AquAeTer

optimizing
resources | water, air, earth

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November 1, 2017 172488

Georgia-Pacific Crossett LLC, Crossett Paper Operations
100 Paper Mill Road
Crossett, Arkansas 71635

Sent via e-mail: Sarah.Ross@gapac.com

RE: Flood-Flow Modeling

Dear Ms. Ross:

AquAeTer, Inc. (**AquAeTer**) is pleased to present our findings of water quality modeling for two flood-flow conditions on the Ouachita River: 1) River stage 65 feet (ft) at Felsenthal Dam; and 2) River stage 75 ft at Felsenthal Dam. The purpose of this modeling is to provide Georgia-Pacific (GP) with the results from a previously calibrated low-flow water quality model and previous water quality data[1] that was modified to estimate potential water quality effects during these two flood scenarios. It is our understanding that the Arkansas Department of Environmental Quality (ADEQ) has requested GP to determine if there are impacts from treated effluent discharged directly from Outfall 001 during these flood conditions.

AquAeTer utilized the existing approved water quality model for the Ouachita River, and modified it for these flood-flow conditions. Inputs expected during the flood-flow situations were used. New data were added to the model to represent water quality conditions that have been measured downstream from Felsenthal during the two critical months selected, i.e., May for 75 ft and June for 65 ft. All model files are provided in Attachment 1.

SUMMARY

Both flood scenarios show minimal impact to the Ouachita River for a non-conservative pollutant (dissolved oxygen) which resulted in an approximately 0.2 mg/L drop, and a conservative pollutant (copper) which resulted in a less than 0.15 microgram per liter (µg/L) increase in copper

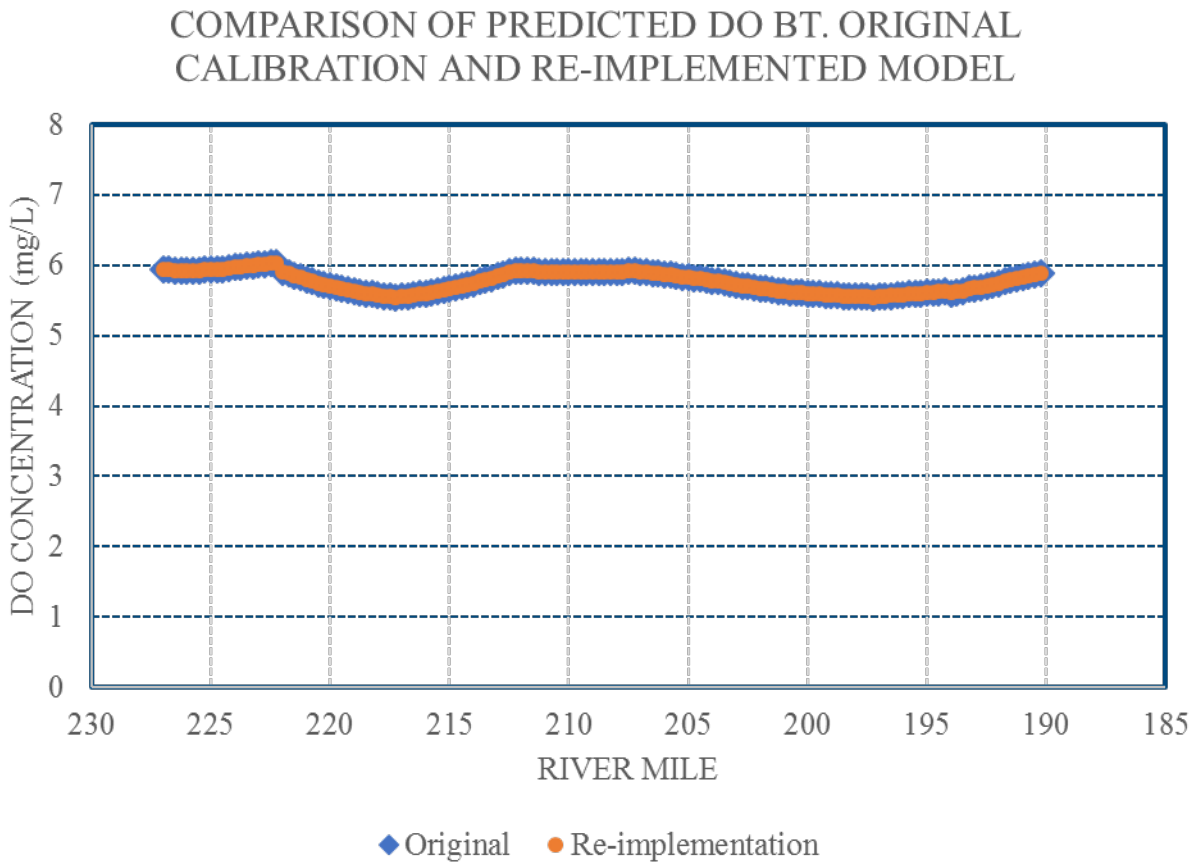
[1] Taylor, R.D., Borén, J.K., Davis, P.E., G.M., Corn, P.E., M.R. April 1993. "Dissolved Oxygen Use Attainability Analysis: Ouachita River from Felsenthal, AR to Sterlington, LA", AquAeTer, Inc., Brentwood, TN.
Taylor, R.D., Corn, P.E., M.R. 1996. "Dissolved Oxygen Use Attainability Analysis: Ouachita River from Felsenthal, AR to Sterlington, LA", AquAeTer, Inc., Brentwood, TN.
McCormick, S.T., Van Wurm, P.E., W., Smith, P.E., D.S., Corn, P.E., M.R., Bailey, S.K., Gathright, T., Starke, T.M. April 1999. "Total Maximum Daily Load Projections Ouachita River: Felsenthal Lock and Dam, Arkansas to Sterlington, LA", AquAeTer, Inc. and Georgia-Pacific Corporation. Brentwood, TN.

concentration. This matches historical measurements of DO concentrations in the Ouachita River during flooding conditions.

ORIGINAL MODEL

The model originally developed in QUAL2E and submitted to the ADEQ, Louisiana Department of Environmental Quality (LDEQ) and United States Environmental Protection Agency (USEPA) was retrieved from storage. The model was originally developed using WinQual, which ran on a version of Windows that is no longer used. The input deck was converted to work in the DOS-based QUAL-2E. The results were then compared and found to provide very similar results. The dissolved oxygen (DO) concentrations for the original model and the reimplemented model are presented in Figure 1. The maximum difference in the DO concentration between the model results is 0.01 milligram per liter (mg/L), which is less than the accuracy of DO measurements at ±0.1 mg/L.

Figure 1. Comparison of Original Calibrated Model and Re-Implemented Model Results



FLOOD MODEL CONDITIONS

The original model was developed for low-flow conditions, and was calibrated at a flow of 980 cubic feet per second (cfs). The flows for the two flood conditions analyzed are substantially greater. The gage at Felsenthal was analyzed to determine an appropriate flow at the 65' elevation flood condition. However, the gage is not capable of measuring flows when the stage exceeds 65'. Therefore, flow data acquired during flooding periods were used from upstream and downstream gages to estimate the flow at a flood elevation of 75'. The following is a list of the parameters that were changed for each model condition.

Flow

At the 65' Flood, a flow of 17,250 cfs was used. This represents the lower end of the range measured during a flood condition. The lower end of the range represents the highest potential to see an effect from the permitted discharge. At the 75' Flood, a flow of 43,364 cfs was used. As with the 65' flood condition, this represents a flow on the lower end of the range for flows calculated during this flood condition.

Depth and Velocity Coefficients

The digital elevation map (DEM) data were downloaded from the United States Department of Agriculture Geospatial website. These data were used to develop the cross-sectional area of the River during each flood. The average depth at one cross-section for each flood condition was determined. The flow was divided by the cross-sectional area to determine the velocity coefficient. With both conditions, a trendline was developed for the input parameters. These values, along with the original values used in the model are presented in Tables 1 and 2.

Table 1. Velocity Coefficient and Exponent

Reach	Original Model Coefficient	Original Model Exponent	Flood Model Coefficient	Flood Model Exponent
1	0.00046	0.897	128.756	-0.643
2	0.00046	0.897	128.756	-0.643
3	0.00046	0.897	128.756	-0.643
4	0.00046	0.897	128.756	-0.643
5	0.00028	0.946	128.756	-0.643
6	0.00028	0.946	128.756	-0.643
7	0.00020	0.930	128.756	-0.643
8	0.00020	0.930	128.756	-0.643

Table 2. Depth Coefficient and Exponent

Reach	Original Model Coefficient	Original Model Exponent	Flood Model Coefficient	Flood Model Exponent
1	7.17	0.05	$4.994*10^{-6}$	1.37
2	7.17	0.05	$4.994*10^{-6}$	1.37
3	7.17	0.05	$4.994*10^{-6}$	1.37
4	8	0.05	$4.994*10^{-6}$	1.37
5	12	0.018	$4.994*10^{-6}$	1.37
6	12	0.018	$4.994*10^{-6}$	1.37
7	15.03	0.011	$4.994*10^{-6}$	1.37
8	15.03	0.011	$4.994*10^{-6}$	1.37

CBOD Deoxygenation Rate

The ultimate carbonaceous biochemical oxygen demand ($CBOD_u$) deoxygenation rate in the original model increased briefly after the addition of the discharge from Coffee Creek, from 0.05 to 0.075 day^{-1}. For the flooded condition, the effect of the treated effluent is expected to be minimal, based on a mass balance between the receiving stream and the Mill's loading. Therefore, the $CBOD_u$ deoxygenation rate was kept constant for all reaches at 0.05 day^{-1}.

Reaeration Rate

The original model utilized the O'Connor and Dobbins reaeration method. However, the changes to the model depth and velocity to account for the flood conditions did not produce similar predicted reaeration since the effective depth changes for the two flood scenarios. During flood conditions, the reaeration is expected to increase due to the increased turbulence. However, the mechanics of the O'Connor-Dobbins equation result in an increase in predicted reaeration for the 65' flood scenario while also calculating a decrease in predicted reaeration for the 75' flood scenario. The O'Connor-Dobbins equation is as follows:

$$k_2 = 12.9\frac{U^{0.5}}{H^{1.5}} \quad \textbf{1}$$

where: k_2 = reaeration rate, day^{-1};
U = velocity, feet per second; and,
H = depth, feet

The velocity and depth are calculated based on the flow using the following equations, respectively. The coefficients and exponents used for the flood model were presented previously in Tables 1 and 2, respectively.

$$U = aQ^b \quad \textbf{2}$$

$$H = cQ^d \quad \textbf{3}$$

The calculation results are presented in the following table.

Table 3. O'Connor-Dobbins Reaeration Calculations for Flood Flow Conditions

PARAMETER	RESULT FOR 65' FLOOD	RESULT FOR 75' FLOOD
Q (cfs)	17,250	43,364
U (ft/sec)	0.242	0.134
H (ft)	3.18	11.3
k_2 (day^{-1})	1.12	0.125

The depth represents the average depth across the River. While the main channel of the River may be much deeper, the flood plain area brings the average down. Likewise, the velocity in the main channel is expected to be faster, but the velocity of the River moving through the flood plain will be impeded by the forests, which brings the average velocity down.

An alternative reaeration equation that is also accepted by the USEPA and is present in the QUAL2E model and newer models is the Tsivoglou-Neal reaeration rate equation. This equation relies on the water surface slope change. During low flows, the slope change on the Ouachita River was insignificant, resulting in unrealistic reaeration rates. For the flood flow, however, the slope between the Sterlington and Felsenthal gages is able to be used. The Tsivoglou-Neal reaeration rate equation is as follows:

$$k_2 = c * \frac{\Delta h}{TOT} \qquad \textbf{4}$$

where: k_2 = reaeration rate, day^{-1};
c = escape coefficient, ft^{-1};
Δh = change in water surface elevation, ft; and,
TOT = time of water travel, day.

The escape coefficient can be adjusted based on flow conditions based on empirical data. There is one measurement in Arkansas that was made on the Ouachita River in 1980[2] in a study completed for NCASI[3][4]. One additional measurement was made on the Ouachita River, but was considered poor due to the hydraulic conditions occurring during the release. A similar swamp

[2] Neal, L.A. and Corn, M.R. 1980. "Reaeration Capacity Studies – Arkansas and Louisiana". Law Engineering Testing Company, Marietta, Georgia.
[3] NCASI. 1982. "An Assessment of the Limitations of the Radiotracer Technique in Measuring Stream Reaeration Rates". Technical Bulletin No. 374. New York.
[4] NCASI. 1982. "A Comparison of Reaeration Estimation Techniques for the Ouachita River Basin". Technical Bulletin No. 375. New York.

stream was tested by Law Engineering[5]. The Red River near Ashdown, Arkansas was also tested[6]. The "c" coefficient and flows for each of these studies is presented in Table 4.

Table 4. Escape Coefficients Measured

STREAM	"c"	FLOW (cfs)
Ouachita River (AR)	0.0396	850
Black Creek (SC)	0.0392	198
Red River (AR)	0.0822	4,600

These three studies were utilized to develop an empirical equation that relates the "c" coefficient to flow as follows:

$$c = 0.036e^{0.00018*Q} \quad \textbf{5}$$

Combining Equations 4 and 5 yields the following:

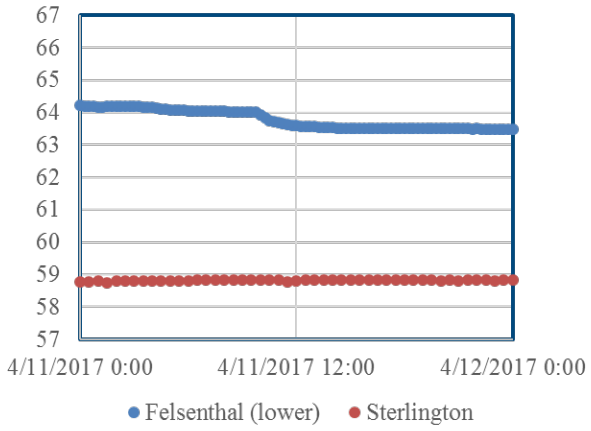
$$k_2 = 0.036e^{0.00018*Q} * \frac{\Delta h}{TOT} \quad \textbf{6}$$

For the 65' Flood scenario, the parameters used to determine the reaeration rate are presented in Table 5. An example of the stage between the two gages is presented in Figure 2.

Table 5. Tsivoglou-Neal Reaeration Prediction

Parameter	Value
Q	17,250 cfs
Δh	5.2[7] ft
TOT (days)	8.0[8] days
k_2	0.5 day^{-1}

Figure 2. Flood Stage at Felsenthal and Sterlington



This value was utilized as the reaeration rate for the 65' flood condition. This represents a substantial margin of safety over what the O'Connor-Dobbins equation would predict based on the conditions during the flood.

For the 75' Flood Scenario, the reaeration rate is

[5] Neal, L.A. and Corn, M.R. 1979. "Reaeration Capacity of Black Creek". Law Engineering Testing Company, Marietta, Georgia.
[6] Corn, M.R. 1991. "Assimilative Capacity Study of the Red River near Ashdown, Arkansas". The Advent Group, Inc. Brentwood, TN.
[7] Based on stage measured between Felsenthal and Sterlington during flooding.
[8] At 0.242 ft/s in Model domain from ORM 222 to 190.

expected to be slightly lower than the 65' Flood Scenario. This is based on the decreased slope and increased time of travel as more water backs up from Sterlington. For this reason, a value of 0.3 day^{-1} was selected for the reaeration rate. This was based on meeting similar trends from historic data collections collected during flooding conditions, as well as previous reaeration measurements on the Ouachita River.

The reaeration rates utilized for the flood flow scenarios simulated a flatter DO slope as has been measured on the Ouachita River during flood flows as later shown in Figure 3. Utilizing the O'Connor Dobbins equations for these flood conditions would result in widely variable DO predictions that deviate from the known DO trends.

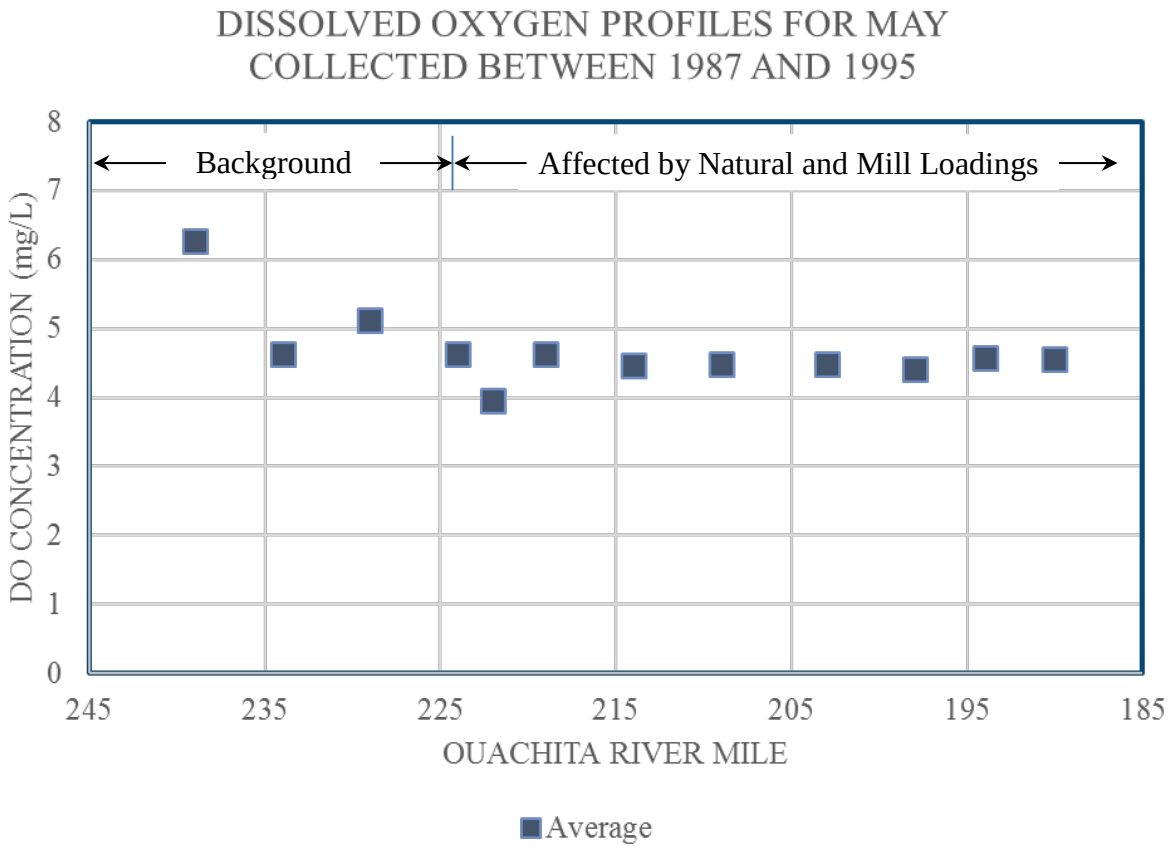
Linear Algal Self-Shading (ft^{-1} per µg/L Chlorophyll a) and Non-Algal Light Extinction

The initial run at the flooded condition failed to converge due to excessive algal growth. The linear algal self-shading parameter was adjusted from 0.0027 to 0.02. The non-algal light extinction coefficient was increased to 4 ft^{-1} for both flood models. These two parameters curtailed the algal population in the model, and allowed future model runs to converge. This is a reasonable assumption since algal activity would be expected to be significantly diminished during flood conditions.

Background DO Concentration

Based on the work AquAeTer performed for the Mill in developing a Use Attainability Analysis for the Ouachita River, we utilized a background DO concentration of 3.4 mg/L for the 65' flood scenario and 5.4 mg/L for the 75' flood scenario. These values were based on the data collected for June, representing the 65' flood condition, and May, representing the 75' flood condition. This is intended to represent a worse-case condition when the flooding has expanded into the stagnant water areas within the basin. This phenomenon was previously documented by AquAeTer, as shown in the Figure 3.

Figure 3. DO Data Originally Published in UAA[9]



Temperature

The original calibrated model was developed based on data collected during the field study. The temperature used was 88.7°F for the background river. The flooded conditions were evaluated to determine the most probable months for flooding. A temperature from that month was selected. The 65' flood model was run at a temperature of 87.4°F representing a June condition. For the 75' flood model, a temperature of 81.3°F was used representing a May condition. The initial conditions and background River temperature were adjusted for both models. Other temperature inputs were not adjusted from the original model.

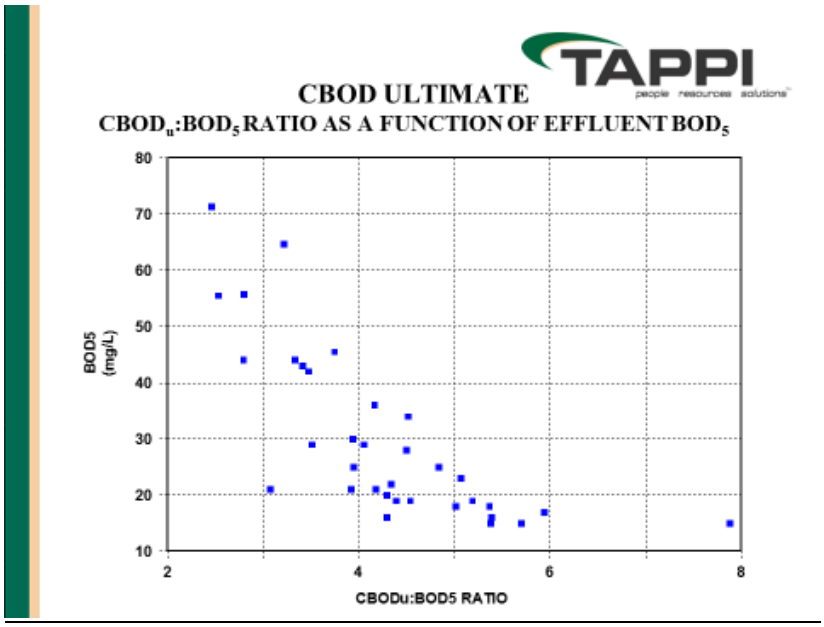
Effluent Data

An effluent flow rate of 45 million gallons per day (mgd) or 69.63 cfs was used for the effluent flowrate. For each flood stage, an average and a maximum loading model run was

[9] Taylor and M.R. Corn. 1996. "Dissolved Oxygen Use Attainability Analysis: Ouachita River from Felsenthal, AR to Sterlington, LA", AquAeTer, Inc., Brentwood, TN.

completed. For parameters that did not have permit conditions, the original model calibration was utilized.

Figure 4. Relationship of BOD_5 Data to F-Factor



The permit is based on 5-day biochemical oxygen demand (BOD_5). The monthly average loading specified in the permit is 24,155.4 lbs/day of BOD_5. The daily maximum loading specified in the permit is 46,453 lbs/day. At an effluent flowrate of 45 million gallons per day (mgd), or 69.63 cfs, the monthly average and daily maximum BOD_5 concentrations would be 64.4 and 123.8 mg/L, respectively. The model requires this to be input as an ultimate carbonaceous biochemical oxygen demand ($CBOD_u$) concentration. The ratio of CBODu/BOD5 is called the f-factor. The f-factor came from $CBOD_u$ to BOD_5 f-factors developed at the Ashdown Mill when it was owned by Georgia-Pacific and which has been accepted by ADEQ previously for wasteload allocation work. The Ashdown Mill is now owned by Domtar. The f-factor data are shown in Figure 4. These data demonstrate a decreasing f-factor with increasing BOD_5. As effluent treatment increases (and BOD_5 concentrations go down), the percentage of recalcitrant $CBOD_u$ increases. When effluent treatment efficiency is lower (and BOD_5 concentrations are higher), the percentage of labile $CBOD_u$ remaining after treatment increases.

For the model, an f-factor of 3.4 was utilized. At a BOD_5 concentration of 64.4 mg/L, this results in a $CBOD_u$ concentration of 218.3 mg/L for the monthly average condition. At a BOD_5 concentration of 123.8 mg/L, this results in a $CBOD_u$ concentration of 420.9 mg/L for the daily maximum condition.

Copper

Copper was included in the model as a conservative mineral. There was not a significant dataset for hardness on the Ouachita River near Felsenthal. The average hardness for the background station was 21.3 mg/L as $CaCO_3$ for June and 22.5 mg/L for May, representing the 65'and 75' flood scenarios, respectively. At a hardness of 21.3 mg/L, the copper water quality

standards are 3.96 µg/L and 3.03 µg/L for the CMC and CCC, respectively. At a hardness of 22.5 mg/L, the copper water quality standards are 4.17 µg/L and 3.17 µg/L for the CMC and CCC, respectively.

No Loading Condition

One model run for each flood scenario was completed in which the Mill discharge flowrate from the Aerated Stabilization Basin (ASB) was set to 0.

MODEL RESULTS

Both flood scenarios show minimal impact to the Ouachita River. The copper concentration for both flood scenarios also showed slight increases over the background concentration, but within the water quality standard for copper at the background hardness concentrations.

65' Flood Scenario

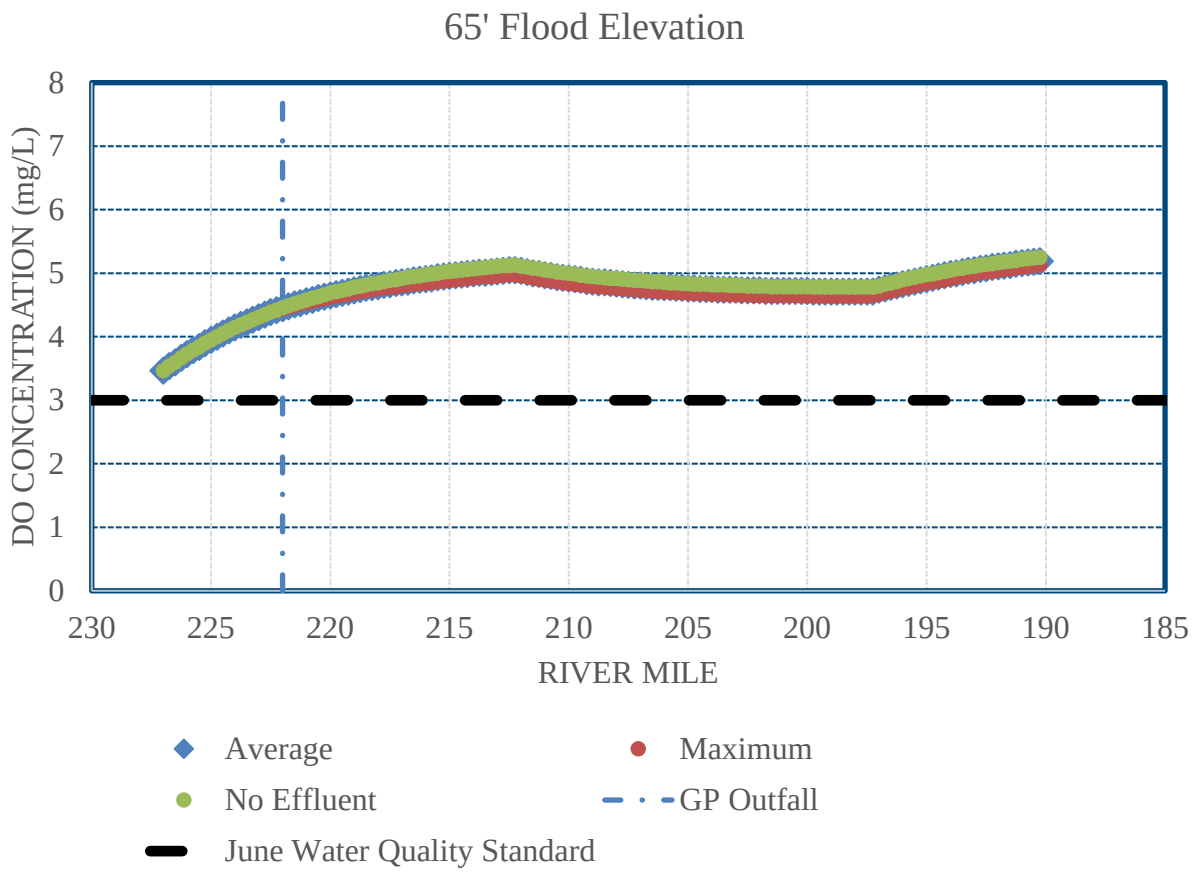
The results of the DO concentration at the 65' Flood Elevation are presented in Figure 5. A summary of the maximum delta DO concentration compared to the model run without the Mill's effluent is provided in Table 6. The difference in the DO concentration is within the accuracy of DO instrumentation, which is ±0.1 mg/L, which gives a potential swing of 0.2 mg/L.

Table 6. Results of 65' Model Scenario

Parameter	Units	At Average Permit Loading	At Maximum Permit Loading
DO, as Maximum Difference from Model Prediction without Mill	mg/L	0.08	0.16
Predicted Copper Increase Downstream from Mill	µg/L	0.07	0.15

The copper results for both permit conditions are also presented in Table 6. When using a river background concentration of 1.24 µg/L, the resulting downstream copper concentration would be much less than the water quality standard for both flood scenarios modeled.

Figure 5. 65’ Flood Scenario



75’ Flood Scenario

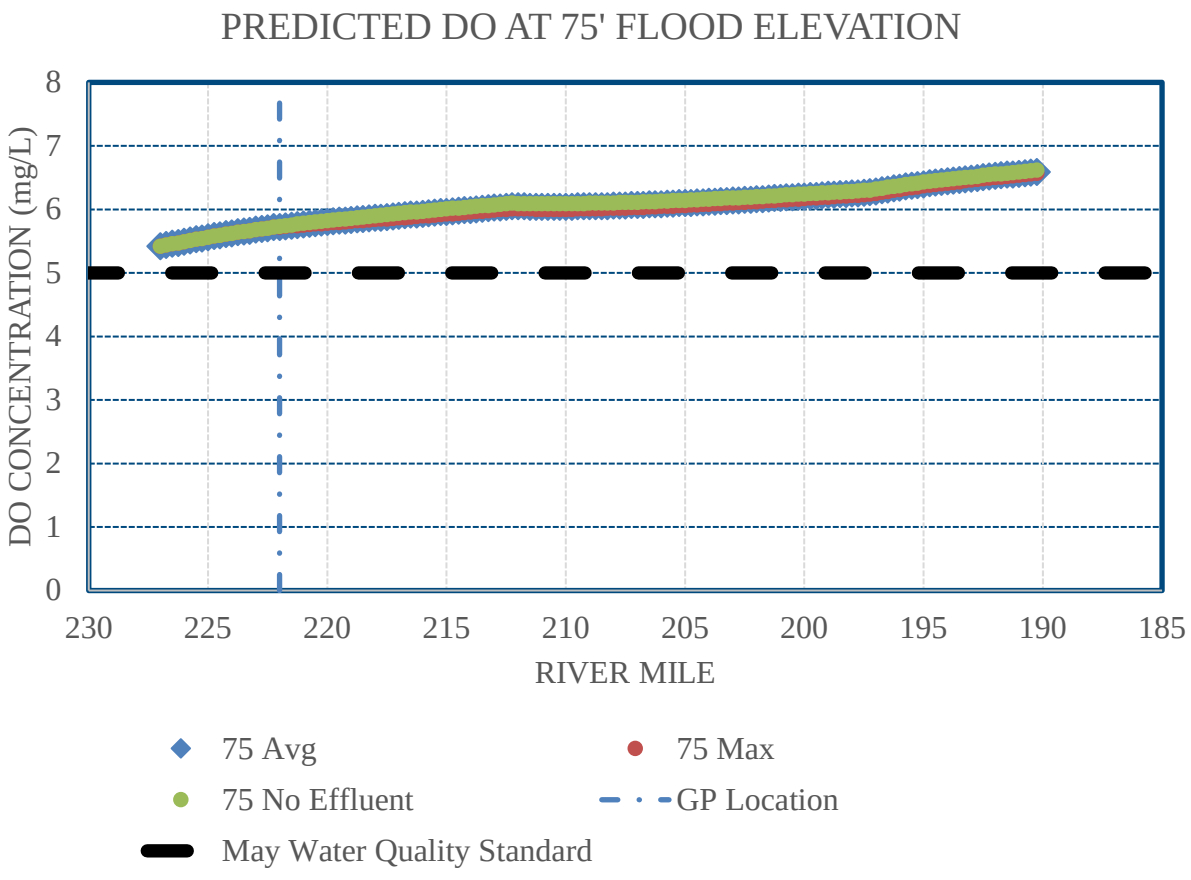
The results of the DO concentration at the 75’ Flood Elevation are presented in Figure 6. A summary of the maximum delta DO concentration compared to the model run without the Mill’s effluent is provided in Table 7. The difference in the DO concentration is within the accuracy of DO instrumentation, which is ±0.1 mg/L, which gives a potential swing of 0.2 mg/L.

The copper results for both permit conditions are also presented in Table 7. When using a river background concentration of 1.77 µg/L, the in the resulting downstream copper concentration would be much less than the water quality standard for both flood scenarios modeled.

Table 7. Results of 75' Model Scenario

Parameter	Units	At Average Permit Loading	At Maximum Permit Loading
DO, as Maximum Difference from Model Prediction without Mill	mg/L	0.05	0.09
Predicted Copper Increase Downstream from Mill	µg/L	0.03	0.05

Figure 6. 75' Flood Scenario



CLOSING

We appreciate the opportunity to work with you on this matter. If you have questions or comments pertaining to this letter, please contact us by telephone at (615) 373-8532, by FAX at (615) 373-8512, or by e-mail at jmcorn@aquaeter.com or mcorn@aquaeter.com.

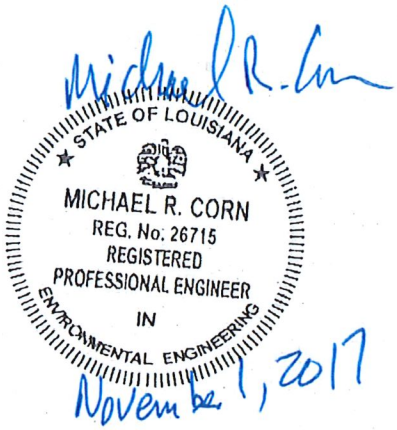
Regards,

John Michael Corn, P.E.
Project Manager

Michael R. Corn, P.E. (LA), BCEE
President

cc: Rachel Johnson,
Mayes Starke, Thomas.Starke@gapac.com
Paul Marotta, Ph.D., P.E. (AR), BCEE

CERTIFICATION



Paul J. Marotta, Ph.D., P.E. (AR) BCEE

Michael R. Corn, P.E. (LA), BCEE

ATTACHMENT 1

MODEL FILES

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TITLE01             GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02             CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03   NO        CONSERVATIVE MINERAL   I
TITLE04   NO        CONSERVATIVE MINERAL  II
TITLE05   NO        CONSERVATIVE MINERAL III
TITLE06   NO        TEMPERATURE
TITLE07  YES        BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES        ALGAE AS CHL-A IN UG/L
TITLE09  YES        PHOSPHORUS CYCLE AS P IN MG/L
TITLE10               (ORGANIC-P; DISSOLVED-P)
TITLE11  YES        NITROGEN CYCLE AS N IN MG/L
TITLE12               (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES        DISSOLVED OXYGEN IN MG/L
TITLE14   NO        FECAL COLIFORMS IN NO./100 ML
TITLE15   NO        ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)= 0.0027  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)= 0.0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADT(BTU/FT2)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0            REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0            REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0            REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0            REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0            REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0            REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0            REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0            REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0    .00046      .897   7.17000     .0500      .035
HYDRAULICS RCH=  2.0      38.0    .00046      .897   7.17000     .0500      .035
HYDRAULICS RCH=  3.0      22.0    .00046      .897   7.17000     .0500      .035
HYDRAULICS RCH=  4.0      21.0    .00046      .897   8.00000     .0500      .035
HYDRAULICS RCH=  5.0      10.0    .00028      .946   12.0000     .0180      .035
HYDRAULICS RCH=  6.0      17.0    .00028      .946   12.0000     .0180      .035
HYDRAULICS RCH=  7.0       7.0    .00020      .930   15.0300     .0110      .035
HYDRAULICS RCH=  8.0       7.0    .00020      .930   15.0300     .0110      .035
ENDATA5
ENDATA5A
REACT COEF RCH=  1.0   0.050     0.0   .0510 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.075     0.0   .0510 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.075     0.0   .0510 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.075     0.0   .0710 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 3.0       0  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 3.0       0  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   0.57    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   0.90    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   0.60    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   0.72    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   0.77    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   0.71    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   0.50    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   0.50    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  2.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  3.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  4.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  5.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  6.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  7.0   88.7   5.95   3.75
INITIAL COND-1 RCH=  8.0   88.7   5.95   3.75
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  2.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  3.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  4.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  5.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  6.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  7.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
INITIAL COND-2 RCH=  8.0    8.4  0.484   0.05   0.10   0.40  0.070   0.04
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   2.8
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   2.8
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  2.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  3.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  4.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  5.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  6.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
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INCR INFLOW-2  RCH=  7.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
INCR INFLOW-2  RCH=  8.0   0.00  0.484   0.05   0.10   0.40   0.07   0.04
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER      980  88.7  5.95  3.75
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4 0.484  0.05  0.10  0.40 0.070  0.04
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0    42.1  86.9  3.50  48.8
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.00 0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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* * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
Version 3.22 -- May 1996

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 $$$ (PROBLEM TITLES) $$$

CARD TYPE                              QUAL-2E PROGRAM TITLES
TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03   NO         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE

 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE                                    CARD TYPE
LIST DATA INPUT            0.00000                                  0.00000
WRITE OPTIONAL SUMMARY     0.00000                                  0.00000
NO FLOW AUGMENTATION       0.00000                                  0.00000
STEADY STATE               0.00000                                  0.00000
NO TRAPEZOIDAL X-SECTIONS  0.00000                                  0.00000
NO PRINT LCD/SOLAR DATA    0.00000                                  0.00000
NO PLOT DO AND BOD         0.00000                                  0.00000
FIXED DNSTM CONC (YES=1)=  0.00000        ULT BOD CONV RATE COEF    0.23000
INPUT METRIC (YES=1)    =  0.00000        OUTPUT METRIC (YES=1)  =  0.00000
NUMBER OF REACHES       =  8.00000        NUMBER OF JUNCTIONS    =  0.00000
NUM OF HEADWATERS       =  1.00000        NUMBER OF POINT LOADS  =  8.00000
TIME STEP (HOURS)       =  1.00000        LNTH  COMP  ELEMENT (DX)=  0.25000
MAXIMUM ROUTE TIME (HRS)= 250.00000       TIME INC. FOR RPT2 (HRS)=  1.00000
LATITUDE OF BASIN (DEG) =  33.00000       LONGITUDE OF BASIN (DEG)=  92.00000
STANDARD MERIDIAN (DEG) =  90.00000       DAY OF YEAR START TIME  = 190.00000
EVAP. COEFF. (AE)       =  0.00001        EVAP. COEF. (BE)       =  0.00010
ELEV  OF BASIN (ELEV)   =  60.00000       DUST ATTENUATION COEF. =  0.13000
ENDATA1                    0.00000                                  0.00000

 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE                                    CARD TYPE
O UPTAKE BY NH3 OXID(MG O/MG N)=    3.4300   O UPTAKE BY NO2 OXID(MG O/MG N)=    1.1400
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O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500
N HALF SATURATION CONST (MG/L)=	0.2000	P HALF SATURATION CONST (MG/L)=	0.0100
LIN ALG SHADE CO (1/FT-UGCHA/L=)	0.0027	NLIN SHADE(1/FT-(UGCHA/L)**2/3)=	0.0165
LIGHT FUNCTION OPTION (LFNOPT) =	2.0000	LIGHT SAT'N COEF (BTU/FT2-MIN) =	0.1000
DAILY AVERAGING OPTION (LAVOPT)=	2.0000	LIGHT AVERAGING FACTOR (AFACT) =	0.9200
NUMBER OF DAYLIGHT HOURS (DLH) =	13.0000	TOTAL DAILY SOLR RAD (BTU/FT-2)=	754.0000
ALGY GROWTH CALC OPTION(LGROPT)=	1.0000	ALGAL PREF FOR NH3-N (PREFN) =	0.5000
ALG/TEMP SOLR RAD FACTOR(TFACT)=	0.4400	NITRIFICATION INHIBITION COEF =	10.0000
ENDATA1A	0.0000		0.0000

$$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

CARD TYPE	RATE CODE	THETA VALUE	
THETA(1)	BOD DECA	1.047	DFLT
THETA(2)	BOD SETT	1.024	DFLT
THETA(3)	OXY TRAN	1.024	DFLT
THETA(4)	SOD RATE	1.060	DFLT
THETA(5)	ORGN DEC	1.047	DFLT
THETA(6)	ORGN SET	1.024	DFLT
THETA(7)	NH3 DECA	1.083	DFLT
THETA(8)	NH3 SRCE	1.074	DFLT
THETA(9)	NO2 DECA	1.047	DFLT
THETA(10)	PORG DEC	1.047	DFLT
THETA(11)	PORG SET	1.024	DFLT
THETA(12)	DISP SRC	1.074	DFLT
THETA(13)	ALG GROW	1.047	DFLT
THETA(14)	ALG RESP	1.047	DFLT
THETA(15)	ALG SETT	1.024	DFLT
THETA(16)	COLI DEC	1.047	DFLT
THETA(17)	ANC DECA	1.000	DFLT
THETA(18)	ANC SETT	1.024	DFLT
THETA(19)	ANC SRCE	1.000	DFLT
ENDATA1B			

$$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

CARD TYPE	REACH ORDER AND IDENT			R. MI/KM		R. MI/KM
STREAM REACH	1.0	REACH 1	FRO	227.0	TO	222.0
STREAM REACH	2.0	REACH 2	FRO	222.0	TO	217.0
STREAM REACH	3.0	REACH 3	FRO	217.0	TO	212.0
STREAM REACH	4.0	REACH 4	FRO	212.0	TO	207.0
STREAM REACH	5.0	REACH 5	FRO	207.0	TO	202.0
STREAM REACH	6.0	REACH 6	FRO	202.0	TO	197.0
STREAM REACH	7.0	REACH 7	FRO	197.0	TO	192.0
STREAM REACH	8.0	REACH 8	FRO	192.0	TO	190.0
ENDATA2	0.0			0.0		0.0

$$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

CARD TYPE	REACH	AVAIL HDWS	TARGET	ORDER OF AVAIL SOURCES				
STREAM REACH	1.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	2.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	3.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	4.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	5.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	6.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	7.	1.	3.0	1.	0.	0.	0.	0.	0.
STREAM REACH	8.	1.	3.0	1.	0.	0.	0.	0.	0.
ENDATA3	0.	0.	0.0	0.	0.	0.	0.	0.	0.

$$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

CARD TYPE	REACH	ELEMENTS/REACH	COMPUTATIONAL FLAGS
FLAG FIELD	1.	20.	1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD	2.	20.	6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD	3.	20.	2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD	4.	20.	2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD	5.	20.	2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD	6.	20.	2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.
FLAG FIELD	7.	20.	6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.
FLAG FIELD	8.	8.	6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.
ENDATA4	0.	0.	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.

$$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$

CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	2.	38.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	3.	22.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	4.	21.00	0.000	0.897	8.000	0.050	0.035
HYDRAULICS	5.	10.00	0.000	0.946	12.000	0.018	0.035
HYDRAULICS	6.	17.00	0.000	0.946	12.000	0.018	0.035
HYDRAULICS	7.	7.00	0.000	0.930	15.030	0.011	0.035
HYDRAULICS	8.	7.00	0.000	0.930	15.030	0.011	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

$$$ DATA TYPE 5A (STEADY STATE TEMPERATURE AND CLIMATOLOGY DATA) $$$

CARD TYPE	REACH	ELEVATION	DUST COEF	CLOUD COVER	DRY BULB TEMP	WET BULB TEMP	ATM PRESSURE	WIND	SOLAR RAD ATTENUATION
ENDATA5A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR	EXPQK2 OR SLOPE FOR OPT 8

REACT COEF	1.	0.05	0.00	0.051	3.	0.00	0.000	0.00000
REACT COEF	2.	0.08	0.00	0.051	3.	0.00	0.000	0.00000
REACT COEF	3.	0.08	0.00	0.051	3.	0.00	0.000	0.00000
REACT COEF	4.	0.08	0.00	0.071	3.	0.00	0.000	0.00000
REACT COEF	5.	0.05	0.00	0.071	3.	0.00	0.000	0.00000
REACT COEF	6.	0.05	0.00	0.071	3.	0.00	0.000	0.00000
REACT COEF	7.	0.05	0.00	0.051	3.	0.00	0.000	0.00000
REACT COEF	8.	0.05	0.00	0.051	3.	0.00	0.000	0.00000
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000	0.00000

$$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	0.57	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	0.90	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	0.60	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	0.72	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	0.77	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	0.71	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	0.50	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	0.50	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	2.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	3.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	4.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	5.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	6.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	7.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	8.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	2.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	3.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	4.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	5.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	6.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	7.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	8.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB
ENDATA9	0.	0.	0.	0.

$$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

CARD TYPE	HDWTR ORDER	NAME	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3
HEADWTR-1	1.	OUACHITA RIVER	980.00	88.70	5.95	3.75	0.00	0.00	0.00
ENDATA10	0.		0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

CARD TYPE	HDWTR ORDER	ANC	COLI	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
HEADWTR-2	1.	0.00	0.00E+00	8.40	0.48	0.05	0.10	0.40	0.07	0.04
ENDATA10A	0.	0.00	0.00E+00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

CARD TYPE	POINT LOAD ORDER	NAME	EFF	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3
POINTLD-1	1.	COFFEE CREEK	0.00	42.10	86.90	3.50	48.80	0.00	0.00	0.00
POINTLD-1	2.	PIERRE CREEK	0.00	1.00	88.70	5.50	5.00	0.00	0.00	0.00
POINTLD-1	3.	POSSUM BAYOU	0.00	0.10	88.70	5.50	2.80	0.00	0.00	0.00
POINTLD-1	4.	BAYOUDEBUTTE	0.00	1.00	88.70	5.50	5.00	0.00	0.00	0.00
POINTLD-1	5.	BOGGY BAYOU	0.00	0.10	88.70	5.50	2.80	0.00	0.00	0.00
POINTLD-1	6.	PAWPAW BAYOU	0.00	0.10	88.70	5.50	2.80	0.00	0.00	0.00
POINTLD-1	7.	BAYOU BARTHO	0.00	222.00	85.10	5.40	2.80	0.00	0.00	0.00
POINTLD-1	8.	STERLINGTONW	0.00	0.77	88.70	3.00	60.00	0.00	0.00	0.00
ENDATA11	0.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

CARD TYPE	POINT LOAD ORDER	ANC	COLI	CHL-A	ORG-N	NH3-N	NO2-N	N03-N	ORG-P	DIS-P
POINTLD-2	1.	0.00	0.00E+00	1.00	2.73	3.56	0.10	0.40	0.22	0.59
POINTLD-2	2.	0.00	0.00E+00	1.00	0.48	0.05	0.10	0.40	0.07	0.04
POINTLD-2	3.	0.00	0.00E+00	1.00	0.48	0.05	0.10	0.40	0.07	0.04
POINTLD-2	4.	0.00	0.00E+00	1.00	5.00	5.00	0.10	0.40	0.07	1.00
POINTLD-2	5.	0.00	0.00E+00	2.80	0.48	0.05	0.10	0.40	0.07	0.04
POINTLD-2	6.	0.00	0.00E+00	1.00	0.48	0.05	0.10	0.40	0.07	0.04
POINTLD-2	7.	0.00	0.00E+00	8.40	0.48	0.05	0.10	0.40	0.07	0.04
POINTLD-2	8.	0.00	0.00E+00	10.00	12.00	12.00	0.10	2.00	1.00	3.00
ENDATA11A	0.	0.00	0.00E+00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

$$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

	DAM	RCH	ELE	ADAM	BDAM	FDAM	HDAM
ENDATA12	0.	0.	0.	0.00	0.00	0.00	0.00

$$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$

CARD TYPE	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI

ENDATA13 DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

$$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

CARD TYPE	CHL-A	ORG-N	NH3-N	NO2-N	NH3-N	ORG-P	DIS-P

ENDATA13A DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.73	3.71	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.54	3.52	3.50	3.48	3.46	3.44	3.42	3.40	3.38	3.36	3.38
2	5.16	5.12	5.07	5.03	4.99	4.95	4.91	4.87	4.82	4.78	4.74	4.70	4.66	4.63	4.59	4.55	4.51	4.47	4.43	4.40
3	4.36	4.32	4.29	4.25	4.22	4.18	4.15	4.11	4.08	4.04	4.01	3.98	3.94	3.91	3.88	3.84	3.81	3.78	3.75	3.72
4	3.69	3.66	3.63	3.60	3.57	3.54	3.51	3.48	3.45	3.42	3.39	3.36	3.34	3.31	3.28	3.25	3.23	3.20	3.17	3.15
5	3.13	3.11	3.09	3.07	3.05	3.03	3.01	2.99	2.97	2.95	2.93	2.91	2.89	2.87	2.86	2.84	2.82	2.80	2.78	2.77
6	2.75	2.73	2.71	2.70	2.68	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43
7	2.41	2.39	2.36	2.34	2.31	2.29	2.27	2.25	2.22	2.20	2.18	2.16	2.25	2.23	2.21	2.20	2.18	2.16	2.14	2.12
8	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02												

STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:

VARIABLE	ITERATION	NUMBER OF NONCONVERGENT ELEMENTS

ALGAE AS CHL-A IN UG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.59	8.79	8.99	9.20	9.41	9.63	9.85	10.08	10.31	10.55	10.79	11.04	11.29	11.55	11.82	12.09	12.37	12.65	12.94	13.22
2	12.87	13.00	13.13	13.27	13.41	13.55	13.69	13.83	13.98	14.12	14.27	14.42	14.56	14.72	14.87	15.02	15.18	15.34	15.50	15.66
3	15.98	16.31	16.64	16.98	17.33	17.69	18.05	18.42	18.80	19.18	19.57	19.97	20.38	20.80	21.23	21.66	22.11	22.56	23.02	23.49
4	23.80	24.12	24.44	24.74	25.07	25.40	25.74	26.08	26.43	26.78	27.13	27.49	27.86	28.23	28.60	28.98	29.37	29.75	30.15	30.55
5	30.84	31.16	31.48	31.80	32.13	32.47	32.80	33.14	33.48	33.83	34.18	34.53	34.89	35.25	35.61	35.98	36.32	36.70	37.07	37.46
6	37.91	38.37	38.83	39.30	39.77	40.25	40.74	41.23	41.73	42.23	42.74	43.25	43.77	44.30	44.83	45.37	45.92	46.47	47.03	47.60
7	48.60	49.86	51.16	52.49	53.85	55.25	56.69	58.16	59.67	61.22	62.81	64.37	55.73	56.93	58.16	59.41	60.69	62.00	63.33	64.69
8	66.04	67.46	68.90	70.37	71.87	73.41	74.98	76.56												

ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
4	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
5	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09

6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
8	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08												

DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												

ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.42	0.42	0.42	0.41	0.41	0.40	0.40	0.39	0.39
2	0.48	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.43	0.42	0.42	0.41	0.41	0.41	0.40	0.40
3	0.39	0.39	0.39	0.38	0.38	0.37	0.37	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.33	0.33
4	0.33	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.28	0.28	0.28
5	0.28	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
6	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
7	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
8	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24												

AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.12
2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
3	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25
4	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23
5	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
6	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18
7	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13												

NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
5	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02

8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.41	0.42	0.42	0.43	0.44	0.44	0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47
2	0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.51	0.51
3	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
4	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
5	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
6	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.53	0.53	0.53	0.53	0.53
7	0.52	0.52	0.51	0.50	0.50	0.49	0.48	0.48	0.47	0.46	0.45	0.44	0.43	0.43	0.42	0.41	0.41	0.40	0.39	0.39
8	0.38	0.37	0.36	0.35	0.34	0.34	0.33	0.32												

DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.94	5.94	5.93	5.93	5.93	5.93	5.93	5.93	5.94	5.94	5.95	5.95	5.96	5.97	5.98	5.99	6.00	6.02	6.03	6.04
2	5.90	5.87	5.83	5.80	5.77	5.74	5.71	5.68	5.65	5.63	5.60	5.58	5.55	5.53	5.51	5.49	5.47	5.45	5.43	5.42
3	5.42	5.42	5.43	5.44	5.44	5.45	5.46	5.48	5.49	5.50	5.52	5.54	5.55	5.57	5.60	5.62	5.64	5.67	5.69	5.72
4	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.73	5.73	5.74	5.74	5.75	5.76	5.77	5.78	5.79	5.81	5.82	5.84	5.85
5	5.86	5.86	5.87	5.88	5.88	5.89	5.90	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.02	6.03	6.05	6.07	6.09
6	6.11	6.14	6.17	6.20	6.23	6.26	6.29	6.33	6.36	6.40	6.43	6.47	6.51	6.54	6.58	6.62	6.66	6.71	6.75	6.79
7	6.88	7.00	7.12	7.25	7.39	7.52	7.66	7.81	7.96	8.11	8.27	8.43	8.01	8.13	8.25	8.37	8.49	8.62	8.75	8.88
8	9.02	9.16	9.30	9.45	9.60	9.75	9.91	10.07												

ALGAE GROWTH RATE	1	147
ALGAE GROWTH RATE	2	145
ALGAE GROWTH RATE	3	134
ALGAE GROWTH RATE	4	120
ALGAE GROWTH RATE	5	82
ALGAE GROWTH RATE	6	56
ALGAE GROWTH RATE	7	30
ALGAE GROWTH RATE	8	1
ALGAE GROWTH RATE	9	0
ALGAE GROWTH RATE	10	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 0.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

DISSOLVED OXYGEN IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.94	5.94	5.93	5.93	5.93	5.93	5.93	5.94	5.94	5.95	5.95	5.96	5.97	5.98	5.99	6.00	6.01	6.02	6.03	6.04
2	5.91	5.88	5.85	5.83	5.80	5.78	5.75	5.73	5.71	5.69	5.67	5.65	5.63	5.62	5.60	5.59	5.57	5.56	5.55	5.54
3	5.55	5.56	5.57	5.59	5.60	5.62	5.63	5.65	5.67	5.69	5.71	5.73	5.75	5.78	5.80	5.82	5.85	5.87	5.90	5.92
4	5.92	5.92	5.92	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.92	5.92
5	5.91	5.90	5.89	5.88	5.87	5.86	5.85	5.84	5.83	5.82	5.81	5.80	5.78	5.77	5.76	5.74	5.73	5.71	5.70	5.68
6	5.67	5.66	5.65	5.64	5.63	5.62	5.62	5.61	5.60	5.59	5.59	5.58	5.58	5.57	5.56	5.56	5.56	5.55	5.55	5.54
7	5.55	5.56	5.56	5.57	5.58	5.59	5.59	5.60	5.61	5.61	5.62	5.63	5.60	5.62	5.64	5.66	5.67	5.69	5.71	5.73
8	5.75	5.77	5.79	5.81	5.83	5.85	5.87	5.89												

BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.73	3.71	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.54	3.52	3.50	3.48	3.46	3.44	3.42	3.40	3.38	3.36	3.38
2	5.16	5.12	5.07	5.03	4.99	4.95	4.91	4.87	4.82	4.78	4.74	4.70	4.66	4.63	4.59	4.55	4.51	4.47	4.43	4.40
3	4.36	4.32	4.29	4.25	4.22	4.18	4.15	4.11	4.08	4.04	4.01	3.98	3.94	3.91	3.88	3.84	3.81	3.78	3.75	3.72
4	3.69	3.66	3.63	3.60	3.57	3.54	3.51	3.48	3.45	3.42	3.39	3.36	3.34	3.31	3.28	3.25	3.23	3.20	3.17	3.15
5	3.13	3.11	3.09	3.07	3.05	3.03	3.01	2.99	2.97	2.95	2.93	2.91	2.89	2.87	2.86	2.84	2.82	2.80	2.78	2.77
6	2.75	2.73	2.71	2.70	2.68	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43
7	2.41	2.39	2.36	2.34	2.31	2.29	2.27	2.25	2.22	2.20	2.18	2.16	2.25	2.23	2.21	2.20	2.18	2.16	2.14	2.12
8	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02												

ORGANIC NITROGEN AS N IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.42	0.42	0.42	0.41	0.41	0.40	0.40	0.39	0.39
2	0.48	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.43	0.42	0.42	0.41	0.41	0.41	0.40	0.40
3	0.39	0.39	0.39	0.38	0.38	0.38	0.37	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.33	0.33
4	0.33	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.28	0.28
5	0.28	0.28	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
6	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
7	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22
8	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21												

AMMONIA AS N IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12
2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23
4	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
5	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
6	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16
7	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13												

NITRITE AS N IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

NITRATE AS N IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.41	0.42	0.42	0.43	0.44	0.44	0.44	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47
2	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51
3	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54
4	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
5	0.57	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.60
6	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62
7	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
8	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.59												

ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
4	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
5	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03

2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
8	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01												

ALGAE AS CHL-A IN UG/L ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.60	8.80	9.00	9.21	9.43	9.65	9.88	10.11	10.35	10.59	10.84	11.09	11.35	11.61	11.87	12.14	12.42	12.69	12.98	13.25
2	12.94	13.12	13.30	13.49	13.67	13.86	14.05	14.25	14.44	14.64	14.84	15.04	15.24	15.44	15.65	15.86	16.07	16.28	16.49	16.71
3	17.10	17.49	17.89	18.29	18.70	19.12	19.54	19.96	20.39	20.82	21.26	21.70	22.14	22.59	23.04	23.50	23.95	24.41	24.87	25.33
4	25.64	25.94	26.25	26.53	26.84	27.14	27.45	27.75	28.05	28.35	28.64	28.94	29.23	29.52	29.80	30.08	30.36	30.63	30.90	31.16
5	31.33	31.52	31.70	31.87	32.03	32.19	32.35	32.50	32.64	32.77	32.90	33.01	33.13	33.23	33.32	33.40	33.47	33.55	33.62	33.69
6	33.79	33.88	33.98	34.08	34.18	34.28	34.39	34.49	34.59	34.69	34.80	34.90	35.00	35.10	35.21	35.31	35.42	35.52	35.62	35.73
7	35.94	36.21	36.47	36.73	36.98	37.23	37.47	37.71	37.95	38.18	38.40	38.58	33.59	33.89	34.19	34.48	34.77	35.05	35.34	35.62
8	35.91	36.22	36.52	36.82	37.11	37.40	37.68	37.95												

ALGAE GROWTH RATES IN PER DAY ARE ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.51	0.51	0.51	0.51	0.51	0.51
2	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.38
3	0.53	0.53	0.53	0.52	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.50	0.49	0.49	0.49	0.48	0.48	0.47	0.47	0.47
4	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.33	0.33	0.33	0.32	0.32	0.32	0.31	0.31	0.31
5	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19
6	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
7	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23
8	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22												

PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 10

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.51	5.53	5.55	5.56	5.56	5.56	5.56	5.56	5.55	5.54	5.53	5.51	5.50	5.48	5.46	5.44	5.41	5.39	5.36	5.37
2	4.24	4.23	4.22	4.22	4.21	4.20	4.19	4.19	4.18	4.17	4.16	4.15	4.15	4.14	4.13	4.12	4.11	4.10	4.09	4.08
3	5.66	5.63	5.60	5.57	5.53	5.50	5.46	5.43	5.39	5.35	5.31	5.28	5.24	5.20	5.16	5.11	5.07	5.03	4.99	4.94
4	3.84	3.81	3.79	3.76	3.74	3.71	3.68	3.65	3.62	3.60	3.57	3.54	3.50	3.47	3.44	3.41	3.37	3.34	3.30	3.27
5	2.56	2.53	2.51	2.48	2.45	2.42	2.39	2.36	2.33	2.30	2.26	2.23	2.19	2.16	2.12	2.08	2.12	2.08	2.04	2.00
6	2.13	2.13	2.13	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.13	2.13
7	2.26	2.25	2.23	2.22	2.20	2.19	2.17	2.16	2.14	2.13	2.11	2.10	2.55	2.53	2.51	2.50	2.48	2.46	2.44	2.43
8	2.53	2.51	2.49	2.47	2.44	2.42	2.40	2.38												

Original Model Calibration - Output

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME K-FT-3	BOTTOM AREA K-FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
1	1	1	227.00	226.75	980.10	0.00	0.10	0.222	0.069	10.118	436.778	5833.34	603.26	4419.19	7.75
2	1	2	226.75	226.50	980.20	0.00	0.10	0.222	0.069	10.118	436.780	5833.40	603.26	4419.24	7.75
3	1	3	226.50	226.25	980.30	0.00	0.10	0.222	0.069	10.118	436.782	5833.46	603.26	4419.29	7.75
4	1	4	226.25	226.00	980.40	0.00	0.10	0.222	0.069	10.118	436.785	5833.52	603.27	4419.33	7.75
5	1	5	226.00	225.75	980.50	0.00	0.10	0.222	0.069	10.118	436.787	5833.58	603.27	4419.38	7.75
6	1	6	225.75	225.50	980.60	0.00	0.10	0.222	0.069	10.118	436.789	5833.64	603.27	4419.43	7.75
7	1	7	225.50	225.25	980.70	0.00	0.10	0.222	0.069	10.118	436.792	5833.70	603.28	4419.47	7.75
8	1	8	225.25	225.00	980.80	0.00	0.10	0.222	0.069	10.118	436.794	5833.76	603.28	4419.52	7.75
9	1	9	225.00	224.75	980.90	0.00	0.10	0.222	0.069	10.118	436.796	5833.82	603.28	4419.56	7.75
10	1	10	224.75	224.50	981.00	0.00	0.10	0.222	0.069	10.118	436.799	5833.89	603.29	4419.61	7.75
11	1	11	224.50	224.25	981.10	0.00	0.10	0.222	0.069	10.118	436.801	5833.95	603.29	4419.66	7.75
12	1	12	224.25	224.00	981.20	0.00	0.10	0.222	0.069	10.118	436.803	5834.01	603.29	4419.70	7.75
13	1	13	224.00	223.75	981.30	0.00	0.10	0.222	0.069	10.118	436.806	5834.07	603.30	4419.75	7.75
14	1	14	223.75	223.50	981.40	0.00	0.10	0.222	0.069	10.118	436.808	5834.13	603.30	4419.80	7.76
15	1	15	223.50	223.25	981.50	0.00	0.10	0.222	0.069	10.118	436.811	5834.19	603.30	4419.84	7.76
16	1	16	223.25	223.00	981.60	0.00	0.10	0.222	0.069	10.118	436.813	5834.25	603.31	4419.89	7.76
17	1	17	223.00	222.75	981.70	0.00	0.10	0.222	0.069	10.119	436.815	5834.31	603.31	4419.94	7.76
18	1	18	222.75	222.50	981.80	0.00	0.10	0.222	0.069	10.119	436.818	5834.38	603.31	4419.98	7.76
19	1	19	222.50	222.25	981.90	0.00	0.10	0.222	0.069	10.119	436.820	5834.44	603.32	4420.03	7.76
20	1	20	222.25	222.00	982.00	0.00	0.10	0.222	0.069	10.119	436.822	5834.50	603.32	4420.07	7.76
21	2	1	222.00	221.75	1024.20	42.10	0.10	0.231	0.066	10.140	437.798	5859.84	604.66	4439.27	8.07
22	2	2	221.75	221.50	1024.30	0.00	0.10	0.231	0.066	10.140	437.800	5859.90	604.67	4439.32	8.07
23	2	3	221.50	221.25	1024.40	0.00	0.10	0.231	0.066	10.140	437.802	5859.96	604.67	4439.36	8.07
24	2	4	221.25	221.00	1024.50	0.00	0.10	0.231	0.066	10.140	437.804	5860.02	604.67	4439.41	8.07
25	2	5	221.00	220.75	1024.60	0.00	0.10	0.231	0.066	10.140	437.807	5860.07	604.67	4439.45	8.08
26	2	6	220.75	220.50	1024.70	0.00	0.10	0.231	0.066	10.140	437.809	5860.13	604.68	4439.50	8.08
27	2	7	220.50	220.25	1024.80	0.00	0.10	0.231	0.066	10.140	437.811	5860.19	604.68	4439.54	8.08
28	2	8	220.25	220.00	1024.90	0.00	0.10	0.231	0.066	10.140	437.813	5860.25	604.68	4439.58	8.08
29	2	9	220.00	219.75	1025.00	0.00	0.10	0.231	0.066	10.140	437.816	5860.31	604.69	4439.63	8.08
30	2	10	219.75	219.50	1025.10	0.00	0.10	0.231	0.066	10.140	437.818	5860.37	604.69	4439.67	8.08
31	2	11	219.50	219.25	1025.20	0.00	0.10	0.231	0.066	10.141	437.820	5860.43	604.69	4439.72	8.08
32	2	12	219.25	219.00	1025.30	0.00	0.10	0.231	0.066	10.141	437.822	5860.49	604.70	4439.76	8.08
33	2	13	219.00	218.75	1025.40	0.00	0.10	0.231	0.066	10.141	437.825	5860.55	604.70	4439.81	8.08
34	2	14	218.75	218.50	1025.50	0.00	0.10	0.231	0.066	10.141	437.827	5860.60	604.70	4439.85	8.08
35	2	15	218.50	218.25	1025.60	0.00	0.10	0.231	0.066	10.141	437.829	5860.66	604.71	4439.90	8.08
36	2	16	218.25	218.00	1025.70	0.00	0.10	0.231	0.066	10.141	437.832	5860.72	604.71	4439.94	8.08
37	2	17	218.00	217.75	1025.80	0.00	0.10	0.231	0.066	10.141	437.834	5860.78	604.71	4439.99	8.08
38	2	18	217.75	217.50	1025.90	0.00	0.10	0.231	0.066	10.141	437.836	5860.84	604.72	4440.03	8.09
39	2	19	217.50	217.25	1026.00	0.00	0.10	0.231	0.066	10.141	437.838	5860.90	604.72	4440.07	8.09
40	2	20	217.25	217.00	1026.10	0.00	0.10	0.231	0.066	10.141	437.841	5860.96	604.72	4440.12	8.09

