NO_2+ NO_3 (mg/L)	Total Phos. (mg/L)	Ortho Phos. (mg/L)	Chlorophyll *a* (mg/L)	TSS (mg/L)	TOC (mg/L)
VIOLET-1	7/9/09	15:02	1.30	<0.10	1.45	0.185	0.086	3	140	5.5
VIOLET-3	7/9/09	16:20	0.776	<0.10	1.64	0.252	0.107	3	38	1.6
VIOLET-3-D	7/9/09	16:40	0.753	<0.10	1.36	0.195	0.115	3	44	2.2
VIOLET-5	7/9/09	19:05	0.917	<0.10	0.633	0.18	0.122	4	28	2.9

Table A-3. CBOD monitoring results from July 2009 intensive survey

Site ID	Date	Time	CBOD Day 2 (mg/L)	CBOD Day 5 (mg/L)	CBOD Day 9 (mg/L)	CBOD Day 14 (mg/L)	CBOD Day 20 (mg/L)	CBOD Day 27 (mg/L)
VIOLET-1	7/9/09	15:02	<2	<2	<2	3	3	13
VIOLET-3	7/9/09	16:20	<2	<2	<2	2	3	14
VIOLET-3-D	7/9/09	16:40	<2	<2	2	7	7	10
VIOLET-5	7/9/09	19:05	<2	<2	2	3	3	13

Table A-4. Available data for subsegment 041805 at station 1068

Station name	Period of record	No. of obs.	Minimum (mg/L)	Maximum (mg/L)	Average (mg/L)
Dissolved oxygen	1/17/01–10/10/07	23	1.01	11.66	5.95
Nitrite+nitrate	1/17/01–3/2/10	22	0.05	1.72	0.55
Total Kejldahl nitrogen	1/17/01–3/2/10	25	0.32	2.08	0.84
Total phosphorus	1/17/01–3/2/10	24	0.05	0.35	0.16

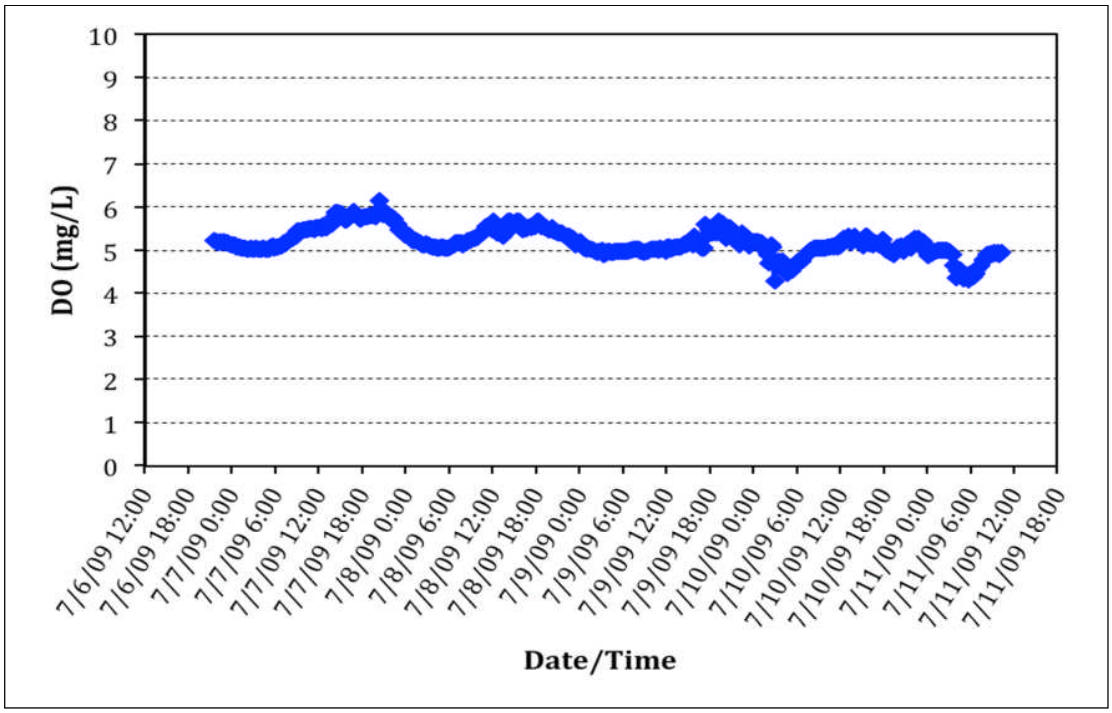

Figure A-1. Continuous dissolved oxygen data observed at Violet Canal station VIOLET-3.

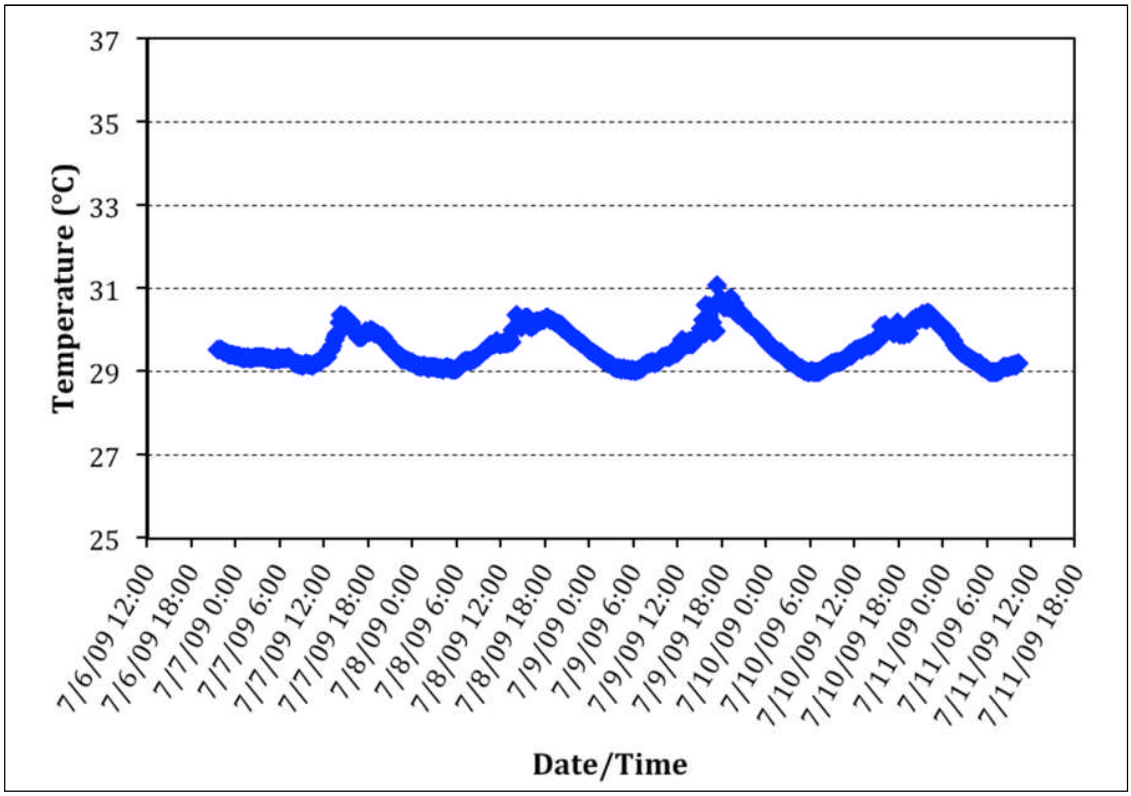

Figure A-2. Continuous temperature data observed at Violet Canal station VIOLET-3.

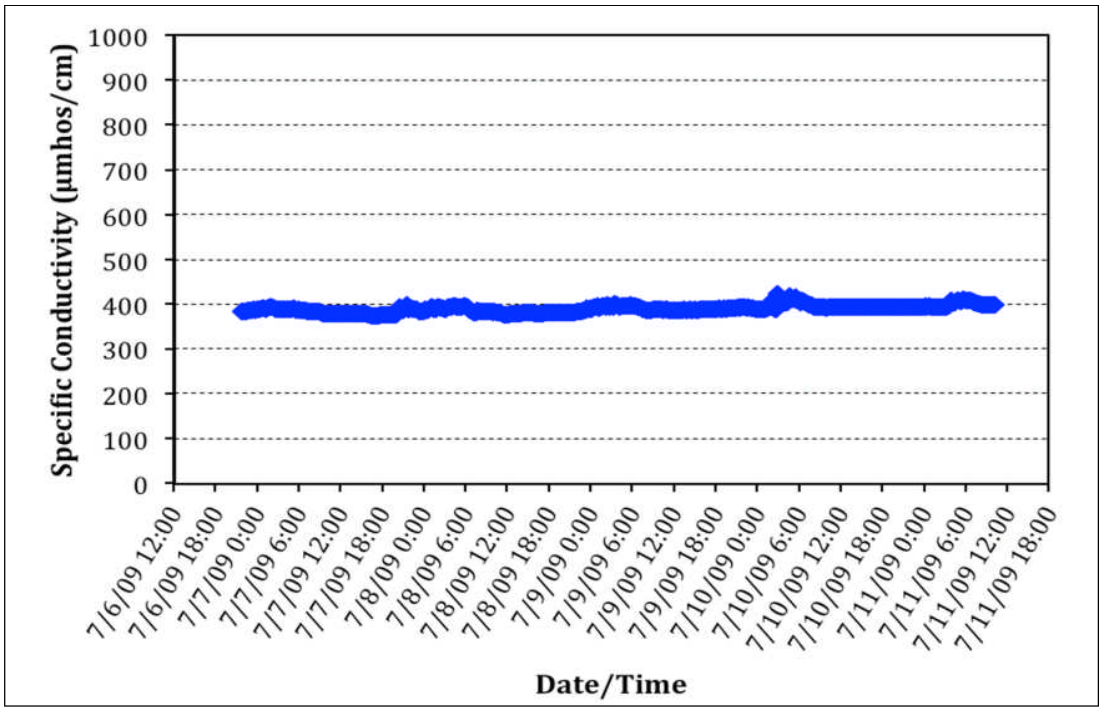

Figure A-3. Continuous specific conductivity data observed at Violet Canal station VIOLET-3.

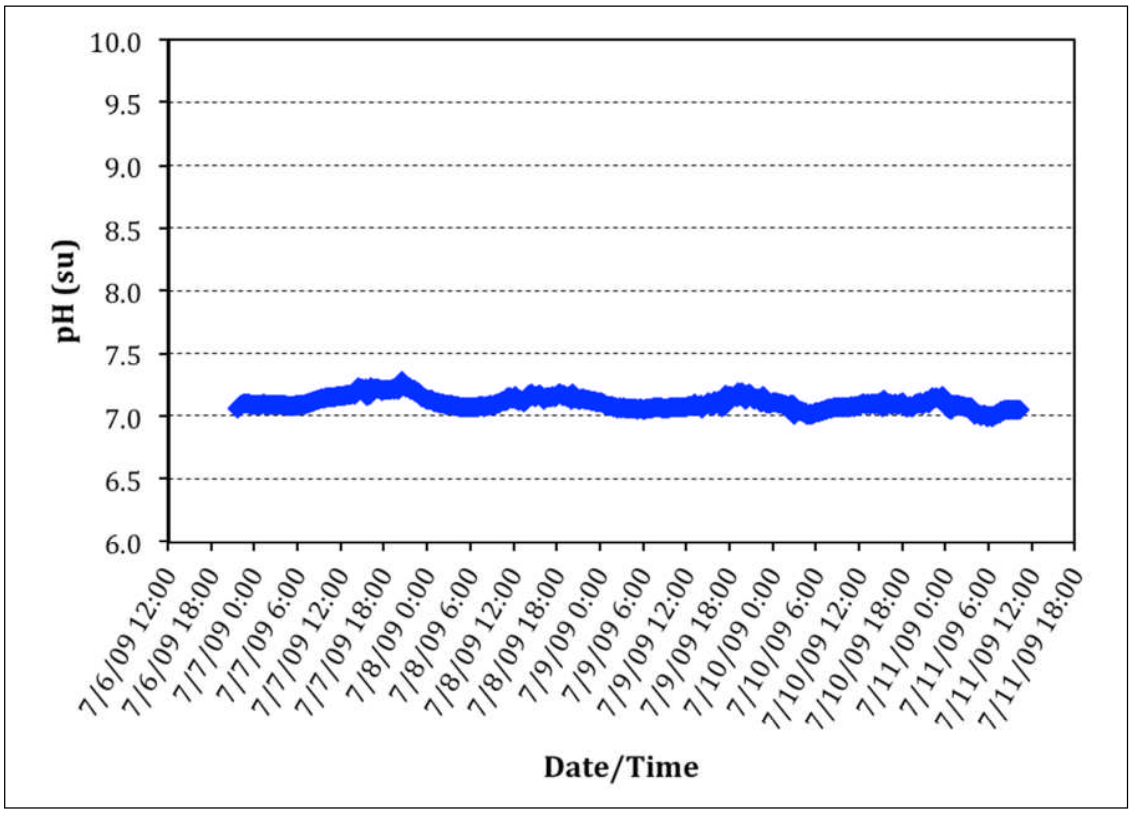

Figure A-4. Continuous pH data observed at Ponchatoula Creek at Violet Canal station VIOLET-3.

APPENDIX B:
Field Survey Notes
(CD-ROM)

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

APPENDIX C:
Model Vector Diagrams

Figure C-1. Vector diagram for subsegment 041805.....C-1

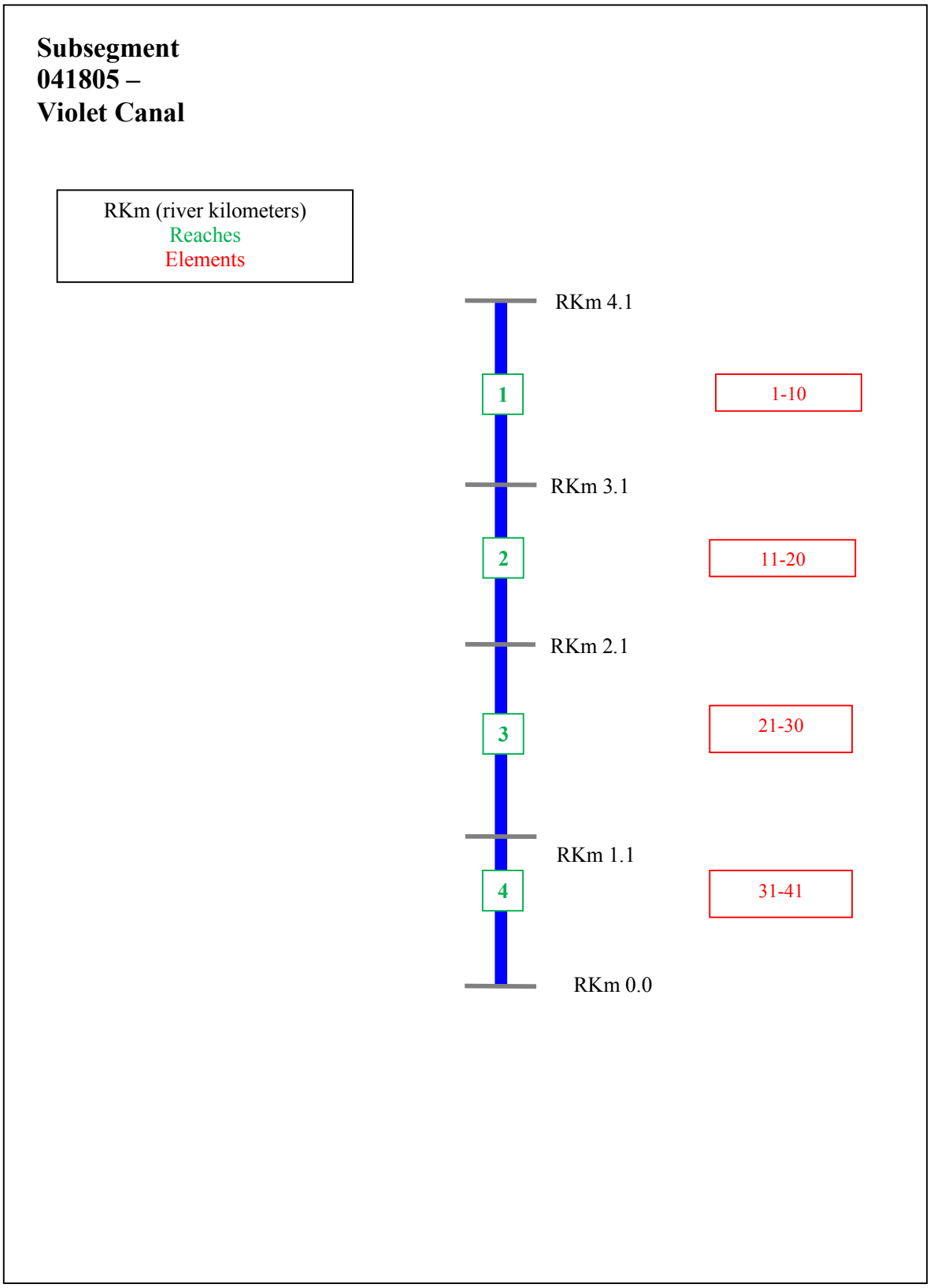

Figure C-1. Vector diagram for subsegment 041805.