41	3	1	217.00	216.75	1026.20	0.00	0.10	0.231	0.066	10.141	437.843	5861.02	604.72	4440.16	4.68
42	3	2	216.75	216.50	1026.30	0.00	0.10	0.231	0.066	10.141	437.845	5861.08	604.73	4440.21	4.68

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME K-FT-3	BOTTOM AREA K-FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
43	3	3	216.50	216.25	1026.40	0.00	0.10	0.231	0.066	10.141	437.847	5861.13	604.73	4440.25	4.68
44	3	4	216.25	216.00	1026.50	0.00	0.10	0.231	0.066	10.141	437.850	5861.19	604.73	4440.30	4.68
45	3	5	216.00	215.75	1026.60	0.00	0.10	0.231	0.066	10.141	437.852	5861.25	604.74	4440.34	4.68
46	3	6	215.75	215.50	1026.70	0.00	0.10	0.231	0.066	10.141	437.854	5861.31	604.74	4440.39	4.68
47	3	7	215.50	215.25	1026.80	0.00	0.10	0.231	0.066	10.141	437.856	5861.37	604.74	4440.43	4.68
48	3	8	215.25	215.00	1026.90	0.00	0.10	0.231	0.066	10.141	437.859	5861.43	604.75	4440.48	4.69
49	3	9	215.00	214.75	1027.00	0.00	0.10	0.231	0.066	10.141	437.861	5861.49	604.75	4440.52	4.69
50	3	10	214.75	214.50	1027.10	0.00	0.10	0.231	0.066	10.141	437.863	5861.55	604.75	4440.56	4.69
51	3	11	214.50	214.25	1027.20	0.00	0.10	0.231	0.066	10.141	437.865	5861.60	604.76	4440.61	4.69
52	3	12	214.25	214.00	1027.30	0.00	0.10	0.231	0.066	10.142	437.868	5861.66	604.76	4440.65	4.69
53	3	13	214.00	213.75	1027.40	0.00	0.10	0.231	0.066	10.142	437.870	5861.72	604.76	4440.70	4.69
54	3	14	213.75	213.50	1027.50	0.00	0.10	0.231	0.066	10.142	437.872	5861.78	604.77	4440.74	4.69
55	3	15	213.50	213.25	1027.60	0.00	0.10	0.231	0.066	10.142	437.874	5861.84	604.77	4440.79	4.69
56	3	16	213.25	213.00	1027.70	0.00	0.10	0.231	0.066	10.142	437.877	5861.90	604.77	4440.83	4.69
57	3	17	213.00	212.75	1027.80	0.00	0.10	0.231	0.066	10.142	437.879	5861.96	604.77	4440.88	4.69
58	3	18	212.75	212.50	1027.90	0.00	0.10	0.231	0.066	10.142	437.881	5862.02	604.78	4440.92	4.69
59	3	19	212.50	212.25	1028.00	0.00	0.10	0.231	0.066	10.142	437.883	5862.07	604.78	4440.96	4.69
60	3	20	212.25	212.00	1028.10	0.00	0.10	0.232	0.066	10.142	437.886	5862.13	604.78	4441.01	4.69
61	4	1	212.00	211.75	1028.20	0.00	0.10	0.232	0.066	11.316	392.457	5862.19	547.92	4441.05	4.91
62	4	2	211.75	211.50	1028.30	0.00	0.10	0.232	0.066	11.316	392.459	5862.25	547.92	4441.10	4.91
63	4	3	211.50	211.25	1028.40	0.00	0.10	0.232	0.066	11.316	392.461	5862.31	547.92	4441.14	4.91
64	4	4	211.25	211.00	1029.50	1.00	0.10	0.232	0.066	11.317	392.483	5862.95	547.95	4441.63	4.91
65	4	5	211.00	210.75	1029.60	0.00	0.10	0.232	0.066	11.317	392.485	5863.01	547.96	4441.68	4.91
66	4	6	210.75	210.50	1029.70	0.00	0.10	0.232	0.066	11.317	392.487	5863.07	547.96	4441.72	4.91
67	4	7	210.50	210.25	1029.80	0.00	0.10	0.232	0.066	11.317	392.489	5863.13	547.96	4441.77	4.91
68	4	8	210.25	210.00	1029.90	0.00	0.10	0.232	0.066	11.317	392.491	5863.19	547.97	4441.81	4.91
69	4	9	210.00	209.75	1030.00	0.00	0.10	0.232	0.066	11.317	392.493	5863.25	547.97	4441.85	4.91
70	4	10	209.75	209.50	1030.10	0.00	0.10	0.232	0.066	11.317	392.495	5863.31	547.97	4441.90	4.91
71	4	11	209.50	209.25	1030.20	0.00	0.10	0.232	0.066	11.317	392.498	5863.36	547.97	4441.94	4.91
72	4	12	209.25	209.00	1030.30	0.00	0.10	0.232	0.066	11.317	392.500	5863.42	547.98	4441.99	4.91
73	4	13	209.00	208.75	1030.40	0.00	0.10	0.232	0.066	11.317	392.502	5863.48	547.98	4442.03	4.92
74	4	14	208.75	208.50	1030.50	0.00	0.10	0.232	0.066	11.317	392.504	5863.54	547.98	4442.08	4.92
75	4	15	208.50	208.25	1030.60	0.00	0.10	0.232	0.066	11.317	392.506	5863.60	547.99	4442.12	4.92
76	4	16	208.25	208.00	1030.70	0.00	0.10	0.232	0.066	11.317	392.508	5863.66	547.99	4442.16	4.92
77	4	17	208.00	207.75	1030.80	0.00	0.10	0.232	0.066	11.317	392.510	5863.72	547.99	4442.21	4.92

78	4	18	207.75	207.50	1031.00	0.10	0.10	0.232	0.066	11.318	392.514	5863.83	548.00	4442.30	4.92
79	4	19	207.50	207.25	1031.10	0.00	0.10	0.232	0.066	11.318	392.516	5863.89	548.00	4442.34	4.92
80	4	20	207.25	207.00	1031.20	0.00	0.10	0.232	0.066	11.318	392.518	5863.95	548.00	4442.39	4.92
81	5	1	207.00	206.75	1031.30	0.00	0.10	0.199	0.077	13.596	382.070	6857.07	540.23	5194.75	2.33
82	5	2	206.75	206.50	1031.40	0.00	0.10	0.199	0.077	13.596	382.071	6857.11	540.23	5194.78	2.33
83	5	3	206.50	206.25	1031.50	0.00	0.10	0.199	0.077	13.596	382.072	6857.14	540.23	5194.81	2.33
84	5	4	206.25	206.00	1031.60	0.00	0.10	0.199	0.077	13.596	382.074	6857.18	540.23	5194.83	2.33

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME K-FT-3	BOTTOM AREA K-FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
85	5	5	206.00	205.75	1031.70	0.00	0.10	0.199	0.077	13.596	382.075	6857.22	540.23	5194.86	2.33
86	5	6	205.75	205.50	1031.80	0.00	0.10	0.199	0.077	13.596	382.076	6857.25	540.24	5194.89	2.34
87	5	7	205.50	205.25	1031.90	0.00	0.10	0.199	0.077	13.596	382.078	6857.29	540.24	5194.91	2.34
88	5	8	205.25	205.00	1032.00	0.00	0.10	0.199	0.077	13.597	382.079	6857.32	540.24	5194.94	2.34
89	5	9	205.00	204.75	1032.10	0.00	0.10	0.199	0.077	13.597	382.080	6857.36	540.24	5194.97	2.34
90	5	10	204.75	204.50	1032.20	0.00	0.10	0.199	0.077	13.597	382.082	6857.40	540.24	5195.00	2.34
91	5	11	204.50	204.25	1032.30	0.00	0.10	0.199	0.077	13.597	382.083	6857.43	540.24	5195.02	2.34
92	5	12	204.25	204.00	1032.40	0.00	0.10	0.199	0.077	13.597	382.084	6857.47	540.25	5195.05	2.34
93	5	13	204.00	203.75	1032.50	0.00	0.10	0.199	0.077	13.597	382.086	6857.50	540.25	5195.08	2.34
94	5	14	203.75	203.50	1032.60	0.00	0.10	0.199	0.077	13.597	382.087	6857.54	540.25	5195.10	2.34
95	5	15	203.50	203.25	1032.70	0.00	0.10	0.199	0.077	13.597	382.088	6857.57	540.25	5195.13	2.34
96	5	16	203.25	203.00	1032.80	0.00	0.10	0.199	0.077	13.597	382.090	6857.61	540.25	5195.16	2.34
97	5	17	203.00	202.75	1033.90	1.00	0.10	0.199	0.077	13.597	382.104	6858.00	540.27	5195.46	2.34
98	5	18	202.75	202.50	1034.00	0.00	0.10	0.199	0.077	13.597	382.106	6858.04	540.28	5195.48	2.34
99	5	19	202.50	202.25	1034.10	0.00	0.10	0.199	0.077	13.597	382.107	6858.08	540.28	5195.51	2.34
100	5	20	202.25	202.00	1034.20	0.00	0.10	0.199	0.077	13.597	382.108	6858.11	540.28	5195.54	2.34
101	6	1	202.00	201.75	1034.30	0.00	0.10	0.199	0.077	13.597	382.110	6858.15	540.28	5195.57	3.98
102	6	2	201.75	201.50	1034.40	0.00	0.10	0.199	0.077	13.597	382.111	6858.18	540.28	5195.59	3.98
103	6	3	201.50	201.25	1034.50	0.00	0.10	0.199	0.077	13.597	382.112	6858.22	540.28	5195.62	3.98
104	6	4	201.25	201.00	1034.60	0.00	0.10	0.199	0.077	13.597	382.114	6858.25	540.29	5195.65	3.98
105	6	5	201.00	200.75	1034.70	0.00	0.10	0.199	0.077	13.597	382.115	6858.29	540.29	5195.67	3.98
106	6	6	200.75	200.50	1034.80	0.00	0.10	0.199	0.077	13.597	382.116	6858.33	540.29	5195.70	3.98
107	6	7	200.50	200.25	1034.90	0.00	0.10	0.199	0.077	13.597	382.118	6858.36	540.29	5195.73	3.98
108	6	8	200.25	200.00	1035.00	0.00	0.10	0.199	0.077	13.597	382.119	6858.40	540.29	5195.76	3.98
109	6	9	200.00	199.75	1035.10	0.00	0.10	0.199	0.077	13.597	382.120	6858.43	540.30	5195.78	3.98
110	6	10	199.75	199.50	1035.20	0.00	0.10	0.199	0.077	13.597	382.122	6858.47	540.30	5195.81	3.98
111	6	11	199.50	199.25	1035.30	0.00	0.10	0.199	0.077	13.597	382.123	6858.51	540.30	5195.84	3.98
112	6	12	199.25	199.00	1035.40	0.00	0.10	0.199	0.077	13.597	382.124	6858.54	540.30	5195.86	3.98

Original Model Calibration - Output

113	6	13	199.00	198.75	1035.60	0.10	0.10	0.199	0.077	13.597	382.127	6858.61	540.30	5195.92	3.98
114	6	14	198.75	198.50	1035.70	0.00	0.10	0.199	0.077	13.597	382.128	6858.65	540.31	5195.95	3.98
115	6	15	198.50	198.25	1035.80	0.00	0.10	0.199	0.077	13.597	382.130	6858.68	540.31	5195.97	3.98
116	6	16	198.25	198.00	1035.90	0.00	0.10	0.199	0.077	13.597	382.131	6858.72	540.31	5196.00	3.98
117	6	17	198.00	197.75	1036.00	0.00	0.10	0.199	0.077	13.597	382.132	6858.76	540.31	5196.03	3.99
118	6	18	197.75	197.50	1036.10	0.00	0.10	0.199	0.077	13.597	382.134	6858.79	540.31	5196.05	3.99
119	6	19	197.50	197.25	1036.20	0.00	0.10	0.199	0.077	13.598	382.135	6858.83	540.32	5196.08	3.99
120	6	20	197.25	197.00	1036.30	0.00	0.10	0.199	0.077	13.598	382.136	6858.86	540.32	5196.11	3.99
121	7	1	197.00	196.75	1036.50	0.10	0.10	0.127	0.120	16.223	501.106	10730.84	704.29	8129.42	1.22
122	7	2	196.75	196.50	1036.60	0.00	0.10	0.128	0.120	16.223	501.109	10730.91	704.29	8129.48	1.22
123	7	3	196.50	196.25	1036.70	0.00	0.10	0.128	0.120	16.223	501.112	10730.98	704.30	8129.53	1.22
124	7	4	196.25	196.00	1036.80	0.00	0.10	0.128	0.120	16.223	501.114	10731.06	704.30	8129.59	1.22
125	7	5	196.00	195.75	1036.90	0.00	0.10	0.128	0.120	16.223	501.117	10731.13	704.30	8129.64	1.22
126	7	6	195.75	195.50	1037.00	0.00	0.10	0.128	0.120	16.223	501.120	10731.20	704.31	8129.70	1.22

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME K-FT-3	BOTTOM AREA K-FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
127	7	7	195.50	195.25	1037.10	0.00	0.10	0.128	0.120	16.223	501.123	10731.27	704.31	8129.75	1.22
128	7	8	195.25	195.00	1037.20	0.00	0.10	0.128	0.120	16.223	501.126	10731.35	704.32	8129.81	1.22
129	7	9	195.00	194.75	1037.30	0.00	0.10	0.128	0.120	16.223	501.129	10731.42	704.32	8129.86	1.22
130	7	10	194.75	194.50	1037.40	0.00	0.10	0.128	0.120	16.223	501.132	10731.49	704.32	8129.92	1.22
131	7	11	194.50	194.25	1037.50	0.00	0.10	0.128	0.120	16.223	501.134	10731.56	704.33	8129.97	1.22
132	7	12	194.25	194.00	1037.60	0.00	0.10	0.128	0.120	16.223	501.137	10731.64	704.33	8130.03	1.22
133	7	13	194.00	193.75	1259.70	222.00	0.10	0.153	0.100	16.258	506.905	10878.34	712.04	8241.17	1.46
134	7	14	193.75	193.50	1259.80	0.00	0.10	0.153	0.100	16.258	506.908	10878.40	712.04	8241.21	1.46
135	7	15	193.50	193.25	1259.90	0.00	0.10	0.153	0.100	16.258	506.910	10878.46	712.04	8241.26	1.46
136	7	16	193.25	193.00	1260.00	0.00	0.10	0.153	0.100	16.258	506.912	10878.52	712.04	8241.30	1.46
137	7	17	193.00	192.75	1260.10	0.00	0.10	0.153	0.100	16.258	506.915	10878.58	712.05	8241.35	1.46
138	7	18	192.75	192.50	1260.20	0.00	0.10	0.153	0.100	16.258	506.917	10878.64	712.05	8241.39	1.46
139	7	19	192.50	192.25	1260.30	0.00	0.10	0.153	0.100	16.258	506.919	10878.70	712.05	8241.44	1.46
140	7	20	192.25	192.00	1260.40	0.00	0.10	0.153	0.100	16.258	506.922	10878.76	712.06	8241.49	1.46
141	8	1	192.00	191.75	1261.42	0.77	0.25	0.153	0.100	16.258	506.946	10879.38	712.09	8241.95	1.46
142	8	2	191.75	191.50	1261.67	0.00	0.25	0.153	0.100	16.258	506.952	10879.53	712.10	8242.07	1.46
143	8	3	191.50	191.25	1261.92	0.00	0.25	0.153	0.100	16.258	506.958	10879.68	712.11	8242.18	1.46
144	8	4	191.25	191.00	1262.17	0.00	0.25	0.153	0.100	16.258	506.964	10879.83	712.11	8242.29	1.46
145	8	5	191.00	190.75	1262.42	0.00	0.25	0.153	0.100	16.258	506.970	10879.98	712.12	8242.41	1.46
146	8	6	190.75	190.50	1262.67	0.00	0.25	0.153	0.100	16.258	506.976	10880.13	712.13	8242.52	1.46
147	8	7	190.50	190.25	1262.92	0.00	0.25	0.153	0.100	16.258	506.982	10880.28	712.14	8242.64	1.46

148	8	8	190.25	190.00	1263.17	0.00	0.25	0.153	0.100	16.258	506.987	10880.43		712.15		8242.75		1.46

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
1	1	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	2	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2	15	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
3	3	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	8	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.37	3	0.23	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	6	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4	10	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.37	3	0.18	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	3	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
5	5	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

Original Model Calibration - Output

6	5	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.37	3	0.12	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	7	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	8	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	9	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	11	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

8	1	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	88.70	0.00	0.00	0.00	5.94	3.73	0.48	0.05	0.09	0.41	1.03	0.07	0.04	0.11	0.00E+00	0.00	8.60
1	2	88.70	0.00	0.00	0.00	5.94	3.71	0.47	0.06	0.08	0.42	1.03	0.07	0.04	0.11	0.00E+00	0.00	8.80
1	3	88.70	0.00	0.00	0.00	5.93	3.68	0.47	0.06	0.07	0.42	1.03	0.07	0.04	0.11	0.00E+00	0.00	9.00
1	4	88.70	0.00	0.00	0.00	5.93	3.66	0.46	0.07	0.07	0.43	1.03	0.07	0.04	0.11	0.00E+00	0.00	9.21
1	5	88.70	0.00	0.00	0.00	5.93	3.64	0.46	0.07	0.06	0.44	1.03	0.07	0.04	0.11	0.00E+00	0.00	9.43
1	6	88.70	0.00	0.00	0.00	5.93	3.62	0.45	0.07	0.06	0.44	1.02	0.07	0.04	0.11	0.00E+00	0.00	9.65
1	7	88.70	0.00	0.00	0.00	5.93	3.60	0.45	0.08	0.05	0.44	1.02	0.07	0.04	0.11	0.00E+00	0.00	9.88
1	8	88.70	0.00	0.00	0.00	5.94	3.58	0.44	0.08	0.05	0.45	1.02	0.07	0.04	0.11	0.00E+00	0.00	10.11
1	9	88.70	0.00	0.00	0.00	5.94	3.56	0.44	0.08	0.04	0.45	1.02	0.07	0.04	0.11	0.00E+00	0.00	10.35
1	10	88.70	0.00	0.00	0.00	5.95	3.54	0.43	0.09	0.04	0.46	1.02	0.07	0.04	0.11	0.00E+00	0.00	10.59
1	11	88.70	0.00	0.00	0.00	5.95	3.52	0.43	0.09	0.04	0.46	1.02	0.07	0.04	0.11	0.00E+00	0.00	10.84
1	12	88.70	0.00	0.00	0.00	5.96	3.50	0.42	0.09	0.04	0.46	1.01	0.07	0.04	0.11	0.00E+00	0.00	11.09
1	13	88.70	0.00	0.00	0.00	5.97	3.48	0.42	0.10	0.03	0.46	1.01	0.07	0.04	0.11	0.00E+00	0.00	11.35
1	14	88.70	0.00	0.00	0.00	5.98	3.46	0.42	0.10	0.03	0.46	1.01	0.07	0.03	0.11	0.00E+00	0.00	11.61
1	15	88.70	0.00	0.00	0.00	5.99	3.44	0.41	0.10	0.03	0.46	1.01	0.07	0.03	0.11	0.00E+00	0.00	11.87
1	16	88.70	0.00	0.00	0.00	6.00	3.42	0.41	0.10	0.03	0.47	1.01	0.07	0.03	0.11	0.00E+00	0.00	12.14
1	17	88.70	0.00	0.00	0.00	6.01	3.40	0.40	0.11	0.03	0.47	1.00	0.07	0.03	0.10	0.00E+00	0.00	12.42
1	18	88.70	0.00	0.00	0.00	6.02	3.38	0.40	0.11	0.03	0.47	1.00	0.07	0.03	0.10	0.00E+00	0.00	12.69
1	19	88.70	0.00	0.00	0.00	6.03	3.36	0.39	0.11	0.02	0.47	1.00	0.07	0.03	0.10	0.00E+00	0.00	12.98
1	20	88.70	0.00	0.00	0.00	6.04	3.38	0.39	0.12	0.02	0.47	1.00	0.07	0.03	0.10	0.00E+00	0.00	13.25
2	1	88.70	0.00	0.00	0.00	5.91	5.16	0.48	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00E+00	0.00	12.94
2	2	88.70	0.00	0.00	0.00	5.88	5.12	0.48	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00E+00	0.00	13.12
2	3	88.70	0.00	0.00	0.00	5.85	5.07	0.47	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00E+00	0.00	13.30
2	4	88.70	0.00	0.00	0.00	5.83	5.03	0.47	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00E+00	0.00	13.49
2	5	88.70	0.00	0.00	0.00	5.80	4.99	0.46	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00E+00	0.00	13.67
2	6	88.70	0.00	0.00	0.00	5.78	4.95	0.46	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00E+00	0.00	13.86

2	7	88.70	0.00	0.00	0.00	5.75	4.91	0.45	0.26	0.03	0.48	1.22	0.08	0.05	0.13.00E+00	0.00	14.05
2	8	88.70	0.00	0.00	0.00	5.73	4.87	0.45	0.26	0.03	0.48	1.22	0.08	0.05	0.13.00E+00	0.00	14.25
2	9	88.70	0.00	0.00	0.00	5.71	4.82	0.44	0.26	0.03	0.49	1.22	0.08	0.05	0.13.00E+00	0.00	14.44
2	10	88.70	0.00	0.00	0.00	5.69	4.78	0.44	0.26	0.03	0.49	1.22	0.08	0.05	0.13.00E+00	0.00	14.64
2	11	88.70	0.00	0.00	0.00	5.67	4.74	0.43	0.26	0.03	0.49	1.22	0.08	0.05	0.13.00E+00	0.00	14.84
2	12	88.70	0.00	0.00	0.00	5.65	4.70	0.43	0.26	0.03	0.49	1.22	0.08	0.05	0.13.00E+00	0.00	15.04
2	13	88.70	0.00	0.00	0.00	5.63	4.66	0.43	0.26	0.04	0.50	1.21	0.08	0.05	0.13.00E+00	0.00	15.24
2	14	88.70	0.00	0.00	0.00	5.62	4.63	0.42	0.26	0.04	0.50	1.21	0.08	0.05	0.13.00E+00	0.00	15.44
2	15	88.70	0.00	0.00	0.00	5.60	4.59	0.42	0.26	0.04	0.50	1.21	0.08	0.05	0.13.00E+00	0.00	15.65
2	16	88.70	0.00	0.00	0.00	5.59	4.55	0.41	0.26	0.04	0.50	1.21	0.08	0.05	0.13.00E+00	0.00	15.86
2	17	88.70	0.00	0.00	0.00	5.57	4.51	0.41	0.25	0.04	0.51	1.21	0.08	0.05	0.13.00E+00	0.00	16.07
2	18	88.70	0.00	0.00	0.00	5.56	4.47	0.41	0.25	0.04	0.51	1.21	0.08	0.05	0.13.00E+00	0.00	16.28
2	19	88.70	0.00	0.00	0.00	5.55	4.43	0.40	0.25	0.04	0.51	1.20	0.08	0.05	0.13.00E+00	0.00	16.49
2	20	88.70	0.00	0.00	0.00	5.54	4.40	0.40	0.25	0.04	0.51	1.20	0.08	0.05	0.13.00E+00	0.00	16.71
3	1	88.70	0.00	0.00	0.00	5.55	4.36	0.39	0.25	0.04	0.52	1.20	0.08	0.05	0.13.00E+00	0.00	17.10
3	2	88.70	0.00	0.00	0.00	5.56	4.32	0.39	0.25	0.04	0.52	1.20	0.08	0.05	0.13.00E+00	0.00	17.49

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
3	3	88.70	0.00	0.00	0.00	5.57	4.29	0.39	0.25	0.04	0.52	1.19	0.08	0.05	0.12.00E+00	0.00	17.89
3	4	88.70	0.00	0.00	0.00	5.59	4.25	0.38	0.25	0.04	0.52	1.19	0.08	0.05	0.12.00E+00	0.00	18.29
3	5	88.70	0.00	0.00	0.00	5.60	4.22	0.38	0.25	0.04	0.52	1.19	0.08	0.04	0.12.00E+00	0.00	18.70
3	6	88.70	0.00	0.00	0.00	5.62	4.18	0.38	0.25	0.04	0.52	1.18	0.08	0.04	0.12.00E+00	0.00	19.12
3	7	88.70	0.00	0.00	0.00	5.63	4.15	0.37	0.25	0.04	0.53	1.18	0.08	0.04	0.12.00E+00	0.00	19.54
3	8	88.70	0.00	0.00	0.00	5.65	4.11	0.37	0.25	0.04	0.53	1.18	0.08	0.04	0.12.00E+00	0.00	19.96
3	9	88.70	0.00	0.00	0.00	5.67	4.08	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12.00E+00	0.00	20.39
3	10	88.70	0.00	0.00	0.00	5.69	4.04	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12.00E+00	0.00	20.82
3	11	88.70	0.00	0.00	0.00	5.71	4.01	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12.00E+00	0.00	21.26
3	12	88.70	0.00	0.00	0.00	5.73	3.98	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12.00E+00	0.00	21.70
3	13	88.70	0.00	0.00	0.00	5.75	3.94	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12.00E+00	0.00	22.14
3	14	88.70	0.00	0.00	0.00	5.78	3.91	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12.00E+00	0.00	22.59
3	15	88.70	0.00	0.00	0.00	5.80	3.88	0.35	0.24	0.04	0.54	1.15	0.08	0.04	0.12.00E+00	0.00	23.04
3	16	88.70	0.00	0.00	0.00	5.82	3.84	0.34	0.23	0.04	0.54	1.15	0.08	0.04	0.12.00E+00	0.00	23.50
3	17	88.70	0.00	0.00	0.00	5.85	3.81	0.34	0.23	0.04	0.54	1.15	0.08	0.04	0.12.00E+00	0.00	23.95
3	18	88.70	0.00	0.00	0.00	5.87	3.78	0.34	0.23	0.04	0.54	1.14	0.08	0.04	0.12.00E+00	0.00	24.41
3	19	88.70	0.00	0.00	0.00	5.90	3.75	0.33	0.23	0.04	0.54	1.14	0.08	0.03	0.12.00E+00	0.00	24.87
3	20	88.70	0.00	0.00	0.00	5.92	3.72	0.33	0.23	0.04	0.54	1.14	0.08	0.03	0.11.00E+00	0.00	25.33
4	1	88.70	0.00	0.00	0.00	5.92	3.69	0.33	0.23	0.04	0.54	1.13	0.08	0.03	0.11.00E+00	0.00	25.64

4	2	88.70	0.00	0.00	0.00	5.92	3.66	0.32	0.23	0.03	0.54	1.13	0.08	0.03	0.11.00E+00	0.00	25.94
4	3	88.70	0.00	0.00	0.00	5.92	3.63	0.32	0.23	0.03	0.54	1.13	0.08	0.03	0.11.00E+00	0.00	26.25
4	4	88.70	0.00	0.00	0.00	5.91	3.60	0.32	0.22	0.03	0.55	1.12	0.08	0.03	0.11.00E+00	0.00	26.53
4	5	88.70	0.00	0.00	0.00	5.91	3.57	0.32	0.22	0.03	0.55	1.12	0.08	0.03	0.11.00E+00	0.00	26.84
4	6	88.70	0.00	0.00	0.00	5.91	3.54	0.31	0.22	0.03	0.55	1.12	0.08	0.03	0.11.00E+00	0.00	27.14
4	7	88.70	0.00	0.00	0.00	5.91	3.51	0.31	0.22	0.03	0.55	1.12	0.08	0.03	0.11.00E+00	0.00	27.45
4	8	88.70	0.00	0.00	0.00	5.91	3.48	0.31	0.22	0.03	0.55	1.11	0.08	0.03	0.11.00E+00	0.00	27.75
4	9	88.70	0.00	0.00	0.00	5.91	3.45	0.31	0.22	0.03	0.55	1.11	0.08	0.03	0.11.00E+00	0.00	28.05
4	10	88.70	0.00	0.00	0.00	5.91	3.42	0.30	0.22	0.03	0.55	1.11	0.08	0.03	0.11.00E+00	0.00	28.35
4	11	88.70	0.00	0.00	0.00	5.91	3.39	0.30	0.22	0.03	0.55	1.11	0.08	0.03	0.11.00E+00	0.00	28.64
4	12	88.70	0.00	0.00	0.00	5.91	3.36	0.30	0.21	0.03	0.56	1.10	0.08	0.03	0.11.00E+00	0.00	28.94
4	13	88.70	0.00	0.00	0.00	5.91	3.34	0.30	0.21	0.03	0.56	1.10	0.08	0.03	0.11.00E+00	0.00	29.23
4	14	88.70	0.00	0.00	0.00	5.91	3.31	0.29	0.21	0.03	0.56	1.10	0.08	0.02	0.11.00E+00	0.00	29.52
4	15	88.70	0.00	0.00	0.00	5.91	3.28	0.29	0.21	0.03	0.56	1.10	0.08	0.02	0.11.00E+00	0.00	29.80
4	16	88.70	0.00	0.00	0.00	5.91	3.25	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11.00E+00	0.00	30.08
4	17	88.70	0.00	0.00	0.00	5.91	3.23	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11.00E+00	0.00	30.36
4	18	88.70	0.00	0.00	0.00	5.91	3.20	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11.00E+00	0.00	30.63
4	19	88.70	0.00	0.00	0.00	5.92	3.17	0.28	0.21	0.03	0.56	1.08	0.08	0.02	0.11.00E+00	0.00	30.90
4	20	88.70	0.00	0.00	0.00	5.92	3.15	0.28	0.21	0.03	0.56	1.08	0.08	0.02	0.11.00E+00	0.00	31.16
5	1	88.70	0.00	0.00	0.00	5.91	3.13	0.28	0.20	0.03	0.57	1.08	0.08	0.02	0.11.00E+00	0.00	31.33
5	2	88.70	0.00	0.00	0.00	5.90	3.11	0.28	0.20	0.03	0.57	1.08	0.08	0.02	0.10.00E+00	0.00	31.52
5	3	88.70	0.00	0.00	0.00	5.89	3.09	0.27	0.20	0.03	0.57	1.08	0.09	0.02	0.10.00E+00	0.00	31.70
5	4	88.70	0.00	0.00	0.00	5.88	3.07	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10.00E+00	0.00	31.87

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
5	5	88.70	0.00	0.00	0.00	5.87	3.05	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10.00E+00	0.00	32.03
5	6	88.70	0.00	0.00	0.00	5.86	3.03	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10.00E+00	0.00	32.19
5	7	88.70	0.00	0.00	0.00	5.85	3.01	0.26	0.20	0.03	0.58	1.07	0.09	0.02	0.10.00E+00	0.00	32.35
5	8	88.70	0.00	0.00	0.00	5.84	2.99	0.26	0.20	0.03	0.58	1.07	0.09	0.02	0.10.00E+00	0.00	32.50
5	9	88.70	0.00	0.00	0.00	5.83	2.97	0.26	0.19	0.03	0.58	1.06	0.09	0.02	0.10.00E+00	0.00	32.64
5	10	88.70	0.00	0.00	0.00	5.82	2.95	0.26	0.19	0.03	0.58	1.06	0.09	0.02	0.10.00E+00	0.00	32.77
5	11	88.70	0.00	0.00	0.00	5.81	2.93	0.26	0.19	0.03	0.58	1.06	0.09	0.01	0.10.00E+00	0.00	32.90
5	12	88.70	0.00	0.00	0.00	5.80	2.91	0.25	0.19	0.03	0.58	1.06	0.09	0.01	0.10.00E+00	0.00	33.01
5	13	88.70	0.00	0.00	0.00	5.78	2.89	0.25	0.19	0.03	0.58	1.06	0.09	0.01	0.10.00E+00	0.00	33.13
5	14	88.70	0.00	0.00	0.00	5.77	2.87	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10.00E+00	0.00	33.23
5	15	88.70	0.00	0.00	0.00	5.76	2.86	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10.00E+00	0.00	33.32
5	16	88.70	0.00	0.00	0.00	5.74	2.84	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10.00E+00	0.00	33.40
5	17	88.70	0.00	0.00	0.00	5.73	2.82	0.25	0.19	0.03	0.59	1.06	0.09	0.01	0.10.00E+00	0.00	33.47
5	18	88.70	0.00	0.00	0.00	5.71	2.80	0.25	0.19	0.03	0.59	1.06	0.09	0.01	0.10.00E+00	0.00	33.55

5	19	88.70	0.00	0.00	0.00	5.70	2.78	0.24	0.19	0.03	0.59	1.06	0.09	0.01	0.10.00E+00	0.00	33.62
5	20	88.70	0.00	0.00	0.00	5.68	2.77	0.24	0.19	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	33.69
6	1	88.70	0.00	0.00	0.00	5.67	2.75	0.24	0.19	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	33.79
6	2	88.70	0.00	0.00	0.00	5.66	2.73	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	33.88
6	3	88.70	0.00	0.00	0.00	5.65	2.71	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	33.98
6	4	88.70	0.00	0.00	0.00	5.64	2.70	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	34.08
6	5	88.70	0.00	0.00	0.00	5.63	2.68	0.23	0.18	0.03	0.60	1.05	0.09	0.01	0.10.00E+00	0.00	34.18
6	6	88.70	0.00	0.00	0.00	5.62	2.66	0.23	0.18	0.03	0.60	1.04	0.09	0.01	0.10.00E+00	0.00	34.28
6	7	88.70	0.00	0.00	0.00	5.62	2.64	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10.00E+00	0.00	34.39
6	8	88.70	0.00	0.00	0.00	5.61	2.63	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10.00E+00	0.00	34.49
6	9	88.70	0.00	0.00	0.00	5.60	2.61	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10.00E+00	0.00	34.59
6	10	88.70	0.00	0.00	0.00	5.59	2.59	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10.00E+00	0.00	34.69
6	11	88.70	0.00	0.00	0.00	5.59	2.58	0.22	0.17	0.03	0.61	1.04	0.08	0.01	0.10.00E+00	0.00	34.80
6	12	88.70	0.00	0.00	0.00	5.58	2.56	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10.00E+00	0.00	34.90
6	13	88.70	0.00	0.00	0.00	5.58	2.54	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10.00E+00	0.00	35.00
6	14	88.70	0.00	0.00	0.00	5.57	2.53	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10.00E+00	0.00	35.10
6	15	88.70	0.00	0.00	0.00	5.56	2.51	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10.00E+00	0.00	35.21
6	16	88.70	0.00	0.00	0.00	5.56	2.49	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10.00E+00	0.00	35.31
6	17	88.70	0.00	0.00	0.00	5.56	2.48	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09.00E+00	0.00	35.42
6	18	88.70	0.00	0.00	0.00	5.55	2.46	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09.00E+00	0.00	35.52
6	19	88.70	0.00	0.00	0.00	5.55	2.45	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09.00E+00	0.00	35.62
6	20	88.70	0.00	0.00	0.00	5.54	2.43	0.21	0.16	0.03	0.62	1.02	0.08	0.01	0.09.00E+00	0.00	35.73
7	1	88.70	0.00	0.00	0.00	5.55	2.41	0.21	0.16	0.03	0.62	1.02	0.08	0.01	0.09.00E+00	0.00	35.94
7	2	88.70	0.00	0.00	0.00	5.56	2.39	0.21	0.16	0.03	0.62	1.01	0.08	0.01	0.09.00E+00	0.00	36.21
7	3	88.70	0.00	0.00	0.00	5.56	2.36	0.20	0.16	0.02	0.62	1.01	0.08	0.01	0.09.00E+00	0.00	36.47
7	4	88.70	0.00	0.00	0.00	5.57	2.34	0.20	0.16	0.02	0.62	1.01	0.08	0.01	0.09.00E+00	0.00	36.73
7	5	88.70	0.00	0.00	0.00	5.58	2.31	0.20	0.16	0.02	0.62	1.00	0.08	0.01	0.09.00E+00	0.00	36.98
7	6	88.70	0.00	0.00	0.00	5.59	2.29	0.20	0.15	0.02	0.62	1.00	0.08	0.01	0.09.00E+00	0.00	37.23

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	7	88.70	0.00	0.00	0.00	5.59	2.27	0.20	0.15	0.02	0.62	1.00	0.08	0.01	0.09.00E+00	0.00	37.47
7	8	88.70	0.00	0.00	0.00	5.60	2.25	0.20	0.15	0.02	0.62	1.00	0.08	0.01	0.09.00E+00	0.00	37.71
7	9	88.70	0.00	0.00	0.00	5.61	2.22	0.19	0.15	0.02	0.63	0.99	0.08	0.01	0.09.00E+00	0.00	37.95
7	10	88.70	0.00	0.00	0.00	5.61	2.20	0.19	0.15	0.02	0.63	0.99	0.08	0.01	0.09.00E+00	0.00	38.18
7	11	88.70	0.00	0.00	0.00	5.62	2.18	0.19	0.15	0.02	0.63	0.99	0.08	0.01	0.09.00E+00	0.00	38.40
7	12	88.70	0.00	0.00	0.00	5.63	2.16	0.19	0.15	0.02	0.63	0.98	0.08	0.01	0.09.00E+00	0.00	38.58
7	13	88.70	0.00	0.00	0.00	5.60	2.25	0.24	0.13	0.03	0.59	0.99	0.08	0.02	0.09.00E+00	0.00	33.59

Original Model Calibration - Output

7	14	88.70	0.00	0.00	0.00	5.62	2.23	0.24	0.13	0.03	0.59	0.99	0.08	0.02	0.09.00E+00	0.00	33.89
7	15	88.70	0.00	0.00	0.00	5.64	2.21	0.23	0.13	0.03	0.59	0.98	0.07	0.02	0.09.00E+00	0.00	34.19
7	16	88.70	0.00	0.00	0.00	5.66	2.20	0.23	0.13	0.03	0.59	0.98	0.07	0.01	0.09.00E+00	0.00	34.48
7	17	88.70	0.00	0.00	0.00	5.67	2.18	0.23	0.13	0.03	0.59	0.98	0.07	0.01	0.09.00E+00	0.00	34.77
7	18	88.70	0.00	0.00	0.00	5.69	2.16	0.23	0.13	0.03	0.59	0.97	0.07	0.01	0.09.00E+00	0.00	35.05
7	19	88.70	0.00	0.00	0.00	5.71	2.14	0.23	0.13	0.02	0.59	0.97	0.07	0.01	0.09.00E+00	0.00	35.34
7	20	88.70	0.00	0.00	0.00	5.73	2.12	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09.00E+00	0.00	35.62
8	1	88.70	0.00	0.00	0.00	5.75	2.14	0.23	0.13	0.02	0.60	0.98	0.07	0.02	0.09.00E+00	0.00	35.91
8	2	88.70	0.00	0.00	0.00	5.77	2.12	0.23	0.13	0.02	0.59	0.98	0.07	0.02	0.09.00E+00	0.00	36.22
8	3	88.70	0.00	0.00	0.00	5.79	2.10	0.22	0.13	0.02	0.59	0.97	0.07	0.02	0.09.00E+00	0.00	36.52
8	4	88.70	0.00	0.00	0.00	5.81	2.09	0.22	0.13	0.02	0.59	0.97	0.07	0.02	0.09.00E+00	0.00	36.82
8	5	88.70	0.00	0.00	0.00	5.83	2.07	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09.00E+00	0.00	37.11
8	6	88.70	0.00	0.00	0.00	5.85	2.05	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09.00E+00	0.00	37.40
8	7	88.70	0.00	0.00	0.00	5.87	2.04	0.22	0.13	0.02	0.59	0.96	0.07	0.01	0.09.00E+00	0.00	37.68
8	8	88.70	0.00	0.00	0.00	5.89	2.02	0.21	0.13	0.02	0.59	0.96	0.07	0.01	0.09.00E+00	0.00	37.95

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.60	0.52	0.08	1.05	5.51	0.44	0.50	0.12	0.66	0.22	0.70	0.80
2	1	2	8.80	0.52	0.08	1.05	5.53	0.45	0.50	0.12	0.66	0.22	0.70	0.80
3	1	3	9.00	0.52	0.08	1.05	5.55	0.46	0.50	0.13	0.67	0.22	0.71	0.80
4	1	4	9.21	0.52	0.08	1.05	5.56	0.48	0.50	0.13	0.67	0.22	0.71	0.79
5	1	5	9.43	0.52	0.08	1.05	5.56	0.49	0.50	0.14	0.67	0.22	0.72	0.79
6	1	6	9.65	0.52	0.08	1.05	5.56	0.50	0.50	0.14	0.67	0.22	0.72	0.79
7	1	7	9.88	0.52	0.08	1.05	5.56	0.51	0.50	0.15	0.67	0.22	0.72	0.79
8	1	8	10.11	0.52	0.08	1.05	5.56	0.52	0.50	0.15	0.67	0.22	0.73	0.79
9	1	9	10.35	0.52	0.08	1.05	5.55	0.53	0.50	0.16	0.68	0.22	0.73	0.79
10	1	10	10.59	0.52	0.08	1.05	5.54	0.54	0.50	0.16	0.68	0.21	0.73	0.79
11	1	11	10.84	0.52	0.08	1.05	5.53	0.56	0.50	0.17	0.68	0.21	0.73	0.78
12	1	12	11.09	0.52	0.08	1.05	5.51	0.57	0.50	0.17	0.68	0.21	0.73	0.78
13	1	13	11.35	0.52	0.08	1.05	5.50	0.58	0.50	0.17	0.68	0.21	0.74	0.78
14	1	14	11.61	0.52	0.08	1.05	5.48	0.59	0.50	0.18	0.69	0.21	0.74	0.78
15	1	15	11.87	0.51	0.08	1.05	5.46	0.60	0.50	0.18	0.69	0.21	0.74	0.78
16	1	16	12.14	0.51	0.08	1.05	5.44	0.61	0.50	0.18	0.69	0.21	0.74	0.77
17	1	17	12.42	0.51	0.08	1.05	5.41	0.62	0.50	0.19	0.69	0.21	0.74	0.77
18	1	18	12.69	0.51	0.08	1.05	5.39	0.63	0.50	0.19	0.69	0.21	0.74	0.77
19	1	19	12.98	0.51	0.08	1.05	5.36	0.64	0.50	0.19	0.70	0.21	0.74	0.77

20	1	20	13.25	0.51	0.08	1.05	5.37	0.65	0.50	0.20	0.70	0.21	0.75	0.77
21	2	1	12.94	0.40	0.08	1.05	4.24	0.47	0.50	0.35	1.03	0.14	0.78	0.85
22	2	2	13.12	0.40	0.08	1.05	4.23	0.48	0.50	0.35	1.03	0.14	0.78	0.84
23	2	3	13.30	0.40	0.08	1.05	4.22	0.48	0.50	0.35	1.03	0.14	0.78	0.84
24	2	4	13.49	0.40	0.08	1.05	4.22	0.49	0.50	0.35	1.03	0.14	0.79	0.84
25	2	5	13.67	0.40	0.08	1.05	4.21	0.50	0.50	0.35	1.03	0.14	0.79	0.84
26	2	6	13.86	0.40	0.08	1.05	4.20	0.50	0.50	0.35	1.03	0.14	0.79	0.84
27	2	7	14.05	0.40	0.08	1.05	4.19	0.51	0.50	0.35	1.03	0.14	0.79	0.84
28	2	8	14.25	0.39	0.08	1.05	4.19	0.51	0.50	0.35	1.04	0.14	0.79	0.84
29	2	9	14.44	0.39	0.08	1.05	4.18	0.52	0.50	0.35	1.04	0.14	0.79	0.84
30	2	10	14.64	0.39	0.08	1.05	4.17	0.52	0.50	0.34	1.04	0.14	0.79	0.84
31	2	11	14.84	0.39	0.08	1.05	4.16	0.53	0.50	0.34	1.04	0.14	0.79	0.84
32	2	12	15.04	0.39	0.08	1.05	4.15	0.54	0.50	0.34	1.04	0.14	0.79	0.84
33	2	13	15.24	0.39	0.08	1.05	4.15	0.54	0.50	0.34	1.04	0.14	0.79	0.83
34	2	14	15.44	0.39	0.08	1.05	4.14	0.55	0.50	0.34	1.04	0.14	0.79	0.83
35	2	15	15.65	0.39	0.08	1.05	4.13	0.55	0.50	0.34	1.05	0.14	0.79	0.83
36	2	16	15.86	0.39	0.08	1.05	4.12	0.56	0.50	0.34	1.05	0.14	0.79	0.83
37	2	17	16.07	0.39	0.08	1.05	4.11	0.56	0.50	0.33	1.05	0.14	0.79	0.83
38	2	18	16.28	0.39	0.08	1.05	4.10	0.57	0.50	0.33	1.05	0.14	0.79	0.83
39	2	19	16.49	0.39	0.08	1.05	4.09	0.58	0.50	0.33	1.05	0.14	0.79	0.83
40	2	20	16.71	0.38	0.08	1.05	4.08	0.58	0.50	0.33	1.05	0.14	0.79	0.83
41	3	1	17.10	0.53	0.08	1.05	5.66	0.90	0.50	0.33	0.76	0.19	0.79	0.82
42	3	2	17.49	0.53	0.08	1.05	5.63	0.92	0.50	0.33	0.76	0.19	0.79	0.82

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
43	3	3	17.89	0.53	0.08	1.05	5.60	0.93	0.50	0.33	0.76	0.19	0.79	0.82
44	3	4	18.29	0.52	0.08	1.05	5.57	0.94	0.50	0.32	0.76	0.19	0.79	0.82
45	3	5	18.70	0.52	0.08	1.05	5.53	0.96	0.50	0.32	0.77	0.19	0.79	0.82
46	3	6	19.12	0.52	0.08	1.05	5.50	0.97	0.50	0.32	0.77	0.19	0.79	0.81
47	3	7	19.54	0.51	0.08	1.05	5.46	0.99	0.50	0.32	0.77	0.19	0.79	0.81
48	3	8	19.96	0.51	0.08	1.05	5.43	1.00	0.50	0.32	0.78	0.19	0.79	0.81
49	3	9	20.39	0.51	0.08	1.05	5.39	1.01	0.50	0.32	0.78	0.19	0.79	0.81
50	3	10	20.82	0.50	0.08	1.05	5.35	1.03	0.50	0.31	0.78	0.19	0.79	0.80
51	3	11	21.26	0.50	0.08	1.05	5.31	1.04	0.50	0.31	0.78	0.19	0.79	0.80
52	3	12	21.70	0.50	0.08	1.05	5.28	1.05	0.50	0.31	0.79	0.18	0.79	0.80
53	3	13	22.14	0.49	0.08	1.05	5.24	1.06	0.50	0.31	0.79	0.18	0.79	0.80

54	3	14	22.59	0.49	0.08	1.05	5.20	1.07	0.50	0.31	0.79	0.18	0.79	0.79
55	3	15	23.04	0.49	0.08	1.05	5.16	1.08	0.50	0.31	0.80	0.18	0.79	0.79
56	3	16	23.50	0.48	0.08	1.05	5.11	1.09	0.50	0.30	0.80	0.18	0.79	0.79
57	3	17	23.95	0.48	0.08	1.05	5.07	1.10	0.50	0.30	0.80	0.18	0.79	0.78
58	3	18	24.41	0.47	0.08	1.05	5.03	1.11	0.50	0.30	0.80	0.18	0.79	0.78
59	3	19	24.87	0.47	0.08	1.05	4.99	1.12	0.50	0.30	0.81	0.18	0.79	0.77
60	3	20	25.33	0.47	0.08	1.05	4.94	1.13	0.50	0.30	0.81	0.18	0.79	0.77
61	4	1	25.64	0.36	0.08	1.05	3.84	0.82	0.50	0.30	0.93	0.14	0.79	0.77
62	4	2	25.94	0.36	0.08	1.05	3.81	0.83	0.50	0.29	0.93	0.14	0.79	0.76
63	4	3	26.25	0.36	0.08	1.05	3.79	0.83	0.50	0.29	0.94	0.14	0.79	0.76
64	4	4	26.53	0.35	0.08	1.05	3.76	0.83	0.50	0.29	0.94	0.14	0.79	0.76
65	4	5	26.84	0.35	0.08	1.05	3.74	0.83	0.50	0.29	0.94	0.14	0.79	0.75
66	4	6	27.14	0.35	0.08	1.05	3.71	0.83	0.50	0.29	0.94	0.14	0.79	0.75
67	4	7	27.45	0.35	0.08	1.05	3.68	0.83	0.50	0.29	0.94	0.14	0.79	0.75
68	4	8	27.75	0.34	0.08	1.05	3.65	0.83	0.50	0.28	0.95	0.14	0.79	0.74
69	4	9	28.05	0.34	0.08	1.05	3.62	0.83	0.50	0.28	0.95	0.14	0.79	0.74
70	4	10	28.35	0.34	0.08	1.05	3.60	0.83	0.50	0.28	0.95	0.14	0.79	0.73
71	4	11	28.64	0.34	0.08	1.05	3.57	0.83	0.50	0.28	0.95	0.14	0.79	0.73
72	4	12	28.94	0.33	0.08	1.05	3.54	0.83	0.50	0.28	0.95	0.14	0.79	0.72
73	4	13	29.23	0.33	0.08	1.05	3.50	0.83	0.50	0.28	0.96	0.14	0.79	0.72
74	4	14	29.52	0.33	0.08	1.05	3.47	0.83	0.50	0.28	0.96	0.14	0.79	0.71
75	4	15	29.80	0.32	0.08	1.05	3.44	0.82	0.50	0.27	0.96	0.14	0.79	0.71
76	4	16	30.08	0.32	0.08	1.05	3.41	0.82	0.50	0.27	0.96	0.14	0.79	0.70
77	4	17	30.36	0.32	0.08	1.05	3.37	0.81	0.50	0.27	0.96	0.14	0.79	0.70
78	4	18	30.63	0.31	0.08	1.05	3.34	0.81	0.50	0.27	0.96	0.14	0.79	0.69
79	4	19	30.90	0.31	0.08	1.05	3.30	0.80	0.50	0.27	0.97	0.14	0.79	0.68
80	4	20	31.16	0.31	0.08	1.05	3.27	0.80	0.50	0.27	0.97	0.13	0.79	0.68
81	5	1	31.33	0.24	0.08	1.05	2.56	0.55	0.50	0.27	1.02	0.11	0.79	0.67
82	5	2	31.52	0.24	0.08	1.05	2.53	0.55	0.50	0.26	1.02	0.11	0.79	0.67
83	5	3	31.70	0.24	0.08	1.05	2.51	0.54	0.50	0.26	1.02	0.11	0.79	0.66
84	5	4	31.87	0.23	0.08	1.05	2.48	0.53	0.50	0.26	1.02	0.11	0.79	0.65

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
85	5	5	32.03	0.23	0.08	1.05	2.45	0.53	0.50	0.26	1.02	0.11	0.79	0.65
86	5	6	32.19	0.23	0.08	1.05	2.42	0.52	0.50	0.26	1.02	0.11	0.79	0.64
87	5	7	32.35	0.23	0.08	1.05	2.39	0.51	0.50	0.26	1.03	0.11	0.79	0.63

Original Model Calibration - Output

88	5	8	32.50	0.22	0.08	1.05	2.36	0.50	0.50	0.25	1.03	0.11	0.79	0.62
89	5	9	32.64	0.22	0.08	1.05	2.33	0.49	0.50	0.25	1.03	0.11	0.79	0.62
90	5	10	32.77	0.22	0.08	1.05	2.30	0.48	0.50	0.25	1.03	0.11	0.79	0.61
91	5	11	32.90	0.21	0.08	1.05	2.26	0.47	0.50	0.25	1.03	0.11	0.79	0.60
92	5	12	33.01	0.21	0.08	1.05	2.23	0.46	0.50	0.25	1.03	0.11	0.79	0.59
93	5	13	33.13	0.21	0.08	1.05	2.19	0.45	0.50	0.25	1.03	0.11	0.79	0.58
94	5	14	33.23	0.20	0.08	1.05	2.16	0.43	0.50	0.24	1.03	0.11	0.79	0.57
95	5	15	33.32	0.20	0.08	1.05	2.12	0.42	0.50	0.24	1.03	0.11	0.80	0.56
96	5	16	33.40	0.20	0.08	1.05	2.08	0.41	0.50	0.24	1.03	0.11	0.80	0.55
97	5	17	33.47	0.20	0.08	1.05	2.12	0.42	0.50	0.24	1.03	0.11	0.80	0.56
98	5	18	33.55	0.20	0.08	1.05	2.08	0.41	0.50	0.24	1.03	0.11	0.80	0.55
99	5	19	33.62	0.19	0.08	1.05	2.04	0.40	0.50	0.24	1.03	0.11	0.80	0.54
100	5	20	33.69	0.19	0.08	1.05	2.00	0.38	0.50	0.24	1.03	0.11	0.80	0.53
101	6	1	33.79	0.20	0.08	1.05	2.13	0.43	0.50	0.24	0.97	0.11	0.80	0.53
102	6	2	33.88	0.20	0.08	1.05	2.13	0.43	0.50	0.24	0.97	0.11	0.80	0.53
103	6	3	33.98	0.20	0.08	1.05	2.13	0.44	0.50	0.23	0.98	0.11	0.80	0.53
104	6	4	34.08	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
105	6	5	34.18	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
106	6	6	34.28	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
107	6	7	34.39	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
108	6	8	34.49	0.20	0.08	1.05	2.14	0.45	0.50	0.23	0.98	0.11	0.80	0.54
109	6	9	34.59	0.20	0.08	1.05	2.14	0.45	0.50	0.23	0.98	0.11	0.80	0.54
110	6	10	34.69	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
111	6	11	34.80	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
112	6	12	34.90	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
113	6	13	35.00	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
114	6	14	35.10	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
115	6	15	35.21	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
116	6	16	35.31	0.20	0.08	1.05	2.14	0.46	0.50	0.22	0.98	0.11	0.80	0.54
117	6	17	35.42	0.20	0.08	1.05	2.14	0.46	0.50	0.21	0.98	0.11	0.80	0.54
118	6	18	35.52	0.20	0.08	1.05	2.14	0.46	0.50	0.21	0.98	0.11	0.80	0.54
119	6	19	35.62	0.20	0.08	1.05	2.13	0.46	0.50	0.21	0.99	0.11	0.80	0.54
120	6	20	35.73	0.20	0.08	1.05	2.13	0.46	0.50	0.21	0.99	0.11	0.80	0.54
121	7	1	35.94	0.21	0.08	1.05	2.26	0.51	0.50	0.21	0.78	0.12	0.80	0.54
122	7	2	36.21	0.21	0.08	1.05	2.25	0.51	0.50	0.21	0.78	0.12	0.80	0.54
123	7	3	36.47	0.21	0.08	1.05	2.23	0.51	0.50	0.20	0.78	0.12	0.80	0.53
124	7	4	36.73	0.21	0.08	1.05	2.22	0.51	0.50	0.20	0.78	0.12	0.80	0.53
125	7	5	36.98	0.21	0.08	1.05	2.20	0.50	0.50	0.20	0.78	0.12	0.80	0.53
126	7	6	37.23	0.21	0.08	1.05	2.19	0.50	0.50	0.20	0.78	0.12	0.80	0.53

Original Model Calibration - Output

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
127	7	7	37.47	0.20	0.08	1.05	2.17	0.50	0.50	0.20	0.79	0.12	0.80	0.52
128	7	8	37.71	0.20	0.08	1.05	2.16	0.49	0.50	0.20	0.79	0.12	0.80	0.52
129	7	9	37.95	0.20	0.08	1.05	2.14	0.49	0.50	0.19	0.79	0.12	0.79	0.52
130	7	10	38.18	0.20	0.08	1.05	2.13	0.49	0.50	0.19	0.79	0.12	0.79	0.52
131	7	11	38.40	0.20	0.08	1.05	2.11	0.48	0.50	0.19	0.79	0.12	0.79	0.51
132	7	12	38.58	0.20	0.08	1.05	2.10	0.48	0.50	0.19	0.79	0.11	0.79	0.51
133	7	13	33.59	0.24	0.08	1.05	2.55	0.59	0.50	0.18	0.76	0.12	0.78	0.61
134	7	14	33.89	0.24	0.08	1.05	2.53	0.59	0.50	0.18	0.76	0.12	0.78	0.60
135	7	15	34.19	0.24	0.08	1.05	2.51	0.59	0.50	0.18	0.77	0.12	0.78	0.60
136	7	16	34.48	0.24	0.08	1.05	2.50	0.58	0.50	0.18	0.77	0.12	0.78	0.60
137	7	17	34.77	0.23	0.08	1.05	2.48	0.58	0.50	0.18	0.77	0.12	0.78	0.60
138	7	18	35.05	0.23	0.08	1.05	2.46	0.58	0.50	0.18	0.77	0.12	0.78	0.59
139	7	19	35.34	0.23	0.08	1.05	2.44	0.58	0.50	0.18	0.77	0.12	0.78	0.59
140	7	20	35.62	0.23	0.08	1.05	2.43	0.57	0.50	0.18	0.77	0.12	0.78	0.59
141	8	1	35.91	0.24	0.08	1.05	2.53	0.62	0.50	0.18	0.78	0.12	0.78	0.61
142	8	2	36.22	0.24	0.08	1.05	2.51	0.62	0.50	0.18	0.78	0.12	0.78	0.61
143	8	3	36.52	0.23	0.08	1.05	2.49	0.61	0.50	0.18	0.78	0.12	0.78	0.61
144	8	4	36.82	0.23	0.08	1.05	2.47	0.61	0.50	0.18	0.78	0.12	0.78	0.60
145	8	5	37.11	0.23	0.08	1.05	2.44	0.61	0.50	0.18	0.78	0.12	0.78	0.60
146	8	6	37.40	0.23	0.08	1.05	2.42	0.60	0.50	0.18	0.79	0.12	0.78	0.59
147	8	7	37.68	0.23	0.08	1.05	2.40	0.60	0.50	0.18	0.79	0.12	0.78	0.59
148	8	8	37.95	0.22	0.08	1.05	2.38	0.59	0.50	0.18	0.79	0.12	0.78	0.59

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	88.70	7.37	5.94	1.42	0.00	1.00	86.37	0.35	-0.32	-0.35	0.44	-0.05	-0.17
2	1	2	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.31	-0.35	0.45	-0.05	-0.16
3	1	3	88.70	7.37	5.93	1.43	0.00	1.00	0.01	0.36	-0.31	-0.35	0.46	-0.05	-0.14
4	1	4	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.35	0.48	-0.06	-0.13
5	1	5	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.35	0.49	-0.06	-0.12
6	1	6	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.35	0.50	-0.06	-0.11
7	1	7	88.70	7.37	5.93	1.43	0.00	1.00	0.01	0.36	-0.31	-0.35	0.51	-0.07	-0.10

Original Model Calibration - Output

8	1	8	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.30	-0.35	0.52	-0.07	-0.09
9	1	9	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.30	-0.35	0.53	-0.07	-0.08
10	1	10	88.70	7.37	5.95	1.42	0.00	1.00	0.01	0.35	-0.30	-0.35	0.54	-0.08	-0.08
11	1	11	88.70	7.37	5.95	1.41	0.00	1.00	0.01	0.35	-0.30	-0.35	0.56	-0.08	-0.07
12	1	12	88.70	7.37	5.96	1.41	0.00	1.00	0.01	0.35	-0.30	-0.35	0.57	-0.08	-0.07
13	1	13	88.70	7.37	5.97	1.40	0.00	1.00	0.01	0.35	-0.29	-0.35	0.58	-0.08	-0.06
14	1	14	88.70	7.37	5.98	1.39	0.00	1.00	0.01	0.35	-0.29	-0.35	0.59	-0.09	-0.06
15	1	15	88.70	7.37	5.99	1.38	0.00	1.00	0.01	0.34	-0.29	-0.35	0.60	-0.09	-0.06
16	1	16	88.70	7.37	6.00	1.37	0.00	1.00	0.01	0.34	-0.29	-0.35	0.61	-0.09	-0.05
17	1	17	88.70	7.37	6.01	1.36	0.00	1.00	0.01	0.34	-0.29	-0.35	0.62	-0.09	-0.05
18	1	18	88.70	7.37	6.02	1.35	0.00	1.00	0.01	0.34	-0.29	-0.35	0.63	-0.09	-0.05
19	1	19	88.70	7.37	6.03	1.33	0.00	1.00	0.01	0.33	-0.28	-0.35	0.64	-0.10	-0.05
20	1	20	88.70	7.37	6.04	1.32	0.00	1.00	0.01	0.33	-0.29	-0.35	0.65	-0.10	-0.05
21	2	1	88.70	7.37	5.91	1.46	0.00	1.00	2.18	0.37	-0.66	-0.35	0.47	-0.22	-0.05
22	2	2	88.70	7.37	5.88	1.49	0.00	1.00	0.01	0.38	-0.65	-0.35	0.48	-0.22	-0.06
23	2	3	88.70	7.37	5.85	1.51	0.00	1.00	0.01	0.38	-0.65	-0.35	0.48	-0.22	-0.06
24	2	4	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.39	-0.64	-0.35	0.49	-0.22	-0.06
25	2	5	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.40	-0.63	-0.35	0.50	-0.22	-0.06
26	2	6	88.70	7.37	5.78	1.59	0.00	1.00	0.01	0.40	-0.63	-0.35	0.50	-0.22	-0.06
27	2	7	88.70	7.37	5.75	1.61	0.00	1.00	0.01	0.41	-0.62	-0.35	0.51	-0.22	-0.06
28	2	8	88.70	7.37	5.73	1.64	0.00	1.00	0.01	0.41	-0.62	-0.35	0.51	-0.22	-0.06
29	2	9	88.70	7.37	5.71	1.66	0.00	1.00	0.01	0.42	-0.61	-0.35	0.52	-0.22	-0.07
30	2	10	88.70	7.37	5.69	1.68	0.00	1.00	0.01	0.43	-0.61	-0.35	0.52	-0.22	-0.07
31	2	11	88.70	7.37	5.67	1.70	0.00	1.00	0.01	0.43	-0.60	-0.35	0.53	-0.22	-0.07
32	2	12	88.70	7.37	5.65	1.72	0.00	1.00	0.01	0.43	-0.60	-0.35	0.54	-0.22	-0.07
33	2	13	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.44	-0.59	-0.35	0.54	-0.22	-0.07
34	2	14	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.44	-0.59	-0.35	0.55	-0.22	-0.07
35	2	15	88.70	7.37	5.60	1.76	0.00	1.00	0.01	0.45	-0.58	-0.35	0.55	-0.22	-0.07
36	2	16	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.45	-0.58	-0.35	0.56	-0.22	-0.07
37	2	17	88.70	7.37	5.57	1.79	0.00	1.00	0.01	0.45	-0.57	-0.35	0.56	-0.22	-0.07
38	2	18	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.46	-0.57	-0.35	0.57	-0.22	-0.07
39	2	19	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.46	-0.56	-0.35	0.58	-0.22	-0.07
40	2	20	88.70	7.37	5.54	1.83	0.00	1.00	0.01	0.46	-0.56	-0.35	0.58	-0.22	-0.07
41	3	1	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.46	-0.55	-0.35	0.90	-0.22	-0.07
42	3	2	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.46	-0.55	-0.35	0.92	-0.22	-0.07

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N

43	3	3	88.70	7.37	5.57	1.79	0.00	1.00	0.01	0.45	-0.55	-0.35	0.93	-0.22	-0.07
44	3	4	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.45	-0.54	-0.35	0.94	-0.21	-0.07
45	3	5	88.70	7.37	5.60	1.77	0.00	1.00	0.01	0.45	-0.54	-0.35	0.96	-0.21	-0.07
46	3	6	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.44	-0.53	-0.35	0.97	-0.21	-0.07
47	3	7	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.44	-0.53	-0.35	0.99	-0.21	-0.07
48	3	8	88.70	7.37	5.65	1.72	0.00	1.00	0.01	0.43	-0.52	-0.35	1.00	-0.21	-0.07
49	3	9	88.70	7.37	5.67	1.70	0.00	1.00	0.01	0.43	-0.52	-0.35	1.01	-0.21	-0.07
50	3	10	88.70	7.37	5.69	1.68	0.00	1.00	0.01	0.43	-0.51	-0.35	1.03	-0.21	-0.07
51	3	11	88.70	7.37	5.71	1.66	0.00	1.00	0.01	0.42	-0.51	-0.35	1.04	-0.21	-0.07
52	3	12	88.70	7.37	5.73	1.64	0.00	1.00	0.01	0.41	-0.51	-0.35	1.05	-0.21	-0.07
53	3	13	88.70	7.37	5.75	1.61	0.00	1.00	0.01	0.41	-0.50	-0.35	1.06	-0.21	-0.07
54	3	14	88.70	7.37	5.78	1.59	0.00	1.00	0.01	0.40	-0.50	-0.35	1.07	-0.20	-0.07
55	3	15	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.40	-0.49	-0.35	1.08	-0.20	-0.07
56	3	16	88.70	7.37	5.82	1.54	0.00	1.00	0.01	0.39	-0.49	-0.35	1.09	-0.20	-0.07
57	3	17	88.70	7.37	5.85	1.52	0.00	1.00	0.01	0.39	-0.49	-0.35	1.10	-0.20	-0.07
58	3	18	88.70	7.37	5.87	1.49	0.00	1.00	0.01	0.38	-0.48	-0.35	1.11	-0.20	-0.07
59	3	19	88.70	7.37	5.90	1.47	0.00	1.00	0.01	0.37	-0.48	-0.35	1.12	-0.20	-0.07
60	3	20	88.70	7.37	5.92	1.44	0.00	1.00	0.01	0.37	-0.47	-0.35	1.13	-0.20	-0.07
61	4	1	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.34	-0.47	-0.43	0.82	-0.20	-0.07
62	4	2	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.47	-0.43	0.83	-0.19	-0.07
63	4	3	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.46	-0.43	0.83	-0.19	-0.07
64	4	4	88.70	7.37	5.91	1.45	0.00	1.00	0.09	0.31	-0.46	-0.43	0.83	-0.19	-0.07
65	4	5	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.43	0.83	-0.19	-0.07
66	4	6	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.43	0.83	-0.19	-0.07
67	4	7	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.43	0.83	-0.19	-0.07
68	4	8	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.43	0.83	-0.19	-0.07
69	4	9	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.43	0.83	-0.19	-0.07
70	4	10	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.43	0.83	-0.19	-0.07
71	4	11	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.43	-0.43	0.83	-0.19	-0.06
72	4	12	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.43	-0.43	0.83	-0.18	-0.06
73	4	13	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.43	0.83	-0.18	-0.06
74	4	14	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.43	0.83	-0.18	-0.06
75	4	15	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.43	0.82	-0.18	-0.06
76	4	16	88.70	7.37	5.91	1.45	0.00	1.00	0.01	0.31	-0.41	-0.43	0.82	-0.18	-0.06
77	4	17	88.70	7.37	5.91	1.45	0.00	1.00	0.01	0.31	-0.41	-0.43	0.81	-0.18	-0.06
78	4	18	88.70	7.37	5.91	1.45	0.00	1.00	0.02	0.31	-0.41	-0.43	0.81	-0.18	-0.06
79	4	19	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.40	-0.43	0.80	-0.18	-0.06
80	4	20	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.40	-0.43	0.80	-0.18	-0.06
81	5	1	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.27	-0.27	-0.36	0.55	-0.18	-0.06
82	5	2	88.70	7.37	5.90	1.47	0.00	1.00	0.01	0.22	-0.26	-0.36	0.55	-0.17	-0.06
83	5	3	88.70	7.37	5.89	1.48	0.00	1.00	0.01	0.22	-0.26	-0.36	0.54	-0.17	-0.06
84	5	4	88.70	7.37	5.88	1.48	0.00	1.00	0.01	0.22	-0.26	-0.36	0.53	-0.17	-0.06

Original Model Calibration - Output

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
85	5	5	88.70	7.37	5.87	1.49	0.00	1.00	0.01	0.23	-0.26	-0.36	0.53	-0.17	-0.06
86	5	6	88.70	7.37	5.86	1.50	0.00	1.00	0.01	0.23	-0.26	-0.36	0.52	-0.17	-0.06
87	5	7	88.70	7.37	5.85	1.51	0.00	1.00	0.01	0.23	-0.26	-0.36	0.51	-0.17	-0.06
88	5	8	88.70	7.37	5.84	1.52	0.00	1.00	0.01	0.23	-0.25	-0.36	0.50	-0.17	-0.06
89	5	9	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.23	-0.25	-0.36	0.49	-0.17	-0.06
90	5	10	88.70	7.37	5.82	1.55	0.00	1.00	0.01	0.23	-0.25	-0.36	0.48	-0.17	-0.06
91	5	11	88.70	7.37	5.81	1.56	0.00	1.00	0.01	0.24	-0.25	-0.36	0.47	-0.17	-0.06
92	5	12	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.24	-0.25	-0.36	0.46	-0.16	-0.06
93	5	13	88.70	7.37	5.78	1.58	0.00	1.00	0.01	0.24	-0.25	-0.36	0.45	-0.16	-0.06
94	5	14	88.70	7.37	5.77	1.60	0.00	1.00	0.01	0.24	-0.24	-0.36	0.43	-0.16	-0.06
95	5	15	88.70	7.37	5.76	1.61	0.00	1.00	0.01	0.24	-0.24	-0.36	0.42	-0.16	-0.06
96	5	16	88.70	7.37	5.74	1.62	0.00	1.00	0.01	0.25	-0.24	-0.36	0.41	-0.16	-0.06
97	5	17	88.70	7.37	5.73	1.64	0.00	1.00	0.08	0.25	-0.24	-0.36	0.42	-0.16	-0.06
98	5	18	88.70	7.37	5.71	1.65	0.00	1.00	0.01	0.25	-0.24	-0.36	0.41	-0.16	-0.06
99	5	19	88.70	7.37	5.70	1.67	0.00	1.00	0.01	0.25	-0.24	-0.36	0.40	-0.16	-0.06
100	5	20	88.70	7.37	5.68	1.68	0.00	1.00	0.01	0.25	-0.23	-0.36	0.38	-0.16	-0.06
101	6	1	88.70	7.37	5.67	1.69	0.00	1.00	0.01	0.26	-0.23	-0.36	0.43	-0.16	-0.06
102	6	2	88.70	7.37	5.66	1.70	0.00	1.00	0.01	0.26	-0.23	-0.36	0.43	-0.16	-0.05
103	6	3	88.70	7.37	5.65	1.71	0.00	1.00	0.01	0.26	-0.23	-0.36	0.44	-0.16	-0.05
104	6	4	88.70	7.37	5.64	1.72	0.00	1.00	0.01	0.26	-0.23	-0.36	0.44	-0.16	-0.05
105	6	5	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.26	-0.23	-0.36	0.44	-0.16	-0.05
106	6	6	88.70	7.37	5.62	1.74	0.00	1.00	0.01	0.26	-0.23	-0.36	0.44	-0.15	-0.05
107	6	7	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.27	-0.22	-0.36	0.44	-0.15	-0.05
108	6	8	88.70	7.37	5.61	1.76	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
109	6	9	88.70	7.37	5.60	1.77	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
110	6	10	88.70	7.37	5.59	1.77	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
111	6	11	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
112	6	12	88.70	7.37	5.58	1.79	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
113	6	13	88.70	7.37	5.58	1.79	0.00	1.00	0.01	0.27	-0.22	-0.36	0.45	-0.15	-0.05
114	6	14	88.70	7.37	5.57	1.80	0.00	1.00	0.01	0.27	-0.21	-0.36	0.45	-0.15	-0.05
115	6	15	88.70	7.37	5.56	1.80	0.00	1.00	0.01	0.27	-0.21	-0.36	0.45	-0.15	-0.05
116	6	16	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.27	-0.21	-0.36	0.46	-0.15	-0.05
117	6	17	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.27	-0.21	-0.36	0.46	-0.14	-0.05
118	6	18	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.28	-0.21	-0.36	0.46	-0.14	-0.05
119	6	19	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.28	-0.21	-0.36	0.46	-0.14	-0.05
120	6	20	88.70	7.37	5.54	1.82	0.00	1.00	0.01	0.28	-0.21	-0.36	0.46	-0.14	-0.05
121	7	1	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.22	-0.20	-0.22	0.51	-0.14	-0.05

122	7	2	88.70	7.37	5.56	1.81	0.00	1.00	0.00	0.17	-0.20	-0.22	0.51	-0.14	-0.05
123	7	3	88.70	7.37	5.56	1.80	0.00	1.00	0.00	0.17	-0.20	-0.22	0.51	-0.14	-0.05
124	7	4	88.70	7.37	5.57	1.80	0.00	1.00	0.00	0.17	-0.20	-0.22	0.51	-0.14	-0.05
125	7	5	88.70	7.37	5.58	1.79	0.00	1.00	0.00	0.17	-0.20	-0.22	0.50	-0.13	-0.05
126	7	6	88.70	7.37	5.59	1.78	0.00	1.00	0.00	0.17	-0.19	-0.22	0.50	-0.13	-0.05

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
127	7	7	88.70	7.37	5.59	1.77	0.00	1.00	0.00	0.17	-0.19	-0.22	0.50	-0.13	-0.05
128	7	8	88.70	7.37	5.60	1.77	0.00	1.00	0.00	0.16	-0.19	-0.22	0.49	-0.13	-0.05
129	7	9	88.70	7.37	5.61	1.76	0.00	1.00	0.00	0.16	-0.19	-0.22	0.49	-0.13	-0.05
130	7	10	88.70	7.37	5.61	1.75	0.00	1.00	0.00	0.16	-0.19	-0.22	0.49	-0.13	-0.04
131	7	11	88.70	7.37	5.62	1.75	0.00	1.00	0.00	0.16	-0.18	-0.22	0.48	-0.13	-0.04
132	7	12	88.70	7.37	5.63	1.74	0.00	1.00	0.00	0.16	-0.18	-0.22	0.48	-0.12	-0.04
133	7	13	88.70	7.37	5.60	1.76	0.00	1.00	9.53	0.17	-0.19	-0.22	0.59	-0.11	-0.07
134	7	14	88.70	7.37	5.62	1.75	0.00	1.00	0.00	0.18	-0.19	-0.22	0.59	-0.11	-0.06
135	7	15	88.70	7.37	5.64	1.73	0.00	1.00	0.00	0.18	-0.19	-0.22	0.59	-0.11	-0.06
136	7	16	88.70	7.37	5.66	1.71	0.00	1.00	0.00	0.17	-0.19	-0.22	0.58	-0.11	-0.05
137	7	17	88.70	7.37	5.67	1.69	0.00	1.00	0.00	0.17	-0.18	-0.22	0.58	-0.11	-0.05
138	7	18	88.70	7.37	5.69	1.68	0.00	1.00	0.00	0.17	-0.18	-0.22	0.58	-0.11	-0.05
139	7	19	88.70	7.37	5.71	1.66	0.00	1.00	0.00	0.17	-0.18	-0.22	0.58	-0.11	-0.05
140	7	20	88.70	7.37	5.73	1.64	0.00	1.00	0.00	0.17	-0.18	-0.22	0.57	-0.11	-0.05
141	8	1	88.70	7.37	5.75	1.62	0.00	1.00	0.03	0.16	-0.18	-0.22	0.62	-0.12	-0.05
142	8	2	88.70	7.37	5.77	1.60	0.00	1.00	0.01	0.16	-0.18	-0.22	0.62	-0.12	-0.04
143	8	3	88.70	7.37	5.79	1.58	0.00	1.00	0.01	0.16	-0.18	-0.22	0.61	-0.11	-0.04
144	8	4	88.70	7.37	5.81	1.56	0.00	1.00	0.01	0.16	-0.18	-0.22	0.61	-0.11	-0.04
145	8	5	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.16	-0.18	-0.22	0.61	-0.11	-0.04
146	8	6	88.70	7.37	5.85	1.52	0.00	1.00	0.01	0.15	-0.17	-0.22	0.60	-0.11	-0.04
147	8	7	88.70	7.37	5.87	1.50	0.00	1.00	0.01	0.15	-0.17	-0.22	0.60	-0.11	-0.04
148	8	8	88.70	7.37	5.89	1.48	0.00	1.00	0.01	0.15	-0.17	-0.22	0.59	-0.11	-0.04

1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 NO CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0027          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	2.	38.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	3.	22.00	0.000	0.897	7.170	0.050	0.035
HYDRAULICS	4.	21.00	0.000	0.897	8.000	0.050	0.035
HYDRAULICS	5.	10.00	0.000	0.946	12.000	0.018	0.035
HYDRAULICS	6.	17.00	0.000	0.946	12.000	0.018	0.035
HYDRAULICS	7.	7.00	0.000	0.930	15.030	0.011	0.035
HYDRAULICS	8.	7.00	0.000	0.930	15.030	0.011	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	3.	0.00	0.000		0.00000	0.00
REACT COEF	2.	0.08	0.00	0.051	3.	0.00	0.000		0.00000	0.00
REACT COEF	3.	0.08	0.00	0.051	3.	0.00	0.000		0.00000	0.00
REACT COEF	4.	0.08	0.00	0.071	3.	0.00	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	3.	0.00	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	3.	0.00	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	3.	0.00	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	3.	0.00	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	0.57	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	0.90	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	0.60	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	0.72	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	0.77	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	0.71	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	0.50	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	0.50	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	88.70	5.95	3.75	0.00	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	2.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	3.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	4.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	5.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	6.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	7.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
INITIAL COND-2	8.	8.40	0.48	0.05	0.10	0.40	0.07	0.04
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	2.80	0.00	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	2.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	3.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	4.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	5.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	6.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	7.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
INCR INFLOW-2	8.	0.00	0.48	0.05	0.10	0.40	0.07	0.04
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER    980.00     88.70      5.95      3.75      0.00      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                              COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW     TEMP     D.O.      BOD      CM-1     CM-2     CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00    42.10    86.90     3.50    48.80     0.00     0.00     0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     0.00     0.00     0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     0.00     0.00     0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     0.00     0.00     0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     0.00     0.00     0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     0.00     0.00     0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     0.00     0.00     0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     0.00     0.00     0.00
          ENDATA11       0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                              COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                               DAM    RCH    ELE     ADAM     BDAM     FDAM     HDAM

          ENDATA12               0.     0.     0.     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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             CARD TYPE               TEMP       D.O.      BOD       CM-1      CM-2      CM-3       ANC       COLI

         ENDATA13                    DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
0         $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

             CARD TYPE               CHL-A     ORG-N     NH3-N     NO2-N     NH3-N     ORG-P     DIS-P

         ENDATA13A                   DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
1
0                    BIOCHEMICAL OXYGEN DEMAND IN MG/L                              ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  3.73  3.71  3.68  3.66  3.64  3.62  3.60  3.58  3.56  3.54  3.52  3.50  3.48  3.46  3.44  3.42  3.40  3.38  3.36  3.38
    2  5.16  5.12  5.07  5.03  4.99  4.95  4.91  4.87  4.82  4.78  4.74  4.70  4.66  4.63  4.59  4.55  4.51  4.47  4.43  4.40
    3  4.36  4.32  4.29  4.25  4.22  4.18  4.15  4.11  4.08  4.04  4.01  3.98  3.94  3.91  3.88  3.84  3.81  3.78  3.75  3.72
    4  3.69  3.66  3.63  3.60  3.57  3.54  3.51  3.48  3.45  3.42  3.39  3.36  3.34  3.31  3.28  3.25  3.23  3.20  3.17  3.15
    5  3.13  3.11  3.09  3.07  3.05  3.03  3.01  2.99  2.97  2.95  2.93  2.91  2.89  2.87  2.86  2.84  2.82  2.80  2.78  2.77
    6  2.75  2.73  2.71  2.70  2.68  2.66  2.64  2.63  2.61  2.59  2.58  2.56  2.54  2.53  2.51  2.49  2.48  2.46  2.45  2.43
    7  2.41  2.39  2.36  2.34  2.31  2.29  2.27  2.25  2.22  2.20  2.18  2.16  2.25  2.23  2.21  2.20  2.18  2.16  2.14  2.12
    8  2.14  2.12  2.10  2.09  2.07  2.05  2.04  2.02
1

  STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:
  ------------------------------------------------------------------------------

                                                 NUMBER OF
             VARIABLE              ITERATION     NONCONVERGENT
                                                 ELEMENTS

0                    ALGAE AS CHL-A IN UG/L                                         ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  8.59  8.79  8.99  9.20  9.41  9.63  9.85 10.08 10.31 10.55 10.79 11.04 11.29 11.55 11.82 12.09 12.37 12.65 12.94 13.22
    2 12.87 13.00 13.13 13.27 13.41 13.55 13.69 13.83 13.98 14.12 14.27 14.42 14.57 14.72 14.87 15.02 15.18 15.34 15.50 15.66
    3 15.98 16.31 16.64 16.98 17.33 17.69 18.05 18.42 18.80 19.18 19.57 19.97 20.38 20.80 21.23 21.66 22.11 22.56 23.02 23.49
    4 23.80 24.12 24.44 24.74 25.07 25.40 25.74 26.08 26.43 26.78 27.13 27.49 27.86 28.23 28.60 28.98 29.37 29.75 30.15 30.55
    5 30.84 31.16 31.48 31.80 32.13 32.47 32.80 33.14 33.48 33.83 34.18 34.53 34.89 35.25 35.61 35.98 36.32 36.70 37.07 37.46
    6 37.91 38.37 38.83 39.30 39.77 40.25 40.74 41.23 41.73 42.23 42.74 43.25 43.77 44.30 44.83 45.37 45.92 46.47 47.03 47.60
    7 48.60 49.86 51.16 52.49 53.85 55.25 56.69 58.16 59.67 61.22 62.81 64.37 55.73 56.93 58.16 59.41 60.69 62.00 63.33 64.69
    8 66.04 67.46 68.90 70.37 71.87 73.41 74.98 76.56
0                  ORGANIC PHOSPHORUS AS P IN MG/L                                  ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07  0.07
    2  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08
    3  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08
    4  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08
    5  0.08  0.08  0.08  0.08  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09
    6  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.09  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08
    7  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08  0.08
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	8	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08											

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03
2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.42	0.42	0.42	0.41	0.41	0.40	0.40	0.39	0.39
2	0.48	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.43	0.42	0.42	0.41	0.41	0.41	0.40	0.40
3	0.39	0.39	0.39	0.38	0.38	0.37	0.37	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.33	0.33
4	0.33	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.28	0.28	0.28
5	0.28	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
6	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
7	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
8	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.12
2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
3	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25
4	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23
5	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
6	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18
7	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
5	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.41	0.42	0.42	0.43	0.44	0.44	0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47
2	0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.51	0.51

3	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
4	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
5	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
6	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.53	0.53	0.53	0.53	0.53
7	0.52	0.52	0.51	0.50	0.50	0.49	0.48	0.48	0.47	0.46	0.45	0.44	0.43	0.43	0.42	0.41	0.41	0.40	0.39	0.39
8	0.38	0.37	0.36	0.35	0.34	0.34	0.33	0.32												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.94	5.94	5.93	5.93	5.93	5.93	5.93	5.93	5.94	5.94	5.95	5.95	5.96	5.97	5.98	5.99	6.00	6.02	6.03	6.04
2	5.90	5.87	5.83	5.80	5.77	5.74	5.71	5.68	5.65	5.63	5.60	5.58	5.55	5.53	5.51	5.49	5.47	5.45	5.43	5.42
3	5.42	5.42	5.43	5.44	5.44	5.45	5.46	5.48	5.49	5.50	5.52	5.54	5.55	5.57	5.60	5.62	5.64	5.67	5.69	5.72
4	5.72	5.72	5.72	5.72	5.72	5.72	5.72	5.73	5.73	5.74	5.74	5.75	5.76	5.77	5.78	5.79	5.81	5.82	5.84	5.85
5	5.86	5.86	5.87	5.88	5.88	5.89	5.90	5.91	5.92	5.93	5.95	5.96	5.97	5.99	6.00	6.02	6.03	6.05	6.07	6.09
6	6.11	6.14	6.17	6.20	6.23	6.26	6.29	6.33	6.36	6.40	6.43	6.47	6.51	6.54	6.58	6.62	6.66	6.71	6.75	6.79
7	6.88	7.00	7.12	7.25	7.38	7.52	7.66	7.81	7.96	8.11	8.27	8.43	8.01	8.13	8.25	8.37	8.49	8.62	8.75	8.88
8	9.02	9.16	9.30	9.45	9.60	9.75	9.91	10.07												

ALGAE GROWTH RATE	1	122
ALGAE GROWTH RATE	2	110
ALGAE GROWTH RATE	3	37
ALGAE GROWTH RATE	4	18
ALGAE GROWTH RATE	5	0
ALGAE GROWTH RATE	6	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1

0 DISSOLVED OXYGEN IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.94	5.94	5.93	5.93	5.93	5.93	5.93	5.94	5.94	5.95	5.95	5.96	5.97	5.98	5.99	6.00	6.01	6.02	6.03	6.04
2	5.91	5.88	5.85	5.83	5.80	5.78	5.75	5.73	5.71	5.69	5.67	5.65	5.63	5.62	5.60	5.59	5.57	5.56	5.55	5.54
3	5.55	5.56	5.57	5.59	5.60	5.62	5.63	5.65	5.67	5.69	5.71	5.73	5.75	5.78	5.80	5.82	5.85	5.87	5.90	5.92
4	5.92	5.92	5.92	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.92	5.92
5	5.91	5.90	5.89	5.88	5.87	5.86	5.85	5.84	5.83	5.82	5.81	5.80	5.78	5.77	5.76	5.74	5.73	5.71	5.70	5.68
6	5.67	5.66	5.65	5.64	5.63	5.62	5.62	5.61	5.60	5.59	5.59	5.58	5.57	5.57	5.56	5.56	5.55	5.55	5.55	5.54
7	5.55	5.56	5.57	5.57	5.58	5.59	5.60	5.60	5.61	5.62	5.63	5.63	5.61	5.63	5.64	5.66	5.68	5.69	5.71	5.73
8	5.75	5.77	5.79	5.81	5.83	5.85	5.87	5.88												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.73	3.71	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.54	3.52	3.50	3.48	3.46	3.44	3.42	3.40	3.38	3.36	3.38
2	5.16	5.12	5.07	5.03	4.99	4.95	4.91	4.87	4.82	4.78	4.74	4.70	4.66	4.63	4.59	4.55	4.51	4.47	4.43	4.40
3	4.36	4.32	4.29	4.25	4.22	4.18	4.15	4.11	4.08	4.04	4.01	3.98	3.94	3.91	3.88	3.84	3.81	3.78	3.75	3.72
4	3.69	3.66	3.63	3.60	3.57	3.54	3.51	3.48	3.45	3.42	3.39	3.36	3.34	3.31	3.28	3.25	3.23	3.20	3.17	3.15
5	3.13	3.11	3.09	3.07	3.05	3.03	3.01	2.99	2.97	2.95	2.93	2.91	2.89	2.87	2.86	2.84	2.82	2.80	2.78	2.77
6	2.75	2.73	2.71	2.70	2.68	2.66	2.64	2.63	2.61	2.59	2.58	2.56	2.54	2.53	2.51	2.49	2.48	2.46	2.45	2.43
7	2.41	2.39	2.36	2.34	2.31	2.29	2.27	2.25	2.22	2.20	2.18	2.16	2.25	2.23	2.21	2.20	2.18	2.16	2.14	2.12
8	2.14	2.12	2.10	2.09	2.07	2.05	2.04	2.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.42	0.42	0.42	0.41	0.41	0.40	0.40	0.39	0.39
2	0.48	0.48	0.47	0.47	0.46	0.46	0.45	0.45	0.44	0.44	0.43	0.43	0.43	0.42	0.42	0.41	0.41	0.41	0.40	0.40
3	0.39	0.39	0.39	0.38	0.38	0.38	0.37	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.33	0.33
4	0.33	0.32	0.32	0.32	0.32	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.28	0.28
5	0.28	0.28	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24
6	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
7	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22
8	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21												

0 AMMONIA AS N IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.12
2	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.25	0.25	0.25	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23
4	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
5	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
6	0.19	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16
7	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
8	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13												

0 NITRITE AS N IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 NITRATE AS N IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.41	0.42	0.42	0.43	0.44	0.44	0.44	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47
2	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51
3	0.52	0.52	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54
4	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
5	0.57	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.60
6	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62
7	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
8	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
4	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
5	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
8	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01												

0 ALGAE AS CHL-A IN UG/L ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.60	8.80	9.00	9.21	9.43	9.65	9.88	10.11	10.35	10.59	10.84	11.09	11.35	11.61	11.87	12.14	12.42	12.69	12.98	13.25
2	12.94	13.12	13.30	13.48	13.67	13.86	14.05	14.24	14.44	14.64	14.83	15.04	15.24	15.44	15.65	15.86	16.07	16.28	16.49	16.71
3	17.09	17.49	17.89	18.29	18.70	19.12	19.54	19.96	20.39	20.82	21.26	21.70	22.15	22.59	23.04	23.50	23.95	24.41	24.87	25.33
4	25.64	25.95	26.26	26.54	26.84	27.15	27.45	27.75	28.05	28.35	28.65	28.94	29.23	29.52	29.81	30.09	30.36	30.63	30.90	31.16
5	31.34	31.52	31.70	31.87	32.03	32.19	32.35	32.49	32.63	32.77	32.89	33.01	33.12	33.22	33.31	33.40	33.46	33.54	33.61	33.68
6	33.78	33.87	33.97	34.07	34.17	34.27	34.37	34.48	34.58	34.68	34.79	34.89	34.99	35.10	35.20	35.31	35.41	35.52	35.62	35.73
7	35.95	36.22	36.49	36.75	37.01	37.26	37.51	37.76	37.99	38.22	38.45	38.63	33.63	33.93	34.22	34.51	34.80	35.08	35.36	35.64
8	35.93	36.23	36.53	36.82	37.11	37.39	37.67	37.93												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.51	0.51	0.51	0.51	0.51	0.51
2	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.38
3	0.53	0.53	0.53	0.52	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.50	0.49	0.49	0.49	0.48	0.48	0.47	0.47	0.47
4	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.33	0.33	0.33	0.32	0.32	0.32	0.31	0.31	0.31
5	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19
6	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
7	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23
8	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 6

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.51	5.53	5.55	5.56	5.56	5.56	5.56	5.56	5.55	5.54	5.53	5.51	5.50	5.48	5.46	5.44	5.41	5.39	5.36	5.37
2	4.24	4.23	4.22	4.21	4.21	4.20	4.19	4.19	4.18	4.17	4.16	4.15	4.15	4.14	4.13	4.12	4.11	4.10	4.09	4.08
3	5.66	5.63	5.60	5.57	5.53	5.50	5.46	5.43	5.39	5.35	5.32	5.28	5.24	5.20	5.16	5.12	5.07	5.03	4.99	4.94
4	3.84	3.81	3.79	3.76	3.73	3.71	3.68	3.65	3.62	3.60	3.57	3.54	3.50	3.47	3.44	3.41	3.37	3.34	3.30	3.26
5	2.56	2.53	2.51	2.48	2.45	2.42	2.39	2.36	2.33	2.30	2.26	2.23	2.19	2.16	2.12	2.08	2.12	2.08	2.04	2.00
6	2.13	2.13	2.14	2.14	2.14	2.14	2.14	2.14	2.15	2.15	2.15	2.15	2.15	2.14	2.14	2.14	2.14	2.14	2.14	2.13
7	2.26	2.25	2.24	2.22	2.21	2.19	2.17	2.16	2.14	2.12	2.11	2.09	2.54	2.53	2.51	2.49	2.47	2.46	2.44	2.42
8	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.37												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
1	1	1	227.00	226.75	980.10	0.00	0.10	0.222	0.069	10.118	436.778	5833335.0	603257.1	4419.19	7.75
2	1	2	226.75	226.50	980.20	0.00	0.10	0.222	0.069	10.118	436.780	5833396.0	603260.4	4419.24	7.75
3	1	3	226.50	226.25	980.30	0.00	0.10	0.222	0.069	10.118	436.782	5833457.5	603263.6	4419.29	7.75
4	1	4	226.25	226.00	980.40	0.00	0.10	0.222	0.069	10.118	436.785	5833518.5	603266.9	4419.33	7.75
5	1	5	226.00	225.75	980.50	0.00	0.10	0.222	0.069	10.118	436.787	5833579.5	603270.1	4419.38	7.75
6	1	6	225.75	225.50	980.60	0.00	0.10	0.222	0.069	10.118	436.789	5833641.0	603273.4	4419.43	7.75
7	1	7	225.50	225.25	980.70	0.00	0.10	0.222	0.069	10.118	436.792	5833702.5	603276.6	4419.47	7.75
8	1	8	225.25	225.00	980.80	0.00	0.10	0.222	0.069	10.118	436.794	5833763.5	603279.9	4419.52	7.75
9	1	9	225.00	224.75	980.90	0.00	0.10	0.222	0.069	10.118	436.796	5833824.5	603283.1	4419.56	7.75
10	1	10	224.75	224.50	981.00	0.00	0.10	0.222	0.069	10.118	436.799	5833886.0	603286.4	4419.61	7.75
11	1	11	224.50	224.25	981.10	0.00	0.10	0.222	0.069	10.118	436.801	5833947.5	603289.6	4419.66	7.75
12	1	12	224.25	224.00	981.20	0.00	0.10	0.222	0.069	10.118	436.803	5834008.5	603292.9	4419.70	7.75
13	1	13	224.00	223.75	981.30	0.00	0.10	0.222	0.069	10.118	436.806	5834070.0	603296.1	4419.75	7.75
14	1	14	223.75	223.50	981.40	0.00	0.10	0.222	0.069	10.118	436.808	5834131.0	603299.4	4419.80	7.76
15	1	15	223.50	223.25	981.50	0.00	0.10	0.222	0.069	10.118	436.811	5834192.0	603302.6	4419.84	7.76
16	1	16	223.25	223.00	981.60	0.00	0.10	0.222	0.069	10.118	436.813	5834253.5	603305.9	4419.89	7.76
17	1	17	223.00	222.75	981.70	0.00	0.10	0.222	0.069	10.119	436.815	5834314.5	603309.1	4419.94	7.76

18	1	18	222.75	222.50	981.80	0.00	0.10	0.222	0.069	10.119	436.818	5834375.5	603312.4	4419.98	7.76
19	1	19	222.50	222.25	981.90	0.00	0.10	0.222	0.069	10.119	436.820	5834437.0	603315.6	4420.03	7.76
20	1	20	222.25	222.00	982.00	0.00	0.10	0.222	0.069	10.119	436.822	5834498.0	603318.9	4420.07	7.76
21	2	1	222.00	221.75	1024.20	42.10	0.10	0.231	0.066	10.140	437.798	5859838.5	604662.4	4439.27	8.07
22	2	2	221.75	221.50	1024.30	0.00	0.10	0.231	0.066	10.140	437.800	5859897.5	604665.6	4439.32	8.07
23	2	3	221.50	221.25	1024.40	0.00	0.10	0.231	0.066	10.140	437.802	5859956.5	604668.6	4439.36	8.07
24	2	4	221.25	221.00	1024.50	0.00	0.10	0.231	0.066	10.140	437.804	5860015.5	604671.7	4439.41	8.07
25	2	5	221.00	220.75	1024.60	0.00	0.10	0.231	0.066	10.140	437.807	5860074.0	604674.9	4439.45	8.08
26	2	6	220.75	220.50	1024.70	0.00	0.10	0.231	0.066	10.140	437.809	5860133.5	604678.0	4439.50	8.08
27	2	7	220.50	220.25	1024.80	0.00	0.10	0.231	0.066	10.140	437.811	5860192.0	604681.1	4439.54	8.08
28	2	8	220.25	220.00	1024.90	0.00	0.10	0.231	0.066	10.140	437.813	5860250.5	604684.2	4439.58	8.08
29	2	9	220.00	219.75	1025.00	0.00	0.10	0.231	0.066	10.140	437.816	5860310.0	604687.4	4439.63	8.08
30	2	10	219.75	219.50	1025.10	0.00	0.10	0.231	0.066	10.140	437.818	5860368.5	604690.5	4439.67	8.08
31	2	11	219.50	219.25	1025.20	0.00	0.10	0.231	0.066	10.141	437.820	5860427.5	604693.6	4439.72	8.08
32	2	12	219.25	219.00	1025.30	0.00	0.10	0.231	0.066	10.141	437.822	5860486.5	604696.7	4439.76	8.08
33	2	13	219.00	218.75	1025.40	0.00	0.10	0.231	0.066	10.141	437.825	5860545.5	604699.8	4439.81	8.08
34	2	14	218.75	218.50	1025.50	0.00	0.10	0.231	0.066	10.141	437.827	5860604.0	604702.9	4439.85	8.08
35	2	15	218.50	218.25	1025.60	0.00	0.10	0.231	0.066	10.141	437.829	5860663.0	604706.1	4439.90	8.08
36	2	16	218.25	218.00	1025.70	0.00	0.10	0.231	0.066	10.141	437.832	5860721.5	604709.2	4439.94	8.08
37	2	17	218.00	217.75	1025.80	0.00	0.10	0.231	0.066	10.141	437.834	5860780.5	604712.3	4439.99	8.08
38	2	18	217.75	217.50	1025.90	0.00	0.10	0.231	0.066	10.141	437.836	5860839.5	604715.4	4440.03	8.09
39	2	19	217.50	217.25	1026.00	0.00	0.10	0.231	0.066	10.141	437.838	5860898.5	604718.5	4440.07	8.09
40	2	20	217.25	217.00	1026.10	0.00	0.10	0.231	0.066	10.141	437.841	5860957.0	604721.6	4440.12	8.09
41	3	1	217.00	216.75	1026.20	0.00	0.10	0.231	0.066	10.141	437.843	5861016.0	604724.7	4440.16	4.68
42	3	2	216.75	216.50	1026.30	0.00	0.10	0.231	0.066	10.141	437.845	5861075.0	604727.9	4440.21	4.68
43	3	3	216.50	216.25	1026.40	0.00	0.10	0.231	0.066	10.141	437.847	5861133.5	604730.9	4440.25	4.68
44	3	4	216.25	216.00	1026.50	0.00	0.10	0.231	0.066	10.141	437.850	5861192.5	604734.1	4440.30	4.68
45	3	5	216.00	215.75	1026.60	0.00	0.10	0.231	0.066	10.141	437.852	5861251.5	604737.2	4440.34	4.68
46	3	6	215.75	215.50	1026.70	0.00	0.10	0.231	0.066	10.141	437.854	5861310.0	604740.3	4440.39	4.68
47	3	7	215.50	215.25	1026.80	0.00	0.10	0.231	0.066	10.141	437.856	5861368.5	604743.4	4440.43	4.68
48	3	8	215.25	215.00	1026.90	0.00	0.10	0.231	0.066	10.141	437.859	5861427.5	604746.6	4440.48	4.69
49	3	9	215.00	214.75	1027.00	0.00	0.10	0.231	0.066	10.141	437.861	5861486.0	604749.7	4440.52	4.69
50	3	10	214.75	214.50	1027.10	0.00	0.10	0.231	0.066	10.141	437.863	5861545.0	604752.7	4440.56	4.69
51	3	11	214.50	214.25	1027.20	0.00	0.10	0.231	0.066	10.141	437.865	5861604.0	604755.9	4440.61	4.69
52	3	12	214.25	214.00	1027.30	0.00	0.10	0.231	0.066	10.142	437.868	5861662.5	604758.9	4440.65	4.69
53	3	13	214.00	213.75	1027.40	0.00	0.10	0.231	0.066	10.142	437.870	5861721.0	604762.1	4440.70	4.69
54	3	14	213.75	213.50	1027.50	0.00	0.10	0.231	0.066	10.142	437.872	5861780.0	604765.2	4440.74	4.69
55	3	15	213.50	213.25	1027.60	0.00	0.10	0.231	0.066	10.142	437.874	5861839.0	604768.3	4440.79	4.69
56	3	16	213.25	213.00	1027.70	0.00	0.10	0.231	0.066	10.142	437.877	5861897.5	604771.4	4440.83	4.69
57	3	17	213.00	212.75	1027.80	0.00	0.10	0.231	0.066	10.142	437.879	5861956.0	604774.6	4440.88	4.69
58	3	18	212.75	212.50	1027.90	0.00	0.10	0.231	0.066	10.142	437.881	5862015.0	604777.7	4440.92	4.69
59	3	19	212.50	212.25	1028.00	0.00	0.10	0.231	0.066	10.142	437.883	5862073.5	604780.7	4440.96	4.69
60	3	20	212.25	212.00	1028.10	0.00	0.10	0.232	0.066	10.142	437.886	5862132.5	604783.9	4441.01	4.69
61	4	1	212.00	211.75	1028.20	0.00	0.10	0.232	0.066	11.316	392.457	5862191.0	547917.7	4441.05	4.91

62	4	2	211.75	211.50	1028.30	0.00	0.10	0.232	0.066	11.316	392.459	5862250.0	547920.5	4441.10	4.91
63	4	3	211.50	211.25	1028.40	0.00	0.10	0.232	0.066	11.316	392.461	5862308.5	547923.3	4441.14	4.91
64	4	4	211.25	211.00	1029.50	1.00	0.10	0.232	0.066	11.317	392.483	5862954.0	547954.2	4441.63	4.91
65	4	5	211.00	210.75	1029.60	0.00	0.10	0.232	0.066	11.317	392.485	5863012.5	547957.1	4441.68	4.91

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 2
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.50	1029.70	0.00	0.10	0.232	0.066	11.317	392.487	5863071.5	547959.9	4441.72	4.91
67	4	7	210.50	210.25	1029.80	0.00	0.10	0.232	0.066	11.317	392.489	5863130.0	547962.7	4441.77	4.91
68	4	8	210.25	210.00	1029.90	0.00	0.10	0.232	0.066	11.317	392.491	5863188.5	547965.5	4441.81	4.91
69	4	9	210.00	209.75	1030.00	0.00	0.10	0.232	0.066	11.317	392.493	5863247.0	547968.3	4441.85	4.91
70	4	10	209.75	209.50	1030.10	0.00	0.10	0.232	0.066	11.317	392.495	5863305.5	547971.1	4441.90	4.91
71	4	11	209.50	209.25	1030.20	0.00	0.10	0.232	0.066	11.317	392.498	5863364.5	547974.0	4441.94	4.91
72	4	12	209.25	209.00	1030.30	0.00	0.10	0.232	0.066	11.317	392.500	5863423.0	547976.7	4441.99	4.91
73	4	13	209.00	208.75	1030.40	0.00	0.10	0.232	0.066	11.317	392.502	5863481.5	547979.6	4442.03	4.92
74	4	14	208.75	208.50	1030.50	0.00	0.10	0.232	0.066	11.317	392.504	5863540.0	547982.4	4442.08	4.92
75	4	15	208.50	208.25	1030.60	0.00	0.10	0.232	0.066	11.317	392.506	5863598.5	547985.2	4442.12	4.92
76	4	16	208.25	208.00	1030.70	0.00	0.10	0.232	0.066	11.317	392.508	5863657.0	547988.0	4442.16	4.92
77	4	17	208.00	207.75	1030.80	0.00	0.10	0.232	0.066	11.317	392.510	5863716.0	547990.8	4442.21	4.92
78	4	18	207.75	207.50	1031.00	0.10	0.10	0.232	0.066	11.318	392.514	5863833.0	547996.4	4442.30	4.92
79	4	19	207.50	207.25	1031.10	0.00	0.10	0.232	0.066	11.318	392.516	5863891.5	547999.2	4442.34	4.92
80	4	20	207.25	207.00	1031.20	0.00	0.10	0.232	0.066	11.318	392.518	5863950.5	548002.0	4442.39	4.92
81	5	1	207.00	206.75	1031.30	0.00	0.10	0.199	0.077	13.596	382.070	6857071.5	540226.4	5194.75	2.33
82	5	2	206.75	206.50	1031.40	0.00	0.10	0.199	0.077	13.596	382.071	6857107.5	540228.2	5194.78	2.33
83	5	3	206.50	206.25	1031.50	0.00	0.10	0.199	0.077	13.596	382.072	6857143.5	540230.0	5194.81	2.33
84	5	4	206.25	206.00	1031.60	0.00	0.10	0.199	0.077	13.596	382.074	6857179.5	540231.9	5194.83	2.33
85	5	5	206.00	205.75	1031.70	0.00	0.10	0.199	0.077	13.596	382.075	6857215.5	540233.7	5194.86	2.33
86	5	6	205.75	205.50	1031.80	0.00	0.10	0.199	0.077	13.596	382.076	6857251.0	540235.4	5194.89	2.34
87	5	7	205.50	205.25	1031.90	0.00	0.10	0.199	0.077	13.596	382.078	6857287.0	540237.3	5194.91	2.34
88	5	8	205.25	205.00	1032.00	0.00	0.10	0.199	0.077	13.597	382.079	6857323.0	540239.1	5194.94	2.34
89	5	9	205.00	204.75	1032.10	0.00	0.10	0.199	0.077	13.597	382.080	6857359.0	540240.9	5194.97	2.34
90	5	10	204.75	204.50	1032.20	0.00	0.10	0.199	0.077	13.597	382.082	6857394.5	540242.7	5195.00	2.34
91	5	11	204.50	204.25	1032.30	0.00	0.10	0.199	0.077	13.597	382.083	6857430.5	540244.6	5195.02	2.34
92	5	12	204.25	204.00	1032.40	0.00	0.10	0.199	0.077	13.597	382.084	6857466.5	540246.4	5195.05	2.34
93	5	13	204.00	203.75	1032.50	0.00	0.10	0.199	0.077	13.597	382.086	6857502.5	540248.2	5195.08	2.34
94	5	14	203.75	203.50	1032.60	0.00	0.10	0.199	0.077	13.597	382.087	6857538.0	540250.0	5195.10	2.34
95	5	15	203.50	203.25	1032.70	0.00	0.10	0.199	0.077	13.597	382.088	6857573.5	540251.9	5195.13	2.34
96	5	16	203.25	203.00	1032.80	0.00	0.10	0.199	0.077	13.597	382.090	6857610.0	540253.7	5195.16	2.34
97	5	17	203.00	202.75	1033.90	1.00	0.10	0.199	0.077	13.597	382.104	6858004.0	540273.7	5195.46	2.34
98	5	18	202.75	202.50	1034.00	0.00	0.10	0.199	0.077	13.597	382.106	6858040.0	540275.6	5195.48	2.34

99	5	19	202.50	202.25	1034.10	0.00	0.10	0.199	0.077	13.597	382.107	6858075.5	540277.3	5195.51	2.34
100	5	20	202.25	202.00	1034.20	0.00	0.10	0.199	0.077	13.597	382.108	6858111.5	540279.2	5195.54	2.34
101	6	1	202.00	201.75	1034.30	0.00	0.10	0.199	0.077	13.597	382.110	6858147.5	540280.9	5195.57	3.98
102	6	2	201.75	201.50	1034.40	0.00	0.10	0.199	0.077	13.597	382.111	6858183.0	540282.7	5195.59	3.98
103	6	3	201.50	201.25	1034.50	0.00	0.10	0.199	0.077	13.597	382.112	6858219.0	540284.6	5195.62	3.98
104	6	4	201.25	201.00	1034.60	0.00	0.10	0.199	0.077	13.597	382.114	6858254.5	540286.4	5195.65	3.98
105	6	5	201.00	200.75	1034.70	0.00	0.10	0.199	0.077	13.597	382.115	6858290.5	540288.2	5195.67	3.98
106	6	6	200.75	200.50	1034.80	0.00	0.10	0.199	0.077	13.597	382.116	6858326.0	540290.1	5195.70	3.98
107	6	7	200.50	200.25	1034.90	0.00	0.10	0.199	0.077	13.597	382.118	6858362.0	540291.9	5195.73	3.98
108	6	8	200.25	200.00	1035.00	0.00	0.10	0.199	0.077	13.597	382.119	6858398.0	540293.7	5195.76	3.98
109	6	9	200.00	199.75	1035.10	0.00	0.10	0.199	0.077	13.597	382.120	6858433.5	540295.5	5195.78	3.98
110	6	10	199.75	199.50	1035.20	0.00	0.10	0.199	0.077	13.597	382.122	6858469.5	540297.3	5195.81	3.98
111	6	11	199.50	199.25	1035.30	0.00	0.10	0.199	0.077	13.597	382.123	6858505.0	540299.1	5195.84	3.98
112	6	12	199.25	199.00	1035.40	0.00	0.10	0.199	0.077	13.597	382.124	6858541.0	540300.9	5195.86	3.98
113	6	13	199.00	198.75	1035.60	0.10	0.10	0.199	0.077	13.597	382.127	6858612.5	540304.6	5195.92	3.98
114	6	14	198.75	198.50	1035.70	0.00	0.10	0.199	0.077	13.597	382.128	6858648.0	540306.4	5195.95	3.98
115	6	15	198.50	198.25	1035.80	0.00	0.10	0.199	0.077	13.597	382.130	6858683.5	540308.2	5195.97	3.98
116	6	16	198.25	198.00	1035.90	0.00	0.10	0.199	0.077	13.597	382.131	6858719.5	540310.1	5196.00	3.98
117	6	17	198.00	197.75	1036.00	0.00	0.10	0.199	0.077	13.597	382.132	6858755.0	540311.8	5196.03	3.99
118	6	18	197.75	197.50	1036.10	0.00	0.10	0.199	0.077	13.597	382.134	6858791.0	540313.7	5196.05	3.99
119	6	19	197.50	197.25	1036.20	0.00	0.10	0.199	0.077	13.598	382.135	6858826.5	540315.4	5196.08	3.99
120	6	20	197.25	197.00	1036.30	0.00	0.10	0.199	0.077	13.598	382.136	6858862.5	540317.3	5196.11	3.99
121	7	1	197.00	196.75	1036.50	0.10	0.10	0.127	0.120	16.223	501.106	10730840.0	704288.4	8129.42	1.22
122	7	2	196.75	196.50	1036.60	0.00	0.10	0.128	0.120	16.223	501.109	10730912.0	704292.2	8129.48	1.22
123	7	3	196.50	196.25	1036.70	0.00	0.10	0.128	0.120	16.223	501.112	10730984.0	704296.0	8129.53	1.22
124	7	4	196.25	196.00	1036.80	0.00	0.10	0.128	0.120	16.223	501.114	10731057.0	704299.9	8129.59	1.22
125	7	5	196.00	195.75	1036.90	0.00	0.10	0.128	0.120	16.223	501.117	10731128.0	704303.6	8129.64	1.22
126	7	6	195.75	195.50	1037.00	0.00	0.10	0.128	0.120	16.223	501.120	10731201.0	704307.5	8129.70	1.22
127	7	7	195.50	195.25	1037.10	0.00	0.10	0.128	0.120	16.223	501.123	10731273.0	704311.2	8129.75	1.22
128	7	8	195.25	195.00	1037.20	0.00	0.10	0.128	0.120	16.223	501.126	10731346.0	704315.1	8129.81	1.22
129	7	9	195.00	194.75	1037.30	0.00	0.10	0.128	0.120	16.223	501.129	10731418.0	704318.9	8129.86	1.22
130	7	10	194.75	194.50	1037.40	0.00	0.10	0.128	0.120	16.223	501.132	10731491.0	704322.7	8129.92	1.22

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.25	1037.50	0.00	0.10	0.128	0.120	16.223	501.134	10731563.0	704326.5	8129.97	1.22
132	7	12	194.25	194.00	1037.60	0.00	0.10	0.128	0.120	16.223	501.137	10731636.0	704330.3	8130.03	1.22
133	7	13	194.00	193.75	1259.70	222.00	0.10	0.153	0.100	16.258	506.905	10878338.0	712035.4	8241.17	1.46

134	7	14	193.75	193.50	1259.80	0.00	0.10	0.153	0.100	16.258	506.908	10878398.0	712038.6	8241.21	1.46
135	7	15	193.50	193.25	1259.90	0.00	0.10	0.153	0.100	16.258	506.910	10878458.0	712041.7	8241.26	1.46
136	7	16	193.25	193.00	1260.00	0.00	0.10	0.153	0.100	16.258	506.912	10878519.0	712044.9	8241.30	1.46
137	7	17	193.00	192.75	1260.10	0.00	0.10	0.153	0.100	16.258	506.915	10878579.0	712048.1	8241.35	1.46
138	7	18	192.75	192.50	1260.20	0.00	0.10	0.153	0.100	16.258	506.917	10878640.0	712051.2	8241.39	1.46
139	7	19	192.50	192.25	1260.30	0.00	0.10	0.153	0.100	16.258	506.919	10878701.0	712054.5	8241.44	1.46
140	7	20	192.25	192.00	1260.40	0.00	0.10	0.153	0.100	16.258	506.922	10878761.0	712057.6	8241.49	1.46
141	8	1	192.00	191.75	1261.42	0.77	0.25	0.153	0.100	16.258	506.946	10879377.0	712089.9	8241.95	1.46
142	8	2	191.75	191.50	1261.67	0.00	0.25	0.153	0.100	16.258	506.952	10879527.0	712097.9	8242.07	1.46
143	8	3	191.50	191.25	1261.92	0.00	0.25	0.153	0.100	16.258	506.958	10879678.0	712105.7	8242.18	1.46
144	8	4	191.25	191.00	1262.17	0.00	0.25	0.153	0.100	16.258	506.964	10879829.0	712113.7	8242.29	1.46
145	8	5	191.00	190.75	1262.42	0.00	0.25	0.153	0.100	16.258	506.970	10879980.0	712121.6	8242.41	1.46
146	8	6	190.75	190.50	1262.67	0.00	0.25	0.153	0.100	16.258	506.976	10880131.0	712129.4	8242.52	1.46
147	8	7	190.50	190.25	1262.92	0.00	0.25	0.153	0.100	16.258	506.982	10880281.0	712137.4	8242.64	1.46
148	8	8	190.25	190.00	1263.17	0.00	0.25	0.153	0.100	16.258	506.987	10880433.0	712145.4	8242.75	1.46

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 4
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
1	1	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	2	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.37	3	0.25	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2	1	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	8	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.37	3	0.25	0.13	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.37	3	0.23	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4 5 7.37 3 0.22 0.13 0.00 0.14 0.17 0.00 0.25 0.00 1.70 0.00 0.00 0.00 0.00 0.00 0.00 0.00
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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.37	3	0.22	0.13	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.37	3	0.18	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	3	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6	1	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.37	3	0.15	0.08	0.00	0.14	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.37	3	0.12	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	8	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	9	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.37	3	0.09	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

7	17	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.37	3	0.10	0.08	0.00	0.10	0.17	0.00	0.25	0.00	1.70	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	88.70	0.00	0.00	0.00	5.94	3.73	0.48	0.05	0.09	0.41	1.03	0.07	0.04	0.11	0.00	0.00	8.60
1	2	88.70	0.00	0.00	0.00	5.94	3.71	0.47	0.06	0.08	0.42	1.03	0.07	0.04	0.11	0.00	0.00	8.80
1	3	88.70	0.00	0.00	0.00	5.93	3.68	0.47	0.06	0.07	0.42	1.03	0.07	0.04	0.11	0.00	0.00	9.00
1	4	88.70	0.00	0.00	0.00	5.93	3.66	0.46	0.07	0.07	0.43	1.03	0.07	0.04	0.11	0.00	0.00	9.21
1	5	88.70	0.00	0.00	0.00	5.93	3.64	0.46	0.07	0.06	0.44	1.03	0.07	0.04	0.11	0.00	0.00	9.43
1	6	88.70	0.00	0.00	0.00	5.93	3.62	0.45	0.07	0.06	0.44	1.02	0.07	0.04	0.11	0.00	0.00	9.65
1	7	88.70	0.00	0.00	0.00	5.93	3.60	0.45	0.08	0.05	0.44	1.02	0.07	0.04	0.11	0.00	0.00	9.88
1	8	88.70	0.00	0.00	0.00	5.94	3.58	0.44	0.08	0.05	0.45	1.02	0.07	0.04	0.11	0.00	0.00	10.11
1	9	88.70	0.00	0.00	0.00	5.94	3.56	0.44	0.08	0.04	0.45	1.02	0.07	0.04	0.11	0.00	0.00	10.35
1	10	88.70	0.00	0.00	0.00	5.95	3.54	0.43	0.09	0.04	0.46	1.02	0.07	0.04	0.11	0.00	0.00	10.59
1	11	88.70	0.00	0.00	0.00	5.95	3.52	0.43	0.09	0.04	0.46	1.02	0.07	0.04	0.11	0.00	0.00	10.84
1	12	88.70	0.00	0.00	0.00	5.96	3.50	0.42	0.09	0.04	0.46	1.01	0.07	0.04	0.11	0.00	0.00	11.09
1	13	88.70	0.00	0.00	0.00	5.97	3.48	0.42	0.10	0.03	0.46	1.01	0.07	0.04	0.11	0.00	0.00	11.35
1	14	88.70	0.00	0.00	0.00	5.98	3.46	0.42	0.10	0.03	0.46	1.01	0.07	0.03	0.11	0.00	0.00	11.61
1	15	88.70	0.00	0.00	0.00	5.99	3.44	0.41	0.10	0.03	0.46	1.01	0.07	0.03	0.11	0.00	0.00	11.87
1	16	88.70	0.00	0.00	0.00	6.00	3.42	0.41	0.10	0.03	0.47	1.01	0.07	0.03	0.11	0.00	0.00	12.14
1	17	88.70	0.00	0.00	0.00	6.01	3.40	0.40	0.11	0.03	0.47	1.00	0.07	0.03	0.10	0.00	0.00	12.42
1	18	88.70	0.00	0.00	0.00	6.02	3.38	0.40	0.11	0.03	0.47	1.00	0.07	0.03	0.10	0.00	0.00	12.69
1	19	88.70	0.00	0.00	0.00	6.03	3.36	0.39	0.11	0.02	0.47	1.00	0.07	0.03	0.10	0.00	0.00	12.98
1	20	88.70	0.00	0.00	0.00	6.04	3.38	0.39	0.12	0.02	0.47	1.00	0.07	0.03	0.10	0.00	0.00	13.25
2	1	88.70	0.00	0.00	0.00	5.91	5.16	0.48	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00	0.00	12.94

2	2	88.70	0.00	0.00	0.00	5.88	5.12	0.48	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00	0.00	13.12
2	3	88.70	0.00	0.00	0.00	5.85	5.07	0.47	0.26	0.03	0.47	1.23	0.08	0.05	0.13	0.00	0.00	13.30
2	4	88.70	0.00	0.00	0.00	5.83	5.03	0.47	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00	0.00	13.48
2	5	88.70	0.00	0.00	0.00	5.80	4.99	0.46	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00	0.00	13.67
2	6	88.70	0.00	0.00	0.00	5.78	4.95	0.46	0.26	0.03	0.48	1.23	0.08	0.05	0.13	0.00	0.00	13.86
2	7	88.70	0.00	0.00	0.00	5.75	4.91	0.45	0.26	0.03	0.48	1.22	0.08	0.05	0.13	0.00	0.00	14.05
2	8	88.70	0.00	0.00	0.00	5.73	4.87	0.45	0.26	0.03	0.48	1.22	0.08	0.05	0.13	0.00	0.00	14.24
2	9	88.70	0.00	0.00	0.00	5.71	4.82	0.44	0.26	0.03	0.49	1.22	0.08	0.05	0.13	0.00	0.00	14.44
2	10	88.70	0.00	0.00	0.00	5.69	4.78	0.44	0.26	0.03	0.49	1.22	0.08	0.05	0.13	0.00	0.00	14.64
2	11	88.70	0.00	0.00	0.00	5.67	4.74	0.43	0.26	0.03	0.49	1.22	0.08	0.05	0.13	0.00	0.00	14.83
2	12	88.70	0.00	0.00	0.00	5.65	4.70	0.43	0.26	0.03	0.49	1.22	0.08	0.05	0.13	0.00	0.00	15.04
2	13	88.70	0.00	0.00	0.00	5.63	4.66	0.43	0.26	0.04	0.50	1.21	0.08	0.05	0.13	0.00	0.00	15.24
2	14	88.70	0.00	0.00	0.00	5.62	4.63	0.42	0.26	0.04	0.50	1.21	0.08	0.05	0.13	0.00	0.00	15.44
2	15	88.70	0.00	0.00	0.00	5.60	4.59	0.42	0.26	0.04	0.50	1.21	0.08	0.05	0.13	0.00	0.00	15.65
2	16	88.70	0.00	0.00	0.00	5.59	4.55	0.41	0.26	0.04	0.50	1.21	0.08	0.05	0.13	0.00	0.00	15.86
2	17	88.70	0.00	0.00	0.00	5.57	4.51	0.41	0.25	0.04	0.51	1.21	0.08	0.05	0.13	0.00	0.00	16.07
2	18	88.70	0.00	0.00	0.00	5.56	4.47	0.41	0.25	0.04	0.51	1.21	0.08	0.05	0.13	0.00	0.00	16.28
2	19	88.70	0.00	0.00	0.00	5.55	4.43	0.40	0.25	0.04	0.51	1.20	0.08	0.05	0.13	0.00	0.00	16.49
2	20	88.70	0.00	0.00	0.00	5.54	4.40	0.40	0.25	0.04	0.51	1.20	0.08	0.05	0.13	0.00	0.00	16.71
3	1	88.70	0.00	0.00	0.00	5.55	4.36	0.39	0.25	0.04	0.52	1.20	0.08	0.05	0.13	0.00	0.00	17.09
3	2	88.70	0.00	0.00	0.00	5.56	4.32	0.39	0.25	0.04	0.52	1.20	0.08	0.05	0.13	0.00	0.00	17.49
3	3	88.70	0.00	0.00	0.00	5.57	4.29	0.39	0.25	0.04	0.52	1.19	0.08	0.05	0.12	0.00	0.00	17.89
3	4	88.70	0.00	0.00	0.00	5.59	4.25	0.38	0.25	0.04	0.52	1.19	0.08	0.05	0.12	0.00	0.00	18.29
3	5	88.70	0.00	0.00	0.00	5.60	4.22	0.38	0.25	0.04	0.52	1.19	0.08	0.04	0.12	0.00	0.00	18.70
3	6	88.70	0.00	0.00	0.00	5.62	4.18	0.38	0.25	0.04	0.52	1.18	0.08	0.04	0.12	0.00	0.00	19.12
3	7	88.70	0.00	0.00	0.00	5.63	4.15	0.37	0.25	0.04	0.53	1.18	0.08	0.04	0.12	0.00	0.00	19.54
3	8	88.70	0.00	0.00	0.00	5.65	4.11	0.37	0.25	0.04	0.53	1.18	0.08	0.04	0.12	0.00	0.00	19.96
3	9	88.70	0.00	0.00	0.00	5.67	4.08	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12	0.00	0.00	20.39
3	10	88.70	0.00	0.00	0.00	5.69	4.04	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12	0.00	0.00	20.82
3	11	88.70	0.00	0.00	0.00	5.71	4.01	0.36	0.24	0.04	0.53	1.17	0.08	0.04	0.12	0.00	0.00	21.26
3	12	88.70	0.00	0.00	0.00	5.73	3.98	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12	0.00	0.00	21.70
3	13	88.70	0.00	0.00	0.00	5.75	3.94	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12	0.00	0.00	22.15
3	14	88.70	0.00	0.00	0.00	5.78	3.91	0.35	0.24	0.04	0.53	1.16	0.08	0.04	0.12	0.00	0.00	22.59
3	15	88.70	0.00	0.00	0.00	5.80	3.88	0.35	0.24	0.04	0.54	1.15	0.08	0.04	0.12	0.00	0.00	23.04
3	16	88.70	0.00	0.00	0.00	5.82	3.84	0.34	0.23	0.04	0.54	1.15	0.08	0.04	0.12	0.00	0.00	23.50
3	17	88.70	0.00	0.00	0.00	5.85	3.81	0.34	0.23	0.04	0.54	1.15	0.08	0.04	0.12	0.00	0.00	23.95
3	18	88.70	0.00	0.00	0.00	5.87	3.78	0.34	0.23	0.04	0.54	1.14	0.08	0.04	0.12	0.00	0.00	24.41
3	19	88.70	0.00	0.00	0.00	5.90	3.75	0.33	0.23	0.04	0.54	1.14	0.08	0.03	0.12	0.00	0.00	24.87
3	20	88.70	0.00	0.00	0.00	5.92	3.72	0.33	0.23	0.04	0.54	1.14	0.08	0.03	0.11	0.00	0.00	25.33
4	1	88.70	0.00	0.00	0.00	5.92	3.69	0.33	0.23	0.04	0.54	1.13	0.08	0.03	0.11	0.00	0.00	25.64
4	2	88.70	0.00	0.00	0.00	5.92	3.66	0.32	0.23	0.03	0.54	1.13	0.08	0.03	0.11	0.00	0.00	25.95
4	3	88.70	0.00	0.00	0.00	5.92	3.63	0.32	0.23	0.03	0.54	1.13	0.08	0.03	0.11	0.00	0.00	26.26
4	4	88.70	0.00	0.00	0.00	5.91	3.60	0.32	0.22	0.03	0.55	1.12	0.08	0.03	0.11	0.00	0.00	26.54
4	5	88.70	0.00	0.00	0.00	5.91	3.57	0.32	0.22	0.03	0.55	1.12	0.08	0.03	0.11	0.00	0.00	26.84

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	88.70	0.00	0.00	0.00	5.91	3.54	0.31	0.22	0.03	0.55	1.12	0.08	0.03	0.11	0.00	0.00	27.15
4	7	88.70	0.00	0.00	0.00	5.91	3.51	0.31	0.22	0.03	0.55	1.12	0.08	0.03	0.11	0.00	0.00	27.45
4	8	88.70	0.00	0.00	0.00	5.91	3.48	0.31	0.22	0.03	0.55	1.11	0.08	0.03	0.11	0.00	0.00	27.75
4	9	88.70	0.00	0.00	0.00	5.91	3.45	0.31	0.22	0.03	0.55	1.11	0.08	0.03	0.11	0.00	0.00	28.05
4	10	88.70	0.00	0.00	0.00	5.91	3.42	0.30	0.22	0.03	0.55	1.11	0.08	0.03	0.11	0.00	0.00	28.35
4	11	88.70	0.00	0.00	0.00	5.91	3.39	0.30	0.22	0.03	0.55	1.11	0.08	0.03	0.11	0.00	0.00	28.65
4	12	88.70	0.00	0.00	0.00	5.91	3.36	0.30	0.21	0.03	0.56	1.10	0.08	0.03	0.11	0.00	0.00	28.94
4	13	88.70	0.00	0.00	0.00	5.91	3.34	0.30	0.21	0.03	0.56	1.10	0.08	0.03	0.11	0.00	0.00	29.23
4	14	88.70	0.00	0.00	0.00	5.91	3.31	0.29	0.21	0.03	0.56	1.10	0.08	0.02	0.11	0.00	0.00	29.52
4	15	88.70	0.00	0.00	0.00	5.91	3.28	0.29	0.21	0.03	0.56	1.10	0.08	0.02	0.11	0.00	0.00	29.81
4	16	88.70	0.00	0.00	0.00	5.91	3.25	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11	0.00	0.00	30.09
4	17	88.70	0.00	0.00	0.00	5.91	3.23	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11	0.00	0.00	30.36
4	18	88.70	0.00	0.00	0.00	5.91	3.20	0.29	0.21	0.03	0.56	1.09	0.08	0.02	0.11	0.00	0.00	30.63
4	19	88.70	0.00	0.00	0.00	5.92	3.17	0.28	0.21	0.03	0.56	1.08	0.08	0.02	0.11	0.00	0.00	30.90
4	20	88.70	0.00	0.00	0.00	5.92	3.15	0.28	0.21	0.03	0.56	1.08	0.08	0.02	0.11	0.00	0.00	31.16
5	1	88.70	0.00	0.00	0.00	5.91	3.13	0.28	0.20	0.03	0.57	1.08	0.08	0.02	0.11	0.00	0.00	31.34
5	2	88.70	0.00	0.00	0.00	5.90	3.11	0.28	0.20	0.03	0.57	1.08	0.08	0.02	0.10	0.00	0.00	31.52
5	3	88.70	0.00	0.00	0.00	5.89	3.09	0.27	0.20	0.03	0.57	1.08	0.09	0.02	0.10	0.00	0.00	31.70
5	4	88.70	0.00	0.00	0.00	5.88	3.07	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10	0.00	0.00	31.87
5	5	88.70	0.00	0.00	0.00	5.87	3.05	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10	0.00	0.00	32.03
5	6	88.70	0.00	0.00	0.00	5.86	3.03	0.27	0.20	0.03	0.57	1.07	0.09	0.02	0.10	0.00	0.00	32.19
5	7	88.70	0.00	0.00	0.00	5.85	3.01	0.26	0.20	0.03	0.58	1.07	0.09	0.02	0.10	0.00	0.00	32.35
5	8	88.70	0.00	0.00	0.00	5.84	2.99	0.26	0.20	0.03	0.58	1.07	0.09	0.02	0.10	0.00	0.00	32.49
5	9	88.70	0.00	0.00	0.00	5.83	2.97	0.26	0.19	0.03	0.58	1.06	0.09	0.02	0.10	0.00	0.00	32.63
5	10	88.70	0.00	0.00	0.00	5.82	2.95	0.26	0.19	0.03	0.58	1.06	0.09	0.02	0.10	0.00	0.00	32.77
5	11	88.70	0.00	0.00	0.00	5.81	2.93	0.26	0.19	0.03	0.58	1.06	0.09	0.01	0.10	0.00	0.00	32.89
5	12	88.70	0.00	0.00	0.00	5.80	2.91	0.25	0.19	0.03	0.58	1.06	0.09	0.01	0.10	0.00	0.00	33.01
5	13	88.70	0.00	0.00	0.00	5.78	2.89	0.25	0.19	0.03	0.58	1.06	0.09	0.01	0.10	0.00	0.00	33.12
5	14	88.70	0.00	0.00	0.00	5.77	2.87	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10	0.00	0.00	33.22
5	15	88.70	0.00	0.00	0.00	5.76	2.86	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10	0.00	0.00	33.31
5	16	88.70	0.00	0.00	0.00	5.74	2.84	0.25	0.19	0.03	0.59	1.05	0.09	0.01	0.10	0.00	0.00	33.40
5	17	88.70	0.00	0.00	0.00	5.73	2.82	0.25	0.19	0.03	0.59	1.06	0.09	0.01	0.10	0.00	0.00	33.46
5	18	88.70	0.00	0.00	0.00	5.71	2.80	0.25	0.19	0.03	0.59	1.06	0.09	0.01	0.10	0.00	0.00	33.54
5	19	88.70	0.00	0.00	0.00	5.70	2.78	0.24	0.19	0.03	0.59	1.06	0.09	0.01	0.10	0.00	0.00	33.61
5	20	88.70	0.00	0.00	0.00	5.68	2.77	0.24	0.19	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	33.68
6	1	88.70	0.00	0.00	0.00	5.67	2.75	0.24	0.19	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	33.78
6	2	88.70	0.00	0.00	0.00	5.66	2.73	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	33.87