APPENDIX D:
Model Calibration Output File

```
LA-QUAL Version 9.05
Louisiana Department of Environmental Quality
Input file is C:\Users\msievers\Desktop\New folder\041805(Violet)\Violet_Calib_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 20:44 on 11/14/2011
$$$ DATA TYPE 1 (TITLES AND CONTROL CARDS) $$$
CARD TYPE       CONTROL TITLES
TITLE01         LA-QUAL Model for Violet Canal
TITLE02         Calibration Simulation
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 =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   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         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.22000 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
ENDATA05
$$$ DATA TYPE 6 (PHYTOPLANKTON CONSTANTS) $$$
CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE
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   V2  MissSiphonToHwy38V1_V2          4.10  TO    3.10   0.1000     1.00        10       1     10
REACH ID      2   V3  Hwy38ToWofFortyArpentCanalV2_V3 3.10  TO    2.10   0.1000     1.00        10      11     20
REACH ID      3   V4  WofFortyArpentCanalToV4         2.10  TO    1.10   0.1000     1.00        10      21     30
REACH ID      4   V5  V4ToV5endofsubseg               1.10  TO    0.00   0.1000     1.10        11      31     41
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   V2       0.000       0.000      26.820       0.000       0.000       1.680     0.00010   0.000
HYDR-1        2   V3       0.000       0.000      45.470       0.000       0.000       1.070     0.00010   0.000
HYDR-1        3   V4       0.000       0.000      53.450       0.000       0.000       1.070     0.00010   0.000
HYDR-1        4   V5       0.000       0.000      69.490       0.000       0.000       0.950     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   V2      0.00       0.500          0.000          0.000          0.000
HYDR          2   V3      0.00       0.500          0.000          0.000          0.000
HYDR          3   V4      0.50      20.000          0.000          0.000          0.000
HYDR          4   V5      1.00      50.000          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
INITIAL          1   V2    30.60     0.00     5.30     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          2   V3    30.70     0.00     5.50     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          3   V4    30.90     0.00     4.90     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          4   V5    30.20     0.00     4.40     0.10     0.00     0.00     4.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
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   V2   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    2   V3   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    3   V4   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    4   V5   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     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   V2       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          2   V3       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          3   V4       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          4   V5       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     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
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
INCR-1           1   V2       0.00000     0.00000      0.00      0.00      0.00      0.00   0.00000   0.00000
INCR-1           2   V3       0.00000     0.62300     30.00      0.00    391.00      0.00   0.62300   0.00000
INCR-1           3   V4      -1.41500     0.00000     30.70      0.00    391.00      0.00   0.00000  -1.41500
INCR-1           4   V5      -1.41500     0.00000     30.70      0.00    391.00      0.00   0.00000  -1.28636
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
INCR-2           1   V2        0.00      0.00      0.00      0.00      0.00      0.00
INCR-2           2   V3        5.50     24.00      0.73      0.10      1.64      0.00
INCR-2           3   V4        5.50     14.00      0.78      0.10      1.64      0.00
INCR-2           4   V5        5.50     14.00      0.78      0.10      1.64      0.00
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   V2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         2   V3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         3   V4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         4   V5        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                frac
HDWTR-1          1     Violet-1                 0   6.28634  221.97530   30.10     0.00   392.000     0.000     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     Violet-1                    5.20     13.00      1.20      0.10      1.45      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
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
WSTLD-1        1       4.10  LAG531277              0.00006    0.00212    0.001   30.00     0.00     0.000     0.000
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     LAG531277                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      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
ENDATA26
$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$
CARD TYPE    CONSTITUENT                     CONCENTRATION
LOWER BC     TEMPERATURE                          30.200     deg C
LOWER BC     SALINITY                       =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I        =   4397.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                      4.000     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND       14.000     mg/L
LOWER BC     ORGANIC NITROGEN                      0.917     mg/L
LOWER BC     AMMONIA NITROGEN                      0.100     mg/L
LOWER BC     NITRATE NITROGEN                      0.633     mg/L
LOWER BC     CHLOROPHYLL A                         4.000     µg/L
ENDATA27
$$$ DATA TYPE 28 (DAM DATA) $$$
CARD TYPE     ELEMENT   NAME                 EQN      "A"       "B"       "H"
ENDATA28
$$$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) $$$
CARD TYPE       PARAMETER     COL 1     COL 2     COL 3     COL 4     COL 5     COL 6     COL 7     COL 8
ENDATA29
$$$ DATA TYPE 30 (PLOT CONTROL CARDS) $$$
NUMBER OF PLOTS =  1
NUMBER OF REACHES IN PLOT 1 =   4
PLOT RCH  1  2  3  4
ENDATA30
$$$ DATA TYPE 31 (OVERLAY PLOT DATA) $$$
OVERLAY 1 Violet.ovl                     :Violet Canal Overlay File
ENDATA31
     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....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 Violet Canal
     mg/L                                                        Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1        5.20      5.20      5.21      5.21      5.21      5.21      5.21      5.22      5.22      5.22
  V3     2    11        5.24      5.25      5.26      5.28      5.29      5.30      5.32      5.33      5.34      5.34
  V4     3    21        5.33      5.32      5.31      5.30      5.28      5.26      5.24      5.20      5.15      5.08
  V5     4    31        5.02      4.98      4.93      4.87      4.80      4.73      4.64      4.54      4.43      4.30
  V5     4    41        4.16
INTERMEDIATE REPORT
 Effective BOD1                                                  LA-QUAL Model for Violet Canal
     mg/L                                                        Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
```

```
 V2     1     1       12.98     12.97     12.95     12.93     12.92     12.90     12.88     12.87     12.85     12.84
 V3     2    11       12.93     13.02     13.10     13.19     13.27     13.35     13.43     13.51     13.58     13.62
 V4     3    21       13.60     13.58     13.56     13.55     13.53     13.51     13.50     13.48     13.47     13.46
 V5     4    31       13.45     13.45     13.46     13.47     13.49     13.52     13.57     13.62     13.69     13.77
 V5     4    41       13.88
INTERMEDIATE REPORT
 Biochemical Oxygen Demand                                    LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1       12.66     12.65     12.63     12.61     12.60     12.58     12.56     12.55     12.53     12.52
 V3     2    11       12.61     12.70     12.78     12.87     12.95     13.03     13.11     13.19     13.26     13.30
 V4     3    21       13.27     13.24     13.21     13.18     13.16     13.13     13.10     13.08     13.05     13.03
 V5     4    31       13.02     13.02     13.03     13.04     13.06     13.10     13.14     13.19     13.26     13.35
 V5     4    41       13.45
INTERMEDIATE REPORT
 Organic Nitrogen                                             LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        1.17      1.17      1.17      1.17      1.17      1.17      1.16      1.16      1.16      1.16
 V3     2    11        1.15      1.15      1.14      1.14      1.13      1.13      1.12      1.12      1.11      1.11
 V4     3    21        1.10      1.10      1.10      1.10      1.09      1.09      1.08      1.08      1.07      1.05
 V5     4    31        1.04      1.04      1.03      1.02      1.01      0.99      0.98      0.97      0.95      0.93
 V5     4    41        0.91
INTERMEDIATE REPORT
 Effective Organic Nitrogen                                   LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        1.20      1.20      1.20      1.19      1.19      1.19      1.19      1.19      1.19      1.19
 V3     2    11        1.18      1.17      1.17      1.16      1.16      1.15      1.15      1.14      1.14      1.13
 V4     3    21        1.13      1.13      1.13      1.12      1.12      1.12      1.12      1.11      1.10      1.09
 V5     4    31        1.08      1.07      1.06      1.05      1.04      1.03      1.01      1.00      0.98      0.96
 V5     4    41        0.94
INTERMEDIATE REPORT
 Ammonia Nitrogen                                             LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        0.10      0.10      0.10      0.11      0.11      0.11      0.11      0.11      0.11      0.11
 V3     2    11        0.12      0.12      0.12      0.12      0.12      0.12      0.12      0.12      0.13      0.13
 V4     3    21        0.13      0.13      0.13      0.13      0.14      0.14      0.14      0.14      0.14      0.14
 V5     4    31        0.14      0.14      0.14      0.14      0.14      0.13      0.13      0.13      0.12      0.12
 V5     4    41        0.11
INTERMEDIATE REPORT
 Nitrate+Nitrite Nitrogen                                     LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        1.45      1.45      1.45      1.45      1.45      1.45      1.45      1.45      1.45      1.45
 V3     2    11        1.45      1.45      1.45      1.46      1.46      1.46      1.46      1.46      1.46      1.46
 V4     3    21        1.46      1.46      1.46      1.46      1.45      1.44      1.43      1.41      1.38      1.34
 V5     4    31        1.31      1.28      1.25      1.21      1.17      1.12      1.06      0.99      0.92      0.84
 V5     4    41        0.74
INTERMEDIATE REPORT
 Total Nitrogen                                               LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        2.72      2.72      2.72      2.72      2.72      2.72      2.72      2.72      2.72      2.72
 V3     2    11        2.72      2.72      2.72      2.71      2.71      2.71      2.71      2.70      2.70      2.70
 V4     3    21        2.70      2.69      2.69      2.69      2.68      2.67      2.65      2.63      2.59      2.54
 V5     4    31        2.49      2.46      2.41      2.37      2.31      2.24      2.17      2.09      1.99      1.88
 V5     4    41        1.76
INTERMEDIATE REPORT
 Effective Total Nitrogen                                     LA-QUAL Model for Violet Canal
     mg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        2.75      2.75      2.75      2.75      2.75      2.75      2.75      2.75      2.75      2.75
 V3     2    11        2.75      2.74      2.74      2.74      2.74      2.73      2.73      2.73      2.73      2.72
 V4     3    21        2.72      2.72      2.72      2.72      2.71      2.70      2.69      2.66      2.62      2.57
 V5     4    31        2.53      2.49      2.45      2.40      2.34      2.28      2.20      2.12      2.02      1.91
 V5     4    41        1.79
INTERMEDIATE REPORT
 Chlorophyll a                                                LA-QUAL Model for Violet Canal
     µg/L                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
 V2     1     1        3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00
 V3     2    11        3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00      3.00
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V4	3	21	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
V5	4	31	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
V5	4	41	4.00									

INTERMEDIATE REPORT
Temperature — LA-QUAL Model for Violet Canal
deg C — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	30.61	30.62	30.63	30.64	30.65	30.66	30.67	30.68	30.69	30.70
V3	2	11	30.72	30.74	30.76	30.78	30.80	30.82	30.84	30.86	30.88	30.90
V4	3	21	30.83	30.76	30.69	30.62	30.55	30.48	30.41	30.34	30.27	30.20
V5	4	31	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
V5	4	41	30.20									

INTERMEDIATE REPORT
Salinity — LA-QUAL Model for Violet Canal
ppt — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3	2	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V4	3	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	41	0.00									

INTERMEDIATE REPORT
CONDUCTIVITY UNIT — LA-QUAL Model for Violet Canal
umhos/cm — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	392.00	392.00	392.00	392.00	392.00	392.00	392.00	392.00	392.00	392.00
V3	2	11	391.99	391.98	391.97	391.96	391.95	391.94	391.93	391.93	392.08	396.67
V4	3	21	402.30	408.59	418.58	434.37	459.11	497.57	556.89	647.63	785.32	992.56
V5	4	31	1151.79	1285.50	1440.94	1621.05	1829.03	2068.39	2342.93	2656.75	3014.24	3420.10
V5	4	41	3879.28									

INTERMEDIATE REPORT
River Distance — LA-QUAL Model for Violet Canal
km — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
V3	2	11	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
V4	3	21	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
V5	4	31	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Flow — LA-QUAL Model for Violet Canal
m^3/s — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
V3	2	11	6.3	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.8	6.9
V4	3	21	6.8	6.6	6.5	6.3	6.2	6.1	5.9	5.8	5.6	5.5
V5	4	31	5.4	5.2	5.1	5.0	4.9	4.7	4.6	4.5	4.3	4.2
V5	4	41	4.1									

INTERMEDIATE REPORT
Dispersion — LA-QUAL Model for Violet Canal
m^2/s — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V3	2	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V4	3	21	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
V5	4	31	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
V5	4	41	50.0									

INTERMEDIATE REPORT
Depth — LA-QUAL Model for Violet Canal
m — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
V3	2	11	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V4	3	21	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V5	4	31	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
V5	4	41	0.9									

INTERMEDIATE REPORT
Width — LA-QUAL Model for Violet Canal
m — Calibration Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
V3	2	11	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
V4	3	21	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
V5	4	31	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5

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 V5     4    41        69.5
INTERMEDIATE REPORT
 Advective Velocity                                          LA-QUAL Model for Violet Canal
     m/s                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V3     2    11         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V4     3    21         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V5     4    31         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V5     4    41         0.1
INTERMEDIATE REPORT
 Mean Velocity                                               LA-QUAL Model for Violet Canal
     m/s                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V3     2    11         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V4     3    21         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V5     4    31         0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1       0.1
  V5     4    41         0.1
INTERMEDIATE REPORT
 Cross-Sectional Area                                        LA-QUAL Model for Violet Canal
     m²                                                      Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1        45.1      45.1      45.1      45.1      45.1      45.1      45.1      45.1      45.1      45.1
  V3     2    11        48.7      48.7      48.7      48.7      48.7      48.7      48.7      48.7      48.7      48.7
  V4     3    21        57.2      57.2      57.2      57.2      57.2      57.2      57.2      57.2      57.2      57.2
  V5     4    31        66.0      66.0      66.0      66.0      66.0      66.0      66.0      66.0      66.0      66.0
  V5     4    41        66.0
INTERMEDIATE REPORT
 Reaeration Rate                                             LA-QUAL Model for Violet Canal
     per day                                                 Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1       0.820     0.820     0.820     0.820     0.820     0.821     0.821     0.821     0.821     0.821
  V3     2    11       1.563     1.571     1.579     1.587     1.595     1.604     1.612     1.620     1.627     1.635
  V4     3    21       1.491     1.474     1.456     1.438     1.421     1.403     1.384     1.366     1.348     1.329
  V5     4    31       1.461     1.444     1.426     1.408     1.390     1.371     1.352     1.333     1.314     1.294
  V5     4    41       1.274
INTERMEDIATE REPORT
 BOD1 Decay Rate                                             LA-QUAL Model for Violet Canal
     per day                                                 Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V3     2    11         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V4     3    21         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    31         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    41         0.
INTERMEDIATE REPORT
 BOD1 Settling Rate                                          LA-QUAL Model for Violet Canal
     m/d                                                     Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V3     2    11         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V4     3    21         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    31         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    41         0.
INTERMEDIATE REPORT
 Ammonia Nitrogen Decay Rate                                 LA-QUAL Model for Violet Canal
     per day                                                 Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V3     2    11         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V4     3    21         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    31         0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
  V5     4    41         0.
INTERMEDIATE REPORT
 Sediment Oxygen Demand                                      LA-QUAL Model for Violet Canal
     g/m²/d                                                  Calibration Simulation
  ID   RCH  ELEM         +0        +1        +2        +3        +4        +5        +6        +7        +8        +9
  V2     1     1         1.        1.        1.        1.        1.        1.        1.        1.        1.        1.
  V3     2    11         1.        1.        1.        1.        1.        1.        1.        1.        1.        1.
  V4     3    21         3.        3.        3.        3.        3.        3.        3.        3.        3.        3.
  V5     4    31         3.        3.        3.        3.        3.        3.        3.        3.        3.        3.
  V5     4    41         3.
CAPSULE SUMMARY FOR Violet-1
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IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	ORG-P mg/L	PO4-P mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	6.286	30.10	0.0	5.20	12.68	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0													
WASTELOAD # 001 (LAG531277) ENTERS HERE																												
1	V2	1	4.00	6.286	30.61	0.0	5.20	12.66	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.479	0.820	0.08	0.08	0.00	0.00	0.04	1.37
2	V2	1	3.90	6.286	30.62	0.0	5.20	12.65	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.478	0.820	0.08	0.08	0.00	0.00	0.04	1.37
3	V2	1	3.80	6.286	30.63	0.0	5.21	12.63	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.477	0.820	0.08	0.08	0.00	0.00	0.04	1.37
4	V2	1	3.70	6.286	30.64	0.0	5.21	12.61	0.00	1.17	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.475	0.820	0.08	0.08	0.00	0.00	0.04	1.37
5	V2	1	3.60	6.286	30.65	0.0	5.21	12.60	0.00	1.17	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.474	0.820	0.08	0.08	0.00	0.00	0.04	1.37
6	V2	1	3.50	6.286	30.66	0.0	5.21	12.58	0.00	1.17	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.473	0.821	0.08	0.08	0.00	0.00	0.04	1.37
7	V2	1	3.40	6.286	30.67	0.0	5.21	12.56	0.00	1.16	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.472	0.821	0.08	0.08	0.00	0.00	0.04	1.37
8	V2	1	3.30	6.286	30.68	0.0	5.22	12.55	0.00	1.16	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.471	0.821	0.08	0.08	0.00	0.00	0.04	1.37
9	V2	1	3.20	6.286	30.69	0.0	5.22	12.53	0.00	1.16	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.469	0.821	0.08	0.08	0.00	0.00	0.04	1.37
10	V2	1	3.10	6.286	30.70	0.0	5.22	12.52	0.00	1.16	0.11	1.45	2.72	0.00	0.00	3.0	0.5	1.68	26.8	0.140	0.140	7.468	0.821	0.08	0.08	0.00	0.00	0.04	1.37
11	V3	2	3.00	6.349	30.72	0.0	5.24	12.61	0.00	1.15	0.12	1.45	2.72	0.00	0.00	3.0	0.5	1.07	45.5	0.130	0.130	7.465	1.563	0.08	0.12	0.00	0.00	0.04	1.37
12	V3	2	2.90	6.411	30.74	0.0	5.25	12.70	0.00	1.15	0.12	1.45	2.72	0.00	0.00	3.0	0.5	1.07	45.5	0.132	0.132	7.463	1.571	0.08	0.12	0.00	0.00	0.04	1.38
13	V3	2	2.80	6.473	30.76	0.0	5.26	12.78	0.00	1.14	0.12	1.45	2.72	0.00	0.00	3.0	0.5	1.07	45.5	0.133	0.133	7.461	1.579	0.08	0.12	0.00	0.00	0.04	1.38
14	V3	2	2.70	6.536	30.78	0.0	5.28	12.87	0.00	1.14	0.12	1.46	2.71	0.00	0.00	3.0	0.5	1.07	45.5	0.134	0.134	7.458	1.587	0.08	0.12	0.00	0.00	0.04	1.38
15	V3	2	2.60	6.598	30.80	0.0	5.29	12.95	0.00	1.13	0.12	1.46	2.71	0.00	0.00	3.0	0.5	1.07	45.5	0.136	0.136	7.455	1.595	0.08	0.12	0.00	0.00	0.04	1.38
16	V3	2	2.50	6.660	30.82	0.0	5.30	13.03	0.00	1.13	0.12	1.46	2.71	0.00	0.00	3.0	0.5	1.07	45.5	0.137	0.137	7.452	1.604	0.08	0.12	0.00	0.00	0.04	1.38
17	V3	2	2.40	6.723	30.84	0.0	5.32	13.11	0.00	1.12	0.12	1.46	2.71	0.00	0.00	3.0	0.5	1.07	45.5	0.138	0.138	7.450	1.612	0.08	0.12	0.00	0.00	0.04	1.39
18	V3	2	2.30	6.785	30.86	0.0	5.33	13.19	0.00	1.12	0.12	1.46	2.70	0.00	0.00	3.0	0.5	1.07	45.5	0.139	0.139	7.448	1.620	0.08	0.12	0.00	0.00	0.04	1.39
19	V3	2	2.20	6.847	30.88	0.0	5.34	13.26	0.00	1.11	0.13	1.46	2.70	0.00	0.00	3.0	0.5	1.07	45.5	0.141	0.141	7.445	1.627	0.08	0.12	0.00	0.00	0.04	1.39
20	V3	2	2.10	6.909	30.90	0.0	5.34	13.30	0.00	1.11	0.13	1.46	2.70	0.00	0.00	3.0	0.5	1.07	45.5	0.142	0.142	7.443	1.635	0.08	0.12	0.00	0.00	0.04	1.39
21	V4	3	2.00	6.768	30.83	0.0	5.33	13.27	0.00	1.10	0.13	1.46	2.70	0.00	0.00	3.1	20.0	1.07	53.5	0.118	0.118	7.451	1.491	0.08	0.12	0.00	0.00	0.04	3.32
22	V4	3	1.90	6.626	30.76	0.0	5.32	13.24	0.00	1.10	0.13	1.46	2.69	0.00	0.00	3.2	20.0	1.07	53.5	0.116	0.116	7.461	1.474	0.08	0.12	0.00	0.00	0.04	3.31
23	V4	3	1.80	6.485	30.69	0.0	5.31	13.21	0.00	1.10	0.13	1.46	2.69	0.00	0.00	3.3	20.0	1.07	53.5	0.113	0.113	7.469	1.456	0.08	0.12	0.00	0.00	0.04	3.29
24	V4	3	1.70	6.343	30.62	0.0	5.30	13.18	0.00	1.10	0.13	1.46	2.69	0.00	0.00	3.4	20.0	1.07	53.5	0.111	0.111	7.478	1.438	0.08	0.12	0.00	0.00	0.04	3.28
25	V4	3	1.60	6.202	30.55	0.0	5.28	13.16	0.00	1.09	0.14	1.45	2.68	0.00	0.00	3.5	20.0	1.07	53.5	0.108	0.108	7.488	1.421	0.08	0.12	0.00	0.00	0.04	3.26
26	V4	3	1.50	6.060	30.48	0.0	5.26	13.13	0.00	1.09	0.14	1.44	2.67	0.00	0.00	3.6	20.0	1.07	53.5	0.106	0.106	7.496	1.403	0.08	0.12	0.00	0.00	0.04	3.25
27	V4	3	1.40	5.919	30.41	0.0	5.24	13.10	0.00	1.08	0.14	1.43	2.65	0.00	0.00	3.7	20.0	1.07	53.5	0.103	0.103	7.505	1.384	0.08	0.12	0.00	0.00	0.04	3.24
28	V4	3	1.30	5.777	30.34	0.0	5.20	13.08	0.00	1.08	0.14	1.41	2.63	0.00	0.00	3.8	20.0	1.07	53.5	0.101	0.101	7.514	1.366	0.08	0.12	0.00	0.00	0.04	3.22
29	V4	3	1.20	5.636	30.27	0.0	5.15	13.05	0.00	1.07	0.14	1.38	2.59	0.00	0.00	3.9	20.0	1.07	53.5	0.099	0.099	7.523	1.348	0.08	0.12	0.00	0.00	0.04	3.21
30	V4	3	1.10	5.494	30.20	0.0	5.08	13.03	0.00	1.05	0.14	1.34	2.54	0.00	0.00	4.0	20.0	1.07	53.5	0.096	0.096	7.532	1.329	0.08	0.12	0.00	0.00	0.04	3.19
31	V5	4	1.00	5.366	30.20	0.0	5.02	13.02	0.00	1.04	0.14	1.31	2.49	0.00	0.00	4.0	50.0	0.95	69.5	0.081	0.081	7.532	1.461	0.08	0.13	0.00	0.00	0.04	3.19
32	V5	4	0.90	5.237	30.20	0.0	4.98	13.02	0.00	1.04	0.14	1.28	2.46	0.00	0.00	4.0	50.0	0.95	69.5	0.079	0.079	7.532	1.444	0.08	0.13	0.00	0.00	0.04	3.19
33	V5	4	0.80	5.108	30.20	0.0	4.93	13.03	0.00	1.03	0.14	1.25	2.41	0.00	0.00	4.0	50.0	0.95	69.5	0.077	0.077	7.532	1.426	0.08	0.13	0.00	0.00	0.04	3.19
34	V5	4	0.70	4.980	30.20	0.0	4.87	13.04	0.00	1.02	0.14	1.21	2.37	0.00	0.00	4.0	50.0	0.95	69.5	0.075	0.075	7.532	1.408	0.08	0.13	0.00	0.00	0.04	3.19
35	V5	4	0.60	4.851	30.20	0.0	4.80	13.06	0.00	1.01	0.14	1.17	2.31	0.00	0.00	4.0	50.0	0.95	69.5	0.073	0.073	7.532	1.390	0.08	0.13	0.00	0.00	0.04	3.19
36	V5	4	0.50	4.723	30.20	0.0	4.73	13.10	0.00	0.99	0.13	1.12	2.24	0.00	0.00	4.0	50.0	0.95	69.5	0.072	0.072	7.532	1.371	0.08	0.13	0.00	0.00	0.04	3.19
37	V5	4	0.40	4.594	30.20	0.0	4.64	13.14	0.00	0.98	0.13	1.06	2.17	0.00	0.00	4.0	50.0	0.95	69.5	0.070	0.070	7.532	1.352	0.08	0.13	0.00	0.00	0.04	3.19
38	V5	4	0.30	4.465	30.20	0.0	4.54	13.19	0.00	0.97	0.13	0.99	2.09	0.00	0.00	4.0	50.0	0.95	69.5	0.068	0.068	7.532	1.333	0.08	0.13	0.00	0.00	0.04	3.19
39	V5	4	0.20	4.337	30.20	0.0	4.43	13.26	0.00	0.95	0.12	0.92	1.99	0.00	0.00	4.0	50.0	0.95	69.5	0.066	0.066	7.532	1.314	0.08	0.13	0.00	0.00	0.04	3.19
40	V5	4	0.10	4.208	30.20	0.0	4.30	13.35	0.00	0.93	0.12	0.84	1.88	0.00	0.00	4.0	50.0	0.95	69.5	0.064	0.064	7.532	1.294	0.08	0.13	0.00	0.00	0.04	3.19
41	V5	4	0.00	4.079	30.20	0.0	4.16	13.45	0.00	0.91	0.11	0.74	1.76	0.00	0.00	4.0	50.0	0.95	69.5	0.062	0.062	7.532	1.274	0.08	0.13	0.00	0.00	0.04	3.19

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 1 MissSiphonToHwy38V1_V2 Calibration Simulation

REACH INPUTS

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	6.28634	30.10	0.00	392.00	0.00	5.20	12.68	0.00	13.00	0.00	1.20	0.10	1.45	0.00	3.00	0.00	0.00
1	WSTLD	0.00006	30.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.00	0.00	0.00	0.00

HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	4.10	4.00	6.28640	0.0	0.13952	0.01	0.01	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
2	4.00	3.90	6.28640	0.0	0.13952	0.01	0.02	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
3	3.90	3.80	6.28640	0.0	0.13952	0.01	0.02	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
4	3.80	3.70	6.28640	0.0	0.13952	0.01	0.03	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
5	3.70	3.60	6.28640	0.0	0.13952	0.01	0.04	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
6	3.60	3.50	6.28640	0.0	0.13952	0.01	0.05	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
7	3.50	3.40	6.28640	0.0	0.13952	0.01	0.06	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
8	3.40	3.30	6.28640	0.0	0.13952	0.01	0.07	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
9	3.30	3.20	6.28640	0.0	0.13952	0.01	0.07	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
10	3.20	3.10	6.28640	0.0	0.13952	0.01	0.08	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.140
TOT						0.08				45057.59	26820.00					
AVG					0.1395			1.68	26.82			45.06				

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	4.000	7.48	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00

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
2	3.900	7.48	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
3	3.800	7.48	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
4	3.700	7.48	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
5	3.600	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
6	3.500	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
7	3.400	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
8	3.300	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
9	3.200	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
10	3.100	7.47	0.82	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.67	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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	4.000	30.61	0.00	392.00	0.00	5.20	12.66	0.00	12.98	0.00	1.17	0.10	1.45	2.72	1.20	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
2	3.900	30.62	0.00	392.00	0.00	5.20	12.65	0.00	12.97	0.00	1.17	0.10	1.45	2.72	1.20	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
3	3.800	30.63	0.00	392.00	0.00	5.21	12.63	0.00	12.95	0.00	1.17	0.10	1.45	2.72	1.20	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
4	3.700	30.64	0.00	392.00	0.00	5.21	12.61	0.00	12.93	0.00	1.17	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
5	3.600	30.65	0.00	392.00	0.00	5.21	12.60	0.00	12.92	0.00	1.17	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
6	3.500	30.66	0.00	392.00	0.00	5.21	12.58	0.00	12.90	0.00	1.17	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
7	3.400	30.67	0.00	392.00	0.00	5.21	12.56	0.00	12.88	0.00	1.16	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
8	3.300	30.68	0.00	392.00	0.00	5.22	12.55	0.00	12.87	0.00	1.16	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
9	3.200	30.69	0.00	392.00	0.00	5.22	12.53	0.00	12.85	0.00	1.16	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
10	3.100	30.70	0.00	392.00	0.00	5.22	12.52	0.00	12.84	0.00	1.16	0.11	1.45	2.72	1.19	2.75	0.00	0.00	0.00	0.00	0.00	3.0	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	4.000	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
2	3.900	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
3	3.800	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
4	3.700	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
5	3.600	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
6	3.500	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
7	3.400	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
8	3.300	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
9	3.200	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
10	3.100	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	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										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

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

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal

REACH NO. 2 Hwy38ToWofFortyArpentCanalV2_V3 Calibration Simulation

REACH INPUTS

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
11	UPR RCH	6.28640	30.70	0.00	392.00	0.00	5.22	12.52	0.00	12.84	0.00	1.16	0.11	1.45	0.00	3.00	0.00	0.00
EACH	INCR	0.06230	30.00	0.00	391.00	0.00	5.50	24.00	0.00			0.73	0.10	1.64	0.00	0.00	0.00	

HYDRAULIC PARAMETER VALUES

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	3.10	3.00	6.34870	0.0	0.13049	0.01	0.09	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.130
12	3.00	2.90	6.41100	0.0	0.13177	0.01	0.10	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.132
13	2.90	2.80	6.47330	0.0	0.13305	0.01	0.11	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.133
14	2.80	2.70	6.53560	0.0	0.13433	0.01	0.12	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.134
15	2.70	2.60	6.59790	0.0	0.13561	0.01	0.13	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.136
16	2.60	2.50	6.66020	0.0	0.13689	0.01	0.13	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.137
17	2.50	2.40	6.72250	0.0	0.13817	0.01	0.14	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.138
18	2.40	2.30	6.78480	0.0	0.13945	0.01	0.15	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.139
19	2.30	2.20	6.84710	0.0	0.14073	0.01	0.16	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.141
20	2.20	2.10	6.90940	0.0	0.14201	0.01	0.17	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.142
TOT						0.09				48652.90	45470.00					
AVG					0.1362			1.07	45.47			48.65				

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
11	3.000	7.47	1.56	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
12	2.900	7.46	1.57	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
13	2.800	7.46	1.58	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
14	2.700	7.46	1.59	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
15	2.600	7.46	1.60	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
16	2.500	7.45	1.60	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
17	2.400	7.45	1.61	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00

18	2.300	7.45	1.62	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
19	2.200	7.45	1.63	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
20	2.100	7.44	1.64	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.31	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
11	3.000	30.72	0.00	391.99	0.00	5.24	12.61	0.00	12.93	0.00	1.15	0.12	1.45	2.72	1.18	2.75	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
12	2.900	30.74	0.00	391.98	0.00	5.25	12.70	0.00	13.02	0.00	1.15	0.12	1.45	2.72	1.17	2.74	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
13	2.800	30.76	0.00	391.97	0.00	5.26	12.78	0.00	13.10	0.00	1.14	0.12	1.45	2.72	1.17	2.74	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
14	2.700	30.78	0.00	391.96	0.00	5.28	12.87	0.00	13.19	0.00	1.14	0.12	1.46	2.71	1.16	2.74	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
15	2.600	30.80	0.00	391.95	0.00	5.29	12.95	0.00	13.27	0.00	1.13	0.12	1.46	2.71	1.16	2.74	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
16	2.500	30.82	0.00	391.94	0.00	5.30	13.03	0.00	13.35	0.00	1.13	0.12	1.46	2.71	1.15	2.73	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
17	2.400	30.84	0.00	391.93	0.00	5.32	13.11	0.00	13.43	0.00	1.12	0.12	1.46	2.71	1.15	2.73	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
18	2.300	30.86	0.00	391.93	0.00	5.33	13.19	0.00	13.51	0.00	1.12	0.12	1.46	2.70	1.14	2.73	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
19	2.200	30.88	0.00	392.08	0.00	5.34	13.26	0.00	13.58	0.00	1.11	0.13	1.46	2.70	1.14	2.73	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
20	2.100	30.90	0.00	396.67	0.00	5.34	13.30	0.00	13.62	0.00	1.11	0.13	1.46	2.70	1.13	2.72	0.00	0.00	0.00	0.00	0.00	3.0	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
11	3.000	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
12	2.900	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
13	2.800	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
14	2.700	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
15	2.600	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
16	2.500	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
17	2.400	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
18	2.300	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
19	2.200	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
20	2.100	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.0	0.00	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										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

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

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 3 WofFortyArpentCanalToV4 Calibration Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
21	UPR RCH	6.90940	30.90	0.00	396.67	0.00	5.34	13.30	0.00	13.62	0.00	1.11	0.13	1.46	0.00	3.00	0.00	0.00
EACH	INCR	-0.14150																

********** 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
21	2.10	2.00	6.76790	0.0	0.11834	0.01	0.18	1.07	53.45	5719.15	5345.00	57.19	587.95	0.000	20.000	0.118
22	2.00	1.90	6.62640	0.0	0.11586	0.01	0.19	1.07	53.45	5719.15	5345.00	57.19	1175.90	0.001	20.000	0.116
23	1.90	1.80	6.48490	0.0	0.11339	0.01	0.20	1.07	53.45	5719.15	5345.00	57.19	1763.85	0.001	20.000	0.113
24	1.80	1.70	6.34340	0.0	0.11092	0.01	0.21	1.07	53.45	5719.15	5345.00	57.19	2351.80	0.002	20.000	0.111
25	1.70	1.60	6.20190	0.0	0.10844	0.01	0.22	1.07	53.45	5719.15	5345.00	57.19	2939.75	0.002	20.000	0.108
26	1.60	1.50	6.06040	0.0	0.10597	0.01	0.23	1.07	53.45	5719.15	5345.00	57.19	3527.70	0.003	20.000	0.106
27	1.50	1.40	5.91890	0.0	0.10349	0.01	0.24	1.07	53.45	5719.15	5345.00	57.19	4115.65	0.003	20.000	0.103
28	1.40	1.30	5.77740	0.0	0.10102	0.01	0.25	1.07	53.45	5719.15	5345.00	57.19	4703.60	0.004	20.000	0.101
29	1.30	1.20	5.63590	0.0	0.09854	0.01	0.26	1.07	53.45	5719.15	5345.00	57.19	5291.55	0.004	20.000	0.099
30	1.20	1.10	5.49440	0.0	0.09607	0.01	0.28	1.07	53.45	5719.15	5345.00	57.19	5879.50	0.005	20.000	0.096
TOT						0.11				57191.50	53450.00					
AVG					0.1067			1.07	53.45			57.19				

********** 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
21	2.000	7.45	1.49	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.32	3.32	3.32	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
22	1.900	7.46	1.47	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.31	3.31	3.31	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
23	1.800	7.47	1.46	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
24	1.700	7.48	1.44	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
25	1.600	7.49	1.42	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
26	1.500	7.50	1.40	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
27	1.400	7.51	1.38	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
28	1.300	7.51	1.37	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.22	3.22	3.22	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
29	1.200	7.52	1.35	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.21	3.21	3.21	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
30	1.100	7.53	1.33	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.16	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
21	2.000	30.83	0.00	402.30	0.00	5.33	13.27	0.00	13.60	0.00	1.10	0.13	1.46	2.70	1.13	2.72	0.00	0.00	0.00	0.00	0.00	3.1	0.0	0.	0.00
22	1.900	30.76	0.00	408.59	0.00	5.32	13.24	0.00	13.58	0.00	1.10	0.13	1.46	2.69	1.13	2.72	0.00	0.00	0.00	0.00	0.00	3.2	0.0	0.	0.00
23	1.800	30.69	0.00	418.58	0.00	5.31	13.21	0.00	13.56	0.00	1.10	0.13	1.46	2.69	1.13	2.72	0.00	0.00	0.00	0.00	0.00	3.3	0.0	0.	0.00
24	1.700	30.62	0.00	434.37	0.00	5.30	13.18	0.00	13.55	0.00	1.10	0.13	1.46	2.69	1.12	2.72	0.00	0.00	0.00	0.00	0.00	3.4	0.0	0.	0.00
25	1.600	30.55	0.00	459.11	0.00	5.28	13.16	0.00	13.53	0.00	1.09	0.14	1.45	2.68	1.12	2.71	0.00	0.00	0.00	0.00	0.00	3.5	0.0	0.	0.00
26	1.500	30.48	0.00	497.57	0.00	5.26	13.13	0.00	13.51	0.00	1.09	0.14	1.44	2.67	1.12	2.70	0.00	0.00	0.00	0.00	0.00	3.6	0.0	0.	0.00
27	1.400	30.41	0.00	556.89	0.00	5.24	13.10	0.00	13.50	0.00	1.08	0.14	1.43	2.65	1.12	2.69	0.00	0.00	0.00	0.00	0.00	3.7	0.0	0.	0.00
28	1.300	30.34	0.00	647.63	0.00	5.20	13.08	0.00	13.48	0.00	1.08	0.14	1.41	2.63	1.11	2.66	0.00	0.00	0.00	0.00	0.00	3.8	0.0	0.	0.00
29	1.200	30.27	0.00	785.32	0.00	5.15	13.05	0.00	13.47	0.00	1.07	0.14	1.38	2.59	1.10	2.62	0.00	0.00	0.00	0.00	0.00	3.9	0.0	0.	0.00
30	1.100	30.20	0.00	992.56	0.00	5.08	13.03	0.00	13.46	0.00	1.05	0.14	1.34	2.54	1.09	2.57	0.00	0.00	0.00	0.00	0.00	4.0	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
21	2.000	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
22	1.900	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
23	1.800	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
24	1.700	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
25	1.600	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
26	1.500	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
27	1.400	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
28	1.300	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
29	1.200	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	3.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
30	1.100	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.00	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										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

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

FINAL REPORT Violet-1 — LA-QUAL Model for Violet Canal

REACH NO. 4 V4ToV5endofsubseg — Calibration Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	UPR RCH	5.49440	30.20	0.00	992.56	0.00	5.08	13.03	0.00	13.46	0.00	1.05	0.14	1.34	0.00	4.00	0.00	0.00
EACH	INCR	-0.12864																

********** 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
31	1.10	1.00	5.36577	0.0	0.08128	0.01	0.29	0.95	69.49	6601.55	6949.00	66.02	7408.28	0.005	50.000	0.081
32	1.00	0.90	5.23713	0.0	0.07933	0.01	0.31	0.95	69.49	6601.55	6949.00	66.02	8937.06	0.006	50.000	0.079
33	0.90	0.80	5.10849	0.0	0.07738	0.01	0.32	0.95	69.49	6601.55	6949.00	66.02	10465.84	0.007	50.000	0.077
34	0.80	0.70	4.97986	0.0	0.07543	0.02	0.34	0.95	69.49	6601.55	6949.00	66.02	11994.62	0.008	50.000	0.075
35	0.70	0.60	4.85122	0.0	0.07349	0.02	0.35	0.95	69.49	6601.55	6949.00	66.02	13523.40	0.009	50.000	0.073
36	0.60	0.50	4.72258	0.0	0.07154	0.02	0.37	0.95	69.49	6601.55	6949.00	66.02	15052.18	0.011	50.000	0.072
37	0.50	0.40	4.59395	0.0	0.06959	0.02	0.38	0.95	69.49	6601.55	6949.00	66.02	16580.96	0.012	50.000	0.070
38	0.40	0.30	4.46531	0.0	0.06764	0.02	0.40	0.95	69.49	6601.55	6949.00	66.02	18109.74	0.013	50.000	0.068
39	0.30	0.20	4.33668	0.0	0.06569	0.02	0.42	0.95	69.49	6601.55	6949.00	66.02	19638.52	0.014	50.000	0.066
40	0.20	0.10	4.20804	0.0	0.06374	0.02	0.44	0.95	69.49	6601.55	6949.00	66.02	21167.30	0.015	50.000	0.064
41	0.10	0.00	4.07940	0.0	0.06179	0.02	0.46	0.95	69.49	6601.55	6949.00	66.02	22696.08	0.016	50.000	0.062
TOT						0.18				72617.05	76439.00					
AVG					0.0710			0.95	69.49			66.02				

********** 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
31	1.000	7.53	1.46	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
32	0.900	7.53	1.44	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
33	0.800	7.53	1.43	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
34	0.700	7.53	1.41	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
35	0.600	7.53	1.39	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
36	0.500	7.53	1.37	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
37	0.400	7.53	1.35	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
38	0.300	7.53	1.33	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
39	0.200	7.53	1.31	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
40	0.100	7.53	1.29	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
41	0.000	7.53	1.27	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			1.13	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
31	1.000	30.20	0.00	1151.79	0.00	5.02	13.02	0.00	13.45	0.00	1.04	0.14	1.31	2.49	1.08	2.53	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
32	0.900	30.20	0.00	1285.50	0.00	4.98	13.02	0.00	13.45	0.00	1.04	0.14	1.28	2.46	1.07	2.49	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00

33	0.800	30.20	0.00	1440.94	0.00	4.93	13.03	0.00	13.46	0.00	1.03	0.14	1.25	2.41	1.06	2.45	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
34	0.700	30.20	0.00	1621.05	0.00	4.87	13.04	0.00	13.47	0.00	1.02	0.14	1.21	2.37	1.05	2.40	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
35	0.600	30.20	0.00	1829.03	0.00	4.80	13.06	0.00	13.49	0.00	1.01	0.14	1.17	2.31	1.04	2.34	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
36	0.500	30.20	0.00	2068.39	0.00	4.73	13.10	0.00	13.52	0.00	0.99	0.13	1.12	2.24	1.03	2.28	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
37	0.400	30.20	0.00	2342.93	0.00	4.64	13.14	0.00	13.57	0.00	0.98	0.13	1.06	2.17	1.01	2.20	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
38	0.300	30.20	0.00	2656.75	0.00	4.54	13.19	0.00	13.62	0.00	0.97	0.13	0.99	2.09	1.00	2.12	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
39	0.200	30.20	0.00	3014.24	0.00	4.43	13.26	0.00	13.69	0.00	0.95	0.12	0.92	1.99	0.98	2.02	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
40	0.100	30.20	0.00	3420.10	0.00	4.30	13.35	0.00	13.77	0.00	0.93	0.12	0.84	1.88	0.96	1.91	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
41	0.000	30.20	0.00	3879.28	0.00	4.16	13.45	0.00	13.88	0.00	0.91	0.11	0.74	1.76	0.94	1.79	0.00	0.00	0.00	0.00	0.00	4.0	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
31	1.000	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
32	0.900	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
33	0.800	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
34	0.700	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
35	0.600	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
36	0.500	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
37	0.400	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
38	0.300	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