6	3	88.70	0.00	0.00	0.00	5.65	2.71	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	33.97
6	4	88.70	0.00	0.00	0.00	5.64	2.70	0.24	0.18	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	34.07
6	5	88.70	0.00	0.00	0.00	5.63	2.68	0.23	0.18	0.03	0.60	1.05	0.09	0.01	0.10	0.00	0.00	34.17
6	6	88.70	0.00	0.00	0.00	5.62	2.66	0.23	0.18	0.03	0.60	1.04	0.09	0.01	0.10	0.00	0.00	34.27
6	7	88.70	0.00	0.00	0.00	5.62	2.64	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10	0.00	0.00	34.37
6	8	88.70	0.00	0.00	0.00	5.61	2.63	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10	0.00	0.00	34.48
6	9	88.70	0.00	0.00	0.00	5.60	2.61	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10	0.00	0.00	34.58
6	10	88.70	0.00	0.00	0.00	5.59	2.59	0.23	0.18	0.03	0.61	1.04	0.09	0.01	0.10	0.00	0.00	34.68
6	11	88.70	0.00	0.00	0.00	5.59	2.58	0.22	0.17	0.03	0.61	1.04	0.08	0.01	0.10	0.00	0.00	34.79
6	12	88.70	0.00	0.00	0.00	5.58	2.56	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10	0.00	0.00	34.89
6	13	88.70	0.00	0.00	0.00	5.57	2.54	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10	0.00	0.00	34.99
6	14	88.70	0.00	0.00	0.00	5.57	2.53	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10	0.00	0.00	35.10
6	15	88.70	0.00	0.00	0.00	5.56	2.51	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10	0.00	0.00	35.20
6	16	88.70	0.00	0.00	0.00	5.56	2.49	0.22	0.17	0.03	0.61	1.03	0.08	0.01	0.10	0.00	0.00	35.31
6	17	88.70	0.00	0.00	0.00	5.55	2.48	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09	0.00	0.00	35.41
6	18	88.70	0.00	0.00	0.00	5.55	2.46	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09	0.00	0.00	35.52
6	19	88.70	0.00	0.00	0.00	5.55	2.45	0.21	0.17	0.03	0.62	1.02	0.08	0.01	0.09	0.00	0.00	35.62
6	20	88.70	0.00	0.00	0.00	5.54	2.43	0.21	0.16	0.03	0.62	1.02	0.08	0.01	0.09	0.00	0.00	35.73
7	1	88.70	0.00	0.00	0.00	5.55	2.41	0.21	0.16	0.03	0.62	1.02	0.08	0.01	0.09	0.00	0.00	35.95
7	2	88.70	0.00	0.00	0.00	5.56	2.39	0.21	0.16	0.03	0.62	1.01	0.08	0.01	0.09	0.00	0.00	36.22
7	3	88.70	0.00	0.00	0.00	5.57	2.36	0.20	0.16	0.02	0.62	1.01	0.08	0.01	0.09	0.00	0.00	36.49
7	4	88.70	0.00	0.00	0.00	5.57	2.34	0.20	0.16	0.02	0.62	1.01	0.08	0.01	0.09	0.00	0.00	36.75
7	5	88.70	0.00	0.00	0.00	5.58	2.31	0.20	0.16	0.02	0.62	1.00	0.08	0.01	0.09	0.00	0.00	37.01
7	6	88.70	0.00	0.00	0.00	5.59	2.29	0.20	0.15	0.02	0.62	1.00	0.08	0.01	0.09	0.00	0.00	37.26
7	7	88.70	0.00	0.00	0.00	5.60	2.27	0.20	0.15	0.02	0.62	1.00	0.08	0.01	0.09	0.00	0.00	37.51
7	8	88.70	0.00	0.00	0.00	5.60	2.25	0.20	0.15	0.02	0.62	0.99	0.08	0.01	0.09	0.00	0.00	37.76
7	9	88.70	0.00	0.00	0.00	5.61	2.22	0.19	0.15	0.02	0.62	0.99	0.08	0.01	0.09	0.00	0.00	37.99
7	10	88.70	0.00	0.00	0.00	5.62	2.20	0.19	0.15	0.02	0.63	0.99	0.08	0.01	0.09	0.00	0.00	38.22

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	88.70	0.00	0.00	0.00	5.63	2.18	0.19	0.15	0.02	0.63	0.99	0.08	0.01	0.09	0.00	0.00	38.45
7	12	88.70	0.00	0.00	0.00	5.63	2.16	0.19	0.15	0.02	0.63	0.98	0.08	0.01	0.09	0.00	0.00	38.63
7	13	88.70	0.00	0.00	0.00	5.61	2.25	0.24	0.13	0.03	0.59	0.99	0.08	0.02	0.09	0.00	0.00	33.63
7	14	88.70	0.00	0.00	0.00	5.63	2.23	0.24	0.13	0.03	0.59	0.99	0.08	0.02	0.09	0.00	0.00	33.93
7	15	88.70	0.00	0.00	0.00	5.64	2.21	0.23	0.13	0.03	0.59	0.98	0.07	0.02	0.09	0.00	0.00	34.22
7	16	88.70	0.00	0.00	0.00	5.66	2.20	0.23	0.13	0.03	0.59	0.98	0.07	0.01	0.09	0.00	0.00	34.51
7	17	88.70	0.00	0.00	0.00	5.68	2.18	0.23	0.13	0.03	0.59	0.98	0.07	0.01	0.09	0.00	0.00	34.80
7	18	88.70	0.00	0.00	0.00	5.69	2.16	0.23	0.13	0.03	0.59	0.97	0.07	0.01	0.09	0.00	0.00	35.08
7	19	88.70	0.00	0.00	0.00	5.71	2.14	0.23	0.13	0.02	0.59	0.97	0.07	0.01	0.09	0.00	0.00	35.36

7	20		88.70	0.00	0.00	0.00	5.73	2.12	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09	0.00	0.00	35.64
8	1		88.70	0.00	0.00	0.00	5.75	2.14	0.23	0.13	0.02	0.59	0.98	0.07	0.02	0.09	0.00	0.00	35.93
8	2		88.70	0.00	0.00	0.00	5.77	2.12	0.23	0.13	0.02	0.59	0.98	0.07	0.02	0.09	0.00	0.00	36.23
8	3		88.70	0.00	0.00	0.00	5.79	2.10	0.22	0.13	0.02	0.59	0.97	0.07	0.02	0.09	0.00	0.00	36.53
8	4		88.70	0.00	0.00	0.00	5.81	2.09	0.22	0.13	0.02	0.59	0.97	0.07	0.02	0.09	0.00	0.00	36.82
8	5		88.70	0.00	0.00	0.00	5.83	2.07	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09	0.00	0.00	37.11
8	6		88.70	0.00	0.00	0.00	5.85	2.05	0.22	0.13	0.02	0.59	0.97	0.07	0.01	0.09	0.00	0.00	37.39
8	7		88.70	0.00	0.00	0.00	5.87	2.04	0.22	0.13	0.02	0.59	0.96	0.07	0.01	0.09	0.00	0.00	37.67
8	8		88.70	0.00	0.00	0.00	5.88	2.02	0.21	0.13	0.02	0.59	0.96	0.07	0.01	0.09	0.00	0.00	37.93

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 10
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.60	0.52	0.08	1.05	5.51	0.44	0.50	0.12	0.66	0.22	0.70	0.80
2	1	2	8.80	0.52	0.08	1.05	5.53	0.45	0.50	0.12	0.66	0.22	0.70	0.80
3	1	3	9.00	0.52	0.08	1.05	5.55	0.46	0.50	0.13	0.67	0.22	0.71	0.80
4	1	4	9.21	0.52	0.08	1.05	5.56	0.48	0.50	0.13	0.67	0.22	0.71	0.79
5	1	5	9.43	0.52	0.08	1.05	5.56	0.49	0.50	0.14	0.67	0.22	0.72	0.79
6	1	6	9.65	0.52	0.08	1.05	5.56	0.50	0.50	0.14	0.67	0.22	0.72	0.79
7	1	7	9.88	0.52	0.08	1.05	5.56	0.51	0.50	0.15	0.67	0.22	0.72	0.79
8	1	8	10.11	0.52	0.08	1.05	5.56	0.52	0.50	0.15	0.67	0.22	0.73	0.79
9	1	9	10.35	0.52	0.08	1.05	5.55	0.53	0.50	0.16	0.68	0.22	0.73	0.79
10	1	10	10.59	0.52	0.08	1.05	5.54	0.54	0.50	0.16	0.68	0.21	0.73	0.79
11	1	11	10.84	0.52	0.08	1.05	5.53	0.56	0.50	0.17	0.68	0.21	0.73	0.78
12	1	12	11.09	0.52	0.08	1.05	5.51	0.57	0.50	0.17	0.68	0.21	0.73	0.78
13	1	13	11.35	0.52	0.08	1.05	5.50	0.58	0.50	0.17	0.68	0.21	0.74	0.78
14	1	14	11.61	0.52	0.08	1.05	5.48	0.59	0.50	0.18	0.69	0.21	0.74	0.78
15	1	15	11.87	0.51	0.08	1.05	5.46	0.60	0.50	0.18	0.69	0.21	0.74	0.78
16	1	16	12.14	0.51	0.08	1.05	5.44	0.61	0.50	0.18	0.69	0.21	0.74	0.77
17	1	17	12.42	0.51	0.08	1.05	5.41	0.62	0.50	0.19	0.69	0.21	0.74	0.77
18	1	18	12.69	0.51	0.08	1.05	5.39	0.63	0.50	0.19	0.69	0.21	0.74	0.77
19	1	19	12.98	0.51	0.08	1.05	5.36	0.64	0.50	0.19	0.70	0.21	0.74	0.77
20	1	20	13.25	0.51	0.08	1.05	5.37	0.65	0.50	0.20	0.70	0.21	0.75	0.77
21	2	1	12.94	0.40	0.08	1.05	4.24	0.47	0.50	0.35	1.03	0.14	0.78	0.85
22	2	2	13.12	0.40	0.08	1.05	4.23	0.48	0.50	0.35	1.03	0.14	0.78	0.84
23	2	3	13.30	0.40	0.08	1.05	4.22	0.48	0.50	0.35	1.03	0.14	0.78	0.84

24	2	4	13.48	0.40	0.08	1.05	4.21	0.49	0.50	0.35	1.03	0.14	0.79	0.84
25	2	5	13.67	0.40	0.08	1.05	4.21	0.50	0.50	0.35	1.03	0.14	0.79	0.84
26	2	6	13.86	0.40	0.08	1.05	4.20	0.50	0.50	0.35	1.03	0.14	0.79	0.84
27	2	7	14.05	0.40	0.08	1.05	4.19	0.51	0.50	0.35	1.03	0.14	0.79	0.84
28	2	8	14.24	0.39	0.08	1.05	4.19	0.51	0.50	0.35	1.04	0.14	0.79	0.84
29	2	9	14.44	0.39	0.08	1.05	4.18	0.52	0.50	0.35	1.04	0.14	0.79	0.84
30	2	10	14.64	0.39	0.08	1.05	4.17	0.52	0.50	0.34	1.04	0.14	0.79	0.84
31	2	11	14.83	0.39	0.08	1.05	4.16	0.53	0.50	0.34	1.04	0.14	0.79	0.84
32	2	12	15.04	0.39	0.08	1.05	4.15	0.54	0.50	0.34	1.04	0.14	0.79	0.84
33	2	13	15.24	0.39	0.08	1.05	4.15	0.54	0.50	0.34	1.04	0.14	0.79	0.83
34	2	14	15.44	0.39	0.08	1.05	4.14	0.55	0.50	0.34	1.04	0.14	0.79	0.83
35	2	15	15.65	0.39	0.08	1.05	4.13	0.55	0.50	0.34	1.05	0.14	0.79	0.83
36	2	16	15.86	0.39	0.08	1.05	4.12	0.56	0.50	0.34	1.05	0.14	0.79	0.83
37	2	17	16.07	0.39	0.08	1.05	4.11	0.56	0.50	0.33	1.05	0.14	0.79	0.83
38	2	18	16.28	0.39	0.08	1.05	4.10	0.57	0.50	0.33	1.05	0.14	0.79	0.83
39	2	19	16.49	0.39	0.08	1.05	4.09	0.58	0.50	0.33	1.05	0.14	0.79	0.83
40	2	20	16.71	0.38	0.08	1.05	4.08	0.58	0.50	0.33	1.05	0.14	0.79	0.83
41	3	1	17.09	0.53	0.08	1.05	5.66	0.90	0.50	0.33	0.76	0.19	0.79	0.82
42	3	2	17.49	0.53	0.08	1.05	5.63	0.92	0.50	0.33	0.76	0.19	0.79	0.82
43	3	3	17.89	0.53	0.08	1.05	5.60	0.93	0.50	0.33	0.76	0.19	0.79	0.82
44	3	4	18.29	0.52	0.08	1.05	5.57	0.94	0.50	0.32	0.76	0.19	0.79	0.82
45	3	5	18.70	0.52	0.08	1.05	5.53	0.96	0.50	0.32	0.77	0.19	0.79	0.82
46	3	6	19.12	0.52	0.08	1.05	5.50	0.97	0.50	0.32	0.77	0.19	0.79	0.81
47	3	7	19.54	0.51	0.08	1.05	5.46	0.99	0.50	0.32	0.77	0.19	0.79	0.81
48	3	8	19.96	0.51	0.08	1.05	5.43	1.00	0.50	0.32	0.78	0.19	0.79	0.81
49	3	9	20.39	0.51	0.08	1.05	5.39	1.01	0.50	0.32	0.78	0.19	0.79	0.81
50	3	10	20.82	0.50	0.08	1.05	5.35	1.03	0.50	0.31	0.78	0.19	0.79	0.80
51	3	11	21.26	0.50	0.08	1.05	5.32	1.04	0.50	0.31	0.78	0.19	0.79	0.80
52	3	12	21.70	0.50	0.08	1.05	5.28	1.05	0.50	0.31	0.79	0.18	0.79	0.80
53	3	13	22.15	0.49	0.08	1.05	5.24	1.06	0.50	0.31	0.79	0.18	0.79	0.80
54	3	14	22.59	0.49	0.08	1.05	5.20	1.07	0.50	0.31	0.79	0.18	0.79	0.79
55	3	15	23.04	0.49	0.08	1.05	5.16	1.08	0.50	0.31	0.80	0.18	0.79	0.79
56	3	16	23.50	0.48	0.08	1.05	5.12	1.09	0.50	0.30	0.80	0.18	0.79	0.79
57	3	17	23.95	0.48	0.08	1.05	5.07	1.10	0.50	0.30	0.80	0.18	0.79	0.78
58	3	18	24.41	0.47	0.08	1.05	5.03	1.11	0.50	0.30	0.80	0.18	0.79	0.78
59	3	19	24.87	0.47	0.08	1.05	4.99	1.12	0.50	0.30	0.81	0.18	0.79	0.77
60	3	20	25.33	0.47	0.08	1.05	4.94	1.13	0.50	0.30	0.81	0.18	0.79	0.77
61	4	1	25.64	0.36	0.08	1.05	3.84	0.82	0.50	0.30	0.93	0.14	0.79	0.77
62	4	2	25.95	0.36	0.08	1.05	3.81	0.83	0.50	0.29	0.93	0.14	0.79	0.76
63	4	3	26.26	0.36	0.08	1.05	3.79	0.83	0.50	0.29	0.94	0.14	0.79	0.76
64	4	4	26.54	0.35	0.08	1.05	3.76	0.83	0.50	0.29	0.94	0.14	0.79	0.76
65	4	5	26.84	0.35	0.08	1.05	3.73	0.83	0.50	0.29	0.94	0.14	0.79	0.75

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New Model - Calibration Confirmation

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	27.15	0.35	0.08	1.05	3.71	0.83	0.50	0.29	0.94	0.14	0.79	0.75
67	4	7	27.45	0.35	0.08	1.05	3.68	0.83	0.50	0.29	0.94	0.14	0.79	0.75
68	4	8	27.75	0.34	0.08	1.05	3.65	0.83	0.50	0.28	0.95	0.14	0.79	0.74
69	4	9	28.05	0.34	0.08	1.05	3.62	0.83	0.50	0.28	0.95	0.14	0.79	0.74
70	4	10	28.35	0.34	0.08	1.05	3.60	0.83	0.50	0.28	0.95	0.14	0.79	0.73
71	4	11	28.65	0.34	0.08	1.05	3.57	0.83	0.50	0.28	0.95	0.14	0.79	0.73
72	4	12	28.94	0.33	0.08	1.05	3.54	0.83	0.50	0.28	0.95	0.14	0.79	0.72
73	4	13	29.23	0.33	0.08	1.05	3.50	0.83	0.50	0.28	0.96	0.14	0.79	0.72
74	4	14	29.52	0.33	0.08	1.05	3.47	0.83	0.50	0.28	0.96	0.14	0.79	0.71
75	4	15	29.81	0.32	0.08	1.05	3.44	0.82	0.50	0.27	0.96	0.14	0.79	0.71
76	4	16	30.09	0.32	0.08	1.05	3.41	0.82	0.50	0.27	0.96	0.14	0.79	0.70
77	4	17	30.36	0.32	0.08	1.05	3.37	0.81	0.50	0.27	0.96	0.14	0.79	0.70
78	4	18	30.63	0.31	0.08	1.05	3.34	0.81	0.50	0.27	0.96	0.14	0.79	0.69
79	4	19	30.90	0.31	0.08	1.05	3.30	0.80	0.50	0.27	0.97	0.14	0.79	0.68
80	4	20	31.16	0.31	0.08	1.05	3.26	0.80	0.50	0.27	0.97	0.13	0.79	0.68
81	5	1	31.34	0.24	0.08	1.05	2.56	0.55	0.50	0.27	1.02	0.11	0.79	0.67
82	5	2	31.52	0.24	0.08	1.05	2.53	0.55	0.50	0.26	1.02	0.11	0.79	0.67
83	5	3	31.70	0.24	0.08	1.05	2.51	0.54	0.50	0.26	1.02	0.11	0.79	0.66
84	5	4	31.87	0.23	0.08	1.05	2.48	0.53	0.50	0.26	1.02	0.11	0.79	0.65
85	5	5	32.03	0.23	0.08	1.05	2.45	0.53	0.50	0.26	1.02	0.11	0.79	0.65
86	5	6	32.19	0.23	0.08	1.05	2.42	0.52	0.50	0.26	1.02	0.11	0.79	0.64
87	5	7	32.35	0.23	0.08	1.05	2.39	0.51	0.50	0.26	1.03	0.11	0.79	0.63
88	5	8	32.49	0.22	0.08	1.05	2.36	0.50	0.50	0.25	1.03	0.11	0.79	0.62
89	5	9	32.63	0.22	0.08	1.05	2.33	0.49	0.50	0.25	1.03	0.11	0.79	0.62
90	5	10	32.77	0.22	0.08	1.05	2.30	0.48	0.50	0.25	1.03	0.11	0.79	0.61
91	5	11	32.89	0.21	0.08	1.05	2.26	0.47	0.50	0.25	1.03	0.11	0.79	0.60
92	5	12	33.01	0.21	0.08	1.05	2.23	0.46	0.50	0.25	1.03	0.11	0.79	0.59
93	5	13	33.12	0.21	0.08	1.05	2.19	0.45	0.50	0.25	1.03	0.11	0.79	0.58
94	5	14	33.22	0.20	0.08	1.05	2.16	0.43	0.50	0.24	1.03	0.11	0.79	0.57
95	5	15	33.31	0.20	0.08	1.05	2.12	0.42	0.50	0.24	1.03	0.11	0.80	0.56
96	5	16	33.40	0.20	0.08	1.05	2.08	0.41	0.50	0.24	1.03	0.11	0.80	0.55
97	5	17	33.46	0.20	0.08	1.05	2.12	0.42	0.50	0.24	1.03	0.11	0.80	0.56
98	5	18	33.54	0.20	0.08	1.05	2.08	0.41	0.50	0.24	1.03	0.11	0.80	0.55
99	5	19	33.61	0.19	0.08	1.05	2.04	0.40	0.50	0.24	1.03	0.11	0.80	0.54
100	5	20	33.68	0.19	0.08	1.05	2.00	0.38	0.50	0.24	1.03	0.11	0.80	0.53
101	6	1	33.78	0.20	0.08	1.05	2.13	0.43	0.50	0.24	0.97	0.11	0.80	0.53
102	6	2	33.87	0.20	0.08	1.05	2.13	0.43	0.50	0.24	0.97	0.11	0.80	0.53
103	6	3	33.97	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.97	0.11	0.80	0.53

104	6	4	34.07	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
105	6	5	34.17	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
106	6	6	34.27	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
107	6	7	34.37	0.20	0.08	1.05	2.14	0.44	0.50	0.23	0.98	0.11	0.80	0.54
108	6	8	34.48	0.20	0.08	1.05	2.14	0.45	0.50	0.23	0.98	0.11	0.80	0.54
109	6	9	34.58	0.20	0.08	1.05	2.15	0.45	0.50	0.23	0.98	0.11	0.80	0.54
110	6	10	34.68	0.20	0.08	1.05	2.15	0.45	0.50	0.22	0.98	0.11	0.80	0.54
111	6	11	34.79	0.20	0.08	1.05	2.15	0.45	0.50	0.22	0.98	0.11	0.80	0.54
112	6	12	34.89	0.20	0.08	1.05	2.15	0.45	0.50	0.22	0.98	0.11	0.80	0.54
113	6	13	34.99	0.20	0.08	1.05	2.15	0.45	0.50	0.22	0.98	0.11	0.80	0.54
114	6	14	35.10	0.20	0.08	1.05	2.14	0.45	0.50	0.22	0.98	0.11	0.80	0.54
115	6	15	35.20	0.20	0.08	1.05	2.14	0.46	0.50	0.22	0.98	0.11	0.80	0.54
116	6	16	35.31	0.20	0.08	1.05	2.14	0.46	0.50	0.22	0.98	0.11	0.80	0.54
117	6	17	35.41	0.20	0.08	1.05	2.14	0.46	0.50	0.21	0.98	0.11	0.80	0.54
118	6	18	35.52	0.20	0.08	1.05	2.14	0.46	0.50	0.21	0.98	0.11	0.80	0.54
119	6	19	35.62	0.20	0.08	1.05	2.14	0.46	0.50	0.21	0.99	0.11	0.80	0.54
120	6	20	35.73	0.20	0.08	1.05	2.13	0.46	0.50	0.21	0.99	0.11	0.80	0.54
121	7	1	35.95	0.21	0.08	1.05	2.26	0.51	0.50	0.21	0.78	0.12	0.80	0.54
122	7	2	36.22	0.21	0.08	1.05	2.25	0.51	0.50	0.21	0.78	0.12	0.80	0.54
123	7	3	36.49	0.21	0.08	1.05	2.24	0.51	0.50	0.20	0.78	0.12	0.80	0.53
124	7	4	36.75	0.21	0.08	1.05	2.22	0.51	0.50	0.20	0.78	0.12	0.80	0.53
125	7	5	37.01	0.21	0.08	1.05	2.21	0.50	0.50	0.20	0.78	0.12	0.80	0.53
126	7	6	37.26	0.21	0.08	1.05	2.19	0.50	0.50	0.20	0.78	0.12	0.80	0.53
127	7	7	37.51	0.20	0.08	1.05	2.17	0.50	0.50	0.20	0.79	0.12	0.80	0.52
128	7	8	37.76	0.20	0.08	1.05	2.16	0.49	0.50	0.20	0.79	0.12	0.80	0.52
129	7	9	37.99	0.20	0.08	1.05	2.14	0.49	0.50	0.19	0.79	0.12	0.79	0.52
130	7	10	38.22	0.20	0.08	1.05	2.12	0.49	0.50	0.19	0.79	0.12	0.79	0.51

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	38.45	0.20	0.08	1.05	2.11	0.48	0.50	0.19	0.79	0.11	0.79	0.51
132	7	12	38.63	0.20	0.08	1.05	2.09	0.48	0.50	0.19	0.79	0.11	0.79	0.51
133	7	13	33.63	0.24	0.08	1.05	2.54	0.59	0.50	0.18	0.76	0.12	0.78	0.61
134	7	14	33.93	0.24	0.08	1.05	2.53	0.59	0.50	0.18	0.76	0.12	0.78	0.60
135	7	15	34.22	0.24	0.08	1.05	2.51	0.58	0.50	0.18	0.77	0.12	0.78	0.60
136	7	16	34.51	0.23	0.08	1.05	2.49	0.58	0.50	0.18	0.77	0.12	0.78	0.60
137	7	17	34.80	0.23	0.08	1.05	2.47	0.58	0.50	0.18	0.77	0.12	0.78	0.60
138	7	18	35.08	0.23	0.08	1.05	2.46	0.58	0.50	0.18	0.77	0.12	0.78	0.59
139	7	19	35.36	0.23	0.08	1.05	2.44	0.58	0.50	0.18	0.77	0.12	0.78	0.59

140	7	20	35.64	0.23	0.08	1.05	2.42	0.57	0.50	0.18	0.78	0.12	0.78	0.59
141	8	1	35.93	0.24	0.08	1.05	2.52	0.62	0.50	0.18	0.78	0.12	0.78	0.61
142	8	2	36.23	0.24	0.08	1.05	2.50	0.62	0.50	0.18	0.78	0.12	0.78	0.61
143	8	3	36.53	0.23	0.08	1.05	2.48	0.61	0.50	0.18	0.78	0.12	0.78	0.60
144	8	4	36.82	0.23	0.08	1.05	2.46	0.61	0.50	0.18	0.78	0.12	0.78	0.60
145	8	5	37.11	0.23	0.08	1.05	2.44	0.60	0.50	0.18	0.78	0.12	0.78	0.60
146	8	6	37.39	0.23	0.08	1.05	2.42	0.60	0.50	0.18	0.79	0.12	0.78	0.59
147	8	7	37.67	0.23	0.08	1.05	2.40	0.59	0.50	0.18	0.79	0.12	0.78	0.59
148	8	8	37.93	0.22	0.08	1.05	2.37	0.59	0.50	0.18	0.79	0.12	0.78	0.59

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	88.70	7.37	5.94	1.42	0.00	1.00	86.37	0.35	-0.32	-0.01	0.44	-0.05	-0.17
2	1	2	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.31	-0.01	0.45	-0.05	-0.16
3	1	3	88.70	7.37	5.93	1.43	0.00	1.00	0.01	0.36	-0.31	-0.01	0.46	-0.05	-0.14
4	1	4	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.01	0.48	-0.06	-0.13
5	1	5	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.01	0.49	-0.06	-0.12
6	1	6	88.70	7.37	5.93	1.44	0.00	1.00	0.01	0.36	-0.31	-0.01	0.50	-0.06	-0.11
7	1	7	88.70	7.37	5.93	1.43	0.00	1.00	0.01	0.36	-0.31	-0.01	0.51	-0.07	-0.10
8	1	8	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.30	-0.01	0.52	-0.07	-0.09
9	1	9	88.70	7.37	5.94	1.43	0.00	1.00	0.01	0.36	-0.30	-0.01	0.53	-0.07	-0.08
10	1	10	88.70	7.37	5.95	1.42	0.00	1.00	0.01	0.35	-0.30	-0.01	0.54	-0.08	-0.08
11	1	11	88.70	7.37	5.95	1.41	0.00	1.00	0.01	0.35	-0.30	-0.01	0.56	-0.08	-0.07
12	1	12	88.70	7.37	5.96	1.41	0.00	1.00	0.01	0.35	-0.30	-0.01	0.57	-0.08	-0.07
13	1	13	88.70	7.37	5.97	1.40	0.00	1.00	0.01	0.35	-0.29	-0.01	0.58	-0.08	-0.06
14	1	14	88.70	7.37	5.98	1.39	0.00	1.00	0.01	0.35	-0.29	-0.01	0.59	-0.09	-0.06
15	1	15	88.70	7.37	5.99	1.38	0.00	1.00	0.01	0.34	-0.29	-0.01	0.60	-0.09	-0.06
16	1	16	88.70	7.37	6.00	1.37	0.00	1.00	0.01	0.34	-0.29	-0.01	0.61	-0.09	-0.05
17	1	17	88.70	7.37	6.01	1.36	0.00	1.00	0.01	0.34	-0.29	-0.01	0.62	-0.09	-0.05
18	1	18	88.70	7.37	6.02	1.35	0.00	1.00	0.01	0.34	-0.29	-0.01	0.63	-0.09	-0.05
19	1	19	88.70	7.37	6.03	1.33	0.00	1.00	0.01	0.33	-0.28	-0.01	0.64	-0.10	-0.05
20	1	20	88.70	7.37	6.04	1.32	0.00	1.00	0.01	0.33	-0.29	-0.01	0.65	-0.10	-0.05
21	2	1	88.70	7.37	5.91	1.46	0.00	1.00	2.18	0.37	-0.66	-0.01	0.47	-0.22	-0.05
22	2	2	88.70	7.37	5.88	1.49	0.00	1.00	0.01	0.38	-0.65	-0.01	0.48	-0.22	-0.06
23	2	3	88.70	7.37	5.85	1.51	0.00	1.00	0.01	0.38	-0.65	-0.01	0.48	-0.22	-0.06

24	2	4	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.39	-0.64	-0.01	0.49	-0.22	-0.06
25	2	5	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.40	-0.63	-0.01	0.50	-0.22	-0.06
26	2	6	88.70	7.37	5.78	1.59	0.00	1.00	0.01	0.40	-0.63	-0.01	0.50	-0.22	-0.06
27	2	7	88.70	7.37	5.75	1.61	0.00	1.00	0.01	0.41	-0.62	-0.01	0.51	-0.22	-0.06
28	2	8	88.70	7.37	5.73	1.64	0.00	1.00	0.01	0.41	-0.62	-0.01	0.51	-0.22	-0.06
29	2	9	88.70	7.37	5.71	1.66	0.00	1.00	0.01	0.42	-0.61	-0.01	0.52	-0.22	-0.07
30	2	10	88.70	7.37	5.69	1.68	0.00	1.00	0.01	0.43	-0.61	-0.01	0.52	-0.22	-0.07
31	2	11	88.70	7.37	5.67	1.70	0.00	1.00	0.01	0.43	-0.60	-0.01	0.53	-0.22	-0.07
32	2	12	88.70	7.37	5.65	1.72	0.00	1.00	0.01	0.43	-0.60	-0.01	0.54	-0.22	-0.07
33	2	13	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.44	-0.59	-0.01	0.54	-0.22	-0.07
34	2	14	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.44	-0.59	-0.01	0.55	-0.22	-0.07
35	2	15	88.70	7.37	5.60	1.76	0.00	1.00	0.01	0.45	-0.58	-0.01	0.55	-0.22	-0.07
36	2	16	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.45	-0.58	-0.01	0.56	-0.22	-0.07
37	2	17	88.70	7.37	5.57	1.79	0.00	1.00	0.01	0.45	-0.57	-0.01	0.56	-0.22	-0.07
38	2	18	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.46	-0.57	-0.01	0.57	-0.22	-0.07
39	2	19	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.46	-0.56	-0.01	0.58	-0.22	-0.07
40	2	20	88.70	7.37	5.54	1.83	0.00	1.00	0.01	0.46	-0.56	-0.01	0.58	-0.22	-0.07
41	3	1	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.46	-0.55	-0.01	0.90	-0.22	-0.07
42	3	2	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.46	-0.55	-0.01	0.92	-0.22	-0.07
43	3	3	88.70	7.37	5.57	1.79	0.00	1.00	0.01	0.45	-0.55	-0.01	0.93	-0.22	-0.07
44	3	4	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.45	-0.54	-0.01	0.94	-0.21	-0.07
45	3	5	88.70	7.37	5.60	1.77	0.00	1.00	0.01	0.45	-0.54	-0.01	0.96	-0.21	-0.07
46	3	6	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.44	-0.53	-0.01	0.97	-0.21	-0.07
47	3	7	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.44	-0.53	-0.01	0.99	-0.21	-0.07
48	3	8	88.70	7.37	5.65	1.72	0.00	1.00	0.01	0.43	-0.52	-0.01	1.00	-0.21	-0.07
49	3	9	88.70	7.37	5.67	1.70	0.00	1.00	0.01	0.43	-0.52	-0.01	1.01	-0.21	-0.07
50	3	10	88.70	7.37	5.69	1.68	0.00	1.00	0.01	0.43	-0.51	-0.01	1.03	-0.21	-0.07
51	3	11	88.70	7.37	5.71	1.66	0.00	1.00	0.01	0.42	-0.51	-0.01	1.04	-0.21	-0.07
52	3	12	88.70	7.37	5.73	1.64	0.00	1.00	0.01	0.41	-0.51	-0.01	1.05	-0.21	-0.07
53	3	13	88.70	7.37	5.75	1.61	0.00	1.00	0.01	0.41	-0.50	-0.01	1.06	-0.21	-0.07
54	3	14	88.70	7.37	5.78	1.59	0.00	1.00	0.01	0.40	-0.50	-0.01	1.07	-0.20	-0.07
55	3	15	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.40	-0.49	-0.01	1.08	-0.20	-0.07
56	3	16	88.70	7.37	5.82	1.54	0.00	1.00	0.01	0.39	-0.49	-0.01	1.09	-0.20	-0.07
57	3	17	88.70	7.37	5.85	1.52	0.00	1.00	0.01	0.39	-0.49	-0.01	1.10	-0.20	-0.07
58	3	18	88.70	7.37	5.87	1.49	0.00	1.00	0.01	0.38	-0.48	-0.01	1.11	-0.20	-0.07
59	3	19	88.70	7.37	5.90	1.47	0.00	1.00	0.01	0.37	-0.48	-0.01	1.12	-0.20	-0.07
60	3	20	88.70	7.37	5.92	1.44	0.00	1.00	0.01	0.37	-0.47	-0.01	1.13	-0.20	-0.07
61	4	1	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.34	-0.47	-0.01	0.82	-0.20	-0.07
62	4	2	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.47	-0.01	0.83	-0.19	-0.07
63	4	3	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.46	-0.01	0.83	-0.19	-0.07
64	4	4	88.70	7.37	5.91	1.45	0.00	1.00	0.09	0.31	-0.46	-0.01	0.83	-0.19	-0.07
65	4	5	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.01	0.83	-0.19	-0.07

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New Model - Calibration Confirmation

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.01	0.83	-0.19	-0.07
67	4	7	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.45	-0.01	0.83	-0.19	-0.07
68	4	8	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.01	0.83	-0.19	-0.07
69	4	9	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.01	0.83	-0.19	-0.07
70	4	10	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.44	-0.01	0.83	-0.19	-0.07
71	4	11	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.43	-0.01	0.83	-0.19	-0.06
72	4	12	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.43	-0.01	0.83	-0.18	-0.06
73	4	13	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.01	0.83	-0.18	-0.06
74	4	14	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.01	0.83	-0.18	-0.06
75	4	15	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.31	-0.42	-0.01	0.82	-0.18	-0.06
76	4	16	88.70	7.37	5.91	1.45	0.00	1.00	0.01	0.31	-0.41	-0.01	0.82	-0.18	-0.06
77	4	17	88.70	7.37	5.91	1.45	0.00	1.00	0.01	0.31	-0.41	-0.01	0.81	-0.18	-0.06
78	4	18	88.70	7.37	5.91	1.45	0.00	1.00	0.02	0.31	-0.41	-0.01	0.81	-0.18	-0.06
79	4	19	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.40	-0.01	0.80	-0.18	-0.06
80	4	20	88.70	7.37	5.92	1.45	0.00	1.00	0.01	0.31	-0.40	-0.01	0.80	-0.18	-0.06
81	5	1	88.70	7.37	5.91	1.46	0.00	1.00	0.01	0.27	-0.27	-0.01	0.55	-0.18	-0.06
82	5	2	88.70	7.37	5.90	1.47	0.00	1.00	0.01	0.22	-0.26	-0.01	0.55	-0.17	-0.06
83	5	3	88.70	7.37	5.89	1.48	0.00	1.00	0.01	0.22	-0.26	-0.01	0.54	-0.17	-0.06
84	5	4	88.70	7.37	5.88	1.48	0.00	1.00	0.01	0.22	-0.26	-0.01	0.53	-0.17	-0.06
85	5	5	88.70	7.37	5.87	1.49	0.00	1.00	0.01	0.23	-0.26	-0.01	0.53	-0.17	-0.06
86	5	6	88.70	7.37	5.86	1.50	0.00	1.00	0.01	0.23	-0.26	-0.01	0.52	-0.17	-0.06
87	5	7	88.70	7.37	5.85	1.51	0.00	1.00	0.01	0.23	-0.26	-0.01	0.51	-0.17	-0.06
88	5	8	88.70	7.37	5.84	1.52	0.00	1.00	0.01	0.23	-0.25	-0.01	0.50	-0.17	-0.06
89	5	9	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.23	-0.25	-0.01	0.49	-0.17	-0.06
90	5	10	88.70	7.37	5.82	1.55	0.00	1.00	0.01	0.23	-0.25	-0.01	0.48	-0.17	-0.06
91	5	11	88.70	7.37	5.81	1.56	0.00	1.00	0.01	0.24	-0.25	-0.01	0.47	-0.17	-0.06
92	5	12	88.70	7.37	5.80	1.57	0.00	1.00	0.01	0.24	-0.25	-0.01	0.46	-0.16	-0.06
93	5	13	88.70	7.37	5.78	1.58	0.00	1.00	0.01	0.24	-0.25	-0.01	0.45	-0.16	-0.06
94	5	14	88.70	7.37	5.77	1.60	0.00	1.00	0.01	0.24	-0.24	-0.01	0.43	-0.16	-0.06
95	5	15	88.70	7.37	5.76	1.61	0.00	1.00	0.01	0.24	-0.24	-0.01	0.42	-0.16	-0.06
96	5	16	88.70	7.37	5.74	1.63	0.00	1.00	0.01	0.25	-0.24	-0.01	0.41	-0.16	-0.06
97	5	17	88.70	7.37	5.73	1.64	0.00	1.00	0.08	0.25	-0.24	-0.01	0.42	-0.16	-0.06
98	5	18	88.70	7.37	5.71	1.65	0.00	1.00	0.01	0.25	-0.24	-0.01	0.41	-0.16	-0.06
99	5	19	88.70	7.37	5.70	1.67	0.00	1.00	0.01	0.25	-0.24	-0.01	0.40	-0.16	-0.06
100	5	20	88.70	7.37	5.68	1.68	0.00	1.00	0.01	0.26	-0.23	-0.01	0.38	-0.16	-0.06
101	6	1	88.70	7.37	5.67	1.70	0.00	1.00	0.01	0.26	-0.23	-0.01	0.43	-0.16	-0.06
102	6	2	88.70	7.37	5.66	1.71	0.00	1.00	0.01	0.26	-0.23	-0.01	0.43	-0.16	-0.05
103	6	3	88.70	7.37	5.65	1.72	0.00	1.00	0.01	0.26	-0.23	-0.01	0.44	-0.16	-0.05

104	6	4	88.70	7.37	5.64	1.73	0.00	1.00	0.01	0.26	-0.23	-0.01	0.44	-0.16	-0.05
105	6	5	88.70	7.37	5.63	1.73	0.00	1.00	0.01	0.26	-0.23	-0.01	0.44	-0.16	-0.05
106	6	6	88.70	7.37	5.62	1.74	0.00	1.00	0.01	0.26	-0.23	-0.01	0.44	-0.15	-0.05
107	6	7	88.70	7.37	5.62	1.75	0.00	1.00	0.01	0.27	-0.22	-0.01	0.44	-0.15	-0.05
108	6	8	88.70	7.37	5.61	1.76	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
109	6	9	88.70	7.37	5.60	1.77	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
110	6	10	88.70	7.37	5.59	1.77	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
111	6	11	88.70	7.37	5.59	1.78	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
112	6	12	88.70	7.37	5.58	1.79	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
113	6	13	88.70	7.37	5.57	1.79	0.00	1.00	0.01	0.27	-0.22	-0.01	0.45	-0.15	-0.05
114	6	14	88.70	7.37	5.57	1.80	0.00	1.00	0.01	0.27	-0.21	-0.01	0.45	-0.15	-0.05
115	6	15	88.70	7.37	5.56	1.80	0.00	1.00	0.01	0.27	-0.21	-0.01	0.46	-0.15	-0.05
116	6	16	88.70	7.37	5.56	1.81	0.00	1.00	0.01	0.27	-0.21	-0.01	0.46	-0.15	-0.05
117	6	17	88.70	7.37	5.55	1.81	0.00	1.00	0.01	0.27	-0.21	-0.01	0.46	-0.14	-0.05
118	6	18	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.28	-0.21	-0.01	0.46	-0.14	-0.05
119	6	19	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.28	-0.21	-0.01	0.46	-0.14	-0.05
120	6	20	88.70	7.37	5.54	1.82	0.00	1.00	0.01	0.28	-0.21	-0.01	0.46	-0.14	-0.05
121	7	1	88.70	7.37	5.55	1.82	0.00	1.00	0.01	0.22	-0.20	-0.01	0.51	-0.14	-0.05
122	7	2	88.70	7.37	5.56	1.81	0.00	1.00	0.00	0.17	-0.20	-0.01	0.51	-0.14	-0.05
123	7	3	88.70	7.37	5.57	1.80	0.00	1.00	0.00	0.17	-0.20	-0.01	0.51	-0.14	-0.05
124	7	4	88.70	7.37	5.57	1.79	0.00	1.00	0.00	0.17	-0.20	-0.01	0.51	-0.14	-0.05
125	7	5	88.70	7.37	5.58	1.79	0.00	1.00	0.00	0.17	-0.20	-0.01	0.50	-0.13	-0.05
126	7	6	88.70	7.37	5.59	1.78	0.00	1.00	0.00	0.17	-0.19	-0.01	0.50	-0.13	-0.05
127	7	7	88.70	7.37	5.60	1.77	0.00	1.00	0.00	0.16	-0.19	-0.01	0.50	-0.13	-0.05
128	7	8	88.70	7.37	5.60	1.76	0.00	1.00	0.00	0.16	-0.19	-0.01	0.49	-0.13	-0.05
129	7	9	88.70	7.37	5.61	1.75	0.00	1.00	0.00	0.16	-0.19	-0.01	0.49	-0.13	-0.05
130	7	10	88.70	7.37	5.62	1.75	0.00	1.00	0.00	0.16	-0.19	-0.01	0.49	-0.13	-0.04
131	7	11	88.70	7.37	5.63	1.74	0.00	1.00	0.00	0.16	-0.18	-0.01	0.48	-0.13	-0.04
132	7	12	88.70	7.37	5.63	1.73	0.00	1.00	0.00	0.16	-0.18	-0.01	0.48	-0.12	-0.04
133	7	13	88.70	7.37	5.61	1.76	0.00	1.00	9.53	0.17	-0.19	-0.01	0.59	-0.11	-0.07
134	7	14	88.70	7.37	5.63	1.74	0.00	1.00	0.00	0.18	-0.19	-0.01	0.59	-0.11	-0.06
135	7	15	88.70	7.37	5.64	1.72	0.00	1.00	0.00	0.18	-0.19	-0.01	0.58	-0.11	-0.06
136	7	16	88.70	7.37	5.66	1.71	0.00	1.00	0.00	0.17	-0.19	-0.01	0.58	-0.11	-0.05
137	7	17	88.70	7.37	5.68	1.69	0.00	1.00	0.00	0.17	-0.18	-0.01	0.58	-0.11	-0.05
138	7	18	88.70	7.37	5.69	1.67	0.00	1.00	0.00	0.17	-0.18	-0.01	0.58	-0.11	-0.05
139	7	19	88.70	7.37	5.71	1.66	0.00	1.00	0.00	0.17	-0.18	-0.01	0.58	-0.11	-0.05

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N

140	7	20	88.70	7.37	5.73	1.64	0.00	1.00	0.00	0.17	-0.18	-0.01	0.57	-0.11	-0.05
141	8	1	88.70	7.37	5.75	1.62	0.00	1.00	0.03	0.16	-0.18	-0.01	0.62	-0.12	-0.05
142	8	2	88.70	7.37	5.77	1.60	0.00	1.00	0.01	0.16	-0.18	-0.01	0.62	-0.12	-0.04
143	8	3	88.70	7.37	5.79	1.58	0.00	1.00	0.01	0.16	-0.18	-0.01	0.61	-0.11	-0.04
144	8	4	88.70	7.37	5.81	1.56	0.00	1.00	0.01	0.16	-0.18	-0.01	0.61	-0.11	-0.04
145	8	5	88.70	7.37	5.83	1.54	0.00	1.00	0.01	0.16	-0.18	-0.01	0.60	-0.11	-0.04
146	8	6	88.70	7.37	5.85	1.52	0.00	1.00	0.01	0.15	-0.17	-0.01	0.60	-0.11	-0.04
147	8	7	88.70	7.37	5.87	1.50	0.00	1.00	0.01	0.15	-0.17	-0.01	0.59	-0.11	-0.04
148	8	8	88.70	7.37	5.88	1.48	0.00	1.00	0.01	0.15	-0.17	-0.01	0.59	-0.11	-0.04

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0            REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0            REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0            REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0            REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0            REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0            REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0            REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  2.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  3.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  4.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  5.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  6.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  7.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  8.0   87.4   3.40   4.29 1.24
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  2.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  3.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  4.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  5.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  6.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  7.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  8.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   2.8 1.24
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  2.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  3.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  4.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  5.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  6.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  7.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
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INCR INFLOW-2  RCH=  8.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    17250  87.4  3.40  4.29 1.24
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.25  0.04 0.045 0.181 0.025 0.019
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   69.63  86.9  3.50 218.3 18.75
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.24
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.24
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 YES CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

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          CARD TYPE           REACH    TEMP       D.O.      BOD       CM-1      CM-2      CM-3       ANC      COLI
          INITIAL COND-1        1.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        2.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        3.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        4.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        5.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        6.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        7.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          INITIAL COND-1        8.     87.40      3.40      4.29      1.24      0.00      0.00      0.00      0.00
          ENDATA7               0.      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

          CARD TYPE           REACH    CHL-A     ORG-N     NH3-N     NO2-N     NO3-N     ORG-P     DIS-P
          INITIAL COND-2        1.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        2.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        3.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        4.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        5.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        6.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        7.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          INITIAL COND-2        8.      8.40      0.25      0.04      0.05      0.18      0.03      0.02
          ENDATA7A              0.      0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

          CARD TYPE           REACH     FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3       ANC      COLI
          INCR INFLOW-1         1.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         2.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         3.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         4.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         5.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         6.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         7.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          INCR INFLOW-1         8.     2.000     88.70      5.95      2.80      1.24      0.00      0.00      0.00      0.00
          ENDATA8               0.     0.000      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

          CARD TYPE           REACH    CHL-A     ORG-N     NH3-N     NO2-N     NO3-N     ORG-P     DIS-P
          INCR INFLOW-2         1.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         2.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         3.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         4.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         5.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         6.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         7.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          INCR INFLOW-2         8.      0.00      0.25      0.04      0.05      0.18      0.03      0.02
          ENDATA8A              0.      0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

          CARD TYPE              JUNCTION ORDER AND IDENT         UPSTRM   JUNCTION    TRIB
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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER  17250.00     87.40      3.40      4.29      1.24      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                             COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.25     0.04     0.05     0.18     0.03     0.02
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW     TEMP     D.O.      BOD     CM-1     CM-2     CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00    69.63    86.90     3.50   218.30    18.75     0.00     0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     1.24     0.00     0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     1.24     0.00     0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     1.24     0.00     0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     1.24     0.00     0.00
          ENDATA11       0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                             COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                              DAM   RCH   ELE    ADAM    BDAM    FDAM    HDAM

          ENDATA12              0.    0.    0.    0.00    0.00    0.00    0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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             CARD TYPE               TEMP       D.O.      BOD       CM-1      CM-2      CM-3       ANC      COLI

          ENDATA13                   DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
0          $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

             CARD TYPE               CHL-A     ORG-N     NH3-N     NO2-N     NH3-N     ORG-P     DIS-P

          ENDATA13A                  DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
1
0                    CONSERVATIVE MINERAL   I                                        ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24
    2  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    3  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    4  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    5  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    6  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    7  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
    8  1.31  1.31  1.31  1.31  1.31  1.31  1.31  1.31
0                    BIOCHEMICAL OXYGEN DEMAND IN MG/L                              ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  4.27  4.25  4.22  4.20  4.18  4.16  4.14  4.12  4.10  4.07  4.05  4.03  4.01  3.99  3.97  3.95  3.93  3.91  3.89  3.88
    2  4.71  4.68  4.66  4.64  4.61  4.59  4.56  4.54  4.52  4.49  4.47  4.45  4.42  4.40  4.38  4.36  4.33  4.31  4.29  4.27
    3  4.25  4.22  4.20  4.18  4.16  4.14  4.12  4.10  4.07  4.05  4.03  4.01  3.99  3.97  3.95  3.93  3.91  3.89  3.87  3.85
    4  3.83  3.81  3.79  3.77  3.75  3.73  3.71  3.69  3.67  3.66  3.64  3.62  3.60  3.58  3.56  3.54  3.53  3.51  3.49  3.47
    5  3.45  3.44  3.42  3.40  3.38  3.37  3.35  3.33  3.31  3.30  3.28  3.26  3.25  3.23  3.21  3.20  3.18  3.16  3.15  3.13
    6  3.12  3.10  3.08  3.07  3.05  3.04  3.02  3.00  2.99  2.97  2.96  2.94  2.93  2.91  2.90  2.88  2.87  2.85  2.84  2.82
    7  2.81  2.80  2.78  2.77  2.75  2.74  2.72  2.71  2.70  2.68  2.67  2.65  2.64  2.63  2.62  2.60  2.59  2.57  2.56  2.55
    8  2.54  2.52  2.51  2.50  2.49  2.47  2.46  2.45
1

  STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:
  ------------------------------------------------------------------------------

                                                 NUMBER OF
             VARIABLE              ITERATION     NONCONVERGENT
                                                 ELEMENTS

0                    ALGAE AS CHL-A IN UG/L                                         ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  8.27  8.14  8.01  7.89  7.76  7.64  7.52  7.41  7.29  7.18  7.07  6.96  6.85  6.74  6.63  6.53  6.43  6.33  6.23  6.13
    2  6.02  5.92  5.83  5.74  5.65  5.56  5.48  5.39  5.31  5.22  5.14  5.06  4.98  4.91  4.83  4.75  4.68  4.61  4.53  4.46
    3  4.39  4.33  4.26  4.19  4.13  4.06  4.00  3.94  3.88  3.82  3.76  3.70  3.64  3.58  3.53  3.47  3.42  3.36  3.31  3.26
    4  3.21  3.16  3.11  3.06  3.01  2.97  2.92  2.88  2.83  2.79  2.74  2.70  2.66  2.62  2.58  2.54  2.50  2.46  2.42  2.38
    5  2.34  2.31  2.27  2.24  2.20  2.17  2.13  2.10  2.07  2.04  2.00  1.97  1.94  1.91  1.88  1.85  1.82  1.79  1.77  1.74
    6  1.71  1.69  1.66  1.63  1.61  1.58  1.56  1.53  1.51  1.49  1.46  1.44  1.42  1.40  1.37  1.35  1.33  1.31  1.29  1.27
    7  1.25  1.23  1.21  1.19  1.17  1.16  1.14  1.12  1.10  1.09  1.07  1.05  1.13  1.11  1.09  1.08  1.06  1.04  1.03  1.01
```

8 1.00 0.98 0.96 0.95 0.93 0.92 0.91 0.89

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
4	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12
5	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
6	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10
3	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
4	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
8	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.25	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.27
4	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30
5	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.33
6	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35
7	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.38
8	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.39												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.14	4.18	4.23	4.27	4.31	4.34	4.38	4.41
2	4.44	4.47	4.49	4.52	4.54	4.57	4.59	4.61	4.64	4.66	4.68	4.69	4.71	4.73	4.75	4.76	4.78	4.80	4.81	4.82
3	4.84	4.85	4.86	4.88	4.89	4.90	4.91	4.92	4.93	4.94	4.95	4.96	4.97	4.98	4.99	5.00	5.00	5.01	5.02	5.03
4	5.01	4.99	4.98	4.96	4.94	4.93	4.92	4.90	4.89	4.88	4.87	4.86	4.85	4.84	4.83	4.82	4.81	4.80	4.79	4.79
5	4.78	4.77	4.77	4.76	4.76	4.75	4.75	4.74	4.74	4.73	4.73	4.72	4.72	4.72	4.71	4.71	4.71	4.71	4.70	4.70
6	4.70	4.70	4.70	4.70	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69	4.69
7	4.72	4.74	4.76	4.79	4.81	4.83	4.85	4.87	4.89	4.91	4.93	4.94	4.97	4.98	5.00	5.01	5.03	5.05	5.06	5.07
8	5.09	5.10	5.11	5.12	5.14	5.15	5.16	5.17												

ALGAE GROWTH RATE	1	141
ALGAE GROWTH RATE	2	47
ALGAE GROWTH RATE	3	0
ALGAE GROWTH RATE	4	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1

0 DISSOLVED OXYGEN IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.15	4.19	4.23	4.27	4.31	4.35	4.39	4.42
2	4.45	4.48	4.51	4.53	4.56	4.58	4.61	4.63	4.65	4.67	4.69	4.71	4.73	4.75	4.77	4.78	4.80	4.82	4.83	4.85
3	4.86	4.87	4.89	4.90	4.91	4.92	4.94	4.95	4.96	4.97	4.98	4.99	5.00	5.01	5.01	5.02	5.03	5.04	5.05	5.05
4	5.04	5.02	5.00	4.99	4.97	4.96	4.94	4.93	4.92	4.91	4.90	4.88	4.87	4.86	4.86	4.85	4.84	4.83	4.82	4.81
5	4.81	4.80	4.79	4.79	4.78	4.78	4.77	4.77	4.76	4.76	4.75	4.75	4.75	4.74	4.74	4.74	4.74	4.73	4.73	4.73
6	4.73	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.72	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71	4.71
7	4.74	4.76	4.79	4.81	4.83	4.85	4.87	4.89	4.91	4.93	4.95	4.97	4.99	5.00	5.02	5.04	5.05	5.07	5.08	5.10
8	5.11	5.12	5.13	5.15	5.16	5.17	5.18	5.19												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	4.27	4.25	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.07	4.05	4.03	4.01	3.99	3.97	3.95	3.93	3.91	3.89	3.88
2	4.71	4.68	4.66	4.64	4.61	4.59	4.56	4.54	4.52	4.49	4.47	4.45	4.42	4.40	4.38	4.36	4.33	4.31	4.29	4.27
3	4.25	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.07	4.05	4.03	4.01	3.99	3.97	3.95	3.93	3.91	3.89	3.87	3.85
4	3.83	3.81	3.79	3.77	3.75	3.73	3.71	3.69	3.67	3.66	3.64	3.62	3.60	3.58	3.56	3.54	3.53	3.51	3.49	3.47
5	3.45	3.44	3.42	3.40	3.38	3.37	3.35	3.33	3.31	3.30	3.28	3.26	3.25	3.23	3.21	3.20	3.18	3.16	3.15	3.13
6	3.12	3.10	3.08	3.07	3.05	3.04	3.02	3.00	2.99	2.97	2.96	2.94	2.93	2.91	2.90	2.88	2.87	2.85	2.84	2.82
7	2.81	2.80	2.78	2.77	2.75	2.74	2.72	2.71	2.70	2.68	2.67	2.65	2.64	2.63	2.62	2.60	2.59	2.57	2.56	2.55
8	2.54	2.52	2.51	2.50	2.49	2.47	2.46	2.45												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
4	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12
5	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
6	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
3	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
4	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08

7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27
4	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.30
5	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32
6	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35
7	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37
8	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.27	8.14	8.02	7.90	7.78	7.66	7.54	7.43	7.32	7.21	7.10	7.00	6.89	6.79	6.69	6.59	6.50	6.40	6.31	6.22

2	6.11	6.03	5.94	5.86	5.78	5.70	5.62	5.54	5.47	5.39	5.32	5.25	5.17	5.10	5.03	4.97	4.90	4.83	4.77	4.70
3	4.64	4.57	4.51	4.45	4.39	4.33	4.27	4.22	4.16	4.10	4.05	3.99	3.94	3.89	3.83	3.78	3.73	3.68	3.63	3.58
4	3.54	3.49	3.44	3.40	3.35	3.31	3.26	3.22	3.18	3.13	3.09	3.05	3.01	2.97	2.93	2.89	2.85	2.82	2.78	2.74
5	2.70	2.67	2.63	2.60	2.56	2.53	2.50	2.46	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.22	2.19	2.16	2.13	2.10
6	2.07	2.05	2.02	1.99	1.97	1.94	1.92	1.89	1.87	1.85	1.82	1.80	1.78	1.75	1.73	1.71	1.69	1.67	1.65	1.63
7	1.61	1.59	1.57	1.55	1.53	1.51	1.49	1.48	1.46	1.44	1.42	1.41	1.48	1.46	1.44	1.43	1.41	1.39	1.38	1.36
8	1.34	1.33	1.31	1.30	1.28	1.27	1.25	1.24												

0 CONSERVATIVE MINERAL I ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
2	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
3	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
4	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
5	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
6	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
7	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31
8	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
2	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
3	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
4	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
5	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
6	0.19	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.21
7	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
8	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.71	1.73	1.75	1.76	1.77	1.79	1.80	1.81	1.82	1.82	1.83	1.84	1.85	1.85	1.86	1.86	1.87	1.87	1.88	1.88
2	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.02	2.02	2.03	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05
3	2.05	2.05	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.07	2.07	2.08	2.08	2.08	2.08	2.08	2.08
4	2.08	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.11	2.11	
5	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.13	2.13	2.13
6	2.13	2.14	2.15	2.16	2.16	2.17	2.18	2.19	2.19	2.20	2.21	2.21	2.22	2.23	2.24	2.24	2.25	2.25	2.26	2.27
7	2.27	2.28	2.29	2.29	2.30	2.30	2.31	2.32	2.32	2.33	2.33	2.34	2.31	2.32	2.32	2.33	2.33	2.34	2.35	2.35
8	2.36	2.37	2.37	2.38	2.38	2.39	2.39	2.40												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE	RCH	ELE	BEGIN	END	POINT	INCR	TRVL	BOTTOM	X-SECT	DSPRSN

65' Flood Scenario - Monthly Average - Output

ORD	NUM	NUM	LOC MILE	LOC MILE	FLOW CFS	SRCE CFS	FLOW CFS	VEL FPS	TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	AREA FT-2	AREA FT-2	COEF FT-2/S
1	1	1	227.00	226.7517250.10	0.00	0.10	0.243	0.063	3.18322306.330	93724920.0	29452760.0	71003.73	3.24		
2	1	2	226.75	226.5017250.20	0.00	0.10	0.243	0.063	3.18322306.365	93725816.0	29452806.0	71004.41	3.24		
3	1	3	226.50	226.2517250.30	0.00	0.10	0.243	0.063	3.18322306.398	93726704.0	29452850.0	71005.08	3.24		
4	1	4	226.25	226.0017250.40	0.00	0.10	0.243	0.063	3.18322306.436	93727592.0	29452898.0	71005.75	3.24		
5	1	5	226.00	225.7517250.50	0.00	0.10	0.243	0.063	3.18322306.471	93728488.0	29452946.0	71006.43	3.24		
6	1	6	225.75	225.5017250.60	0.00	0.10	0.243	0.063	3.18322306.506	93729368.0	29452992.0	71007.10	3.24		
7	1	7	225.50	225.2517250.70	0.00	0.10	0.243	0.063	3.18322306.541	93730264.0	29453038.0	71007.77	3.24		
8	1	8	225.25	225.0017250.80	0.00	0.10	0.243	0.063	3.18322306.574	93731152.0	29453082.0	71008.45	3.24		
9	1	9	225.00	224.7517250.90	0.00	0.10	0.243	0.063	3.18322306.611	93732040.0	29453130.0	71009.12	3.24		
10	1	10	224.75	224.5017251.00	0.00	0.10	0.243	0.063	3.18322306.646	93732928.0	29453178.0	71009.80	3.24		
11	1	11	224.50	224.2517251.10	0.00	0.10	0.243	0.063	3.18322306.684	93733816.0	29453226.0	71010.47	3.24		
12	1	12	224.25	224.0017251.20	0.00	0.10	0.243	0.063	3.18322306.717	93734704.0	29453270.0	71011.14	3.24		
13	1	13	224.00	223.7517251.29	0.00	0.10	0.243	0.063	3.18322306.752	93735600.0	29453316.0	71011.82	3.24		
14	1	14	223.75	223.5017251.39	0.00	0.10	0.243	0.063	3.18322306.787	93736480.0	29453364.0	71012.48	3.24		
15	1	15	223.50	223.2517251.49	0.00	0.10	0.243	0.063	3.18322306.822	93737376.0	29453410.0	71013.16	3.24		
16	1	16	223.25	223.0017251.59	0.00	0.10	0.243	0.063	3.18322306.855	93738264.0	29453454.0	71013.84	3.24		
17	1	17	223.00	222.7517251.69	0.00	0.10	0.243	0.063	3.18422306.893	93739152.0	29453502.0	71014.51	3.24		
18	1	18	222.75	222.5017251.79	0.00	0.10	0.243	0.063	3.18422306.926	93740040.0	29453546.0	71015.18	3.24		
19	1	19	222.50	222.2517251.89	0.00	0.10	0.243	0.063	3.18422306.963	93740936.0	29453596.0	71015.86	3.24		
20	1	20	222.25	222.0017251.99	0.00	0.10	0.243	0.063	3.18422306.998	93741816.0	29453642.0	71016.53	3.24		
21	2	1	222.00	221.7517321.72	69.63	0.10	0.242	0.063	3.20122331.576	94365152.0	29486132.0	71488.75	3.24		
22	2	2	221.75	221.5017321.82	0.00	0.10	0.242	0.063	3.20122331.611	94366040.0	29486178.0	71489.43	3.24		
23	2	3	221.50	221.2517321.92	0.00	0.10	0.242	0.063	3.20122331.646	94366936.0	29486224.0	71490.10	3.24		
24	2	4	221.25	221.0017322.02	0.00	0.10	0.242	0.063	3.20122331.682	94367824.0	29486272.0	71490.77	3.24		
25	2	5	221.00	220.7517322.12	0.00	0.10	0.242	0.063	3.20122331.715	94368712.0	29486316.0	71491.45	3.24		
26	2	6	220.75	220.5017322.22	0.00	0.10	0.242	0.063	3.20122331.750	94369608.0	29486362.0	71492.12	3.24		
27	2	7	220.50	220.2517322.32	0.00	0.10	0.242	0.063	3.20122331.787	94370504.0	29486410.0	71492.80	3.24		
28	2	8	220.25	220.0017322.42	0.00	0.10	0.242	0.063	3.20122331.822	94371392.0	29486458.0	71493.48	3.24		
29	2	9	220.00	219.7517322.52	0.00	0.10	0.242	0.063	3.20122331.857	94372288.0	29486504.0	71494.16	3.24		
30	2	10	219.75	219.5017322.62	0.00	0.10	0.242	0.063	3.20122331.891	94373176.0	29486548.0	71494.83	3.24		
31	2	11	219.50	219.2517322.72	0.00	0.10	0.242	0.063	3.20122331.926	94374064.0	29486594.0	71495.51	3.24		
32	2	12	219.25	219.0017322.82	0.00	0.10	0.242	0.063	3.20222331.963	94374960.0	29486644.0	71496.18	3.24		
33	2	13	219.00	218.7517322.92	0.00	0.10	0.242	0.063	3.20222331.996	94375848.0	29486686.0	71496.85	3.24		
34	2	14	218.75	218.5017323.02	0.00	0.10	0.242	0.063	3.20222332.031	94376736.0	29486734.0	71497.53	3.25		
35	2	15	218.50	218.2517323.12	0.00	0.10	0.242	0.063	3.20222332.066	94377640.0	29486780.0	71498.21	3.25		
36	2	16	218.25	218.0017323.22	0.00	0.10	0.242	0.063	3.20222332.102	94378528.0	29486826.0	71498.88	3.25		
37	2	17	218.00	217.7517323.32	0.00	0.10	0.242	0.063	3.20222332.139	94379416.0	29486876.0	71499.56	3.25		
38	2	18	217.75	217.5017323.42	0.00	0.10	0.242	0.063	3.20222332.172	94380312.0	29486920.0	71500.23	3.25		
39	2	19	217.50	217.2517323.52	0.00	0.10	0.242	0.063	3.20222332.207	94381200.0	29486966.0	71500.91	3.25		
40	2	20	217.25	217.0017323.62	0.00	0.10	0.242	0.063	3.20222332.242	94382088.0	29487012.0	71501.59	3.25		
41	3	1	217.00	216.7517323.71	0.00	0.10	0.242	0.063	3.20222332.277	94382984.0	29487058.0	71502.26	1.88		
42	3	2	216.75	216.5017323.81	0.00	0.10	0.242	0.063	3.20222332.312	94383872.0	29487106.0	71502.94	1.88		
43	3	3	216.50	216.2517323.91	0.00	0.10	0.242	0.063	3.20222332.348	94384768.0	29487152.0	71503.61	1.88		

44	3	4	216.25	216.0017324.01	0.00	0.10	0.242	0.063	3.20222332.383	94385664.0	29487198.0	71504.29	1.88
45	3	5	216.00	215.7517324.11	0.00	0.10	0.242	0.063	3.20222332.418	94386552.0	29487244.0	71504.96	1.88
46	3	6	215.75	215.5017324.21	0.00	0.10	0.242	0.063	3.20222332.453	94387440.0	29487292.0	71505.64	1.88
47	3	7	215.50	215.2517324.31	0.00	0.10	0.242	0.063	3.20222332.488	94388336.0	29487338.0	71506.31	1.88
48	3	8	215.25	215.0017324.41	0.00	0.10	0.242	0.063	3.20222332.523	94389224.0	29487384.0	71506.99	1.88
49	3	9	215.00	214.7517324.51	0.00	0.10	0.242	0.063	3.20222332.557	94390112.0	29487428.0	71507.66	1.88
50	3	10	214.75	214.5017324.61	0.00	0.10	0.242	0.063	3.20222332.592	94391008.0	29487474.0	71508.34	1.88
51	3	11	214.50	214.2517324.71	0.00	0.10	0.242	0.063	3.20222332.627	94391896.0	29487520.0	71509.02	1.88
52	3	12	214.25	214.0017324.81	0.00	0.10	0.242	0.063	3.20222332.662	94392792.0	29487568.0	71509.69	1.88
53	3	13	214.00	213.7517324.91	0.00	0.10	0.242	0.063	3.20222332.699	94393688.0	29487616.0	71510.37	1.88
54	3	14	213.75	213.5017325.01	0.00	0.10	0.242	0.063	3.20222332.732	94394576.0	29487660.0	71511.05	1.88
55	3	15	213.50	213.2517325.11	0.00	0.10	0.242	0.063	3.20222332.770	94395472.0	29487710.0	71511.72	1.88
56	3	16	213.25	213.0017325.21	0.00	0.10	0.242	0.063	3.20222332.803	94396360.0	29487754.0	71512.39	1.88
57	3	17	213.00	212.7517325.31	0.00	0.10	0.242	0.063	3.20222332.838	94397248.0	29487800.0	71513.07	1.88
58	3	18	212.75	212.5017325.41	0.00	0.10	0.242	0.063	3.20222332.873	94398144.0	29487846.0	71513.74	1.88
59	3	19	212.50	212.2517325.51	0.00	0.10	0.242	0.063	3.20222332.908	94399032.0	29487892.0	71514.42	1.88
60	3	20	212.25	212.0017325.61	0.00	0.10	0.242	0.063	3.20222332.943	94399920.0	29487940.0	71515.09	1.88
61	4	1	212.00	211.7517325.71	0.00	0.10	0.242	0.063	3.20222332.979	94400816.0	29487986.0	71515.77	1.79
62	4	2	211.75	211.5017325.81	0.00	0.10	0.242	0.063	3.20222333.014	94401704.0	29488032.0	71516.45	1.79
63	4	3	211.50	211.2517325.91	0.00	0.10	0.242	0.063	3.20222333.049	94402600.0	29488078.0	71517.12	1.79
64	4	4	211.25	211.0017327.01	1.00	0.10	0.242	0.063	3.20322333.436	94412448.0	29488590.0	71524.58	1.79
65	4	5	211.00	210.7517327.11	0.00	0.10	0.242	0.063	3.20322333.471	94413336.0	29488636.0	71525.26	1.79

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5017327.21	0.00	0.10	0.242	0.063	3.20322333.506	94414224.0	29488682.0	71525.93	1.79		
67	4	7	210.50	210.2517327.30	0.00	0.10	0.242	0.063	3.20322333.541	94415120.0	29488730.0	71526.60	1.79		
68	4	8	210.25	210.0017327.40	0.00	0.10	0.242	0.063	3.20322333.574	94416008.0	29488774.0	71527.28	1.79		
69	4	9	210.00	209.7517327.50	0.00	0.10	0.242	0.063	3.20322333.609	94416904.0	29488820.0	71527.95	1.79		
70	4	10	209.75	209.5017327.60	0.00	0.10	0.242	0.063	3.20322333.646	94417800.0	29488868.0	71528.63	1.79		
71	4	11	209.50	209.2517327.70	0.00	0.10	0.242	0.063	3.20322333.682	94418688.0	29488916.0	71529.31	1.79		
72	4	12	209.25	209.0017327.80	0.00	0.10	0.242	0.063	3.20322333.717	94419576.0	29488962.0	71529.98	1.79		
73	4	13	209.00	208.7517327.90	0.00	0.10	0.242	0.063	3.20322333.750	94420472.0	29489006.0	71530.66	1.79		
74	4	14	208.75	208.5017328.00	0.00	0.10	0.242	0.063	3.20322333.785	94421360.0	29489052.0	71531.34	1.79		
75	4	15	208.50	208.2517328.10	0.00	0.10	0.242	0.063	3.20322333.822	94422256.0	29489100.0	71532.01	1.79		
76	4	16	208.25	208.0017328.20	0.00	0.10	0.242	0.063	3.20322333.855	94423144.0	29489144.0	71532.69	1.79		
77	4	17	208.00	207.7517328.30	0.00	0.10	0.242	0.063	3.20322333.891	94424040.0	29489192.0	71533.36	1.79		
78	4	18	207.75	207.5017328.50	0.10	0.10	0.242	0.063	3.20322333.959	94425816.0	29489282.0	71534.71	1.79		
79	4	19	207.50	207.2517328.60	0.00	0.10	0.242	0.063	3.20322333.996	94426712.0	29489330.0	71535.38	1.79		
80	4	20	207.25	207.0017328.70	0.00	0.10	0.242	0.063	3.20322334.031	94427608.0	29489378.0	71536.06	1.79		

65' Flood Scenario - Monthly Average - Output

81	5	1	207.00	206.7517328.80	0.00	0.10	0.242	0.063	3.20322334.066	94428496.0	29489424.0	71536.74	0.85
82	5	2	206.75	206.5017328.90	0.00	0.10	0.242	0.063	3.20322334.102	94429392.0	29489470.0	71537.41	0.85
83	5	3	206.50	206.2517329.00	0.00	0.10	0.242	0.063	3.20322334.137	94430280.0	29489516.0	71538.09	0.85
84	5	4	206.25	206.0017329.10	0.00	0.10	0.242	0.063	3.20322334.172	94431176.0	29489564.0	71538.77	0.85
85	5	5	206.00	205.7517329.20	0.00	0.10	0.242	0.063	3.20322334.207	94432064.0	29489610.0	71539.45	0.85
86	5	6	205.75	205.5017329.30	0.00	0.10	0.242	0.063	3.20322334.242	94432952.0	29489656.0	71540.12	0.85
87	5	7	205.50	205.2517329.40	0.00	0.10	0.242	0.063	3.20322334.275	94433848.0	29489700.0	71540.79	0.85
88	5	8	205.25	205.0017329.50	0.00	0.10	0.242	0.063	3.20322334.311	94434736.0	29489746.0	71541.47	0.85
89	5	9	205.00	204.7517329.60	0.00	0.10	0.242	0.063	3.20322334.348	94435632.0	29489796.0	71542.14	0.85
90	5	10	204.75	204.5017329.70	0.00	0.10	0.242	0.063	3.20322334.381	94436520.0	29489840.0	71542.82	0.85
91	5	11	204.50	204.2517329.79	0.00	0.10	0.242	0.063	3.20322334.416	94437416.0	29489886.0	71543.49	0.85
92	5	12	204.25	204.0017329.89	0.00	0.10	0.242	0.063	3.20322334.451	94438312.0	29489932.0	71544.17	0.85
93	5	13	204.00	203.7517329.99	0.00	0.10	0.242	0.063	3.20322334.486	94439200.0	29489978.0	71544.85	0.85
94	5	14	203.75	203.5017330.09	0.00	0.10	0.242	0.063	3.20322334.523	94440096.0	29490028.0	71545.52	0.85
95	5	15	203.50	203.2517330.19	0.00	0.10	0.242	0.063	3.20322334.557	94440984.0	29490072.0	71546.20	0.85
96	5	16	203.25	203.0017330.29	0.00	0.10	0.242	0.063	3.20322334.592	94441872.0	29490118.0	71546.87	0.85
97	5	17	203.00	202.7517331.39	1.00	0.10	0.242	0.063	3.20422334.979	94451720.0	29490630.0	71554.34	0.85
98	5	18	202.75	202.5017331.49	0.00	0.10	0.242	0.063	3.20422335.014	94452608.0	29490676.0	71555.01	0.85
99	5	19	202.50	202.2517331.59	0.00	0.10	0.242	0.063	3.20422335.049	94453504.0	29490722.0	71555.69	0.85
100	5	20	202.25	202.0017331.69	0.00	0.10	0.242	0.063	3.20422335.084	94454392.0	29490768.0	71556.36	0.85
101	6	1	202.00	201.7517331.79	0.00	0.10	0.242	0.063	3.20422335.119	94455288.0	29490816.0	71557.03	1.45
102	6	2	201.75	201.5017331.89	0.00	0.10	0.242	0.063	3.20422335.154	94456176.0	29490862.0	71557.71	1.45
103	6	3	201.50	201.2517331.99	0.00	0.10	0.242	0.063	3.20422335.187	94457072.0	29490906.0	71558.38	1.45
104	6	4	201.25	201.0017332.09	0.00	0.10	0.242	0.063	3.20422335.223	94457960.0	29490952.0	71559.06	1.45
105	6	5	201.00	200.7517332.19	0.00	0.10	0.242	0.063	3.20422335.260	94458856.0	29491002.0	71559.74	1.45
106	6	6	200.75	200.5017332.29	0.00	0.10	0.242	0.063	3.20422335.295	94459752.0	29491048.0	71560.41	1.45
107	6	7	200.50	200.2517332.39	0.00	0.10	0.242	0.063	3.20422335.330	94460640.0	29491094.0	71561.09	1.45
108	6	8	200.25	200.0017332.49	0.00	0.10	0.242	0.063	3.20422335.365	94461536.0	29491140.0	71561.77	1.45
109	6	9	200.00	199.7517332.59	0.00	0.10	0.242	0.063	3.20422335.398	94462424.0	29491184.0	71562.45	1.45
110	6	10	199.75	199.5017332.69	0.00	0.10	0.242	0.063	3.20422335.436	94463312.0	29491234.0	71563.12	1.45
111	6	11	199.50	199.2517332.79	0.00	0.10	0.242	0.063	3.20422335.471	94464208.0	29491280.0	71563.80	1.45
112	6	12	199.25	199.0017332.89	0.00	0.10	0.242	0.063	3.20422335.504	94465096.0	29491324.0	71564.47	1.45
113	6	13	199.00	198.7517333.09	0.10	0.10	0.242	0.063	3.20422335.574	94466880.0	29491416.0	71565.82	1.45
114	6	14	198.75	198.5017333.19	0.00	0.10	0.242	0.063	3.20422335.609	94467776.0	29491464.0	71566.49	1.45
115	6	15	198.50	198.2517333.29	0.00	0.10	0.242	0.063	3.20422335.645	94468664.0	29491510.0	71567.17	1.45
116	6	16	198.25	198.0017333.38	0.00	0.10	0.242	0.063	3.20422335.680	94469560.0	29491556.0	71567.84	1.45
117	6	17	198.00	197.7517333.48	0.00	0.10	0.242	0.063	3.20422335.715	94470448.0	29491602.0	71568.52	1.45
118	6	18	197.75	197.5017333.58	0.00	0.10	0.242	0.063	3.20422335.748	94471336.0	29491646.0	71569.20	1.45
119	6	19	197.50	197.2517333.68	0.00	0.10	0.242	0.063	3.20422335.785	94472232.0	29491696.0	71569.87	1.45
120	6	20	197.25	197.0017333.78	0.00	0.10	0.242	0.063	3.20422335.820	94473120.0	29491742.0	71570.55	1.45
121	7	1	197.00	196.7517333.98	0.10	0.10	0.242	0.063	3.20422335.891	94474912.0	29491836.0	71571.91	0.60
122	7	2	196.75	196.5017334.08	0.00	0.10	0.242	0.063	3.20422335.926	94475800.0	29491882.0	71572.58	0.60
123	7	3	196.50	196.2517334.18	0.00	0.10	0.242	0.063	3.20422335.961	94476696.0	29491928.0	71573.26	0.60
124	7	4	196.25	196.0017334.28	0.00	0.10	0.242	0.063	3.20422335.996	94477584.0	29491974.0	71573.93	0.60

125	7	5	196.00	195.7517334.38	0.00	0.10	0.242	0.063	3.20422336.031	94478480.0	29492020.0	71574.60	0.60
126	7	6	195.75	195.5017334.48	0.00	0.10	0.242	0.063	3.20422336.064	94479368.0	29492064.0	71575.28	0.60
127	7	7	195.50	195.2517334.58	0.00	0.10	0.242	0.063	3.20422336.100	94480264.0	29492112.0	71575.95	0.60
128	7	8	195.25	195.0017334.68	0.00	0.10	0.242	0.063	3.20522336.135	94481152.0	29492158.0	71576.63	0.60
129	7	9	195.00	194.7517334.78	0.00	0.10	0.242	0.063	3.20522336.170	94482048.0	29492204.0	71577.30	0.60
130	7	10	194.75	194.5017334.88	0.00	0.10	0.242	0.063	3.20522336.205	94482936.0	29492250.0	71577.98	0.60

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 3
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2517334.98	0.00	0.10	0.242	0.063	3.20522336.240	94483832.0	29492298.0	71578.66	0.60		
132	7	12	194.25	194.0017335.08	0.00	0.10	0.242	0.063	3.20522336.275	94484720.0	29492344.0	71579.34	0.60		
133	7	13	194.00	193.7517557.18	222.00	0.10	0.240	0.064	3.26122414.041	96481840.0	29595144.0	73092.30	0.60		
134	7	14	193.75	193.5017557.28	0.00	0.10	0.240	0.064	3.26122414.074	96482736.0	29595188.0	73092.98	0.60		
135	7	15	193.50	193.2517557.38	0.00	0.10	0.240	0.064	3.26122414.109	96483640.0	29595234.0	73093.66	0.60		
136	7	16	193.25	193.0017557.48	0.00	0.10	0.240	0.064	3.26122414.145	96484536.0	29595280.0	73094.34	0.60		
137	7	17	193.00	192.7517557.58	0.00	0.10	0.240	0.064	3.26122414.180	96485440.0	29595326.0	73095.03	0.60		
138	7	18	192.75	192.5017557.68	0.00	0.10	0.240	0.064	3.26122414.215	96486336.0	29595372.0	73095.71	0.60		
139	7	19	192.50	192.2517557.78	0.00	0.10	0.240	0.064	3.26122414.248	96487232.0	29595416.0	73096.39	0.60		
140	7	20	192.25	192.0017557.87	0.00	0.10	0.240	0.064	3.26122414.283	96488136.0	29595464.0	73097.07	0.60		
141	8	1	192.00	191.7517558.89	0.77	0.25	0.240	0.064	3.26122414.639	96497344.0	29595934.0	73104.05	0.60		
142	8	2	191.75	191.5017559.14	0.00	0.25	0.240	0.064	3.26222414.725	96499600.0	29596046.0	73105.76	0.60		
143	8	3	191.50	191.2517559.39	0.00	0.25	0.240	0.064	3.26222414.812	96501856.0	29596164.0	73107.47	0.60		
144	8	4	191.25	191.0017559.64	0.00	0.25	0.240	0.064	3.26222414.900	96504112.0	29596280.0	73109.18	0.60		
145	8	5	191.00	190.7517559.89	0.00	0.25	0.240	0.064	3.26222414.986	96506368.0	29596392.0	73110.88	0.60		
146	8	6	190.75	190.5017560.14	0.00	0.25	0.240	0.064	3.26222415.074	96508632.0	29596510.0	73112.59	0.60		
147	8	7	190.50	190.2517560.39	0.00	0.25	0.240	0.064	3.26222415.160	96510880.0	29596622.0	73114.30	0.60		
148	8	8	190.25	190.0017560.64	0.00	0.25	0.240	0.064	3.26222415.248	96513144.0	29596738.0	73116.02	0.60		

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 4
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D

1	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

7	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	87.40	1.24	0.00	0.00	3.47	4.27	0.25	0.04	0.04	0.18	0.52	0.03	0.02	0.04	0.00	0.00	8.27
1	2	87.40	1.24	0.00	0.00	3.54	4.25	0.25	0.04	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.14
1	3	87.40	1.24	0.00	0.00	3.60	4.22	0.24	0.05	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.02

1	4	87.40	1.24	0.00	0.00	3.67	4.20	0.24	0.05	0.03	0.19	0.52	0.03	0.02	0.04	0.00	0.00	7.90
1	5	87.40	1.24	0.00	0.00	3.73	4.18	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.78
1	6	87.40	1.24	0.00	0.00	3.79	4.16	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.66
1	7	87.40	1.24	0.00	0.00	3.84	4.14	0.23	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.54
1	8	87.40	1.24	0.00	0.00	3.90	4.12	0.23	0.05	0.02	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.43
1	9	87.40	1.24	0.00	0.00	3.95	4.10	0.23	0.05	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.32
1	10	87.40	1.24	0.00	0.00	4.00	4.07	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.21
1	11	87.40	1.24	0.00	0.00	4.05	4.05	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.10
1	12	87.40	1.24	0.00	0.00	4.10	4.03	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.00
1	13	87.40	1.24	0.00	0.00	4.15	4.01	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.89
1	14	87.40	1.24	0.00	0.00	4.19	3.99	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.79
1	15	87.40	1.24	0.00	0.00	4.23	3.97	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.69
1	16	87.40	1.24	0.00	0.00	4.27	3.95	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.59
1	17	87.40	1.24	0.00	0.00	4.31	3.93	0.21	0.07	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.50
1	18	87.40	1.24	0.00	0.00	4.35	3.91	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.40
1	19	87.40	1.24	0.00	0.00	4.39	3.89	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.31
1	20	87.40	1.24	0.00	0.00	4.42	3.88	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.22
2	1	87.40	1.31	0.00	0.00	4.45	4.71	0.22	0.08	0.01	0.22	0.54	0.03	0.02	0.05	0.00	0.00	6.11
2	2	87.40	1.31	0.00	0.00	4.48	4.68	0.21	0.08	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	6.03
2	3	87.40	1.31	0.00	0.00	4.51	4.66	0.21	0.08	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.94
2	4	87.40	1.31	0.00	0.00	4.53	4.64	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.86
2	5	87.40	1.31	0.00	0.00	4.56	4.61	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.78
2	6	87.40	1.31	0.00	0.00	4.58	4.59	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.70
2	7	87.40	1.31	0.00	0.00	4.61	4.56	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.62
2	8	87.40	1.31	0.00	0.00	4.63	4.54	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.54
2	9	87.40	1.31	0.00	0.00	4.65	4.52	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.47
2	10	87.40	1.31	0.00	0.00	4.67	4.49	0.20	0.09	0.01	0.23	0.53	0.03	0.02	0.05	0.00	0.00	5.39
2	11	87.40	1.31	0.00	0.00	4.69	4.47	0.20	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.32
2	12	87.40	1.31	0.00	0.00	4.71	4.45	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.25
2	13	87.40	1.31	0.00	0.00	4.73	4.42	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.17
2	14	87.40	1.31	0.00	0.00	4.75	4.40	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.10
2	15	87.40	1.31	0.00	0.00	4.77	4.38	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.03
2	16	87.40	1.31	0.00	0.00	4.78	4.36	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.97
2	17	87.40	1.31	0.00	0.00	4.80	4.33	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.90
2	18	87.40	1.31	0.00	0.00	4.82	4.31	0.18	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.83
2	19	87.40	1.31	0.00	0.00	4.83	4.29	0.18	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.77
2	20	87.40	1.31	0.00	0.00	4.85	4.27	0.18	0.09	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.70
3	1	87.40	1.31	0.00	0.00	4.86	4.25	0.18	0.09	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.64
3	2	87.40	1.31	0.00	0.00	4.87	4.22	0.18	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.57
3	3	87.40	1.31	0.00	0.00	4.89	4.20	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.51
3	4	87.40	1.31	0.00	0.00	4.90	4.18	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.45
3	5	87.40	1.31	0.00	0.00	4.91	4.16	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.39
3	6	87.40	1.31	0.00	0.00	4.92	4.14	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.33
3	7	87.40	1.31	0.00	0.00	4.94	4.12	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.27
3	8	87.40	1.31	0.00	0.00	4.95	4.10	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.22
3	9	87.40	1.31	0.00	0.00	4.96	4.07	0.17	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.16

3	10	87.40	1.31	0.00	0.00	4.97	4.05	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.10
3	11	87.40	1.31	0.00	0.00	4.98	4.03	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.05
3	12	87.40	1.31	0.00	0.00	4.99	4.01	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.99
3	13	87.40	1.31	0.00	0.00	5.00	3.99	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.94
3	14	87.40	1.31	0.00	0.00	5.01	3.97	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.89
3	15	87.40	1.31	0.00	0.00	5.01	3.95	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.83
3	16	87.40	1.31	0.00	0.00	5.02	3.93	0.15	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.78
3	17	87.40	1.31	0.00	0.00	5.03	3.91	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.73
3	18	87.40	1.31	0.00	0.00	5.04	3.89	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.68
3	19	87.40	1.31	0.00	0.00	5.05	3.87	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.63
3	20	87.40	1.31	0.00	0.00	5.05	3.85	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.58
4	1	87.40	1.31	0.00	0.00	5.04	3.83	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.54
4	2	87.40	1.31	0.00	0.00	5.02	3.81	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.49
4	3	87.40	1.31	0.00	0.00	5.00	3.79	0.14	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.44
4	4	87.40	1.31	0.00	0.00	4.99	3.77	0.14	0.10	0.01	0.27	0.53	0.03	0.02	0.04	0.00	0.00	3.40
4	5	87.40	1.31	0.00	0.00	4.97	3.75	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.35

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	87.40	1.31	0.00	0.00	4.96	3.73	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.31
4	7	87.40	1.31	0.00	0.00	4.94	3.71	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.26
4	8	87.40	1.31	0.00	0.00	4.93	3.69	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.22
4	9	87.40	1.31	0.00	0.00	4.92	3.67	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.18
4	10	87.40	1.31	0.00	0.00	4.91	3.66	0.13	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.13
4	11	87.40	1.31	0.00	0.00	4.90	3.64	0.13	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.09
4	12	87.40	1.31	0.00	0.00	4.88	3.62	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	3.05
4	13	87.40	1.31	0.00	0.00	4.87	3.60	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	3.01
4	14	87.40	1.31	0.00	0.00	4.86	3.58	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.97
4	15	87.40	1.31	0.00	0.00	4.86	3.56	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.93
4	16	87.40	1.31	0.00	0.00	4.85	3.54	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.89
4	17	87.40	1.31	0.00	0.00	4.84	3.53	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.85
4	18	87.40	1.31	0.00	0.00	4.83	3.51	0.12	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.82
4	19	87.40	1.31	0.00	0.00	4.82	3.49	0.12	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.78
4	20	87.40	1.31	0.00	0.00	4.81	3.47	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.74
5	1	87.40	1.31	0.00	0.00	4.81	3.45	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.70
5	2	87.40	1.31	0.00	0.00	4.80	3.44	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.67
5	3	87.40	1.31	0.00	0.00	4.79	3.42	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.63
5	4	87.40	1.31	0.00	0.00	4.79	3.40	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.60

5	5	87.40	1.31	0.00	0.00	4.78	3.38	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.56
5	6	87.40	1.31	0.00	0.00	4.78	3.37	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.53
5	7	87.40	1.31	0.00	0.00	4.77	3.35	0.11	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.50
5	8	87.40	1.31	0.00	0.00	4.77	3.33	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.46
5	9	87.40	1.31	0.00	0.00	4.76	3.31	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.43
5	10	87.40	1.31	0.00	0.00	4.76	3.30	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.40
5	11	87.40	1.31	0.00	0.00	4.75	3.28	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.37
5	12	87.40	1.31	0.00	0.00	4.75	3.26	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.34
5	13	87.40	1.31	0.00	0.00	4.75	3.25	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.31
5	14	87.40	1.31	0.00	0.00	4.74	3.23	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.28
5	15	87.40	1.31	0.00	0.00	4.74	3.21	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.25
5	16	87.40	1.31	0.00	0.00	4.74	3.20	0.11	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.22
5	17	87.40	1.31	0.00	0.00	4.74	3.18	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.19
5	18	87.40	1.31	0.00	0.00	4.73	3.16	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.16
5	19	87.40	1.31	0.00	0.00	4.73	3.15	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.13
5	20	87.40	1.31	0.00	0.00	4.73	3.13	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.10
6	1	87.40	1.31	0.00	0.00	4.73	3.12	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.07
6	2	87.40	1.31	0.00	0.00	4.72	3.10	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.05
6	3	87.40	1.31	0.00	0.00	4.72	3.08	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.02
6	4	87.40	1.31	0.00	0.00	4.72	3.07	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.99
6	5	87.40	1.31	0.00	0.00	4.72	3.05	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.97
6	6	87.40	1.31	0.00	0.00	4.72	3.04	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.94
6	7	87.40	1.31	0.00	0.00	4.72	3.02	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.92
6	8	87.40	1.31	0.00	0.00	4.72	3.00	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.89
6	9	87.40	1.31	0.00	0.00	4.72	2.99	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.87
6	10	87.40	1.31	0.00	0.00	4.71	2.97	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.85
6	11	87.40	1.31	0.00	0.00	4.71	2.96	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.82
6	12	87.40	1.31	0.00	0.00	4.71	2.94	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.80
6	13	87.40	1.31	0.00	0.00	4.71	2.93	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.78
6	14	87.40	1.31	0.00	0.00	4.71	2.91	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.75
6	15	87.40	1.31	0.00	0.00	4.71	2.90	0.09	0.08	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.73
6	16	87.40	1.31	0.00	0.00	4.71	2.88	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.71
6	17	87.40	1.31	0.00	0.00	4.71	2.87	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.69
6	18	87.40	1.31	0.00	0.00	4.71	2.85	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.67
6	19	87.40	1.31	0.00	0.00	4.71	2.84	0.08	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.65
6	20	87.40	1.31	0.00	0.00	4.71	2.82	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.63
7	1	87.40	1.31	0.00	0.00	4.74	2.81	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.61
7	2	87.40	1.31	0.00	0.00	4.76	2.80	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.59
7	3	87.40	1.31	0.00	0.00	4.79	2.78	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.57
7	4	87.40	1.31	0.00	0.00	4.81	2.77	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.55
7	5	87.40	1.31	0.00	0.00	4.83	2.75	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.53
7	6	87.40	1.31	0.00	0.00	4.85	2.74	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.51
7	7	87.40	1.31	0.00	0.00	4.87	2.72	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.49
7	8	87.40	1.31	0.00	0.00	4.89	2.71	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.48
7	9	87.40	1.31	0.00	0.00	4.91	2.70	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.46
7	10	87.40	1.31	0.00	0.00	4.93	2.68	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.44

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 9
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	87.40	1.31	0.00	0.00	4.95	2.67	0.07	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.42
7	12	87.40	1.31	0.00	0.00	4.97	2.65	0.07	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.41
7	13	87.40	1.31	0.00	0.00	4.99	2.64	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.48
7	14	87.40	1.31	0.00	0.00	5.00	2.63	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.46
7	15	87.40	1.31	0.00	0.00	5.02	2.62	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.44
7	16	87.40	1.31	0.00	0.00	5.04	2.60	0.08	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.43
7	17	87.40	1.31	0.00	0.00	5.05	2.59	0.08	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.41
7	18	87.40	1.31	0.00	0.00	5.07	2.57	0.07	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.39
7	19	87.40	1.31	0.00	0.00	5.08	2.56	0.07	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.38
7	20	87.40	1.31	0.00	0.00	5.10	2.55	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.36
8	1	87.40	1.31	0.00	0.00	5.11	2.54	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.34
8	2	87.40	1.31	0.00	0.00	5.12	2.52	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.33
8	3	87.40	1.31	0.00	0.00	5.13	2.51	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.31
8	4	87.40	1.31	0.00	0.00	5.15	2.50	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.30
8	5	87.40	1.31	0.00	0.00	5.16	2.49	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.28
8	6	87.40	1.31	0.00	0.00	5.17	2.47	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.27
8	7	87.40	1.31	0.00	0.00	5.18	2.46	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.25
8	8	87.40	1.31	0.00	0.00	5.19	2.45	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.24

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 10
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.27	0.16	0.08	1.03	1.71	0.06	0.50	0.18	4.23	0.11	0.53	0.65
2	1	2	8.14	0.16	0.08	1.03	1.73	0.07	0.50	0.19	4.23	0.11	0.54	0.65
3	1	3	8.02	0.16	0.08	1.03	1.75	0.07	0.50	0.19	4.23	0.11	0.54	0.65
4	1	4	7.90	0.16	0.08	1.03	1.76	0.07	0.50	0.19	4.22	0.11	0.55	0.65
5	1	5	7.78	0.16	0.08	1.03	1.77	0.07	0.50	0.20	4.22	0.11	0.55	0.65

6	1	6	7.66	0.16	0.08	1.03	1.79	0.07	0.50	0.20	4.22	0.11	0.56	0.65
7	1	7	7.54	0.16	0.08	1.03	1.80	0.07	0.50	0.20	4.21	0.11	0.56	0.65
8	1	8	7.43	0.16	0.08	1.03	1.81	0.07	0.50	0.21	4.21	0.11	0.56	0.65
9	1	9	7.32	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
10	1	10	7.21	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
11	1	11	7.10	0.17	0.08	1.03	1.83	0.06	0.50	0.22	4.20	0.11	0.57	0.64
12	1	12	7.00	0.17	0.08	1.03	1.84	0.06	0.50	0.22	4.20	0.11	0.58	0.64
13	1	13	6.89	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
14	1	14	6.79	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
15	1	15	6.69	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
16	1	16	6.59	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
17	1	17	6.50	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.19	0.11	0.59	0.64
18	1	18	6.40	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.18	0.11	0.59	0.64
19	1	19	6.31	0.17	0.08	1.03	1.88	0.06	0.50	0.23	4.18	0.11	0.59	0.64
20	1	20	6.22	0.17	0.08	1.03	1.88	0.06	0.50	0.24	4.18	0.11	0.59	0.64
21	2	1	6.11	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.18	0.11	0.61	0.66
22	2	2	6.03	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.18	0.11	0.61	0.66
23	2	3	5.94	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.17	0.11	0.61	0.66
24	2	4	5.86	0.18	0.08	1.03	2.01	0.06	0.50	0.27	4.17	0.11	0.61	0.66
25	2	5	5.78	0.18	0.08	1.03	2.01	0.06	0.50	0.27	4.17	0.11	0.61	0.66
26	2	6	5.70	0.18	0.08	1.03	2.01	0.06	0.50	0.28	4.17	0.11	0.61	0.66
27	2	7	5.62	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.61	0.66
28	2	8	5.54	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.62	0.66
29	2	9	5.47	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.62	0.66
30	2	10	5.39	0.18	0.08	1.03	2.03	0.06	0.50	0.28	4.16	0.11	0.62	0.66
31	2	11	5.32	0.18	0.08	1.03	2.03	0.06	0.50	0.28	4.16	0.11	0.62	0.66
32	2	12	5.25	0.19	0.08	1.03	2.03	0.06	0.50	0.28	4.15	0.11	0.62	0.66
33	2	13	5.17	0.19	0.08	1.03	2.03	0.06	0.50	0.28	4.15	0.11	0.62	0.65
34	2	14	5.10	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.62	0.65
35	2	15	5.03	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.62	0.65
36	2	16	4.97	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.63	0.65
37	2	17	4.90	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.63	0.65
38	2	18	4.83	0.19	0.08	1.03	2.05	0.06	0.50	0.28	4.14	0.11	0.63	0.65
39	2	19	4.77	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
40	2	20	4.70	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
41	3	1	4.64	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
42	3	2	4.57	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
43	3	3	4.51	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.14	0.11	0.63	0.65
44	3	4	4.45	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.63	0.65
45	3	5	4.39	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.63	0.65
46	3	6	4.33	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.64	0.65
47	3	7	4.27	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.64	0.65
48	3	8	4.22	0.19	0.08	1.03	2.06	0.05	0.50	0.27	4.13	0.11	0.64	0.64
49	3	9	4.16	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.13	0.11	0.64	0.64
50	3	10	4.10	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
51	3	11	4.05	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64

52	3	12	3.99	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
53	3	13	3.94	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
54	3	14	3.89	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
55	3	15	3.83	0.19	0.08	1.03	2.08	0.05	0.50	0.27	4.12	0.11	0.64	0.64
56	3	16	3.78	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.12	0.11	0.64	0.64
57	3	17	3.73	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
58	3	18	3.68	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
59	3	19	3.63	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
60	3	20	3.58	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
61	4	1	3.54	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
62	4	2	3.49	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
63	4	3	3.44	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
64	4	4	3.40	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
65	4	5	3.35	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.31	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
67	4	7	3.26	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
68	4	8	3.22	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
69	4	9	3.18	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
70	4	10	3.13	0.19	0.08	1.03	2.10	0.04	0.50	0.26	4.10	0.11	0.66	0.63
71	4	11	3.09	0.19	0.08	1.03	2.10	0.04	0.50	0.26	4.10	0.11	0.66	0.63
72	4	12	3.05	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.10	0.11	0.66	0.63
73	4	13	3.01	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
74	4	14	2.97	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
75	4	15	2.93	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
76	4	16	2.89	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
77	4	17	2.85	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
78	4	18	2.82	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
79	4	19	2.78	0.19	0.08	1.03	2.11	0.03	0.50	0.25	4.09	0.11	0.66	0.63
80	4	20	2.74	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
81	5	1	2.70	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
82	5	2	2.67	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
83	5	3	2.63	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63
84	5	4	2.60	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63
85	5	5	2.56	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63

65' Flood Scenario - Monthly Average - Output

86	5	6	2.53	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.67	0.62
87	5	7	2.50	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.67	0.62
88	5	8	2.46	0.19	0.08	1.03	2.11	0.03	0.50	0.23	4.08	0.11	0.67	0.62
89	5	9	2.43	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
90	5	10	2.40	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
91	5	11	2.37	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
92	5	12	2.34	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
93	5	13	2.31	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
94	5	14	2.28	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
95	5	15	2.25	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
96	5	16	2.22	0.19	0.08	1.03	2.12	0.03	0.50	0.22	4.07	0.11	0.67	0.62
97	5	17	2.19	0.19	0.08	1.03	2.12	0.03	0.50	0.22	4.07	0.11	0.67	0.62
98	5	18	2.16	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
99	5	19	2.13	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
100	5	20	2.10	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
101	6	1	2.07	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
102	6	2	2.05	0.20	0.08	1.03	2.14	0.03	0.50	0.22	4.07	0.11	0.67	0.62
103	6	3	2.02	0.20	0.08	1.03	2.15	0.03	0.50	0.22	4.07	0.11	0.67	0.63
104	6	4	1.99	0.20	0.08	1.03	2.16	0.03	0.50	0.21	4.07	0.11	0.67	0.63
105	6	5	1.97	0.20	0.08	1.03	2.16	0.03	0.50	0.21	4.07	0.11	0.68	0.63
106	6	6	1.94	0.20	0.08	1.03	2.17	0.02	0.50	0.21	4.06	0.11	0.68	0.63
107	6	7	1.92	0.20	0.08	1.03	2.18	0.02	0.50	0.21	4.06	0.11	0.68	0.63
108	6	8	1.89	0.20	0.08	1.03	2.19	0.02	0.50	0.21	4.06	0.11	0.68	0.63
109	6	9	1.87	0.20	0.08	1.03	2.19	0.02	0.50	0.21	4.06	0.11	0.68	0.63
110	6	10	1.85	0.20	0.08	1.03	2.20	0.02	0.50	0.21	4.06	0.11	0.68	0.64
111	6	11	1.82	0.20	0.08	1.03	2.21	0.02	0.50	0.21	4.06	0.11	0.68	0.64
112	6	12	1.80	0.20	0.08	1.03	2.21	0.02	0.50	0.20	4.06	0.11	0.68	0.64
113	6	13	1.78	0.20	0.08	1.03	2.22	0.02	0.50	0.20	4.06	0.11	0.68	0.64
114	6	14	1.75	0.20	0.08	1.03	2.23	0.02	0.50	0.20	4.06	0.11	0.68	0.64
115	6	15	1.73	0.20	0.08	1.03	2.24	0.02	0.50	0.20	4.06	0.11	0.68	0.64
116	6	16	1.71	0.20	0.08	1.03	2.24	0.02	0.50	0.20	4.06	0.11	0.68	0.64
117	6	17	1.69	0.20	0.08	1.03	2.25	0.02	0.50	0.20	4.06	0.11	0.68	0.65
118	6	18	1.67	0.21	0.08	1.03	2.25	0.02	0.50	0.20	4.06	0.11	0.68	0.65
119	6	19	1.65	0.21	0.08	1.03	2.26	0.02	0.50	0.19	4.06	0.11	0.68	0.65
120	6	20	1.63	0.21	0.08	1.03	2.27	0.02	0.50	0.19	4.06	0.11	0.68	0.65
121	7	1	1.61	0.21	0.08	1.03	2.27	0.02	0.50	0.19	4.05	0.11	0.68	0.65
122	7	2	1.59	0.21	0.08	1.03	2.28	0.02	0.50	0.19	4.05	0.11	0.68	0.65
123	7	3	1.57	0.21	0.08	1.03	2.29	0.02	0.50	0.19	4.05	0.11	0.68	0.65
124	7	4	1.55	0.21	0.08	1.03	2.29	0.02	0.50	0.19	4.05	0.11	0.68	0.66
125	7	5	1.53	0.21	0.08	1.03	2.30	0.02	0.50	0.19	4.05	0.11	0.68	0.66
126	7	6	1.51	0.21	0.08	1.03	2.30	0.02	0.50	0.19	4.05	0.11	0.68	0.66
127	7	7	1.49	0.21	0.08	1.03	2.31	0.02	0.50	0.18	4.05	0.11	0.68	0.66
128	7	8	1.48	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.66
129	7	9	1.46	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.66
130	7	10	1.44	0.21	0.08	1.03	2.33	0.02	0.50	0.18	4.05	0.11	0.69	0.66

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.42	0.21	0.08	1.03	2.33	0.02	0.50	0.18	4.05	0.11	0.69	0.66
132	7	12	1.41	0.21	0.08	1.03	2.34	0.02	0.50	0.18	4.05	0.11	0.69	0.67
133	7	13	1.48	0.21	0.08	1.03	2.31	0.02	0.50	0.18	4.05	0.11	0.69	0.67
134	7	14	1.46	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.67
135	7	15	1.44	0.21	0.08	1.03	2.32	0.02	0.50	0.17	4.05	0.11	0.69	0.67
136	7	16	1.43	0.21	0.08	1.03	2.33	0.02	0.50	0.17	4.05	0.11	0.69	0.67
137	7	17	1.41	0.21	0.08	1.03	2.33	0.02	0.50	0.17	4.05	0.11	0.69	0.67
138	7	18	1.39	0.21	0.08	1.03	2.34	0.02	0.50	0.17	4.05	0.11	0.69	0.68
139	7	19	1.38	0.21	0.08	1.03	2.35	0.02	0.50	0.17	4.05	0.11	0.69	0.68
140	7	20	1.36	0.21	0.08	1.03	2.35	0.02	0.50	0.17	4.05	0.11	0.69	0.68
141	8	1	1.34	0.22	0.08	1.03	2.36	0.02	0.50	0.17	4.05	0.11	0.69	0.68
142	8	2	1.33	0.22	0.08	1.03	2.37	0.02	0.50	0.17	4.05	0.11	0.69	0.68
143	8	3	1.31	0.22	0.08	1.03	2.37	0.02	0.50	0.17	4.05	0.11	0.69	0.68
144	8	4	1.30	0.22	0.08	1.03	2.38	0.02	0.50	0.16	4.05	0.11	0.69	0.68
145	8	5	1.28	0.22	0.08	1.03	2.38	0.02	0.50	0.16	4.05	0.11	0.69	0.68
146	8	6	1.27	0.22	0.08	1.03	2.39	0.02	0.50	0.16	4.04	0.11	0.69	0.69
147	8	7	1.25	0.22	0.08	1.03	2.39	0.02	0.50	0.16	4.04	0.11	0.69	0.69
148	8	8	1.24	0.22	0.08	1.03	2.40	0.02	0.50	0.16	4.04	0.11	0.69	0.69

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	87.40	7.46	3.47	3.99	0.00	1.00	54.07	2.58	-0.35	-0.03	0.06	-0.03	-0.08
2	1	2	87.40	7.46	3.54	3.92	0.00	1.00	0.00	2.53	-0.35	-0.03	0.07	-0.04	-0.07
3	1	3	87.40	7.46	3.60	3.85	0.00	1.00	0.00	2.49	-0.35	-0.03	0.07	-0.04	-0.07
4	1	4	87.40	7.46	3.67	3.79	0.00	1.00	0.00	2.45	-0.34	-0.03	0.07	-0.04	-0.06
5	1	5	87.40	7.46	3.73	3.73	0.00	1.00	0.00	2.41	-0.34	-0.03	0.07	-0.04	-0.06

6	1	6	87.40	7.46	3.79	3.67	0.00	1.00	0.00	2.37	-0.34	-0.03	0.07	-0.04	-0.05
7	1	7	87.40	7.46	3.84	3.61	0.00	1.00	0.00	2.33	-0.34	-0.03	0.07	-0.04	-0.05
8	1	8	87.40	7.46	3.90	3.56	0.00	1.00	0.00	2.30	-0.34	-0.03	0.07	-0.04	-0.05
9	1	9	87.40	7.46	3.95	3.51	0.00	1.00	0.00	2.26	-0.34	-0.03	0.07	-0.04	-0.04
10	1	10	87.40	7.46	4.00	3.45	0.00	1.00	0.00	2.23	-0.33	-0.03	0.07	-0.05	-0.04
11	1	11	87.40	7.46	4.05	3.41	0.00	1.00	0.00	2.20	-0.33	-0.03	0.06	-0.05	-0.04
12	1	12	87.40	7.46	4.10	3.36	0.00	1.00	0.00	2.17	-0.33	-0.03	0.06	-0.05	-0.04
13	1	13	87.40	7.46	4.15	3.31	0.00	1.00	0.00	2.14	-0.33	-0.03	0.06	-0.05	-0.03
14	1	14	87.40	7.46	4.19	3.27	0.00	1.00	0.00	2.11	-0.33	-0.03	0.06	-0.05	-0.03
15	1	15	87.40	7.46	4.23	3.23	0.00	1.00	0.00	2.08	-0.33	-0.03	0.06	-0.05	-0.03
16	1	16	87.40	7.46	4.27	3.18	0.00	1.00	0.00	2.06	-0.32	-0.03	0.06	-0.05	-0.03
17	1	17	87.40	7.46	4.31	3.14	0.00	1.00	0.00	2.03	-0.32	-0.03	0.06	-0.05	-0.03
18	1	18	87.40	7.46	4.35	3.11	0.00	1.00	0.00	2.01	-0.32	-0.03	0.06	-0.05	-0.03
19	1	19	87.40	7.46	4.39	3.07	0.00	1.00	0.00	1.98	-0.32	-0.03	0.06	-0.05	-0.03
20	1	20	87.40	7.46	4.42	3.04	0.00	1.00	0.00	1.96	-0.32	-0.03	0.06	-0.06	-0.03
21	2	1	87.40	7.46	4.45	3.01	0.00	1.00	0.22	1.94	-0.39	-0.03	0.07	-0.07	-0.03
22	2	2	87.40	7.46	4.48	2.98	0.00	1.00	0.00	1.92	-0.38	-0.03	0.07	-0.07	-0.03
23	2	3	87.40	7.46	4.51	2.95	0.00	1.00	0.00	1.91	-0.38	-0.03	0.07	-0.07	-0.03
24	2	4	87.40	7.46	4.53	2.93	0.00	1.00	0.00	1.89	-0.38	-0.03	0.06	-0.07	-0.03
25	2	5	87.40	7.46	4.56	2.90	0.00	1.00	0.00	1.87	-0.38	-0.03	0.06	-0.07	-0.03
26	2	6	87.40	7.46	4.58	2.88	0.00	1.00	0.00	1.86	-0.38	-0.03	0.06	-0.07	-0.02
27	2	7	87.40	7.46	4.61	2.85	0.00	1.00	0.00	1.84	-0.37	-0.03	0.06	-0.07	-0.02
28	2	8	87.40	7.46	4.63	2.83	0.00	1.00	0.00	1.83	-0.37	-0.03	0.06	-0.07	-0.02
29	2	9	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.37	-0.03	0.06	-0.07	-0.02
30	2	10	87.40	7.46	4.67	2.79	0.00	1.00	0.00	1.80	-0.37	-0.03	0.06	-0.07	-0.02
31	2	11	87.40	7.46	4.69	2.77	0.00	1.00	0.00	1.79	-0.37	-0.03	0.06	-0.07	-0.02
32	2	12	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.36	-0.03	0.06	-0.07	-0.02
33	2	13	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.36	-0.03	0.06	-0.07	-0.02
34	2	14	87.40	7.46	4.75	2.71	0.00	1.00	0.00	1.75	-0.36	-0.03	0.06	-0.07	-0.02
35	2	15	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.74	-0.36	-0.03	0.06	-0.07	-0.02
36	2	16	87.40	7.46	4.78	2.67	0.00	1.00	0.00	1.73	-0.36	-0.03	0.06	-0.08	-0.02
37	2	17	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.36	-0.03	0.06	-0.08	-0.02
38	2	18	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.71	-0.35	-0.03	0.06	-0.08	-0.02
39	2	19	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.35	-0.03	0.05	-0.08	-0.02
40	2	20	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.69	-0.35	-0.03	0.05	-0.08	-0.02
41	3	1	87.40	7.46	4.86	2.60	0.00	1.00	0.00	1.68	-0.35	-0.03	0.05	-0.08	-0.02
42	3	2	87.40	7.46	4.87	2.58	0.00	1.00	0.00	1.67	-0.35	-0.03	0.05	-0.08	-0.03
43	3	3	87.40	7.46	4.89	2.57	0.00	1.00	0.00	1.66	-0.34	-0.03	0.05	-0.08	-0.03
44	3	4	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.34	-0.03	0.05	-0.08	-0.03
45	3	5	87.40	7.46	4.91	2.55	0.00	1.00	0.00	1.64	-0.34	-0.03	0.05	-0.08	-0.03
46	3	6	87.40	7.46	4.92	2.53	0.00	1.00	0.00	1.64	-0.34	-0.03	0.05	-0.08	-0.03
47	3	7	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.63	-0.34	-0.03	0.05	-0.08	-0.03
48	3	8	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.34	-0.03	0.05	-0.08	-0.03
49	3	9	87.40	7.46	4.96	2.50	0.00	1.00	0.00	1.61	-0.33	-0.03	0.05	-0.08	-0.03
50	3	10	87.40	7.46	4.97	2.49	0.00	1.00	0.00	1.61	-0.33	-0.03	0.05	-0.08	-0.03
51	3	11	87.40	7.46	4.98	2.48	0.00	1.00	0.00	1.60	-0.33	-0.03	0.05	-0.08	-0.03

52	3	12	87.40	7.46	4.99	2.47	0.00	1.00	0.00	1.60	-0.33	-0.03	0.05	-0.08	-0.03
53	3	13	87.40	7.46	5.00	2.46	0.00	1.00	0.00	1.59	-0.33	-0.03	0.05	-0.08	-0.03
54	3	14	87.40	7.46	5.01	2.45	0.00	1.00	0.00	1.58	-0.33	-0.03	0.05	-0.08	-0.03
55	3	15	87.40	7.46	5.01	2.44	0.00	1.00	0.00	1.58	-0.32	-0.03	0.05	-0.08	-0.03
56	3	16	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.57	-0.32	-0.03	0.04	-0.08	-0.03
57	3	17	87.40	7.46	5.03	2.43	0.00	1.00	0.00	1.57	-0.32	-0.03	0.04	-0.08	-0.03
58	3	18	87.40	7.46	5.04	2.42	0.00	1.00	0.00	1.56	-0.32	-0.03	0.04	-0.08	-0.03
59	3	19	87.40	7.46	5.05	2.41	0.00	1.00	0.00	1.56	-0.32	-0.03	0.04	-0.08	-0.03
60	3	20	87.40	7.46	5.05	2.40	0.00	1.00	0.00	1.55	-0.32	-0.03	0.04	-0.08	-0.03
61	4	1	87.40	7.46	5.04	2.42	0.00	1.00	0.00	1.56	-0.31	-0.04	0.04	-0.08	-0.03
62	4	2	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.57	-0.31	-0.04	0.04	-0.08	-0.03
63	4	3	87.40	7.46	5.00	2.46	0.00	1.00	0.00	1.59	-0.31	-0.04	0.04	-0.08	-0.03
64	4	4	87.40	7.46	4.99	2.47	0.00	1.00	0.01	1.60	-0.31	-0.04	0.04	-0.08	-0.03
65	4	5	87.40	7.46	4.97	2.49	0.00	1.00	0.00	1.61	-0.31	-0.04	0.04	-0.08	-0.03

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	87.40	7.46	4.96	2.50	0.00	1.00	0.00	1.61	-0.31	-0.04	0.04	-0.08	-0.03
67	4	7	87.40	7.46	4.94	2.51	0.00	1.00	0.00	1.62	-0.30	-0.04	0.04	-0.08	-0.03
68	4	8	87.40	7.46	4.93	2.53	0.00	1.00	0.00	1.63	-0.30	-0.04	0.04	-0.08	-0.03
69	4	9	87.40	7.46	4.92	2.54	0.00	1.00	0.00	1.64	-0.30	-0.04	0.04	-0.08	-0.03
70	4	10	87.40	7.46	4.91	2.55	0.00	1.00	0.00	1.65	-0.30	-0.04	0.04	-0.08	-0.03
71	4	11	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.30	-0.04	0.04	-0.08	-0.03
72	4	12	87.40	7.46	4.88	2.57	0.00	1.00	0.00	1.66	-0.30	-0.04	0.04	-0.08	-0.03
73	4	13	87.40	7.46	4.87	2.58	0.00	1.00	0.00	1.67	-0.30	-0.04	0.04	-0.08	-0.03
74	4	14	87.40	7.46	4.86	2.59	0.00	1.00	0.00	1.67	-0.29	-0.04	0.04	-0.08	-0.03
75	4	15	87.40	7.46	4.86	2.60	0.00	1.00	0.00	1.68	-0.29	-0.04	0.04	-0.08	-0.03
76	4	16	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.69	-0.29	-0.04	0.03	-0.08	-0.03
77	4	17	87.40	7.46	4.84	2.62	0.00	1.00	0.00	1.69	-0.29	-0.04	0.03	-0.08	-0.03
78	4	18	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.29	-0.04	0.03	-0.08	-0.03
79	4	19	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.70	-0.29	-0.04	0.03	-0.08	-0.03
80	4	20	87.40	7.46	4.81	2.64	0.00	1.00	0.00	1.71	-0.28	-0.04	0.03	-0.08	-0.03
81	5	1	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.28	-0.04	0.03	-0.08	-0.03
82	5	2	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.28	-0.04	0.03	-0.08	-0.03
83	5	3	87.40	7.46	4.79	2.66	0.00	1.00	0.00	1.72	-0.28	-0.04	0.03	-0.08	-0.03
84	5	4	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.28	-0.04	0.03	-0.08	-0.03
85	5	5	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.28	-0.04	0.03	-0.08	-0.03

65' Flood Scenario - Monthly Average - Output

86	5	6	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.28	-0.04	0.03	-0.08	-0.03
87	5	7	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.73	-0.27	-0.04	0.03	-0.08	-0.03
88	5	8	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.74	-0.27	-0.04	0.03	-0.08	-0.03
89	5	9	87.40	7.46	4.76	2.70	0.00	1.00	0.00	1.74	-0.27	-0.04	0.03	-0.08	-0.03
90	5	10	87.40	7.46	4.76	2.70	0.00	1.00	0.00	1.74	-0.27	-0.04	0.03	-0.08	-0.03
91	5	11	87.40	7.46	4.75	2.70	0.00	1.00	0.00	1.75	-0.27	-0.04	0.03	-0.08	-0.03
92	5	12	87.40	7.46	4.75	2.71	0.00	1.00	0.00	1.75	-0.27	-0.04	0.03	-0.08	-0.03
93	5	13	87.40	7.46	4.75	2.71	0.00	1.00	0.00	1.75	-0.27	-0.04	0.03	-0.07	-0.03
94	5	14	87.40	7.46	4.74	2.71	0.00	1.00	0.00	1.75	-0.27	-0.04	0.03	-0.07	-0.03
95	5	15	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.75	-0.26	-0.04	0.03	-0.07	-0.03
96	5	16	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.76	-0.26	-0.04	0.03	-0.07	-0.03
97	5	17	87.40	7.46	4.74	2.72	0.00	1.00	0.01	1.76	-0.26	-0.04	0.03	-0.07	-0.03
98	5	18	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.26	-0.04	0.03	-0.07	-0.03
99	5	19	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.26	-0.04	0.03	-0.07	-0.03
100	5	20	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.26	-0.04	0.03	-0.07	-0.03
101	6	1	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.26	-0.04	0.03	-0.07	-0.02
102	6	2	87.40	7.46	4.72	2.73	0.00	1.00	0.00	1.77	-0.25	-0.04	0.03	-0.07	-0.02
103	6	3	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.03	-0.07	-0.02
104	6	4	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.03	-0.07	-0.02
105	6	5	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.03	-0.07	-0.02
106	6	6	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.02	-0.07	-0.02
107	6	7	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.02	-0.07	-0.02
108	6	8	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.02	-0.07	-0.02
109	6	9	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.25	-0.04	0.02	-0.07	-0.02
110	6	10	87.40	7.46	4.71	2.74	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
111	6	11	87.40	7.46	4.71	2.74	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
112	6	12	87.40	7.46	4.71	2.74	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
113	6	13	87.40	7.46	4.71	2.74	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
114	6	14	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
115	6	15	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
116	6	16	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
117	6	17	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.24	-0.04	0.02	-0.07	-0.02
118	6	18	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.23	-0.04	0.02	-0.07	-0.02
119	6	19	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.23	-0.04	0.02	-0.07	-0.02
120	6	20	87.40	7.46	4.71	2.74	0.00	1.00	0.00	1.77	-0.23	-0.04	0.02	-0.07	-0.02
121	7	1	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.76	-0.23	-0.03	0.02	-0.07	-0.02
122	7	2	87.40	7.46	4.76	2.69	0.00	1.00	0.00	1.74	-0.23	-0.03	0.02	-0.07	-0.02
123	7	3	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.23	-0.03	0.02	-0.07	-0.02
124	7	4	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.23	-0.03	0.02	-0.07	-0.02
125	7	5	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.23	-0.03	0.02	-0.07	-0.02
126	7	6	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.68	-0.22	-0.03	0.02	-0.07	-0.02
127	7	7	87.40	7.46	4.87	2.58	0.00	1.00	0.00	1.67	-0.22	-0.03	0.02	-0.06	-0.02
128	7	8	87.40	7.46	4.89	2.56	0.00	1.00	0.00	1.66	-0.22	-0.03	0.02	-0.06	-0.02
129	7	9	87.40	7.46	4.91	2.55	0.00	1.00	0.00	1.64	-0.22	-0.03	0.02	-0.06	-0.02
130	7	10	87.40	7.46	4.93	2.53	0.00	1.00	0.00	1.63	-0.22	-0.03	0.02	-0.06	-0.02

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65' Flood Scenario - Monthly Average - Output

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.22	-0.03	0.02	-0.06	-0.02
132	7	12	87.40	7.46	4.97	2.49	0.00	1.00	0.00	1.61	-0.22	-0.03	0.02	-0.06	-0.02
133	7	13	87.40	7.46	4.99	2.47	0.00	1.00	1.07	1.60	-0.22	-0.03	0.02	-0.06	-0.02
134	7	14	87.40	7.46	5.00	2.45	0.00	1.00	0.00	1.58	-0.22	-0.03	0.02	-0.06	-0.02
135	7	15	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.57	-0.21	-0.03	0.02	-0.06	-0.02
136	7	16	87.40	7.46	5.04	2.42	0.00	1.00	0.00	1.56	-0.21	-0.03	0.02	-0.06	-0.02
137	7	17	87.40	7.46	5.05	2.41	0.00	1.00	0.00	1.55	-0.21	-0.03	0.02	-0.06	-0.02
138	7	18	87.40	7.46	5.07	2.39	0.00	1.00	0.00	1.54	-0.21	-0.03	0.02	-0.06	-0.02
139	7	19	87.40	7.46	5.08	2.38	0.00	1.00	0.00	1.53	-0.21	-0.03	0.02	-0.06	-0.02
140	7	20	87.40	7.46	5.10	2.36	0.00	1.00	0.00	1.53	-0.21	-0.03	0.02	-0.06	-0.02
141	8	1	87.40	7.46	5.11	2.35	0.00	1.00	0.00	1.52	-0.21	-0.03	0.02	-0.06	-0.02
142	8	2	87.40	7.46	5.12	2.34	0.00	1.00	0.00	1.51	-0.21	-0.03	0.02	-0.06	-0.02
143	8	3	87.40	7.46	5.13	2.32	0.00	1.00	0.00	1.50	-0.21	-0.03	0.02	-0.06	-0.02
144	8	4	87.40	7.46	5.15	2.31	0.00	1.00	0.00	1.49	-0.20	-0.03	0.02	-0.06	-0.02
145	8	5	87.40	7.46	5.16	2.30	0.00	1.00	0.00	1.49	-0.20	-0.03	0.02	-0.06	-0.02
146	8	6	87.40	7.46	5.17	2.29	0.00	1.00	0.00	1.48	-0.20	-0.03	0.02	-0.06	-0.02
147	8	7	87.40	7.46	5.18	2.28	0.00	1.00	0.00	1.47	-0.20	-0.03	0.02	-0.06	-0.02
148	8	8	87.40	7.46	5.19	2.27	0.00	1.00	0.00	1.46	-0.20	-0.03	0.02	-0.06	-0.02

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0            REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0            REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0            REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0            REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0            REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0            REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0            REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  2.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  3.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  4.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  5.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  6.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  7.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  8.0   87.4   3.40   4.29 1.24
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  2.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  3.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  4.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  5.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  6.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  7.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  8.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   2.8 1.24
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  2.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  3.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  4.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  5.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  6.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  7.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
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INCR INFLOW-2  RCH=  8.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    17250  87.4  3.40  4.29 1.24
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.25  0.04 0.045 0.181 0.025 0.019
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   69.63  86.9  3.50 419.7 37.62
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.24
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.24
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 YES CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	2.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	3.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	4.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	5.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	6.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	7.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	8.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	2.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	3.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	4.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	5.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	6.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	7.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	8.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER  17250.00     87.40      3.40      4.29      1.24      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                              COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.25     0.04     0.05     0.18     0.03     0.02
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00    69.63     86.90      3.50    419.70     37.62      0.00      0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00     88.70      5.50      5.00      1.24      0.00      0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10     88.70      5.50      2.80      1.24      0.00      0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00     88.70      5.50      5.00      1.24      0.00      0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10     88.70      5.50      2.80      1.24      0.00      0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10     88.70      5.50      2.80      1.24      0.00      0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00     85.10      5.40      2.80      1.24      0.00      0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77     88.70      3.00     60.00      1.24      0.00      0.00
          ENDATA11       0.                        0.00     0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                              COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                               DAM    RCH    ELE     ADAM     BDAM     FDAM     HDAM

          ENDATA12               0.     0.     0.     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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             CARD TYPE               TEMP       D.O.      BOD       CM-1      CM-2      CM-3       ANC      COLI

          ENDATA13                   DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
0          $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

             CARD TYPE               CHL-A     ORG-N     NH3-N     NO2-N     NH3-N     ORG-P     DIS-P

          ENDATA13A                  DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED
1
0                    CONSERVATIVE MINERAL   I                                        ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24  1.24
    2  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39
    3  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39
    4  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39
    5  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39
    6  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39
    7  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.39  1.38  1.38  1.38  1.38  1.38  1.38  1.38  1.38
    8  1.38  1.38  1.38  1.38  1.38  1.38  1.38  1.38
0                    BIOCHEMICAL OXYGEN DEMAND IN MG/L                              ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  4.27  4.25  4.22  4.20  4.18  4.16  4.14  4.12  4.10  4.07  4.05  4.03  4.01  3.99  3.97  3.95  3.93  3.91  3.89  3.89
    2  5.51  5.48  5.46  5.43  5.40  5.37  5.34  5.32  5.29  5.26  5.24  5.21  5.18  5.16  5.13  5.10  5.08  5.05  5.02  5.00
    3  4.97  4.95  4.92  4.90  4.87  4.85  4.82  4.80  4.77  4.75  4.72  4.70  4.67  4.65  4.63  4.60  4.58  4.55  4.53  4.51
    4  4.48  4.46  4.44  4.42  4.39  4.37  4.35  4.33  4.30  4.28  4.26  4.24  4.22  4.19  4.17  4.15  4.13  4.11  4.09  4.07
    5  4.04  4.02  4.00  3.98  3.96  3.94  3.92  3.90  3.88  3.86  3.84  3.82  3.80  3.78  3.76  3.74  3.72  3.70  3.69  3.67
    6  3.65  3.63  3.61  3.59  3.57  3.55  3.54  3.52  3.50  3.48  3.46  3.45  3.43  3.41  3.39  3.38  3.36  3.34  3.32  3.31
    7  3.29  3.27  3.26  3.24  3.22  3.21  3.19  3.17  3.16  3.14  3.12  3.11  3.09  3.07  3.06  3.04  3.02  3.01  2.99  2.98
    8  2.96  2.95  2.93  2.92  2.90  2.89  2.87  2.86
1

  STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:
  ------------------------------------------------------------------------------

                                                 NUMBER OF
             VARIABLE              ITERATION     NONCONVERGENT
                                                 ELEMENTS

0                    ALGAE AS CHL-A IN UG/L                                         ITERATION  1
  RCH/CL  1     2     3     4     5     6     7     8     9    10    11    12    13    14    15    16    17    18    19    20

    1  8.27  8.14  8.01  7.89  7.76  7.64  7.52  7.41  7.29  7.18  7.07  6.96  6.85  6.74  6.63  6.53  6.43  6.33  6.23  6.13
    2  6.02  5.92  5.83  5.74  5.65  5.56  5.48  5.39  5.31  5.22  5.14  5.06  4.98  4.91  4.83  4.75  4.68  4.61  4.53  4.46
    3  4.39  4.33  4.26  4.19  4.13  4.06  4.00  3.94  3.88  3.82  3.76  3.70  3.64  3.58  3.53  3.47  3.42  3.36  3.31  3.26
    4  3.21  3.16  3.11  3.06  3.01  2.97  2.92  2.88  2.83  2.79  2.74  2.70  2.66  2.62  2.58  2.54  2.50  2.46  2.42  2.38
    5  2.34  2.31  2.27  2.24  2.20  2.17  2.13  2.10  2.07  2.04  2.00  1.97  1.94  1.91  1.88  1.85  1.82  1.79  1.77  1.74
    6  1.71  1.69  1.66  1.63  1.61  1.58  1.56  1.53  1.51  1.49  1.46  1.44  1.42  1.40  1.37  1.35  1.33  1.31  1.29  1.27
    7  1.25  1.23  1.21  1.19  1.17  1.16  1.14  1.12  1.10  1.09  1.07  1.05  1.13  1.11  1.09  1.08  1.06  1.04  1.03  1.01
```


65' Flood Scenario - Daily Maximum - Output

8 1.00 0.98 0.96 0.95 0.93 0.92 0.91 0.89

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
4	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12
5	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
6	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10
3	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
4	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
8	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.25	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.27
4	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30
5	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.33
6	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35
7	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.38
8	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.39												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.14	4.18	4.23	4.27	4.31	4.34	4.38	4.41
2	4.44	4.46	4.48	4.50	4.53	4.55	4.57	4.59	4.60	4.62	4.64	4.66	4.67	4.69	4.70	4.72	4.73	4.75	4.76	4.77
3	4.78	4.80	4.81	4.82	4.83	4.84	4.85	4.86	4.87	4.88	4.89	4.89	4.90	4.91	4.92	4.93	4.93	4.94	4.95	4.96
4	4.94	4.92	4.90	4.89	4.87	4.86	4.84	4.83	4.82	4.80	4.79	4.78	4.77	4.76	4.75	4.74	4.73	4.73	4.72	4.71
5	4.70	4.70	4.69	4.69	4.68	4.67	4.67	4.67	4.66	4.66	4.65	4.65	4.65	4.64	4.64	4.64	4.64	4.63	4.63	4.63
6	4.63	4.63	4.63	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62
7	4.65	4.67	4.70	4.72	4.74	4.76	4.78	4.80	4.82	4.84	4.86	4.88	4.90	4.92	4.94	4.95	4.97	4.98	5.00	5.01
8	5.03	5.04	5.05	5.06	5.08	5.09	5.10	5.11												

ALGAE GROWTH RATE	1	141
ALGAE GROWTH RATE	2	47
ALGAE GROWTH RATE	3	0
ALGAE GROWTH RATE	4	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1

0 DISSOLVED OXYGEN IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.15	4.19	4.23	4.27	4.31	4.35	4.39	4.42
2	4.44	4.47	4.49	4.52	4.54	4.56	4.58	4.60	4.62	4.64	4.66	4.67	4.69	4.71	4.72	4.74	4.75	4.77	4.78	4.79
3	4.81	4.82	4.83	4.84	4.85	4.86	4.87	4.88	4.89	4.90	4.91	4.92	4.93	4.94	4.95	4.95	4.96	4.97	4.98	4.98
4	4.96	4.95	4.93	4.91	4.90	4.88	4.87	4.86	4.84	4.83	4.82	4.81	4.80	4.79	4.78	4.77	4.76	4.75	4.75	4.74
5	4.73	4.73	4.72	4.71	4.71	4.70	4.70	4.69	4.69	4.68	4.68	4.68	4.67	4.67	4.67	4.66	4.66	4.66	4.66	4.65
6	4.65	4.65	4.65	4.65	4.65	4.65	4.65	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.65
7	4.67	4.70	4.72	4.74	4.77	4.79	4.81	4.83	4.85	4.87	4.88	4.90	4.92	4.94	4.96	4.97	4.99	5.01	5.02	5.03
8	5.05	5.06	5.07	5.09	5.10	5.11	5.12	5.13												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	4.27	4.25	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.07	4.05	4.03	4.01	3.99	3.97	3.95	3.93	3.91	3.89	3.89
2	5.51	5.48	5.46	5.43	5.40	5.37	5.34	5.32	5.29	5.26	5.24	5.21	5.18	5.16	5.13	5.10	5.08	5.05	5.02	5.00
3	4.97	4.95	4.92	4.90	4.87	4.85	4.82	4.80	4.77	4.75	4.72	4.70	4.67	4.65	4.63	4.60	4.58	4.55	4.53	4.51
4	4.48	4.46	4.44	4.42	4.39	4.37	4.35	4.33	4.30	4.28	4.26	4.24	4.22	4.19	4.17	4.15	4.13	4.11	4.09	4.07
5	4.04	4.02	4.00	3.98	3.96	3.94	3.92	3.90	3.88	3.86	3.84	3.82	3.80	3.78	3.76	3.74	3.72	3.70	3.69	3.67
6	3.65	3.63	3.61	3.59	3.57	3.55	3.54	3.52	3.50	3.48	3.46	3.45	3.43	3.41	3.39	3.38	3.36	3.34	3.32	3.31
7	3.29	3.27	3.26	3.24	3.22	3.21	3.19	3.17	3.16	3.14	3.12	3.11	3.09	3.07	3.06	3.04	3.02	3.01	2.99	2.98
8	2.96	2.95	2.93	2.92	2.90	2.89	2.87	2.86												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.22	0.21	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15
4	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12
5	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10
6	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
3	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
4	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08