39	0.200	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
40	0.100	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.0	0.0
41	0.000	0.00	Inf	1.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.000	0.0	4.0	0.86	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										0.000	0.000	0.000	0.000										0.000	0.000	0.000		

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

LA-QUAL Model for Violet Canal
Calibration Simulation
REACH SUMMARY REPORT: Violet-1

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	MissSiphonToHwy38V1_V2	4.10	3.10	1.00	0.08	6.28640	0.13952	1.680	26.82	221.973	0.458	5.512	88.00
2	Hwy38ToWofFortyArpentCanalV2_V3	3.10	2.10	1.00	0.09	6.90940	0.13615	1.070	45.47	243.971	0.447	3.511	149.19
3	WofFortyArpentCanalToV4	2.10	1.10	1.00	0.11	5.49440	0.10673	1.070	53.45	194.007	0.350	3.511	175.37
4	V4ToV5endofsubseg	1.10	0.00	1.10	0.18	4.07940	0.07100	0.950	69.49	144.044	0.233	3.117	228.00

LA-QUAL Model for Violet Canal
Calibration Simulation
STREAM SUMMARY REPORT: Violet-1

TRAVEL TIME	=	0.46	DAYS		
MAXIMUM EFFLUENT	=	0.00	PERCENT		
FLOW	=	4.07940	TO	6.90940	m³/s
DISPERSION	=	0.5000	TO	50.0000	m²/s
VELOCITY	=	0.06179	TO	0.14201	m/s
DEPTH	=	0.95	TO	1.68	m
WIDTH	=	26.82	TO	69.49	m
BOD DECAY	=	0.08	TO	0.08	per day
NH3 DECAY	=	0.04	TO	0.04	per day
SOD	=	1.37	TO	3.32	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	=	0.82	TO	1.64	per day
BOD SETTLING	=	0.08	TO	0.13	per day
ORG-N DECAY	=	0.15	TO	0.15	per day
ORG-N SETTLING	=	0.00	TO	0.00	per day
TEMPERATURE	=	30.20	TO	30.90	deg C
DISSOLVED OXYGEN	=	4.16	TO	5.34	mg/L

LA-QUAL Model for Violet Canal
Calibration Simulation
INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/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	6.28634	2824.33	6886.79	0.00	637.92	54.31	787.55	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.62300	296.05	1291.85	0.00	39.29	5.38	88.28	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-2.83000	-1212.67	-3215.04	0.00	-253.48	-32.59	-306.81	0.00	0.00	0.00		0.00
WASTELOADS	0.00006	0.01	0.54	0.00	0.04	0.08	0.01	0.00	0.00	0.00		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	-4.07940	-1466.82	-4740.63	0.00	-319.68	-38.15	-260.94	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-461.03	349.88	0.00	-68.42	-23.53	-306.12	0.00	0.00	0.00		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		715.74										
DAM REAERATION		0.00										
SOD BACKGROUND		-517.84										

BOD1 DECAY		-235.37	-235.37									
BOD1 SETTLING		0.00	-337.96									
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			-35.67	35.67						
ORG-N SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		-5.09				-1.18	1.18					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		62.66				0.00	-3.13		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
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	6.90940	3898.79	8529.07	0.00	677.25	95.44	877.02	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-6.90940	-3898.82	-8529.00	0.00	-677.25	-95.45	-877.00	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.04	0.07	0.00	0.00	-0.01	0.01	0.00	0.00	0.00	0.00	0.00

.....EXECUTION COMPLETED

APPENDIX E:
Calibration Water Quality Plots

Figure E-1. Temperature calibration results for subsegment 041805. ..... E-1
Figure E-2. Ammonia calibration results for subsegment 041805. ..... E-1
Figure E-3. $CBOD_u$ calibration results for subsegment 041805. ..... E-2
Figure E-4. DO calibration results for subsegment 041805. ..... E-2
Figure E-5. Organic nitrogen calibration results for subsegment 041805. ..... E-3
Figure E-6. Nitrate+nitrite calibration results for subsegment 041805. ..... E-3

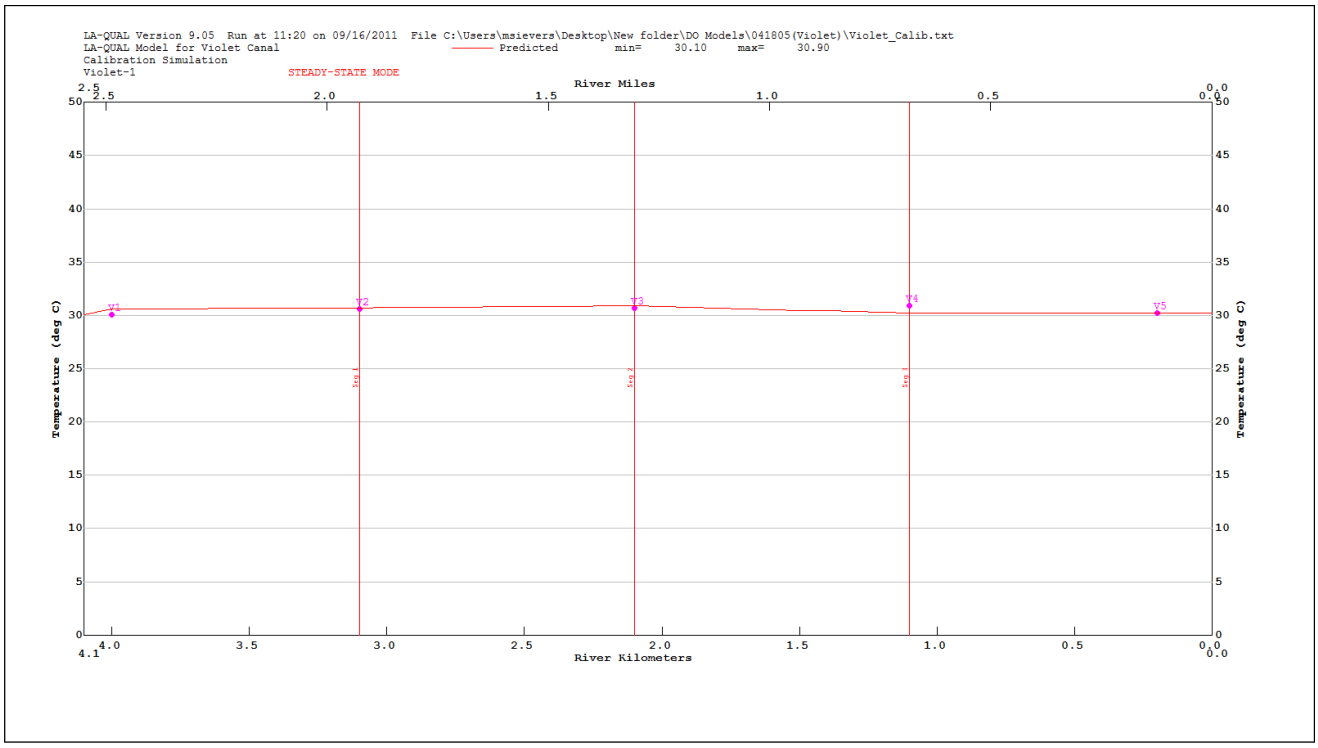

Figure E-1. Temperature calibration results for subsegment 041805.

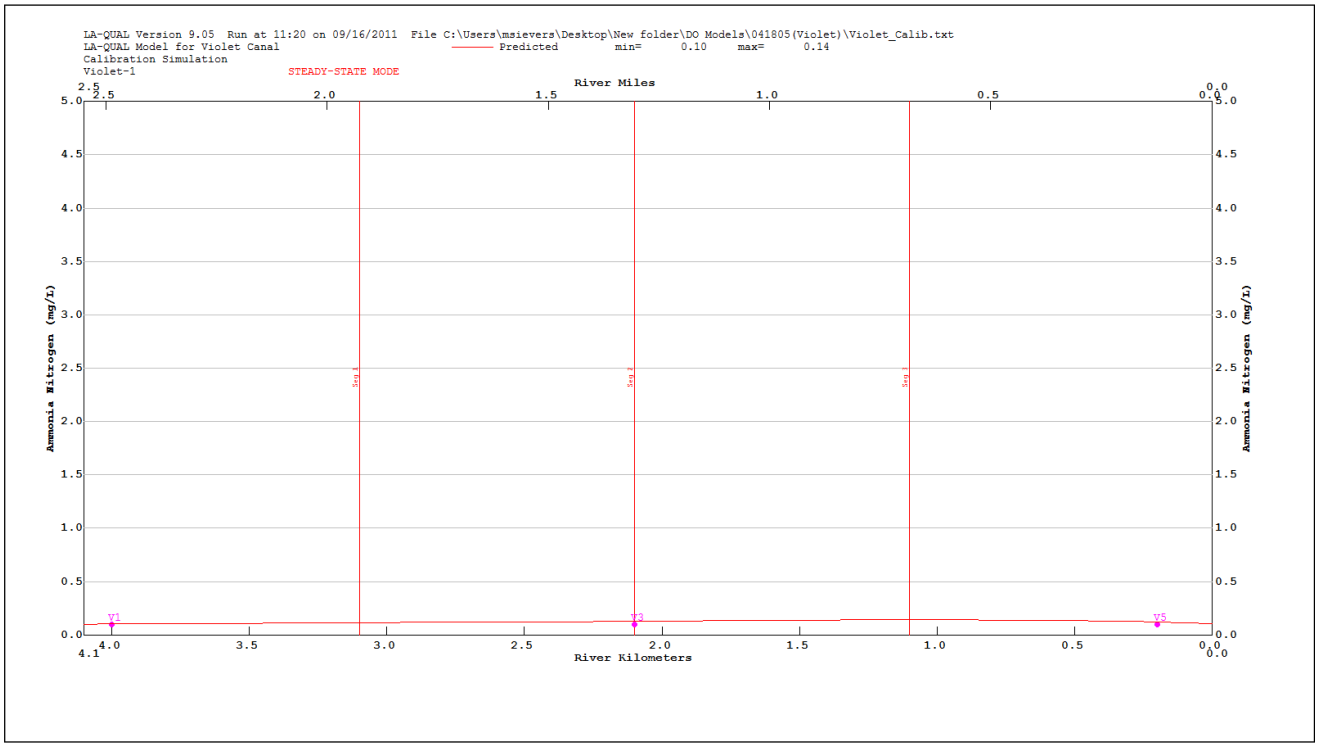

Figure E-2. Ammonia calibration results for subsegment 041805.

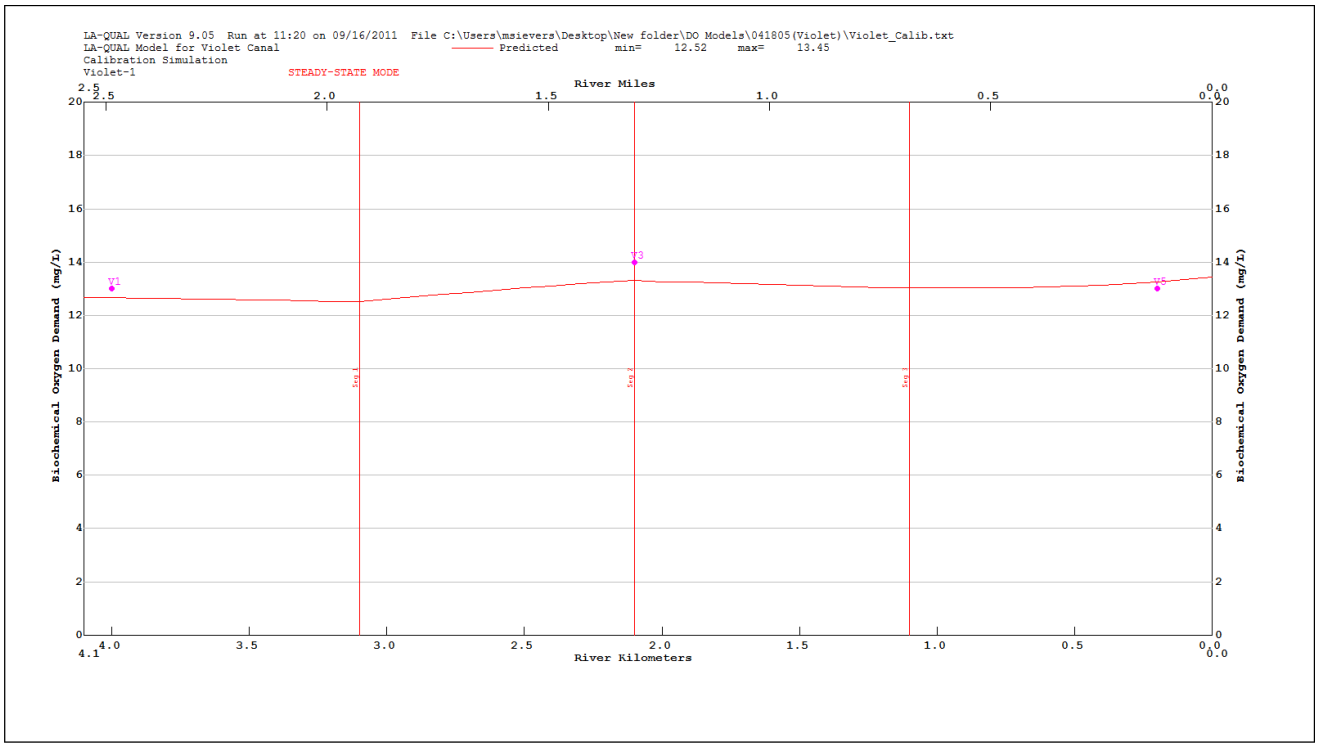

Figure E-3. $CBOD_u$ calibration results for subsegment 041805.

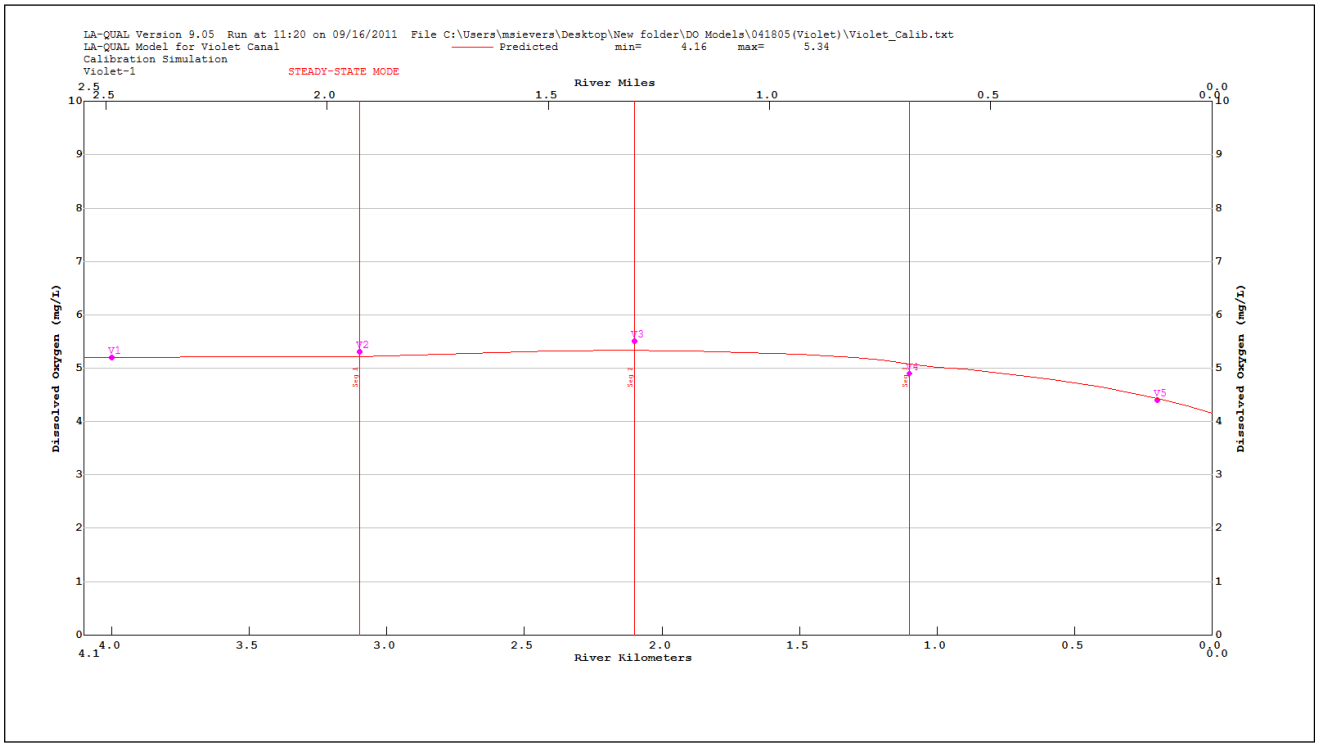

Figure E-4. DO calibration results for subsegment 041805.

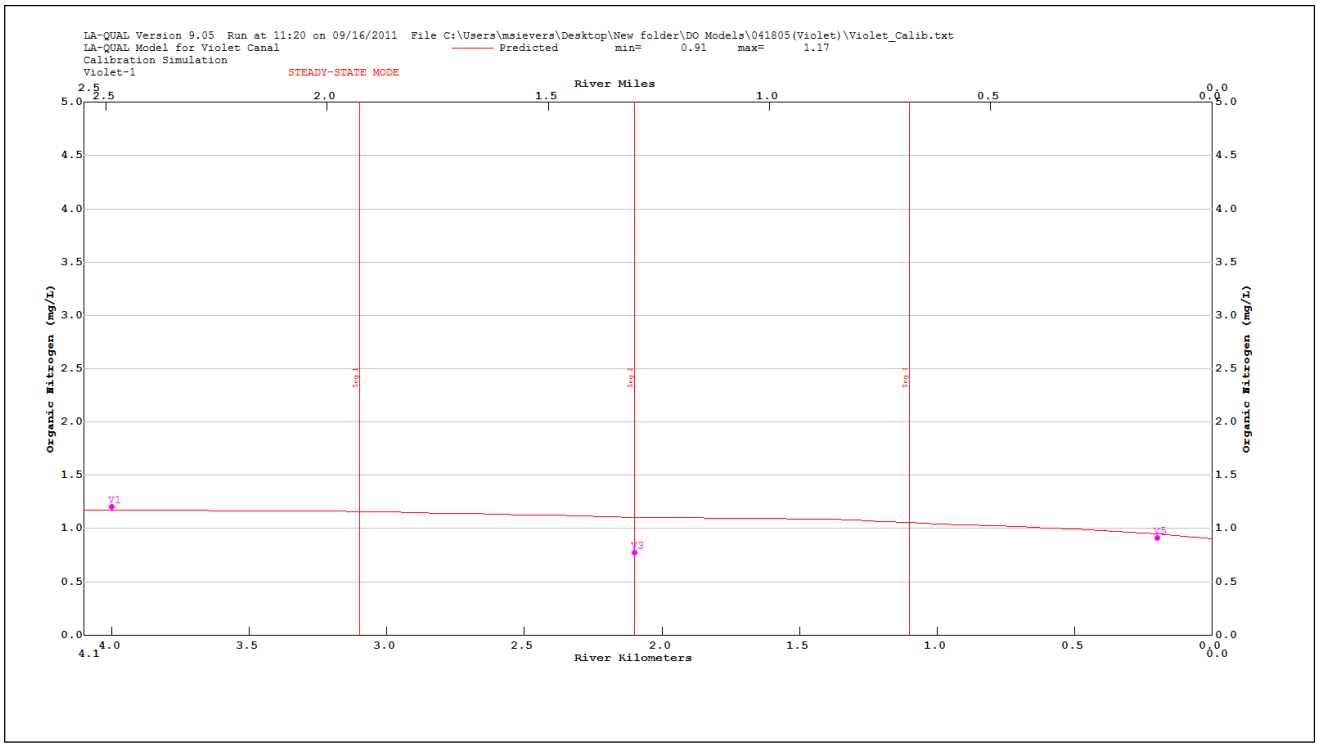

Figure E-5. Organic nitrogen calibration results for subsegment 041805.

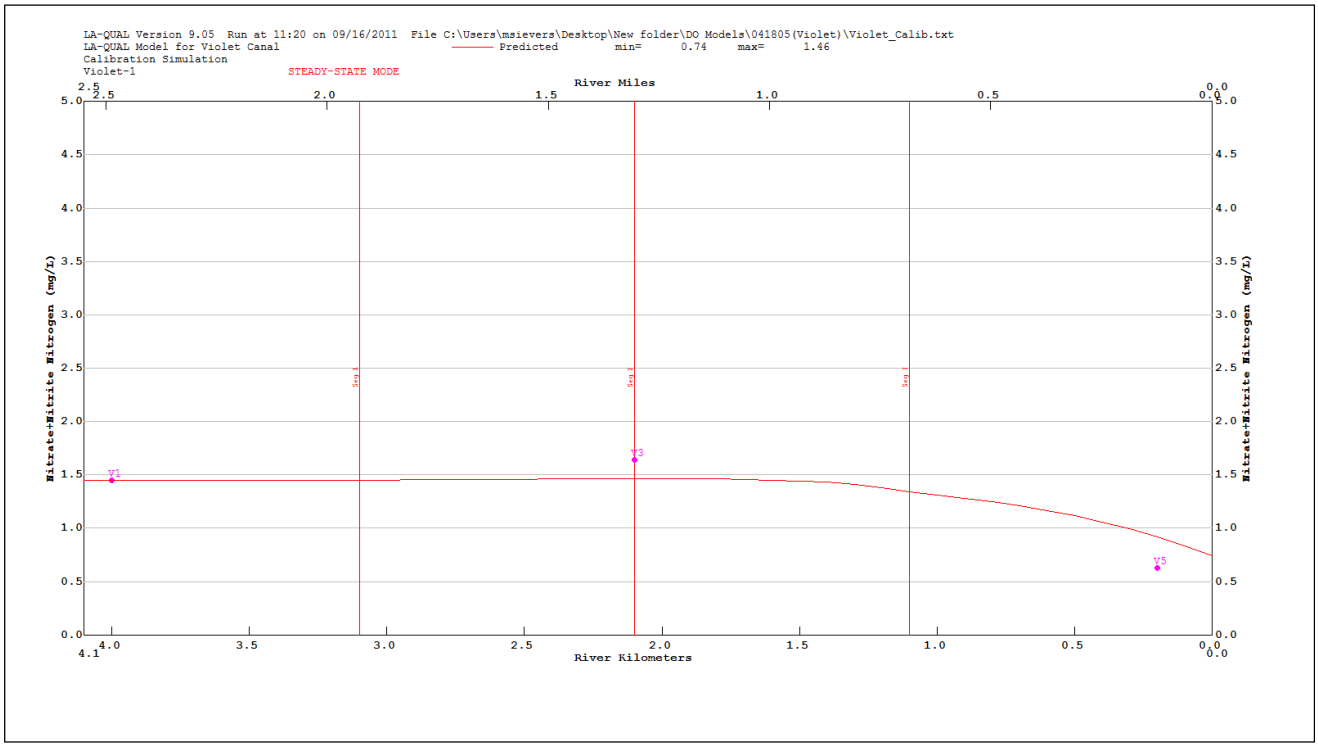

Figure E-6. Nitrate+nitrite calibration results for subsegment 041805.

APPENDIX F:
Sensitivity Analysis Plots

Figure F-1. CBOD sensitivity results (CBOD aerobic decay rate) for subsegment 041805..... F-1
Figure F-2. CBOD sensitivity results (dispersion) for subsegment 041805..... F-1
Figure F-3. CBOD sensitivity results (reaeration) for subsegment 041805..... F-2
Figure F-4. CBOD sensitivity results (background SOD) for subsegment 041805..... F-2
Figure F-5. CBOD sensitivity results (stream velocity) for subsegment 041805. ..... F-3
Figure F-6. DO sensitivity results (CBOD aerobic decay rate) for subsegment 041805..... F-3
Figure F-7. DO sensitivity results (dispersion) for subsegment 041805..... F-4
Figure F-8. DO sensitivity results (reaeration) for subsegment 041805..... F-4
Figure F-9. DO sensitivity results (background SOD) for subsegment 041805..... F-5
Figure F-10. DO sensitivity results (stream velocity) for subsegment 041805. ..... F-5

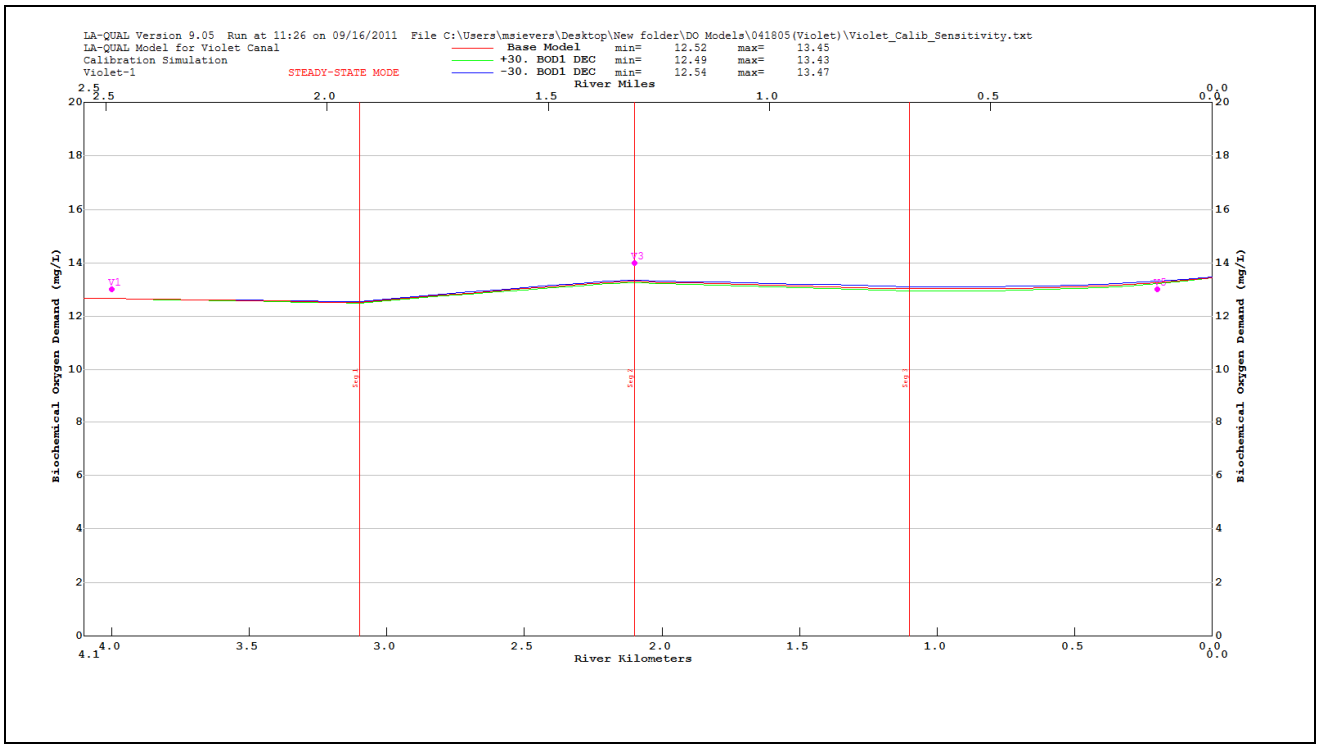

Figure F-1. CBOD sensitivity results (CBOD aerobic decay rate) for subsegment 041805.

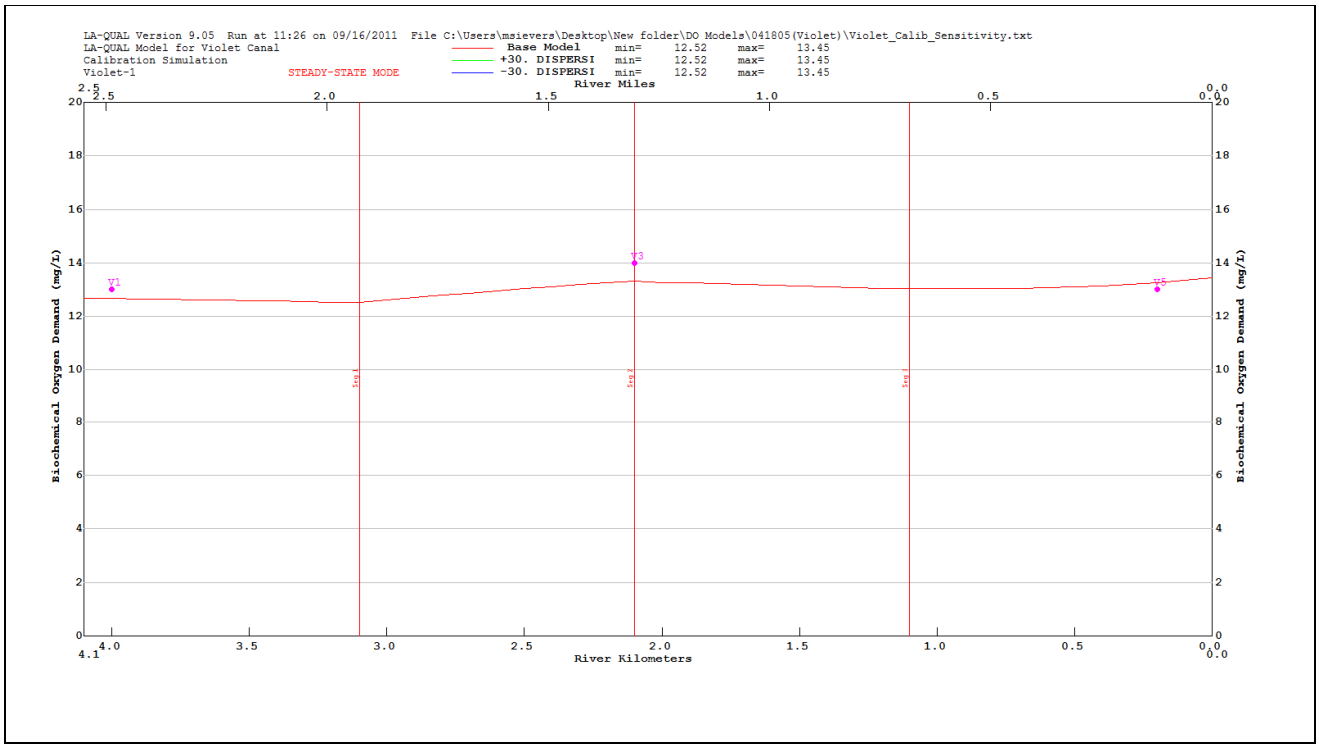

Figure F-2. CBOD sensitivity results (dispersion) for subsegment 041805.

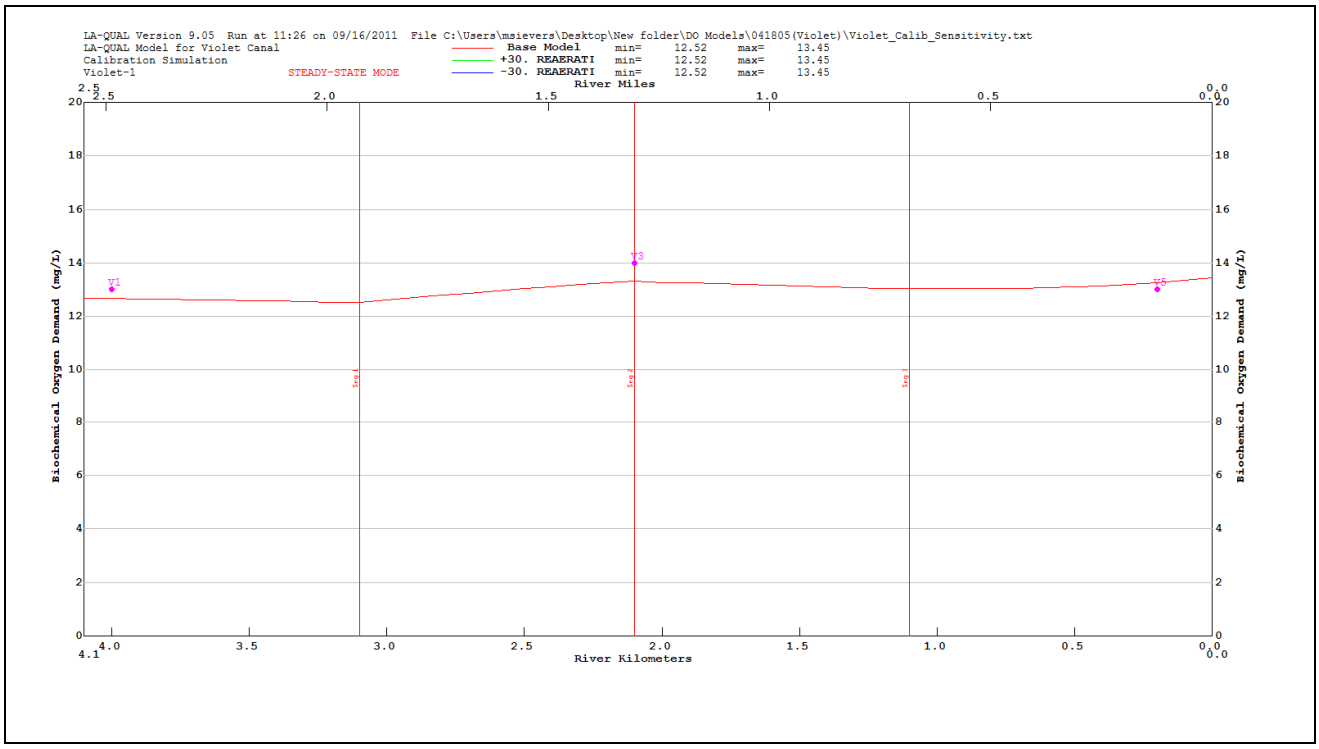

Figure F-3. CBOD sensitivity results (reaeration) for subsegment 041805.

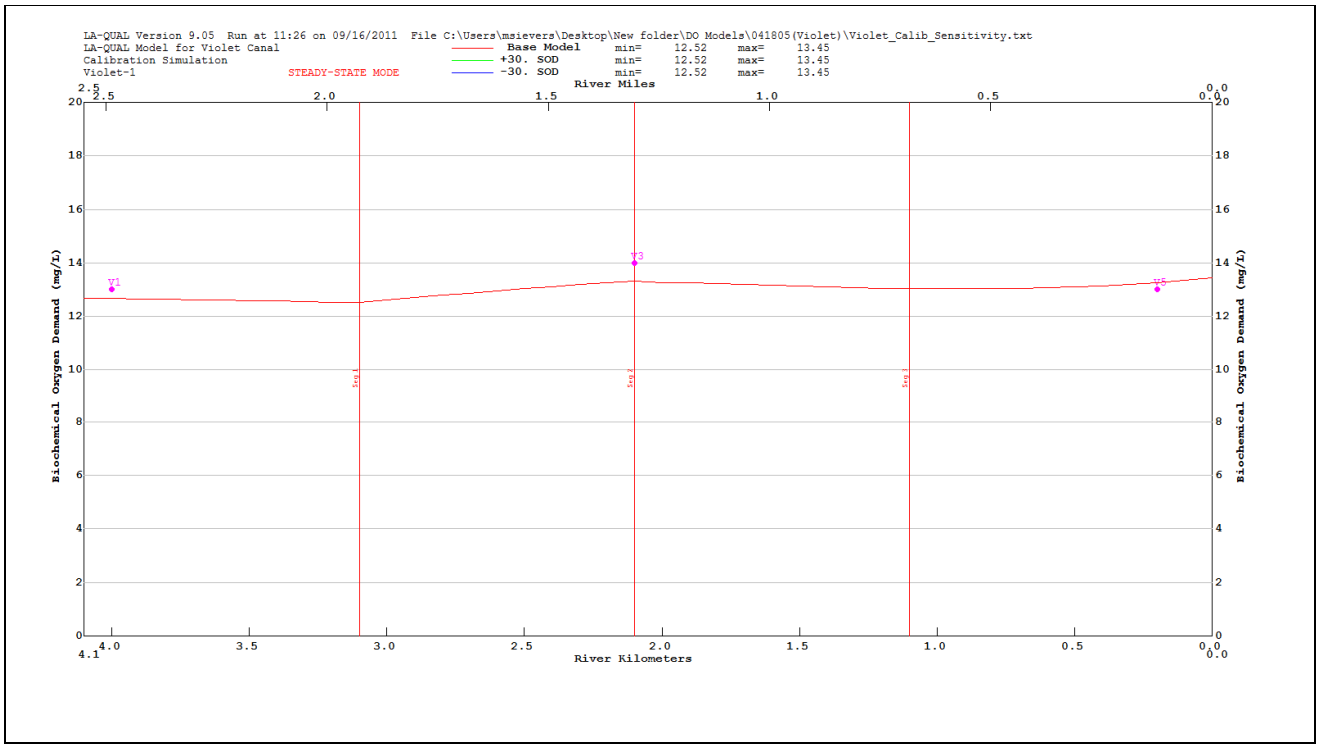

Figure F-4. CBOD sensitivity results (background SOD) for subsegment 041805.

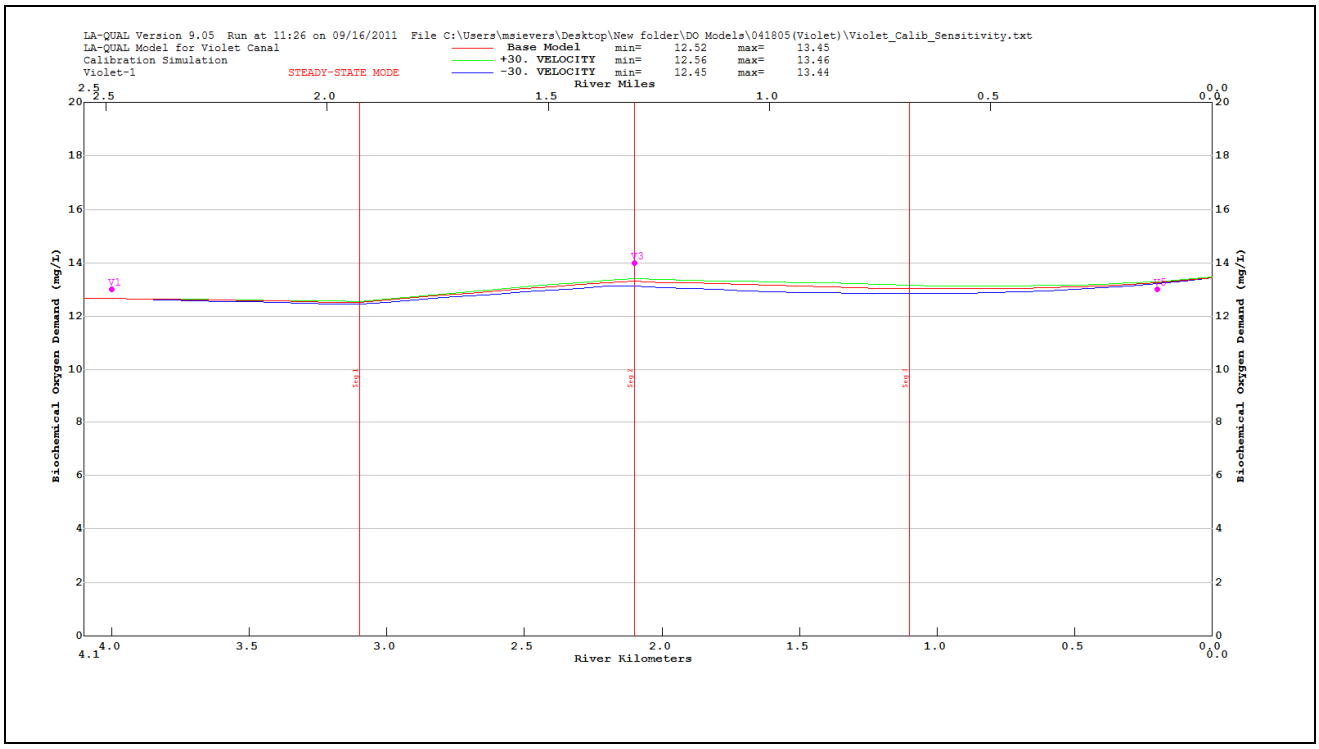

Figure F-5. CBOD sensitivity results (stream velocity) for subsegment 041805.

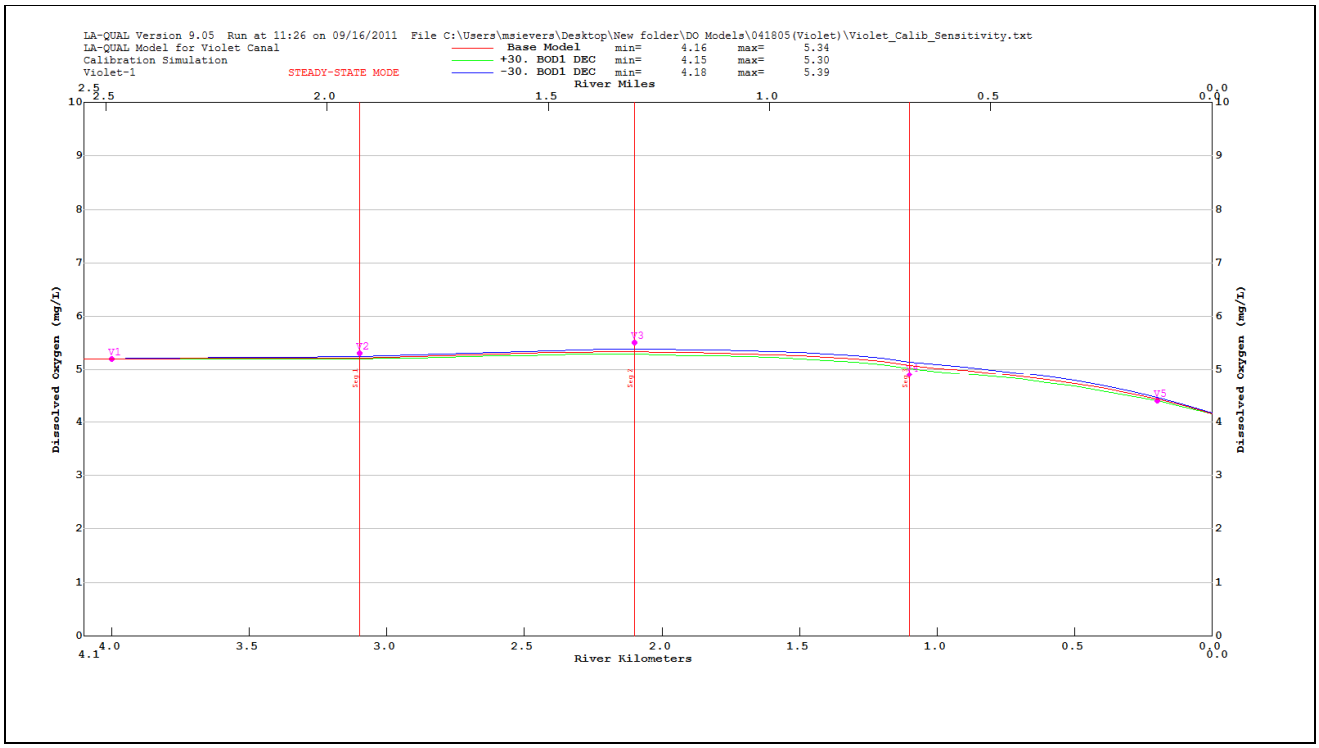

Figure F-6. DO sensitivity results (CBOD aerobic decay rate) for subsegment 041805.

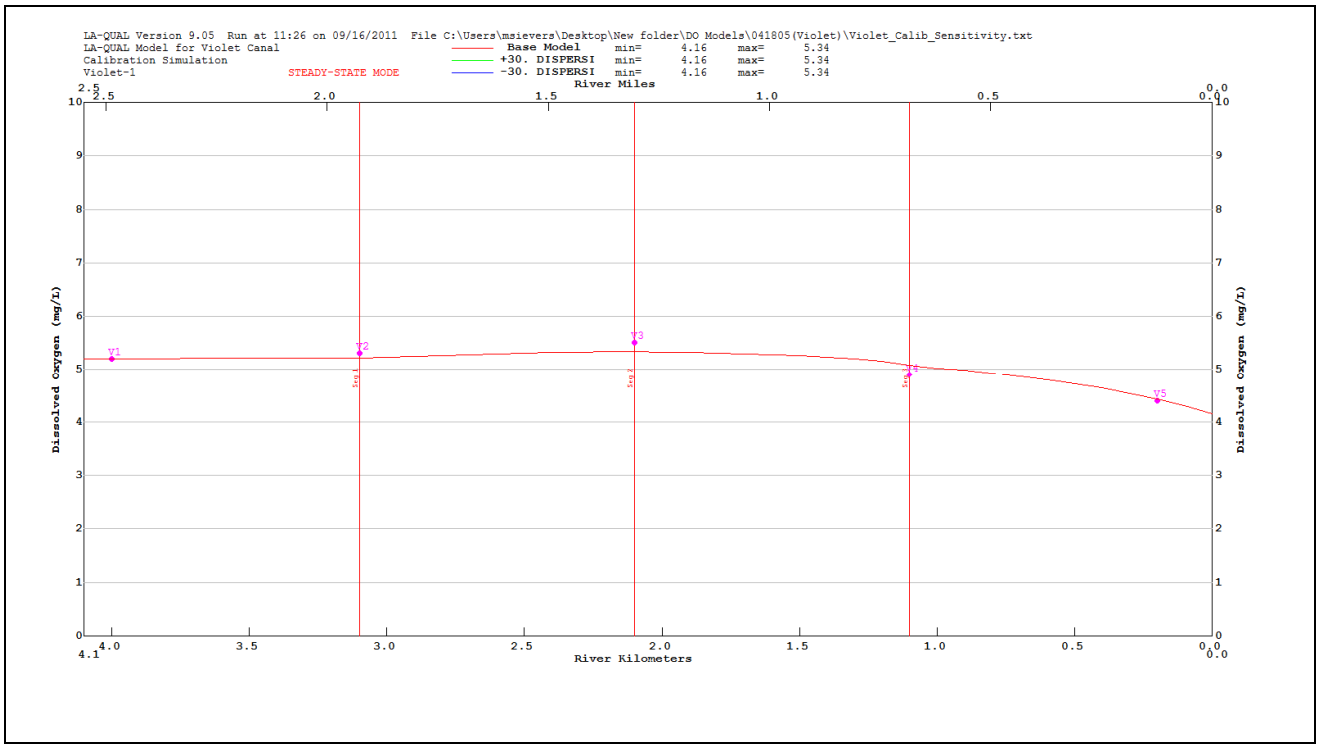

Figure F-7. DO sensitivity results (dispersion) for subsegment 041805.

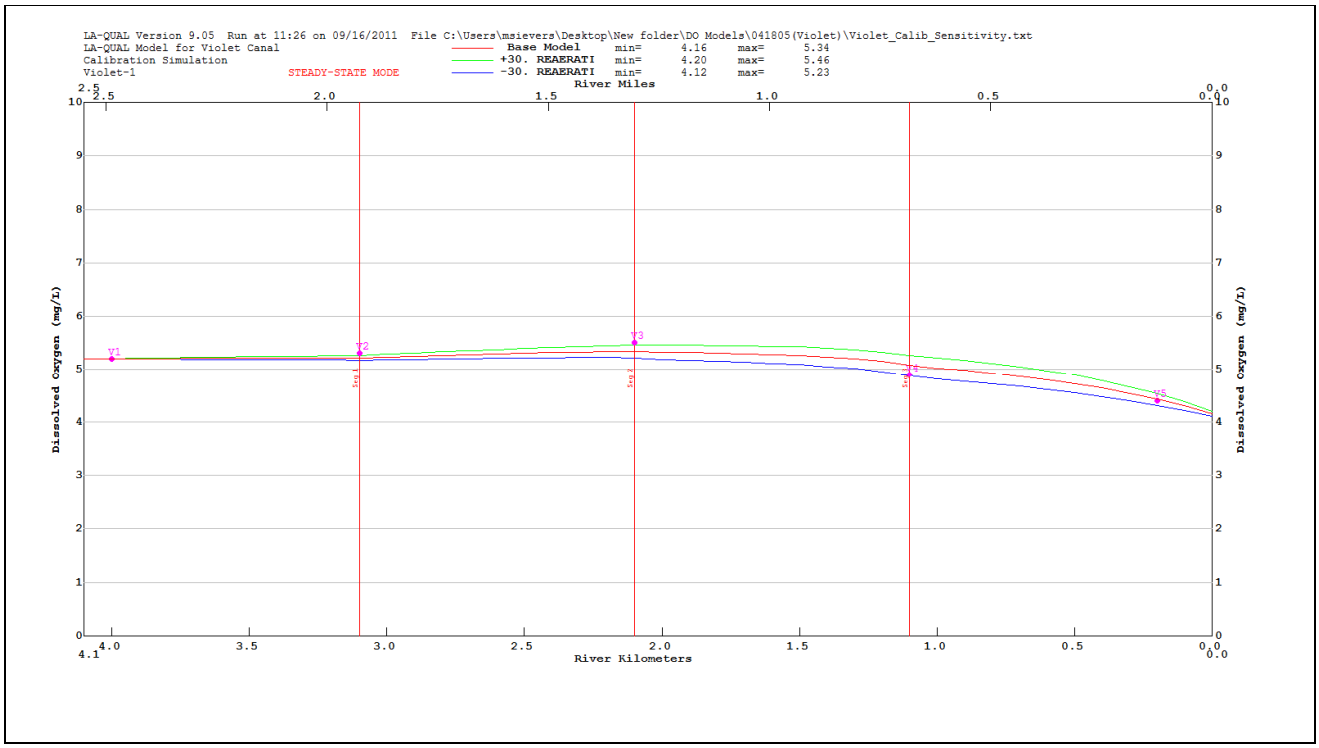

Figure F-8. DO sensitivity results (reaeration) for subsegment 041805.

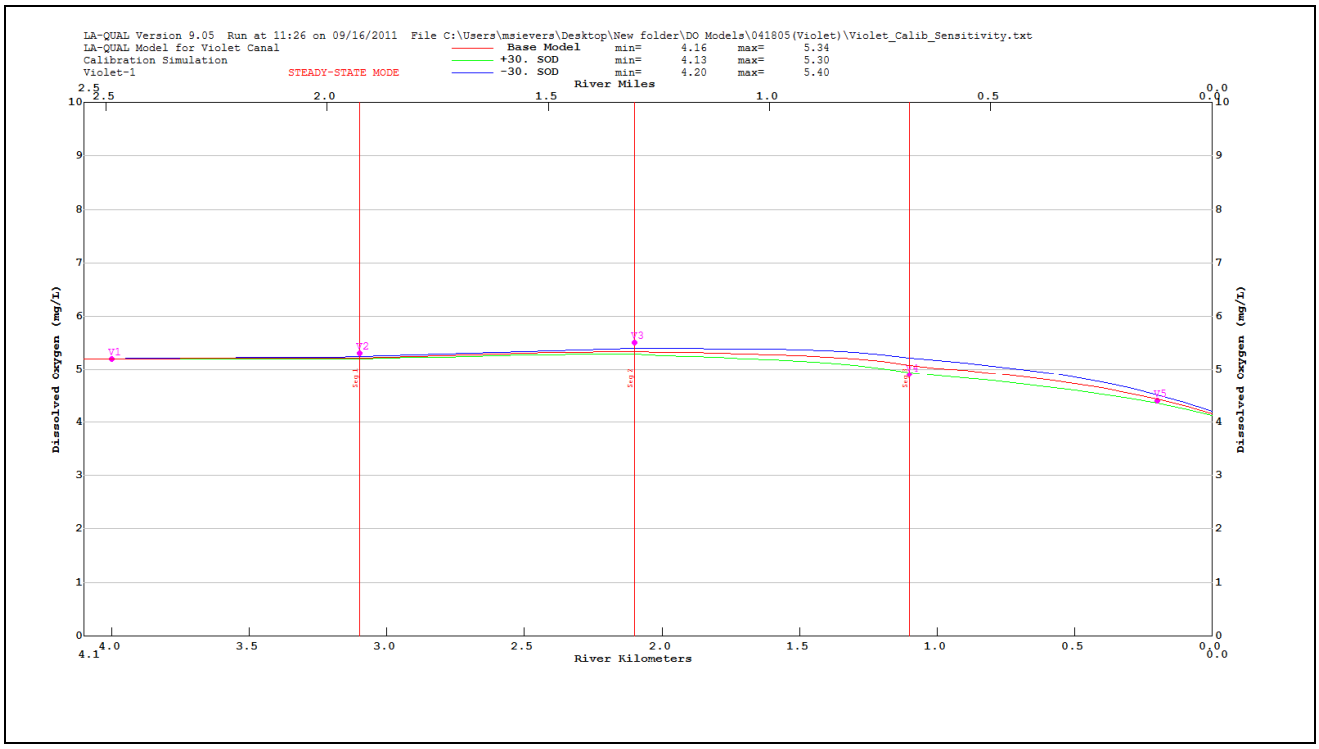

Figure F-9. DO sensitivity results (background SOD) for subsegment 041805.

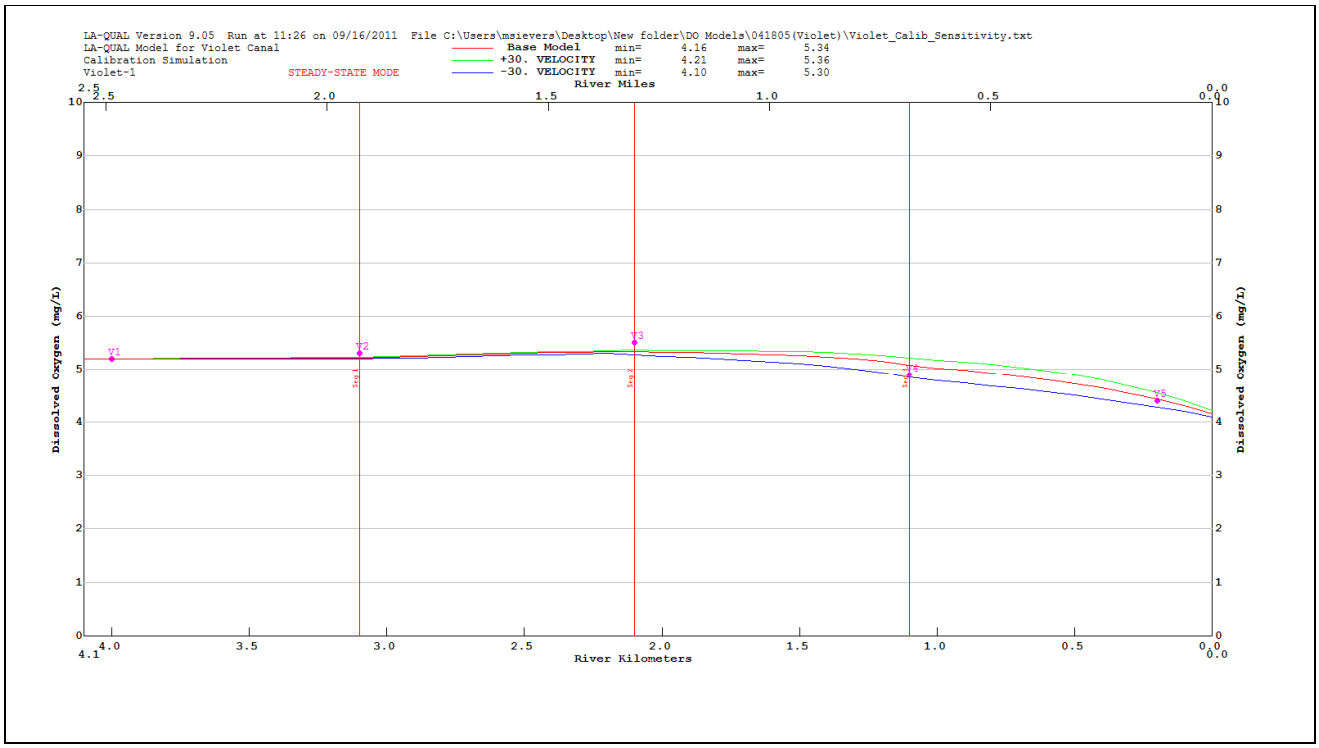

Figure F-10. DO sensitivity results (stream velocity) for subsegment 041805.

APPENDIX G:
Model Baseline Output Files

Summer LA-QUAL model baseline output G-1
Winter LA-QUAL model baseline output G-16

Summer LA-QUAL model baseline 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\041805(Violet)\Violet_Baseline_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 15:53 on 11/15/2011

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

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Model for Violet Canal
TITLE02         Baseline Simulation
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 =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   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         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.22000 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

ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA06

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA07
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$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
                                                        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   V2  MissSiphonToHwy38V1_V2            4.10  TO    3.10   0.1000     1.00       10       1     10
REACH ID      2   V3  Hwy38ToWofFortyArpentCanalV2_V3   3.10  TO    2.10   0.1000     1.00       10      11     20
REACH ID      3   V4  WofFortyArpentCanalToV4           2.10  TO    1.10   0.1000     1.00       10      21     30
REACH ID      4   V5  V4ToV5endofsubseg                 1.10  TO    0.00   0.1000     1.10       11      31     41
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   V2       0.000       0.000      26.820       0.000       0.000       1.680    0.00010   0.000
HYDR-1        2   V3       0.000       0.000      45.470       0.000       0.000       1.070    0.00010   0.000
HYDR-1        3   V4       0.000       0.000      53.450       0.000       0.000       1.070    0.00010   0.000
HYDR-1        4   V5       0.000       0.000      69.490       0.000       0.000       0.950    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   V2      0.00       0.500          0.000          0.000          0.000
HYDR          2   V3      0.00       0.500          0.000          0.000          0.000
HYDR          3   V4      0.50      20.000          0.000          0.000          0.000
HYDR          4   V5      1.00      50.000          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

INITIAL          1   V2    30.60     0.00     5.30     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          2   V3    30.70     0.00     5.50     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          3   V4    30.90     0.00     4.90     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          4   V5    30.20     0.00     4.40     0.10     0.00     0.00     4.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
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   V2   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    2   V3   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    3   V4   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    4   V5   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     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   V2       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          2   V3       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          3   V4       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          4   V5       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     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
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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

INCR-1           1   V2       0.00000     0.00000      0.00      0.00      0.00      0.00   0.00000   0.00000
INCR-1           2   V3       0.00000     0.00283     30.00      0.00    391.00      0.00   0.00283   0.00000
INCR-1           3   V4      -0.00283     0.00000     30.70      0.00    391.00      0.00   0.00000  -0.00283
INCR-1           4   V5      -0.00283     0.00000     30.70      0.00    391.00      0.00   0.00000  -0.00257
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

INCR-2           1   V2        0.00      0.00      0.00      0.00      0.00      0.00
INCR-2           2   V3        5.50     24.00      0.73      0.10      1.64      0.00
INCR-2           3   V4        5.50     14.00      0.78      0.10      1.64      0.00
INCR-2           4   V5        5.50     14.00      0.78      0.10      1.64      0.00
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
                                mg/d      kg/d     #/day                 kg/d      kg/d      kg/d

NONPOINT         1   V2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         2   V3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         3   V4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         4   V5        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                frac

HDWTR-1          1     Violet-1                 0   0.00283    0.09993   30.10     0.00   392.000     0.000     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     Violet-1                    5.20     13.00      1.20      0.10      1.45      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

ENDATA22
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$$$ DATA TYPE 23 (JUNCTION DATA) $$$

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

WSTLD-1        1       4.10  LAG531277             0.00006    0.00212    0.001   30.00     0.00     0.000     0.000
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     LAG531277                 2.00    103.50      0.00      7.50     15.00      0.00      2.00      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

ENDATA26

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

CARD TYPE    CONSTITUENT                    CONCENTRATION

LOWER BC     TEMPERATURE                          30.200     deg C
LOWER BC     SALINITY                       =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I        =   4397.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                      4.000     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND       14.000     mg/L
LOWER BC     ORGANIC NITROGEN                      0.917     mg/L
LOWER BC     AMMONIA NITROGEN                      0.100     mg/L
LOWER BC     NITRATE NITROGEN                      0.633     mg/L
LOWER BC     CHLOROPHYLL A                         4.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

OVERLAY 1 Violet.ovl                      :Violet Canal Overlay File
ENDATA31

     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN    1 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
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.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

INTERMEDIATE REPORT
Dissolved Oxygen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	5.98	5.99	5.99	5.99	5.98	5.97	5.95	5.92	5.89	5.85
V3	2	11	5.80	5.74	5.66	5.56	5.44	5.27	5.05	4.74	4.33	3.76
V4	3	21	3.72	3.71	3.70	3.70	3.70	3.71	3.72	3.73	3.75	3.77
V5	4	31	3.78	3.79	3.80	3.82	3.83	3.85	3.87	3.89	3.92	3.94
V5	4	41	3.97									

INTERMEDIATE REPORT
Effective BOD1
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.63	1.51	1.43	1.39	1.39	1.42	1.50	1.62	1.79	2.02
V3	2	11	2.30	2.64	3.07	3.61	4.29	5.15	6.22	7.57	9.27	11.41
V4	3	21	11.53	11.61	11.71	11.81	11.94	12.07	12.22	12.38	12.56	12.75
V5	4	31	12.85	12.92	13.00	13.08	13.18	13.27	13.38	13.49	13.61	13.73
V5	4	41	13.86									

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.31	1.19	1.11	1.07	1.07	1.10	1.18	1.30	1.47	1.70
V3	2	11	1.98	2.32	2.75	3.29	3.97	4.83	5.90	7.25	8.95	11.09
V4	3	21	11.20	11.27	11.35	11.45	11.56	11.69	11.82	11.97	12.14	12.32
V5	4	31	12.42	12.49	12.57	12.66	12.75	12.85	12.95	13.06	13.18	13.30
V5	4	41	13.44									

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.12	0.11	0.10	0.09	0.09	0.09	0.10	0.11	0.12	0.14
V3	2	11	0.16	0.18	0.22	0.25	0.30	0.36	0.43	0.52	0.62	0.75
V4	3	21	0.76	0.76	0.77	0.77	0.78	0.79	0.79	0.80	0.81	0.82
V5	4	31	0.83	0.83	0.83	0.84	0.84	0.85	0.85	0.86	0.86	0.87
V5	4	41	0.88									

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.14	0.13	0.12	0.12	0.12	0.12	0.13	0.13	0.15	0.16
V3	2	11	0.18	0.21	0.24	0.28	0.33	0.39	0.46	0.54	0.65	0.78
V4	3	21	0.79	0.79	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85
V5	4	31	0.86	0.86	0.87	0.87	0.88	0.88	0.89	0.89	0.90	0.90
V5	4	41	0.91									

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40
V3	2	11	0.40	0.40	0.40	0.40	0.39	0.38	0.36	0.32	0.27	0.20
V4	3	21	0.20	0.20	0.19	0.19	0.19	0.18	0.17	0.17	0.16	0.15
V5	4	31	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.12	0.12	0.11
V5	4	41	0.11									

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.02	1.01	1.01	1.00	0.99	0.97	0.96	0.95	0.93	0.92
V3	2	11	0.90	0.88	0.86	0.83	0.81	0.78	0.75	0.71	0.68	0.64
V4	3	21	0.64	0.64	0.64	0.64	0.64	0.64	0.63	0.63	0.63	0.63
V5	4	31	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
V5	4	41	0.63									

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.52	1.51	1.49	1.48	1.47	1.46	1.45	1.45	1.45	1.46
V3	2	11	1.46	1.47	1.48	1.49	1.50	1.52	1.53	1.55	1.57	1.60
V4	3	21	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.61	1.61	1.61
V5	4	31	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
V5	4	41	1.62									

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.55	1.53	1.52	1.50	1.49	1.48	1.48	1.48	1.48	1.48
V3	2	11	1.49	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.60	1.62
V4	3	21	1.63	1.63	1.63	1.63	1.63	1.63	1.64	1.64	1.64	1.64
V5	4	31	1.64	1.64	1.64	1.64	1.64	1.65	1.65	1.65	1.65	1.65
V5	4	41	1.65									

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V3	2	11	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V4	3	21	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
V5	4	31	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
V5	4	41	4.00									

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	30.61	30.62	30.63	30.64	30.65	30.66	30.67	30.68	30.69	30.70
V3	2	11	30.72	30.74	30.76	30.78	30.80	30.82	30.84	30.86	30.88	30.90
V4	3	21	30.83	30.76	30.69	30.62	30.55	30.48	30.41	30.34	30.27	30.20
V5	4	31	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
V5	4	41	30.20									

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3	2	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V4	3	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	41	0.00									

INTERMEDIATE REPORT
CONDUCTIVITY UNIT

LA-QUAL Model for Violet Canal

umhos/cm

Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	3379.73	3418.16	3457.09	3496.51	3536.44	3576.88	3617.84	3659.32	3701.34	3743.89
V3	2	11	3785.34	3829.70	3878.63	3932.32	3990.95	4054.74	4123.93	4198.76	4279.51	4366.51
V4	3	21	4370.40	4372.39	4374.39	4376.38	4378.37	4380.37	4382.36	4384.35	4386.35	4388.35
V5	4	31	4389.37	4390.06	4390.76	4391.45	4392.14	4392.83	4393.53	4394.22	4394.91	4395.61
V5	4	41	4396.30									

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
V3	2	11	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
V4	3	21	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
V5	4	31	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V3	2	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V4	3	21	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
V5	4	31	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
V5	4	41	50.0									

INTERMEDIATE REPORT
Depth
m

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
V3	2	11	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V4	3	21	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V5	4	31	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
V5	4	41	0.9									

INTERMEDIATE REPORT
Width
m

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
V3	2	11	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
V4	3	21	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
V5	4	31	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
V5	4	41	69.5									

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Mean Velocity
m/s

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1
V3	2	11	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
V4	3	21	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
V5	4	31	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
V5	4	41	66.0									

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507
V3	2	11	0.797	0.797	0.797	0.798	0.798	0.798	0.798	0.799	0.799	0.799
V4	3	21	0.798	0.797	0.796	0.795	0.794	0.793	0.792	0.792	0.791	0.790
V5	4	31	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889
V5	4	41	0.889									

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

LA-QUAL Model for Violet Canal
Baseline Simulation

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

V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Sediment Oxygen Demand
g/m²/d

LA-QUAL Model for Violet Canal
Baseline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V3	2	11	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V4	3	21	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
V5	4	31	3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
V5	4	41	3.									

CAPSULE SUMMARY FOR Violet-1

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	ORG-P mg/L	PO4-P mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.003	30.10	0.0	5.20	12.68	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0													
	WASTELOAD # 001 (LAG531277) ENTERS HERE																											
1	V2 1	4.00	0.003	30.61	0.0	5.98	1.31	0.00	0.12	0.39	1.02	1.52	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.479	0.507	0.08	0.08	0.00	0.00	0.04	1.37
2	V2 1	3.90	0.003	30.62	0.0	5.99	1.19	0.00	0.11	0.39	1.01	1.51	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.478	0.507	0.08	0.08	0.00	0.00	0.04	1.37
3	V2 1	3.80	0.003	30.63	0.0	5.99	1.11	0.00	0.10	0.39	1.01	1.49	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.477	0.507	0.08	0.08	0.00	0.00	0.04	1.37
4	V2 1	3.70	0.003	30.64	0.0	5.99	1.07	0.00	0.09	0.39	1.00	1.48	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.475	0.507	0.08	0.08	0.00	0.00	0.04	1.37
5	V2 1	3.60	0.003	30.65	0.0	5.98	1.07	0.00	0.09	0.39	0.99	1.47	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.474	0.507	0.08	0.08	0.00	0.00	0.04	1.37
6	V2 1	3.50	0.003	30.66	0.0	5.97	1.10	0.00	0.09	0.39	0.97	1.46	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.473	0.507	0.08	0.08	0.00	0.00	0.04	1.37
7	V2 1	3.40	0.003	30.67	0.0	5.95	1.18	0.00	0.10	0.39	0.96	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.472	0.507	0.08	0.08	0.00	0.00	0.04	1.37
8	V2 1	3.30	0.003	30.68	0.0	5.92	1.30	0.00	0.11	0.39	0.95	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.471	0.507	0.08	0.08	0.00	0.00	0.04	1.37
9	V2 1	3.20	0.003	30.69	0.0	5.89	1.47	0.00	0.12	0.40	0.93	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.469	0.507	0.08	0.08	0.00	0.00	0.04	1.37
10	V2 1	3.10	0.003	30.70	0.0	5.85	1.70	0.00	0.14	0.40	0.92	1.46	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.468	0.507	0.08	0.08	0.00	0.00	0.04	1.37
11	V3 2	3.00	0.003	30.72	0.0	5.80	1.98	0.00	0.16	0.40	0.90	1.46	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.465	0.797	0.08	0.12	0.00	0.00	0.04	1.37
12	V3 2	2.90	0.003	30.74	0.0	5.74	2.32	0.00	0.18	0.40	0.88	1.47	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.463	0.797	0.08	0.12	0.00	0.00	0.04	1.38
13	V3 2	2.80	0.004	30.76	0.0	5.66	2.75	0.00	0.22	0.40	0.86	1.48	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.461	0.797	0.08	0.12	0.00	0.00	0.04	1.38
14	V3 2	2.70	0.004	30.78	0.0	5.56	3.29	0.00	0.25	0.40	0.83	1.49	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.458	0.798	0.08	0.12	0.00	0.00	0.04	1.38
15	V3 2	2.60	0.004	30.80	0.0	5.44	3.97	0.00	0.30	0.39	0.81	1.50	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.455	0.798	0.08	0.12	0.00	0.00	0.04	1.38
16	V3 2	2.50	0.005	30.82	0.0	5.27	4.83	0.00	0.36	0.38	0.78	1.52	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.452	0.798	0.08	0.12	0.00	0.00	0.04	1.38
17	V3 2	2.40	0.005	30.84	0.0	5.05	5.90	0.00	0.43	0.36	0.75	1.53	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.450	0.798	0.08	0.12	0.00	0.00	0.04	1.39
18	V3 2	2.30	0.005	30.86	0.0	4.74	7.25	0.00	0.52	0.32	0.71	1.55	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.448	0.799	0.08	0.12	0.00	0.00	0.04	1.39
19	V3 2	2.20	0.005	30.88	0.0	4.33	8.95	0.00	0.62	0.27	0.68	1.57	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.445	0.799	0.08	0.12	0.00	0.00	0.04	1.39
20	V3 2	2.10	0.006	30.90	0.0	3.76	11.09	0.00	0.75	0.20	0.64	1.60	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.443	0.799	0.08	0.12	0.00	0.00	0.04	1.39
21	V4 3	2.00	0.005	30.83	0.0	3.72	11.20	0.00	0.76	0.20	0.64	1.60	0.00	0.00	3.1	20.0	1.07	53.5	0.000	0.000	7.451	0.798	0.08	0.12	0.00	0.00	0.04	3.32
22	V4 3	1.90	0.005	30.76	0.0	3.71	11.27	0.00	0.76	0.20	0.64	1.60	0.00	0.00	3.2	20.0	1.07	53.5	0.000	0.001	7.461	0.797	0.08	0.12	0.00	0.00	0.04	3.31
23	V4 3	1.80	0.005	30.69	0.0	3.70	11.35	0.00	0.77	0.19	0.64	1.60	0.00	0.00	3.3	20.0	1.07	53.5	0.000	0.001	7.469	0.796	0.08	0.12	0.00	0.00	0.04	3.29
24	V4 3	1.70	0.005	30.62	0.0	3.70	11.45	0.00	0.77	0.19	0.64	1.60	0.00	0.00	3.4	20.0	1.07	53.5	0.000	0.002	7.478	0.795	0.08	0.12	0.00	0.00	0.04	3.28
25	V4 3	1.60	0.004	30.55	0.0	3.70	11.56	0.00	0.78	0.19	0.64	1.60	0.00	0.00	3.5	20.0	1.07	53.5	0.000	0.002	7.488	0.794	0.08	0.12	0.00	0.00	0.04	3.26
26	V4 3	1.50	0.004	30.48	0.0	3.71	11.69	0.00	0.79	0.18	0.64	1.60	0.00	0.00	3.6	20.0	1.07	53.5	0.000	0.003	7.496	0.793	0.08	0.12	0.00	0.00	0.04	3.25
27	V4 3	1.40	0.004	30.41	0.0	3.72	11.82	0.00	0.79	0.17	0.63	1.60	0.00	0.00	3.7	20.0	1.07	53.5	0.000	0.003	7.505	0.792	0.08	0.12	0.00	0.00	0.04	3.24
28	V4 3	1.30	0.003	30.34	0.0	3.73	11.97	0.00	0.80	0.17	0.63	1.61	0.00	0.00	3.8	20.0	1.07	53.5	0.000	0.004	7.514	0.792	0.08	0.12	0.00	0.00	0.04	3.22
29	V4 3	1.20	0.003	30.27	0.0	3.75	12.14	0.00	0.81	0.16	0.63	1.61	0.00	0.00	3.9	20.0	1.07	53.5	0.000	0.004	7.523	0.791	0.08	0.12	0.00	0.00	0.04	3.21
30	V4 3	1.10	0.003	30.20	0.0	3.77	12.32	0.00	0.82	0.15	0.63	1.61	0.00	0.00	4.0	20.0	1.07	53.5	0.000	0.005	7.532	0.790	0.08	0.12	0.00	0.00	0.04	3.19
31	V5 4	1.00	0.003	30.20	0.0	3.78	12.42	0.00	0.83	0.15	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.005	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
32	V5 4	0.90	0.002	30.20	0.0	3.79	12.49	0.00	0.83	0.15	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.006	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
33	V5 4	0.80	0.002	30.20	0.0	3.80	12.57	0.00	0.83	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.007	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
34	V5 4	0.70	0.002	30.20	0.0	3.82	12.66	0.00	0.84	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.008	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
35	V5 4	0.60	0.002	30.20	0.0	3.83	12.75	0.00	0.84	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.009	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
36	V5 4	0.50	0.001	30.20	0.0	3.85	12.85	0.00	0.85	0.13	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.011	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
37	V5 4	0.40	0.001	30.20	0.0	3.87	12.95	0.00	0.85	0.13	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.012	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
38	V5 4	0.30	0.001	30.20	0.0	3.89	13.06	0.00	0.86	0.12	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.013	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
39	V5 4	0.20	0.001	30.20	0.0	3.92	13.18	0.00	0.86	0.12	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.014	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
40	V5 4	0.10	0.000	30.20	0.0	3.94	13.30	0.00	0.87	0.11	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.015	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19
41	V5 4	0.00	0.000	30.20	0.0	3.97	13.44	0.00	0.88	0.11	0.63	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.016	7.532	0.889	0.08	0.13	0.00	0.00	0.04	3.19

FINAL REPORT Violet-1
REACH NO. 1 MissSiphonToHwy38V1_V2

LA-QUAL Model for Violet Canal
Baseline Simulation

********** 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		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	
1	HDWTR	0.00283	30.10	0.00	392.00	0.00	5.20	12.68	0.00	13.00	0.00	1.20	0.10	1.45	0.00	3.00	0.00	0.00
1	WSTLD	0.00006	30.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	4.10	4.00	0.00289	2.1	0.00006	18.04	18.04	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
2	4.00	3.90	0.00289	2.1	0.00006	18.04	36.09	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
3	3.90	3.80	0.00289	2.1	0.00006	18.04	54.13	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
4	3.80	3.70	0.00289	2.1	0.00006	18.04	72.18	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
5	3.70	3.60	0.00289	2.1	0.00006	18.04	90.22	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
6	3.60	3.50	0.00289	2.1	0.00006	18.04	108.27	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
7	3.50	3.40	0.00289	2.1	0.00006	18.04	126.31	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
8	3.40	3.30	0.00289	2.1	0.00006	18.04	144.36	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
9	3.30	3.20	0.00289	2.1	0.00006	18.04	162.40	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
10	3.20	3.10	0.00289	2.1	0.00006	18.04	180.45	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
TOT						180.45				45057.59	26820.00					
AVG					0.0001			1.68	26.82			45.06				

********** 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	4.000	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
2	3.900	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
3	3.800	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
4	3.700	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
5	3.600	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
6	3.500	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
7	3.400	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
8	3.300	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
9	3.200	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
10	3.100	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.42	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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	4.000	30.61	0.00	3379.73	0.00	5.98	1.31	0.00	1.63	0.00	0.12	0.39	1.02	1.52	0.14	1.55	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
2	3.900	30.62	0.00	3418.16	0.00	5.99	1.19	0.00	1.51	0.00	0.11	0.39	1.01	1.51	0.13	1.53	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
3	3.800	30.63	0.00	3457.09	0.00	5.99	1.11	0.00	1.43	0.00	0.10	0.39	1.01	1.49	0.12	1.52	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
4	3.700	30.64	0.00	3496.51	0.00	5.99	1.07	0.00	1.39	0.00	0.09	0.39	1.00	1.48	0.12	1.50	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
5	3.600	30.65	0.00	3536.44	0.00	5.98	1.07	0.00	1.39	0.00	0.09	0.39	0.99	1.47	0.12	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
6	3.500	30.66	0.00	3576.88	0.00	5.97	1.10	0.00	1.42	0.00	0.09	0.39	0.97	1.46	0.12	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
7	3.400	30.67	0.00	3617.84	0.00	5.95	1.18	0.00	1.50	0.00	0.10	0.39	0.96	1.45	0.13	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
8	3.300	30.68	0.00	3659.32	0.00	5.92	1.30	0.00	1.62	0.00	0.11	0.39	0.95	1.45	0.13	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
9	3.200	30.69	0.00	3701.34	0.00	5.89	1.47	0.00	1.79	0.00	0.12	0.40	0.93	1.45	0.15	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
10	3.100	30.70	0.00	3743.89	0.00	5.85	1.70	0.00	2.02	0.00	0.14	0.40	0.92	1.46	0.16	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	

0.00

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 2 Hwy38ToWofFortyArpentCanalV2_V3 Baseline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
11	UPR RCH	0.00289	30.70	0.00	3743.89	0.00	5.85	1.70	0.00	2.02	0.00	0.14	0.40	0.92	0.00	3.00	0.00	0.00
EACH	INCR	0.00028	30.00	0.00	391.00	0.00	5.50	24.00	0.00			0.73	0.10	1.64	0.00	0.00	0.00	

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	3.10	3.00	0.00317	1.9	0.00007	17.75	198.20	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
12	3.00	2.90	0.00346	1.7	0.00007	16.29	214.49	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
13	2.90	2.80	0.00374	1.6	0.00008	15.06	229.55	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
14	2.80	2.70	0.00402	1.5	0.00008	14.00	243.55	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
15	2.70	2.60	0.00430	1.4	0.00009	13.08	256.63	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
16	2.60	2.50	0.00459	1.3	0.00009	12.27	268.91	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
17	2.50	2.40	0.00487	1.2	0.00010	11.56	280.47	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
18	2.40	2.30	0.00515	1.2	0.00011	10.93	291.39	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
19	2.30	2.20	0.00544	1.1	0.00011	10.36	301.75	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
20	2.20	2.10	0.00572	1.0	0.00012	9.84	311.59	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
TOT						131.14				48652.90	45470.00					
AVG					0.0001			1.07	45.47			48.65				

********** 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
11	3.000	7.47	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.37	1.37	1.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
12	2.900	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
13	2.800	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
14	2.700	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
15	2.600	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
16	2.500	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.38	1.38	1.38	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
17	2.400	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
18	2.300	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
19	2.200	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
20	2.100	7.44	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
11	3.000	30.72	0.00	3785.34	0.00	5.80	1.98	0.00	2.30	0.00	0.16	0.40	0.90	1.46	0.18	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
12	2.900	30.74	0.00	3829.70	0.00	5.74	2.32	0.00	2.64	0.00	0.18	0.40	0.88	1.47	0.21	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
13	2.800	30.76	0.00	3878.63	0.00	5.66	2.75	0.00	3.07	0.00	0.22	0.40	0.86	1.48	0.24	1.50	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
14	2.700	30.78	0.00	3932.32	0.00	5.56	3.29	0.00	3.61	0.00	0.25	0.40	0.83	1.49	0.28	1.51	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
15	2.600	30.80	0.00	3990.95	0.00	5.44	3.97	0.00	4.29	0.00	0.30	0.39	0.81	1.50	0.33	1.53	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00

16	2.500	30.82	0.00	4054.74	0.00	5.27	4.83	0.00	5.15	0.00	0.36	0.38	0.78	1.52	0.39	1.54	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
17	2.400	30.84	0.00	4123.93	0.00	5.05	5.90	0.00	6.22	0.00	0.43	0.36	0.75	1.53	0.46	1.56	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
18	2.300	30.86	0.00	4198.76	0.00	4.74	7.25	0.00	7.57	0.00	0.52	0.32	0.71	1.55	0.54	1.58	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
19	2.200	30.88	0.00	4279.51	0.00	4.33	8.95	0.00	9.27	0.00	0.62	0.27	0.68	1.57	0.65	1.60	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
20	2.100	30.90	0.00	4366.51	0.00	3.76	11.09	0.00	11.41	0.00	0.75	0.20	0.64	1.60	0.78	1.62	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 3 WofFortyArpentCanalToV4 Baseline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
21	UPR RCH	0.00572	30.90	0.00	4366.51	0.00	3.76	11.09	0.00	11.41	0.00	0.75	0.20	0.64	0.00	3.00	0.00	0.00
EACH	INCR	-0.00028																

********** 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
21	2.10	2.00	0.00544	1.0	0.00010	12.17	323.77	1.07	53.45	5719.15	5345.00	57.19	587.95	0.000	20.000	0.000
22	2.00	1.90	0.00515	1.0	0.00009	12.84	336.61	1.07	53.45	5719.15	5345.00	57.19	1175.90	0.001	20.000	0.001
23	1.90	1.80	0.00487	1.0	0.00009	13.59	350.20	1.07	53.45	5719.15	5345.00	57.19	1763.85	0.001	20.000	0.001
24	1.80	1.70	0.00459	1.0	0.00008	14.43	364.63	1.07	53.45	5719.15	5345.00	57.19	2351.80	0.002	20.000	0.002
25	1.70	1.60	0.00430	1.0	0.00008	15.38	380.00	1.07	53.45	5719.15	5345.00	57.19	2939.75	0.002	20.000	0.002
26	1.60	1.50	0.00402	1.0	0.00007	16.46	396.46	1.07	53.45	5719.15	5345.00	57.19	3527.70	0.003	20.000	0.003
27	1.50	1.40	0.00374	1.0	0.00007	17.70	414.17	1.07	53.45	5719.15	5345.00	57.19	4115.65	0.003	20.000	0.003
28	1.40	1.30	0.00346	1.0	0.00006	19.15	433.32	1.07	53.45	5719.15	5345.00	57.19	4703.60	0.004	20.000	0.004
29	1.30	1.20	0.00317	1.0	0.00006	20.86	454.18	1.07	53.45	5719.15	5345.00	57.19	5291.55	0.004	20.000	0.004
30	1.20	1.10	0.00289	1.0	0.00005	22.90	477.09	1.07	53.45	5719.15	5345.00	57.19	5879.50	0.005	20.000	0.005
TOT						165.49				57191.50	53450.00					
AVG					0.0001			1.07	53.45			57.19				

********** 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
21	2.000	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.32	3.32	3.32	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
22	1.900	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.31	3.31	3.31	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
23	1.800	7.47	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.29	3.29	3.29	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
24	1.700	7.48	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.28	3.28	3.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
25	1.600	7.49	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.26	3.26	3.26	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
26	1.500	7.50	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.25	3.25	3.25	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
27	1.400	7.51	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.24	3.24	3.24	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
28	1.300	7.51	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.22	3.22	3.22	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
29	1.200	7.52	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.21	3.21	3.21	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
30	1.100	7.53	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
21	2.000	30.83	0.00	4370.40	0.00	3.72	11.20	0.00	11.53	0.00	0.76	0.20	0.64	1.60	0.79	1.63	0.00	0.00	0.00	0.00	0.00	3.1	0.0	0.	

0.00																									
22	1.900	30.76	0.00	4372.39	0.00	3.71	11.27	0.00	11.61	0.00	0.76	0.20	0.64	1.60	0.79	1.63	0.00	0.00	0.00	0.00	0.00	3.2	0.0	0.	
0.00																									
23	1.800	30.69	0.00	4374.39	0.00	3.70	11.35	0.00	11.71	0.00	0.77	0.19	0.64	1.60	0.80	1.63	0.00	0.00	0.00	0.00	0.00	3.3	0.0	0.	
0.00																									
24	1.700	30.62	0.00	4376.38	0.00	3.70	11.45	0.00	11.81	0.00	0.77	0.19	0.64	1.60	0.80	1.63	0.00	0.00	0.00	0.00	0.00	3.4	0.0	0.	
0.00																									
25	1.600	30.55	0.00	4378.37	0.00	3.70	11.56	0.00	11.94	0.00	0.78	0.19	0.64	1.60	0.81	1.63	0.00	0.00	0.00	0.00	0.00	3.5	0.0	0.	
0.00																									
26	1.500	30.48	0.00	4380.37	0.00	3.71	11.69	0.00	12.07	0.00	0.79	0.18	0.64	1.60	0.82	1.63	0.00	0.00	0.00	0.00	0.00	3.6	0.0	0.	
0.00																									
27	1.400	30.41	0.00	4382.36	0.00	3.72	11.82	0.00	12.22	0.00	0.79	0.17	0.63	1.60	0.83	1.64	0.00	0.00	0.00	0.00	0.00	3.7	0.0	0.	
0.00																									
28	1.300	30.34	0.00	4384.35	0.00	3.73	11.97	0.00	12.38	0.00	0.80	0.17	0.63	1.61	0.83	1.64	0.00	0.00	0.00	0.00	0.00	3.8	0.0	0.	
0.00																									
29	1.200	30.27	0.00	4386.35	0.00	3.75	12.14	0.00	12.56	0.00	0.81	0.16	0.63	1.61	0.84	1.64	0.00	0.00	0.00	0.00	0.00	3.9	0.0	0.	
0.00																									
30	1.100	30.20	0.00	4388.35	0.00	3.77	12.32	0.00	12.75	0.00	0.82	0.15	0.63	1.61	0.85	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	
0.00																									

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 4 V4ToV5endofsubseg Baseline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	UPR RCH	0.00289	30.20	0.00	4388.35	0.00	3.77	12.32	0.00	12.75	0.00	0.82	0.15	0.63	0.00	4.00	0.00	0.00
EACH	INCR	-0.00026																

********** 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
31	1.10	1.00	0.00263	1.0	0.00004	29.02	506.11	0.95	69.49	6601.55	6949.00	66.02	7408.28	0.005	50.000	0.005
32	1.00	0.90	0.00238	1.0	0.00004	32.17	538.27	0.95	69.49	6601.55	6949.00	66.02	8937.06	0.006	50.000	0.006
33	0.90	0.80	0.00212	1.0	0.00003	36.07	574.34	0.95	69.49	6601.55	6949.00	66.02	10465.84	0.007	50.000	0.007
34	0.80	0.70	0.00186	1.0	0.00003	41.06	615.40	0.95	69.49	6601.55	6949.00	66.02	11994.62	0.008	50.000	0.008
35	0.70	0.60	0.00160	1.0	0.00002	47.65	663.05	0.95	69.49	6601.55	6949.00	66.02	13523.40	0.009	50.000	0.009
36	0.60	0.50	0.00135	1.0	0.00002	56.75	719.80	0.95	69.49	6601.55	6949.00	66.02	15052.18	0.011	50.000	0.011
37	0.50	0.40	0.00109	1.0	0.00002	70.16	789.96	0.95	69.49	6601.55	6949.00	66.02	16580.96	0.012	50.000	0.012
38	0.40	0.30	0.00083	1.0	0.00001	91.86	881.81	0.95	69.49	6601.55	6949.00	66.02	18109.74	0.013	50.000	0.013
39	0.30	0.20	0.00057	1.0	0.00001	132.99	1014.80	0.95	69.49	6601.55	6949.00	66.02	19638.52	0.014	50.000	0.014
40	0.20	0.10	0.00032	1.0	0.00000	240.82	1255.62	0.95	69.49	6601.55	6949.00	66.02	21167.30	0.015	50.000	0.015
41	0.10	0.00	0.00006	1.0	0.00000	1273.46	2529.08	0.95	69.49	6601.55	6949.00	66.02	22696.08	0.016	50.000	0.016
TOT						2051.99				72617.05	76439.00					
AVG					0.0000			0.95	69.49			66.02				

********** 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
31	1.000	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
32	0.900	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
33	0.800	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
34	0.700	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
35	0.600	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
36	0.500	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
37	0.400	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
38	0.300	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
39	0.200	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
40	0.100	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
41	0.000	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	3.19	3.19	3.19	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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 NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	1.000	30.20	0.00	4389.37	0.00	3.78	12.42	0.00	12.85	0.00	0.83	0.15	0.63	1.61	0.86	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
32	0.900	30.20	0.00	4390.06	0.00	3.79	12.49	0.00	12.92	0.00	0.83	0.15	0.63	1.61	0.86	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
33	0.800	30.20	0.00	4390.76	0.00	3.80	12.57	0.00	13.00	0.00	0.83	0.14	0.63	1.61	0.87	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
34	0.700	30.20	0.00	4391.45	0.00	3.82	12.66	0.00	13.08	0.00	0.84	0.14	0.63	1.61	0.87	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
35	0.600	30.20	0.00	4392.14	0.00	3.83	12.75	0.00	13.18	0.00	0.84	0.14	0.63	1.61	0.88	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
36	0.500	30.20	0.00	4392.83	0.00	3.85	12.85	0.00	13.27	0.00	0.85	0.13	0.63	1.61	0.88	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
37	0.400	30.20	0.00	4393.53	0.00	3.87	12.95	0.00	13.38	0.00	0.85	0.13	0.63	1.61	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
38	0.300	30.20	0.00	4394.22	0.00	3.89	13.06	0.00	13.49	0.00	0.86	0.12	0.63	1.61	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
39	0.200	30.20	0.00	4394.91	0.00	3.92	13.18	0.00	13.61	0.00	0.86	0.12	0.63	1.61	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
40	0.100	30.20	0.00	4395.61	0.00	3.94	13.30	0.00	13.73	0.00	0.87	0.11	0.63	1.61	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								
41	0.000	30.20	0.00	4396.30	0.00	3.97	13.44	0.00	13.86	0.00	0.88	0.11	0.63	1.62	0.91	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																								

LA-QUAL Model for Violet Canal
Baseline Simulation

REACH SUMMARY REPORT: Violet-1

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	MissSiphonToHwy38V1_V2	4.10	3.10	1.00	180.45	0.00289	0.00006	1.680	26.82	0.102	0.000	5.512	88.00
2	Hwy38ToWofFortyArpentCanalV2_V3	3.10	2.10	1.00	131.14	0.00572	0.00009	1.070	45.47	0.202	0.000	3.511	149.19
3	WofFortyArpentCanalToV4	2.10	1.10	1.00	165.49	0.00289	0.00007	1.070	53.45	0.102	0.000	3.511	175.37
4	V4ToV5endofsubseg	1.10	0.00	1.10	2051.99	0.00006	0.00001	0.950	69.49	0.002	0.000	3.117	228.00

LA-QUAL Model for Violet Canal
Baseline Simulation

STREAM SUMMARY REPORT: Violet-1

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 TRAVEL TIME       =        2529.08 DAYS
 MAXIMUM EFFLUENT  =           2.08 PERCENT

 FLOW              =   0.00006 TO    0.00572   m³/s
 DISPERSION        =   0.5000  TO   50.0000    m²/s
 VELOCITY          =   0.00000 TO    0.00012   m/s
 DEPTH             =   0.95    TO    1.68      m
 WIDTH             =  26.82    TO   69.49      m

 BOD DECAY         =    0.08   TO    0.08      per day
 NH3 DECAY         =    0.04   TO    0.04      per day
 SOD               =    1.37   TO    3.32      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        =    0.51   TO    0.89      per day
 BOD SETTLING      =    0.08   TO    0.13      per day
 ORG-N DECAY       =    0.15   TO    0.15      per day
 ORG-N SETTLING    =    0.00   TO    0.00      per day

 TEMPERATURE       =   30.20   TO   30.90      deg C
 DISSOLVED OXYGEN  =    3.70   TO    5.99      mg/L
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LA-QUAL Model for Violet Canal
Baseline Simulation

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	0.00283	1.27	3.10	0.00	0.29	0.02	0.35	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00283	1.34	5.87	0.00	0.18	0.02	0.40	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00566	-1.85	-6.00	0.00	-0.40	-0.08	-0.31	0.00	0.00	0.00		0.00
WASTELOADS	0.00006	0.01	0.54	0.00	0.04	0.08	0.01	0.00	0.00	0.00		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	-0.00006	-0.02	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		85.60	391.58	0.00	19.06	-16.89	0.36	0.00	0.00	0.00		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		533.23										
DAM REAERATION		0.00										
SOD BACKGROUND		-517.84										
BOD1 DECAY		-154.37	-154.37									
BOD1 SETTLING		0.00	-240.58									
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			-19.16	19.16						
ORG-N SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		-10.00				-2.31	2.31					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		62.66				0.00	-3.13		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
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	0.00572	684.12	401.08	0.00	19.57	19.29	3.44	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.00572	-684.09	-401.02	0.00	-19.57	-19.28	-3.45	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.03	0.06	0.00	0.00	0.01	-0.01	0.00	0.00	0.00	0.00	0.00

.....EXECUTION COMPLETED

Winter LA-QUAL model baseline output