7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.25
3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27
4	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.30
5	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32
6	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35
7	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37
8	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
7	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
6	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.27	8.14	8.02	7.90	7.78	7.66	7.54	7.43	7.32	7.21	7.10	7.00	6.89	6.79	6.69	6.59	6.50	6.40	6.31	6.22

2	6.11	6.03	5.94	5.86	5.78	5.70	5.62	5.54	5.47	5.39	5.32	5.25	5.17	5.10	5.03	4.97	4.90	4.83	4.77	4.70
3	4.64	4.57	4.51	4.45	4.39	4.33	4.27	4.22	4.16	4.10	4.05	3.99	3.94	3.89	3.83	3.78	3.73	3.68	3.63	3.58
4	3.54	3.49	3.44	3.40	3.35	3.31	3.26	3.22	3.18	3.13	3.09	3.05	3.01	2.97	2.93	2.89	2.85	2.82	2.78	2.74
5	2.70	2.67	2.63	2.60	2.56	2.53	2.50	2.46	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.22	2.19	2.16	2.13	2.10
6	2.07	2.05	2.02	1.99	1.97	1.94	1.92	1.89	1.87	1.85	1.82	1.80	1.78	1.75	1.73	1.71	1.69	1.67	1.65	1.63
7	1.61	1.59	1.57	1.55	1.53	1.51	1.49	1.48	1.46	1.44	1.42	1.41	1.48	1.46	1.44	1.43	1.41	1.39	1.38	1.36
8	1.34	1.33	1.31	1.30	1.28	1.27	1.25	1.24												

0 CONSERVATIVE MINERAL I ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
2	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
3	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
4	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
5	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
6	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
7	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
8	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
2	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
3	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
4	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
5	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
6	0.19	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.21	0.21
7	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
8	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.71	1.73	1.75	1.76	1.77	1.79	1.80	1.81	1.82	1.82	1.83	1.84	1.85	1.85	1.86	1.86	1.87	1.87	1.88	1.88
2	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.02	2.02	2.03	2.03	2.03	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05
3	2.05	2.05	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.07	2.07	2.08	2.08	2.08	2.08	2.08	2.08
4	2.08	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.09	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.11	2.11
5	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.13	2.13	2.13
6	2.13	2.14	2.15	2.16	2.16	2.17	2.18	2.19	2.19	2.20	2.21	2.21	2.22	2.23	2.24	2.24	2.25	2.25	2.26	2.27
7	2.27	2.28	2.29	2.29	2.30	2.30	2.31	2.32	2.32	2.33	2.33	2.34	2.31	2.32	2.32	2.33	2.33	2.34	2.35	2.35
8	2.36	2.37	2.37	2.38	2.38	2.39	2.39	2.40												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE	RCH ELE	BEGIN	END	POINT	INCR	TRVL	BOTTOM	X-SECT	DSPRSN

65' Flood Scenario - Daily Maximum - Output

ORD	NUM	NUM	LOC MILE	LOC MILE	FLOW CFS	SRCE CFS	FLOW CFS	VEL FPS	TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	AREA FT-2	AREA FT-2	COEF FT-2/S
1	1	1	227.00	226.7517250.10	0.00	0.10	0.243	0.063	3.18322306.330	93724920.0	29452760.0	71003.73	3.24		
2	1	2	226.75	226.5017250.20	0.00	0.10	0.243	0.063	3.18322306.365	93725816.0	29452806.0	71004.41	3.24		
3	1	3	226.50	226.2517250.30	0.00	0.10	0.243	0.063	3.18322306.398	93726704.0	29452850.0	71005.08	3.24		
4	1	4	226.25	226.0017250.40	0.00	0.10	0.243	0.063	3.18322306.436	93727592.0	29452898.0	71005.75	3.24		
5	1	5	226.00	225.7517250.50	0.00	0.10	0.243	0.063	3.18322306.471	93728488.0	29452946.0	71006.43	3.24		
6	1	6	225.75	225.5017250.60	0.00	0.10	0.243	0.063	3.18322306.506	93729368.0	29452992.0	71007.10	3.24		
7	1	7	225.50	225.2517250.70	0.00	0.10	0.243	0.063	3.18322306.541	93730264.0	29453038.0	71007.77	3.24		
8	1	8	225.25	225.0017250.80	0.00	0.10	0.243	0.063	3.18322306.574	93731152.0	29453082.0	71008.45	3.24		
9	1	9	225.00	224.7517250.90	0.00	0.10	0.243	0.063	3.18322306.611	93732040.0	29453130.0	71009.12	3.24		
10	1	10	224.75	224.5017251.00	0.00	0.10	0.243	0.063	3.18322306.646	93732928.0	29453178.0	71009.80	3.24		
11	1	11	224.50	224.2517251.10	0.00	0.10	0.243	0.063	3.18322306.684	93733816.0	29453226.0	71010.47	3.24		
12	1	12	224.25	224.0017251.20	0.00	0.10	0.243	0.063	3.18322306.717	93734704.0	29453270.0	71011.14	3.24		
13	1	13	224.00	223.7517251.29	0.00	0.10	0.243	0.063	3.18322306.752	93735600.0	29453316.0	71011.82	3.24		
14	1	14	223.75	223.5017251.39	0.00	0.10	0.243	0.063	3.18322306.787	93736480.0	29453364.0	71012.48	3.24		
15	1	15	223.50	223.2517251.49	0.00	0.10	0.243	0.063	3.18322306.822	93737376.0	29453410.0	71013.16	3.24		
16	1	16	223.25	223.0017251.59	0.00	0.10	0.243	0.063	3.18322306.855	93738264.0	29453454.0	71013.84	3.24		
17	1	17	223.00	222.7517251.69	0.00	0.10	0.243	0.063	3.18422306.893	93739152.0	29453502.0	71014.51	3.24		
18	1	18	222.75	222.5017251.79	0.00	0.10	0.243	0.063	3.18422306.926	93740040.0	29453546.0	71015.18	3.24		
19	1	19	222.50	222.2517251.89	0.00	0.10	0.243	0.063	3.18422306.963	93740936.0	29453596.0	71015.86	3.24		
20	1	20	222.25	222.0017251.99	0.00	0.10	0.243	0.063	3.18422306.998	93741816.0	29453642.0	71016.53	3.24		
21	2	1	222.00	221.7517321.72	69.63	0.10	0.242	0.063	3.20122331.576	94365152.0	29486132.0	71488.75	3.24		
22	2	2	221.75	221.5017321.82	0.00	0.10	0.242	0.063	3.20122331.611	94366040.0	29486178.0	71489.43	3.24		
23	2	3	221.50	221.2517321.92	0.00	0.10	0.242	0.063	3.20122331.646	94366936.0	29486224.0	71490.10	3.24		
24	2	4	221.25	221.0017322.02	0.00	0.10	0.242	0.063	3.20122331.682	94367824.0	29486272.0	71490.77	3.24		
25	2	5	221.00	220.7517322.12	0.00	0.10	0.242	0.063	3.20122331.715	94368712.0	29486316.0	71491.45	3.24		
26	2	6	220.75	220.5017322.22	0.00	0.10	0.242	0.063	3.20122331.750	94369608.0	29486362.0	71492.12	3.24		
27	2	7	220.50	220.2517322.32	0.00	0.10	0.242	0.063	3.20122331.787	94370504.0	29486410.0	71492.80	3.24		
28	2	8	220.25	220.0017322.42	0.00	0.10	0.242	0.063	3.20122331.822	94371392.0	29486458.0	71493.48	3.24		
29	2	9	220.00	219.7517322.52	0.00	0.10	0.242	0.063	3.20122331.857	94372288.0	29486504.0	71494.16	3.24		
30	2	10	219.75	219.5017322.62	0.00	0.10	0.242	0.063	3.20122331.891	94373176.0	29486548.0	71494.83	3.24		
31	2	11	219.50	219.2517322.72	0.00	0.10	0.242	0.063	3.20122331.926	94374064.0	29486594.0	71495.51	3.24		
32	2	12	219.25	219.0017322.82	0.00	0.10	0.242	0.063	3.20222331.963	94374960.0	29486644.0	71496.18	3.24		
33	2	13	219.00	218.7517322.92	0.00	0.10	0.242	0.063	3.20222331.996	94375848.0	29486686.0	71496.85	3.24		
34	2	14	218.75	218.5017323.02	0.00	0.10	0.242	0.063	3.20222332.031	94376736.0	29486734.0	71497.53	3.25		
35	2	15	218.50	218.2517323.12	0.00	0.10	0.242	0.063	3.20222332.066	94377640.0	29486780.0	71498.21	3.25		
36	2	16	218.25	218.0017323.22	0.00	0.10	0.242	0.063	3.20222332.102	94378528.0	29486826.0	71498.88	3.25		
37	2	17	218.00	217.7517323.32	0.00	0.10	0.242	0.063	3.20222332.139	94379416.0	29486876.0	71499.56	3.25		
38	2	18	217.75	217.5017323.42	0.00	0.10	0.242	0.063	3.20222332.172	94380312.0	29486920.0	71500.23	3.25		
39	2	19	217.50	217.2517323.52	0.00	0.10	0.242	0.063	3.20222332.207	94381200.0	29486966.0	71500.91	3.25		
40	2	20	217.25	217.0017323.62	0.00	0.10	0.242	0.063	3.20222332.242	94382088.0	29487012.0	71501.59	3.25		
41	3	1	217.00	216.7517323.71	0.00	0.10	0.242	0.063	3.20222332.277	94382984.0	29487058.0	71502.26	1.88		
42	3	2	216.75	216.5017323.81	0.00	0.10	0.242	0.063	3.20222332.312	94383872.0	29487106.0	71502.94	1.88		
43	3	3	216.50	216.2517323.91	0.00	0.10	0.242	0.063	3.20222332.348	94384768.0	29487152.0	71503.61	1.88		

44	3	4	216.25	216.0017324.01	0.00	0.10	0.242	0.063	3.20222332.383	94385664.0	29487198.0	71504.29	1.88
45	3	5	216.00	215.7517324.11	0.00	0.10	0.242	0.063	3.20222332.418	94386552.0	29487244.0	71504.96	1.88
46	3	6	215.75	215.5017324.21	0.00	0.10	0.242	0.063	3.20222332.453	94387440.0	29487292.0	71505.64	1.88
47	3	7	215.50	215.2517324.31	0.00	0.10	0.242	0.063	3.20222332.488	94388336.0	29487338.0	71506.31	1.88
48	3	8	215.25	215.0017324.41	0.00	0.10	0.242	0.063	3.20222332.523	94389224.0	29487384.0	71506.99	1.88
49	3	9	215.00	214.7517324.51	0.00	0.10	0.242	0.063	3.20222332.557	94390112.0	29487428.0	71507.66	1.88
50	3	10	214.75	214.5017324.61	0.00	0.10	0.242	0.063	3.20222332.592	94391008.0	29487474.0	71508.34	1.88
51	3	11	214.50	214.2517324.71	0.00	0.10	0.242	0.063	3.20222332.627	94391896.0	29487520.0	71509.02	1.88
52	3	12	214.25	214.0017324.81	0.00	0.10	0.242	0.063	3.20222332.662	94392792.0	29487568.0	71509.69	1.88
53	3	13	214.00	213.7517324.91	0.00	0.10	0.242	0.063	3.20222332.699	94393688.0	29487616.0	71510.37	1.88
54	3	14	213.75	213.5017325.01	0.00	0.10	0.242	0.063	3.20222332.732	94394576.0	29487660.0	71511.05	1.88
55	3	15	213.50	213.2517325.11	0.00	0.10	0.242	0.063	3.20222332.770	94395472.0	29487710.0	71511.72	1.88
56	3	16	213.25	213.0017325.21	0.00	0.10	0.242	0.063	3.20222332.803	94396360.0	29487754.0	71512.39	1.88
57	3	17	213.00	212.7517325.31	0.00	0.10	0.242	0.063	3.20222332.838	94397248.0	29487800.0	71513.07	1.88
58	3	18	212.75	212.5017325.41	0.00	0.10	0.242	0.063	3.20222332.873	94398144.0	29487846.0	71513.74	1.88
59	3	19	212.50	212.2517325.51	0.00	0.10	0.242	0.063	3.20222332.908	94399032.0	29487892.0	71514.42	1.88
60	3	20	212.25	212.0017325.61	0.00	0.10	0.242	0.063	3.20222332.943	94399920.0	29487940.0	71515.09	1.88
61	4	1	212.00	211.7517325.71	0.00	0.10	0.242	0.063	3.20222332.979	94400816.0	29487986.0	71515.77	1.79
62	4	2	211.75	211.5017325.81	0.00	0.10	0.242	0.063	3.20222333.014	94401704.0	29488032.0	71516.45	1.79
63	4	3	211.50	211.2517325.91	0.00	0.10	0.242	0.063	3.20222333.049	94402600.0	29488078.0	71517.12	1.79
64	4	4	211.25	211.0017327.01	1.00	0.10	0.242	0.063	3.20322333.436	94412448.0	29488590.0	71524.58	1.79
65	4	5	211.00	210.7517327.11	0.00	0.10	0.242	0.063	3.20322333.471	94413336.0	29488636.0	71525.26	1.79

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5017327.21	0.00	0.10	0.242	0.063	3.20322333.506	94414224.0	29488682.0	71525.93	1.79		
67	4	7	210.50	210.2517327.30	0.00	0.10	0.242	0.063	3.20322333.541	94415120.0	29488730.0	71526.60	1.79		
68	4	8	210.25	210.0017327.40	0.00	0.10	0.242	0.063	3.20322333.574	94416008.0	29488774.0	71527.28	1.79		
69	4	9	210.00	209.7517327.50	0.00	0.10	0.242	0.063	3.20322333.609	94416904.0	29488820.0	71527.95	1.79		
70	4	10	209.75	209.5017327.60	0.00	0.10	0.242	0.063	3.20322333.646	94417800.0	29488868.0	71528.63	1.79		
71	4	11	209.50	209.2517327.70	0.00	0.10	0.242	0.063	3.20322333.682	94418688.0	29488916.0	71529.31	1.79		
72	4	12	209.25	209.0017327.80	0.00	0.10	0.242	0.063	3.20322333.717	94419576.0	29488962.0	71529.98	1.79		
73	4	13	209.00	208.7517327.90	0.00	0.10	0.242	0.063	3.20322333.750	94420472.0	29489006.0	71530.66	1.79		
74	4	14	208.75	208.5017328.00	0.00	0.10	0.242	0.063	3.20322333.785	94421360.0	29489052.0	71531.34	1.79		
75	4	15	208.50	208.2517328.10	0.00	0.10	0.242	0.063	3.20322333.822	94422256.0	29489100.0	71532.01	1.79		
76	4	16	208.25	208.0017328.20	0.00	0.10	0.242	0.063	3.20322333.855	94423144.0	29489144.0	71532.69	1.79		
77	4	17	208.00	207.7517328.30	0.00	0.10	0.242	0.063	3.20322333.891	94424040.0	29489192.0	71533.36	1.79		
78	4	18	207.75	207.5017328.50	0.10	0.10	0.242	0.063	3.20322333.959	94425816.0	29489282.0	71534.71	1.79		
79	4	19	207.50	207.2517328.60	0.00	0.10	0.242	0.063	3.20322333.996	94426712.0	29489330.0	71535.38	1.79		
80	4	20	207.25	207.0017328.70	0.00	0.10	0.242	0.063	3.20322334.031	94427608.0	29489378.0	71536.06	1.79		

81	5	1	207.00	206.7517328.80	0.00	0.10	0.242	0.063	3.20322334.066	94428496.0	29489424.0	71536.74	0.85
82	5	2	206.75	206.5017328.90	0.00	0.10	0.242	0.063	3.20322334.102	94429392.0	29489470.0	71537.41	0.85
83	5	3	206.50	206.2517329.00	0.00	0.10	0.242	0.063	3.20322334.137	94430280.0	29489516.0	71538.09	0.85
84	5	4	206.25	206.0017329.10	0.00	0.10	0.242	0.063	3.20322334.172	94431176.0	29489564.0	71538.77	0.85
85	5	5	206.00	205.7517329.20	0.00	0.10	0.242	0.063	3.20322334.207	94432064.0	29489610.0	71539.45	0.85
86	5	6	205.75	205.5017329.30	0.00	0.10	0.242	0.063	3.20322334.242	94432952.0	29489656.0	71540.12	0.85
87	5	7	205.50	205.2517329.40	0.00	0.10	0.242	0.063	3.20322334.275	94433848.0	29489700.0	71540.79	0.85
88	5	8	205.25	205.0017329.50	0.00	0.10	0.242	0.063	3.20322334.311	94434736.0	29489746.0	71541.47	0.85
89	5	9	205.00	204.7517329.60	0.00	0.10	0.242	0.063	3.20322334.348	94435632.0	29489796.0	71542.14	0.85
90	5	10	204.75	204.5017329.70	0.00	0.10	0.242	0.063	3.20322334.381	94436520.0	29489840.0	71542.82	0.85
91	5	11	204.50	204.2517329.79	0.00	0.10	0.242	0.063	3.20322334.416	94437416.0	29489886.0	71543.49	0.85
92	5	12	204.25	204.0017329.89	0.00	0.10	0.242	0.063	3.20322334.451	94438312.0	29489932.0	71544.17	0.85
93	5	13	204.00	203.7517329.99	0.00	0.10	0.242	0.063	3.20322334.486	94439200.0	29489978.0	71544.85	0.85
94	5	14	203.75	203.5017330.09	0.00	0.10	0.242	0.063	3.20322334.523	94440096.0	29490028.0	71545.52	0.85
95	5	15	203.50	203.2517330.19	0.00	0.10	0.242	0.063	3.20322334.557	94440984.0	29490072.0	71546.20	0.85
96	5	16	203.25	203.0017330.29	0.00	0.10	0.242	0.063	3.20322334.592	94441872.0	29490118.0	71546.87	0.85
97	5	17	203.00	202.7517331.39	1.00	0.10	0.242	0.063	3.20422334.979	94451720.0	29490630.0	71554.34	0.85
98	5	18	202.75	202.5017331.49	0.00	0.10	0.242	0.063	3.20422335.014	94452608.0	29490676.0	71555.01	0.85
99	5	19	202.50	202.2517331.59	0.00	0.10	0.242	0.063	3.20422335.049	94453504.0	29490722.0	71555.69	0.85
100	5	20	202.25	202.0017331.69	0.00	0.10	0.242	0.063	3.20422335.084	94454392.0	29490768.0	71556.36	0.85
101	6	1	202.00	201.7517331.79	0.00	0.10	0.242	0.063	3.20422335.119	94455288.0	29490816.0	71557.03	1.45
102	6	2	201.75	201.5017331.89	0.00	0.10	0.242	0.063	3.20422335.154	94456176.0	29490862.0	71557.71	1.45
103	6	3	201.50	201.2517331.99	0.00	0.10	0.242	0.063	3.20422335.187	94457072.0	29490906.0	71558.38	1.45
104	6	4	201.25	201.0017332.09	0.00	0.10	0.242	0.063	3.20422335.223	94457960.0	29490952.0	71559.06	1.45
105	6	5	201.00	200.7517332.19	0.00	0.10	0.242	0.063	3.20422335.260	94458856.0	29491002.0	71559.74	1.45
106	6	6	200.75	200.5017332.29	0.00	0.10	0.242	0.063	3.20422335.295	94459752.0	29491048.0	71560.41	1.45
107	6	7	200.50	200.2517332.39	0.00	0.10	0.242	0.063	3.20422335.330	94460640.0	29491094.0	71561.09	1.45
108	6	8	200.25	200.0017332.49	0.00	0.10	0.242	0.063	3.20422335.365	94461536.0	29491140.0	71561.77	1.45
109	6	9	200.00	199.7517332.59	0.00	0.10	0.242	0.063	3.20422335.398	94462424.0	29491184.0	71562.45	1.45
110	6	10	199.75	199.5017332.69	0.00	0.10	0.242	0.063	3.20422335.436	94463312.0	29491234.0	71563.12	1.45
111	6	11	199.50	199.2517332.79	0.00	0.10	0.242	0.063	3.20422335.471	94464208.0	29491280.0	71563.80	1.45
112	6	12	199.25	199.0017332.89	0.00	0.10	0.242	0.063	3.20422335.504	94465096.0	29491324.0	71564.47	1.45
113	6	13	199.00	198.7517333.09	0.10	0.10	0.242	0.063	3.20422335.574	94466880.0	29491416.0	71565.82	1.45
114	6	14	198.75	198.5017333.19	0.00	0.10	0.242	0.063	3.20422335.609	94467776.0	29491464.0	71566.49	1.45
115	6	15	198.50	198.2517333.29	0.00	0.10	0.242	0.063	3.20422335.645	94468664.0	29491510.0	71567.17	1.45
116	6	16	198.25	198.0017333.38	0.00	0.10	0.242	0.063	3.20422335.680	94469560.0	29491556.0	71567.84	1.45
117	6	17	198.00	197.7517333.48	0.00	0.10	0.242	0.063	3.20422335.715	94470448.0	29491602.0	71568.52	1.45
118	6	18	197.75	197.5017333.58	0.00	0.10	0.242	0.063	3.20422335.748	94471336.0	29491646.0	71569.20	1.45
119	6	19	197.50	197.2517333.68	0.00	0.10	0.242	0.063	3.20422335.785	94472232.0	29491696.0	71569.87	1.45
120	6	20	197.25	197.0017333.78	0.00	0.10	0.242	0.063	3.20422335.820	94473120.0	29491742.0	71570.55	1.45
121	7	1	197.00	196.7517333.98	0.10	0.10	0.242	0.063	3.20422335.891	94474912.0	29491836.0	71571.91	0.60
122	7	2	196.75	196.5017334.08	0.00	0.10	0.242	0.063	3.20422335.926	94475800.0	29491882.0	71572.58	0.60
123	7	3	196.50	196.2517334.18	0.00	0.10	0.242	0.063	3.20422335.961	94476696.0	29491928.0	71573.26	0.60
124	7	4	196.25	196.0017334.28	0.00	0.10	0.242	0.063	3.20422335.996	94477584.0	29491974.0	71573.93	0.60

125	7	5	196.00	195.7517334.38	0.00	0.10	0.242	0.063	3.20422336.031	94478480.0	29492020.0	71574.60	0.60
126	7	6	195.75	195.5017334.48	0.00	0.10	0.242	0.063	3.20422336.064	94479368.0	29492064.0	71575.28	0.60
127	7	7	195.50	195.2517334.58	0.00	0.10	0.242	0.063	3.20422336.100	94480264.0	29492112.0	71575.95	0.60
128	7	8	195.25	195.0017334.68	0.00	0.10	0.242	0.063	3.20522336.135	94481152.0	29492158.0	71576.63	0.60
129	7	9	195.00	194.7517334.78	0.00	0.10	0.242	0.063	3.20522336.170	94482048.0	29492204.0	71577.30	0.60
130	7	10	194.75	194.5017334.88	0.00	0.10	0.242	0.063	3.20522336.205	94482936.0	29492250.0	71577.98	0.60

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 3
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2517334.98	0.00	0.10	0.242	0.063	3.20522336.240	94483832.0	29492298.0	71578.66	0.60		
132	7	12	194.25	194.0017335.08	0.00	0.10	0.242	0.063	3.20522336.275	94484720.0	29492344.0	71579.34	0.60		
133	7	13	194.00	193.7517557.18	222.00	0.10	0.240	0.064	3.26122414.041	96481840.0	29595144.0	73092.30	0.60		
134	7	14	193.75	193.5017557.28	0.00	0.10	0.240	0.064	3.26122414.074	96482736.0	29595188.0	73092.98	0.60		
135	7	15	193.50	193.2517557.38	0.00	0.10	0.240	0.064	3.26122414.109	96483640.0	29595234.0	73093.66	0.60		
136	7	16	193.25	193.0017557.48	0.00	0.10	0.240	0.064	3.26122414.145	96484536.0	29595280.0	73094.34	0.60		
137	7	17	193.00	192.7517557.58	0.00	0.10	0.240	0.064	3.26122414.180	96485440.0	29595326.0	73095.03	0.60		
138	7	18	192.75	192.5017557.68	0.00	0.10	0.240	0.064	3.26122414.215	96486336.0	29595372.0	73095.71	0.60		
139	7	19	192.50	192.2517557.78	0.00	0.10	0.240	0.064	3.26122414.248	96487232.0	29595416.0	73096.39	0.60		
140	7	20	192.25	192.0017557.87	0.00	0.10	0.240	0.064	3.26122414.283	96488136.0	29595464.0	73097.07	0.60		
141	8	1	192.00	191.7517558.89	0.77	0.25	0.240	0.064	3.26122414.639	96497344.0	29595934.0	73104.05	0.60		
142	8	2	191.75	191.5017559.14	0.00	0.25	0.240	0.064	3.26222414.725	96499600.0	29596046.0	73105.76	0.60		
143	8	3	191.50	191.2517559.39	0.00	0.25	0.240	0.064	3.26222414.812	96501856.0	29596164.0	73107.47	0.60		
144	8	4	191.25	191.0017559.64	0.00	0.25	0.240	0.064	3.26222414.900	96504112.0	29596280.0	73109.18	0.60		
145	8	5	191.00	190.7517559.89	0.00	0.25	0.240	0.064	3.26222414.986	96506368.0	29596392.0	73110.88	0.60		
146	8	6	190.75	190.5017560.14	0.00	0.25	0.240	0.064	3.26222415.074	96508632.0	29596510.0	73112.59	0.60		
147	8	7	190.50	190.2517560.39	0.00	0.25	0.240	0.064	3.26222415.160	96510880.0	29596622.0	73114.30	0.60		
148	8	8	190.25	190.0017560.64	0.00	0.25	0.240	0.064	3.26222415.248	96513144.0	29596738.0	73116.02	0.60		

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 4
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D

1	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

7	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	87.40	1.24	0.00	0.00	3.47	4.27	0.25	0.04	0.04	0.18	0.52	0.03	0.02	0.04	0.00	0.00	8.27
1	2	87.40	1.24	0.00	0.00	3.54	4.25	0.25	0.04	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.14
1	3	87.40	1.24	0.00	0.00	3.60	4.22	0.24	0.05	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.02

1	4	87.40	1.24	0.00	0.00	3.67	4.20	0.24	0.05	0.03	0.19	0.52	0.03	0.02	0.04	0.00	0.00	7.90
1	5	87.40	1.24	0.00	0.00	3.73	4.18	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.78
1	6	87.40	1.24	0.00	0.00	3.79	4.16	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.66
1	7	87.40	1.24	0.00	0.00	3.84	4.14	0.23	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.54
1	8	87.40	1.24	0.00	0.00	3.90	4.12	0.23	0.05	0.02	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.43
1	9	87.40	1.24	0.00	0.00	3.95	4.10	0.23	0.05	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.32
1	10	87.40	1.24	0.00	0.00	4.00	4.07	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.21
1	11	87.40	1.24	0.00	0.00	4.05	4.05	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.10
1	12	87.40	1.24	0.00	0.00	4.10	4.03	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.00
1	13	87.40	1.24	0.00	0.00	4.15	4.01	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.89
1	14	87.40	1.24	0.00	0.00	4.19	3.99	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.79
1	15	87.40	1.24	0.00	0.00	4.23	3.97	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.69
1	16	87.40	1.24	0.00	0.00	4.27	3.95	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.59
1	17	87.40	1.24	0.00	0.00	4.31	3.93	0.21	0.07	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.50
1	18	87.40	1.24	0.00	0.00	4.35	3.91	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.40
1	19	87.40	1.24	0.00	0.00	4.39	3.89	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.31
1	20	87.40	1.24	0.00	0.00	4.42	3.89	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.22
2	1	87.40	1.39	0.00	0.00	4.44	5.51	0.22	0.08	0.01	0.22	0.54	0.03	0.02	0.05	0.00	0.00	6.11
2	2	87.40	1.39	0.00	0.00	4.47	5.48	0.21	0.08	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	6.03
2	3	87.40	1.39	0.00	0.00	4.49	5.46	0.21	0.08	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.94
2	4	87.40	1.39	0.00	0.00	4.52	5.43	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.86
2	5	87.40	1.39	0.00	0.00	4.54	5.40	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.78
2	6	87.40	1.39	0.00	0.00	4.56	5.37	0.21	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.70
2	7	87.40	1.39	0.00	0.00	4.58	5.34	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.62
2	8	87.40	1.39	0.00	0.00	4.60	5.32	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.54
2	9	87.40	1.39	0.00	0.00	4.62	5.29	0.20	0.09	0.01	0.23	0.54	0.03	0.02	0.05	0.00	0.00	5.47
2	10	87.40	1.39	0.00	0.00	4.64	5.26	0.20	0.09	0.01	0.23	0.53	0.03	0.02	0.05	0.00	0.00	5.39
2	11	87.40	1.39	0.00	0.00	4.66	5.24	0.20	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.32
2	12	87.40	1.39	0.00	0.00	4.67	5.21	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.25
2	13	87.40	1.39	0.00	0.00	4.69	5.18	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.17
2	14	87.40	1.39	0.00	0.00	4.71	5.16	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.10
2	15	87.40	1.39	0.00	0.00	4.72	5.13	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	5.03
2	16	87.40	1.39	0.00	0.00	4.74	5.10	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.97
2	17	87.40	1.39	0.00	0.00	4.75	5.08	0.19	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.90
2	18	87.40	1.39	0.00	0.00	4.77	5.05	0.18	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.83
2	19	87.40	1.39	0.00	0.00	4.78	5.02	0.18	0.09	0.01	0.24	0.53	0.03	0.02	0.05	0.00	0.00	4.77
2	20	87.40	1.39	0.00	0.00	4.79	5.00	0.18	0.09	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.70
3	1	87.40	1.39	0.00	0.00	4.81	4.97	0.18	0.09	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.64
3	2	87.40	1.39	0.00	0.00	4.82	4.95	0.18	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.57
3	3	87.40	1.39	0.00	0.00	4.83	4.92	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.51
3	4	87.40	1.39	0.00	0.00	4.84	4.90	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.45
3	5	87.40	1.39	0.00	0.00	4.85	4.87	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.39
3	6	87.40	1.39	0.00	0.00	4.86	4.85	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.33
3	7	87.40	1.39	0.00	0.00	4.87	4.82	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.27
3	8	87.40	1.39	0.00	0.00	4.88	4.80	0.17	0.10	0.01	0.25	0.53	0.03	0.02	0.05	0.00	0.00	4.22
3	9	87.40	1.39	0.00	0.00	4.89	4.77	0.17	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.16

3	10	87.40	1.39	0.00	0.00	4.90	4.75	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.10
3	11	87.40	1.39	0.00	0.00	4.91	4.72	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	4.05
3	12	87.40	1.39	0.00	0.00	4.92	4.70	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.99
3	13	87.40	1.39	0.00	0.00	4.93	4.67	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.94
3	14	87.40	1.39	0.00	0.00	4.94	4.65	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.89
3	15	87.40	1.39	0.00	0.00	4.95	4.63	0.16	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.83
3	16	87.40	1.39	0.00	0.00	4.95	4.60	0.15	0.10	0.01	0.26	0.53	0.03	0.02	0.05	0.00	0.00	3.78
3	17	87.40	1.39	0.00	0.00	4.96	4.58	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.73
3	18	87.40	1.39	0.00	0.00	4.97	4.55	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.68
3	19	87.40	1.39	0.00	0.00	4.98	4.53	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.63
3	20	87.40	1.39	0.00	0.00	4.98	4.51	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.58
4	1	87.40	1.39	0.00	0.00	4.96	4.48	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.54
4	2	87.40	1.39	0.00	0.00	4.95	4.46	0.15	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.49
4	3	87.40	1.39	0.00	0.00	4.93	4.44	0.14	0.10	0.01	0.27	0.53	0.03	0.02	0.05	0.00	0.00	3.44
4	4	87.40	1.39	0.00	0.00	4.91	4.42	0.14	0.10	0.01	0.27	0.53	0.03	0.02	0.04	0.00	0.00	3.40
4	5	87.40	1.39	0.00	0.00	4.90	4.39	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.35

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 8
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	87.40	1.39	0.00	0.00	4.88	4.37	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.31
4	7	87.40	1.39	0.00	0.00	4.87	4.35	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.26
4	8	87.40	1.39	0.00	0.00	4.86	4.33	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.22
4	9	87.40	1.39	0.00	0.00	4.84	4.30	0.14	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.18
4	10	87.40	1.39	0.00	0.00	4.83	4.28	0.13	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.13
4	11	87.40	1.39	0.00	0.00	4.82	4.26	0.13	0.10	0.01	0.28	0.53	0.03	0.02	0.04	0.00	0.00	3.09
4	12	87.40	1.39	0.00	0.00	4.81	4.24	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	3.05
4	13	87.40	1.39	0.00	0.00	4.80	4.22	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	3.01
4	14	87.40	1.39	0.00	0.00	4.79	4.19	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.97
4	15	87.40	1.39	0.00	0.00	4.78	4.17	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.93
4	16	87.40	1.39	0.00	0.00	4.77	4.15	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.89
4	17	87.40	1.39	0.00	0.00	4.76	4.13	0.13	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.85
4	18	87.40	1.39	0.00	0.00	4.75	4.11	0.12	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.82
4	19	87.40	1.39	0.00	0.00	4.75	4.09	0.12	0.10	0.01	0.29	0.53	0.03	0.02	0.04	0.00	0.00	2.78
4	20	87.40	1.39	0.00	0.00	4.74	4.07	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.74
5	1	87.40	1.39	0.00	0.00	4.73	4.04	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.70
5	2	87.40	1.39	0.00	0.00	4.73	4.02	0.12	0.10	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.67
5	3	87.40	1.39	0.00	0.00	4.72	4.00	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.63
5	4	87.40	1.39	0.00	0.00	4.71	3.98	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.60

5	5	87.40	1.39	0.00	0.00	4.71	3.96	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.56
5	6	87.40	1.39	0.00	0.00	4.70	3.94	0.12	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.53
5	7	87.40	1.39	0.00	0.00	4.70	3.92	0.11	0.09	0.01	0.30	0.53	0.03	0.02	0.04	0.00	0.00	2.50
5	8	87.40	1.39	0.00	0.00	4.69	3.90	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.46
5	9	87.40	1.39	0.00	0.00	4.69	3.88	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.43
5	10	87.40	1.39	0.00	0.00	4.68	3.86	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.40
5	11	87.40	1.39	0.00	0.00	4.68	3.84	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.37
5	12	87.40	1.39	0.00	0.00	4.68	3.82	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.34
5	13	87.40	1.39	0.00	0.00	4.67	3.80	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.31
5	14	87.40	1.39	0.00	0.00	4.67	3.78	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.28
5	15	87.40	1.39	0.00	0.00	4.67	3.76	0.11	0.09	0.01	0.31	0.53	0.03	0.02	0.04	0.00	0.00	2.25
5	16	87.40	1.39	0.00	0.00	4.66	3.74	0.11	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.22
5	17	87.40	1.39	0.00	0.00	4.66	3.72	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.19
5	18	87.40	1.39	0.00	0.00	4.66	3.70	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.16
5	19	87.40	1.39	0.00	0.00	4.66	3.69	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.13
5	20	87.40	1.39	0.00	0.00	4.65	3.67	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.10
6	1	87.40	1.39	0.00	0.00	4.65	3.65	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.07
6	2	87.40	1.39	0.00	0.00	4.65	3.63	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.05
6	3	87.40	1.39	0.00	0.00	4.65	3.61	0.10	0.09	0.01	0.32	0.53	0.03	0.02	0.04	0.00	0.00	2.02
6	4	87.40	1.39	0.00	0.00	4.65	3.59	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.99
6	5	87.40	1.39	0.00	0.00	4.65	3.57	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.97
6	6	87.40	1.39	0.00	0.00	4.65	3.55	0.10	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.94
6	7	87.40	1.39	0.00	0.00	4.65	3.54	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.92
6	8	87.40	1.39	0.00	0.00	4.64	3.52	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.89
6	9	87.40	1.39	0.00	0.00	4.64	3.50	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.87
6	10	87.40	1.39	0.00	0.00	4.64	3.48	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.85
6	11	87.40	1.39	0.00	0.00	4.64	3.46	0.09	0.09	0.01	0.33	0.53	0.03	0.02	0.04	0.00	0.00	1.82
6	12	87.40	1.39	0.00	0.00	4.64	3.45	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.80
6	13	87.40	1.39	0.00	0.00	4.64	3.43	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.78
6	14	87.40	1.39	0.00	0.00	4.64	3.41	0.09	0.09	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.75
6	15	87.40	1.39	0.00	0.00	4.64	3.39	0.09	0.08	0.01	0.34	0.53	0.03	0.02	0.04	0.00	0.00	1.73
6	16	87.40	1.39	0.00	0.00	4.64	3.38	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.71
6	17	87.40	1.39	0.00	0.00	4.64	3.36	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.69
6	18	87.40	1.39	0.00	0.00	4.64	3.34	0.09	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.67
6	19	87.40	1.39	0.00	0.00	4.64	3.32	0.08	0.08	0.01	0.34	0.52	0.03	0.02	0.04	0.00	0.00	1.65
6	20	87.40	1.39	0.00	0.00	4.65	3.31	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.63
7	1	87.40	1.39	0.00	0.00	4.67	3.29	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.61
7	2	87.40	1.39	0.00	0.00	4.70	3.27	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.59
7	3	87.40	1.39	0.00	0.00	4.72	3.26	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.57
7	4	87.40	1.39	0.00	0.00	4.74	3.24	0.08	0.08	0.01	0.35	0.52	0.03	0.02	0.04	0.00	0.00	1.55
7	5	87.40	1.39	0.00	0.00	4.77	3.22	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.53
7	6	87.40	1.39	0.00	0.00	4.79	3.21	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.51
7	7	87.40	1.39	0.00	0.00	4.81	3.19	0.08	0.08	0.01	0.35	0.52	0.02	0.02	0.04	0.00	0.00	1.49
7	8	87.40	1.39	0.00	0.00	4.83	3.17	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.48
7	9	87.40	1.39	0.00	0.00	4.85	3.16	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.46
7	10	87.40	1.39	0.00	0.00	4.87	3.14	0.08	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.44

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 9
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	87.40	1.39	0.00	0.00	4.88	3.12	0.07	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.42
7	12	87.40	1.39	0.00	0.00	4.90	3.11	0.07	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.41
7	13	87.40	1.38	0.00	0.00	4.92	3.09	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.48
7	14	87.40	1.38	0.00	0.00	4.94	3.07	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.46
7	15	87.40	1.38	0.00	0.00	4.96	3.06	0.08	0.08	0.01	0.36	0.53	0.02	0.02	0.04	0.00	0.00	1.44
7	16	87.40	1.38	0.00	0.00	4.97	3.04	0.08	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.43
7	17	87.40	1.38	0.00	0.00	4.99	3.02	0.08	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.41
7	18	87.40	1.38	0.00	0.00	5.01	3.01	0.07	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.39
7	19	87.40	1.38	0.00	0.00	5.02	2.99	0.07	0.08	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.38
7	20	87.40	1.38	0.00	0.00	5.03	2.98	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.36
8	1	87.40	1.38	0.00	0.00	5.05	2.96	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.34
8	2	87.40	1.38	0.00	0.00	5.06	2.95	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.33
8	3	87.40	1.38	0.00	0.00	5.07	2.93	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.31
8	4	87.40	1.38	0.00	0.00	5.09	2.92	0.07	0.07	0.01	0.37	0.53	0.02	0.02	0.04	0.00	0.00	1.30
8	5	87.40	1.38	0.00	0.00	5.10	2.90	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.28
8	6	87.40	1.38	0.00	0.00	5.11	2.89	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.27
8	7	87.40	1.38	0.00	0.00	5.12	2.87	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.25
8	8	87.40	1.38	0.00	0.00	5.13	2.86	0.07	0.07	0.01	0.38	0.53	0.02	0.02	0.04	0.00	0.00	1.24

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 10
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.27	0.16	0.08	1.03	1.71	0.06	0.50	0.18	4.23	0.11	0.53	0.65
2	1	2	8.14	0.16	0.08	1.03	1.73	0.07	0.50	0.19	4.23	0.11	0.54	0.65
3	1	3	8.02	0.16	0.08	1.03	1.75	0.07	0.50	0.19	4.23	0.11	0.54	0.65
4	1	4	7.90	0.16	0.08	1.03	1.76	0.07	0.50	0.19	4.22	0.11	0.55	0.65
5	1	5	7.78	0.16	0.08	1.03	1.77	0.07	0.50	0.20	4.22	0.11	0.55	0.65

6	1	6	7.66	0.16	0.08	1.03	1.79	0.07	0.50	0.20	4.22	0.11	0.56	0.65
7	1	7	7.54	0.16	0.08	1.03	1.80	0.07	0.50	0.20	4.21	0.11	0.56	0.65
8	1	8	7.43	0.16	0.08	1.03	1.81	0.07	0.50	0.21	4.21	0.11	0.56	0.65
9	1	9	7.32	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
10	1	10	7.21	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
11	1	11	7.10	0.17	0.08	1.03	1.83	0.06	0.50	0.22	4.20	0.11	0.57	0.64
12	1	12	7.00	0.17	0.08	1.03	1.84	0.06	0.50	0.22	4.20	0.11	0.58	0.64
13	1	13	6.89	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
14	1	14	6.79	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
15	1	15	6.69	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
16	1	16	6.59	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
17	1	17	6.50	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.19	0.11	0.59	0.64
18	1	18	6.40	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.18	0.11	0.59	0.64
19	1	19	6.31	0.17	0.08	1.03	1.88	0.06	0.50	0.23	4.18	0.11	0.59	0.64
20	1	20	6.22	0.17	0.08	1.03	1.88	0.06	0.50	0.24	4.18	0.11	0.59	0.64
21	2	1	6.11	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.18	0.11	0.61	0.66
22	2	2	6.03	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.18	0.11	0.61	0.66
23	2	3	5.94	0.18	0.08	1.03	2.00	0.07	0.50	0.27	4.17	0.11	0.61	0.66
24	2	4	5.86	0.18	0.08	1.03	2.01	0.06	0.50	0.27	4.17	0.11	0.61	0.66
25	2	5	5.78	0.18	0.08	1.03	2.01	0.06	0.50	0.27	4.17	0.11	0.61	0.66
26	2	6	5.70	0.18	0.08	1.03	2.01	0.06	0.50	0.28	4.17	0.11	0.61	0.66
27	2	7	5.62	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.61	0.66
28	2	8	5.54	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.62	0.66
29	2	9	5.47	0.18	0.08	1.03	2.02	0.06	0.50	0.28	4.16	0.11	0.62	0.66
30	2	10	5.39	0.18	0.08	1.03	2.03	0.06	0.50	0.28	4.16	0.11	0.62	0.66
31	2	11	5.32	0.18	0.08	1.03	2.03	0.06	0.50	0.28	4.16	0.11	0.62	0.66
32	2	12	5.25	0.19	0.08	1.03	2.03	0.06	0.50	0.28	4.15	0.11	0.62	0.66
33	2	13	5.17	0.19	0.08	1.03	2.03	0.06	0.50	0.28	4.15	0.11	0.62	0.65
34	2	14	5.10	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.62	0.65
35	2	15	5.03	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.62	0.65
36	2	16	4.97	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.63	0.65
37	2	17	4.90	0.19	0.08	1.03	2.04	0.06	0.50	0.28	4.15	0.11	0.63	0.65
38	2	18	4.83	0.19	0.08	1.03	2.05	0.06	0.50	0.28	4.14	0.11	0.63	0.65
39	2	19	4.77	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
40	2	20	4.70	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
41	3	1	4.64	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
42	3	2	4.57	0.19	0.08	1.03	2.05	0.05	0.50	0.28	4.14	0.11	0.63	0.65
43	3	3	4.51	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.14	0.11	0.63	0.65
44	3	4	4.45	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.63	0.65
45	3	5	4.39	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.63	0.65
46	3	6	4.33	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.64	0.65
47	3	7	4.27	0.19	0.08	1.03	2.06	0.05	0.50	0.28	4.13	0.11	0.64	0.65
48	3	8	4.22	0.19	0.08	1.03	2.06	0.05	0.50	0.27	4.13	0.11	0.64	0.64
49	3	9	4.16	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.13	0.11	0.64	0.64
50	3	10	4.10	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
51	3	11	4.05	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64

52	3	12	3.99	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
53	3	13	3.94	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
54	3	14	3.89	0.19	0.08	1.03	2.07	0.05	0.50	0.27	4.12	0.11	0.64	0.64
55	3	15	3.83	0.19	0.08	1.03	2.08	0.05	0.50	0.27	4.12	0.11	0.64	0.64
56	3	16	3.78	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.12	0.11	0.64	0.64
57	3	17	3.73	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
58	3	18	3.68	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
59	3	19	3.63	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
60	3	20	3.58	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
61	4	1	3.54	0.19	0.08	1.03	2.08	0.04	0.50	0.27	4.11	0.11	0.65	0.64
62	4	2	3.49	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
63	4	3	3.44	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
64	4	4	3.40	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.11	0.11	0.65	0.64
65	4	5	3.35	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.31	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
67	4	7	3.26	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
68	4	8	3.22	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
69	4	9	3.18	0.19	0.08	1.03	2.09	0.04	0.50	0.26	4.10	0.11	0.65	0.63
70	4	10	3.13	0.19	0.08	1.03	2.10	0.04	0.50	0.26	4.10	0.11	0.66	0.63
71	4	11	3.09	0.19	0.08	1.03	2.10	0.04	0.50	0.26	4.10	0.11	0.66	0.63
72	4	12	3.05	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.10	0.11	0.66	0.63
73	4	13	3.01	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
74	4	14	2.97	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
75	4	15	2.93	0.19	0.08	1.03	2.10	0.04	0.50	0.25	4.09	0.11	0.66	0.63
76	4	16	2.89	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
77	4	17	2.85	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
78	4	18	2.82	0.19	0.08	1.03	2.10	0.03	0.50	0.25	4.09	0.11	0.66	0.63
79	4	19	2.78	0.19	0.08	1.03	2.11	0.03	0.50	0.25	4.09	0.11	0.66	0.63
80	4	20	2.74	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
81	5	1	2.70	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
82	5	2	2.67	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.09	0.11	0.66	0.63
83	5	3	2.63	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63
84	5	4	2.60	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63
85	5	5	2.56	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.66	0.63

65' Flood Scenario - Daily Maximum - Output

86	5	6	2.53	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.67	0.62
87	5	7	2.50	0.19	0.08	1.03	2.11	0.03	0.50	0.24	4.08	0.11	0.67	0.62
88	5	8	2.46	0.19	0.08	1.03	2.11	0.03	0.50	0.23	4.08	0.11	0.67	0.62
89	5	9	2.43	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
90	5	10	2.40	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
91	5	11	2.37	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
92	5	12	2.34	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.08	0.11	0.67	0.62
93	5	13	2.31	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
94	5	14	2.28	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
95	5	15	2.25	0.19	0.08	1.03	2.12	0.03	0.50	0.23	4.07	0.11	0.67	0.62
96	5	16	2.22	0.19	0.08	1.03	2.12	0.03	0.50	0.22	4.07	0.11	0.67	0.62
97	5	17	2.19	0.19	0.08	1.03	2.12	0.03	0.50	0.22	4.07	0.11	0.67	0.62
98	5	18	2.16	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
99	5	19	2.13	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
100	5	20	2.10	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
101	6	1	2.07	0.19	0.08	1.03	2.13	0.03	0.50	0.22	4.07	0.11	0.67	0.62
102	6	2	2.05	0.20	0.08	1.03	2.14	0.03	0.50	0.22	4.07	0.11	0.67	0.62
103	6	3	2.02	0.20	0.08	1.03	2.15	0.03	0.50	0.22	4.07	0.11	0.67	0.63
104	6	4	1.99	0.20	0.08	1.03	2.16	0.03	0.50	0.21	4.07	0.11	0.67	0.63
105	6	5	1.97	0.20	0.08	1.03	2.16	0.03	0.50	0.21	4.07	0.11	0.68	0.63
106	6	6	1.94	0.20	0.08	1.03	2.17	0.02	0.50	0.21	4.06	0.11	0.68	0.63
107	6	7	1.92	0.20	0.08	1.03	2.18	0.02	0.50	0.21	4.06	0.11	0.68	0.63
108	6	8	1.89	0.20	0.08	1.03	2.19	0.02	0.50	0.21	4.06	0.11	0.68	0.63
109	6	9	1.87	0.20	0.08	1.03	2.19	0.02	0.50	0.21	4.06	0.11	0.68	0.63
110	6	10	1.85	0.20	0.08	1.03	2.20	0.02	0.50	0.21	4.06	0.11	0.68	0.64
111	6	11	1.82	0.20	0.08	1.03	2.21	0.02	0.50	0.21	4.06	0.11	0.68	0.64
112	6	12	1.80	0.20	0.08	1.03	2.21	0.02	0.50	0.20	4.06	0.11	0.68	0.64
113	6	13	1.78	0.20	0.08	1.03	2.22	0.02	0.50	0.20	4.06	0.11	0.68	0.64
114	6	14	1.75	0.20	0.08	1.03	2.23	0.02	0.50	0.20	4.06	0.11	0.68	0.64
115	6	15	1.73	0.20	0.08	1.03	2.24	0.02	0.50	0.20	4.06	0.11	0.68	0.64
116	6	16	1.71	0.20	0.08	1.03	2.24	0.02	0.50	0.20	4.06	0.11	0.68	0.64
117	6	17	1.69	0.20	0.08	1.03	2.25	0.02	0.50	0.20	4.06	0.11	0.68	0.65
118	6	18	1.67	0.21	0.08	1.03	2.25	0.02	0.50	0.20	4.06	0.11	0.68	0.65
119	6	19	1.65	0.21	0.08	1.03	2.26	0.02	0.50	0.19	4.06	0.11	0.68	0.65
120	6	20	1.63	0.21	0.08	1.03	2.27	0.02	0.50	0.19	4.06	0.11	0.68	0.65
121	7	1	1.61	0.21	0.08	1.03	2.27	0.02	0.50	0.19	4.05	0.11	0.68	0.65
122	7	2	1.59	0.21	0.08	1.03	2.28	0.02	0.50	0.19	4.05	0.11	0.68	0.65
123	7	3	1.57	0.21	0.08	1.03	2.29	0.02	0.50	0.19	4.05	0.11	0.68	0.65
124	7	4	1.55	0.21	0.08	1.03	2.29	0.02	0.50	0.19	4.05	0.11	0.68	0.66
125	7	5	1.53	0.21	0.08	1.03	2.30	0.02	0.50	0.19	4.05	0.11	0.68	0.66
126	7	6	1.51	0.21	0.08	1.03	2.30	0.02	0.50	0.19	4.05	0.11	0.68	0.66
127	7	7	1.49	0.21	0.08	1.03	2.31	0.02	0.50	0.18	4.05	0.11	0.68	0.66
128	7	8	1.48	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.66
129	7	9	1.46	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.66
130	7	10	1.44	0.21	0.08	1.03	2.33	0.02	0.50	0.18	4.05	0.11	0.69	0.66

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.42	0.21	0.08	1.03	2.33	0.02	0.50	0.18	4.05	0.11	0.69	0.66
132	7	12	1.41	0.21	0.08	1.03	2.34	0.02	0.50	0.18	4.05	0.11	0.69	0.67
133	7	13	1.48	0.21	0.08	1.03	2.31	0.02	0.50	0.18	4.05	0.11	0.69	0.67
134	7	14	1.46	0.21	0.08	1.03	2.32	0.02	0.50	0.18	4.05	0.11	0.69	0.67
135	7	15	1.44	0.21	0.08	1.03	2.32	0.02	0.50	0.17	4.05	0.11	0.69	0.67
136	7	16	1.43	0.21	0.08	1.03	2.33	0.02	0.50	0.17	4.05	0.11	0.69	0.67
137	7	17	1.41	0.21	0.08	1.03	2.33	0.02	0.50	0.17	4.05	0.11	0.69	0.67
138	7	18	1.39	0.21	0.08	1.03	2.34	0.02	0.50	0.17	4.05	0.11	0.69	0.68
139	7	19	1.38	0.21	0.08	1.03	2.35	0.02	0.50	0.17	4.05	0.11	0.69	0.68
140	7	20	1.36	0.21	0.08	1.03	2.35	0.02	0.50	0.17	4.05	0.11	0.69	0.68
141	8	1	1.34	0.22	0.08	1.03	2.36	0.02	0.50	0.17	4.05	0.11	0.69	0.68
142	8	2	1.33	0.22	0.08	1.03	2.37	0.02	0.50	0.17	4.05	0.11	0.69	0.68
143	8	3	1.31	0.22	0.08	1.03	2.37	0.02	0.50	0.17	4.05	0.11	0.69	0.68
144	8	4	1.30	0.22	0.08	1.03	2.38	0.02	0.50	0.16	4.05	0.11	0.69	0.68
145	8	5	1.28	0.22	0.08	1.03	2.38	0.02	0.50	0.16	4.05	0.11	0.69	0.68
146	8	6	1.27	0.22	0.08	1.03	2.39	0.02	0.50	0.16	4.04	0.11	0.69	0.69
147	8	7	1.25	0.22	0.08	1.03	2.39	0.02	0.50	0.16	4.04	0.11	0.69	0.69
148	8	8	1.24	0.22	0.08	1.03	2.40	0.02	0.50	0.16	4.04	0.11	0.69	0.69

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	87.40	7.46	3.47	3.99	0.00	1.00	54.07	2.58	-0.35	-0.03	0.06	-0.03	-0.08
2	1	2	87.40	7.46	3.54	3.92	0.00	1.00	0.00	2.53	-0.35	-0.03	0.07	-0.04	-0.07
3	1	3	87.40	7.46	3.60	3.85	0.00	1.00	0.00	2.49	-0.35	-0.03	0.07	-0.04	-0.07
4	1	4	87.40	7.46	3.67	3.79	0.00	1.00	0.00	2.45	-0.34	-0.03	0.07	-0.04	-0.06
5	1	5	87.40	7.46	3.73	3.73	0.00	1.00	0.00	2.41	-0.34	-0.03	0.07	-0.04	-0.06

65' Flood Scenario - Daily Maximum - Output

6	1	6	87.40	7.46	3.79	3.67	0.00	1.00	0.00	2.37	-0.34	-0.03	0.07	-0.04	-0.05
7	1	7	87.40	7.46	3.84	3.61	0.00	1.00	0.00	2.33	-0.34	-0.03	0.07	-0.04	-0.05
8	1	8	87.40	7.46	3.90	3.56	0.00	1.00	0.00	2.30	-0.34	-0.03	0.07	-0.04	-0.05
9	1	9	87.40	7.46	3.95	3.51	0.00	1.00	0.00	2.26	-0.34	-0.03	0.07	-0.04	-0.04
10	1	10	87.40	7.46	4.00	3.45	0.00	1.00	0.00	2.23	-0.33	-0.03	0.07	-0.05	-0.04
11	1	11	87.40	7.46	4.05	3.41	0.00	1.00	0.00	2.20	-0.33	-0.03	0.06	-0.05	-0.04
12	1	12	87.40	7.46	4.10	3.36	0.00	1.00	0.00	2.17	-0.33	-0.03	0.06	-0.05	-0.04
13	1	13	87.40	7.46	4.15	3.31	0.00	1.00	0.00	2.14	-0.33	-0.03	0.06	-0.05	-0.03
14	1	14	87.40	7.46	4.19	3.27	0.00	1.00	0.00	2.11	-0.33	-0.03	0.06	-0.05	-0.03
15	1	15	87.40	7.46	4.23	3.23	0.00	1.00	0.00	2.08	-0.33	-0.03	0.06	-0.05	-0.03
16	1	16	87.40	7.46	4.27	3.18	0.00	1.00	0.00	2.06	-0.32	-0.03	0.06	-0.05	-0.03
17	1	17	87.40	7.46	4.31	3.14	0.00	1.00	0.00	2.03	-0.32	-0.03	0.06	-0.05	-0.03
18	1	18	87.40	7.46	4.35	3.11	0.00	1.00	0.00	2.01	-0.32	-0.03	0.06	-0.05	-0.03
19	1	19	87.40	7.46	4.39	3.07	0.00	1.00	0.00	1.98	-0.32	-0.03	0.06	-0.05	-0.03
20	1	20	87.40	7.46	4.42	3.04	0.00	1.00	0.00	1.96	-0.32	-0.03	0.06	-0.06	-0.03
21	2	1	87.40	7.46	4.44	3.01	0.00	1.00	0.22	1.95	-0.45	-0.03	0.07	-0.07	-0.03
22	2	2	87.40	7.46	4.47	2.99	0.00	1.00	0.00	1.93	-0.45	-0.03	0.07	-0.07	-0.03
23	2	3	87.40	7.46	4.49	2.96	0.00	1.00	0.00	1.91	-0.45	-0.03	0.07	-0.07	-0.03
24	2	4	87.40	7.46	4.52	2.94	0.00	1.00	0.00	1.90	-0.45	-0.03	0.06	-0.07	-0.03
25	2	5	87.40	7.46	4.54	2.92	0.00	1.00	0.00	1.88	-0.44	-0.03	0.06	-0.07	-0.03
26	2	6	87.40	7.46	4.56	2.90	0.00	1.00	0.00	1.87	-0.44	-0.03	0.06	-0.07	-0.02
27	2	7	87.40	7.46	4.58	2.88	0.00	1.00	0.00	1.86	-0.44	-0.03	0.06	-0.07	-0.02
28	2	8	87.40	7.46	4.60	2.86	0.00	1.00	0.00	1.84	-0.44	-0.03	0.06	-0.07	-0.02
29	2	9	87.40	7.46	4.62	2.84	0.00	1.00	0.00	1.83	-0.43	-0.03	0.06	-0.07	-0.02
30	2	10	87.40	7.46	4.64	2.82	0.00	1.00	0.00	1.82	-0.43	-0.03	0.06	-0.07	-0.02
31	2	11	87.40	7.46	4.66	2.80	0.00	1.00	0.00	1.81	-0.43	-0.03	0.06	-0.07	-0.02
32	2	12	87.40	7.46	4.67	2.78	0.00	1.00	0.00	1.80	-0.43	-0.03	0.06	-0.07	-0.02
33	2	13	87.40	7.46	4.69	2.77	0.00	1.00	0.00	1.79	-0.43	-0.03	0.06	-0.07	-0.02
34	2	14	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.78	-0.42	-0.03	0.06	-0.07	-0.02
35	2	15	87.40	7.46	4.72	2.73	0.00	1.00	0.00	1.77	-0.42	-0.03	0.06	-0.07	-0.02
36	2	16	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.76	-0.42	-0.03	0.06	-0.08	-0.02
37	2	17	87.40	7.46	4.75	2.71	0.00	1.00	0.00	1.75	-0.42	-0.03	0.06	-0.08	-0.02
38	2	18	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.74	-0.41	-0.03	0.06	-0.08	-0.02
39	2	19	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.41	-0.03	0.05	-0.08	-0.02
40	2	20	87.40	7.46	4.79	2.66	0.00	1.00	0.00	1.72	-0.41	-0.03	0.05	-0.08	-0.02
41	3	1	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.41	-0.03	0.05	-0.08	-0.02
42	3	2	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.70	-0.41	-0.03	0.05	-0.08	-0.03
43	3	3	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.40	-0.03	0.05	-0.08	-0.03
44	3	4	87.40	7.46	4.84	2.62	0.00	1.00	0.00	1.69	-0.40	-0.03	0.05	-0.08	-0.03
45	3	5	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.68	-0.40	-0.03	0.05	-0.08	-0.03
46	3	6	87.40	7.46	4.86	2.59	0.00	1.00	0.00	1.68	-0.40	-0.03	0.05	-0.08	-0.03
47	3	7	87.40	7.46	4.87	2.58	0.00	1.00	0.00	1.67	-0.40	-0.03	0.05	-0.08	-0.03
48	3	8	87.40	7.46	4.88	2.57	0.00	1.00	0.00	1.66	-0.39	-0.03	0.05	-0.08	-0.03
49	3	9	87.40	7.46	4.89	2.56	0.00	1.00	0.00	1.66	-0.39	-0.03	0.05	-0.08	-0.03
50	3	10	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.39	-0.03	0.05	-0.08	-0.03
51	3	11	87.40	7.46	4.91	2.55	0.00	1.00	0.00	1.64	-0.39	-0.03	0.05	-0.08	-0.03

52	3	12	87.40	7.46	4.92	2.54	0.00	1.00	0.00	1.64	-0.39	-0.03	0.05	-0.08	-0.03
53	3	13	87.40	7.46	4.93	2.53	0.00	1.00	0.00	1.63	-0.38	-0.03	0.05	-0.08	-0.03
54	3	14	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.63	-0.38	-0.03	0.05	-0.08	-0.03
55	3	15	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.38	-0.03	0.05	-0.08	-0.03
56	3	16	87.40	7.46	4.95	2.50	0.00	1.00	0.00	1.62	-0.38	-0.03	0.04	-0.08	-0.03
57	3	17	87.40	7.46	4.96	2.50	0.00	1.00	0.00	1.61	-0.38	-0.03	0.04	-0.08	-0.03
58	3	18	87.40	7.46	4.97	2.49	0.00	1.00	0.00	1.61	-0.37	-0.03	0.04	-0.08	-0.03
59	3	19	87.40	7.46	4.98	2.48	0.00	1.00	0.00	1.60	-0.37	-0.03	0.04	-0.08	-0.03
60	3	20	87.40	7.46	4.98	2.48	0.00	1.00	0.00	1.60	-0.37	-0.03	0.04	-0.08	-0.03
61	4	1	87.40	7.46	4.96	2.49	0.00	1.00	0.00	1.61	-0.37	-0.04	0.04	-0.08	-0.03
62	4	2	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.37	-0.04	0.04	-0.08	-0.03
63	4	3	87.40	7.46	4.93	2.53	0.00	1.00	0.00	1.63	-0.36	-0.04	0.04	-0.08	-0.03
64	4	4	87.40	7.46	4.91	2.54	0.00	1.00	0.01	1.64	-0.36	-0.04	0.04	-0.08	-0.03
65	4	5	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.36	-0.04	0.04	-0.08	-0.03

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	87.40	7.46	4.88	2.57	0.00	1.00	0.00	1.66	-0.36	-0.04	0.04	-0.08	-0.03
67	4	7	87.40	7.46	4.87	2.59	0.00	1.00	0.00	1.67	-0.36	-0.04	0.04	-0.08	-0.03
68	4	8	87.40	7.46	4.86	2.60	0.00	1.00	0.00	1.68	-0.35	-0.04	0.04	-0.08	-0.03
69	4	9	87.40	7.46	4.84	2.61	0.00	1.00	0.00	1.69	-0.35	-0.04	0.04	-0.08	-0.03
70	4	10	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.35	-0.04	0.04	-0.08	-0.03
71	4	11	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.70	-0.35	-0.04	0.04	-0.08	-0.03
72	4	12	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.35	-0.04	0.04	-0.08	-0.03
73	4	13	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.35	-0.04	0.04	-0.08	-0.03
74	4	14	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.34	-0.04	0.04	-0.08	-0.03
75	4	15	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.34	-0.04	0.04	-0.08	-0.03
76	4	16	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.74	-0.34	-0.04	0.03	-0.08	-0.03
77	4	17	87.40	7.46	4.76	2.70	0.00	1.00	0.00	1.74	-0.34	-0.04	0.03	-0.08	-0.03
78	4	18	87.40	7.46	4.75	2.70	0.00	1.00	0.00	1.75	-0.34	-0.04	0.03	-0.08	-0.03
79	4	19	87.40	7.46	4.75	2.71	0.00	1.00	0.00	1.75	-0.34	-0.04	0.03	-0.08	-0.03
80	4	20	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.76	-0.33	-0.04	0.03	-0.08	-0.03
81	5	1	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.33	-0.04	0.03	-0.08	-0.03
82	5	2	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.33	-0.04	0.03	-0.08	-0.03
83	5	3	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.33	-0.04	0.03	-0.08	-0.03
84	5	4	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.33	-0.04	0.03	-0.08	-0.03
85	5	5	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.78	-0.33	-0.04	0.03	-0.08	-0.03