```
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\041805(Violet)\Violet_Baseline_winter_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 15:50 on 11/16/2011

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

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Model for Violet Canal
TITLE02         Basline Simulation
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 =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   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         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.22000 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

ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

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   V2  MissSiphonToHwy38V1_V2             4.10  TO   3.10   0.1000     1.00       10      1     10
REACH ID      2   V3  Hwy38ToWofFortyArpentCanalV2_V3    3.10  TO   2.10   0.1000     1.00       10     11     20
REACH ID      3   V4  WofFortyArpentCanalToV4            2.10  TO   1.10   0.1000     1.00       10     21     30
REACH ID      4   V5  V4ToV5endofsubseg                  1.10  TO   0.00   0.1000     1.10       11     31     41
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   V2       0.000       0.000      26.820       0.000       0.000       1.680    0.00010    0.000
HYDR-1        2   V3       0.000       0.000      45.470       0.000       0.000       1.070    0.00010    0.000
HYDR-1        3   V4       0.000       0.000      53.450       0.000       0.000       1.070    0.00010    0.000
HYDR-1        4   V5       0.000       0.000      69.490       0.000       0.000       0.950    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   V2      0.00       0.500          0.000          0.000          0.000
HYDR          2   V3      0.00       0.500          0.000          0.000          0.000
HYDR          3   V4      0.50      20.000          0.000          0.000          0.000
HYDR          4   V5      1.00      50.000          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

INITIAL          1   V2    20.00     0.00     5.30     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          2   V3    20.00     0.00     5.50     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          3   V4    20.00     0.00     4.90     0.10     0.00     0.00     3.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
INITIAL          4   V5    20.00     0.00     4.40     0.10     0.00     0.00     4.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
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   V2   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    2   V3   3 OCONNER-DOBB     0.000     0.000     0.000     0.700     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    3   V4   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     0.000     0.000     0.000     0.000                  0.000     0.000
COEFF-1    4   V5   3 OCONNER-DOBB     0.000     0.000     0.000     1.680     0.050     0.100     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   V2       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          2   V3       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          3   V4       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     0.000
COEFF-2          4   V5       0.120     0.000     0.000     0.020     0.000     0.000     0.020     0.000     0.000     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
```

```
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

INCR-1           1   V2       0.00000     0.00000      0.00      0.00      0.00      0.00   0.00000   0.00000
INCR-1           2   V3       0.00000     0.02830     20.00      0.00    391.00      0.00   0.02830   0.00000
INCR-1           3   V4      -0.02830     0.00000     20.00      0.00    391.00      0.00   0.00000  -0.02830
INCR-1           4   V5      -0.02830     0.00000     20.00      0.00    391.00      0.00   0.00000  -0.02573
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

INCR-2           1   V2        0.00      0.00      0.00      0.00      0.00      0.00
INCR-2           2   V3        5.50     24.00      0.73      0.10      1.64      0.00
INCR-2           3   V4        5.50     14.00      0.78      0.10      1.64      0.00
INCR-2           4   V5        5.50     14.00      0.78      0.10      1.64      0.00
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
                                mg/d      kg/d     #/day                 kg/d      kg/d      kg/d

NONPOINT         1   V2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         2   V3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         3   V4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         4   V5        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                frac

HDWTR-1          1     Violet-1                 0   0.02830    0.99929   20.00     0.00   392.000     0.000     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     Violet-1                     5.20     13.00      1.20      0.10      1.45      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

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

WSTLD-1        1       4.10  LAG531277             0.00006    0.00212    0.001   20.00     0.00     0.000     0.000
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     LAG531277                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      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

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        =   4397.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                      4.000     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND       14.000     mg/L
LOWER BC     ORGANIC NITROGEN                      0.917     mg/L
LOWER BC     AMMONIA NITROGEN                      0.100     mg/L
LOWER BC     NITRATE NITROGEN                      0.633     mg/L
LOWER BC     CHLOROPHYLL A                         4.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

OVERLAY 1 Violet.ovl                      :Violet Canal Overlay File
ENDATA31

     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....TEMPERATURE CONVERGENT IN    3 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                            =    300.00 METERS (  984.3 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     =     23.74 TO     49.93 MILLIBARS
WATER DENSITY                        =    994.72 TO    998.28 KILOGRAMS/CUBIC METER
LATENT HEAT OF VAPORIZATION          =    577.99 TO    584.87 KILOCALORIES/KILOGRAM
WATER TEMPERATURE                    =      20.2 TO      32.9 DEGREES C

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

NET SOLAR RADIATION AFTER SHADING    =     691.2 TO     691.2 LANGLEYS/DAY
NET ATMOSPHERIC RADIATION            =     674.9              LANGLEYS/DAY
BACK RADIATION FROM WATER SURFACE    =    -993.7 TO    -839.5 LANGLEYS/DAY
EVAPORATIVE HEAT EXCHANGE            =    -224.4 TO      -3.1 LANGLEYS/DAY
CONDUCTIVE HEAT EXCHANGE             =     -67.2 TO      -1.3 LANGLEYS/DAY
TOTAL NET FLUX AT AIR-WATER INTERFACE =     80.9 TO     522.2 LANGLEYS/DAY

    .....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 Violet Canal
     mg/L                                                Basline Simulation
```

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	5.34	5.34	5.33	5.30	5.28	5.26	5.24	5.22	5.21	5.20
V3	2	11	5.21	5.21	5.22	5.23	5.23	5.23	5.21	5.14	4.97	4.59
V4	3	21	4.56	4.55	4.53	4.51	4.48	4.46	4.43	4.40	4.37	4.34
V5	4	31	4.31	4.30	4.28	4.26	4.24	4.21	4.18	4.15	4.12	4.08
V5	4	41	4.04									

```
INTERMEDIATE REPORT
 Effective BOD1                                          LA-QUAL Model for Violet Canal
     mg/L                                                Basline Simulation
```

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	6.21	5.53	4.96	4.49	4.11	3.84	3.66	3.60	3.65	3.85
V3	2	11	4.19	4.53	4.88	5.28	5.77	6.39	7.19	8.26	9.71	11.69
V4	3	21	11.81	11.89	11.98	12.08	12.20	12.32	12.46	12.61	12.77	12.94
V5	4	31	13.02	13.09	13.16	13.23	13.31	13.39	13.48	13.58	13.68	13.78
V5	4	41	13.89									

```
INTERMEDIATE REPORT
 Biochemical Oxygen Demand                               LA-QUAL Model for Violet Canal
     mg/L                                                Basline Simulation
```

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	5.89	5.21	4.64	4.17	3.79	3.52	3.34	3.28	3.33	3.53
V3	2	11	3.87	4.21	4.56	4.96	5.45	6.07	6.87	7.94	9.39	11.37
V4	3	21	11.48	11.55	11.63	11.72	11.82	11.94	12.06	12.20	12.35	12.51
V5	4	31	12.60	12.66	12.73	12.80	12.88	12.97	13.06	13.15	13.25	13.35
V5	4	41	13.46									