86	5	6	87.40	7.46	4.70	2.76	0.00	1.00	0.00	1.78	-0.32	-0.04	0.03	-0.08	-0.03
87	5	7	87.40	7.46	4.70	2.76	0.00	1.00	0.00	1.78	-0.32	-0.04	0.03	-0.08	-0.03
88	5	8	87.40	7.46	4.69	2.77	0.00	1.00	0.00	1.79	-0.32	-0.04	0.03	-0.08	-0.03
89	5	9	87.40	7.46	4.69	2.77	0.00	1.00	0.00	1.79	-0.32	-0.04	0.03	-0.08	-0.03
90	5	10	87.40	7.46	4.68	2.77	0.00	1.00	0.00	1.79	-0.32	-0.04	0.03	-0.08	-0.03
91	5	11	87.40	7.46	4.68	2.78	0.00	1.00	0.00	1.79	-0.32	-0.04	0.03	-0.08	-0.03
92	5	12	87.40	7.46	4.68	2.78	0.00	1.00	0.00	1.80	-0.31	-0.04	0.03	-0.08	-0.03
93	5	13	87.40	7.46	4.67	2.79	0.00	1.00	0.00	1.80	-0.31	-0.04	0.03	-0.07	-0.03
94	5	14	87.40	7.46	4.67	2.79	0.00	1.00	0.00	1.80	-0.31	-0.04	0.03	-0.07	-0.03
95	5	15	87.40	7.46	4.67	2.79	0.00	1.00	0.00	1.80	-0.31	-0.04	0.03	-0.07	-0.03
96	5	16	87.40	7.46	4.66	2.79	0.00	1.00	0.00	1.80	-0.31	-0.04	0.03	-0.07	-0.03
97	5	17	87.40	7.46	4.66	2.80	0.00	1.00	0.01	1.81	-0.31	-0.04	0.03	-0.07	-0.03
98	5	18	87.40	7.46	4.66	2.80	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.03
99	5	19	87.40	7.46	4.66	2.80	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.03
100	5	20	87.40	7.46	4.65	2.80	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.03
101	6	1	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.02
102	6	2	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.02
103	6	3	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.30	-0.04	0.03	-0.07	-0.02
104	6	4	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.29	-0.04	0.03	-0.07	-0.02
105	6	5	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.81	-0.29	-0.04	0.03	-0.07	-0.02
106	6	6	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.82	-0.29	-0.04	0.02	-0.07	-0.02
107	6	7	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.82	-0.29	-0.04	0.02	-0.07	-0.02
108	6	8	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.29	-0.04	0.02	-0.07	-0.02
109	6	9	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.29	-0.04	0.02	-0.07	-0.02
110	6	10	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.29	-0.04	0.02	-0.07	-0.02
111	6	11	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
112	6	12	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
113	6	13	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
114	6	14	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
115	6	15	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
116	6	16	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
117	6	17	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.28	-0.04	0.02	-0.07	-0.02
118	6	18	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.27	-0.04	0.02	-0.07	-0.02
119	6	19	87.40	7.46	4.64	2.81	0.00	1.00	0.00	1.82	-0.27	-0.04	0.02	-0.07	-0.02
120	6	20	87.40	7.46	4.65	2.81	0.00	1.00	0.00	1.82	-0.27	-0.04	0.02	-0.07	-0.02
121	7	1	87.40	7.46	4.67	2.79	0.00	1.00	0.00	1.80	-0.27	-0.03	0.02	-0.07	-0.02
122	7	2	87.40	7.46	4.70	2.76	0.00	1.00	0.00	1.78	-0.27	-0.03	0.02	-0.07	-0.02
123	7	3	87.40	7.46	4.72	2.74	0.00	1.00	0.00	1.77	-0.27	-0.03	0.02	-0.07	-0.02
124	7	4	87.40	7.46	4.74	2.72	0.00	1.00	0.00	1.75	-0.27	-0.03	0.02	-0.07	-0.02
125	7	5	87.40	7.46	4.77	2.69	0.00	1.00	0.00	1.74	-0.26	-0.03	0.02	-0.07	-0.02
126	7	6	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.73	-0.26	-0.03	0.02	-0.07	-0.02
127	7	7	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.26	-0.03	0.02	-0.06	-0.02
128	7	8	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.26	-0.03	0.02	-0.06	-0.02
129	7	9	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.69	-0.26	-0.03	0.02	-0.06	-0.02
130	7	10	87.40	7.46	4.87	2.59	0.00	1.00	0.00	1.67	-0.26	-0.03	0.02	-0.06	-0.02

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	87.40	7.46	4.88	2.57	0.00	1.00	0.00	1.66	-0.26	-0.03	0.02	-0.06	-0.02
132	7	12	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.26	-0.03	0.02	-0.06	-0.02
133	7	13	87.40	7.46	4.92	2.53	0.00	1.00	1.07	1.64	-0.25	-0.03	0.02	-0.06	-0.02
134	7	14	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.63	-0.25	-0.03	0.02	-0.06	-0.02
135	7	15	87.40	7.46	4.96	2.50	0.00	1.00	0.00	1.61	-0.25	-0.03	0.02	-0.06	-0.02
136	7	16	87.40	7.46	4.97	2.48	0.00	1.00	0.00	1.60	-0.25	-0.03	0.02	-0.06	-0.02
137	7	17	87.40	7.46	4.99	2.47	0.00	1.00	0.00	1.59	-0.25	-0.03	0.02	-0.06	-0.02
138	7	18	87.40	7.46	5.01	2.45	0.00	1.00	0.00	1.58	-0.25	-0.03	0.02	-0.06	-0.02
139	7	19	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.57	-0.25	-0.03	0.02	-0.06	-0.02
140	7	20	87.40	7.46	5.03	2.42	0.00	1.00	0.00	1.57	-0.24	-0.03	0.02	-0.06	-0.02
141	8	1	87.40	7.46	5.05	2.41	0.00	1.00	0.00	1.56	-0.24	-0.03	0.02	-0.06	-0.02
142	8	2	87.40	7.46	5.06	2.40	0.00	1.00	0.00	1.55	-0.24	-0.03	0.02	-0.06	-0.02
143	8	3	87.40	7.46	5.07	2.38	0.00	1.00	0.00	1.54	-0.24	-0.03	0.02	-0.06	-0.02
144	8	4	87.40	7.46	5.09	2.37	0.00	1.00	0.00	1.53	-0.24	-0.03	0.02	-0.06	-0.02
145	8	5	87.40	7.46	5.10	2.36	0.00	1.00	0.00	1.52	-0.24	-0.03	0.02	-0.06	-0.02
146	8	6	87.40	7.46	5.11	2.35	0.00	1.00	0.00	1.52	-0.24	-0.03	0.02	-0.06	-0.02
147	8	7	87.40	7.46	5.12	2.34	0.00	1.00	0.00	1.51	-0.24	-0.03	0.02	-0.06	-0.02
148	8	8	87.40	7.46	5.13	2.33	0.00	1.00	0.00	1.50	-0.23	-0.03	0.02	-0.06	-0.02

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
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ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
STREAM REACH     2.0             REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0             REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0             REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0             REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0             REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0             REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0             REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
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HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.50  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   87.4   3.40   4.29 1.24
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INITIAL COND-1 RCH=  2.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  3.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  4.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  5.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  6.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  7.0   87.4   3.40   4.29 1.24
INITIAL COND-1 RCH=  8.0   87.4   3.40   4.29 1.24
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  2.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  3.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  4.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  5.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  6.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  7.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
INITIAL COND-2 RCH=  8.0    8.4   0.25   0.04  0.045  0.181  0.025  0.019
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   2.8 1.24
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   2.8 1.24
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  2.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  3.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  4.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  5.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  6.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  7.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
INCR INFLOW-2  RCH=  8.0   0.00  0.250   0.04  0.045  0.181  0.025  0.019
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    17250  87.4  3.40  4.29 1.24
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ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.25  0.04 0.045 0.181 0.025 0.019
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   0.000  86.9  3.50 218.3 18.75
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.24
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.24
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.24
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.24
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1                                        * * * QUAL-2E  STREAM QUALITY ROUTING MODEL * * *
                                                 * * * EPA/NCASI VERSION * * *

0          $$$ (PROBLEM TITLES) $$$

          CARD TYPE                              QUAL-2E PROGRAM TITLES
          TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
          TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
          TITLE03  YES         CONSERVATIVE MINERAL   I
          TITLE04   NO         CONSERVATIVE MINERAL  II
          TITLE05   NO         CONSERVATIVE MINERAL III
          TITLE06   NO         TEMPERATURE
          TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
          TITLE08  YES         ALGAE AS CHL-A IN UG/L
          TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
          TITLE10                (ORGANIC-P; DISSOLVED-P)
          TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
          TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
          TITLE13  YES         DISSOLVED OXYGEN IN MG/L
          TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
          TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
          ENDTITLE
0          $$$ DATA TYPE 1 (CONTROL DATA) $$$

          CARD TYPE                                    CARD TYPE
          LIST DATA INPUT             0.00000                                  0.00000
          WRITE OPTIONAL SUMMARY      0.00000                                  0.00000
          NO FLOW AUGMENTATION        0.00000                                  0.00000
          STEADY STATE                0.00000                                  0.00000
          NO TRAPEZOIDAL X-SECTIONS   0.00000                                  0.00000
          NO PRINT LCD/SOLAR DATA     0.00000                                  0.00000
          NO PLOT DO AND BOD          0.00000                                  0.00000
          FIXED DNSTM CONC (YES=1)=   0.00000          ULT BOD CONV RATE COEF      0.23000
          INPUT METRIC (YES=1)    =   0.00000          OUTPUT METRIC (YES=1)   =   0.00000
          NUMBER OF REACHES       =   8.00000          NUMBER OF JUNCTIONS     =   0.00000
          NUM OF HEADWATERS       =   1.00000          NUMBER OF POINT LOADS   =   8.00000
          TIME STEP (HOURS)       =   1.00000          LNTH  COMP  ELEMENT (DX)=   0.25000
          MAXIMUM ROUTE TIME (HRS)= 250.00000          TIME INC. FOR RPT2 (HRS)=   1.00000
          LATITUDE OF BASIN (DEG) =  33.00000          LONGITUDE OF BASIN (DEG)=  92.00000
          STANDARD MERIDIAN (DEG) =  90.00000          DAY OF YEAR START TIME  = 190.00000
          EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
          ELEV  OF BASIN (ELEV)   =  60.00000          DUST ATTENUATION COEF.  =   0.13000
          ENDATA1                     0.00000                                  0.00000
0          $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

          CARD TYPE                                        CARD TYPE
          O UPTAKE BY NH3 OXID(MG O/MG N)=    3.4300       O UPTAKE BY NO2 OXID(MG O/MG N)=    1.1400
          O PROD  BY ALGAE (MG O/MG A)   =    1.8000       O UPTAKE BY ALGAE (MG O/MG A)  =    2.0000
          N CONTENT OF ALGAE (MG N/MG A) =    0.0850       P CONTENT OF ALGAE (MG P/MG A) =    0.0150
          ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5000       ALGAE RESPIRATION RATE (1/DAY) =    0.0500
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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH            COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.50	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.50	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	87.40	3.40	4.29	1.24	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	2.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	3.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	4.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	5.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	6.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	7.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
INITIAL COND-2	8.	8.40	0.25	0.04	0.05	0.18	0.03	0.02
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	2.80	1.24	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	2.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	3.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	4.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	5.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	6.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	7.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
INCR INFLOW-2	8.	0.00	0.25	0.04	0.05	0.18	0.03	0.02
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER  17250.00     87.40      3.40      4.29      1.24      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                             COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.25     0.04     0.05     0.18     0.03     0.02
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW     TEMP     D.O.      BOD     CM-1     CM-2     CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00     0.00    86.90     3.50   218.30    18.75     0.00     0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     1.24     0.00     0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     1.24     0.00     0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     1.24     0.00     0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     1.24     0.00     0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     1.24     0.00     0.00
          ENDATA11       0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                             COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                               DAM   RCH   ELE    ADAM     BDAM     FDAM     HDAM

          ENDATA12               0.    0.    0.    0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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CARD TYPE TEMP D.O. BOD CM-1 CM-2 CM-3 ANC COLI

ENDATA13 DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

0 $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

CARD TYPE CHL-A ORG-N NH3-N NO2-N NH3-N ORG-P DIS-P

ENDATA13A DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

1

0 CONSERVATIVE MINERAL I ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
2	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
3	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
4	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
5	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
6	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
7	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
8	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	4.27	4.25	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.07	4.05	4.03	4.01	3.99	3.97	3.95	3.93	3.91	3.89	3.87
2	3.85	3.83	3.81	3.79	3.77	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.55	3.53	3.51	3.49
3	3.47	3.46	3.44	3.42	3.40	3.39	3.37	3.35	3.33	3.32	3.30	3.28	3.27	3.25	3.23	3.22	3.20	3.18	3.17	3.15
4	3.13	3.12	3.10	3.09	3.07	3.05	3.04	3.02	3.01	2.99	2.98	2.96	2.95	2.93	2.92	2.90	2.89	2.87	2.86	2.84
5	2.83	2.81	2.80	2.78	2.77	2.76	2.74	2.73	2.71	2.70	2.69	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.58	2.56
6	2.55	2.54	2.52	2.51	2.50	2.49	2.47	2.46	2.45	2.44	2.42	2.41	2.40	2.39	2.37	2.36	2.35	2.34	2.32	2.31
7	2.30	2.29	2.28	2.27	2.25	2.24	2.23	2.22	2.21	2.20	2.19	2.17	2.17	2.16	2.15	2.14	2.13	2.12	2.10	2.09
8	2.09	2.07	2.06	2.05	2.04	2.03	2.02	2.01												

1

STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:

VARIABLE ITERATION NUMBER OF NONCONVERGENT ELEMENTS

0 ALGAE AS CHL-A IN UG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.27	8.14	8.01	7.89	7.76	7.64	7.52	7.41	7.29	7.18	7.07	6.96	6.85	6.74	6.63	6.53	6.43	6.33	6.23	6.13
2	6.04	5.94	5.85	5.76	5.67	5.58	5.49	5.41	5.32	5.24	5.16	5.08	5.00	4.92	4.84	4.77	4.69	4.62	4.55	4.48
3	4.41	4.34	4.27	4.20	4.14	4.07	4.01	3.95	3.89	3.83	3.77	3.71	3.65	3.59	3.54	3.48	3.43	3.37	3.32	3.27
4	3.22	3.17	3.12	3.07	3.02	2.97	2.93	2.88	2.84	2.79	2.75	2.71	2.66	2.62	2.58	2.54	2.50	2.46	2.42	2.39
5	2.35	2.31	2.28	2.24	2.21	2.17	2.14	2.10	2.07	2.04	2.01	1.98	1.95	1.92	1.89	1.86	1.83	1.80	1.77	1.74
6	1.72	1.69	1.66	1.64	1.61	1.59	1.56	1.54	1.51	1.49	1.47	1.44	1.42	1.40	1.38	1.35	1.33	1.31	1.29	1.27
7	1.25	1.23	1.21	1.19	1.18	1.16	1.14	1.12	1.10	1.09	1.07	1.05	1.13	1.11	1.09	1.08	1.06	1.04	1.03	1.01

8 1.00 0.98 0.97 0.95 0.94 0.92 0.91 0.89

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
5	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01
6	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17
3	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14
4	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12
5	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
4	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
5	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08
6	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
3	0.24	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
4	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.29
5	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.31	0.31
6	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.34
7	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36
8	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.14	4.18	4.23	4.27	4.31	4.34	4.38	4.41
2	4.45	4.48	4.51	4.54	4.57	4.60	4.62	4.65	4.67	4.70	4.72	4.74	4.76	4.78	4.80	4.82	4.84	4.86	4.87	4.89
3	4.90	4.92	4.93	4.95	4.96	4.97	4.99	5.00	5.01	5.02	5.03	5.04	5.05	5.06	5.07	5.08	5.09	5.10	5.10	5.11
4	5.09	5.08	5.06	5.05	5.03	5.02	5.00	4.99	4.98	4.97	4.96	4.94	4.93	4.92	4.91	4.91	4.90	4.89	4.88	4.87
5	4.87	4.86	4.85	4.85	4.84	4.84	4.83	4.83	4.82	4.82	4.81	4.81	4.80	4.80	4.80	4.79	4.79	4.79	4.79	4.78
6	4.78	4.78	4.78	4.78	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.76	4.76	4.76	4.76	4.76	4.76	4.76
7	4.79	4.81	4.84	4.86	4.88	4.90	4.92	4.94	4.96	4.98	5.00	5.01	5.03	5.05	5.07	5.08	5.10	5.11	5.13	5.14
8	5.15	5.16	5.18	5.19	5.20	5.21	5.22	5.23												

ALGAE GROWTH RATE	1	141
ALGAE GROWTH RATE	2	32
ALGAE GROWTH RATE	3	0
ALGAE GROWTH RATE	4	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1

0 DISSOLVED OXYGEN IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	3.47	3.54	3.60	3.67	3.73	3.79	3.84	3.90	3.95	4.00	4.05	4.10	4.15	4.19	4.23	4.27	4.31	4.35	4.39	4.42
2	4.46	4.49	4.52	4.55	4.58	4.61	4.63	4.66	4.69	4.71	4.73	4.75	4.78	4.80	4.82	4.84	4.85	4.87	4.89	4.90
3	4.92	4.94	4.95	4.96	4.98	4.99	5.00	5.02	5.03	5.04	5.05	5.06	5.07	5.08	5.09	5.10	5.11	5.12	5.12	5.13
4	5.11	5.10	5.08	5.07	5.05	5.04	5.02	5.01	5.00	4.99	4.97	4.96	4.95	4.94	4.93	4.92	4.92	4.91	4.90	4.89
5	4.89	4.88	4.87	4.87	4.86	4.85	4.85	4.84	4.84	4.83	4.83	4.83	4.82	4.82	4.82	4.81	4.81	4.81	4.80	4.80
6	4.80	4.80	4.79	4.79	4.79	4.79	4.79	4.79	4.79	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78
7	4.80	4.83	4.85	4.87	4.90	4.92	4.94	4.96	4.98	4.99	5.01	5.03	5.05	5.07	5.08	5.10	5.11	5.13	5.14	5.15
8	5.17	5.18	5.19	5.20	5.22	5.23	5.24	5.25												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	4.27	4.25	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.07	4.05	4.03	4.01	3.99	3.97	3.95	3.93	3.91	3.89	3.87
2	3.85	3.83	3.81	3.79	3.77	3.75	3.73	3.71	3.69	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.55	3.53	3.51	3.49
3	3.47	3.46	3.44	3.42	3.40	3.39	3.37	3.35	3.33	3.32	3.30	3.28	3.27	3.25	3.23	3.22	3.20	3.18	3.17	3.15
4	3.13	3.12	3.10	3.09	3.07	3.05	3.04	3.02	3.01	2.99	2.98	2.96	2.95	2.93	2.92	2.90	2.89	2.87	2.86	2.84
5	2.83	2.81	2.80	2.78	2.77	2.76	2.74	2.73	2.71	2.70	2.69	2.67	2.66	2.64	2.63	2.62	2.60	2.59	2.58	2.56
6	2.55	2.54	2.52	2.51	2.50	2.49	2.47	2.46	2.45	2.44	2.42	2.41	2.40	2.39	2.37	2.36	2.35	2.34	2.32	2.31
7	2.30	2.29	2.28	2.27	2.25	2.24	2.23	2.22	2.21	2.20	2.19	2.17	2.17	2.16	2.15	2.14	2.13	2.12	2.10	2.09
8	2.09	2.07	2.06	2.05	2.04	2.03	2.02	2.01												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.25	0.25	0.24	0.24	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.21
2	0.21	0.20	0.20	0.20	0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.18	0.18	0.17	0.17	0.17
3	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14
4	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12
5	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 AMMONIA AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07
2	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
3	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
4	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
5	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
6	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08

7	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
8	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07												

0 NITRITE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.18	0.19	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22
2	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
3	0.24	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
4	0.26	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.29
5	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31
6	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33	0.33
7	0.33	0.33	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.36
8	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.27	8.14	8.02	7.90	7.78	7.66	7.54	7.43	7.32	7.21	7.10	7.00	6.89	6.79	6.69	6.59	6.50	6.40	6.31	6.22

2	6.13	6.04	5.95	5.86	5.78	5.69	5.61	5.53	5.45	5.37	5.30	5.22	5.14	5.07	5.00	4.93	4.86	4.79	4.72	4.65
3	4.58	4.52	4.45	4.39	4.33	4.27	4.21	4.15	4.09	4.03	3.97	3.92	3.86	3.81	3.75	3.70	3.65	3.60	3.54	3.49
4	3.45	3.40	3.35	3.30	3.26	3.21	3.16	3.12	3.08	3.03	2.99	2.95	2.91	2.87	2.83	2.79	2.75	2.71	2.67	2.63
5	2.60	2.56	2.52	2.49	2.45	2.42	2.39	2.35	2.32	2.29	2.26	2.22	2.19	2.16	2.13	2.10	2.07	2.04	2.02	1.99
6	1.96	1.93	1.91	1.88	1.85	1.83	1.80	1.78	1.76	1.73	1.71	1.69	1.66	1.64	1.62	1.60	1.58	1.56	1.54	1.52
7	1.50	1.48	1.46	1.44	1.42	1.40	1.38	1.37	1.35	1.33	1.32	1.30	1.37	1.35	1.34	1.32	1.31	1.29	1.27	1.26
8	1.24	1.23	1.21	1.20	1.18	1.17	1.16	1.14												

0 CONSERVATIVE MINERAL I ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
2	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
3	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
4	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
5	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
6	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
7	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
8	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
2	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
3	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
4	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
5	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
6	0.18	0.18	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.20	0.20	0.20
7	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.21
8	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 4

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.71	1.73	1.75	1.76	1.77	1.79	1.80	1.81	1.82	1.82	1.83	1.84	1.85	1.85	1.86	1.86	1.87	1.87	1.88	1.88
2	1.89	1.89	1.89	1.90	1.90	1.90	1.91	1.91	1.91	1.91	1.92	1.92	1.92	1.92	1.93	1.93	1.93	1.93	1.93	1.94
3	1.94	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
4	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
5	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	2.00
6	2.01	2.02	2.03	2.03	2.04	2.05	2.06	2.07	2.07	2.08	2.09	2.10	2.11	2.11	2.12	2.13	2.13	2.14	2.15	2.16
7	2.16	2.17	2.18	2.18	2.19	2.20	2.20	2.21	2.21	2.22	2.23	2.23	2.21	2.22	2.22	2.23	2.24	2.24	2.25	2.25
8	2.27	2.27	2.28	2.28	2.29	2.29	2.30	2.30												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE	RCH	ELE	BEGIN	END	POINT	INCR	TRVL	BOTTOM	X-SECT	DSPRSN

65' Flood Scenario - No GP - Output

ORD	NUM	NUM	LOC MILE	LOC MILE	FLOW CFS	SRCE CFS	FLOW CFS	VEL FPS	TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	AREA FT-2	AREA FT-2	COEF FT-2/S
1	1	1	227.00	226.7517250.10	0.00	0.10	0.243	0.063	3.18322306.330	93724920.0	29452760.0	71003.73	3.24		
2	1	2	226.75	226.5017250.20	0.00	0.10	0.243	0.063	3.18322306.365	93725816.0	29452806.0	71004.41	3.24		
3	1	3	226.50	226.2517250.30	0.00	0.10	0.243	0.063	3.18322306.398	93726704.0	29452850.0	71005.08	3.24		
4	1	4	226.25	226.0017250.40	0.00	0.10	0.243	0.063	3.18322306.436	93727592.0	29452898.0	71005.75	3.24		
5	1	5	226.00	225.7517250.50	0.00	0.10	0.243	0.063	3.18322306.471	93728488.0	29452946.0	71006.43	3.24		
6	1	6	225.75	225.5017250.60	0.00	0.10	0.243	0.063	3.18322306.506	93729368.0	29452992.0	71007.10	3.24		
7	1	7	225.50	225.2517250.70	0.00	0.10	0.243	0.063	3.18322306.541	93730264.0	29453038.0	71007.77	3.24		
8	1	8	225.25	225.0017250.80	0.00	0.10	0.243	0.063	3.18322306.574	93731152.0	29453082.0	71008.45	3.24		
9	1	9	225.00	224.7517250.90	0.00	0.10	0.243	0.063	3.18322306.611	93732040.0	29453130.0	71009.12	3.24		
10	1	10	224.75	224.5017251.00	0.00	0.10	0.243	0.063	3.18322306.646	93732928.0	29453178.0	71009.80	3.24		
11	1	11	224.50	224.2517251.10	0.00	0.10	0.243	0.063	3.18322306.684	93733816.0	29453226.0	71010.47	3.24		
12	1	12	224.25	224.0017251.20	0.00	0.10	0.243	0.063	3.18322306.717	93734704.0	29453270.0	71011.14	3.24		
13	1	13	224.00	223.7517251.29	0.00	0.10	0.243	0.063	3.18322306.752	93735600.0	29453316.0	71011.82	3.24		
14	1	14	223.75	223.5017251.39	0.00	0.10	0.243	0.063	3.18322306.787	93736480.0	29453364.0	71012.48	3.24		
15	1	15	223.50	223.2517251.49	0.00	0.10	0.243	0.063	3.18322306.822	93737376.0	29453410.0	71013.16	3.24		
16	1	16	223.25	223.0017251.59	0.00	0.10	0.243	0.063	3.18322306.855	93738264.0	29453454.0	71013.84	3.24		
17	1	17	223.00	222.7517251.69	0.00	0.10	0.243	0.063	3.18422306.893	93739152.0	29453502.0	71014.51	3.24		
18	1	18	222.75	222.5017251.79	0.00	0.10	0.243	0.063	3.18422306.926	93740040.0	29453546.0	71015.18	3.24		
19	1	19	222.50	222.2517251.89	0.00	0.10	0.243	0.063	3.18422306.963	93740936.0	29453596.0	71015.86	3.24		
20	1	20	222.25	222.0017251.99	0.00	0.10	0.243	0.063	3.18422306.998	93741816.0	29453642.0	71016.53	3.24		
21	2	1	222.00	221.7517252.09	0.00	0.10	0.243	0.063	3.18422307.033	93742712.0	29453688.0	71017.20	3.24		
22	2	2	221.75	221.5017252.19	0.00	0.10	0.243	0.063	3.18422307.070	93743600.0	29453738.0	71017.88	3.24		
23	2	3	221.50	221.2517252.29	0.00	0.10	0.243	0.063	3.18422307.104	93744488.0	29453782.0	71018.55	3.24		
24	2	4	221.25	221.0017252.39	0.00	0.10	0.243	0.063	3.18422307.139	93745384.0	29453828.0	71019.23	3.24		
25	2	5	221.00	220.7517252.49	0.00	0.10	0.243	0.063	3.18422307.174	93746264.0	29453874.0	71019.90	3.24		
26	2	6	220.75	220.5017252.59	0.00	0.10	0.243	0.063	3.18422307.209	93747160.0	29453920.0	71020.58	3.24		
27	2	7	220.50	220.2517252.69	0.00	0.10	0.243	0.063	3.18422307.244	93748048.0	29453968.0	71021.25	3.24		
28	2	8	220.25	220.0017252.79	0.00	0.10	0.243	0.063	3.18422307.279	93748936.0	29454014.0	71021.92	3.24		
29	2	9	220.00	219.7517252.89	0.00	0.10	0.243	0.063	3.18422307.314	93749824.0	29454060.0	71022.59	3.24		
30	2	10	219.75	219.5017252.99	0.00	0.10	0.243	0.063	3.18422307.350	93750712.0	29454106.0	71023.27	3.24		
31	2	11	219.50	219.2517253.09	0.00	0.10	0.243	0.063	3.18422307.385	93751600.0	29454154.0	71023.94	3.24		
32	2	12	219.25	219.0017253.19	0.00	0.10	0.243	0.063	3.18422307.420	93752496.0	29454200.0	71024.62	3.24		
33	2	13	219.00	218.7517253.29	0.00	0.10	0.243	0.063	3.18422307.455	93753384.0	29454246.0	71025.29	3.24		
34	2	14	218.75	218.5017253.39	0.00	0.10	0.243	0.063	3.18422307.490	93754272.0	29454292.0	71025.96	3.24		
35	2	15	218.50	218.2517253.49	0.00	0.10	0.243	0.063	3.18422307.525	93755160.0	29454340.0	71026.63	3.24		
36	2	16	218.25	218.0017253.59	0.00	0.10	0.243	0.063	3.18422307.561	93756048.0	29454386.0	71027.31	3.24		
37	2	17	218.00	217.7517253.69	0.00	0.10	0.243	0.063	3.18422307.596	93756936.0	29454432.0	71027.98	3.24		
38	2	18	217.75	217.5017253.79	0.00	0.10	0.243	0.063	3.18422307.631	93757832.0	29454478.0	71028.66	3.24		
39	2	19	217.50	217.2517253.88	0.00	0.10	0.243	0.063	3.18422307.666	93758720.0	29454526.0	71029.33	3.24		
40	2	20	217.25	217.0017253.98	0.00	0.10	0.243	0.063	3.18422307.701	93759608.0	29454572.0	71030.01	3.24		
41	3	1	217.00	216.7517254.08	0.00	0.10	0.243	0.063	3.18422307.736	93760496.0	29454618.0	71030.68	1.87		
42	3	2	216.75	216.5017254.18	0.00	0.10	0.243	0.063	3.18422307.771	93761384.0	29454664.0	71031.35	1.87		
43	3	3	216.50	216.2517254.28	0.00	0.10	0.243	0.063	3.18422307.807	93762272.0	29454710.0	71032.02	1.87		

44	3	4	216.25	216.0017254.38	0.00	0.10	0.243	0.063	3.18422307.842	93763168.0	29454758.0	71032.70	1.87
45	3	5	216.00	215.7517254.48	0.00	0.10	0.243	0.063	3.18422307.875	93764048.0	29454802.0	71033.37	1.87
46	3	6	215.75	215.5017254.58	0.00	0.10	0.243	0.063	3.18422307.912	93764944.0	29454850.0	71034.05	1.87
47	3	7	215.50	215.2517254.68	0.00	0.10	0.243	0.063	3.18422307.947	93765832.0	29454896.0	71034.72	1.87
48	3	8	215.25	215.0017254.78	0.00	0.10	0.243	0.063	3.18422307.982	93766720.0	29454944.0	71035.40	1.87
49	3	9	215.00	214.7517254.88	0.00	0.10	0.243	0.063	3.18422308.018	93767608.0	29454990.0	71036.07	1.87
50	3	10	214.75	214.5017254.98	0.00	0.10	0.243	0.063	3.18422308.053	93768504.0	29455036.0	71036.74	1.88
51	3	11	214.50	214.2517255.08	0.00	0.10	0.243	0.063	3.18422308.086	93769384.0	29455080.0	71037.41	1.88
52	3	12	214.25	214.0017255.18	0.00	0.10	0.243	0.063	3.18422308.123	93770280.0	29455130.0	71038.09	1.88
53	3	13	214.00	213.7517255.28	0.00	0.10	0.243	0.063	3.18422308.156	93771168.0	29455174.0	71038.77	1.88
54	3	14	213.75	213.5017255.38	0.00	0.10	0.243	0.063	3.18422308.193	93772056.0	29455222.0	71039.44	1.88
55	3	15	213.50	213.2517255.48	0.00	0.10	0.243	0.063	3.18422308.229	93772944.0	29455268.0	71040.11	1.88
56	3	16	213.25	213.0017255.58	0.00	0.10	0.243	0.063	3.18522308.264	93773840.0	29455316.0	71040.79	1.88
57	3	17	213.00	212.7517255.68	0.00	0.10	0.243	0.063	3.18522308.299	93774720.0	29455362.0	71041.46	1.88
58	3	18	212.75	212.5017255.78	0.00	0.10	0.243	0.063	3.18522308.334	93775616.0	29455408.0	71042.13	1.88
59	3	19	212.50	212.2517255.88	0.00	0.10	0.243	0.063	3.18522308.367	93776504.0	29455452.0	71042.80	1.88
60	3	20	212.25	212.0017255.98	0.00	0.10	0.243	0.063	3.18522308.404	93777392.0	29455502.0	71043.48	1.88
61	4	1	212.00	211.7517256.08	0.00	0.10	0.243	0.063	3.18522308.437	93778280.0	29455544.0	71044.16	1.79
62	4	2	211.75	211.5017256.18	0.00	0.10	0.243	0.063	3.18522308.475	93779176.0	29455594.0	71044.83	1.79
63	4	3	211.50	211.2517256.28	0.00	0.10	0.243	0.063	3.18522308.510	93780056.0	29455640.0	71045.50	1.79
64	4	4	211.25	211.0017257.37	1.00	0.10	0.243	0.063	3.18522308.898	93789880.0	29456154.0	71052.94	1.79
65	4	5	211.00	210.7517257.47	0.00	0.10	0.243	0.063	3.18522308.934	93790768.0	29456200.0	71053.62	1.79

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 2
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5017257.57	0.00	0.10	0.243	0.063	3.18522308.969	93791656.0	29456248.0	71054.29	1.79		
67	4	7	210.50	210.2517257.67	0.00	0.10	0.243	0.063	3.18522309.004	93792552.0	29456294.0	71054.96	1.79		
68	4	8	210.25	210.0017257.77	0.00	0.10	0.243	0.063	3.18522309.037	93793440.0	29456338.0	71055.63	1.79		
69	4	9	210.00	209.7517257.87	0.00	0.10	0.243	0.063	3.18522309.074	93794328.0	29456386.0	71056.31	1.79		
70	4	10	209.75	209.5017257.97	0.00	0.10	0.243	0.063	3.18522309.107	93795216.0	29456430.0	71056.98	1.79		
71	4	11	209.50	209.2517258.07	0.00	0.10	0.243	0.063	3.18522309.145	93796112.0	29456480.0	71057.66	1.79		
72	4	12	209.25	209.0017258.17	0.00	0.10	0.243	0.063	3.18522309.180	93796992.0	29456526.0	71058.33	1.79		
73	4	13	209.00	208.7517258.27	0.00	0.10	0.243	0.063	3.18522309.215	93797888.0	29456572.0	71059.01	1.79		
74	4	14	208.75	208.5017258.37	0.00	0.10	0.243	0.063	3.18522309.248	93798776.0	29456616.0	71059.68	1.79		
75	4	15	208.50	208.2517258.47	0.00	0.10	0.243	0.063	3.18522309.285	93799664.0	29456666.0	71060.35	1.79		
76	4	16	208.25	208.0017258.57	0.00	0.10	0.243	0.063	3.18522309.318	93800552.0	29456710.0	71061.02	1.79		
77	4	17	208.00	207.7517258.67	0.00	0.10	0.243	0.063	3.18522309.355	93801448.0	29456758.0	71061.70	1.79		
78	4	18	207.75	207.5017258.87	0.10	0.10	0.243	0.063	3.18522309.426	93803224.0	29456852.0	71063.05	1.79		
79	4	19	207.50	207.2517258.97	0.00	0.10	0.243	0.063	3.18522309.461	93804112.0	29456898.0	71063.72	1.79		
80	4	20	207.25	207.0017259.07	0.00	0.10	0.243	0.063	3.18522309.496	93805008.0	29456944.0	71064.40	1.79		

81	5	1	207.00	206.7517259.17	0.00	0.10	0.243	0.063	3.18522309.529	93805888.0	29456988.0	71065.07	0.85
82	5	2	206.75	206.5017259.27	0.00	0.10	0.243	0.063	3.18522309.566	93806784.0	29457038.0	71065.74	0.85
83	5	3	206.50	206.2517259.37	0.00	0.10	0.243	0.063	3.18522309.602	93807672.0	29457084.0	71066.41	0.85
84	5	4	206.25	206.0017259.47	0.00	0.10	0.243	0.063	3.18522309.637	93808560.0	29457130.0	71067.09	0.85
85	5	5	206.00	205.7517259.57	0.00	0.10	0.243	0.063	3.18622309.672	93809448.0	29457176.0	71067.77	0.85
86	5	6	205.75	205.5017259.67	0.00	0.10	0.243	0.063	3.18622309.707	93810344.0	29457224.0	71068.44	0.85
87	5	7	205.50	205.2517259.77	0.00	0.10	0.243	0.063	3.18622309.740	93811232.0	29457266.0	71069.11	0.85
88	5	8	205.25	205.0017259.87	0.00	0.10	0.243	0.063	3.18622309.775	93812112.0	29457314.0	71069.78	0.85
89	5	9	205.00	204.7517259.96	0.00	0.10	0.243	0.063	3.18622309.811	93813008.0	29457360.0	71070.46	0.85
90	5	10	204.75	204.5017260.06	0.00	0.10	0.243	0.063	3.18622309.848	93813896.0	29457408.0	71071.13	0.85
91	5	11	204.50	204.2517260.16	0.00	0.10	0.243	0.063	3.18622309.883	93814784.0	29457456.0	71071.81	0.85
92	5	12	204.25	204.0017260.26	0.00	0.10	0.243	0.063	3.18622309.916	93815672.0	29457500.0	71072.48	0.85
93	5	13	204.00	203.7517260.36	0.00	0.10	0.243	0.063	3.18622309.953	93816568.0	29457548.0	71073.16	0.85
94	5	14	203.75	203.5017260.46	0.00	0.10	0.243	0.063	3.18622309.986	93817456.0	29457592.0	71073.83	0.85
95	5	15	203.50	203.2517260.56	0.00	0.10	0.243	0.063	3.18622310.021	93818344.0	29457638.0	71074.51	0.85
96	5	16	203.25	203.0017260.66	0.00	0.10	0.243	0.063	3.18622310.059	93819232.0	29457688.0	71075.18	0.85
97	5	17	203.00	202.7517261.76	1.00	0.10	0.243	0.063	3.18622310.445	93829056.0	29458200.0	71082.62	0.85
98	5	18	202.75	202.5017261.86	0.00	0.10	0.243	0.063	3.18622310.480	93829944.0	29458246.0	71083.29	0.85
99	5	19	202.50	202.2517261.96	0.00	0.10	0.243	0.063	3.18622310.516	93830832.0	29458292.0	71083.97	0.85
100	5	20	202.25	202.0017262.06	0.00	0.10	0.243	0.063	3.18622310.551	93831720.0	29458338.0	71084.64	0.85
101	6	1	202.00	201.7517262.16	0.00	0.10	0.243	0.063	3.18622310.588	93832616.0	29458388.0	71085.31	1.45
102	6	2	201.75	201.5017262.26	0.00	0.10	0.243	0.063	3.18622310.621	93833504.0	29458432.0	71085.98	1.45
103	6	3	201.50	201.2517262.36	0.00	0.10	0.243	0.063	3.18622310.658	93834392.0	29458480.0	71086.66	1.45
104	6	4	201.25	201.0017262.46	0.00	0.10	0.243	0.063	3.18622310.691	93835280.0	29458524.0	71087.34	1.45
105	6	5	201.00	200.7517262.56	0.00	0.10	0.243	0.063	3.18622310.727	93836176.0	29458570.0	71088.01	1.45
106	6	6	200.75	200.5017262.66	0.00	0.10	0.243	0.063	3.18622310.762	93837064.0	29458618.0	71088.68	1.45
107	6	7	200.50	200.2517262.76	0.00	0.10	0.243	0.063	3.18622310.799	93837952.0	29458666.0	71089.36	1.45
108	6	8	200.25	200.0017262.86	0.00	0.10	0.243	0.063	3.18622310.832	93838840.0	29458710.0	71090.03	1.45
109	6	9	200.00	199.7517262.96	0.00	0.10	0.243	0.063	3.18622310.867	93839728.0	29458756.0	71090.70	1.45
110	6	10	199.75	199.5017263.06	0.00	0.10	0.243	0.063	3.18622310.902	93840624.0	29458804.0	71091.38	1.45
111	6	11	199.50	199.2517263.16	0.00	0.10	0.243	0.063	3.18622310.937	93841504.0	29458850.0	71092.05	1.45
112	6	12	199.25	199.0017263.26	0.00	0.10	0.243	0.063	3.18622310.973	93842400.0	29458896.0	71092.73	1.45
113	6	13	199.00	198.7517263.46	0.10	0.10	0.243	0.063	3.18622311.043	93844184.0	29458990.0	71094.08	1.45
114	6	14	198.75	198.5017263.55	0.00	0.10	0.243	0.063	3.18722311.078	93845064.0	29459036.0	71094.75	1.45
115	6	15	198.50	198.2517263.65	0.00	0.10	0.243	0.063	3.18722311.113	93845960.0	29459082.0	71095.42	1.45
116	6	16	198.25	198.0017263.75	0.00	0.10	0.243	0.063	3.18722311.148	93846848.0	29459128.0	71096.09	1.45
117	6	17	198.00	197.7517263.85	0.00	0.10	0.243	0.063	3.18722311.186	93847736.0	29459178.0	71096.77	1.45
118	6	18	197.75	197.5017263.95	0.00	0.10	0.243	0.063	3.18722311.219	93848624.0	29459222.0	71097.45	1.45
119	6	19	197.50	197.2517264.05	0.00	0.10	0.243	0.063	3.18722311.254	93849512.0	29459268.0	71098.12	1.45
120	6	20	197.25	197.0017264.15	0.00	0.10	0.243	0.063	3.18722311.289	93850408.0	29459314.0	71098.79	1.45
121	7	1	197.00	196.7517264.35	0.10	0.10	0.243	0.063	3.18722311.361	93852184.0	29459410.0	71100.14	0.60
122	7	2	196.75	196.5017264.45	0.00	0.10	0.243	0.063	3.18722311.395	93853072.0	29459454.0	71100.81	0.60
123	7	3	196.50	196.2517264.55	0.00	0.10	0.243	0.063	3.18722311.430	93853968.0	29459500.0	71101.49	0.60
124	7	4	196.25	196.0017264.65	0.00	0.10	0.243	0.063	3.18722311.465	93854856.0	29459546.0	71102.16	0.60

125	7	5	196.00	195.7517264.75	0.00	0.10	0.243	0.063	3.18722311.500	93855744.0	29459594.0	71102.84	0.60
126	7	6	195.75	195.5017264.85	0.00	0.10	0.243	0.063	3.18722311.535	93856632.0	29459640.0	71103.51	0.60
127	7	7	195.50	195.2517264.95	0.00	0.10	0.243	0.063	3.18722311.572	93857528.0	29459688.0	71104.19	0.60
128	7	8	195.25	195.0017265.05	0.00	0.10	0.243	0.063	3.18722311.605	93858416.0	29459732.0	71104.86	0.60
129	7	9	195.00	194.7517265.15	0.00	0.10	0.243	0.063	3.18722311.639	93859304.0	29459776.0	71105.53	0.60
130	7	10	194.75	194.5017265.25	0.00	0.10	0.243	0.063	3.18722311.676	93860192.0	29459826.0	71106.21	0.60

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 3
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2517265.35	0.00	0.10	0.243	0.063	3.18722311.711	93861080.0	29459872.0	71106.88	0.60		
132	7	12	194.25	194.0017265.45	0.00	0.10	0.243	0.063	3.18722311.746	93861976.0	29459918.0	71107.55	0.60		
133	7	13	194.00	193.7517487.55	222.00	0.10	0.241	0.063	3.24322389.736	95853960.0	29563014.0	72616.64	0.60		
134	7	14	193.75	193.5017487.65	0.00	0.10	0.241	0.063	3.24322389.771	95854856.0	29563060.0	72617.32	0.60		
135	7	15	193.50	193.2517487.75	0.00	0.10	0.241	0.063	3.24322389.807	95855752.0	29563108.0	72617.99	0.60		
136	7	16	193.25	193.0017487.85	0.00	0.10	0.241	0.063	3.24322389.842	95856648.0	29563154.0	72618.67	0.60		
137	7	17	193.00	192.7517487.95	0.00	0.10	0.241	0.063	3.24322389.877	95857544.0	29563200.0	72619.35	0.60		
138	7	18	192.75	192.5017488.04	0.00	0.10	0.241	0.063	3.24322389.912	95858448.0	29563246.0	72620.04	0.60		
139	7	19	192.50	192.2517488.14	0.00	0.10	0.241	0.063	3.24322389.947	95859344.0	29563294.0	72620.72	0.60		
140	7	20	192.25	192.0017488.24	0.00	0.10	0.241	0.063	3.24322389.980	95860240.0	29563336.0	72621.39	0.60		
141	8	1	192.00	191.7517489.26	0.77	0.25	0.241	0.063	3.24422390.338	95869424.0	29563810.0	72628.35	0.60		
142	8	2	191.75	191.5017489.51	0.00	0.25	0.241	0.063	3.24422390.424	95871672.0	29563924.0	72630.05	0.60		
143	8	3	191.50	191.2517489.76	0.00	0.25	0.241	0.063	3.24422390.512	95873928.0	29564040.0	72631.77	0.60		
144	8	4	191.25	191.0017490.01	0.00	0.25	0.241	0.063	3.24422390.598	95876176.0	29564152.0	72633.47	0.60		
145	8	5	191.00	190.7517490.26	0.00	0.25	0.241	0.063	3.24422390.687	95878432.0	29564272.0	72635.17	0.60		
146	8	6	190.75	190.5017490.51	0.00	0.25	0.241	0.063	3.24422390.773	95880680.0	29564386.0	72636.87	0.60		
147	8	7	190.50	190.2517490.76	0.00	0.25	0.241	0.063	3.24422390.861	95882936.0	29564502.0	72638.59	0.60		
148	8	8	190.25	190.0017491.01	0.00	0.25	0.241	0.063	3.24422390.949	95885184.0	29564618.0	72640.29	0.60		

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 4
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D

1	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.46	1	0.65	0.08	0.00	0.13	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

7	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	9	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.46	1	0.65	0.08	0.00	0.10	0.16	0.00	0.24	0.00	1.64	0.08	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	87.40	1.24	0.00	0.00	3.47	4.27	0.25	0.04	0.04	0.18	0.52	0.03	0.02	0.04	0.00	0.00	8.27
1	2	87.40	1.24	0.00	0.00	3.54	4.25	0.25	0.04	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.14
1	3	87.40	1.24	0.00	0.00	3.60	4.22	0.24	0.05	0.04	0.19	0.52	0.03	0.02	0.04	0.00	0.00	8.02

1	4	87.40	1.24	0.00	0.00	3.67	4.20	0.24	0.05	0.03	0.19	0.52	0.03	0.02	0.04	0.00	0.00	7.90
1	5	87.40	1.24	0.00	0.00	3.73	4.18	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.78
1	6	87.40	1.24	0.00	0.00	3.79	4.16	0.24	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.66
1	7	87.40	1.24	0.00	0.00	3.84	4.14	0.23	0.05	0.03	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.54
1	8	87.40	1.24	0.00	0.00	3.90	4.12	0.23	0.05	0.02	0.20	0.51	0.03	0.02	0.04	0.00	0.00	7.43
1	9	87.40	1.24	0.00	0.00	3.95	4.10	0.23	0.05	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.32
1	10	87.40	1.24	0.00	0.00	4.00	4.07	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.21
1	11	87.40	1.24	0.00	0.00	4.05	4.05	0.23	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.10
1	12	87.40	1.24	0.00	0.00	4.10	4.03	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	7.00
1	13	87.40	1.24	0.00	0.00	4.15	4.01	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.89
1	14	87.40	1.24	0.00	0.00	4.19	3.99	0.22	0.06	0.02	0.21	0.51	0.03	0.02	0.04	0.00	0.00	6.79
1	15	87.40	1.24	0.00	0.00	4.23	3.97	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.69
1	16	87.40	1.24	0.00	0.00	4.27	3.95	0.22	0.06	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.59
1	17	87.40	1.24	0.00	0.00	4.31	3.93	0.21	0.07	0.02	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.50
1	18	87.40	1.24	0.00	0.00	4.35	3.91	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.40
1	19	87.40	1.24	0.00	0.00	4.39	3.89	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.31
1	20	87.40	1.24	0.00	0.00	4.42	3.87	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.22
2	1	87.40	1.24	0.00	0.00	4.46	3.85	0.21	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.13
2	2	87.40	1.24	0.00	0.00	4.49	3.83	0.20	0.07	0.01	0.22	0.51	0.03	0.02	0.04	0.00	0.00	6.04
2	3	87.40	1.24	0.00	0.00	4.52	3.81	0.20	0.07	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.95
2	4	87.40	1.24	0.00	0.00	4.55	3.79	0.20	0.07	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.86
2	5	87.40	1.24	0.00	0.00	4.58	3.77	0.20	0.07	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.78
2	6	87.40	1.24	0.00	0.00	4.61	3.75	0.20	0.07	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.69
2	7	87.40	1.24	0.00	0.00	4.63	3.73	0.19	0.07	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.61
2	8	87.40	1.24	0.00	0.00	4.66	3.71	0.19	0.08	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.53
2	9	87.40	1.24	0.00	0.00	4.69	3.69	0.19	0.08	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.45
2	10	87.40	1.24	0.00	0.00	4.71	3.68	0.19	0.08	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.37
2	11	87.40	1.24	0.00	0.00	4.73	3.66	0.19	0.08	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.30
2	12	87.40	1.24	0.00	0.00	4.75	3.64	0.19	0.08	0.01	0.23	0.51	0.03	0.02	0.04	0.00	0.00	5.22
2	13	87.40	1.24	0.00	0.00	4.78	3.62	0.18	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	5.14
2	14	87.40	1.24	0.00	0.00	4.80	3.60	0.18	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	5.07
2	15	87.40	1.24	0.00	0.00	4.82	3.58	0.18	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	5.00
2	16	87.40	1.24	0.00	0.00	4.84	3.56	0.18	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.93
2	17	87.40	1.24	0.00	0.00	4.85	3.55	0.18	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.86
2	18	87.40	1.24	0.00	0.00	4.87	3.53	0.17	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.79
2	19	87.40	1.24	0.00	0.00	4.89	3.51	0.17	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.72
2	20	87.40	1.24	0.00	0.00	4.90	3.49	0.17	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.65
3	1	87.40	1.24	0.00	0.00	4.92	3.47	0.17	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.58
3	2	87.40	1.24	0.00	0.00	4.94	3.46	0.17	0.08	0.01	0.24	0.51	0.03	0.02	0.04	0.00	0.00	4.52
3	3	87.40	1.24	0.00	0.00	4.95	3.44	0.17	0.08	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.45
3	4	87.40	1.24	0.00	0.00	4.96	3.42	0.17	0.08	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.39
3	5	87.40	1.24	0.00	0.00	4.98	3.40	0.16	0.08	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.33
3	6	87.40	1.24	0.00	0.00	4.99	3.39	0.16	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.27
3	7	87.40	1.24	0.00	0.00	5.00	3.37	0.16	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.21
3	8	87.40	1.24	0.00	0.00	5.02	3.35	0.16	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.15
3	9	87.40	1.24	0.00	0.00	5.03	3.33	0.16	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.09

3	10	87.40	1.24	0.00	0.00	5.04	3.32	0.16	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	4.03
3	11	87.40	1.24	0.00	0.00	5.05	3.30	0.15	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	3.97
3	12	87.40	1.24	0.00	0.00	5.06	3.28	0.15	0.09	0.01	0.25	0.51	0.03	0.02	0.04	0.00	0.00	3.92
3	13	87.40	1.24	0.00	0.00	5.07	3.27	0.15	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.86
3	14	87.40	1.24	0.00	0.00	5.08	3.25	0.15	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.81
3	15	87.40	1.24	0.00	0.00	5.09	3.23	0.15	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.75
3	16	87.40	1.24	0.00	0.00	5.10	3.22	0.15	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.70
3	17	87.40	1.24	0.00	0.00	5.11	3.20	0.15	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.65
3	18	87.40	1.24	0.00	0.00	5.12	3.18	0.14	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.60
3	19	87.40	1.24	0.00	0.00	5.12	3.17	0.14	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.54
3	20	87.40	1.24	0.00	0.00	5.13	3.15	0.14	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.49
4	1	87.40	1.24	0.00	0.00	5.11	3.13	0.14	0.09	0.01	0.26	0.51	0.03	0.02	0.04	0.00	0.00	3.45
4	2	87.40	1.24	0.00	0.00	5.10	3.12	0.14	0.09	0.01	0.27	0.51	0.03	0.02	0.04	0.00	0.00	3.40
4	3	87.40	1.24	0.00	0.00	5.08	3.10	0.14	0.09	0.01	0.27	0.51	0.03	0.02	0.04	0.00	0.00	3.35
4	4	87.40	1.24	0.00	0.00	5.07	3.09	0.14	0.09	0.01	0.27	0.51	0.03	0.02	0.04	0.00	0.00	3.30
4	5	87.40	1.24	0.00	0.00	5.05	3.07	0.14	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.26

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	87.40	1.24	0.00	0.00	5.04	3.05	0.13	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.21
4	7	87.40	1.24	0.00	0.00	5.02	3.04	0.13	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.16
4	8	87.40	1.24	0.00	0.00	5.01	3.02	0.13	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.12
4	9	87.40	1.24	0.00	0.00	5.00	3.01	0.13	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.08
4	10	87.40	1.24	0.00	0.00	4.99	2.99	0.13	0.09	0.01	0.27	0.50	0.03	0.02	0.04	0.00	0.00	3.03
4	11	87.40	1.24	0.00	0.00	4.97	2.98	0.13	0.09	0.01	0.28	0.50	0.03	0.02	0.04	0.00	0.00	2.99
4	12	87.40	1.24	0.00	0.00	4.96	2.96	0.13	0.09	0.01	0.28	0.50	0.03	0.02	0.04	0.00	0.00	2.95
4	13	87.40	1.24	0.00	0.00	4.95	2.95	0.13	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.91
4	14	87.40	1.24	0.00	0.00	4.94	2.93	0.12	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.87
4	15	87.40	1.24	0.00	0.00	4.93	2.92	0.12	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.83
4	16	87.40	1.24	0.00	0.00	4.92	2.90	0.12	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.79
4	17	87.40	1.24	0.00	0.00	4.92	2.89	0.12	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.75
4	18	87.40	1.24	0.00	0.00	4.91	2.87	0.12	0.09	0.01	0.28	0.50	0.03	0.01	0.04	0.00	0.00	2.71
4	19	87.40	1.24	0.00	0.00	4.90	2.86	0.12	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.67
4	20	87.40	1.24	0.00	0.00	4.89	2.84	0.12	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.63
5	1	87.40	1.24	0.00	0.00	4.89	2.83	0.12	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.60
5	2	87.40	1.24	0.00	0.00	4.88	2.81	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.56
5	3	87.40	1.24	0.00	0.00	4.87	2.80	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.52
5	4	87.40	1.24	0.00	0.00	4.87	2.78	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.49

5	5	87.40	1.24	0.00	0.00	4.86	2.77	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.45
5	6	87.40	1.24	0.00	0.00	4.85	2.76	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.42
5	7	87.40	1.24	0.00	0.00	4.85	2.74	0.11	0.09	0.01	0.29	0.50	0.03	0.01	0.04	0.00	0.00	2.39
5	8	87.40	1.24	0.00	0.00	4.84	2.73	0.11	0.09	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.35
5	9	87.40	1.24	0.00	0.00	4.84	2.71	0.11	0.09	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.32
5	10	87.40	1.24	0.00	0.00	4.83	2.70	0.11	0.09	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.29
5	11	87.40	1.24	0.00	0.00	4.83	2.69	0.11	0.09	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.26
5	12	87.40	1.24	0.00	0.00	4.83	2.67	0.10	0.09	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.22
5	13	87.40	1.24	0.00	0.00	4.82	2.66	0.10	0.08	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.19
5	14	87.40	1.24	0.00	0.00	4.82	2.64	0.10	0.08	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.16
5	15	87.40	1.24	0.00	0.00	4.82	2.63	0.10	0.08	0.01	0.30	0.50	0.03	0.01	0.04	0.00	0.00	2.13
5	16	87.40	1.24	0.00	0.00	4.81	2.62	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	2.10
5	17	87.40	1.24	0.00	0.00	4.81	2.60	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	2.07
5	18	87.40	1.24	0.00	0.00	4.81	2.59	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	2.04
5	19	87.40	1.24	0.00	0.00	4.80	2.58	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	2.02
5	20	87.40	1.24	0.00	0.00	4.80	2.56	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	1.99
6	1	87.40	1.24	0.00	0.00	4.80	2.55	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	1.96
6	2	87.40	1.24	0.00	0.00	4.80	2.54	0.10	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	1.93
6	3	87.40	1.24	0.00	0.00	4.79	2.52	0.09	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	1.91
6	4	87.40	1.24	0.00	0.00	4.79	2.51	0.09	0.08	0.01	0.31	0.50	0.03	0.01	0.04	0.00	0.00	1.88
6	5	87.40	1.24	0.00	0.00	4.79	2.50	0.09	0.08	0.01	0.32	0.50	0.03	0.01	0.04	0.00	0.00	1.85
6	6	87.40	1.24	0.00	0.00	4.79	2.49	0.09	0.08	0.01	0.32	0.50	0.03	0.01	0.04	0.00	0.00	1.83
6	7	87.40	1.24	0.00	0.00	4.79	2.47	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.80
6	8	87.40	1.24	0.00	0.00	4.79	2.46	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.78
6	9	87.40	1.24	0.00	0.00	4.79	2.45	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.76
6	10	87.40	1.24	0.00	0.00	4.78	2.44	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.73
6	11	87.40	1.24	0.00	0.00	4.78	2.42	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.71
6	12	87.40	1.24	0.00	0.00	4.78	2.41	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.69
6	13	87.40	1.24	0.00	0.00	4.78	2.40	0.09	0.08	0.01	0.32	0.50	0.03	0.02	0.04	0.00	0.00	1.66
6	14	87.40	1.24	0.00	0.00	4.78	2.39	0.08	0.08	0.01	0.33	0.50	0.03	0.02	0.04	0.00	0.00	1.64
6	15	87.40	1.24	0.00	0.00	4.78	2.37	0.08	0.08	0.01	0.33	0.50	0.03	0.02	0.04	0.00	0.00	1.62
6	16	87.40	1.24	0.00	0.00	4.78	2.36	0.08	0.08	0.01	0.33	0.50	0.03	0.02	0.04	0.00	0.00	1.60
6	17	87.40	1.24	0.00	0.00	4.78	2.35	0.08	0.08	0.01	0.33	0.50	0.03	0.02	0.04	0.00	0.00	1.58
6	18	87.40	1.24	0.00	0.00	4.78	2.34	0.08	0.08	0.01	0.33	0.50	0.03	0.02	0.04	0.00	0.00	1.56
6	19	87.40	1.24	0.00	0.00	4.78	2.32	0.08	0.08	0.01	0.33	0.50	0.02	0.02	0.04	0.00	0.00	1.54
6	20	87.40	1.24	0.00	0.00	4.78	2.31	0.08	0.08	0.01	0.33	0.50	0.02	0.02	0.04	0.00	0.00	1.52
7	1	87.40	1.24	0.00	0.00	4.80	2.30	0.08	0.08	0.01	0.33	0.50	0.02	0.02	0.04	0.00	0.00	1.50
7	2	87.40	1.24	0.00	0.00	4.83	2.29	0.08	0.08	0.01	0.33	0.50	0.02	0.02	0.04	0.00	0.00	1.48
7	3	87.40	1.24	0.00	0.00	4.85	2.28	0.08	0.08	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.46
7	4	87.40	1.24	0.00	0.00	4.87	2.27	0.08	0.08	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.44
7	5	87.40	1.24	0.00	0.00	4.90	2.25	0.08	0.08	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.42
7	6	87.40	1.24	0.00	0.00	4.92	2.24	0.08	0.08	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.40
7	7	87.40	1.24	0.00	0.00	4.94	2.23	0.07	0.07	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.38
7	8	87.40	1.24	0.00	0.00	4.96	2.22	0.07	0.07	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.37
7	9	87.40	1.24	0.00	0.00	4.98	2.21	0.07	0.07	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.35
7	10	87.40	1.24	0.00	0.00	4.99	2.20	0.07	0.07	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.33

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 9
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	87.40	1.24	0.00	0.00	5.01	2.19	0.07	0.07	0.01	0.34	0.50	0.02	0.02	0.04	0.00	0.00	1.32
7	12	87.40	1.24	0.00	0.00	5.03	2.17	0.07	0.07	0.01	0.35	0.50	0.02	0.02	0.04	0.00	0.00	1.30
7	13	87.40	1.24	0.00	0.00	5.05	2.17	0.08	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.37
7	14	87.40	1.24	0.00	0.00	5.07	2.16	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.35
7	15	87.40	1.24	0.00	0.00	5.08	2.15	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.34
7	16	87.40	1.24	0.00	0.00	5.10	2.14	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.32
7	17	87.40	1.24	0.00	0.00	5.11	2.13	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.31
7	18	87.40	1.24	0.00	0.00	5.13	2.12	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.29
7	19	87.40	1.24	0.00	0.00	5.14	2.10	0.07	0.07	0.01	0.35	0.51	0.02	0.02	0.04	0.00	0.00	1.27
7	20	87.40	1.24	0.00	0.00	5.15	2.09	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.26
8	1	87.40	1.24	0.00	0.00	5.17	2.09	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.24
8	2	87.40	1.24	0.00	0.00	5.18	2.07	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.23
8	3	87.40	1.24	0.00	0.00	5.19	2.06	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.21
8	4	87.40	1.24	0.00	0.00	5.20	2.05	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.20
8	5	87.40	1.24	0.00	0.00	5.22	2.04	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.18
8	6	87.40	1.24	0.00	0.00	5.23	2.03	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.17
8	7	87.40	1.24	0.00	0.00	5.24	2.02	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.16
8	8	87.40	1.24	0.00	0.00	5.25	2.01	0.07	0.07	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.14

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 10
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.27	0.16	0.08	1.03	1.71	0.06	0.50	0.18	4.23	0.11	0.53	0.65
2	1	2	8.14	0.16	0.08	1.03	1.73	0.07	0.50	0.19	4.23	0.11	0.54	0.65
3	1	3	8.02	0.16	0.08	1.03	1.75	0.07	0.50	0.19	4.23	0.11	0.54	0.65
4	1	4	7.90	0.16	0.08	1.03	1.76	0.07	0.50	0.19	4.22	0.11	0.55	0.65
5	1	5	7.78	0.16	0.08	1.03	1.77	0.07	0.50	0.20	4.22	0.11	0.55	0.65

6	1	6	7.66	0.16	0.08	1.03	1.79	0.07	0.50	0.20	4.22	0.11	0.56	0.65
7	1	7	7.54	0.16	0.08	1.03	1.80	0.07	0.50	0.20	4.21	0.11	0.56	0.65
8	1	8	7.43	0.16	0.08	1.03	1.81	0.07	0.50	0.21	4.21	0.11	0.56	0.65
9	1	9	7.32	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
10	1	10	7.21	0.17	0.08	1.03	1.82	0.07	0.50	0.21	4.21	0.11	0.57	0.65
11	1	11	7.10	0.17	0.08	1.03	1.83	0.06	0.50	0.22	4.20	0.11	0.57	0.64
12	1	12	7.00	0.17	0.08	1.03	1.84	0.06	0.50	0.22	4.20	0.11	0.58	0.64
13	1	13	6.89	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
14	1	14	6.79	0.17	0.08	1.03	1.85	0.06	0.50	0.22	4.20	0.11	0.58	0.64
15	1	15	6.69	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
16	1	16	6.59	0.17	0.08	1.03	1.86	0.06	0.50	0.23	4.19	0.11	0.58	0.64
17	1	17	6.50	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.19	0.11	0.59	0.64
18	1	18	6.40	0.17	0.08	1.03	1.87	0.06	0.50	0.23	4.18	0.11	0.59	0.64
19	1	19	6.31	0.17	0.08	1.03	1.88	0.06	0.50	0.23	4.18	0.11	0.59	0.64
20	1	20	6.22	0.17	0.08	1.03	1.88	0.06	0.50	0.24	4.18	0.11	0.59	0.64
21	2	1	6.13	0.17	0.08	1.03	1.89	0.06	0.50	0.24	4.18	0.11	0.59	0.64
22	2	2	6.04	0.17	0.08	1.03	1.89	0.06	0.50	0.24	4.18	0.11	0.60	0.63
23	2	3	5.95	0.17	0.08	1.03	1.89	0.06	0.50	0.24	4.17	0.11	0.60	0.63
24	2	4	5.86	0.17	0.08	1.03	1.90	0.06	0.50	0.24	4.17	0.11	0.60	0.63
25	2	5	5.78	0.17	0.08	1.03	1.90	0.06	0.50	0.24	4.17	0.11	0.60	0.63
26	2	6	5.69	0.17	0.08	1.03	1.90	0.06	0.50	0.24	4.17	0.11	0.60	0.63
27	2	7	5.61	0.17	0.08	1.03	1.91	0.06	0.50	0.25	4.16	0.11	0.60	0.63
28	2	8	5.53	0.17	0.08	1.03	1.91	0.05	0.50	0.25	4.16	0.11	0.60	0.63
29	2	9	5.45	0.17	0.08	1.03	1.91	0.05	0.50	0.25	4.16	0.11	0.61	0.63
30	2	10	5.37	0.17	0.08	1.03	1.91	0.05	0.50	0.25	4.16	0.11	0.61	0.63
31	2	11	5.30	0.17	0.08	1.03	1.92	0.05	0.50	0.25	4.16	0.11	0.61	0.63
32	2	12	5.22	0.17	0.08	1.03	1.92	0.05	0.50	0.25	4.15	0.11	0.61	0.63
33	2	13	5.14	0.18	0.08	1.03	1.92	0.05	0.50	0.25	4.15	0.11	0.61	0.63
34	2	14	5.07	0.18	0.08	1.03	1.92	0.05	0.50	0.25	4.15	0.11	0.61	0.62
35	2	15	5.00	0.18	0.08	1.03	1.93	0.05	0.50	0.25	4.15	0.11	0.61	0.62
36	2	16	4.93	0.18	0.08	1.03	1.93	0.05	0.50	0.25	4.15	0.11	0.61	0.62
37	2	17	4.86	0.18	0.08	1.03	1.93	0.05	0.50	0.25	4.14	0.11	0.62	0.62
38	2	18	4.79	0.18	0.08	1.03	1.93	0.05	0.50	0.25	4.14	0.11	0.62	0.62
39	2	19	4.72	0.18	0.08	1.03	1.93	0.05	0.50	0.25	4.14	0.11	0.62	0.62
40	2	20	4.65	0.18	0.08	1.03	1.94	0.05	0.50	0.25	4.14	0.11	0.62	0.62
41	3	1	4.58	0.18	0.08	1.03	1.94	0.05	0.50	0.25	4.14	0.11	0.62	0.62
42	3	2	4.52	0.18	0.08	1.03	1.94	0.05	0.50	0.25	4.14	0.11	0.62	0.62
43	3	3	4.45	0.18	0.08	1.03	1.94	0.05	0.50	0.26	4.13	0.11	0.62	0.62
44	3	4	4.39	0.18	0.08	1.03	1.94	0.05	0.50	0.26	4.13	0.11	0.62	0.62
45	3	5	4.33	0.18	0.08	1.03	1.94	0.04	0.50	0.26	4.13	0.11	0.62	0.62
46	3	6	4.27	0.18	0.08	1.03	1.95	0.04	0.50	0.26	4.13	0.11	0.62	0.62
47	3	7	4.21	0.18	0.08	1.03	1.95	0.04	0.50	0.26	4.13	0.11	0.63	0.62
48	3	8	4.15	0.18	0.08	1.03	1.95	0.04	0.50	0.25	4.13	0.11	0.63	0.61
49	3	9	4.09	0.18	0.08	1.03	1.95	0.04	0.50	0.25	4.12	0.11	0.63	0.61
50	3	10	4.03	0.18	0.08	1.03	1.95	0.04	0.50	0.25	4.12	0.11	0.63	0.61
51	3	11	3.97	0.18	0.08	1.03	1.95	0.04	0.50	0.25	4.12	0.11	0.63	0.61