```
INTERMEDIATE REPORT
 Organic Nitrogen                                        LA-QUAL Model for Violet Canal
     mg/L                                                Basline Simulation
```

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.54	0.48	0.43	0.38	0.34	0.31	0.28	0.26	0.25	0.25
V3	2	11	0.25	0.26	0.28	0.30	0.33	0.37	0.42	0.50	0.60	0.75
V4	3	21	0.76	0.76	0.77	0.77	0.78	0.79	0.79	0.80	0.81	0.82
V5	4	31	0.83	0.83	0.84	0.84	0.84	0.85	0.85	0.86	0.86	0.87
V5	4	41	0.88									

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.57	0.51	0.45	0.41	0.37	0.33	0.31	0.29	0.28	0.28
V3	2	11	0.28	0.29	0.30	0.32	0.35	0.39	0.45	0.52	0.63	0.77
V4	3	21	0.78	0.79	0.79	0.80	0.81	0.82	0.83	0.84	0.85	0.86
V5	4	31	0.86	0.87	0.87	0.87	0.88	0.88	0.89	0.89	0.90	0.90
V5	4	41	0.91									

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.47	0.50	0.52	0.54	0.55	0.55	0.55	0.55	0.54	0.53
V3	2	11	0.52	0.50	0.49	0.48	0.46	0.44	0.40	0.36	0.30	0.21
V4	3	21	0.20	0.20	0.20	0.19	0.19	0.18	0.17	0.17	0.16	0.15
V5	4	31	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.11
V5	4	41	0.11									

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.53	1.53	1.54	1.54	1.55	1.55	1.54	1.54	1.53	1.51
V3	2	11	1.49	1.46	1.43	1.38	1.32	1.25	1.16	1.04	0.89	0.71
V4	3	21	0.70	0.69	0.69	0.68	0.68	0.67	0.67	0.66	0.66	0.65
V5	4	31	0.65	0.65	0.65	0.65	0.64	0.64	0.64	0.64	0.64	0.64
V5	4	41	0.63									

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	2.54	2.52	2.49	2.46	2.43	2.41	2.38	2.35	2.32	2.29
V3	2	11	2.26	2.23	2.19	2.15	2.11	2.05	1.98	1.90	1.80	1.66
V4	3	21	1.66	1.65	1.65	1.65	1.64	1.64	1.64	1.63	1.63	1.63
V5	4	31	1.63	1.63	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
V5	4	41	1.62									

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	2.57	2.54	2.51	2.49	2.46	2.43	2.40	2.37	2.34	2.31
V3	2	11	2.28	2.25	2.22	2.18	2.13	2.08	2.01	1.92	1.82	1.69
V4	3	21	1.68	1.68	1.68	1.68	1.67	1.67	1.67	1.67	1.66	1.66
V5	4	31	1.66	1.66	1.66	1.66	1.66	1.66	1.65	1.65	1.65	1.65
V5	4	41	1.65									

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Model for Violet Canal
Basline Simulation

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

V2	1	1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V3	2	11	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V4	3	21	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
V5	4	31	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
V5	4	41	4.00									

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	29.29	30.15	30.87	31.45	31.92	32.29	32.57	32.76	32.86	32.87
V3	2	11	32.77	32.65	32.46	32.20	31.81	31.23	30.37	29.08	27.15	24.26
V4	3	21	24.08	23.97	23.83	23.67	23.49	23.28	23.05	22.79	22.51	22.21
V5	4	31	22.04	21.91	21.78	21.63	21.47	21.29	21.11	20.91	20.70	20.48
V5	4	41	20.25									

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	659.58	693.37	731.41	774.24	822.46	876.75	937.88	1006.70	1084.19	1171.43
V3	2	11	1265.88	1378.03	1516.05	1686.45	1897.74	2161.02	2490.89	2906.68	3434.07	4107.43
V4	3	21	4143.48	4162.07	4180.74	4199.50	4218.34	4237.25	4256.23	4275.28	4294.39	4313.56
V5	4	31	4323.45	4330.12	4336.79	4343.47	4350.15	4356.84	4363.53	4370.22	4376.91	4383.61
V5	4	41	4390.30									

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
V3	2	11	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
V4	3	21	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
V5	4	31	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
V4	3	21	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V3	2	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V4	3	21	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
V5	4	31	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
V5	4	41	50.0									

INTERMEDIATE REPORT
Depth
m

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
V3	2	11	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

V4	3	21	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V5	4	31	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
V5	4	41	0.9									

INTERMEDIATE REPORT
Width
m

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
V3	2	11	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
V4	3	21	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
V5	4	31	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
V5	4	41	69.5									

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Mean Velocity
m/s

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1
V3	2	11	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
V4	3	21	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
V5	4	31	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
V5	4	41	66.0									

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.495	0.503	0.509	0.514	0.518	0.521	0.524	0.525	0.526	0.526
V3	2	11	0.825	0.823	0.821	0.817	0.812	0.804	0.792	0.775	0.749	0.710
V4	3	21	0.708	0.706	0.704	0.702	0.700	0.697	0.694	0.691	0.687	0.683
V5	4	31	0.767	0.765	0.763	0.761	0.758	0.756	0.753	0.750	0.747	0.744
V5	4	41	0.740									

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

V5	4	41	0.

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

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

LA-QUAL Model for Violet Canal
Basline Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.	1.	1.	1.	1.	2.	2.	2.	2.	2.
V3	2	11	2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
V4	3	21	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	31	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	41	2.									

CAPSULE SUMMARY FOR Violet-1

IOR		REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	ORG-P mg/L	PO4-P mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
			HDWTR	0.028	20.00	0.0	5.20	12.68	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0													
WASTELOAD # 001 (LAG531277) ENTERS HERE																													
1	V2	1	4.00	0.028	29.29	0.0	5.34	5.89	0.00	0.54	0.47	1.53	2.54	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.653	0.495	0.08	0.07	0.00	0.00	0.04	1.26
2	V2	1	3.90	0.028	30.15	0.0	5.34	5.21	0.00	0.48	0.50	1.53	2.52	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.539	0.503	0.08	0.08	0.00	0.00	0.04	1.33
3	V2	1	3.80	0.028	30.87	0.0	5.33	4.64	0.00	0.43	0.52	1.54	2.49	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.447	0.509	0.08	0.08	0.00	0.00	0.04	1.39
4	V2	1	3.70	0.028	31.45	0.0	5.30	4.17	0.00	0.38	0.54	1.54	2.46	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.373	0.514	0.08	0.08	0.00	0.00	0.05	1.44
5	V2	1	3.60	0.028	31.92	0.0	5.28	3.79	0.00	0.34	0.55	1.55	2.43	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.314	0.518	0.09	0.08	0.00	0.00	0.05	1.48
6	V2	1	3.50	0.028	32.29	0.0	5.26	3.52	0.00	0.31	0.55	1.55	2.41	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.269	0.521	0.09	0.08	0.00	0.00	0.05	1.52
7	V2	1	3.40	0.028	32.57	0.0	5.24	3.34	0.00	0.28	0.55	1.54	2.38	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.235	0.524	0.09	0.08	0.00	0.00	0.05	1.54
8	V2	1	3.30	0.028	32.76	0.0	5.22	3.28	0.00	0.26	0.55	1.54	2.35	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.212	0.525	0.09	0.08	0.00	0.00	0.05	1.56
9	V2	1	3.20	0.028	32.86	0.0	5.21	3.33	0.00	0.25	0.54	1.53	2.32	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.200	0.526	0.09	0.08	0.00	0.00	0.05	1.57
10	V2	1	3.10	0.028	32.87	0.0	5.20	3.53	0.00	0.25	0.53	1.51	2.29	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	7.199	0.526	0.09	0.08	0.00	0.00	0.05	1.57
11	V3	2	3.00	0.031	32.77	0.0	5.21	3.87	0.00	0.25	0.52	1.49	2.26	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.210	0.825	0.09	0.13	0.00	0.00	0.05	1.56
12	V3	2	2.90	0.034	32.65	0.0	5.21	4.21	0.00	0.26	0.50	1.46	2.23	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.225	0.823	0.09	0.13	0.00	0.00	0.05	1.55
13	V3	2	2.80	0.037	32.46	0.0	5.22	4.56	0.00	0.28	0.49	1.43	2.19	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.248	0.821	0.09	0.13	0.00	0.00	0.05	1.53
14	V3	2	2.70	0.040	32.20	0.0	5.23	4.96	0.00	0.30	0.48	1.38	2.15	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.281	0.817	0.09	0.12	0.00	0.00	0.05	1.51
15	V3	2	2.60	0.043	31.81	0.0	5.23	5.45	0.00	0.33	0.46	1.32	2.11	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.328	0.812	0.09	0.12	0.00	0.00	0.05	1.47
16	V3	2	2.50	0.045	31.23	0.0	5.23	6.07	0.00	0.37	0.44	1.25	2.05	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.400	0.804	0.08	0.12	0.00	0.00	0.05	1.42
17	V3	2	2.40	0.048	30.37	0.0	5.21	6.87	0.00	0.42	0.40	1.16	1.98	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.510	0.792	0.08	0.12	0.00	0.00	0.04	1.35
18	V3	2	2.30	0.051	29.08	0.0	5.14	7.94	0.00	0.50	0.36	1.04	1.90	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.680	0.775	0.08	0.12	0.00	0.00	0.04	1.24
19	V3	2	2.20	0.054	27.15	0.0	4.97	9.39	0.00	0.60	0.30	0.89	1.80	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	7.946	0.749	0.07	0.11	0.00	0.00	0.03	1.10
20	V3	2	2.10	0.057	24.26	0.0	4.59	11.37	0.00	0.75	0.21	0.71	1.66	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	8.377	0.710	0.06	0.10	0.00	0.00	0.03	0.92
21	V4	3	2.00	0.054	24.08	0.0	4.56	11.48	0.00	0.76	0.20	0.70	1.66	0.00	0.00	3.1	20.0	1.07	53.5	0.001	0.001	8.405	0.708	0.06	0.10	0.00	0.00	0.02	2.17
22	V4	3	1.90	0.051	23.97	0.0	4.55	11.55	0.00	0.76	0.20	0.69	1.65	0.00	0.00	3.2	20.0	1.07	53.5	0.001	0.001	8.423	0.706	0.06	0.10	0.00	0.00	0.02	2.16
23	V4	3	1.80	0.048	23.83	0.0	4.53	11.63	0.00	0.77	0.20	0.69	1.65	0.00	0.00	3.3	20.0	1.07	53.5	0.001	0.002	8.445	0.704	0.06	0.10	0.00	0.00	0.02	2.14
24	V4	3	1.70	0.045	23.67	0.0	4.51	11.72	0.00	0.77	0.19	0.68	1.65	0.00	0.00	3.4	20.0	1.07	53.5	0.001	0.002	8.470	0.702	0.06	0.10	0.00	0.00	0.02	2.12
25	V4	3	1.60	0.043	23.49	0.0	4.48	11.82	0.00	0.78	0.19	0.68	1.64	0.00	0.00	3.5	20.0	1.07	53.5	0.001	0.002	8.500	0.700	0.06	0.10	0.00	0.00	0.02	2.09
26	V4	3	1.50	0.040	23.28	0.0	4.46	11.94	0.00	0.79	0.18	0.67	1.64	0.00	0.00	3.6	20.0	1.07	53.5	0.001	0.003	8.533	0.697	0.06	0.10	0.00	0.00	0.02	2.07
27	V4	3	1.40	0.037	23.05	0.0	4.43	12.06	0.00	0.79	0.17	0.67	1.64	0.00	0.00	3.7	20.0	1.07	53.5	0.001	0.003	8.570	0.694	0.06	0.10	0.00	0.00	0.02	2.04
28	V4	3	1.30	0.034	22.79	0.0	4.40	12.20	0.00	0.80	0.17	0.66	1.63	0.00	0.00	3.8	20.0	1.07	53.5	0.001	0.004	8.612	0.691	0.06	0.10	0.00	0.00	0.02	2.00
29	V4	3	1.20	0.031	22.51	0.0	4.37	12.35	0.00	0.81	0.16	0.66	1.63	0.00	0.00	3.9	20.0	1.07	53.5	0.001	0.004	8.658	0.687	0.06	0.10	0.00	0.00	0.02	1.97

30	V4	3	1.10	0.028	22.21	0.0	4.34	12.51	0.00	0.82	0.15	0.65	1.63	0.00	0.00	4.0	20.0	1.07	53.5	0.000	0.005	8.708	0.683	0.06	0.10	0.00	0.00	0.02	1.93
31	V5	4	1.00	0.026	22.04	0.0	4.31	12.60	0.00	0.83	0.15	0.65	1.63	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.005	8.737	0.767	0.05	0.11	0.00	0.00	0.02	1.91
32	V5	4	0.90	0.023	21.91	0.0	4.30	12.66	0.00	0.83	0.15	0.65	1.63	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.006	8.758	0.765	0.05	0.11	0.00	0.00	0.02	1.90
33	V5	4	0.80	0.021	21.78	0.0	4.28	12.73	0.00	0.84	0.14	0.65	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.007	8.782	0.763	0.05	0.11	0.00	0.00	0.02	1.88
34	V5	4	0.70	0.018	21.63	0.0	4.26	12.80	0.00	0.84	0.14	0.65	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.008	8.806	0.761	0.05	0.11	0.00	0.00	0.02	1.86
35	V5	4	0.60	0.015	21.47	0.0	4.24	12.88	0.00	0.84	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.009	8.834	0.758	0.05	0.11	0.00	0.00	0.02	1.84
36	V5	4	0.50	0.013	21.29	0.0	4.21	12.97	0.00	0.85	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.011	8.864	0.756	0.05	0.11	0.00	0.00	0.02	1.82
37	V5	4	0.40	0.010	21.11	0.0	4.18	13.06	0.00	0.85	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.012	8.896	0.753	0.05	0.11	0.00	0.00	0.02	1.80
38	V5	4	0.30	0.008	20.91	0.0	4.15	13.15	0.00	0.86	0.12	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.013	8.931	0.750	0.05	0.11	0.00	0.00	0.02	1.78
39	V5	4	0.20	0.005	20.70	0.0	4.12	13.25	0.00	0.86	0.12	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.014	8.967	0.747	0.05	0.11	0.00	0.00	0.02	1.76
40	V5	4	0.10	0.003	20.48	0.0	4.08	13.35	0.00	0.87	0.11	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.015	9.006	0.744	0.05	0.11	0.00	0.00	0.02	1.73
41	V5	4	0.00	0.000	20.25	0.0	4.04	13.46	0.00	0.88	0.11	0.63	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.016	9.048	0.740	0.05	0.11	0.00	0.00	0.02	1.71

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 1 MissSiphonToHwy38V1_V2 Basline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	DO mg/L	BOD1 mg/L	BOD2 mg/L	EBOD1 mg/L	EBOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	PO4-P mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.02830	20.00	0.00	392.00	0.00	5.20	12.68	0.00	13.00	0.00	1.20	0.10	1.45	0.00	3.00	0.00	0.00
1	WSTLD	0.00006	20.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	4.10	4.00	0.02836	0.2	0.00063	1.84	1.84	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
2	4.00	3.90	0.02836	0.2	0.00063	1.84	3.68	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
3	3.90	3.80	0.02836	0.2	0.00063	1.84	5.52	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
4	3.80	3.70	0.02836	0.2	0.00063	1.84	7.36	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
5	3.70	3.60	0.02836	0.2	0.00063	1.84	9.19	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
6	3.60	3.50	0.02836	0.2	0.00063	1.84	11.03	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
7	3.50	3.40	0.02836	0.2	0.00063	1.84	12.87	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
8	3.40	3.30	0.02836	0.2	0.00063	1.84	14.71	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
9	3.30	3.20	0.02836	0.2	0.00063	1.84	16.55	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
10	3.20	3.10	0.02836	0.2	0.00063	1.84	18.39	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
TOT							18.39			45057.59	26820.00					
AVG					0.0006			1.68	26.82			45.06				

********** 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	4.000	7.65	0.50	0.08	0.07	0.00	0.00	0.00	0.00	0.00	1.26	1.26	1.26	0.14	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
2	3.900	7.54	0.50	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.33	1.33	1.33	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
3	3.800	7.45	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.39	1.39	1.39	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
4	3.700	7.37	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	1.44	1.44	1.44	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
5	3.600	7.31	0.52	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.48	1.48	1.48	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
6	3.500	7.27	0.52	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.52	1.52	1.52	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
7	3.400	7.24	0.52	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.54	1.54	1.54	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
8	3.300	7.21	0.53	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
9	3.200	7.20	0.53	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
10	3.100	7.20	0.53	0.09	0.08	0.00	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.42	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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	4.000	29.29	0.00	659.58	0.00	5.34	5.89	0.00	6.21	0.00	0.54	0.47	1.53	2.54	0.57	2.57	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
2	3.900	30.15	0.00	693.37	0.00	5.34	5.21	0.00	5.53	0.00	0.48	0.50	1.53	2.52	0.51	2.54	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
3	3.800	30.87	0.00	731.41	0.00	5.33	4.64	0.00	4.96	0.00	0.43	0.52	1.54	2.49	0.45	2.51	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
4	3.700	31.45	0.00	774.24	0.00	5.30	4.17	0.00	4.49	0.00	0.38	0.54	1.54	2.46	0.41	2.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
5	3.600	31.92	0.00	822.46	0.00	5.28	3.79	0.00	4.11	0.00	0.34	0.55	1.55	2.43	0.37	2.46	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
6	3.500	32.29	0.00	876.75	0.00	5.26	3.52	0.00	3.84	0.00	0.31	0.55	1.55	2.41	0.33	2.43	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
7	3.400	32.57	0.00	937.88	0.00	5.24	3.34	0.00	3.66	0.00	0.28	0.55	1.54	2.38	0.31	2.40	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
8	3.300	32.76	0.00	1006.70	0.00	5.22	3.28	0.00	3.60	0.00	0.26	0.55	1.54	2.35	0.29	2.37	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
9	3.200	32.86	0.00	1084.19	0.00	5.21	3.33	0.00	3.65	0.00	0.25	0.54	1.53	2.32	0.28	2.34	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									
10	3.100	32.87	0.00	1171.43	0.00	5.20	3.53	0.00	3.85	0.00	0.25	0.53	1.51	2.29	0.28	2.31	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																									

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 2 Hwy38ToWofFortyArpentCanalV2_V3 Basline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
11	UPR RCH	0.02836	32.87	0.00	1171.43	0.00	5.20	3.53	0.00	3.85	0.00	0.25	0.53	1.51	0.00	3.00	0.00	0.00
EACH	INCR	0.00283	20.00	0.00	391.00	0.00	5.50	24.00	0.00			0.73	0.10	1.64	0.00	0.00	0.00	

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m^3	SURFACE AREA m^2	X-SECT AREA m^2	TIDAL PRISM m^3	TIDAL VELO m/s	DISPRSN m^2/s	MEAN VELO m/s
11	3.10	3.00	0.03119	0.2	0.00064	1.81	20.19	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
12	3.00	2.90	0.03402	0.2	0.00070	1.66	21.85	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
13	2.90	2.80	0.03685	0.2	0.00076	1.53	23.38	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
14	2.80	2.70	0.03968	0.2	0.00082	1.42	24.80	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
15	2.70	2.60	0.04251	0.1	0.00087	1.32	26.12	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
16	2.60	2.50	0.04534	0.1	0.00093	1.24	27.36	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
17	2.50	2.40	0.04817	0.1	0.00099	1.17	28.53	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
18	2.40	2.30	0.05100	0.1	0.00105	1.10	29.64	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
19	2.30	2.20	0.05383	0.1	0.00111	1.05	30.68	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
20	2.20	2.10	0.05666	0.1	0.00116	0.99	31.68	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.001
TOT						13.29				48652.90	45470.00					
AVG					0.0009			1.07	45.47			48.65				

********** 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
11	3.000	7.21	0.82	0.09	0.13	0.00	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
12	2.900	7.23	0.82	0.09	0.13	0.00	0.00	0.00	0.00	0.00	1.55	1.55	1.55	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
13	2.800	7.25	0.82	0.09	0.13	0.00	0.00	0.00	0.00	0.00	1.53	1.53	1.53	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
14	2.700	7.28	0.82	0.09	0.12	0.00	0.00	0.00	0.00	0.00	1.51	1.51	1.51	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
15	2.600	7.33	0.81	0.09	0.12	0.00	0.00	0.00	0.00	0.00	1.47	1.47	1.47	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
16	2.500	7.40	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.42	1.42	1.42	0.15	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
17	2.400	7.51	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.35	1.35	1.35	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
18	2.300	7.68	0.77	0.08	0.12	0.00	0.00	0.00	0.00	0.00	1.24	1.24	1.24	0.14	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
19	2.200	7.95	0.75	0.07	0.11	0.00	0.00	0.00	0.00	0.00	1.10	1.10	1.10	0.14	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
20	2.100	8.38	0.71	0.06	0.10	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.13	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
11	3.000	32.77	0.00	1265.88	0.00	5.21	3.87	0.00	4.19	0.00	0.25	0.52	1.49	2.26	0.28	2.28	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
12	2.900	32.65	0.00	1378.03	0.00	5.21	4.21	0.00	4.53	0.00	0.26	0.50	1.46	2.23	0.29	2.25	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
13	2.800	32.46	0.00	1516.05	0.00	5.22	4.56	0.00	4.88	0.00	0.28	0.49	1.43	2.19	0.30	2.22	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
14	2.700	32.20	0.00	1686.45	0.00	5.23	4.96	0.00	5.28	0.00	0.30	0.48	1.38	2.15	0.32	2.18	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
15	2.600	31.81	0.00	1897.74	0.00	5.23	5.45	0.00	5.77	0.00	0.33	0.46	1.32	2.11	0.35	2.13	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
16	2.500	31.23	0.00	2161.02	0.00	5.23	6.07	0.00	6.39	0.00	0.37	0.44	1.25	2.05	0.39	2.08	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
17	2.400	30.37	0.00	2490.89	0.00	5.21	6.87	0.00	7.19	0.00	0.42	0.40	1.16	1.98	0.45	2.01	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
18	2.300	29.08	0.00	2906.68	0.00	5.14	7.94	0.00	8.26	0.00	0.50	0.36	1.04	1.90	0.52	1.92	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
19	2.200	27.15	0.00	3434.07	0.00	4.97	9.39	0.00	9.71	0.00	0.60	0.30	0.89	1.80	0.63	1.82	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
20	2.100	24.26	0.00	4107.43	0.00	4.59	11.37	0.00	11.69	0.00	0.75	0.21	0.71	1.66	0.77	1.69	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 3 WofFortyArpentCanalToV4 Basline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
21	UPR RCH	0.05666	24.26	0.00	4107.43	0.00	4.59	11.37	0.00	11.69	0.00	0.75	0.21	0.71	0.00	3.00	0.00	0.00
EACH	INCR	-0.00283																

********** 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
21	2.10	2.00	0.05383	0.1	0.00094	1.23	32.91	1.07	53.45	5719.15	5345.00	57.19	587.95	0.000	20.000	0.001
22	2.00	1.90	0.05100	0.1	0.00089	1.30	34.20	1.07	53.45	5719.15	5345.00	57.19	1175.90	0.001	20.000	0.001
23	1.90	1.80	0.04817	0.1	0.00084	1.37	35.58	1.07	53.45	5719.15	5345.00	57.19	1763.85	0.001	20.000	0.002
24	1.80	1.70	0.04534	0.1	0.00079	1.46	37.04	1.07	53.45	5719.15	5345.00	57.19	2351.80	0.002	20.000	0.002
25	1.70	1.60	0.04251	0.1	0.00074	1.56	38.60	1.07	53.45	5719.15	5345.00	57.19	2939.75	0.002	20.000	0.002
26	1.60	1.50	0.03968	0.1	0.00069	1.67	40.26	1.07	53.45	5719.15	5345.00	57.19	3527.70	0.003	20.000	0.003
27	1.50	1.40	0.03685	0.1	0.00064	1.80	42.06	1.07	53.45	5719.15	5345.00	57.19	4115.65	0.003	20.000	0.003
28	1.40	1.30	0.03402	0.1	0.00059	1.95	44.01	1.07	53.45	5719.15	5345.00	57.19	4703.60	0.004	20.000	0.004
29	1.30	1.20	0.03119	0.1	0.00055	2.12	46.13	1.07	53.45	5719.15	5345.00	57.19	5291.55	0.004	20.000	0.004
30	1.20	1.10	0.02836	0.1	0.00050	2.33	48.46	1.07	53.45	5719.15	5345.00	57.19	5879.50	0.005	20.000	0.005
TOT						16.79				57191.50	53450.00					
AVG					0.0007			1.07	53.45			57.19				

********** 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
21	2.000	8.40	0.71	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.17	2.17	2.17	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
22	1.900	8.42	0.71	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.16	2.16	2.16	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00

23	1.800	8.44	0.70	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.14	2.14	2.14	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
24	1.700	8.47	0.70	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.12	2.12	2.12	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
25	1.600	8.50	0.70	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.09	2.09	2.09	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
26	1.500	8.53	0.70	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.07	2.07	2.07	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
27	1.400	8.57	0.69	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.04	2.04	2.04	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
28	1.300	8.61	0.69	0.06	0.10	0.00	0.00	0.00	0.00	0.00	2.00	2.00	2.00	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
29	1.200	8.66	0.69	0.06	0.10	0.00	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
30	1.100	8.71	0.68	0.06	0.10	0.00	0.00	0.00	0.00	0.00	1.93	1.93	1.93	0.13	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
21	2.000	24.08	0.00	4143.48	0.00	4.56	11.48	0.00	11.81	0.00	0.76	0.20	0.70	1.66	0.78	1.68	0.00	0.00	0.00	0.00	0.00	3.1	0.0	0.	0.00
22	1.900	23.97	0.00	4162.07	0.00	4.55	11.55	0.00	11.89	0.00	0.76	0.20	0.69	1.65	0.79	1.68	0.00	0.00	0.00	0.00	0.00	3.2	0.0	0.	0.00
23	1.800	23.83	0.00	4180.74	0.00	4.53	11.63	0.00	11.98	0.00	0.77	0.20	0.69	1.65	0.79	1.68	0.00	0.00	0.00	0.00	0.00	3.3	0.0	0.	0.00
24	1.700	23.67	0.00	4199.50	0.00	4.51	11.72	0.00	12.08	0.00	0.77	0.19	0.68	1.65	0.80	1.68	0.00	0.00	0.00	0.00	0.00	3.4	0.0	0.	0.00
25	1.600	23.49	0.00	4218.34	0.00	4.48	11.82	0.00	12.20	0.00	0.78	0.19	0.68	1.64	0.81	1.67	0.00	0.00	0.00	0.00	0.00	3.5	0.0	0.	0.00
26	1.500	23.28	0.00	4237.25	0.00	4.46	11.94	0.00	12.32	0.00	0.79	0.18	0.67	1.64	0.82	1.67	0.00	0.00	0.00	0.00	0.00	3.6	0.0	0.	0.00
27	1.400	23.05	0.00	4256.23	0.00	4.43	12.06	0.00	12.46	0.00	0.79	0.17	0.67	1.64	0.83	1.67	0.00	0.00	0.00	0.00	0.00	3.7	0.0	0.	0.00
28	1.300	22.79	0.00	4275.28	0.00	4.40	12.20	0.00	12.61	0.00	0.80	0.17	0.66	1.63	0.84	1.67	0.00	0.00	0.00	0.00	0.00	3.8	0.0	0.	0.00
29	1.200	22.51	0.00	4294.39	0.00	4.37	12.35	0.00	12.77	0.00	0.81	0.16	0.66	1.63	0.85	1.66	0.00	0.00	0.00	0.00	0.00	3.9	0.0	0.	0.00
30	1.100	22.21	0.00	4313.56	0.00	4.34	12.51	0.00	12.94	0.00	0.82	0.15	0.65	1.63	0.86	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 4 V4ToV5endofsubseg Basline Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	UPR RCH	0.02836	22.21	0.00	4313.56	0.00	4.34	12.51	0.00	12.94	0.00	0.82	0.15	0.65	0.00	4.00	0.00	0.00
EACH	INCR	-0.00257																

********** 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
31	1.10	1.00	0.02579	0.1	0.00039	2.96	51.42	0.95	69.49	6601.55	6949.00	66.02	7408.28	0.005	50.000	0.005
32	1.00	0.90	0.02321	0.1	0.00035	3.29	54.72	0.95	69.49	6601.55	6949.00	66.02	8937.06	0.006	50.000	0.006
33	0.90	0.80	0.02064	0.1	0.00031	3.70	58.42	0.95	69.49	6601.55	6949.00	66.02	10465.84	0.007	50.000	0.007
34	0.80	0.70	0.01807	0.1	0.00027	4.23	62.65	0.95	69.49	6601.55	6949.00	66.02	11994.62	0.008	50.000	0.008
35	0.70	0.60	0.01550	0.1	0.00023	4.93	67.58	0.95	69.49	6601.55	6949.00	66.02	13523.40	0.009	50.000	0.009
36	0.60	0.50	0.01292	0.1	0.00020	5.91	73.49	0.95	69.49	6601.55	6949.00	66.02	15052.18	0.011	50.000	0.011
37	0.50	0.40	0.01035	0.1	0.00016	7.38	80.87	0.95	69.49	6601.55	6949.00	66.02	16580.96	0.012	50.000	0.012
38	0.40	0.30	0.00778	0.1	0.00012	9.82	90.69	0.95	69.49	6601.55	6949.00	66.02	18109.74	0.013	50.000	0.013
39	0.30	0.20	0.00521	0.1	0.00008	14.68	105.37	0.95	69.49	6601.55	6949.00	66.02	19638.52	0.014	50.000	0.014
40	0.20	0.10	0.00263	0.1	0.00004	29.02	134.39	0.95	69.49	6601.55	6949.00	66.02	21167.30	0.015	50.000	0.015
41	0.10	0.00	0.00006	0.1	0.00000	1273.44	1407.83	0.95	69.49	6601.55	6949.00	66.02	22696.08	0.016	50.000	0.016
TOT						1359.37				72617.05	76439.00					
AVG					0.0000			0.95	69.49			66.02				

********** 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
31	1.000	8.74	0.77	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.91	1.91	1.91	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
32	0.900	8.76	0.76	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.90	1.90	1.90	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
33	0.800	8.78	0.76	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.88	1.88	1.88	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
34	0.700	8.81	0.76	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.86	1.86	1.86	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00
35	0.600	8.83	0.76	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.84	1.84	1.84	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
36	0.500	8.86	0.76	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.82	1.82	1.82	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
37	0.400	8.90	0.75	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.80	1.80	1.80	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
38	0.300	8.93	0.75	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.78	1.78	1.78	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
39	0.200	8.97	0.75	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.76	1.76	1.76	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
40	0.100	9.01	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.73	1.73	1.73	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
41	0.000	9.05	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.71	1.71	1.71	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	0.00			0.00	0.00	0.00

* $g/m^2/d$ ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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/m^2	COLI #/100mL	NCM
31	1.000	22.04	0.00	4323.45	0.00	4.31	12.60	0.00	13.02	0.00	0.83	0.15	0.65	1.63	0.86	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
32	0.900	21.91	0.00	4330.12	0.00	4.30	12.66	0.00	13.09	0.00	0.83	0.15	0.65	1.63	0.87	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
33	0.800	21.78	0.00	4336.79	0.00	4.28	12.73	0.00	13.16	0.00	0.84	0.14	0.65	1.62	0.87	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
34	0.700	21.63	0.00	4343.47	0.00	4.26	12.80	0.00	13.23	0.00	0.84	0.14	0.65	1.62	0.87	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
35	0.600	21.47	0.00	4350.15	0.00	4.24	12.88	0.00	13.31	0.00	0.84	0.13	0.64	1.62	0.88	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
36	0.500	21.29	0.00	4356.84	0.00	4.21	12.97	0.00	13.39	0.00	0.85	0.13	0.64	1.62	0.88	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
37	0.400	21.11	0.00	4363.53	0.00	4.18	13.06	0.00	13.48	0.00	0.85	0.13	0.64	1.62	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
38	0.300	20.91	0.00	4370.22	0.00	4.15	13.15	0.00	13.58	0.00	0.86	0.12	0.64	1.62	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
39	0.200	20.70	0.00	4376.91	0.00	4.12	13.25	0.00	13.68	0.00	0.86	0.12	0.64	1.62	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
40	0.100	20.48	0.00	4383.61	0.00	4.08	13.35	0.00	13.78	0.00	0.87	0.11	0.64	1.62	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
41	0.000	20.25	0.00	4390.30	0.00	4.04	13.46	0.00	13.89	0.00	0.88	0.11	0.63	1.62	0.91	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00

LA-QUAL Model for Violet Canal
Basline Simulation

REACH SUMMARY REPORT: Violet-1

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	MissSiphonToHwy38V1_V2	4.10	3.10	1.00	18.39	0.02836	0.00063	1.680	26.82	1.001	0.002	5.512	88.00
2	Hwy38ToWofFortyArpentCanalV2_V3	3.10	2.10	1.00	13.29	0.05666	0.00087	1.070	45.47	2.001	0.003	3.511	149.19
3	WofFortyArpentCanalToV4	2.10	1.10	1.00	16.79	0.02836	0.00069	1.070	53.45	1.001	0.002	3.511	175.37
4	V4ToV5endofsubseg	1.10	0.00	1.10	1359.37	0.00006	0.00001	0.950	69.49	0.002	0.000	3.117	228.00

LA-QUAL Model for Violet Canal
Basline Simulation

STREAM SUMMARY REPORT: Violet-1

TRAVEL TIME = 1407.83 DAYS

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MAXIMUM EFFLUENT  =          0.21 PERCENT

FLOW              =   0.00006 TO    0.05666   m³/s
DISPERSION        =   0.5000  TO   50.0000    m²/s
VELOCITY          =   0.00000 TO    0.00116   m/s
DEPTH             =   0.95    TO    1.68      m
WIDTH             =  26.82    TO   69.49      m

BOD DECAY         =    0.05   TO    0.09      per day
NH3 DECAY         =    0.02   TO    0.05      per day
SOD               =    0.92   TO    2.17      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        =    0.50   TO    0.82      per day
BOD SETTLING      =    0.07   TO    0.13      per day
ORG-N DECAY       =    0.12   TO    0.15      per day
ORG-N SETTLING    =    0.00   TO    0.00      per day

TEMPERATURE       =   20.25   TO   32.87      deg C
DISSOLVED OXYGEN  =    4.04   TO    5.34      mg/L

LA-QUAL Model for Violet Canal
Basline Simulation
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INPUT/OUTPUT LOADING SUMMARY

	FLOW m³/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	0.02830	12.71	31.00	0.00	2.87	0.24	3.55	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02830	13.45	58.68	0.00	1.78	0.24	4.01	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.05660	-21.18	-60.93	0.00	-4.00	-0.76	-3.22	0.00	0.00	0.00		0.00
WASTELOADS	0.00006	0.01	0.54	0.00	0.04	0.08	0.01	0.00	0.00	0.00		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	-0.00006	-0.02	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-122.38	322.73	0.00	17.90	-15.92	-4.29	0.00	0.00	0.00		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		557.97										
DAM REAERATION		0.00										
SOD BACKGROUND		-350.82										
BOD1 DECAY		-129.62	-129.62									
BOD1 SETTLING		0.00	-222.36									
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			-18.59	18.59						
ORG-N SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		-10.70				-2.47	2.47					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		50.59				0.00	-2.53		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
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	0.05666	634.74	412.95	0.00	22.59	19.16	10.04	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05666	-634.72	-412.98	0.00	-22.59	-19.15	-10.04	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	0.02	-0.03	0.00	0.00	0.01	-0.01	0.00	0.00	0.00	0.00	0.00

.....EXECUTION COMPLETED

APPENDIX H:
Model TMDL Output Files

Summer LA-QUAL model TMDL output H-1
Winter LA-QUAL model TMDL output H-16

Summer LA-QUAL model TMDL 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\041805(Violet)\Violet_TMDL_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 15:54 on 11/15/2011

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

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Model for Violet Canal
TITLE02         TMDL Simulation
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 =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   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         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.22000 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

ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA06

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$
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                                                   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   V2  MissSiphonToHwy38V1_V2         4.10  TO    3.10  0.1000    1.00       10      1     10
REACH ID     2   V3  Hwy38ToWofFortyArpentCanalV2_V3  3.10  TO  2.10  0.1000    1.00       10     11     20
REACH ID     3   V4  WofFortyArpentCanalToV4        2.10  TO    1.10  0.1000    1.00       10     21     30
REACH ID     4   V5  V4ToV5endofsubseg              1.10  TO    0.00  0.1000    1.10       11     31     41
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   V2      0.000      0.000     26.820      0.000      0.000      1.680   0.00010   0.000
HYDR-1       2   V3      0.000      0.000     45.470      0.000      0.000      1.070   0.00010   0.000
HYDR-1       3   V4      0.000      0.000     53.450      0.000      0.000      1.070   0.00010   0.000
HYDR-1       4   V5      0.000      0.000     69.490      0.000      0.000      0.950   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   V2      0.00       0.500          0.000          0.000          0.000
HYDR         2   V3      0.00       0.500          0.000          0.000          0.000
HYDR         3   V4      0.50      20.000          0.000          0.000          0.000
HYDR         4   V5      1.00      50.000          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

INITIAL          1   V2    30.60    0.00   5.30    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00     0.00
INITIAL          2   V3    30.70    0.00   5.50    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00     0.00
INITIAL          3   V4    30.90    0.00   4.90    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00     0.00
INITIAL          4   V5    30.20    0.00   4.40    0.10    0.00    0.00    4.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00     0.00
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   V2   3 OCONNER-DOBB   0.000    0.000    0.000     0.500    0.050    0.100   0.000    0.000    0.000    0.000            0.000    0.000
COEFF-1    2   V3   3 OCONNER-DOBB   0.000    0.000    0.000     0.500    0.050    0.100   0.000    0.000    0.000    0.000            0.000    0.000
COEFF-1    3   V4   3 OCONNER-DOBB   0.000    0.000    0.000     1.200    0.050    0.100   0.000    0.000    0.000    0.000            0.000    0.000
COEFF-1    4   V5   3 OCONNER-DOBB   0.000    0.000    0.000     1.200    0.050    0.100   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   V2        0.120    0.000    0.000    0.020     0.000     0.000    0.020    0.000    0.000     0.000
COEFF-2          2   V3        0.120    0.000    0.000    0.020     0.000     0.000    0.020    0.000    0.000     0.000
COEFF-2          3   V4        0.120    0.000    0.000    0.020     0.000     0.000    0.020    0.000    0.000     0.000
COEFF-2          4   V5        0.120    0.000    0.000    0.020     0.000     0.000    0.020    0.000    0.000     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

ENDATA14
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$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

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

INCR-1           1   V2       0.00000     0.00000      0.00      0.00      0.00      0.00   0.00000   0.00000
INCR-1           2   V3       0.00000     0.00283     30.00      0.00    391.00      0.00   0.00283   0.00000
INCR-1           3   V4      -0.00283     0.00000     30.70      0.00    391.00      0.00   0.00000  -0.00283
INCR-1           4   V5      -0.00283     0.00000     30.70      0.00    391.00      0.00   0.00000  -0.00257
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

INCR-2           1   V2        0.00      0.00      0.00      0.00      0.00      0.00
INCR-2           2   V3        5.50     12.24      0.73      0.10      1.64      0.00
INCR-2           3   V4        5.50     14.00      0.78      0.10      1.64      0.00
INCR-2           4   V5        5.50     14.00      0.78      0.10      1.64      0.00
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   V2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         2   V3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         3   V4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         4   V5        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                frac

HDWTR-1          1     Violet-1                0   0.00283    0.09993   30.10     0.00   392.000     0.000     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     Violet-1                    5.20      6.63      1.20      0.10      1.45      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

ENDATA22

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

WSTLD-1        1       4.10  LAG531277              0.00006    0.00212    0.001   30.00     0.00     0.000     0.000
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     LAG531277                  2.00    103.50      0.00      7.50     15.00      0.00      2.00      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

ENDATA26

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

CARD TYPE    CONSTITUENT                    CONCENTRATION

LOWER BC     TEMPERATURE                          30.200     deg C
LOWER BC     SALINITY                       =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I        =   4397.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                      4.000     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND       14.000     mg/L
LOWER BC     ORGANIC NITROGEN                      0.917     mg/L
LOWER BC     AMMONIA NITROGEN                      0.100     mg/L
LOWER BC     NITRATE NITROGEN                      0.633     mg/L
LOWER BC     CHLOROPHYLL A                         4.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

OVERLAY 1 Violet.ovl                      :Violet Canal Overlay File
ENDATA31

     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....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 Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	6.47	6.48	6.48	6.48	6.47	6.46	6.44	6.41	6.37	6.33
V3	2	11	6.28	6.22	6.14	6.04	5.91	5.74	5.51	5.20	4.77	4.18
V4	3	21	4.14	4.13	4.11	4.10	4.09	4.08	4.07	4.06	4.05	4.04
V5	4	31	4.03	4.03	4.03	4.02	4.02	4.02	4.01	4.01	4.01	4.01
V5	4	41	4.00									

INTERMEDIATE REPORT
Effective BOD1
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.23	1.17	1.14	1.14	1.17	1.22	1.32	1.45	1.62	1.85
V3	2	11	2.12	2.46	2.89	3.43	4.12	4.99	6.08	7.46	9.20	11.39
V4	3	21	11.51	11.60	11.69	11.80	11.92	12.06	12.21	12.37	12.55	12.74
V5	4	31	12.84	12.92	13.00	13.08	13.17	13.27	13.38	13.49	13.61	13.73
V5	4	41	13.86									

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.91	0.85	0.82	0.82	0.85	0.90	1.00	1.13	1.30	1.53
V3	2	11	1.80	2.14	2.57	3.11	3.80	4.67	5.76	7.14	8.88	11.07
V4	3	21	11.18	11.26	11.34	11.44	11.55	11.68	11.81	11.97	12.13	12.31
V5	4	31	12.41	12.49	12.57	12.65	12.75	12.85	12.95	13.06	13.18	13.30
V5	4	41	13.44									

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.12	0.11	0.10	0.09	0.09	0.09	0.10	0.11	0.12	0.14
V3	2	11	0.16	0.18	0.22	0.25	0.30	0.36	0.43	0.52	0.62	0.75
V4	3	21	0.76	0.76	0.77	0.77	0.78	0.79	0.79	0.80	0.81	0.82
V5	4	31	0.83	0.83	0.83	0.84	0.84	0.85	0.85	0.86	0.86	0.87
V5	4	41	0.88									

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.14	0.13	0.12	0.12	0.12	0.12	0.13	0.13	0.15	0.16
V3	2	11	0.18	0.21	0.24	0.28	0.33	0.39	0.46	0.54	0.65	0.78
V4	3	21	0.79	0.79	0.80	0.80	0.81	0.82	0.83	0.83	0.84	0.85
V5	4	31	0.86	0.86	0.87	0.87	0.88	0.88	0.89	0.89	0.90	0.90
V5	4	41	0.91									

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40
V3	2	11	0.40	0.40	0.40	0.40	0.39	0.38	0.36	0.32	0.27	0.20
V4	3	21	0.20	0.20	0.19	0.19	0.19	0.18	0.17	0.17	0.16	0.15
V5	4	31	0.15	0.15	0.14	0.14	0.14	0.13	0.13	0.12	0.12	0.11
V5	4	41	0.11									

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen

LA-QUAL Model for Violet Canal

mg/L TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.02	1.01	1.01	1.00	0.99	0.97	0.96	0.95	0.93	0.92
V3	2	11	0.90	0.88	0.86	0.83	0.81	0.78	0.75	0.71	0.68	0.64
V4	3	21	0.64	0.64	0.64	0.64	0.64	0.64	0.63	0.63	0.63	0.63
V5	4	31	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
V5	4	41	0.63									

INTERMEDIATE REPORT
Total Nitrogen LA-QUAL Model for Violet Canal
mg/L TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.52	1.51	1.49	1.48	1.47	1.46	1.45	1.45	1.45	1.46
V3	2	11	1.46	1.47	1.48	1.49	1.50	1.52	1.53	1.55	1.57	1.60
V4	3	21	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.61	1.61	1.61
V5	4	31	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
V5	4	41	1.62									

INTERMEDIATE REPORT
Effective Total Nitrogen LA-QUAL Model for Violet Canal
mg/L TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.55	1.53	1.52	1.50	1.49	1.48	1.48	1.48	1.48	1.48
V3	2	11	1.49	1.49	1.50	1.51	1.53	1.54	1.56	1.58	1.60	1.62
V4	3	21	1.63	1.63	1.63	1.63	1.63	1.63	1.64	1.64	1.64	1.64
V5	4	31	1.64	1.64	1.64	1.64	1.64	1.65	1.65	1.65	1.65	1.65
V5	4	41	1.65									

INTERMEDIATE REPORT
Chlorophyll a LA-QUAL Model for Violet Canal
µg/L TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V3	2	11	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V4	3	21	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
V5	4	31	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
V5	4	41	4.00									

INTERMEDIATE REPORT
Temperature LA-QUAL Model for Violet Canal
deg C TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	30.61	30.62	30.63	30.64	30.65	30.66	30.67	30.68	30.69	30.70
V3	2	11	30.72	30.74	30.76	30.78	30.80	30.82	30.84	30.86	30.88	30.90
V4	3	21	30.83	30.76	30.69	30.62	30.55	30.48	30.41	30.34	30.27	30.20
V5	4	31	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20	30.20
V5	4	41	30.20									

INTERMEDIATE REPORT
Salinity LA-QUAL Model for Violet Canal
ppt TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3	2	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V4	3	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	41	0.00									

INTERMEDIATE REPORT
CONDUCTIVITY UNIT LA-QUAL Model for Violet Canal
umhos/cm TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	3379.73	3418.16	3457.09	3496.51	3536.44	3576.88	3617.84	3659.32	3701.34	3743.89
V3	2	11	3785.34	3829.70	3878.63	3932.32	3990.95	4054.74	4123.93	4198.76	4279.51	4366.51
V4	3	21	4370.40	4372.39	4374.39	4376.38	4378.37	4380.37	4382.36	4384.35	4386.35	4388.35
V5	4	31	4389.37	4390.06	4390.76	4391.45	4392.14	4392.83	4393.53	4394.22	4394.91	4395.61
V5	4	41	4396.30									

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
V3	2	11	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
V4	3	21	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
V5	4	31	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V3	2	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V4	3	21	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
V5	4	31	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
V5	4	41	50.0									

INTERMEDIATE REPORT
Depth
m

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
V3	2	11	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V4	3	21	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V5	4	31	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
V5	4	41	0.9									

INTERMEDIATE REPORT
Width
m

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
V3	2	11	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
V4	3	21	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
V5	4	31	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
V5	4	41	69.5									

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Model for Violet Canal
TMDL Simulation

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

V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Mean Velocity
m/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1
V3	2	11	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
V4	3	21	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
V5	4	31	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
V5	4	41	66.0									

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507
V3	2	11	0.797	0.797	0.797	0.798	0.798	0.798	0.798	0.799	0.799	0.799
V4	3	21	0.798	0.797	0.796	0.795	0.794	0.793	0.792	0.792	0.791	0.790
V5	4	31	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889	0.889
V5	4	41	0.889									

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Sediment Oxygen Demand g/m²/d — LA-QUAL Model for Violet Canal, TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V3	2	11	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V4	3	21	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	31	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	41	2.									

CAPSULE SUMMARY FOR Violet-1

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	ORG-P mg/L	PO4-P mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.003	30.10	0.0	5.20	6.31	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0													
	WASTELOAD # 001 (LAG531277) ENTERS HERE																											
1	V2 1	4.00	0.003	30.61	0.0	6.47	0.91	0.00	0.12	0.39	1.02	1.52	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.479	0.507	0.08	0.08	0.00	0.00	0.04	0.98
2	V2 1	3.90	0.003	30.62	0.0	6.48	0.85	0.00	0.11	0.39	1.01	1.51	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.478	0.507	0.08	0.08	0.00	0.00	0.04	0.98
3	V2 1	3.80	0.003	30.63	0.0	6.48	0.82	0.00	0.10	0.39	1.01	1.49	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.477	0.507	0.08	0.08	0.00	0.00	0.04	0.98
4	V2 1	3.70	0.003	30.64	0.0	6.48	0.82	0.00	0.09	0.39	1.00	1.48	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.475	0.507	0.08	0.08	0.00	0.00	0.04	0.98
5	V2 1	3.60	0.003	30.65	0.0	6.47	0.85	0.00	0.09	0.39	0.99	1.47	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.474	0.507	0.08	0.08	0.00	0.00	0.04	0.98
6	V2 1	3.50	0.003	30.66	0.0	6.46	0.90	0.00	0.09	0.39	0.97	1.46	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.473	0.507	0.08	0.08	0.00	0.00	0.04	0.98
7	V2 1	3.40	0.003	30.67	0.0	6.44	1.00	0.00	0.10	0.39	0.96	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.472	0.507	0.08	0.08	0.00	0.00	0.04	0.98
8	V2 1	3.30	0.003	30.68	0.0	6.41	1.13	0.00	0.11	0.39	0.95	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.471	0.507	0.08	0.08	0.00	0.00	0.04	0.98
9	V2 1	3.20	0.003	30.69	0.0	6.37	1.30	0.00	0.12	0.40	0.93	1.45	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.469	0.507	0.08	0.08	0.00	0.00	0.04	0.98
10	V2 1	3.10	0.003	30.70	0.0	6.33	1.53	0.00	0.14	0.40	0.92	1.46	0.00	0.00	3.0	0.5	1.68	26.8	0.000	0.000	7.468	0.507	0.08	0.08	0.00	0.00	0.04	0.98
11	V3 2	3.00	0.003	30.72	0.0	6.28	1.80	0.00	0.16	0.40	0.90	1.46	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.465	0.797	0.08	0.12	0.00	0.00	0.04	0.98
12	V3 2	2.90	0.003	30.74	0.0	6.22	2.14	0.00	0.18	0.40	0.88	1.47	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.463	0.797	0.08	0.12	0.00	0.00	0.04	0.98
13	V3 2	2.80	0.004	30.76	0.0	6.14	2.57	0.00	0.22	0.40	0.86	1.48	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.461	0.797	0.08	0.12	0.00	0.00	0.04	0.98
14	V3 2	2.70	0.004	30.78	0.0	6.04	3.11	0.00	0.25	0.40	0.83	1.49	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.458	0.798	0.08	0.12	0.00	0.00	0.04	0.99
15	V3 2	2.60	0.004	30.80	0.0	5.91	3.80	0.00	0.30	0.39	0.81	1.50	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.455	0.798	0.08	0.12	0.00	0.00	0.04	0.99
16	V3 2	2.50	0.005	30.82	0.0	5.74	4.67	0.00	0.36	0.38	0.78	1.52	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.452	0.798	0.08	0.12	0.00	0.00	0.04	0.99
17	V3 2	2.40	0.005	30.84	0.0	5.51	5.76	0.00	0.43	0.36	0.75	1.53	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.450	0.798	0.08	0.12	0.00	0.00	0.04	0.99
18	V3 2	2.30	0.005	30.86	0.0	5.20	7.14	0.00	0.52	0.32	0.71	1.55	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.448	0.799	0.08	0.12	0.00	0.00	0.04	0.99
19	V3 2	2.20	0.005	30.88	0.0	4.77	8.88	0.00	0.62	0.27	0.68	1.57	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.445	0.799	0.08	0.12	0.00	0.00	0.04	0.99
20	V3 2	2.10	0.006	30.90	0.0	4.18	11.07	0.00	0.75	0.20	0.64	1.60	0.00	0.00	3.0	0.5	1.07	45.5	0.000	0.000	7.443	0.799	0.08	0.12	0.00	0.00	0.04	0.99
21	V4 3	2.00	0.005	30.83	0.0	4.14	11.18	0.00	0.76	0.20	0.64	1.60	0.00	0.00	3.1	20.0	1.07	53.5	0.000	0.000	7.451	0.798	0.08	0.12	0.00	0.00	0.04	2.37
22	V4 3	1.90	0.005	30.76	0.0	4.13	11.26	0.00	0.76	0.20	0.64	1.60	0.00	0.00	3.2	20.0	1.07	53.5	0.000	0.001	7.461	0.797	0.08	0.12	0.00	0.00	0.04	2.36
23	V4 3	1.80	0.005	30.69	0.0	4.11	11.34	0.00	0.77	0.19	0.64	1.60	0.00	0.00	3.3	20.0	1.07	53.5	0.000	0.001	7.469	0.796	0.08	0.12	0.00	0.00	0.04	2.35
24	V4 3	1.70	0.005	30.62	0.0	4.10	11.44	0.00	0.77	0.19	0.64	1.60	0.00	0.00	3.4	20.0	1.07	53.5	0.000	0.002	7.478	0.795	0.08	0.12	0.00	0.00	0.04	2.34
25	V4 3	1.60	0.004	30.55	0.0	4.09	11.55	0.00	0.78	0.19	0.64	1.60	0.00	0.00	3.5	20.0	1.07	53.5	0.000	0.002	7.488	0.794	0.08	0.12	0.00	0.00	0.04	2.33
26	V4 3	1.50	0.004	30.48	0.0	4.08	11.68	0.00	0.79	0.18	0.64	1.60	0.00	0.00	3.6	20.0	1.07	53.5	0.000	0.003	7.496	0.793	0.08	0.12	0.00	0.00	0.04	2.32
27	V4 3	1.40	0.004	30.41	0.0	4.07	11.81	0.00	0.79	0.17	0.63	1.60	0.00	0.00	3.7	20.0	1.07	53.5	0.000	0.003	7.505	0.792	0.08	0.12	0.00	0.00	0.04	2.31
28	V4 3	1.30	0.003	30.34	0.0	4.06	11.97	0.00	0.80	0.17	0.63	1.61	0.00	0.00	3.8	20.0	1.07	53.5	0.000	0.004	7.514	0.792	0.08	0.12	0.00	0.00	0.04	2.30
29	V4 3	1.20	0.003	30.27	0.0	4.05	12.13	0.00	0.81	0.16	0.63	1.61	0.00	0.00	3.9	20.0	1.07	53.5	0.000	0.004	7.523	0.791	0.08	0.12	0.00	0.00	0.04	2.29
30	V4 3	1.10	0.003	30.20	0.0	4.04	12.31	0.00	0.82	0.15	0.63	1.61	0.00	0.00	4.0	20.0	1.07	53.5	0.000	0.005	7.532	0.790	0.08	0.12	0.00	0.00	0.04	2.28
31	V5 4	1.00	0.003	30.20	0.0	4.03	12.41	0.00	0.83	0.15	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.005	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
32	V5 4	0.90	0.002	30.20	0.0	4.03	12.49	0.00	0.83	0.15	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.006	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
33	V5 4	0.80	0.002	30.20	0.0	4.03	12.57	0.00	0.83	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.007	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
34	V5 4	0.70	0.002	30.20	0.0	4.02	12.65	0.00	0.84	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.008	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
35	V5 4	0.60	0.002	30.20	0.0	4.02	12.75	0.00	0.84	0.14	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.009	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
36	V5 4	0.50	0.001	30.20	0.0	4.02	12.85	0.00	0.85	0.13	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.011	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
37	V5 4	0.40	0.001	30.20	0.0	4.01	12.95	0.00	0.85	0.13	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.012	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
38	V5 4	0.30	0.001	30.20	0.0	4.01	13.06	0.00	0.86	0.12	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.013	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
39	V5 4	0.20	0.001	30.20	0.0	4.01	13.18	0.00	0.86	0.12	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.014	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
40	V5 4	0.10	0.000	30.20	0.0	4.01	13.30	0.00	0.87	0.11	0.63	1.61	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.015	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28
41	V5 4	0.00	0.000	30.20	0.0	4.00	13.44	0.00	0.88	0.11	0.63	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.016	7.532	0.889	0.08	0.13	0.00	0.00	0.04	2.28

FINAL REPORT Violet-1 — LA-QUAL Model for Violet Canal
REACH NO. 1 MissSiphonToHwy38V1_V2 — TMDL Simulation

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

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

1	HDWTR	0.00283	30.10	0.00	392.00	0.00	5.20	6.31	0.00	6.63	0.00	1.20	0.10	1.45	0.00	3.00	0.00	0.00
1	WSTLD	0.00006	30.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	4.10	4.00	0.00289	2.1	0.00006	18.04	18.04	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
2	4.00	3.90	0.00289	2.1	0.00006	18.04	36.09	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
3	3.90	3.80	0.00289	2.1	0.00006	18.04	54.13	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
4	3.80	3.70	0.00289	2.1	0.00006	18.04	72.18	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
5	3.70	3.60	0.00289	2.1	0.00006	18.04	90.22	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
6	3.60	3.50	0.00289	2.1	0.00006	18.04	108.27	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
7	3.50	3.40	0.00289	2.1	0.00006	18.04	126.31	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
8	3.40	3.30	0.00289	2.1	0.00006	18.04	144.36	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
9	3.30	3.20	0.00289	2.1	0.00006	18.04	162.40	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
10	3.20	3.10	0.00289	2.1	0.00006	18.04	180.45	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.000
TOT						180.45				45057.59	26820.00					
AVG					0.0001			1.68	26.82			45.06				

********** 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	4.000	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
2	3.900	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
3	3.800	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
4	3.700	7.48	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
5	3.600	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
6	3.500	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
7	3.400	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
8	3.300	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00
9	3.200	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
10	3.100	7.47	0.51	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.42	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.50			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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	4.000	30.61	0.00	3379.73	0.00	6.47	0.91	0.00	1.23	0.00	0.12	0.39	1.02	1.52	0.14	1.55	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
2	3.900	30.62	0.00	3418.16	0.00	6.48	0.85	0.00	1.17	0.00	0.11	0.39	1.01	1.51	0.13	1.53	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
3	3.800	30.63	0.00	3457.09	0.00	6.48	0.82	0.00	1.14	0.00	0.10	0.39	1.01	1.49	0.12	1.52	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
4	3.700	30.64	0.00	3496.51	0.00	6.48	0.82	0.00	1.14	0.00	0.09	0.39	1.00	1.48	0.12	1.50	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
5	3.600	30.65	0.00	3536.44	0.00	6.47	0.85	0.00	1.17	0.00	0.09	0.39	0.99	1.47	0.12	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
6	3.500	30.66	0.00	3576.88	0.00	6.46	0.90	0.00	1.22	0.00	0.09	0.39	0.97	1.46	0.12	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
7	3.400	30.67	0.00	3617.84	0.00	6.44	1.00	0.00	1.32	0.00	0.10	0.39	0.96	1.45	0.13	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
8	3.300	30.68	0.00	3659.32	0.00	6.41	1.13	0.00	1.45	0.00	0.11	0.39	0.95	1.45	0.13	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
9	3.200	30.69	0.00	3701.34	0.00	6.37	1.30	0.00	1.62	0.00	0.12	0.40	0.93	1.45	0.15	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
10	3.100	30.70	0.00	3743.89	0.00	6.33	1.53	0.00	1.85	0.00	0.14	0.40	0.92	1.46	0.16	1.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 2 Hwy38ToWofFortyArpentCanalV2_V3 TMDL Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
11	UPR RCH	0.00289	30.70	0.00	3743.89	0.00	6.33	1.53	0.00	1.85	0.00	0.14	0.40	0.92	0.00	3.00	0.00	0.00
EACH	INCR	0.00028	30.00	0.00	391.00	0.00	5.50	12.24	0.00			0.73	0.10	1.64	0.00	0.00	0.00	

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
11	3.10	3.00	0.00317	1.9	0.00007	17.75	198.20	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
12	3.00	2.90	0.00346	1.7	0.00007	16.29	214.49	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
13	2.90	2.80	0.00374	1.6	0.00008	15.06	229.55	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
14	2.80	2.70	0.00402	1.5	0.00008	14.00	243.55	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
15	2.70	2.60	0.00430	1.4	0.00009	13.08	256.63	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
16	2.60	2.50	0.00459	1.3	0.00009	12.27	268.91	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
17	2.50	2.40	0.00487	1.2	0.00010	11.56	280.47	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
18	2.40	2.30	0.00515	1.2	0.00011	10.93	291.39	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
19	2.30	2.20	0.00544	1.1	0.00011	10.36	301.75	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
20	2.20	2.10	0.00572	1.0	0.00012	9.84	311.59	1.07	45.47	4865.29	4547.00	48.65	0.00	0.000	0.500	0.000
TOT						131.14				48652.90	45470.00					
AVG					0.0001			1.07	45.47			48.65				

********** 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
11	3.000	7.47	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
12	2.900	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
13	2.800	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.98	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
14	2.700	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
15	2.600	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
16	2.500	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
17	2.400	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
18	2.300	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
19	2.200	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
20	2.100	7.44	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.50			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
11	3.000	30.72	0.00	3785.34	0.00	6.28	1.80	0.00	2.12	0.00	0.16	0.40	0.90	1.46	0.18	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
12	2.900	30.74	0.00	3829.70	0.00	6.22	2.14	0.00	2.46	0.00	0.18	0.40	0.88	1.47	0.21	1.49	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
13	2.800	30.76	0.00	3878.63	0.00	6.14	2.57	0.00	2.89	0.00	0.22	0.40	0.86	1.48	0.24	1.50	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
14	2.700	30.78	0.00	3932.32	0.00	6.04	3.11	0.00	3.43	0.00	0.25	0.40	0.83	1.49	0.28	1.51	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
15	2.600	30.80	0.00	3990.95	0.00	5.91	3.80	0.00	4.12	0.00	0.30	0.39	0.81	1.50	0.33	1.53	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
16	2.500	30.82	0.00	4054.74	0.00	5.74	4.67	0.00	4.99	0.00	0.36	0.38	0.78	1.52	0.39	1.54	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00

17	2.400	30.84	0.00	4123.93	0.00	5.51	5.76	0.00	6.08	0.00	0.43	0.36	0.75	1.53	0.46	1.56	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																								
18	2.300	30.86	0.00	4198.76	0.00	5.20	7.14	0.00	7.46	0.00	0.52	0.32	0.71	1.55	0.54	1.58	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																								
19	2.200	30.88	0.00	4279.51	0.00	4.77	8.88	0.00	9.20	0.00	0.62	0.27	0.68	1.57	0.65	1.60	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																								
20	2.100	30.90	0.00	4366.51	0.00	4.18	11.07	0.00	11.39	0.00	0.75	0.20	0.64	1.60	0.78	1.62	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.
0.00																								

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 3 WofFortyArpentCanalToV4 TMDL Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
21	UPR RCH	0.00572	30.90	0.00	4366.51	0.00	4.18	11.07	0.00	11.39	0.00	0.75	0.20	0.64	0.00	3.00	0.00	0.00
EACH	INCR	-0.00028																

********** 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
21	2.10	2.00	0.00544	1.0	0.00010	12.17	323.77	1.07	53.45	5719.15	5345.00	57.19	587.95	0.000	20.000	0.000
22	2.00	1.90	0.00515	1.0	0.00009	12.84	336.61	1.07	53.45	5719.15	5345.00	57.19	1175.90	0.001	20.000	0.001
23	1.90	1.80	0.00487	1.0	0.00009	13.59	350.20	1.07	53.45	5719.15	5345.00	57.19	1763.85	0.001	20.000	0.001
24	1.80	1.70	0.00459	1.0	0.00008	14.43	364.63	1.07	53.45	5719.15	5345.00	57.19	2351.80	0.002	20.000	0.002
25	1.70	1.60	0.00430	1.0	0.00008	15.38	380.00	1.07	53.45	5719.15	5345.00	57.19	2939.75	0.002	20.000	0.002
26	1.60	1.50	0.00402	1.0	0.00007	16.46	396.46	1.07	53.45	5719.15	5345.00	57.19	3527.70	0.003	20.000	0.003
27	1.50	1.40	0.00374	1.0	0.00007	17.70	414.17	1.07	53.45	5719.15	5345.00	57.19	4115.65	0.003	20.000	0.003
28	1.40	1.30	0.00346	1.0	0.00006	19.15	433.32	1.07	53.45	5719.15	5345.00	57.19	4703.60	0.004	20.000	0.004
29	1.30	1.20	0.00317	1.0	0.00006	20.86	454.18	1.07	53.45	5719.15	5345.00	57.19	5291.55	0.004	20.000	0.004
30	1.20	1.10	0.00289	1.0	0.00005	22.90	477.09	1.07	53.45	5719.15	5345.00	57.19	5879.50	0.005	20.000	0.005
TOT						165.49				57191.50	53450.00					
AVG					0.0001			1.07	53.45			57.19				

********** 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
21	2.000	7.45	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.37	2.37	2.37	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
22	1.900	7.46	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.36	2.36	2.36	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00
23	1.800	7.47	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.35	2.35	2.35	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
24	1.700	7.48	0.80	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.34	2.34	2.34	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
25	1.600	7.49	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.33	2.33	2.33	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
26	1.500	7.50	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.32	2.32	2.32	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
27	1.400	7.51	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.31	2.31	2.31	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
28	1.300	7.51	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.30	2.30	2.30	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
29	1.200	7.52	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.29	2.29	2.29	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
30	1.100	7.53	0.79	0.08	0.12	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.20			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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
21	2.000	30.83	0.00	4370.40	0.00	4.14	11.18	0.00	11.51	0.00	0.76	0.20	0.64	1.60	0.79	1.63	0.00	0.00	0.00	0.00	0.00	3.1	0.0	0.	0.00

22	1.900	30.76	0.00	4372.39	0.00	4.13	11.26	0.00	11.60	0.00	0.76	0.20	0.64	1.60	0.79	1.63	0.00	0.00	0.00	0.00	0.00	3.2	0.0	0.
0.00																									
23	1.800	30.69	0.00	4374.39	0.00	4.11	11.34	0.00	11.69	0.00	0.77	0.19	0.64	1.60	0.80	1.63	0.00	0.00	0.00	0.00	0.00	3.3	0.0	0.
0.00																									
24	1.700	30.62	0.00	4376.38	0.00	4.10	11.44	0.00	11.80	0.00	0.77	0.19	0.64	1.60	0.80	1.63	0.00	0.00	0.00	0.00	0.00	3.4	0.0	0.
0.00																									
25	1.600	30.55	0.00	4378.37	0.00	4.09	11.55	0.00	11.92	0.00	0.78	0.19	0.64	1.60	0.81	1.63	0.00	0.00	0.00	0.00	0.00	3.5	0.0	0.
0.00																									
26	1.500	30.48	0.00	4380.37	0.00	4.08	11.68	0.00	12.06	0.00	0.79	0.18	0.64	1.60	0.82	1.63	0.00	0.00	0.00	0.00	0.00	3.6	0.0	0.
0.00																									
27	1.400	30.41	0.00	4382.36	0.00	4.07	11.81	0.00	12.21	0.00	0.79	0.17	0.63	1.60	0.83	1.64	0.00	0.00	0.00	0.00	0.00	3.7	0.0	0.
0.00																									
28	1.300	30.34	0.00	4384.35	0.00	4.06	11.97	0.00	12.37	0.00	0.80	0.17	0.63	1.61	0.83	1.64	0.00	0.00	0.00	0.00	0.00	3.8	0.0	0.
0.00																									
29	1.200	30.27	0.00	4386.35	0.00	4.05	12.13	0.00	12.55	0.00	0.81	0.16	0.63	1.61	0.84	1.64	0.00	0.00	0.00	0.00	0.00	3.9	0.0	0.
0.00																									
30	1.100	30.20	0.00	4388.35	0.00	4.04	12.31	0.00	12.74	0.00	0.82	0.15	0.63	1.61	0.85	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																									

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 4 V4ToV5endofsubseg TMDL Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	UPR RCH	0.00289	30.20	0.00	4388.35	0.00	4.04	12.31	0.00	12.74	0.00	0.82	0.15	0.63	0.00	4.00	0.00	0.00
EACH	INCR	-0.00026																

********** 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
31	1.10	1.00	0.00263	1.0	0.00004	29.02	506.11	0.95	69.49	6601.55	6949.00	66.02	7408.28	0.005	50.000	0.005
32	1.00	0.90	0.00238	1.0	0.00004	32.17	538.27	0.95	69.49	6601.55	6949.00	66.02	8937.06	0.006	50.000	0.006
33	0.90	0.80	0.00212	1.0	0.00003	36.07	574.34	0.95	69.49	6601.55	6949.00	66.02	10465.84	0.007	50.000	0.007
34	0.80	0.70	0.00186	1.0	0.00003	41.06	615.40	0.95	69.49	6601.55	6949.00	66.02	11994.62	0.008	50.000	0.008
35	0.70	0.60	0.00160	1.0	0.00002	47.65	663.05	0.95	69.49	6601.55	6949.00	66.02	13523.40	0.009	50.000	0.009
36	0.60	0.50	0.00135	1.0	0.00002	56.75	719.80	0.95	69.49	6601.55	6949.00	66.02	15052.18	0.011	50.000	0.011
37	0.50	0.40	0.00109	1.0	0.00002	70.16	789.96	0.95	69.49	6601.55	6949.00	66.02	16580.96	0.012	50.000	0.012
38	0.40	0.30	0.00083	1.0	0.00001	91.86	881.81	0.95	69.49	6601.55	6949.00	66.02	18109.74	0.013	50.000	0.013
39	0.30	0.20	0.00057	1.0	0.00001	132.99	1014.80	0.95	69.49	6601.55	6949.00	66.02	19638.52	0.014	50.000	0.014
40	0.20	0.10	0.00032	1.0	0.00000	240.82	1255.62	0.95	69.49	6601.55	6949.00	66.02	21167.30	0.015	50.000	0.015
41	0.10	0.00	0.00006	1.0	0.00000	1273.46	2529.08	0.95	69.49	6601.55	6949.00	66.02	22696.08	0.016	50.000	0.016
TOT						2051.99				72617.05	76439.00					
AVG					0.0000			0.95	69.49			66.02				

********** 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
31	1.000	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
32	0.900	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
33	0.800	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
34	0.700	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
35	0.600	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
36	0.500	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
37	0.400	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
38	0.300	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
39	0.200	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
40	0.100	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
41	0.000	7.53	0.89	0.08	0.13	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28	0.15	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.20			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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 NO.	ENDING DIST	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	1.000	30.20	0.00	4389.37	0.00	4.03	12.41	0.00	12.84	0.00	0.83	0.15	0.63	1.61	0.86	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
32	0.900	30.20	0.00	4390.06	0.00	4.03	12.49	0.00	12.92	0.00	0.83	0.15	0.63	1.61	0.86	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
33	0.800	30.20	0.00	4390.76	0.00	4.03	12.57	0.00	13.00	0.00	0.83	0.14	0.63	1.61	0.87	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
34	0.700	30.20	0.00	4391.45	0.00	4.02	12.65	0.00	13.08	0.00	0.84	0.14	0.63	1.61	0.87	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
35	0.600	30.20	0.00	4392.14	0.00	4.02	12.75	0.00	13.17	0.00	0.84	0.14	0.63	1.61	0.88	1.64	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
36	0.500	30.20	0.00	4392.83	0.00	4.02	12.85	0.00	13.27	0.00	0.85	0.13	0.63	1.61	0.88	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
37	0.400	30.20	0.00	4393.53	0.00	4.01	12.95	0.00	13.38	0.00	0.85	0.13	0.63	1.61	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
38	0.300	30.20	0.00	4394.22	0.00	4.01	13.06	0.00	13.49	0.00	0.86	0.12	0.63	1.61	0.89	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
39	0.200	30.20	0.00	4394.91	0.00	4.01	13.18	0.00	13.61	0.00	0.86	0.12	0.63	1.61	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
40	0.100	30.20	0.00	4395.61	0.00	4.01	13.30	0.00	13.73	0.00	0.87	0.11	0.63	1.61	0.90	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00
41	0.000	30.20	0.00	4396.30	0.00	4.00	13.44	0.00	13.86	0.00	0.88	0.11	0.63	1.62	0.91	1.65	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.	0.00

LA-QUAL Model for Violet Canal
TMDL Simulation

REACH SUMMARY REPORT: Violet-1

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	MissSiphonToHwy38V1_V2	4.10	3.10	1.00	180.45	0.00289	0.00006	1.680	26.82	0.102	0.000	5.512	88.00
2	Hwy38ToWofFortyArpentCanalV2_V3	3.10	2.10	1.00	131.14	0.00572	0.00009	1.070	45.47	0.202	0.000	3.511	149.19
3	WofFortyArpentCanalToV4	2.10	1.10	1.00	165.49	0.00289	0.00007	1.070	53.45	0.102	0.000	3.511	175.37
4	V4ToV5endofsubseg	1.10	0.00	1.10	2051.99	0.00006	0.00001	0.950	69.49	0.002	0.000	3.117	228.00

LA-QUAL Model for Violet Canal
TMDL Simulation

STREAM SUMMARY REPORT: Violet-1

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 TRAVEL TIME       =        2529.08 DAYS
 MAXIMUM EFFLUENT  =           2.08 PERCENT

 FLOW              =   0.00006 TO    0.00572   m³/s
 DISPERSION        =   0.5000  TO   50.0000    m²/s
 VELOCITY          =   0.00000 TO    0.00012   m/s
 DEPTH             =   0.95    TO    1.68      m
 WIDTH             =  26.82    TO   69.49      m

 BOD DECAY         =    0.08   TO    0.08      per day
 NH3 DECAY         =    0.04   TO    0.04      per day
 SOD               =    0.98   TO    2.37      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        =    0.51   TO    0.89      per day
 BOD SETTLING      =    0.08   TO    0.13      per day
 ORG-N DECAY       =    0.15   TO    0.15      per day
 ORG-N SETTLING    =    0.00   TO    0.00      per day

 TEMPERATURE       =   30.20   TO   30.90      deg C
 DISSOLVED OXYGEN  =    4.00   TO    6.48      mg/L

 LA-QUAL Model for Violet Canal
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TMDL Simulation

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	0.00283	1.27	1.54	0.00	0.29	0.02	0.35	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.00283	1.34	2.99	0.00	0.18	0.02	0.40	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.00566	-1.98	-6.00	0.00	-0.40	-0.08	-0.31	0.00	0.00	0.00		0.00
WASTELOADS	0.00006	0.01	0.54	0.00	0.04	0.08	0.01	0.00	0.00	0.00		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	-0.00006	-0.02	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-7.93	392.75	0.00	19.06	-16.89	0.36	0.00	0.00	0.00		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		477.43										
DAM REAERATION		0.00										
SOD BACKGROUND		-369.89										
BOD1 DECAY		-152.86	-152.86									
BOD1 SETTLING		0.00	-238.83									
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			-19.16	19.16						
ORG-N SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		-10.10				-2.33	2.33					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		62.66				0.00	-3.13		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
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	0.00572	542.72	397.82	0.00	19.57	19.29	3.46	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.00572	-542.78	-397.76	0.00	-19.57	-19.30	-3.45	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.06	0.06	0.00	0.00	-0.01	0.01	0.00	0.00	0.00	0.00	0.00

.....EXECUTION COMPLETED

Winter LA-QUAL model TMDL output

```
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\041805(Violet)\Violet_TMDL_winter_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 13:28 on 11/16/2011

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

CARD TYPE       CONTROL TITLES

TITLE01         LA-QUAL Model for Violet Canal
TITLE02         TMDL Simulation
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 =
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND #1
MODOPT07   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND #2
MODOPT08  YES   NITROGEN SERIES
MODOPT09   NO   PHOSPHORUS
MODOPT10   NO   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         OCEAN EXCHANGE RATIO               =         0.50000
PROGRAM         TIDE HEIGHT                        =         0.22000 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

ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

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   V2  MissSiphonToHwy38V1_V2         4.10  TO   3.10  0.1000    1.00       10      1     10
REACH ID     2   V3  Hwy38ToWofFortyArpentCanalV2_V3 3.10  TO   2.10  0.1000    1.00       10     11     20
REACH ID     3   V4  WofFortyArpentCanalToV4        2.10  TO   1.10  0.1000    1.00       10     21     30
REACH ID     4   V5  V4ToV5endofsubseg              1.10  TO   0.00  0.1000    1.10       11     31     41
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   V2      0.000      0.000     26.820      0.000      0.000      1.680   0.00010   0.000
HYDR-1       2   V3      0.000      0.000     45.470      0.000      0.000      1.070   0.00010   0.000
HYDR-1       3   V4      0.000      0.000     53.450      0.000      0.000      1.070   0.00010   0.000
HYDR-1       4   V5      0.000      0.000     69.490      0.000      0.000      0.950   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   V2      0.00       0.500          0.000          0.000          0.000
HYDR         2   V3      0.00       0.500          0.000          0.000          0.000
HYDR         3   V4      0.50      20.000          0.000          0.000          0.000
HYDR         4   V5      1.00      50.000          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

INITIAL          1   V2    20.00    0.00   5.30    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00    0.00
INITIAL          2   V3    20.00    0.00   5.50    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00    0.00
INITIAL          3   V4    20.00    0.00   4.90    0.10    0.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00    0.00
INITIAL          4   V5    20.00    0.00   4.40    0.10    0.00    0.00    4.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00     0.00    0.00
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   V2   3 OCONNER-DOBB     0.000    0.000    0.000    0.700   0.050    0.100   0.000    0.000   0.000    0.000            0.000    0.000
COEFF-1    2   V3   3 OCONNER-DOBB     0.000    0.000    0.000    0.700   0.050    0.100   0.000    0.000   0.000    0.000            0.000    0.000
COEFF-1    3   V4   3 OCONNER-DOBB     0.000    0.000    0.000    1.680   0.050    0.100   0.000    0.000   0.000    0.000            0.000    0.000
COEFF-1    4   V5   3 OCONNER-DOBB     0.000    0.000    0.000    1.680   0.050    0.100   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   V2        0.120    0.000    0.000    0.020    0.000    0.000    0.020    0.000    0.000    0.000
COEFF-2          2   V3        0.120    0.000    0.000    0.020    0.000    0.000    0.020    0.000    0.000    0.000
COEFF-2          3   V4        0.120    0.000    0.000    0.020    0.000    0.000    0.020    0.000    0.000    0.000
COEFF-2          4   V5        0.120    0.000    0.000    0.020    0.000    0.000    0.020    0.000    0.000    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

ENDATA14
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```
$$$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) $$$

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

INCR-1           1   V2       0.00000     0.00000      0.00      0.00      0.00      0.00   0.00000   0.00000
INCR-1           2   V3       0.00000     0.02830     20.00      0.00    391.00      0.00   0.02830   0.00000
INCR-1           3   V4      -0.02830     0.00000     20.00      0.00    391.00      0.00   0.00000  -0.02830
INCR-1           4   V5      -0.02830     0.00000     20.00      0.00    391.00      0.00   0.00000  -0.02573
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

INCR-2           1   V2        0.00      0.00      0.00      0.00      0.00      0.00
INCR-2           2   V3        5.50     24.00      0.73      0.10      1.64      0.00
INCR-2           3   V4        5.50     14.00      0.78      0.10      1.64      0.00
INCR-2           4   V5        5.50     14.00      0.78      0.10      1.64      0.00
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   V2        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         2   V3        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         3   V4        0.00      0.00      0.00      0.00      0.00      0.00      0.00
NONPOINT         4   V5        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                frac

HDWTR-1          1     Violet-1                 0   0.02830    0.99929   20.00     0.00   392.000     0.000     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     Violet-1                    5.20     13.00      1.20      0.10      1.45      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

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

WSTLD-1        1       4.10  LAG531277              0.00006    0.00212    0.001   20.00     0.00     0.000     0.000
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     LAG531277                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      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

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        =    4397.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                       4.000     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND        14.000     mg/L
LOWER BC     ORGANIC NITROGEN                       0.917     mg/L
LOWER BC     AMMONIA NITROGEN                       0.100     mg/L
LOWER BC     NITRATE NITROGEN                       0.633     mg/L
LOWER BC     CHLOROPHYLL A                          4.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

OVERLAY 1 Violet.ovl                      :Violet Canal Overlay File
ENDATA31

     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....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 Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	6.92	7.08	7.21	7.32	7.41	7.47	7.52	7.56	7.58	7.59
V3	2	11	7.58	7.56	7.51	7.45	7.35	7.20	6.96	6.59	6.01	5.08
V4	3	21	5.02	4.98	4.94	4.90	4.85	4.80	4.74	4.68	4.61	4.54
V5	4	31	4.50	4.47	4.43	4.40	4.36	4.32	4.27	4.22	4.17	4.12
V5	4	41	4.06									

INTERMEDIATE REPORT
Effective BOD1
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	7.20	6.62	6.13	5.72	5.40	5.17	5.03	4.99	5.06	5.27
V3	2	11	5.61	5.94	6.28	6.65	7.09	7.63	8.31	9.19	10.37	11.96
V4	3	21	12.06	12.13	12.21	12.29	12.39	12.50	12.62	12.75	12.89	13.04
V5	4	31	13.12	13.17	13.23	13.30	13.37	13.45	13.53	13.61	13.70	13.80
V5	4	41	13.90									

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	6.88	6.30	5.81	5.40	5.08	4.85	4.71	4.67	4.74	4.95
V3	2	11	5.29	5.62	5.96	6.33	6.77	7.31	7.99	8.87	10.05	11.64
V4	3	21	11.73	11.79	11.85	11.93	12.02	12.12	12.22	12.34	12.47	12.61
V5	4	31	12.69	12.75	12.81	12.87	12.94	13.02	13.10	13.19	13.27	13.37
V5	4	41	13.47									

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.59	0.53	0.48	0.44	0.40	0.37	0.34	0.32	0.31	0.31
V3	2	11	0.31	0.32	0.33	0.35	0.37	0.41	0.46	0.53	0.63	0.76
V4	3	21	0.77	0.77	0.77	0.78	0.79	0.79	0.80	0.81	0.82	0.83
V5	4	31	0.83	0.83	0.84	0.84	0.85	0.85	0.86	0.86	0.87	0.87
V5	4	41	0.88									

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.62	0.56	0.51	0.46	0.43	0.39	0.37	0.35	0.34	0.33
V3	2	11	0.34	0.34	0.36	0.37	0.40	0.44	0.49	0.56	0.65	0.78
V4	3	21	0.79	0.80	0.80	0.81	0.82	0.82	0.83	0.84	0.85	0.86
V5	4	31	0.86	0.87	0.87	0.88	0.88	0.88	0.89	0.89	0.90	0.91
V5	4	41	0.91									

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.55	0.59	0.62	0.65	0.67	0.68	0.68	0.69	0.68	0.67
V3	2	11	0.65	0.63	0.61	0.59	0.56	0.52	0.48	0.41	0.33	0.22
V4	3	21	0.21	0.20	0.20	0.20	0.19	0.18	0.18	0.17	0.16	0.15
V5	4	31	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.11
V5	4	41	0.11									

INTERMEDIATE REPORT

Nitrate+Nitrite Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.45	1.45	1.45	1.45	1.44	1.44	1.43	1.42	1.41	1.39
V3	2	11	1.38	1.35	1.32	1.29	1.24	1.17	1.09	0.99	0.86	0.70
V4	3	21	0.69	0.69	0.68	0.68	0.67	0.67	0.66	0.66	0.66	0.65
V5	4	31	0.65	0.65	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.64
V5	4	41	0.63									

INTERMEDIATE REPORT
Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	2.59	2.57	2.55	2.53	2.51	2.48	2.46	2.43	2.40	2.37
V3	2	11	2.34	2.31	2.27	2.22	2.17	2.11	2.03	1.94	1.82	1.67
V4	3	21	1.66	1.66	1.66	1.65	1.65	1.65	1.64	1.64	1.63	1.63
V5	4	31	1.63	1.63	1.63	1.62	1.62	1.62	1.62	1.62	1.62	1.62
V5	4	41	1.62									

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	2.62	2.60	2.58	2.56	2.53	2.51	2.48	2.46	2.43	2.40
V3	2	11	2.36	2.33	2.29	2.25	2.20	2.13	2.06	1.96	1.85	1.70
V4	3	21	1.69	1.69	1.68	1.68	1.68	1.68	1.67	1.67	1.67	1.66
V5	4	31	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.65	1.65	1.65
V5	4	41	1.65									

INTERMEDIATE REPORT
Chlorophyll a
µg/L

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V3	2	11	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
V4	3	21	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	4.00
V5	4	31	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
V5	4	41	4.00									

INTERMEDIATE REPORT
Temperature
deg C

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
V3	2	11	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
V4	3	21	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
V5	4	31	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
V5	4	41	20.00									

INTERMEDIATE REPORT
Salinity
ppt

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V3	2	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V4	3	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V5	4	41	0.00									

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	659.58	693.37	731.41	774.24	822.46	876.75	937.88	1006.70	1084.19	1171.43
V3	2	11	1265.88	1378.03	1516.05	1686.45	1897.74	2161.02	2490.89	2906.68	3434.07	4107.43
V4	3	21	4143.48	4162.07	4180.74	4199.50	4218.34	4237.25	4256.23	4275.28	4294.39	4313.56
V5	4	31	4323.45	4330.12	4336.79	4343.47	4350.15	4356.84	4363.53	4370.22	4376.91	4383.61
V5	4	41	4390.30									

INTERMEDIATE REPORT
River Distance
km

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
V3	2	11	3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
V4	3	21	2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
V5	4	31	1.	1.	1.	1.	1.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Flow
m^3/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
V4	3	21	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Dispersion
m^2/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V3	2	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
V4	3	21	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
V5	4	31	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
V5	4	41	50.0									

INTERMEDIATE REPORT
Depth
m

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
V3	2	11	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V4	3	21	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
V5	4	31	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
V5	4	41	0.9									

INTERMEDIATE REPORT
Width
m

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
V3	2	11	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
V4	3	21	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
V5	4	31	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5
V5	4	41	69.5									

INTERMEDIATE REPORT
Advective Velocity
m/s

LA-QUAL Model for Violet Canal
TMDL Simulation

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

V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Mean Velocity
m/s

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V3	2	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V4	3	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V5	4	41	0.0									

INTERMEDIATE REPORT
Cross-Sectional Area
m^2

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1
V3	2	11	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
V4	3	21	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
V5	4	31	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0	66.0
V5	4	41	66.0									

INTERMEDIATE REPORT
Reaeration Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.417	0.417	0.417	0.417	0.417	0.417	0.417	0.417	0.417	0.417
V3	2	11	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654
V4	3	21	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.654
V5	4	31	0.737	0.737	0.737	0.737	0.737	0.737	0.737	0.737	0.737	0.737
V5	4	41	0.737									

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

V3	2	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V4	3	21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
V5	4	41	0.									

INTERMEDIATE REPORT
Sediment Oxygen Demand
g/m²/d

LA-QUAL Model for Violet Canal
TMDL Simulation

ID	RCH	ELEM	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9
V2	1	1	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V3	2	11	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
V4	3	21	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	31	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
V5	4	41	2.									

CAPSULE SUMMARY FOR Violet-1

IOR	REACH	DIST km	FLOW m³/s	TEMP deg C	SALN ppt	DO mg/L	BOD1 mg/L	BOD2 mg/L	ORG-N mg/L	NH3-N mg/L	NO3-N mg/L	TOT-N mg/L	ORG-P mg/L	PO4-P mg/L	CHLA µg/L	DISP m²/s	DEPTH m	WIDTH m	ADVEC VELO m/s	MEAN VELO m/s	DO SAT mg/L	REAER RATE 1/da	BOD1 DECA 1/da	BOD1 SETT 1/da	BOD2 DECA 1/da	BOD2 SETT 1/da	NH3 DECA 1/da	SOD g/m²/d
		HDWTR	0.028	20.00	0.0	5.20	12.68	0.00	1.17	0.10	1.45	2.72	0.00	0.00	3.0													
	WASTELOAD # 001 (LAG531277) ENTERS HERE																											
1	V2	1 4.00	0.028	20.00	0.0	6.92	6.88	0.00	0.59	0.55	1.45	2.59	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
2	V2	1 3.90	0.028	20.00	0.0	7.08	6.30	0.00	0.53	0.59	1.45	2.57	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
3	V2	1 3.80	0.028	20.00	0.0	7.21	5.81	0.00	0.48	0.62	1.45	2.55	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
4	V2	1 3.70	0.028	20.00	0.0	7.32	5.40	0.00	0.44	0.65	1.45	2.53	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
5	V2	1 3.60	0.028	20.00	0.0	7.41	5.08	0.00	0.40	0.67	1.44	2.51	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
6	V2	1 3.50	0.028	20.00	0.0	7.47	4.85	0.00	0.37	0.68	1.44	2.48	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
7	V2	1 3.40	0.028	20.00	0.0	7.52	4.71	0.00	0.34	0.68	1.43	2.46	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
8	V2	1 3.30	0.028	20.00	0.0	7.56	4.67	0.00	0.32	0.69	1.42	2.43	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
9	V2	1 3.20	0.028	20.00	0.0	7.58	4.74	0.00	0.31	0.68	1.41	2.40	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
10	V2	1 3.10	0.028	20.00	0.0	7.59	4.95	0.00	0.31	0.67	1.39	2.37	0.00	0.00	3.0	0.5	1.68	26.8	0.001	0.001	9.092	0.417	0.05	0.06	0.00	0.00	0.02	0.70
11	V3	2 3.00	0.031	20.00	0.0	7.58	5.29	0.00	0.31	0.65	1.38	2.34	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
12	V3	2 2.90	0.034	20.00	0.0	7.56	5.62	0.00	0.32	0.63	1.35	2.31	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
13	V3	2 2.80	0.037	20.00	0.0	7.51	5.96	0.00	0.33	0.61	1.32	2.27	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
14	V3	2 2.70	0.040	20.00	0.0	7.45	6.33	0.00	0.35	0.59	1.29	2.22	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
15	V3	2 2.60	0.043	20.00	0.0	7.35	6.77	0.00	0.37	0.56	1.24	2.17	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
16	V3	2 2.50	0.045	20.00	0.0	7.20	7.31	0.00	0.41	0.52	1.17	2.11	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
17	V3	2 2.40	0.048	20.00	0.0	6.96	7.99	0.00	0.46	0.48	1.09	2.03	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
18	V3	2 2.30	0.051	20.00	0.0	6.59	8.87	0.00	0.53	0.41	0.99	1.94	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
19	V3	2 2.20	0.054	20.00	0.0	6.01	10.05	0.00	0.63	0.33	0.86	1.82	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
20	V3	2 2.10	0.057	20.00	0.0	5.08	11.64	0.00	0.76	0.22	0.70	1.67	0.00	0.00	3.0	0.5	1.07	45.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	0.70
21	V4	3 2.00	0.054	20.00	0.0	5.02	11.73	0.00	0.77	0.21	0.69	1.66	0.00	0.00	3.1	20.0	1.07	53.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
22	V4	3 1.90	0.051	20.00	0.0	4.98	11.79	0.00	0.77	0.20	0.69	1.66	0.00	0.00	3.2	20.0	1.07	53.5	0.001	0.001	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
23	V4	3 1.80	0.048	20.00	0.0	4.94	11.85	0.00	0.77	0.20	0.68	1.66	0.00	0.00	3.3	20.0	1.07	53.5	0.001	0.002	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
24	V4	3 1.70	0.045	20.00	0.0	4.90	11.93	0.00	0.78	0.20	0.68	1.65	0.00	0.00	3.4	20.0	1.07	53.5	0.001	0.002	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
25	V4	3 1.60	0.043	20.00	0.0	4.85	12.02	0.00	0.79	0.19	0.67	1.65	0.00	0.00	3.5	20.0	1.07	53.5	0.001	0.002	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
26	V4	3 1.50	0.040	20.00	0.0	4.80	12.12	0.00	0.79	0.18	0.67	1.65	0.00	0.00	3.6	20.0	1.07	53.5	0.001	0.003	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
27	V4	3 1.40	0.037	20.00	0.0	4.74	12.22	0.00	0.80	0.18	0.66	1.64	0.00	0.00	3.7	20.0	1.07	53.5	0.001	0.003	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
28	V4	3 1.30	0.034	20.00	0.0	4.68	12.34	0.00	0.81	0.17	0.66	1.64	0.00	0.00	3.8	20.0	1.07	53.5	0.001	0.004	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
29	V4	3 1.20	0.031	20.00	0.0	4.61	12.47	0.00	0.82	0.16	0.66	1.63	0.00	0.00	3.9	20.0	1.07	53.5	0.001	0.004	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
30	V4	3 1.10	0.028	20.00	0.0	4.54	12.61	0.00	0.83	0.15	0.65	1.63	0.00	0.00	4.0	20.0	1.07	53.5	0.000	0.005	9.092	0.654	0.05	0.09	0.00	0.00	0.02	1.68
31	V5	4 1.00	0.026	20.00	0.0	4.50	12.69	0.00	0.83	0.15	0.65	1.63	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.005	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
32	V5	4 0.90	0.023	20.00	0.0	4.47	12.75	0.00	0.83	0.15	0.65	1.63	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.006	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
33	V5	4 0.80	0.021	20.00	0.0	4.43	12.81	0.00	0.84	0.14	0.65	1.63	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.007	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
34	V5	4 0.70	0.018	20.00	0.0	4.40	12.87	0.00	0.84	0.14	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.008	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
35	V5	4 0.60	0.015	20.00	0.0	4.36	12.94	0.00	0.85	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.009	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
36	V5	4 0.50	0.013	20.00	0.0	4.32	13.02	0.00	0.85	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.011	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
37	V5	4 0.40	0.010	20.00	0.0	4.27	13.10	0.00	0.86	0.13	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.012	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
38	V5	4 0.30	0.008	20.00	0.0	4.22	13.19	0.00	0.86	0.12	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.013	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
39	V5	4 0.20	0.005	20.00	0.0	4.17	13.27	0.00	0.87	0.12	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.014	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
40	V5	4 0.10	0.003	20.00	0.0	4.12	13.37	0.00	0.87	0.11	0.64	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.015	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68
41	V5	4 0.00	0.000	20.00	0.0	4.06	13.47	0.00	0.88	0.11	0.63	1.62	0.00	0.00	4.0	50.0	0.95	69.5	0.000	0.016	9.092	0.737	0.05	0.11	0.00	0.00	0.02	1.68

FINAL REPORT Violet-1
REACH NO. 1 MissSiphonToHwy38V1_V2

LA-QUAL Model for Violet Canal
TMDL Simulation

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

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

1	HDWTR	0.02830	20.00	0.00	392.00	0.00	5.20	12.68	0.00	13.00	0.00	1.20	0.10	1.45	0.00	3.00	0.00	0.00
1	WSTLD	0.00006	20.00	0.00	0.00	0.00	2.00	103.50	0.00	103.50	0.00	7.50	15.00	2.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	CUM TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
1	4.10	4.00	0.02836	0.2	0.00063	1.84	1.84	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
2	4.00	3.90	0.02836	0.2	0.00063	1.84	3.68	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
3	3.90	3.80	0.02836	0.2	0.00063	1.84	5.52	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
4	3.80	3.70	0.02836	0.2	0.00063	1.84	7.36	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
5	3.70	3.60	0.02836	0.2	0.00063	1.84	9.19	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
6	3.60	3.50	0.02836	0.2	0.00063	1.84	11.03	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
7	3.50	3.40	0.02836	0.2	0.00063	1.84	12.87	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
8	3.40	3.30	0.02836	0.2	0.00063	1.84	14.71	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
9	3.30	3.20	0.02836	0.2	0.00063	1.84	16.55	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
10	3.20	3.10	0.02836	0.2	0.00063	1.84	18.39	1.68	26.82	4505.76	2682.00	45.06	0.00	0.000	0.500	0.001
TOT						18.39				45057.59	26820.00					
AVG					0.0006			1.68	26.82			45.06				

********** 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	4.000	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
2	3.900	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
3	3.800	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
4	3.700	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
5	3.600	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
6	3.500	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
7	3.400	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
8	3.300	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
9	3.200	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
10	3.100	9.09	0.42	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.70	0.70	0.70	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.42	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.70			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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	4.000	20.00	0.00	659.58	0.00	6.92	6.88	0.00	7.20	0.00	0.59	0.55	1.45	2.59	0.62	2.62	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
2	3.900	20.00	0.00	693.37	0.00	7.08	6.30	0.00	6.62	0.00	0.53	0.59	1.45	2.57	0.56	2.60	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
3	3.800	20.00	0.00	731.41	0.00	7.21	5.81	0.00	6.13	0.00	0.48	0.62	1.45	2.55	0.51	2.58	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
4	3.700	20.00	0.00	774.24	0.00	7.32	5.40	0.00	5.72	0.00	0.44	0.65	1.45	2.53	0.46	2.56	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
5	3.600	20.00	0.00	822.46	0.00	7.41	5.08	0.00	5.40	0.00	0.40	0.67	1.44	2.51	0.43	2.53	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
6	3.500	20.00	0.00	876.75	0.00	7.47	4.85	0.00	5.17	0.00	0.37	0.68	1.44	2.48	0.39	2.51	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
7	3.400	20.00	0.00	937.88	0.00	7.52	4.71	0.00	5.03	0.00	0.34	0.68	1.43	2.46	0.37	2.48	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
8	3.300	20.00	0.00	1006.70	0.00	7.56	4.67	0.00	4.99	0.00	0.32	0.69	1.42	2.43	0.35	2.46	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
9	3.200	20.00	0.00	1084.19	0.00	7.58	4.74	0.00	5.06	0.00	0.31	0.68	1.41	2.40	0.34	2.43	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00
10	3.100	20.00	0.00	1171.43	0.00	7.59	4.95	0.00	5.27	0.00	0.31	0.67	1.39	2.37	0.33	2.40	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.	0.00

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FINAL REPORT    Violet-1                                    LA-QUAL Model for Violet Canal
REACH NO.  2    Hwy38ToWofFortyArpentCanalV2_V3             TMDL Simulation

 ********************************************************************************** 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            mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L  #/100mL

   11  UPR RCH   0.02836   20.00     0.00  1171.43     0.00   7.59   4.95   0.00   5.27   0.00   0.31   0.67   1.39   0.00   3.00     0.00    0.00
 EACH  INCR      0.00283   20.00     0.00   391.00     0.00   5.50  24.00   0.00                  0.73   0.10   1.64   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

   11    3.10    3.00    0.03119   0.2   0.00064     1.81    20.19    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   12    3.00    2.90    0.03402   0.2   0.00070     1.66    21.85    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   13    2.90    2.80    0.03685   0.2   0.00076     1.53    23.38    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   14    2.80    2.70    0.03968   0.2   0.00082     1.42    24.80    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   15    2.70    2.60    0.04251   0.1   0.00087     1.32    26.12    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   16    2.60    2.50    0.04534   0.1   0.00093     1.24    27.36    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   17    2.50    2.40    0.04817   0.1   0.00099     1.17    28.53    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   18    2.40    2.30    0.05100   0.1   0.00105     1.10    29.64    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   19    2.30    2.20    0.05383   0.1   0.00111     1.05    30.68    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001
   20    2.20    2.10    0.05666   0.1   0.00116     0.99    31.68    1.07   45.47   4865.29    4547.00   48.65      0.00   0.000     0.500   0.001

  TOT                                             13.29                            48652.90   45470.00
  AVG                                     0.0009                      1.07   45.47                        48.65

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

  11    3.000  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  12    2.900  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  13    2.800  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  14    2.700  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  15    2.600  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  16    2.500  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  17    2.400  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  18    2.300  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  19    2.200  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00
  20    2.100  9.09  0.65  0.05  0.09  0.00  0.00  0.00  0.00  0.00  0.70  0.70  0.70  0.12  0.00  0.02  0.00  0.00  0.00  0.00  0.00  0.15  0.00  0.00  0.00  0.00

 AVG 20 DEG C RATE    0.65  0.05  0.01  0.00  0.00  0.00  0.00  0.00  0.70              0.12  0.00  0.02  0.00  0.02  0.00  0.00  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            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

  11    3.000  20.00  0.00  1265.88     0.00   7.58   5.29   0.00   5.61   0.00   0.31   0.65   1.38   2.34   0.34   2.36   0.00   0.00   0.00   0.00   0.00    3.0      0.0       0.
0.00
  12    2.900  20.00  0.00  1378.03     0.00   7.56   5.62   0.00   5.94   0.00   0.32   0.63   1.35   2.31   0.34   2.33   0.00   0.00   0.00   0.00   0.00    3.0      0.0       0.
0.00
  13    2.800  20.00  0.00  1516.05     0.00   7.51   5.96   0.00   6.28   0.00   0.33   0.61   1.32   2.27   0.36   2.29   0.00   0.00   0.00   0.00   0.00    3.0      0.0       0.
0.00
  14    2.700  20.00  0.00  1686.45     0.00   7.45   6.33   0.00   6.65   0.00   0.35   0.59   1.29   2.22   0.37   2.25   0.00   0.00   0.00   0.00   0.00    3.0      0.0       0.
0.00
  15    2.600  20.00  0.00  1897.74     0.00   7.35   6.77   0.00   7.09   0.00   0.37   0.56   1.24   2.17   0.40   2.20   0.00   0.00   0.00   0.00   0.00    3.0      0.0       0.
0.00
```

16	2.500	20.00	0.00	2161.02	0.00	7.20	7.31	0.00	7.63	0.00	0.41	0.52	1.17	2.11	0.44	2.13	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.0	0.00
17	2.400	20.00	0.00	2490.89	0.00	6.96	7.99	0.00	8.31	0.00	0.46	0.48	1.09	2.03	0.49	2.06	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.0	0.00
18	2.300	20.00	0.00	2906.68	0.00	6.59	8.87	0.00	9.19	0.00	0.53	0.41	0.99	1.94	0.56	1.96	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.0	0.00
19	2.200	20.00	0.00	3434.07	0.00	6.01	10.05	0.00	10.37	0.00	0.63	0.33	0.86	1.82	0.65	1.85	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.0	0.00
20	2.100	20.00	0.00	4107.43	0.00	5.08	11.64	0.00	11.96	0.00	0.76	0.22	0.70	1.67	0.78	1.70	0.00	0.00	0.00	0.00	0.00	3.0	0.0	0.0	0.00

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 3 WofFortyArpentCanalToV4 TMDL Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
21	UPR RCH	0.05666	20.00	0.00	4107.43	0.00	5.08	11.64	0.00	11.96	0.00	0.76	0.22	0.70	0.00	3.00	0.00	0.00
EACH	INCR	-0.00283																

********** 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
21	2.10	2.00	0.05383	0.1	0.00094	1.23	32.91	1.07	53.45	5719.15	5345.00	57.19	587.95	0.000	20.000	0.001
22	2.00	1.90	0.05100	0.1	0.00089	1.30	34.20	1.07	53.45	5719.15	5345.00	57.19	1175.90	0.001	20.000	0.001
23	1.90	1.80	0.04817	0.1	0.00084	1.37	35.58	1.07	53.45	5719.15	5345.00	57.19	1763.85	0.001	20.000	0.002
24	1.80	1.70	0.04534	0.1	0.00079	1.46	37.04	1.07	53.45	5719.15	5345.00	57.19	2351.80	0.002	20.000	0.002
25	1.70	1.60	0.04251	0.1	0.00074	1.56	38.60	1.07	53.45	5719.15	5345.00	57.19	2939.75	0.002	20.000	0.002
26	1.60	1.50	0.03968	0.1	0.00069	1.67	40.26	1.07	53.45	5719.15	5345.00	57.19	3527.70	0.003	20.000	0.003
27	1.50	1.40	0.03685	0.1	0.00064	1.80	42.06	1.07	53.45	5719.15	5345.00	57.19	4115.65	0.003	20.000	0.003
28	1.40	1.30	0.03402	0.1	0.00059	1.95	44.01	1.07	53.45	5719.15	5345.00	57.19	4703.60	0.004	20.000	0.004
29	1.30	1.20	0.03119	0.1	0.00055	2.12	46.13	1.07	53.45	5719.15	5345.00	57.19	5291.55	0.004	20.000	0.004
30	1.20	1.10	0.02836	0.1	0.00050	2.33	48.46	1.07	53.45	5719.15	5345.00	57.19	5879.50	0.005	20.000	0.005
TOT						16.79				57191.50	53450.00					
AVG					0.0007			1.07	53.45			57.19				

********** 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
21	2.000	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
22	1.900	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
23	1.800	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
24	1.700	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
25	1.600	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
26	1.500	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
27	1.400	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
28	1.300	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
29	1.200	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
30	1.100	9.09	0.65	0.05	0.09	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.68			0.12	0.00	0.02	0.00	0.02	0.00	0.00	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	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

21	2.000	20.00	0.00	4143.48	0.00	5.02	11.73	0.00	12.06	0.00	0.77	0.21	0.69	1.66	0.79	1.69	0.00	0.00	0.00	0.00	0.00	3.1	0.0	0.
0.00																									
22	1.900	20.00	0.00	4162.07	0.00	4.98	11.79	0.00	12.13	0.00	0.77	0.20	0.69	1.66	0.80	1.69	0.00	0.00	0.00	0.00	0.00	3.2	0.0	0.
0.00																									
23	1.800	20.00	0.00	4180.74	0.00	4.94	11.85	0.00	12.21	0.00	0.77	0.20	0.68	1.66	0.80	1.68	0.00	0.00	0.00	0.00	0.00	3.3	0.0	0.
0.00																									
24	1.700	20.00	0.00	4199.50	0.00	4.90	11.93	0.00	12.29	0.00	0.78	0.20	0.68	1.65	0.81	1.68	0.00	0.00	0.00	0.00	0.00	3.4	0.0	0.
0.00																									
25	1.600	20.00	0.00	4218.34	0.00	4.85	12.02	0.00	12.39	0.00	0.79	0.19	0.67	1.65	0.82	1.68	0.00	0.00	0.00	0.00	0.00	3.5	0.0	0.
0.00																									
26	1.500	20.00	0.00	4237.25	0.00	4.80	12.12	0.00	12.50	0.00	0.79	0.18	0.67	1.65	0.82	1.68	0.00	0.00	0.00	0.00	0.00	3.6	0.0	0.
0.00																									
27	1.400	20.00	0.00	4256.23	0.00	4.74	12.22	0.00	12.62	0.00	0.80	0.18	0.66	1.64	0.83	1.67	0.00	0.00	0.00	0.00	0.00	3.7	0.0	0.
0.00																									
28	1.300	20.00	0.00	4275.28	0.00	4.68	12.34	0.00	12.75	0.00	0.81	0.17	0.66	1.64	0.84	1.67	0.00	0.00	0.00	0.00	0.00	3.8	0.0	0.
0.00																									
29	1.200	20.00	0.00	4294.39	0.00	4.61	12.47	0.00	12.89	0.00	0.82	0.16	0.66	1.63	0.85	1.67	0.00	0.00	0.00	0.00	0.00	3.9	0.0	0.
0.00																									
30	1.100	20.00	0.00	4313.56	0.00	4.54	12.61	0.00	13.04	0.00	0.83	0.15	0.65	1.63	0.86	1.66	0.00	0.00	0.00	0.00	0.00	4.0	0.0	0.
0.00																									

FINAL REPORT Violet-1 LA-QUAL Model for Violet Canal
REACH NO. 4 V4ToV5endofsubseg TMDL Simulation

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Conduct umhos/cm	CM-2	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
31	UPR RCH	0.02836	20.00	0.00	4313.56	0.00	4.54	12.61	0.00	13.04	0.00	0.83	0.15	0.65	0.00	4.00	0.00	0.00
EACH	INCR	-0.00257																

********** 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
31	1.10	1.00	0.02579	0.1	0.00039	2.96	51.42	0.95	69.49	6601.55	6949.00	66.02	7408.28	0.005	50.000	0.005
32	1.00	0.90	0.02321	0.1	0.00035	3.29	54.72	0.95	69.49	6601.55	6949.00	66.02	8937.06	0.006	50.000	0.006
33	0.90	0.80	0.02064	0.1	0.00031	3.70	58.42	0.95	69.49	6601.55	6949.00	66.02	10465.84	0.007	50.000	0.007
34	0.80	0.70	0.01807	0.1	0.00027	4.23	62.65	0.95	69.49	6601.55	6949.00	66.02	11994.62	0.008	50.000	0.008
35	0.70	0.60	0.01550	0.1	0.00023	4.93	67.58	0.95	69.49	6601.55	6949.00	66.02	13523.40	0.009	50.000	0.009
36	0.60	0.50	0.01292	0.1	0.00020	5.91	73.49	0.95	69.49	6601.55	6949.00	66.02	15052.18	0.011	50.000	0.011
37	0.50	0.40	0.01035	0.1	0.00016	7.38	80.87	0.95	69.49	6601.55	6949.00	66.02	16580.96	0.012	50.000	0.012
38	0.40	0.30	0.00778	0.1	0.00012	9.82	90.69	0.95	69.49	6601.55	6949.00	66.02	18109.74	0.013	50.000	0.013
39	0.30	0.20	0.00521	0.1	0.00008	14.68	105.37	0.95	69.49	6601.55	6949.00	66.02	19638.52	0.014	50.000	0.014
40	0.20	0.10	0.00263	0.1	0.00004	29.02	134.39	0.95	69.49	6601.55	6949.00	66.02	21167.30	0.015	50.000	0.015
41	0.10	0.00	0.00006	0.1	0.00000	1273.44	1407.83	0.95	69.49	6601.55	6949.00	66.02	22696.08	0.016	50.000	0.016
TOT						1359.37				72617.05	76439.00					
AVG					0.0000			0.95	69.49			66.02				

********** 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
31	1.000	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
32	0.900	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
33	0.800	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
34	0.700	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
35	0.600	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
36	0.500	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
37	0.400	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
38	0.300	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
39	0.200	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
40	0.100	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
41	0.000	9.09	0.74	0.05	0.11	0.00	0.00	0.00	0.00	0.00	1.68	1.68	1.68	0.12	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00

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 AVG 20 DEG C RATE    0.74  0.05  0.01  0.00  0.00  0.00  0.00  0.00  1.68              0.12  0.00  0.02  0.00  0.02  0.00  0.00  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            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

  31    1.000  20.00  0.00  4323.45     0.00   4.50  12.69   0.00  13.12   0.00   0.83   0.15   0.65   1.63   0.86   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  32    0.900  20.00  0.00  4330.12     0.00   4.47  12.75   0.00  13.17   0.00   0.83   0.15   0.65   1.63   0.87   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  33    0.800  20.00  0.00  4336.79     0.00   4.43  12.81   0.00  13.23   0.00   0.84   0.14   0.65   1.63   0.87   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  34    0.700  20.00  0.00  4343.47     0.00   4.40  12.87   0.00  13.30   0.00   0.84   0.14   0.64   1.62   0.88   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  35    0.600  20.00  0.00  4350.15     0.00   4.36  12.94   0.00  13.37   0.00   0.85   0.13   0.64   1.62   0.88   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  36    0.500  20.00  0.00  4356.84     0.00   4.32  13.02   0.00  13.45   0.00   0.85   0.13   0.64   1.62   0.88   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  37    0.400  20.00  0.00  4363.53     0.00   4.27  13.10   0.00  13.53   0.00   0.86   0.13   0.64   1.62   0.89   1.66   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  38    0.300  20.00  0.00  4370.22     0.00   4.22  13.19   0.00  13.61   0.00   0.86   0.12   0.64   1.62   0.89   1.65   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  39    0.200  20.00  0.00  4376.91     0.00   4.17  13.27   0.00  13.70   0.00   0.87   0.12   0.64   1.62   0.90   1.65   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  40    0.100  20.00  0.00  4383.61     0.00   4.12  13.37   0.00  13.80   0.00   0.87   0.11   0.64   1.62   0.91   1.65   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00
  41    0.000  20.00  0.00  4390.30     0.00   4.06  13.47   0.00  13.90   0.00   0.88   0.11   0.63   1.62   0.91   1.65   0.00   0.00   0.00   0.00   0.00    4.0      0.0       0.
0.00

LA-QUAL Model for Violet Canal
TMDL Simulation

REACH SUMMARY REPORT: Violet-1

 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 MissSiphonToHwy38V1_V2                 4.10      3.10     1.00    18.39   0.02836    0.00063   1.680   26.82     1.001      0.002   5.512   88.00
   2 Hwy38ToWofFortyArpentCanalV2_V3        3.10      2.10     1.00    13.29   0.05666    0.00087   1.070   45.47     2.001      0.003   3.511  149.19
   3 WofFortyArpentCanalToV4                2.10      1.10     1.00    16.79   0.02836    0.00069   1.070   53.45     1.001      0.002   3.511  175.37
   4 V4ToV5endofsubseg                      1.10      0.00     1.10  1359.37   0.00006    0.00001   0.950   69.49     0.002      0.000   3.117  228.00

LA-QUAL Model for Violet Canal
TMDL Simulation

STREAM SUMMARY REPORT: Violet-1

 TRAVEL TIME       =        1407.83 DAYS
 MAXIMUM EFFLUENT  =           0.21 PERCENT

 FLOW              =   0.00006 TO    0.05666   m³/s
 DISPERSION        =   0.5000  TO   50.0000    m²/s
 VELOCITY          =   0.00000 TO    0.00116   m/s
 DEPTH             =   0.95    TO    1.68      m
 WIDTH             =  26.82    TO   69.49      m

 BOD DECAY         =    0.05   TO    0.05      per day
 NH3 DECAY         =    0.02   TO    0.02      per day
 SOD               =    0.70   TO    1.68      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        =    0.42   TO    0.74      per day
 BOD SETTLING      =    0.06   TO    0.11      per day
 ORG-N DECAY       =    0.12   TO    0.12      per day
 ORG-N SETTLING    =    0.00   TO    0.00      per day

 TEMPERATURE       =   20.00   TO   20.00      deg C
 DISSOLVED OXYGEN  =    4.06   TO    7.59      mg/L
```

LA-QUAL Model for Violet Canal
TMDL Simulation

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	0.02830	12.71	31.00	0.00	2.87	0.24	3.55	0.00	0.00	0.00		0.00
INCREMENTAL INFLOW	0.02830	13.45	58.68	0.00	1.78	0.24	4.01	0.00	0.00	0.00		0.00
INCREMENTAL OUTFLOW	-0.05660	-22.27	-61.50	0.00	-4.02	-0.77	-3.21	0.00	0.00	0.00		0.00
WASTELOADS	0.00006	0.01	0.54	0.00	0.04	0.08	0.01	0.00	0.00	0.00		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	-0.00006	-0.02	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
DISPERSION THRU LOWER BNDRY		-173.51	297.03	0.00	17.01	-16.13	-3.77	0.00	0.00	0.00		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		517.99										
DAM REAERATION		0.00										
SOD BACKGROUND		-268.82										
BOD1 DECAY		-112.46	-112.46									
BOD1 SETTLING		0.00	-213.22									
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			-17.68	17.68						
ORG-N SETTLING					0.00	0.00						
NH3-N DECAY (NITRIFICATION)		-5.98				-1.38	1.38					
NH3-N BACKGROUND SEDIMENT SOURCE						0.00						
DENITRIFICATION			0.00				0.00					
ORG-P HYDROLYSIS								0.00	0.00			
ORG-P SETTLING								0.00	0.00			
PO4-P BACKGROUND SEDIMENT SOURCE									0.00			
PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS		38.73				0.00	-1.94		0.00	0.00		
PHYTOPLANKTON RESPIRATION/EXCRETION		0.00				0.00			0.00	0.00		
PHYTOPLANKTON SETTLING		0.00				0.00			0.00	0.00		
PHYTOPLANKTON DEATH			0.00	0.00	0.00			0.00		0.00		
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	0.05666	582.90	387.25	0.00	21.71	18.25	8.95	0.00	0.00	0.00	0.00	0.00
TOTAL OUTPUTS	-0.05666	-583.05	-387.25	0.00	-21.71	-18.28	-8.91	0.00	0.00	0.00	0.00	0.00
NET CONVERGENCE ERROR	0.00000	-0.15	0.00	0.00	0.00	-0.03	0.03	0.00	0.00	0.00	0.00	0.00

.....EXECUTION COMPLETED

APPENDIX I:
Baseline Water Quality Plots

Figure I-1. Summer DO baseline results for subsegment 041805. ..... I-1
Figure I-2. Summer $CBOD_u$ baseline results for subsegment 041805. ..... I-1
Figure I-3. Summer ammonia baseline results for subsegment 041805. ..... I-2
Figure I-4. Summer organic nitrogen baseline results for subsegment 041805. ..... I-2
Figure I-5. Summer nitrate+nitrite baseline results for subsegment 041805. ..... I-3
Figure I-6. Winter DO baseline results for subsegment 041805. ..... I-3
Figure I-7. Winter $CBOD_u$ baseline results for subsegment 041805. ..... I-4
Figure I-8. Winter ammonia baseline results for subsegment 041805. ..... I-4
Figure I-9. Winter organic nitrogen baseline results for subsegment 041805. ..... I-5
Figure I-10. Winter nitrate+nitrite baseline results for subsegment 041805. ..... I-5

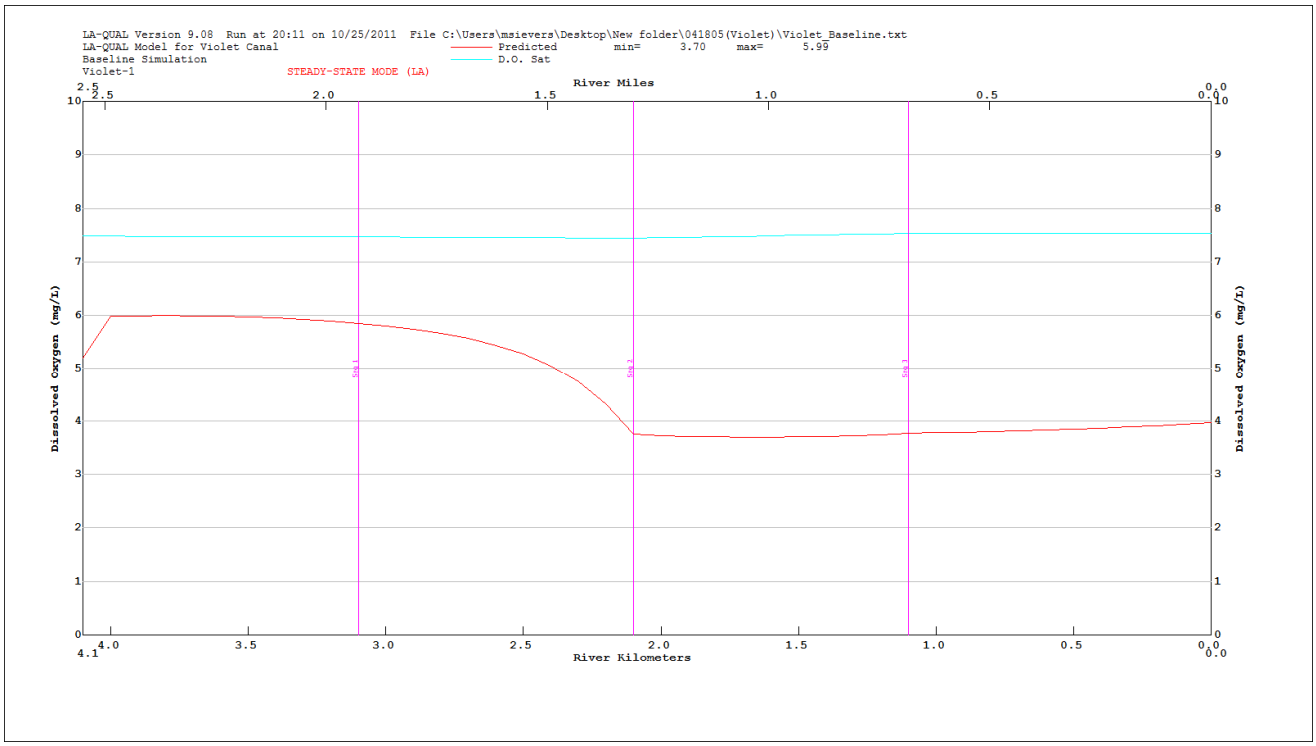

Figure I-1. Summer DO baseline results for subsegment 041805.

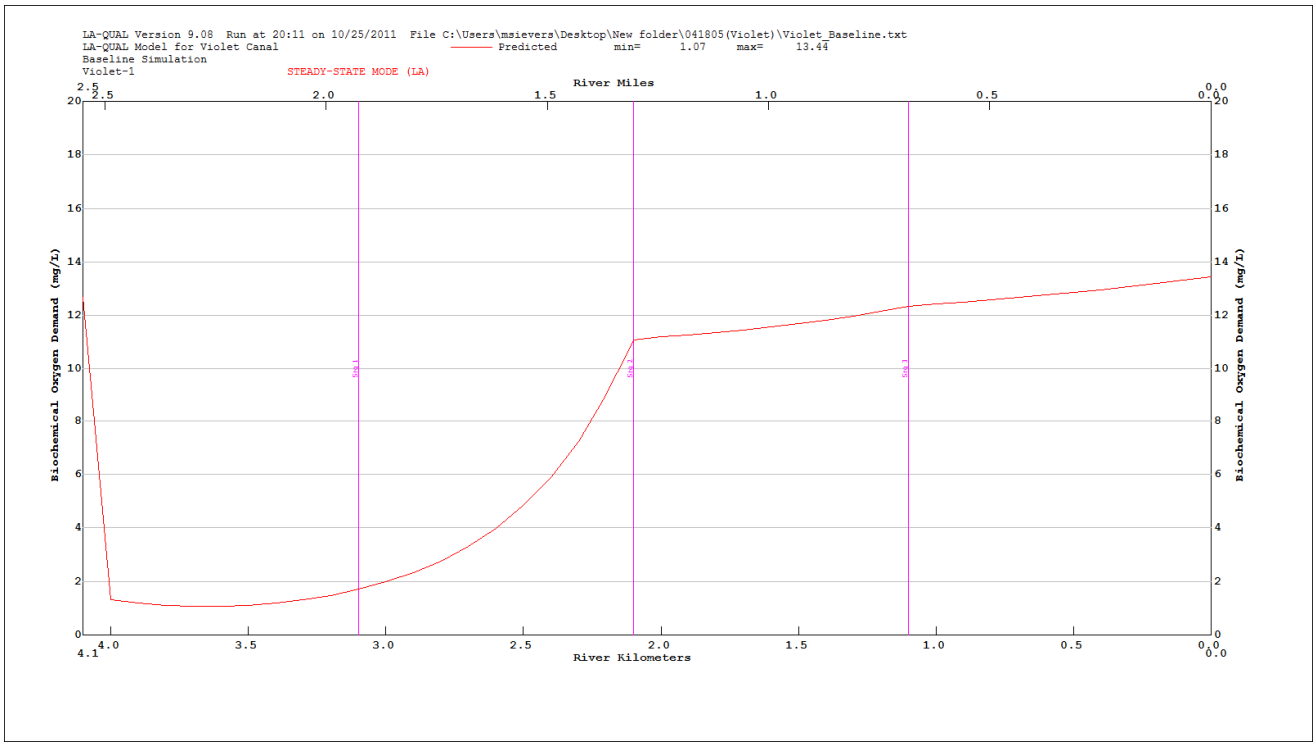

Figure I-2. Summer $CBOD_u$ baseline results for subsegment 041805.

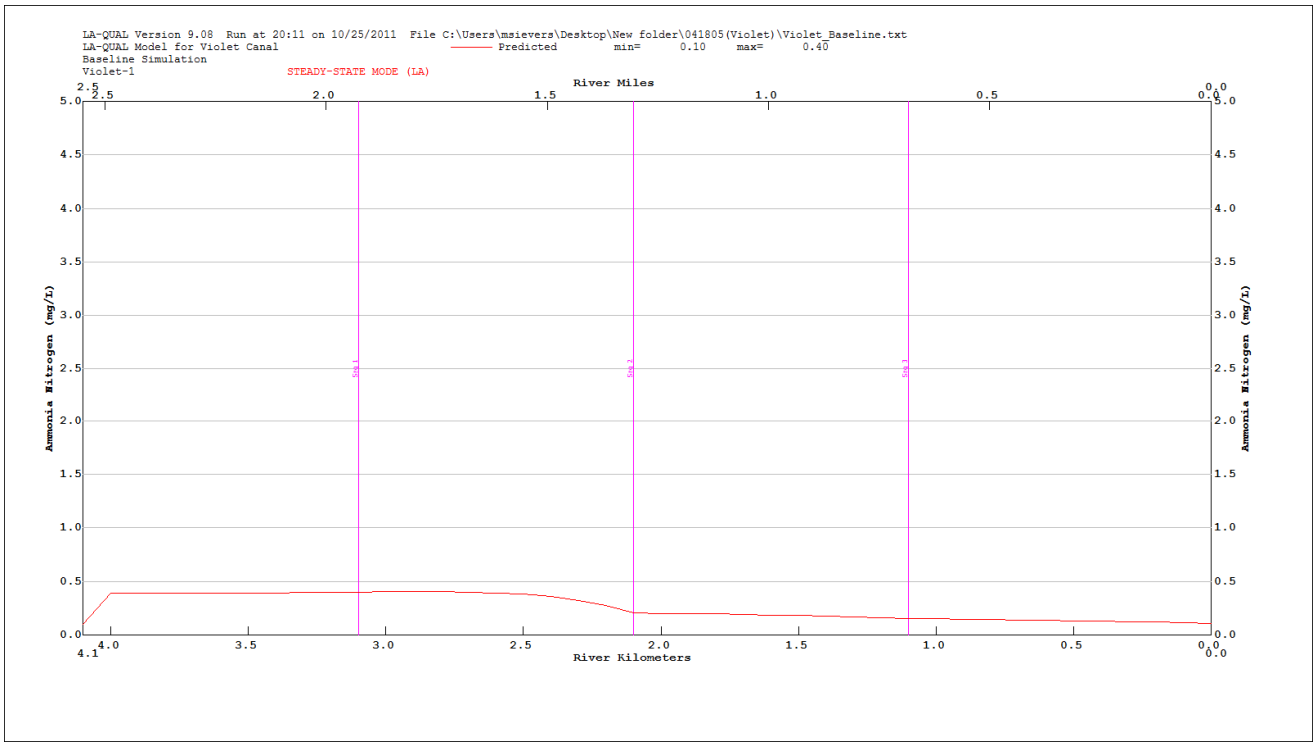

Figure I-3. Summer ammonia baseline results for subsegment 041805.

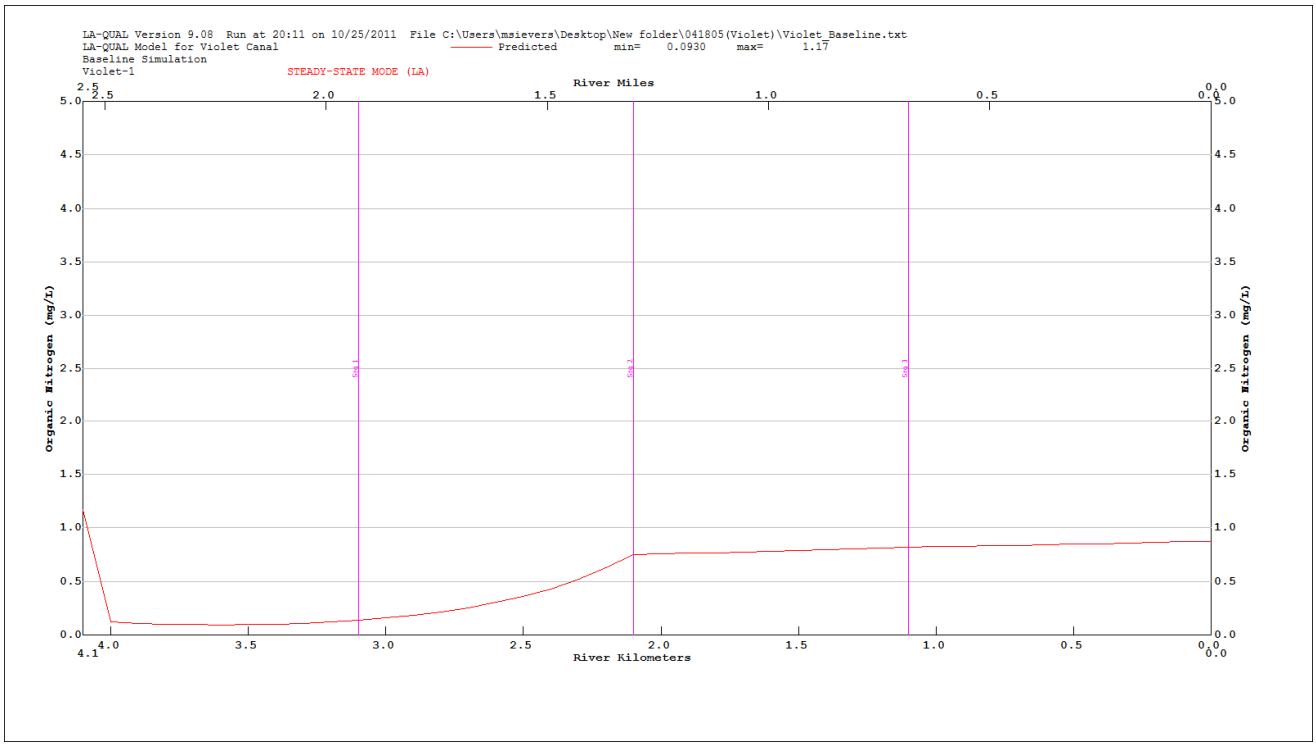

Figure I-4. Summer organic nitrogen baseline results for subsegment 041805.

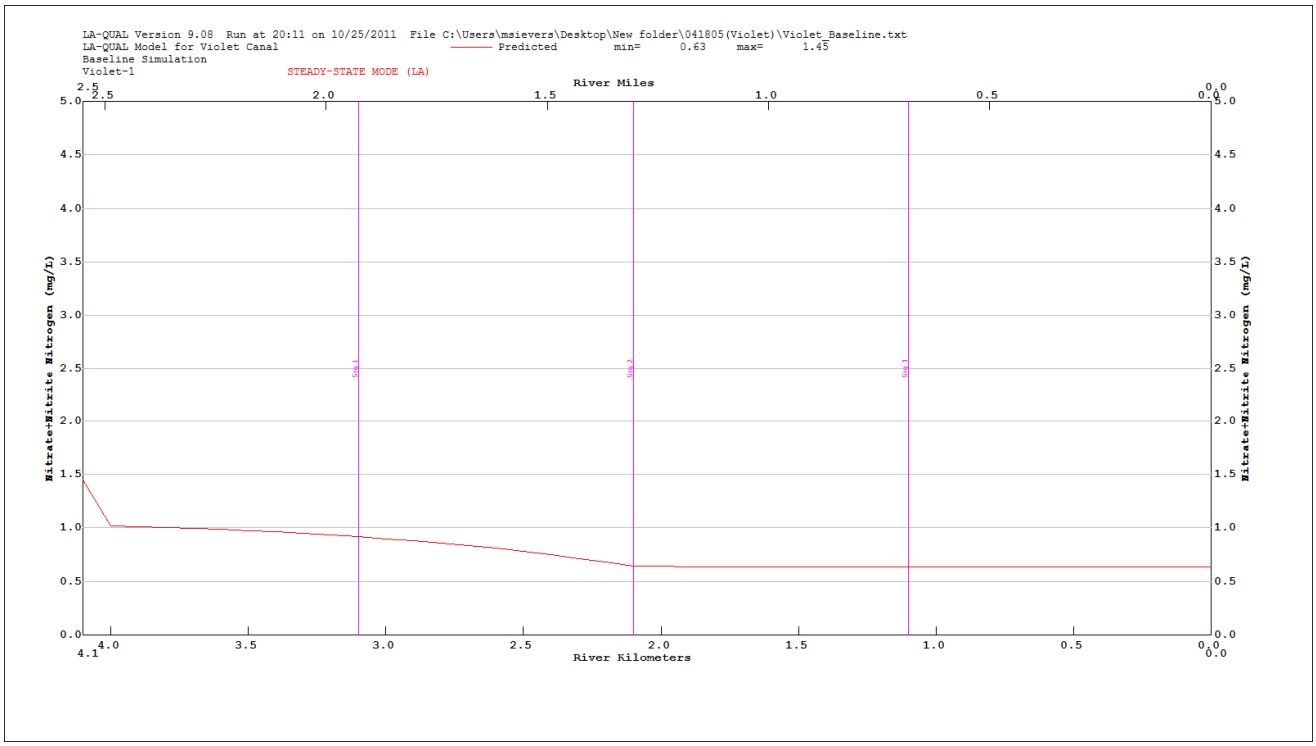

Figure I-5. Summer nitrate+nitrite baseline results for subsegment 041805.

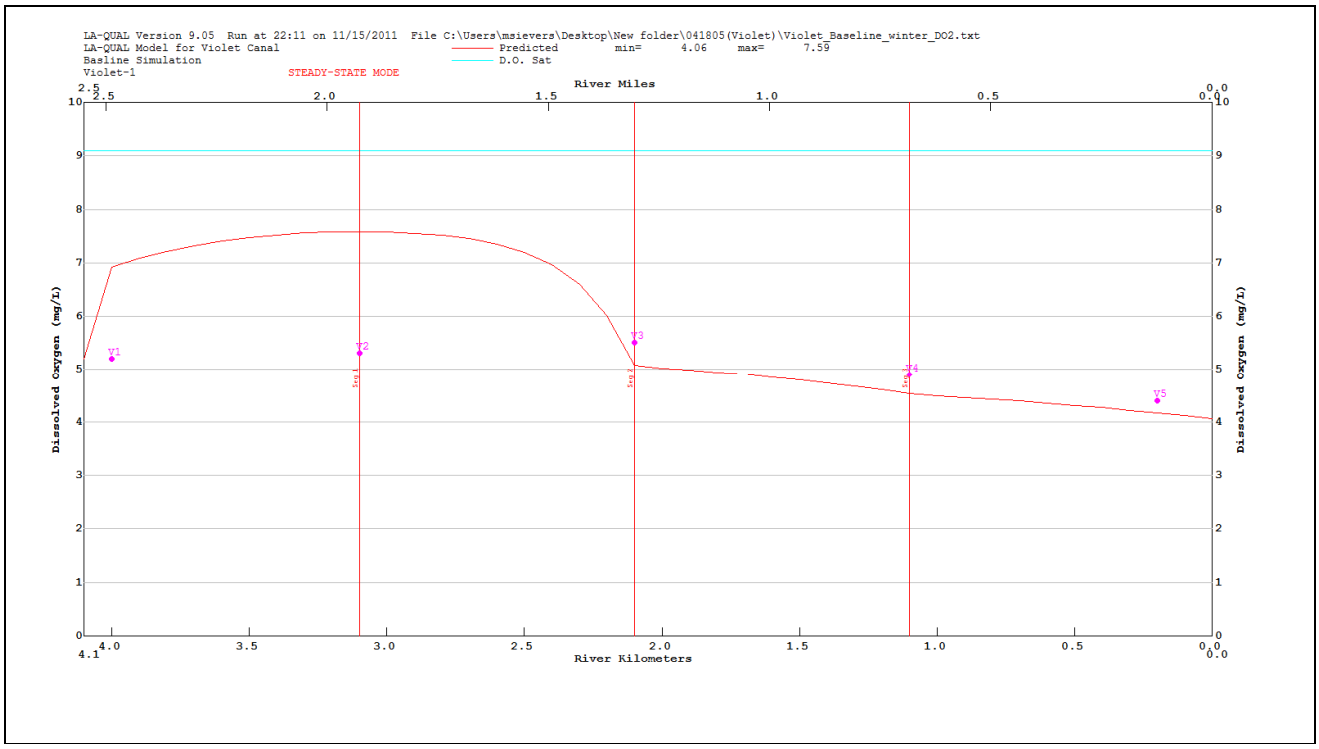

Figure I-6. Winter DO baseline results for subsegment 041805.

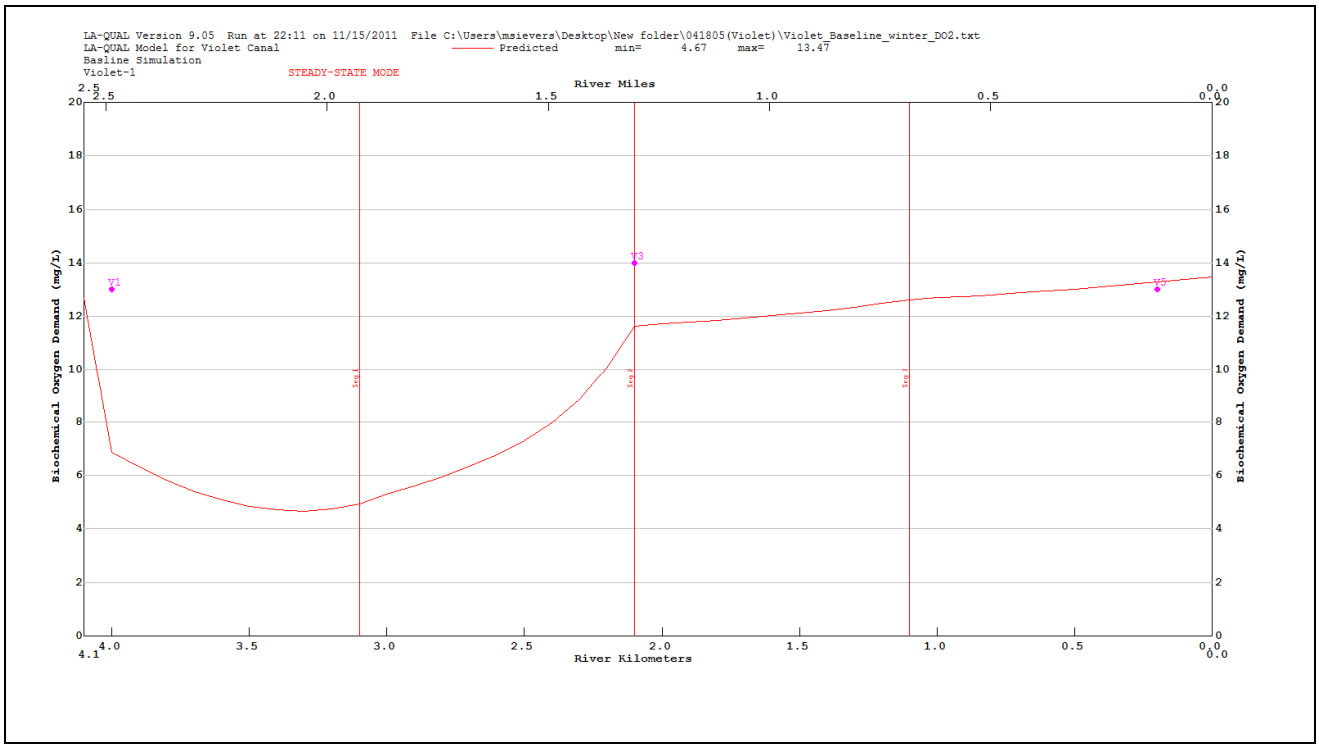

Figure I-7. Winter $CBOD_u$ baseline results for subsegment 041805.

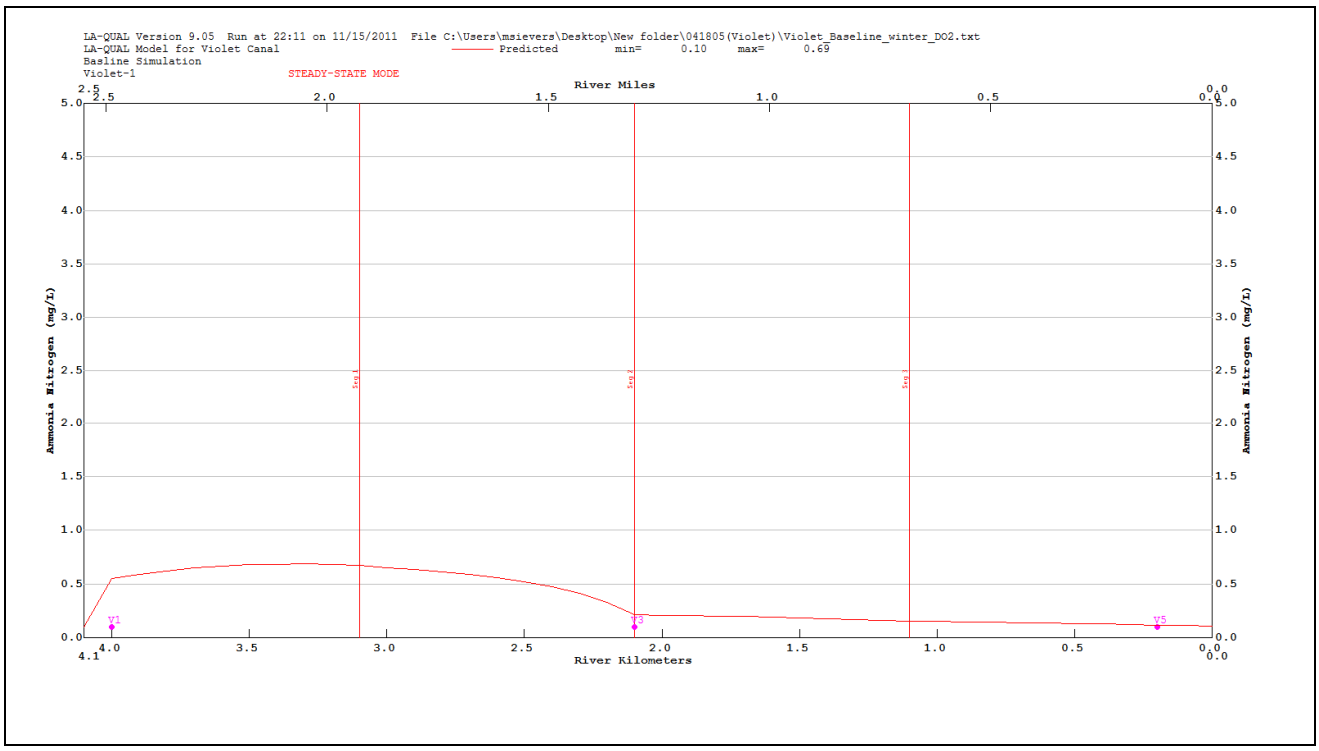

Figure I-8. Winter ammonia baseline results for subsegment 041805.

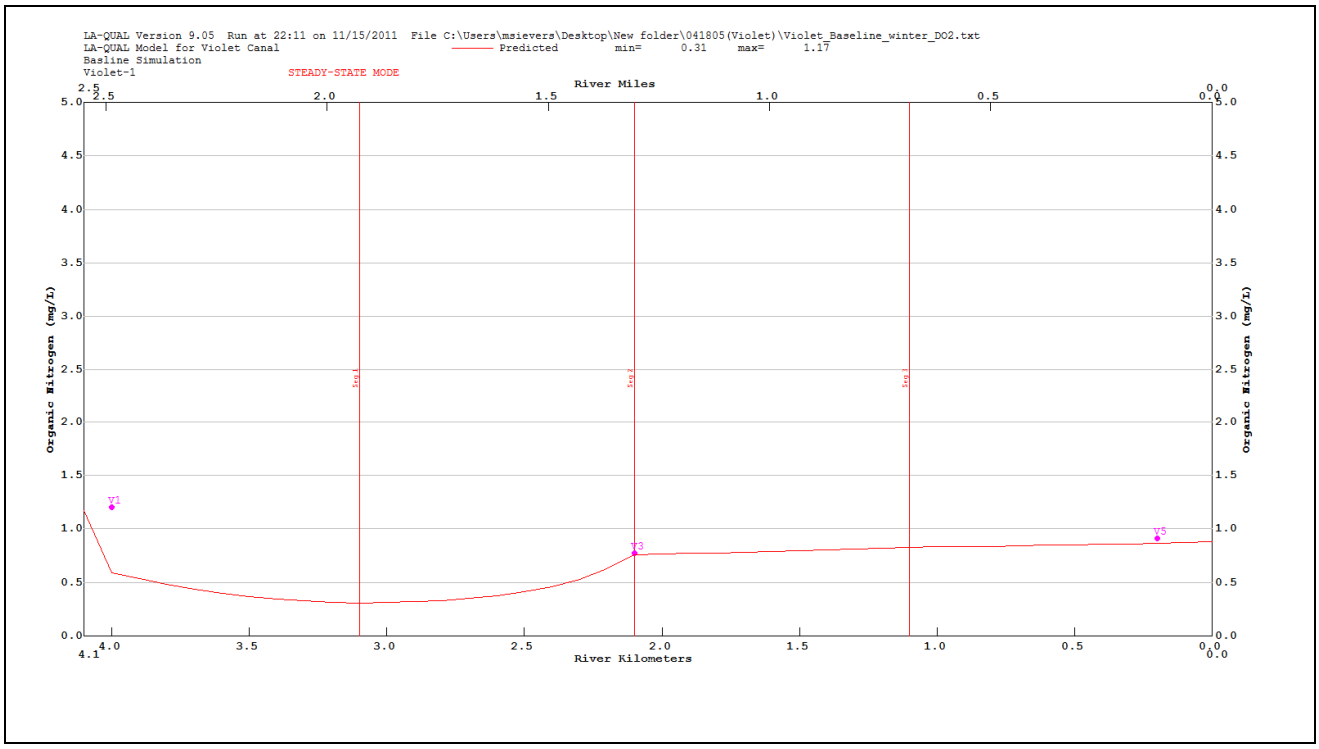

Figure I-9. Winter organic nitrogen baseline results for subsegment 041805.

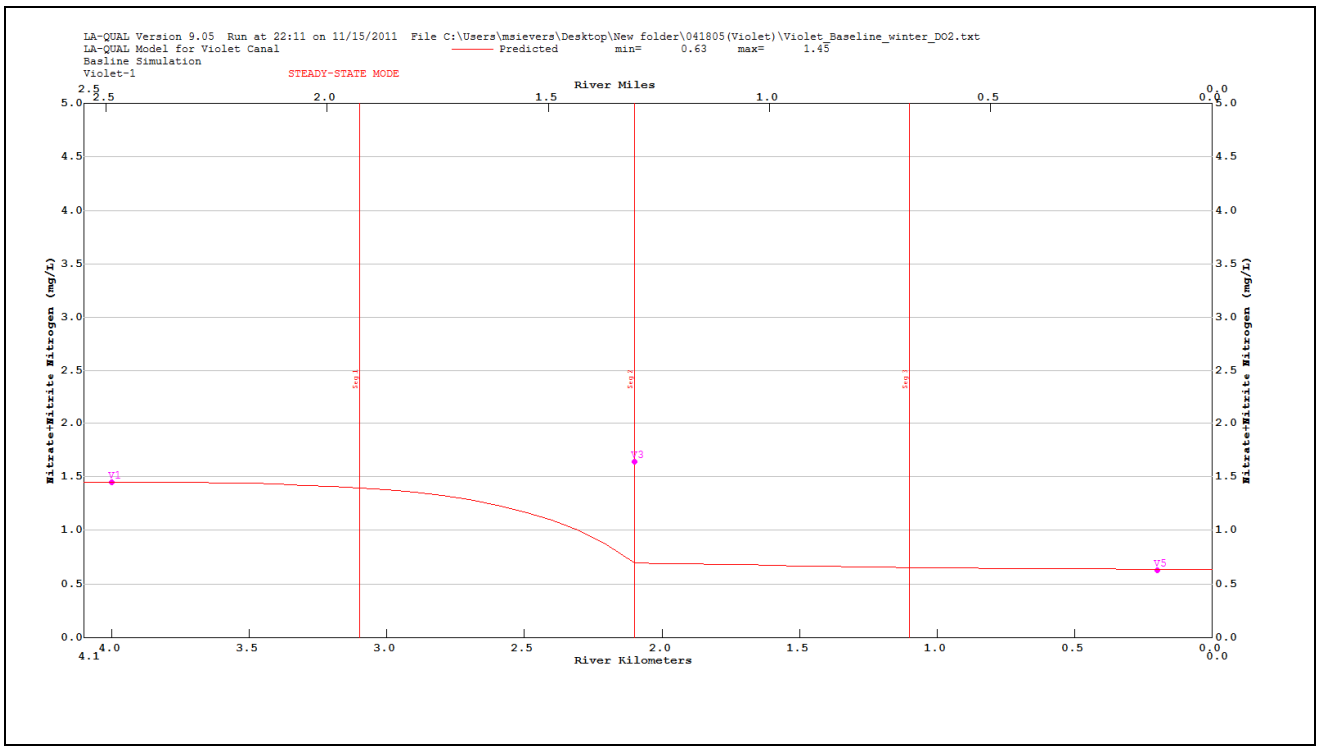

Figure I-10. Winter nitrate+nitrite baseline results for subsegment 041805.

APPENDIX J:
TMDL Water Quality Plots

Figure J-1. Summer DO TMDL results for subsegment 041805. ..... J-1
Figure J-2. Summer $CBOD_u$ TMDL results for subsegment 041805. ..... J-1
Figure J-3. Summer ammonia TMDL results for subsegment 041805. ..... J-2
Figure J-4. Summer organic nitrogen TMDL results for subsegment 041805. ..... J-2
Figure J-5. Summer nitrate+nitrite TMDL results for subsegment 041805. ..... J-3
Figure J-6. Winter DO TMDL results for subsegment 041805. ..... J-3
Figure J-7. Winter $CBOD_u$ TMDL results for subsegment 041805. ..... J-4
Figure J-8. Winter ammonia TMDL results for subsegment 041805. ..... J-4
Figure J-9. Winter organic nitrogen TMDL results for subsegment 041805. ..... J-5
Figure J-10. Winter nitrate+nitrite TMDL results for subsegment 041805. ..... J-5

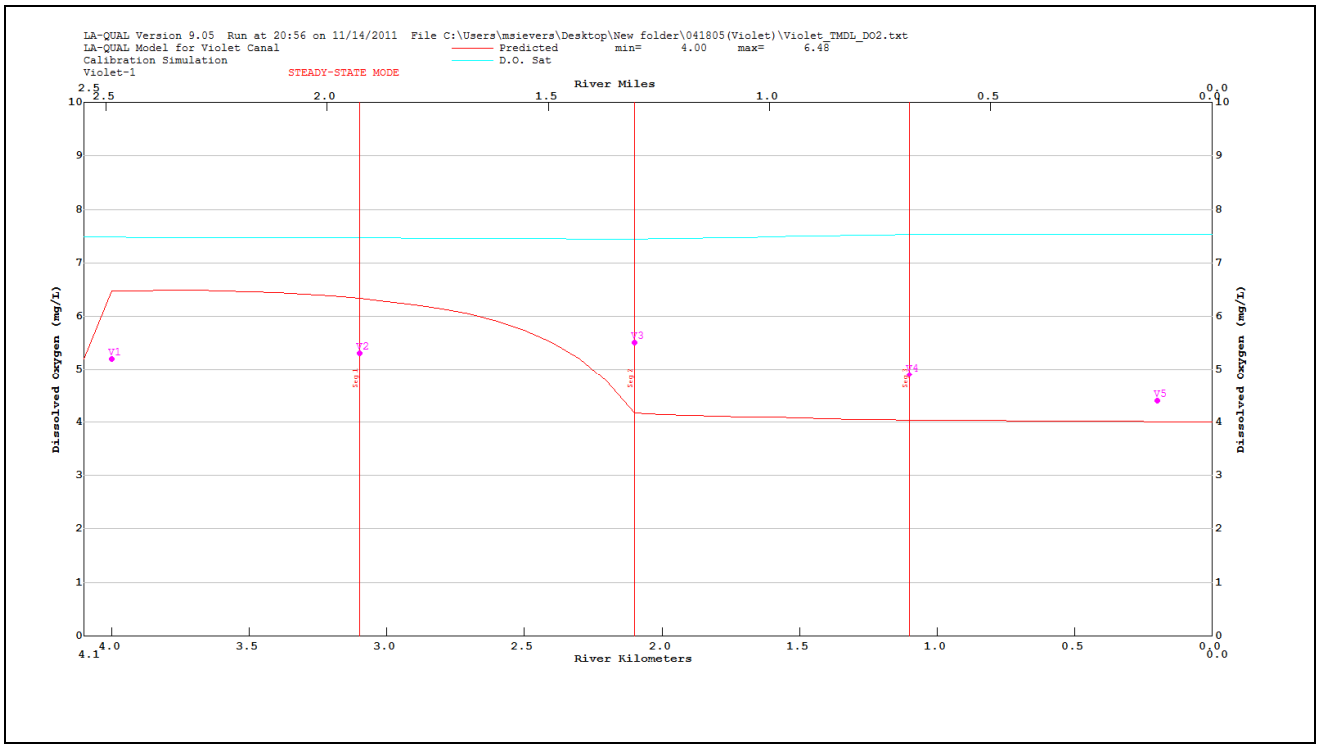

Figure J-1. Summer DO TMDL results for subsegment 041805.

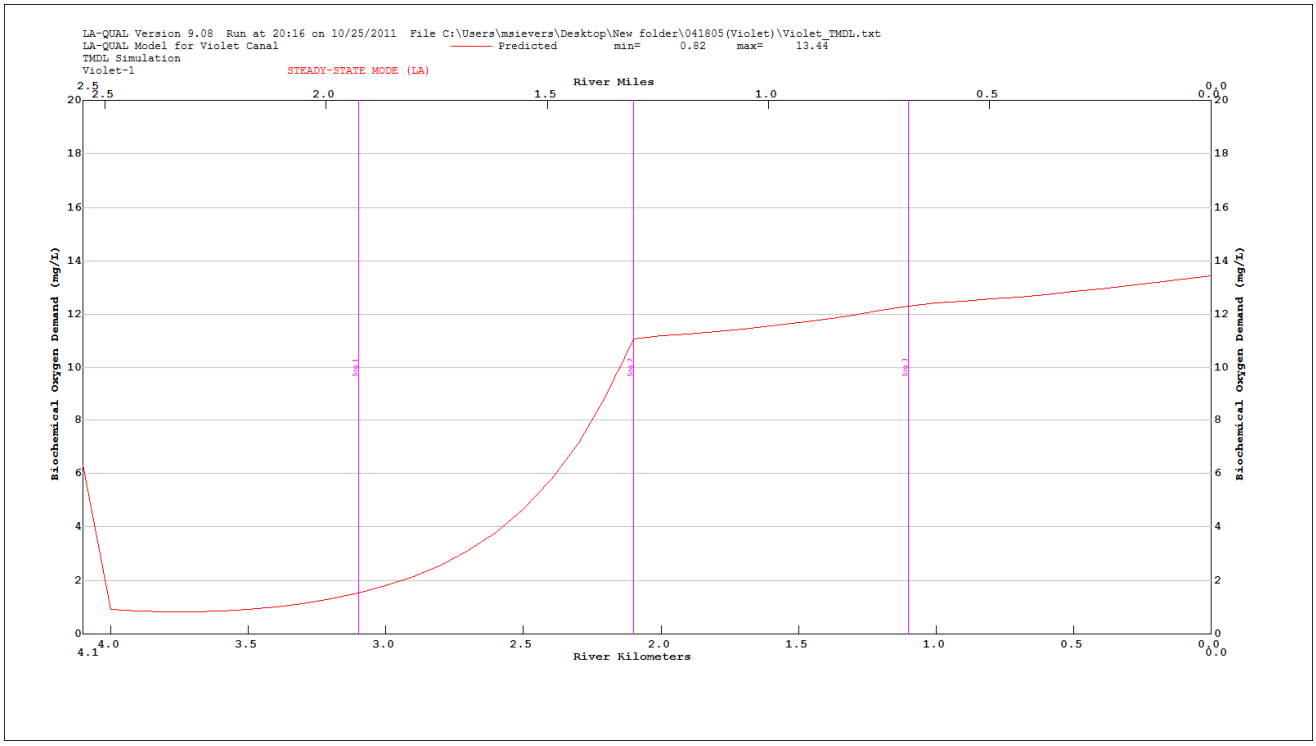

Figure J-2. Summer $CBOD_u$ TMDL results for subsegment 041805.

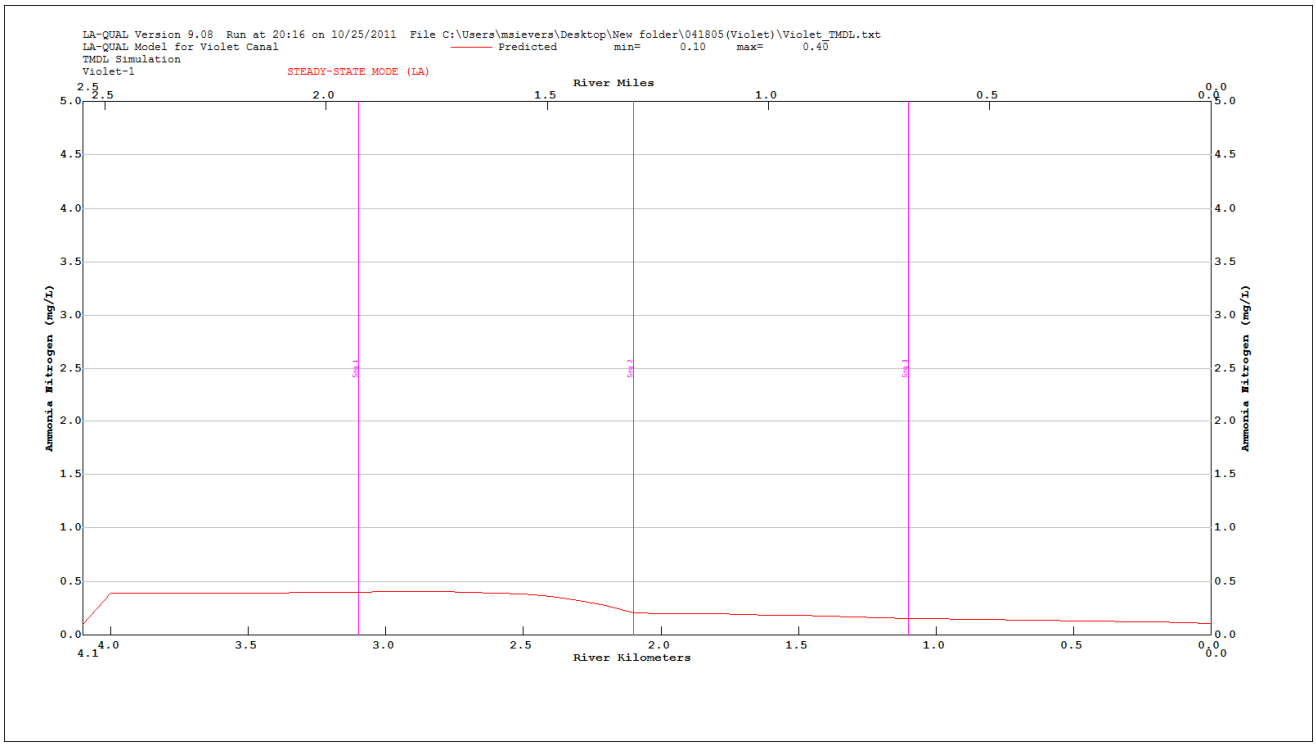

Figure J-3. Summer ammonia TMDL results for subsegment 041805.

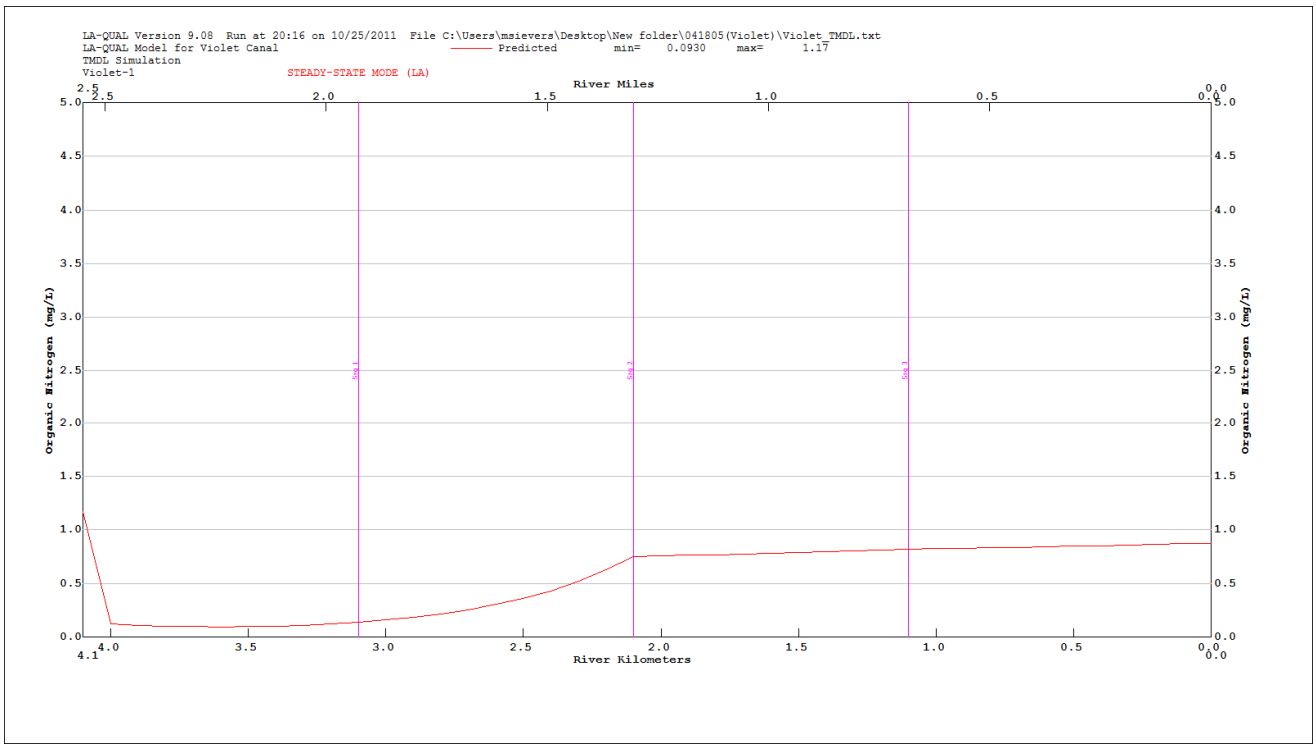

Figure J-4. Summer organic nitrogen TMDL results for subsegment 041805.

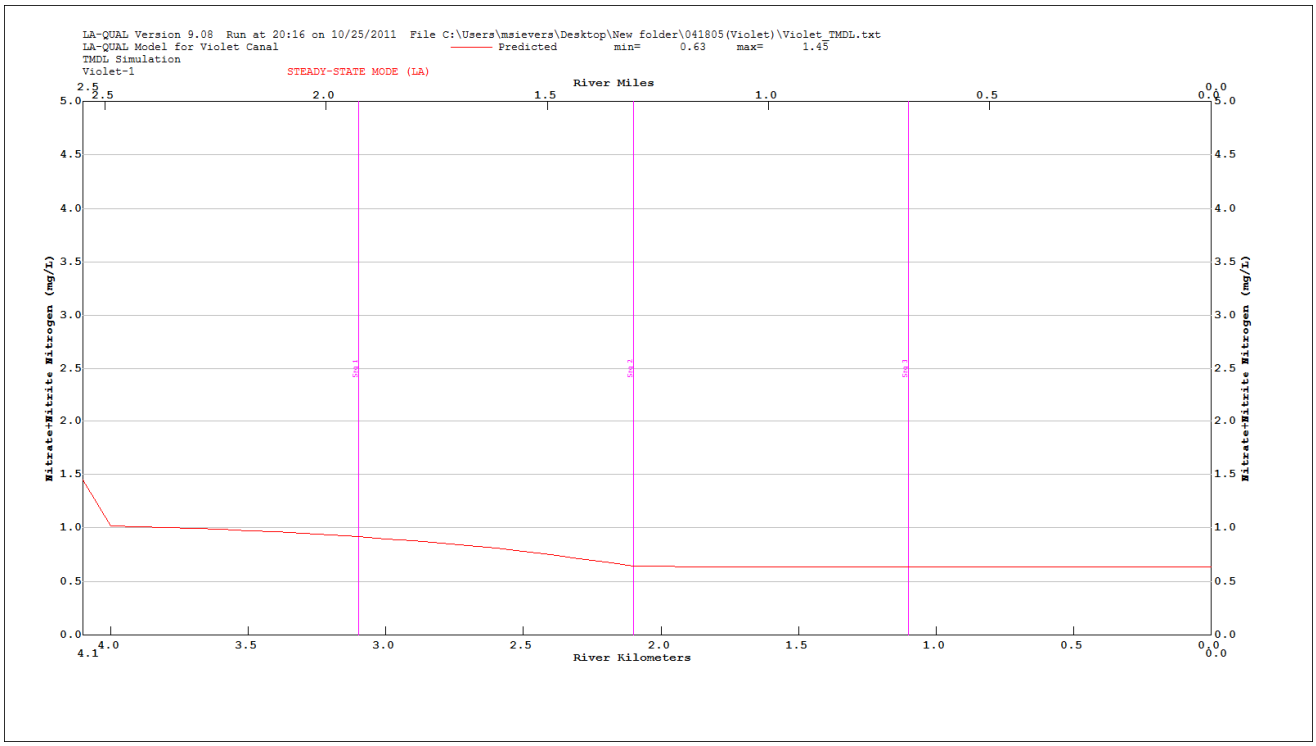

Figure J-5. Summer nitrate+nitrite TMDL results for subsegment 041805.

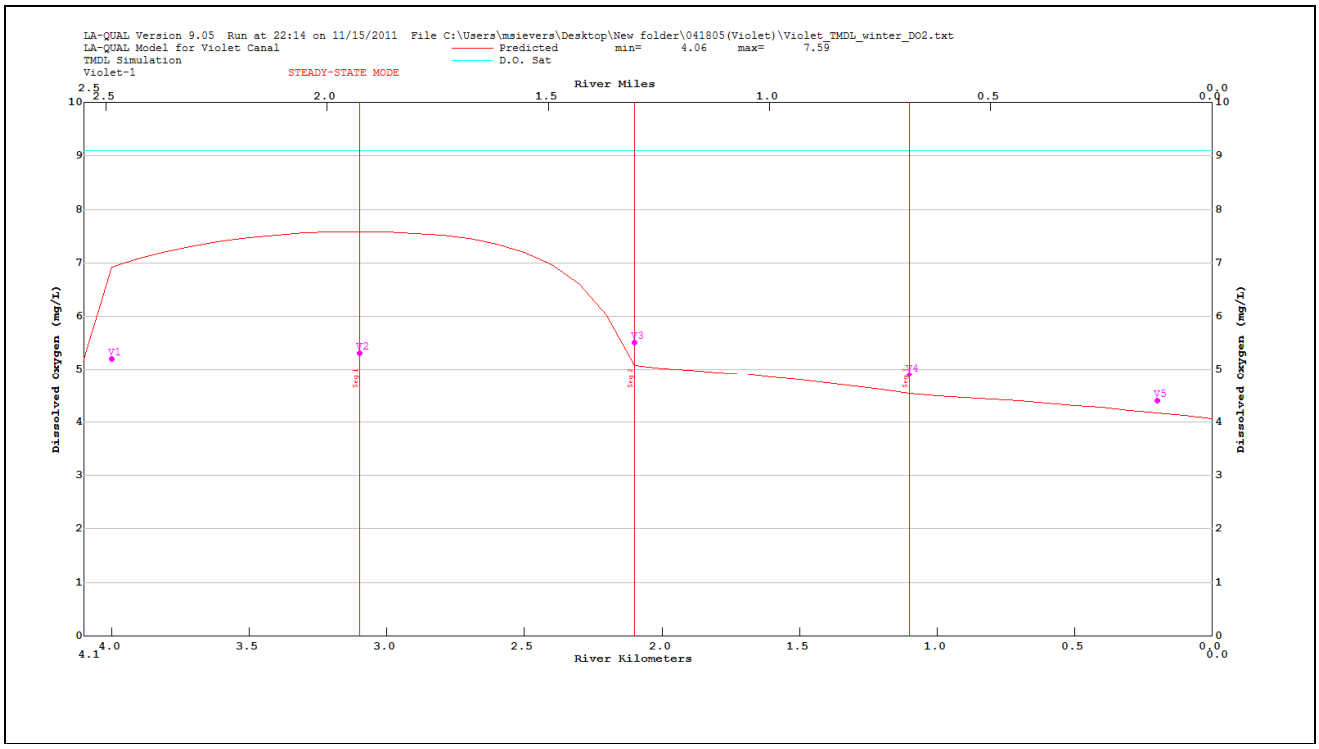

Figure J-6. Winter DO TMDL results for subsegment 041805.

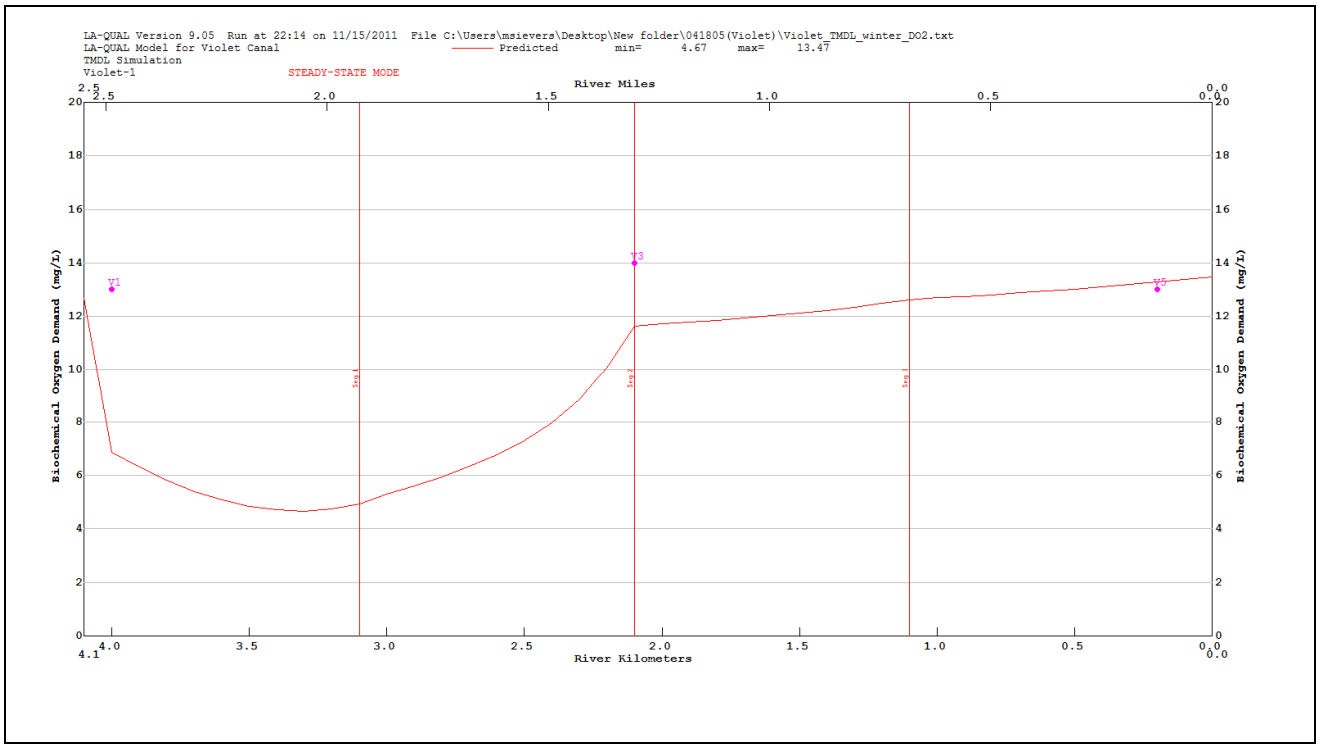

Figure J-7. Winter $CBOD_u$ TMDL results for subsegment 041805.

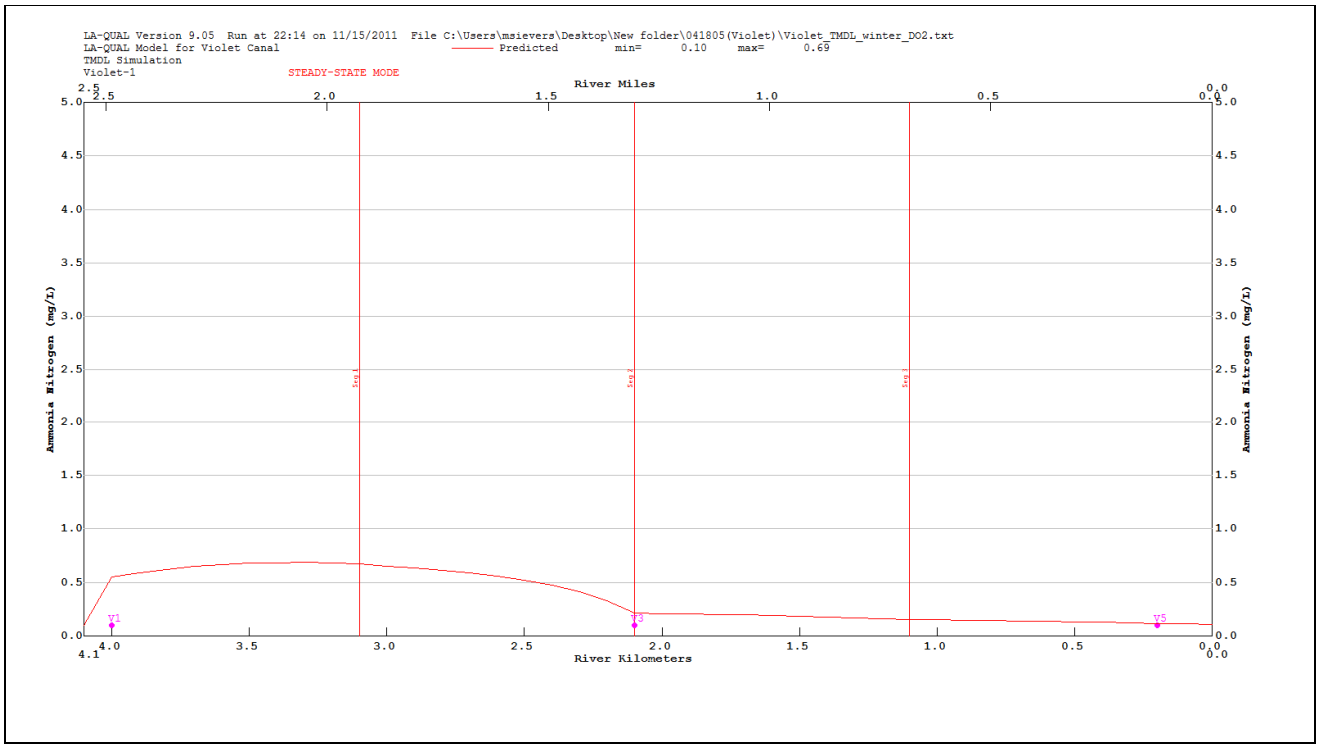

Figure J-8. Winter ammonia TMDL results for subsegment 041805.

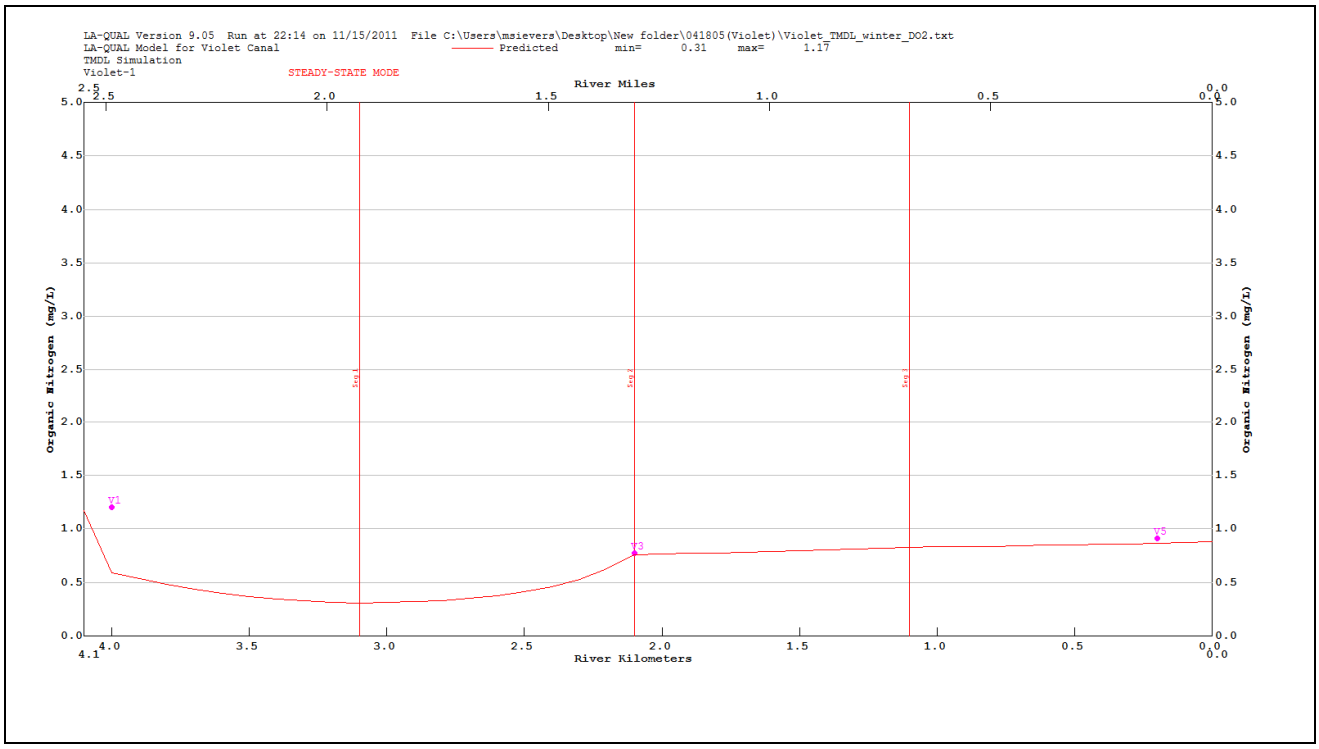

Figure J-9. Winter organic nitrogen TMDL results for subsegment 041805.

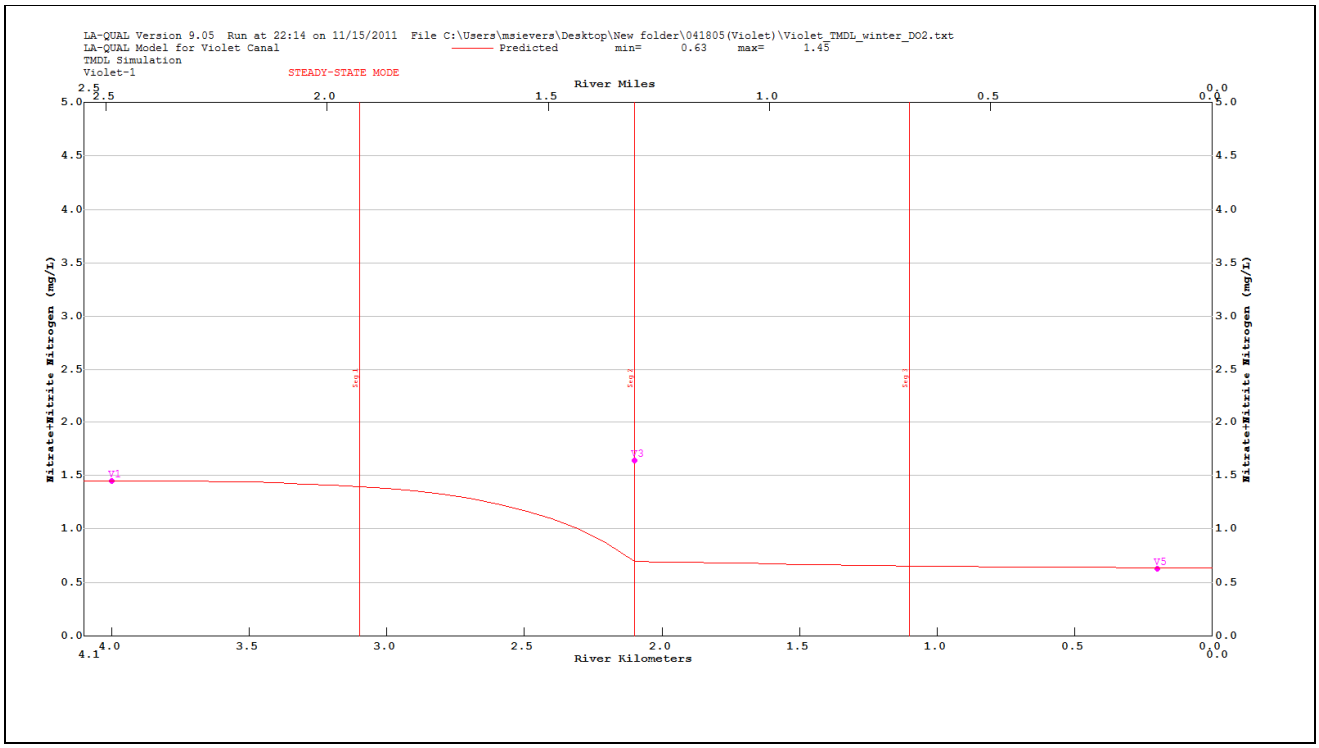

Figure J-10. Winter nitrate+nitrite TMDL results for subsegment 041805.