52	3	12	3.92	0.18	0.08	1.03	1.95	0.04	0.50	0.25	4.12	0.11	0.63	0.61
53	3	13	3.86	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.12	0.11	0.63	0.61
54	3	14	3.81	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.12	0.11	0.63	0.61
55	3	15	3.75	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.63	0.61
56	3	16	3.70	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.63	0.61
57	3	17	3.65	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.63	0.61
58	3	18	3.60	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.64	0.61
59	3	19	3.54	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.64	0.61
60	3	20	3.49	0.18	0.08	1.03	1.96	0.04	0.50	0.25	4.11	0.11	0.64	0.61
61	4	1	3.45	0.18	0.08	1.03	1.97	0.04	0.50	0.25	4.11	0.11	0.64	0.61
62	4	2	3.40	0.18	0.08	1.03	1.97	0.04	0.50	0.25	4.11	0.11	0.64	0.61
63	4	3	3.35	0.18	0.08	1.03	1.97	0.04	0.50	0.25	4.10	0.11	0.64	0.61
64	4	4	3.30	0.18	0.08	1.03	1.97	0.03	0.50	0.25	4.10	0.11	0.64	0.60
65	4	5	3.26	0.18	0.08	1.03	1.97	0.03	0.50	0.25	4.10	0.11	0.64	0.60

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 11
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.21	0.18	0.08	1.03	1.97	0.03	0.50	0.25	4.10	0.11	0.64	0.60
67	4	7	3.16	0.18	0.08	1.03	1.97	0.03	0.50	0.25	4.10	0.11	0.64	0.60
68	4	8	3.12	0.18	0.08	1.03	1.97	0.03	0.50	0.24	4.10	0.11	0.64	0.60
69	4	9	3.08	0.18	0.08	1.03	1.97	0.03	0.50	0.24	4.10	0.11	0.64	0.60
70	4	10	3.03	0.18	0.08	1.03	1.97	0.03	0.50	0.24	4.10	0.11	0.64	0.60
71	4	11	2.99	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
72	4	12	2.95	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
73	4	13	2.91	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
74	4	14	2.87	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
75	4	15	2.83	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
76	4	16	2.79	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
77	4	17	2.75	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
78	4	18	2.71	0.18	0.08	1.03	1.98	0.03	0.50	0.24	4.09	0.11	0.65	0.60
79	4	19	2.67	0.18	0.08	1.03	1.98	0.03	0.50	0.23	4.09	0.11	0.65	0.60
80	4	20	2.63	0.18	0.08	1.03	1.98	0.03	0.50	0.23	4.08	0.11	0.65	0.60
81	5	1	2.60	0.18	0.08	1.03	1.98	0.03	0.50	0.23	4.08	0.11	0.65	0.60
82	5	2	2.56	0.18	0.08	1.03	1.98	0.03	0.50	0.23	4.08	0.11	0.65	0.60
83	5	3	2.52	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.65	0.59
84	5	4	2.49	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.65	0.59
85	5	5	2.45	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.65	0.59

86	5	6	2.42	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.66	0.59
87	5	7	2.39	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.66	0.59
88	5	8	2.35	0.18	0.08	1.03	1.99	0.03	0.50	0.23	4.08	0.11	0.66	0.59
89	5	9	2.32	0.18	0.08	1.03	1.99	0.03	0.50	0.22	4.08	0.11	0.66	0.59
90	5	10	2.29	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
91	5	11	2.26	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
92	5	12	2.22	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
93	5	13	2.19	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
94	5	14	2.16	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
95	5	15	2.13	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
96	5	16	2.10	0.18	0.08	1.03	1.99	0.02	0.50	0.22	4.07	0.11	0.66	0.59
97	5	17	2.07	0.18	0.08	1.03	2.00	0.02	0.50	0.22	4.07	0.11	0.66	0.59
98	5	18	2.04	0.18	0.08	1.03	2.00	0.02	0.50	0.21	4.07	0.11	0.66	0.59
99	5	19	2.02	0.18	0.08	1.03	2.00	0.02	0.50	0.21	4.07	0.11	0.66	0.59
100	5	20	1.99	0.18	0.08	1.03	2.00	0.02	0.50	0.21	4.07	0.11	0.66	0.59
101	6	1	1.96	0.18	0.08	1.03	2.01	0.02	0.50	0.21	4.07	0.11	0.66	0.59
102	6	2	1.93	0.18	0.08	1.03	2.02	0.02	0.50	0.21	4.06	0.11	0.66	0.59
103	6	3	1.91	0.18	0.08	1.03	2.03	0.02	0.50	0.21	4.06	0.11	0.66	0.59
104	6	4	1.88	0.19	0.08	1.03	2.03	0.02	0.50	0.21	4.06	0.11	0.66	0.60
105	6	5	1.85	0.19	0.08	1.03	2.04	0.02	0.50	0.21	4.06	0.11	0.67	0.60
106	6	6	1.83	0.19	0.08	1.03	2.05	0.02	0.50	0.21	4.06	0.11	0.67	0.60
107	6	7	1.80	0.19	0.08	1.03	2.06	0.02	0.50	0.20	4.06	0.11	0.67	0.60
108	6	8	1.78	0.19	0.08	1.03	2.07	0.02	0.50	0.20	4.06	0.11	0.67	0.60
109	6	9	1.76	0.19	0.08	1.03	2.07	0.02	0.50	0.20	4.06	0.11	0.67	0.61
110	6	10	1.73	0.19	0.08	1.03	2.08	0.02	0.50	0.20	4.06	0.11	0.67	0.61
111	6	11	1.71	0.19	0.08	1.03	2.09	0.02	0.50	0.20	4.06	0.11	0.67	0.61
112	6	12	1.69	0.19	0.08	1.03	2.10	0.02	0.50	0.20	4.06	0.11	0.67	0.61
113	6	13	1.66	0.19	0.08	1.03	2.11	0.02	0.50	0.20	4.06	0.11	0.67	0.61
114	6	14	1.64	0.19	0.08	1.03	2.11	0.02	0.50	0.20	4.06	0.11	0.67	0.61
115	6	15	1.62	0.19	0.08	1.03	2.12	0.02	0.50	0.19	4.06	0.11	0.67	0.62
116	6	16	1.60	0.19	0.08	1.03	2.13	0.02	0.50	0.19	4.05	0.11	0.67	0.62
117	6	17	1.58	0.19	0.08	1.03	2.13	0.02	0.50	0.19	4.05	0.11	0.67	0.62
118	6	18	1.56	0.20	0.08	1.03	2.14	0.02	0.50	0.19	4.05	0.11	0.67	0.62
119	6	19	1.54	0.20	0.08	1.03	2.15	0.02	0.50	0.19	4.05	0.11	0.67	0.62
120	6	20	1.52	0.20	0.08	1.03	2.16	0.02	0.50	0.19	4.05	0.11	0.67	0.62
121	7	1	1.50	0.20	0.08	1.03	2.16	0.02	0.50	0.19	4.05	0.11	0.67	0.63
122	7	2	1.48	0.20	0.08	1.03	2.17	0.02	0.50	0.19	4.05	0.11	0.67	0.63
123	7	3	1.46	0.20	0.08	1.03	2.18	0.02	0.50	0.18	4.05	0.11	0.67	0.63
124	7	4	1.44	0.20	0.08	1.03	2.18	0.02	0.50	0.18	4.05	0.11	0.67	0.63
125	7	5	1.42	0.20	0.08	1.03	2.19	0.02	0.50	0.18	4.05	0.11	0.67	0.63
126	7	6	1.40	0.20	0.08	1.03	2.20	0.02	0.50	0.18	4.05	0.11	0.67	0.63
127	7	7	1.38	0.20	0.08	1.03	2.20	0.02	0.50	0.18	4.05	0.11	0.67	0.63
128	7	8	1.37	0.20	0.08	1.03	2.21	0.02	0.50	0.18	4.05	0.11	0.68	0.64
129	7	9	1.35	0.20	0.08	1.03	2.21	0.02	0.50	0.18	4.05	0.11	0.68	0.64
130	7	10	1.33	0.20	0.08	1.03	2.22	0.02	0.50	0.18	4.05	0.11	0.68	0.64

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.32	0.20	0.08	1.03	2.23	0.02	0.50	0.18	4.05	0.11	0.68	0.64
132	7	12	1.30	0.20	0.08	1.03	2.23	0.02	0.50	0.17	4.05	0.11	0.68	0.64
133	7	13	1.37	0.20	0.08	1.03	2.21	0.02	0.50	0.17	4.05	0.11	0.68	0.65
134	7	14	1.35	0.20	0.08	1.03	2.22	0.02	0.50	0.17	4.05	0.11	0.68	0.65
135	7	15	1.34	0.20	0.08	1.03	2.22	0.02	0.50	0.17	4.05	0.11	0.68	0.65
136	7	16	1.32	0.20	0.08	1.03	2.23	0.02	0.50	0.17	4.05	0.11	0.68	0.65
137	7	17	1.31	0.20	0.08	1.03	2.24	0.02	0.50	0.17	4.05	0.11	0.68	0.65
138	7	18	1.29	0.20	0.08	1.03	2.24	0.02	0.50	0.17	4.05	0.11	0.68	0.65
139	7	19	1.27	0.20	0.08	1.03	2.25	0.02	0.50	0.17	4.04	0.11	0.68	0.65
140	7	20	1.26	0.21	0.08	1.03	2.25	0.02	0.50	0.16	4.04	0.11	0.68	0.65
141	8	1	1.24	0.21	0.08	1.03	2.27	0.02	0.50	0.16	4.04	0.11	0.68	0.66
142	8	2	1.23	0.21	0.08	1.03	2.27	0.02	0.50	0.16	4.04	0.11	0.68	0.66
143	8	3	1.21	0.21	0.08	1.03	2.28	0.02	0.50	0.16	4.04	0.11	0.68	0.66
144	8	4	1.20	0.21	0.08	1.03	2.28	0.02	0.50	0.16	4.04	0.11	0.68	0.66
145	8	5	1.18	0.21	0.08	1.03	2.29	0.02	0.50	0.16	4.04	0.11	0.68	0.66
146	8	6	1.17	0.21	0.08	1.03	2.29	0.02	0.50	0.16	4.04	0.11	0.68	0.66
147	8	7	1.16	0.21	0.08	1.03	2.30	0.02	0.50	0.16	4.04	0.11	0.68	0.66
148	8	8	1.14	0.21	0.08	1.03	2.30	0.02	0.50	0.16	4.04	0.11	0.68	0.67

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	87.40	7.46	3.47	3.99	0.00	1.00	54.07	2.58	-0.35	-0.03	0.06	-0.03	-0.08
2	1	2	87.40	7.46	3.54	3.92	0.00	1.00	0.00	2.53	-0.35	-0.03	0.07	-0.04	-0.07
3	1	3	87.40	7.46	3.60	3.85	0.00	1.00	0.00	2.49	-0.35	-0.03	0.07	-0.04	-0.07
4	1	4	87.40	7.46	3.67	3.79	0.00	1.00	0.00	2.45	-0.34	-0.03	0.07	-0.04	-0.06
5	1	5	87.40	7.46	3.73	3.73	0.00	1.00	0.00	2.41	-0.34	-0.03	0.07	-0.04	-0.06

6	1	6	87.40	7.46	3.79	3.67	0.00	1.00	0.00	2.37	-0.34	-0.03	0.07	-0.04	-0.05
7	1	7	87.40	7.46	3.84	3.61	0.00	1.00	0.00	2.33	-0.34	-0.03	0.07	-0.04	-0.05
8	1	8	87.40	7.46	3.90	3.56	0.00	1.00	0.00	2.30	-0.34	-0.03	0.07	-0.04	-0.05
9	1	9	87.40	7.46	3.95	3.51	0.00	1.00	0.00	2.26	-0.34	-0.03	0.07	-0.04	-0.04
10	1	10	87.40	7.46	4.00	3.45	0.00	1.00	0.00	2.23	-0.33	-0.03	0.07	-0.05	-0.04
11	1	11	87.40	7.46	4.05	3.41	0.00	1.00	0.00	2.20	-0.33	-0.03	0.06	-0.05	-0.04
12	1	12	87.40	7.46	4.10	3.36	0.00	1.00	0.00	2.17	-0.33	-0.03	0.06	-0.05	-0.04
13	1	13	87.40	7.46	4.15	3.31	0.00	1.00	0.00	2.14	-0.33	-0.03	0.06	-0.05	-0.03
14	1	14	87.40	7.46	4.19	3.27	0.00	1.00	0.00	2.11	-0.33	-0.03	0.06	-0.05	-0.03
15	1	15	87.40	7.46	4.23	3.23	0.00	1.00	0.00	2.08	-0.33	-0.03	0.06	-0.05	-0.03
16	1	16	87.40	7.46	4.27	3.18	0.00	1.00	0.00	2.06	-0.32	-0.03	0.06	-0.05	-0.03
17	1	17	87.40	7.46	4.31	3.14	0.00	1.00	0.00	2.03	-0.32	-0.03	0.06	-0.05	-0.03
18	1	18	87.40	7.46	4.35	3.11	0.00	1.00	0.00	2.01	-0.32	-0.03	0.06	-0.05	-0.03
19	1	19	87.40	7.46	4.39	3.07	0.00	1.00	0.00	1.98	-0.32	-0.03	0.06	-0.05	-0.03
20	1	20	87.40	7.46	4.42	3.04	0.00	1.00	0.00	1.96	-0.32	-0.03	0.06	-0.06	-0.03
21	2	1	87.40	7.46	4.46	3.00	0.00	1.00	0.00	1.94	-0.32	-0.03	0.06	-0.06	-0.03
22	2	2	87.40	7.46	4.49	2.97	0.00	1.00	0.00	1.92	-0.31	-0.03	0.06	-0.06	-0.02
23	2	3	87.40	7.46	4.52	2.94	0.00	1.00	0.00	1.90	-0.31	-0.03	0.06	-0.06	-0.02
24	2	4	87.40	7.46	4.55	2.91	0.00	1.00	0.00	1.88	-0.31	-0.03	0.06	-0.06	-0.02
25	2	5	87.40	7.46	4.58	2.88	0.00	1.00	0.00	1.86	-0.31	-0.03	0.06	-0.06	-0.02
26	2	6	87.40	7.46	4.61	2.85	0.00	1.00	0.00	1.84	-0.31	-0.03	0.06	-0.06	-0.02
27	2	7	87.40	7.46	4.63	2.82	0.00	1.00	0.00	1.82	-0.31	-0.03	0.06	-0.06	-0.02
28	2	8	87.40	7.46	4.66	2.80	0.00	1.00	0.00	1.81	-0.30	-0.03	0.05	-0.06	-0.02
29	2	9	87.40	7.46	4.69	2.77	0.00	1.00	0.00	1.79	-0.30	-0.03	0.05	-0.06	-0.02
30	2	10	87.40	7.46	4.71	2.75	0.00	1.00	0.00	1.77	-0.30	-0.03	0.05	-0.06	-0.02
31	2	11	87.40	7.46	4.73	2.73	0.00	1.00	0.00	1.76	-0.30	-0.03	0.05	-0.06	-0.02
32	2	12	87.40	7.46	4.75	2.70	0.00	1.00	0.00	1.75	-0.30	-0.03	0.05	-0.06	-0.02
33	2	13	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.30	-0.03	0.05	-0.06	-0.02
34	2	14	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.30	-0.03	0.05	-0.06	-0.02
35	2	15	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.71	-0.29	-0.03	0.05	-0.06	-0.02
36	2	16	87.40	7.46	4.84	2.62	0.00	1.00	0.00	1.69	-0.29	-0.03	0.05	-0.07	-0.02
37	2	17	87.40	7.46	4.85	2.60	0.00	1.00	0.00	1.68	-0.29	-0.03	0.05	-0.07	-0.02
38	2	18	87.40	7.46	4.87	2.59	0.00	1.00	0.00	1.67	-0.29	-0.03	0.05	-0.07	-0.02
39	2	19	87.40	7.46	4.89	2.57	0.00	1.00	0.00	1.66	-0.29	-0.03	0.05	-0.07	-0.02
40	2	20	87.40	7.46	4.90	2.55	0.00	1.00	0.00	1.65	-0.29	-0.03	0.05	-0.07	-0.02
41	3	1	87.40	7.46	4.92	2.54	0.00	1.00	0.00	1.64	-0.29	-0.03	0.05	-0.07	-0.02
42	3	2	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.63	-0.28	-0.03	0.05	-0.07	-0.02
43	3	3	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.28	-0.03	0.05	-0.07	-0.02
44	3	4	87.40	7.46	4.96	2.49	0.00	1.00	0.00	1.61	-0.28	-0.03	0.05	-0.07	-0.02
45	3	5	87.40	7.46	4.98	2.48	0.00	1.00	0.00	1.60	-0.28	-0.03	0.04	-0.07	-0.02
46	3	6	87.40	7.46	4.99	2.47	0.00	1.00	0.00	1.59	-0.28	-0.03	0.04	-0.07	-0.02
47	3	7	87.40	7.46	5.00	2.45	0.00	1.00	0.00	1.59	-0.28	-0.03	0.04	-0.07	-0.02
48	3	8	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.58	-0.27	-0.03	0.04	-0.07	-0.02
49	3	9	87.40	7.46	5.03	2.43	0.00	1.00	0.00	1.57	-0.27	-0.03	0.04	-0.07	-0.02
50	3	10	87.40	7.46	5.04	2.42	0.00	1.00	0.00	1.56	-0.27	-0.03	0.04	-0.07	-0.02
51	3	11	87.40	7.46	5.05	2.41	0.00	1.00	0.00	1.56	-0.27	-0.03	0.04	-0.07	-0.02

52	3	12	87.40	7.46	5.06	2.40	0.00	1.00	0.00	1.55	-0.27	-0.03	0.04	-0.07	-0.02
53	3	13	87.40	7.46	5.07	2.39	0.00	1.00	0.00	1.54	-0.27	-0.03	0.04	-0.07	-0.02
54	3	14	87.40	7.46	5.08	2.38	0.00	1.00	0.00	1.54	-0.27	-0.03	0.04	-0.07	-0.02
55	3	15	87.40	7.46	5.09	2.37	0.00	1.00	0.00	1.53	-0.27	-0.03	0.04	-0.07	-0.02
56	3	16	87.40	7.46	5.10	2.36	0.00	1.00	0.00	1.52	-0.26	-0.03	0.04	-0.07	-0.02
57	3	17	87.40	7.46	5.11	2.35	0.00	1.00	0.00	1.52	-0.26	-0.03	0.04	-0.07	-0.02
58	3	18	87.40	7.46	5.12	2.34	0.00	1.00	0.00	1.51	-0.26	-0.03	0.04	-0.07	-0.02
59	3	19	87.40	7.46	5.12	2.34	0.00	1.00	0.00	1.51	-0.26	-0.03	0.04	-0.07	-0.02
60	3	20	87.40	7.46	5.13	2.33	0.00	1.00	0.00	1.50	-0.26	-0.03	0.04	-0.07	-0.02
61	4	1	87.40	7.46	5.11	2.34	0.00	1.00	0.00	1.51	-0.26	-0.04	0.04	-0.07	-0.02
62	4	2	87.40	7.46	5.10	2.36	0.00	1.00	0.00	1.53	-0.26	-0.04	0.04	-0.07	-0.02
63	4	3	87.40	7.46	5.08	2.38	0.00	1.00	0.00	1.54	-0.25	-0.04	0.04	-0.07	-0.02
64	4	4	87.40	7.46	5.07	2.39	0.00	1.00	0.01	1.55	-0.25	-0.04	0.03	-0.07	-0.02
65	4	5	87.40	7.46	5.05	2.41	0.00	1.00	0.00	1.55	-0.25	-0.04	0.03	-0.07	-0.02

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	87.40	7.46	5.04	2.42	0.00	1.00	0.00	1.56	-0.25	-0.04	0.03	-0.07	-0.02
67	4	7	87.40	7.46	5.02	2.44	0.00	1.00	0.00	1.57	-0.25	-0.04	0.03	-0.07	-0.02
68	4	8	87.40	7.46	5.01	2.45	0.00	1.00	0.00	1.58	-0.25	-0.04	0.03	-0.07	-0.02
69	4	9	87.40	7.46	5.00	2.46	0.00	1.00	0.00	1.59	-0.25	-0.04	0.03	-0.07	-0.02
70	4	10	87.40	7.46	4.99	2.47	0.00	1.00	0.00	1.60	-0.25	-0.04	0.03	-0.07	-0.02
71	4	11	87.40	7.46	4.97	2.48	0.00	1.00	0.00	1.60	-0.24	-0.04	0.03	-0.07	-0.02
72	4	12	87.40	7.46	4.96	2.49	0.00	1.00	0.00	1.61	-0.24	-0.04	0.03	-0.07	-0.02
73	4	13	87.40	7.46	4.95	2.51	0.00	1.00	0.00	1.62	-0.24	-0.04	0.03	-0.07	-0.02
74	4	14	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.62	-0.24	-0.04	0.03	-0.07	-0.02
75	4	15	87.40	7.46	4.93	2.52	0.00	1.00	0.00	1.63	-0.24	-0.04	0.03	-0.07	-0.02
76	4	16	87.40	7.46	4.92	2.53	0.00	1.00	0.00	1.64	-0.24	-0.04	0.03	-0.07	-0.02
77	4	17	87.40	7.46	4.92	2.54	0.00	1.00	0.00	1.64	-0.24	-0.04	0.03	-0.07	-0.02
78	4	18	87.40	7.46	4.91	2.55	0.00	1.00	0.00	1.65	-0.24	-0.04	0.03	-0.07	-0.02
79	4	19	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.23	-0.04	0.03	-0.07	-0.02
80	4	20	87.40	7.46	4.89	2.57	0.00	1.00	0.00	1.66	-0.23	-0.04	0.03	-0.07	-0.02
81	5	1	87.40	7.46	4.89	2.57	0.00	1.00	0.00	1.66	-0.23	-0.04	0.03	-0.07	-0.02
82	5	2	87.40	7.46	4.88	2.58	0.00	1.00	0.00	1.67	-0.23	-0.04	0.03	-0.07	-0.02
83	5	3	87.40	7.46	4.87	2.59	0.00	1.00	0.00	1.67	-0.23	-0.04	0.03	-0.07	-0.02
84	5	4	87.40	7.46	4.87	2.59	0.00	1.00	0.00	1.67	-0.23	-0.04	0.03	-0.07	-0.02
85	5	5	87.40	7.46	4.86	2.60	0.00	1.00	0.00	1.68	-0.23	-0.04	0.03	-0.07	-0.02

86	5	6	87.40	7.46	4.85	2.60	0.00	1.00	0.00	1.68	-0.23	-0.04	0.03	-0.07	-0.02
87	5	7	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.68	-0.22	-0.04	0.03	-0.07	-0.02
88	5	8	87.40	7.46	4.84	2.61	0.00	1.00	0.00	1.69	-0.22	-0.04	0.03	-0.07	-0.02
89	5	9	87.40	7.46	4.84	2.62	0.00	1.00	0.00	1.69	-0.22	-0.04	0.03	-0.07	-0.02
90	5	10	87.40	7.46	4.83	2.62	0.00	1.00	0.00	1.69	-0.22	-0.04	0.02	-0.07	-0.02
91	5	11	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.22	-0.04	0.02	-0.07	-0.02
92	5	12	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.22	-0.04	0.02	-0.07	-0.02
93	5	13	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.70	-0.22	-0.04	0.02	-0.07	-0.02
94	5	14	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.70	-0.22	-0.04	0.02	-0.07	-0.02
95	5	15	87.40	7.46	4.82	2.64	0.00	1.00	0.00	1.71	-0.22	-0.04	0.02	-0.07	-0.02
96	5	16	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.21	-0.04	0.02	-0.07	-0.02
97	5	17	87.40	7.46	4.81	2.65	0.00	1.00	0.01	1.71	-0.21	-0.04	0.02	-0.07	-0.02
98	5	18	87.40	7.46	4.81	2.65	0.00	1.00	0.00	1.71	-0.21	-0.04	0.02	-0.07	-0.02
99	5	19	87.40	7.46	4.80	2.65	0.00	1.00	0.00	1.71	-0.21	-0.04	0.02	-0.07	-0.02
100	5	20	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
101	6	1	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
102	6	2	87.40	7.46	4.80	2.66	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
103	6	3	87.40	7.46	4.79	2.66	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
104	6	4	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
105	6	5	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.21	-0.04	0.02	-0.07	-0.02
106	6	6	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.20	-0.04	0.02	-0.07	-0.02
107	6	7	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.72	-0.20	-0.04	0.02	-0.07	-0.02
108	6	8	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.07	-0.02
109	6	9	87.40	7.46	4.79	2.67	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.07	-0.02
110	6	10	87.40	7.46	4.78	2.67	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.07	-0.02
111	6	11	87.40	7.46	4.78	2.67	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.07	-0.02
112	6	12	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.06	-0.02
113	6	13	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.06	-0.02
114	6	14	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.20	-0.04	0.02	-0.06	-0.02
115	6	15	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
116	6	16	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
117	6	17	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
118	6	18	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
119	6	19	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
120	6	20	87.40	7.46	4.78	2.68	0.00	1.00	0.00	1.73	-0.19	-0.04	0.02	-0.06	-0.02
121	7	1	87.40	7.46	4.80	2.65	0.00	1.00	0.00	1.71	-0.19	-0.03	0.02	-0.06	-0.02
122	7	2	87.40	7.46	4.83	2.63	0.00	1.00	0.00	1.70	-0.19	-0.03	0.02	-0.06	-0.02
123	7	3	87.40	7.46	4.85	2.61	0.00	1.00	0.00	1.68	-0.19	-0.03	0.02	-0.06	-0.02
124	7	4	87.40	7.46	4.87	2.58	0.00	1.00	0.00	1.67	-0.19	-0.03	0.02	-0.06	-0.02
125	7	5	87.40	7.46	4.90	2.56	0.00	1.00	0.00	1.65	-0.18	-0.03	0.02	-0.06	-0.02
126	7	6	87.40	7.46	4.92	2.54	0.00	1.00	0.00	1.64	-0.18	-0.03	0.02	-0.06	-0.02
127	7	7	87.40	7.46	4.94	2.52	0.00	1.00	0.00	1.63	-0.18	-0.03	0.02	-0.06	-0.02
128	7	8	87.40	7.46	4.96	2.50	0.00	1.00	0.00	1.62	-0.18	-0.03	0.02	-0.06	-0.02
129	7	9	87.40	7.46	4.98	2.48	0.00	1.00	0.00	1.60	-0.18	-0.03	0.02	-0.06	-0.02
130	7	10	87.40	7.46	4.99	2.46	0.00	1.00	0.00	1.59	-0.18	-0.03	0.02	-0.06	-0.02

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	87.40	7.46	5.01	2.45	0.00	1.00	0.00	1.58	-0.18	-0.03	0.02	-0.06	-0.02
132	7	12	87.40	7.46	5.03	2.43	0.00	1.00	0.00	1.57	-0.18	-0.03	0.02	-0.06	-0.02
133	7	13	87.40	7.46	5.05	2.41	0.00	1.00	1.08	1.56	-0.18	-0.03	0.02	-0.06	-0.02
134	7	14	87.40	7.46	5.07	2.39	0.00	1.00	0.00	1.54	-0.18	-0.03	0.02	-0.06	-0.02
135	7	15	87.40	7.46	5.08	2.38	0.00	1.00	0.00	1.53	-0.18	-0.03	0.02	-0.06	-0.02
136	7	16	87.40	7.46	5.10	2.36	0.00	1.00	0.00	1.52	-0.18	-0.03	0.02	-0.06	-0.02
137	7	17	87.40	7.46	5.11	2.35	0.00	1.00	0.00	1.51	-0.17	-0.03	0.02	-0.06	-0.02
138	7	18	87.40	7.46	5.13	2.33	0.00	1.00	0.00	1.51	-0.17	-0.03	0.02	-0.06	-0.02
139	7	19	87.40	7.46	5.14	2.32	0.00	1.00	0.00	1.50	-0.17	-0.03	0.02	-0.06	-0.02
140	7	20	87.40	7.46	5.15	2.30	0.00	1.00	0.00	1.49	-0.17	-0.03	0.02	-0.06	-0.02
141	8	1	87.40	7.46	5.17	2.29	0.00	1.00	0.00	1.48	-0.17	-0.03	0.02	-0.06	-0.02
142	8	2	87.40	7.46	5.18	2.28	0.00	1.00	0.00	1.47	-0.17	-0.03	0.02	-0.06	-0.02
143	8	3	87.40	7.46	5.19	2.27	0.00	1.00	0.00	1.46	-0.17	-0.03	0.02	-0.06	-0.02
144	8	4	87.40	7.46	5.20	2.25	0.00	1.00	0.00	1.46	-0.17	-0.03	0.02	-0.06	-0.02
145	8	5	87.40	7.46	5.22	2.24	0.00	1.00	0.00	1.45	-0.17	-0.03	0.02	-0.06	-0.02
146	8	6	87.40	7.46	5.23	2.23	0.00	1.00	0.00	1.44	-0.17	-0.03	0.02	-0.06	-0.02
147	8	7	87.40	7.46	5.24	2.22	0.00	1.00	0.00	1.43	-0.17	-0.03	0.02	-0.06	-0.02
148	8	8	87.40	7.46	5.25	2.21	0.00	1.00	0.00	1.43	-0.17	-0.03	0.02	-0.05	-0.02

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0             REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0             REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0             REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0             REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0             REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0             REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0             REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  2.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  3.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  4.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  5.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  6.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  7.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  8.0   81.3   5.40   5.60 1.77
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  2.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  3.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  4.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  5.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  6.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  7.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  8.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   5.6 1.77
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  2.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  3.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  4.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  5.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  6.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  7.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
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INCR INFLOW-2  RCH=  8.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    46364  81.3  5.40  5.60 1.77
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.33 0.045 0.025 0.098 0.023 0.014
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   69.63  86.9  3.50 218.3 18.75
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.77
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.77
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 YES CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	2.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	3.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	4.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	5.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	6.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	7.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	8.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	2.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	3.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	4.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	5.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	6.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	7.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	8.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER  46364.00     81.30      5.40      5.60      1.77      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                             COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.33     0.05     0.03     0.10     0.02     0.01
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW     TEMP     D.O.      BOD     CM-1     CM-2     CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00    69.63    86.90     3.50   218.30    18.75     0.00     0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     1.77     0.00     0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     1.77     0.00     0.00
          ENDATA11       0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                             COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                              DAM   RCH   ELE    ADAM    BDAM    FDAM    HDAM

          ENDATA12              0.    0.    0.    0.00    0.00    0.00    0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
```

CARD TYPE TEMP D.O. BOD CM-1 CM-2 CM-3 ANC COLI

ENDATA13 DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

0 $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

CARD TYPE CHL-A ORG-N NH3-N NO2-N NH3-N ORG-P DIS-P

ENDATA13A DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

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0 CONSERVATIVE MINERAL I ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
4	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
5	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
6	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
7	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
8	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.75
2	5.02	4.98	4.94	4.90	4.86	4.82	4.78	4.74	4.70	4.66	4.62	4.58	4.54	4.51	4.47	4.43	4.40	4.36	4.32	4.29
3	4.25	4.22	4.18	4.15	4.11	4.08	4.05	4.01	3.98	3.95	3.91	3.88	3.85	3.82	3.79	3.75	3.72	3.69	3.66	3.63
4	3.60	3.57	3.54	3.51	3.48	3.46	3.43	3.40	3.37	3.34	3.31	3.29	3.26	3.23	3.21	3.18	3.15	3.13	3.10	3.08
5	3.05	3.03	3.00	2.98	2.95	2.93	2.90	2.88	2.85	2.83	2.81	2.78	2.76	2.74	2.72	2.69	2.67	2.65	2.63	2.60
6	2.58	2.56	2.54	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.26	2.24	2.22	2.21
7	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.89	1.87
8	1.86	1.84	1.83	1.81	1.80	1.78	1.77	1.75												

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STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:

VARIABLE	ITERATION	NUMBER OF NONCONVERGENT ELEMENTS

0 ALGAE AS CHL-A IN UG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.04	7.93	7.81	7.70	7.59	7.48	7.37	7.26	7.16	7.06	6.95	6.85	6.75	6.66	6.56	6.47	6.37	6.28
2	6.18	6.09	6.00	5.92	5.83	5.75	5.67	5.58	5.50	5.42	5.35	5.27	5.19	5.12	5.04	4.97	4.90	4.83	4.76	4.69
3	4.62	4.56	4.49	4.43	4.36	4.30	4.24	4.18	4.12	4.06	4.00	3.94	3.88	3.83	3.77	3.72	3.66	3.61	3.56	3.51
4	3.46	3.41	3.36	3.31	3.26	3.21	3.17	3.12	3.08	3.03	2.99	2.95	2.90	2.86	2.82	2.78	2.74	2.70	2.66	2.62
5	2.58	2.55	2.51	2.47	2.44	2.40	2.37	2.33	2.30	2.27	2.23	2.20	2.17	2.14	2.11	2.08	2.05	2.02	1.99	1.96
6	1.93	1.90	1.88	1.85	1.82	1.80	1.77	1.74	1.72	1.69	1.67	1.65	1.62	1.60	1.58	1.55	1.53	1.51	1.49	1.47
7	1.44	1.42	1.40	1.38	1.36	1.34	1.32	1.30	1.29	1.27	1.25	1.23	1.25	1.23	1.21	1.19	1.18	1.16	1.14	1.13

8 1.11 1.09 1.08 1.06 1.05 1.03 1.02 1.00

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13
4	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13
3	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06
8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01													

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19
3	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24
4	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.30
5	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34
6	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38
7	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41	0.41	0.41	0.41
8	0.41	0.41	0.42	0.42	0.42	0.42	0.42	0.42												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.52	5.54	5.56	5.57	5.59	5.60	5.62	5.63	5.65	5.66	5.67	5.69	5.70	5.71
2	5.72	5.73	5.74	5.74	5.75	5.76	5.77	5.78	5.79	5.80	5.80	5.81	5.82	5.83	5.84	5.85	5.85	5.86	5.87	5.88
3	5.89	5.89	5.90	5.91	5.92	5.93	5.93	5.94	5.95	5.96	5.97	5.97	5.98	5.99	6.00	6.01	6.01	6.02	6.03	6.04
4	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.03	6.04	6.04	6.04	6.04	6.04	6.05	6.05	6.05
5	6.06	6.06	6.06	6.07	6.07	6.08	6.08	6.08	6.09	6.09	6.10	6.10	6.11	6.11	6.12	6.12	6.13	6.13	6.14	6.14
6	6.15	6.15	6.16	6.17	6.17	6.18	6.18	6.19	6.19	6.20	6.21	6.21	6.22	6.22	6.23	6.23	6.24	6.25	6.25	6.26
7	6.27	6.29	6.30	6.32	6.33	6.35	6.36	6.37	6.39	6.40	6.41	6.42	6.43	6.44	6.45	6.47	6.48	6.49	6.50	6.51
8	6.52	6.53	6.54	6.55	6.56	6.57	6.58	6.58												

ALGAE GROWTH RATE 1 124
ALGAE GROWTH RATE 2 0
ALGAE GROWTH RATE 3 0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1
0 DISSOLVED OXYGEN IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.53	5.54	5.56	5.58	5.59	5.61	5.62	5.64	5.65	5.66	5.68	5.69	5.70	5.72
2	5.72	5.73	5.74	5.75	5.76	5.77	5.78	5.79	5.80	5.81	5.82	5.82	5.83	5.84	5.85	5.86	5.87	5.87	5.88	5.89
3	5.90	5.91	5.92	5.92	5.93	5.94	5.95	5.96	5.96	5.97	5.98	5.99	5.99	6.00	6.01	6.02	6.03	6.03	6.04	6.05
4	6.05	6.05	6.04	6.04	6.04	6.04	6.04	6.04	6.04	6.04	6.05	6.05	6.05	6.05	6.05	6.05	6.06	6.06	6.06	6.07
5	6.07	6.07	6.08	6.08	6.08	6.09	6.09	6.10	6.10	6.10	6.11	6.11	6.12	6.12	6.13	6.13	6.14	6.14	6.15	6.15
6	6.16	6.16	6.17	6.18	6.18	6.19	6.19	6.20	6.20	6.21	6.21	6.22	6.23	6.23	6.24	6.24	6.25	6.25	6.26	6.27
7	6.28	6.30	6.31	6.33	6.34	6.36	6.37	6.38	6.39	6.41	6.42	6.43	6.44	6.45	6.46	6.47	6.48	6.49	6.51	6.52
8	6.53	6.54	6.55	6.55	6.56	6.57	6.58	6.59												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.75
2	5.02	4.98	4.94	4.90	4.86	4.82	4.78	4.74	4.70	4.66	4.62	4.58	4.54	4.51	4.47	4.43	4.40	4.36	4.32	4.29
3	4.25	4.22	4.18	4.15	4.11	4.08	4.05	4.01	3.98	3.95	3.91	3.88	3.85	3.82	3.79	3.75	3.72	3.69	3.66	3.63
4	3.60	3.57	3.54	3.51	3.48	3.46	3.43	3.40	3.37	3.34	3.31	3.29	3.26	3.23	3.21	3.18	3.15	3.13	3.10	3.08
5	3.05	3.03	3.00	2.98	2.95	2.93	2.90	2.88	2.85	2.83	2.81	2.78	2.76	2.74	2.72	2.69	2.67	2.65	2.63	2.60
6	2.58	2.56	2.54	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.26	2.24	2.22	2.21
7	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.06	2.05	2.03	2.01	2.00	1.98	1.97	1.95	1.93	1.92	1.90	1.89	1.87
8	1.86	1.84	1.83	1.81	1.80	1.78	1.77	1.75												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13
4	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
3	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06

8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	

0 NITRITE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19
3	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.24
4	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29
5	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.34	0.34
6	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.38
7	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41	0.41
8	0.41	0.41	0.41	0.41	0.42	0.42	0.42	0.42												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.05	7.93	7.82	7.71	7.60	7.50	7.39	7.29	7.19	7.09	6.99	6.89	6.80	6.71	6.61	6.52	6.43	6.35
2	6.25	6.17	6.09	6.01	5.92	5.85	5.77	5.69	5.61	5.54	5.47	5.39	5.32	5.25	5.18	5.11	5.05	4.98	4.91	4.85

3	4.79	4.72	4.66	4.60	4.54	4.48	4.42	4.36	4.31	4.25	4.20	4.14	4.09	4.03	3.98	3.93	3.88	3.83	3.78	3.73
4	3.68	3.63	3.59	3.54	3.50	3.45	3.41	3.36	3.32	3.28	3.23	3.19	3.15	3.11	3.07	3.03	2.99	2.95	2.92	2.88
5	2.84	2.81	2.77	2.73	2.70	2.66	2.63	2.60	2.56	2.53	2.50	2.47	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.23
6	2.20	2.17	2.14	2.12	2.09	2.06	2.04	2.01	1.99	1.96	1.94	1.91	1.89	1.87	1.84	1.82	1.80	1.78	1.75	1.73
7	1.71	1.69	1.67	1.65	1.63	1.61	1.59	1.57	1.55	1.54	1.52	1.50	1.51	1.50	1.48	1.46	1.44	1.43	1.41	1.39
8	1.38	1.36	1.34	1.33	1.31	1.30	1.28	1.27												

0 CONSERVATIVE MINERAL I ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
4	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
5	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
6	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
7	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
8	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
5	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
6	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
7	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
8	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.41
2	0.42	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46
3	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
4	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50
5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51	0.51
6	0.51	0.52	0.52	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.55	0.55	0.55	0.56	0.56	0.56	0.57	0.57	0.57	0.57
7	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.62
8	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC	END LOC	POINT FLOW	INCR SRCE	INCR FLOW	TRVL VEL	TRVL TIME	DEPTH	WIDTH	VOLUME	BOTTOM AREA	X-SECT AREA	DSPRSN COEF

75' Flood Scenario - Monthly Average - Output

			MILE	MILE	CFS	CFS	CFS	FPS	DAY	FT	FT	FT-3	FT-2	FT-2	FT-2/S
1	1	1	227.00	226.7546364.10	0.00	0.10	0.129	0.119	12.33429218.080	475711104.0	38600428.0	360387.19	5.30		
2	1	2	226.75	226.5046364.20	0.00	0.10	0.129	0.119	12.33429218.098	475712800.0	38600452.0	360388.50	5.30		
3	1	3	226.50	226.2546364.30	0.00	0.10	0.129	0.119	12.33429218.115	475714528.0	38600476.0	360389.78	5.30		
4	1	4	226.25	226.0046364.41	0.00	0.10	0.129	0.119	12.33529218.131	475716224.0	38600496.0	360391.06	5.30		
5	1	5	226.00	225.7546364.51	0.00	0.10	0.129	0.119	12.33529218.146	475717920.0	38600516.0	360392.37	5.30		
6	1	6	225.75	225.5046364.61	0.00	0.10	0.129	0.119	12.33529218.164	475719616.0	38600540.0	360393.66	5.30		
7	1	7	225.50	225.2546364.71	0.00	0.10	0.129	0.119	12.33529218.184	475721376.0	38600564.0	360395.00	5.30		
8	1	8	225.25	225.0046364.81	0.00	0.10	0.129	0.119	12.33529218.203	475723072.0	38600592.0	360396.28	5.30		
9	1	9	225.00	224.7546364.91	0.00	0.10	0.129	0.119	12.33529218.219	475724800.0	38600612.0	360397.56	5.30		
10	1	10	224.75	224.5046365.02	0.00	0.10	0.129	0.119	12.33529218.236	475726496.0	38600636.0	360398.84	5.30		
11	1	11	224.50	224.2546365.12	0.00	0.10	0.129	0.119	12.33529218.252	475728192.0	38600656.0	360400.16	5.30		
12	1	12	224.25	224.0046365.22	0.00	0.10	0.129	0.119	12.33529218.270	475729888.0	38600680.0	360401.44	5.30		
13	1	13	224.00	223.7546365.32	0.00	0.10	0.129	0.119	12.33529218.291	475731648.0	38600708.0	360402.78	5.30		
14	1	14	223.75	223.5046365.42	0.00	0.10	0.129	0.119	12.33529218.307	475733344.0	38600728.0	360404.06	5.30		
15	1	15	223.50	223.2546365.52	0.00	0.10	0.129	0.119	12.33529218.324	475735072.0	38600752.0	360405.34	5.30		
16	1	16	223.25	223.0046365.62	0.00	0.10	0.129	0.119	12.33529218.340	475736768.0	38600772.0	360406.66	5.30		
17	1	17	223.00	222.7546365.73	0.00	0.10	0.129	0.119	12.33529218.357	475738464.0	38600796.0	360407.94	5.30		
18	1	18	222.75	222.5046365.83	0.00	0.10	0.129	0.119	12.33529218.373	475740160.0	38600816.0	360409.22	5.30		
19	1	19	222.50	222.2546365.93	0.00	0.10	0.129	0.119	12.33529218.395	475741920.0	38600844.0	360410.56	5.30		
20	1	20	222.25	222.0046366.03	0.00	0.10	0.129	0.119	12.33529218.412	475743648.0	38600868.0	360411.84	5.30		
21	2	1	222.00	221.7546435.76	69.63	0.10	0.129	0.119	12.36129230.400	476919712.0	38616760.0	361302.81	5.30		
22	2	2	221.75	221.5046435.86	0.00	0.10	0.129	0.119	12.36129230.416	476921408.0	38616780.0	361304.09	5.30		
23	2	3	221.50	221.2546435.96	0.00	0.10	0.129	0.119	12.36129230.434	476923136.0	38616804.0	361305.41	5.30		
24	2	4	221.25	221.0046436.07	0.00	0.10	0.129	0.119	12.36129230.451	476924832.0	38616828.0	361306.69	5.30		
25	2	5	221.00	220.7546436.17	0.00	0.10	0.129	0.119	12.36129230.473	476926592.0	38616856.0	361308.03	5.30		
26	2	6	220.75	220.5046436.27	0.00	0.10	0.129	0.119	12.36129230.488	476928288.0	38616876.0	361309.31	5.30		
27	2	7	220.50	220.2546436.37	0.00	0.10	0.129	0.119	12.36129230.506	476930016.0	38616900.0	361310.62	5.30		
28	2	8	220.25	220.0046436.47	0.00	0.10	0.129	0.119	12.36129230.521	476931712.0	38616920.0	361311.91	5.30		
29	2	9	220.00	219.7546436.57	0.00	0.10	0.129	0.119	12.36129230.539	476933408.0	38616944.0	361313.19	5.30		
30	2	10	219.75	219.5046436.68	0.00	0.10	0.129	0.119	12.36129230.557	476935136.0	38616968.0	361314.50	5.30		
31	2	11	219.50	219.2546436.78	0.00	0.10	0.129	0.119	12.36129230.574	476936832.0	38616992.0	361315.78	5.30		
32	2	12	219.25	219.0046436.88	0.00	0.10	0.129	0.119	12.36129230.592	476938528.0	38617016.0	361317.06	5.30		
33	2	13	219.00	218.7546436.98	0.00	0.10	0.129	0.119	12.36129230.611	476940320.0	38617040.0	361318.41	5.30		
34	2	14	218.75	218.5046437.08	0.00	0.10	0.129	0.119	12.36129230.627	476942016.0	38617060.0	361319.72	5.30		
35	2	15	218.50	218.2546437.18	0.00	0.10	0.129	0.119	12.36129230.645	476943712.0	38617084.0	361321.00	5.30		
36	2	16	218.25	218.0046437.29	0.00	0.10	0.129	0.119	12.36129230.664	476945440.0	38617108.0	361322.28	5.30		
37	2	17	218.00	217.7546437.39	0.00	0.10	0.129	0.119	12.36129230.680	476947136.0	38617132.0	361323.59	5.30		
38	2	18	217.75	217.5046437.49	0.00	0.10	0.129	0.119	12.36129230.697	476948832.0	38617152.0	361324.87	5.30		
39	2	19	217.50	217.2546437.59	0.00	0.10	0.129	0.119	12.36129230.713	476950560.0	38617176.0	361326.16	5.30		
40	2	20	217.25	217.0046437.69	0.00	0.10	0.129	0.119	12.36129230.730	476952256.0	38617196.0	361327.47	5.30		
41	3	1	217.00	216.7546437.79	0.00	0.10	0.129	0.119	12.36129230.750	476954016.0	38617224.0	361328.81	3.07		
42	3	2	216.75	216.5046437.89	0.00	0.10	0.129	0.119	12.36129230.770	476955712.0	38617248.0	361330.09	3.07		
43	3	3	216.50	216.2546438.00	0.00	0.10	0.129	0.119	12.36129230.785	476957440.0	38617272.0	361331.37	3.07		
44	3	4	216.25	216.0046438.10	0.00	0.10	0.129	0.119	12.36129230.803	476959136.0	38617292.0	361332.69	3.07		

75' Flood Scenario - Monthly Average - Output

45	3	5	216.00	215.7546438.20	0.00	0.10	0.129	0.119	12.36129230.818	476960832.0	38617316.0	361333.97	3.07
46	3	6	215.75	215.5046438.30	0.00	0.10	0.129	0.119	12.36129230.836	476962560.0	38617336.0	361335.25	3.07
47	3	7	215.50	215.2546438.40	0.00	0.10	0.129	0.119	12.36129230.852	476964256.0	38617360.0	361336.56	3.07
48	3	8	215.25	215.0046438.50	0.00	0.10	0.129	0.119	12.36229230.875	476966016.0	38617388.0	361337.91	3.07
49	3	9	215.00	214.7546438.61	0.00	0.10	0.129	0.119	12.36229230.891	476967712.0	38617412.0	361339.19	3.07
50	3	10	214.75	214.5046438.71	0.00	0.10	0.129	0.119	12.36229230.908	476969440.0	38617432.0	361340.47	3.07
51	3	11	214.50	214.2546438.81	0.00	0.10	0.129	0.119	12.36229230.924	476971136.0	38617456.0	361341.78	3.07
52	3	12	214.25	214.0046438.91	0.00	0.10	0.129	0.119	12.36229230.941	476972832.0	38617476.0	361343.06	3.07
53	3	13	214.00	213.7546439.01	0.00	0.10	0.129	0.119	12.36229230.957	476974560.0	38617500.0	361344.34	3.07
54	3	14	213.75	213.5046439.11	0.00	0.10	0.129	0.119	12.36229230.977	476976256.0	38617524.0	361345.66	3.07
55	3	15	213.50	213.2546439.21	0.00	0.10	0.129	0.119	12.36229230.992	476977952.0	38617544.0	361346.94	3.07
56	3	16	213.25	213.0046439.32	0.00	0.10	0.129	0.119	12.36229231.014	476979712.0	38617572.0	361348.28	3.07
57	3	17	213.00	212.7546439.42	0.00	0.10	0.129	0.119	12.36229231.029	476981440.0	38617592.0	361349.56	3.07
58	3	18	212.75	212.5046439.52	0.00	0.10	0.129	0.119	12.36229231.047	476983136.0	38617616.0	361350.87	3.07
59	3	19	212.50	212.2546439.62	0.00	0.10	0.129	0.119	12.36229231.062	476984832.0	38617636.0	361352.16	3.07
60	3	20	212.25	212.0046439.72	0.00	0.10	0.129	0.119	12.36229231.082	476986560.0	38617664.0	361353.44	3.07
61	4	1	212.00	211.7546439.82	0.00	0.10	0.129	0.119	12.36229231.098	476988256.0	38617684.0	361354.75	2.93
62	4	2	211.75	211.5046439.93	0.00	0.10	0.129	0.119	12.36229231.115	476989952.0	38617708.0	361356.03	2.93
63	4	3	211.50	211.2546440.03	0.00	0.10	0.129	0.119	12.36229231.131	476991680.0	38617728.0	361357.34	2.93
64	4	4	211.25	211.0046441.13	1.00	0.10	0.129	0.119	12.36229231.322	477010304.0	38617984.0	361371.44	2.93
65	4	5	211.00	210.7546441.23	0.00	0.10	0.129	0.119	12.36329231.340	477012000.0	38618004.0	361372.72	2.93

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5046441.33	0.00	0.10	0.129	0.119	12.36329231.357	477013696.0	38618028.0	361374.03	2.93		
67	4	7	210.50	210.2546441.43	0.00	0.10	0.129	0.119	12.36329231.373	477015424.0	38618048.0	361375.31	2.93		
68	4	8	210.25	210.0046441.54	0.00	0.10	0.129	0.119	12.36329231.391	477017120.0	38618072.0	361376.59	2.93		
69	4	9	210.00	209.7546441.64	0.00	0.10	0.129	0.119	12.36329231.412	477018880.0	38618100.0	361377.94	2.93		
70	4	10	209.75	209.5046441.74	0.00	0.10	0.129	0.119	12.36329231.430	477020576.0	38618124.0	361379.22	2.93		
71	4	11	209.50	209.2546441.84	0.00	0.10	0.129	0.119	12.36329231.445	477022304.0	38618144.0	361380.53	2.93		
72	4	12	209.25	209.0046441.94	0.00	0.10	0.129	0.119	12.36329231.463	477024000.0	38618168.0	361381.81	2.93		
73	4	13	209.00	208.7546442.04	0.00	0.10	0.129	0.119	12.36329231.479	477025696.0	38618188.0	361383.12	2.93		
74	4	14	208.75	208.5046442.14	0.00	0.10	0.129	0.119	12.36329231.496	477027424.0	38618212.0	361384.41	2.93		
75	4	15	208.50	208.2546442.25	0.00	0.10	0.129	0.119	12.36329231.514	477029120.0	38618236.0	361385.69	2.93		
76	4	16	208.25	208.0046442.35	0.00	0.10	0.129	0.119	12.36329231.535	477030880.0	38618264.0	361387.03	2.93		
77	4	17	208.00	207.7546442.45	0.00	0.10	0.129	0.119	12.36329231.551	477032576.0	38618284.0	361388.31	2.93		
78	4	18	207.75	207.5046442.65	0.10	0.10	0.129	0.119	12.36329231.584	477035904.0	38618328.0	361390.84	2.93		
79	4	19	207.50	207.2546442.75	0.00	0.10	0.129	0.119	12.36329231.604	477037664.0	38618356.0	361392.19	2.93		
80	4	20	207.25	207.0046442.85	0.00	0.10	0.129	0.119	12.36329231.619	477039392.0	38618376.0	361393.47	2.93		

81	5	1	207.00	206.7546442.95	0.00	0.10	0.129	0.119	12.36329231.637	477041088.0	38618400.0	361394.75	1.40
82	5	2	206.75	206.5046443.05	0.00	0.10	0.129	0.119	12.36329231.652	477042784.0	38618420.0	361396.06	1.40
83	5	3	206.50	206.2546443.16	0.00	0.10	0.129	0.119	12.36329231.672	477044512.0	38618444.0	361397.34	1.40
84	5	4	206.25	206.0046443.26	0.00	0.10	0.129	0.119	12.36329231.689	477046208.0	38618468.0	361398.62	1.40
85	5	5	206.00	205.7546443.36	0.00	0.10	0.129	0.119	12.36329231.705	477047904.0	38618488.0	361399.94	1.40
86	5	6	205.75	205.5046443.46	0.00	0.10	0.129	0.119	12.36329231.723	477049632.0	38618512.0	361401.22	1.40
87	5	7	205.50	205.2546443.56	0.00	0.10	0.129	0.119	12.36329231.742	477051392.0	38618540.0	361402.56	1.40
88	5	8	205.25	205.0046443.66	0.00	0.10	0.129	0.119	12.36329231.758	477053088.0	38618560.0	361403.84	1.40
89	5	9	205.00	204.7546443.77	0.00	0.10	0.129	0.119	12.36329231.775	477054784.0	38618584.0	361405.16	1.40
90	5	10	204.75	204.5046443.87	0.00	0.10	0.129	0.119	12.36329231.795	477056512.0	38618608.0	361406.44	1.40
91	5	11	204.50	204.2546443.97	0.00	0.10	0.129	0.119	12.36429231.811	477058208.0	38618628.0	361407.72	1.40
92	5	12	204.25	204.0046444.07	0.00	0.10	0.129	0.119	12.36429231.828	477059904.0	38618652.0	361409.03	1.40
93	5	13	204.00	203.7546444.17	0.00	0.10	0.129	0.119	12.36429231.844	477061632.0	38618672.0	361410.31	1.40
94	5	14	203.75	203.5046444.27	0.00	0.10	0.129	0.119	12.36429231.861	477063328.0	38618696.0	361411.62	1.40
95	5	15	203.50	203.2546444.37	0.00	0.10	0.129	0.119	12.36429231.881	477065088.0	38618724.0	361412.94	1.40
96	5	16	203.25	203.0046444.48	0.00	0.10	0.129	0.119	12.36429231.900	477066784.0	38618748.0	361414.25	1.40
97	5	17	203.00	202.7546445.58	1.00	0.10	0.129	0.119	12.36429232.086	477085376.0	38618996.0	361428.31	1.40
98	5	18	202.75	202.5046445.68	0.00	0.10	0.129	0.119	12.36429232.105	477087072.0	38619020.0	361429.59	1.40
99	5	19	202.50	202.2546445.78	0.00	0.10	0.129	0.119	12.36429232.121	477088768.0	38619040.0	361430.87	1.40
100	5	20	202.25	202.0046445.88	0.00	0.10	0.129	0.119	12.36429232.141	477090528.0	38619068.0	361432.22	1.40
101	6	1	202.00	201.7546445.98	0.00	0.10	0.129	0.119	12.36429232.158	477092256.0	38619092.0	361433.53	2.37
102	6	2	201.75	201.5046446.09	0.00	0.10	0.129	0.119	12.36429232.174	477093952.0	38619112.0	361434.81	2.37
103	6	3	201.50	201.2546446.19	0.00	0.10	0.129	0.119	12.36429232.191	477095648.0	38619136.0	361436.09	2.37
104	6	4	201.25	201.0046446.29	0.00	0.10	0.129	0.119	12.36429232.207	477097376.0	38619156.0	361437.41	2.37
105	6	5	201.00	200.7546446.39	0.00	0.10	0.129	0.119	12.36429232.227	477099072.0	38619180.0	361438.69	2.37
106	6	6	200.75	200.5046446.49	0.00	0.10	0.129	0.119	12.36429232.244	477100768.0	38619204.0	361440.00	2.37
107	6	7	200.50	200.2546446.59	0.00	0.10	0.129	0.119	12.36429232.260	477102496.0	38619224.0	361441.28	2.37
108	6	8	200.25	200.0046446.70	0.00	0.10	0.129	0.119	12.36529232.279	477104256.0	38619252.0	361442.62	2.37
109	6	9	200.00	199.7546446.80	0.00	0.10	0.129	0.119	12.36529232.297	477105952.0	38619276.0	361443.91	2.37
110	6	10	199.75	199.5046446.90	0.00	0.10	0.129	0.119	12.36529232.314	477107680.0	38619296.0	361445.19	2.37
111	6	11	199.50	199.2546447.00	0.00	0.10	0.129	0.119	12.36529232.332	477109376.0	38619320.0	361446.50	2.37
112	6	12	199.25	199.0046447.10	0.00	0.10	0.129	0.119	12.36529232.350	477111072.0	38619344.0	361447.78	2.37
113	6	13	199.00	198.7546447.30	0.10	0.10	0.129	0.119	12.36529232.385	477114464.0	38619392.0	361450.34	2.37
114	6	14	198.75	198.5046447.40	0.00	0.10	0.129	0.119	12.36529232.400	477116160.0	38619412.0	361451.62	2.37
115	6	15	198.50	198.2546447.50	0.00	0.10	0.129	0.119	12.36529232.418	477117856.0	38619436.0	361452.94	2.37
116	6	16	198.25	198.0046447.61	0.00	0.10	0.129	0.119	12.36529232.434	477119584.0	38619456.0	361454.22	2.37
117	6	17	198.00	197.7546447.71	0.00	0.10	0.129	0.119	12.36529232.451	477121280.0	38619480.0	361455.53	2.37
118	6	18	197.75	197.5046447.81	0.00	0.10	0.129	0.119	12.36529232.471	477123040.0	38619504.0	361456.84	2.37
119	6	19	197.50	197.2546447.91	0.00	0.10	0.129	0.119	12.36529232.490	477124736.0	38619532.0	361458.16	2.37
120	6	20	197.25	197.0046448.01	0.00	0.10	0.129	0.119	12.36529232.508	477126464.0	38619552.0	361459.44	2.37
121	7	1	197.00	196.7546448.21	0.10	0.10	0.129	0.119	12.36529232.539	477129824.0	38619596.0	361462.00	0.98
122	7	2	196.75	196.5046448.31	0.00	0.10	0.129	0.119	12.36529232.559	477131552.0	38619620.0	361463.28	0.98
123	7	3	196.50	196.2546448.41	0.00	0.10	0.129	0.119	12.36529232.576	477133248.0	38619644.0	361464.59	0.98
124	7	4	196.25	196.0046448.52	0.00	0.10	0.129	0.119	12.36529232.592	477134944.0	38619664.0	361465.87	0.98
125	7	5	196.00	195.7546448.62	0.00	0.10	0.129	0.119	12.36529232.609	477136672.0	38619688.0	361467.16	0.98

75' Flood Scenario - Monthly Average - Output

126	7	6	195.75	195.5046448.72	0.00	0.10	0.129	0.119	12.36529232.625	477138368.0	38619708.0	361468.47	0.98
127	7	7	195.50	195.2546448.82	0.00	0.10	0.128	0.119	12.36529232.643	477140064.0	38619732.0	361469.75	0.98
128	7	8	195.25	195.0046448.92	0.00	0.10	0.128	0.119	12.36529232.662	477141792.0	38619760.0	361471.06	0.98
129	7	9	195.00	194.7546449.02	0.00	0.10	0.128	0.119	12.36529232.682	477143552.0	38619784.0	361472.37	0.98
130	7	10	194.75	194.5046449.12	0.00	0.10	0.128	0.119	12.36529232.697	477145248.0	38619804.0	361473.69	0.98

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2546449.23	0.00	0.10	0.128	0.119	12.36529232.715	477146976.0	38619828.0	361474.97	0.98
132	7	12	194.25	194.0046449.33	0.00	0.10	0.128	0.119	12.36529232.730	477148672.0	38619848.0	361476.25	0.98
133	7	13	194.00	193.7546671.43	222.00	0.10	0.128	0.119	12.44729270.824	480902944.0	38670348.0	364320.41	0.98
134	7	14	193.75	193.5046671.53	0.00	0.10	0.128	0.119	12.44729270.840	480904672.0	38670368.0	364321.72	0.98
135	7	15	193.50	193.2546671.63	0.00	0.10	0.128	0.119	12.44729270.857	480906400.0	38670392.0	364323.03	0.98
136	7	16	193.25	193.0046671.73	0.00	0.10	0.128	0.119	12.44729270.879	480908160.0	38670420.0	364324.37	0.98
137	7	17	193.00	192.7546671.84	0.00	0.10	0.128	0.119	12.44729270.895	480909888.0	38670440.0	364325.66	0.98
138	7	18	192.75	192.5046671.94	0.00	0.10	0.128	0.119	12.44729270.912	480911584.0	38670464.0	364326.97	0.98
139	7	19	192.50	192.2546672.04	0.00	0.10	0.128	0.119	12.44729270.932	480913312.0	38670488.0	364328.28	0.98
140	7	20	192.25	192.0046672.14	0.00	0.10	0.128	0.119	12.44729270.949	480915040.0	38670512.0	364329.56	0.98
141	8	1	192.00	191.7546673.16	0.77	0.25	0.128	0.119	12.44729271.119	480932256.0	38670736.0	364342.62	0.98
142	8	2	191.75	191.5046673.41	0.00	0.25	0.128	0.119	12.44729271.164	480936512.0	38670796.0	364345.84	0.98
143	8	3	191.50	191.2546673.66	0.00	0.25	0.128	0.119	12.44729271.207	480940768.0	38670856.0	364349.06	0.98
144	8	4	191.25	191.0046673.91	0.00	0.25	0.128	0.119	12.44729271.250	480944960.0	38670912.0	364352.25	0.98
145	8	5	191.00	190.7546674.16	0.00	0.25	0.128	0.119	12.44829271.293	480949216.0	38670968.0	364355.47	0.98
146	8	6	190.75	190.5046674.41	0.00	0.25	0.128	0.119	12.44829271.334	480953408.0	38671024.0	364358.66	0.98
147	8	7	190.50	190.2546674.66	0.00	0.25	0.128	0.119	12.44829271.377	480957664.0	38671080.0	364361.87	0.98
148	8	8	190.25	190.0046674.91	0.00	0.25	0.128	0.119	12.44829271.424	480961920.0	38671140.0	364365.09	0.98

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***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
1	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

75' Flood Scenario - Monthly Average - Output

1	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

75' Flood Scenario - Monthly Average - Output

3	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

7	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	81.30	1.77	0.00	0.00	5.42	5.55	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.28
1	2	81.30	1.77	0.00	0.00	5.44	5.51	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.16
1	3	81.30	1.77	0.00	0.00	5.46	5.46	0.32	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	8.05
1	4	81.30	1.77	0.00	0.00	5.47	5.42	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.93

75' Flood Scenario - Monthly Average - Output

1	5	81.30	1.77	0.00	0.00	5.49	5.37	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.82
1	6	81.30	1.77	0.00	0.00	5.51	5.33	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.71
1	7	81.30	1.77	0.00	0.00	5.53	5.28	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.60
1	8	81.30	1.77	0.00	0.00	5.54	5.24	0.29	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.50
1	9	81.30	1.77	0.00	0.00	5.56	5.20	0.29	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.39
1	10	81.30	1.77	0.00	0.00	5.58	5.15	0.28	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.29
1	11	81.30	1.77	0.00	0.00	5.59	5.11	0.28	0.08	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.19
1	12	81.30	1.77	0.00	0.00	5.61	5.07	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.09
1	13	81.30	1.77	0.00	0.00	5.62	5.03	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.99
1	14	81.30	1.77	0.00	0.00	5.64	4.99	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.89
1	15	81.30	1.77	0.00	0.00	5.65	4.94	0.26	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.80
1	16	81.30	1.77	0.00	0.00	5.66	4.90	0.26	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.71
1	17	81.30	1.77	0.00	0.00	5.68	4.86	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.61
1	18	81.30	1.77	0.00	0.00	5.69	4.82	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.52
1	19	81.30	1.77	0.00	0.00	5.70	4.78	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.43
1	20	81.30	1.77	0.00	0.00	5.72	4.75	0.24	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.35
2	1	81.30	1.80	0.00	0.00	5.72	5.02	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.25
2	2	81.30	1.80	0.00	0.00	5.73	4.98	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.17
2	3	81.30	1.80	0.00	0.00	5.74	4.94	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.09
2	4	81.30	1.80	0.00	0.00	5.75	4.90	0.23	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.01
2	5	81.30	1.80	0.00	0.00	5.76	4.86	0.23	0.12	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	5.92
2	6	81.30	1.80	0.00	0.00	5.77	4.82	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.85
2	7	81.30	1.80	0.00	0.00	5.78	4.78	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.77
2	8	81.30	1.80	0.00	0.00	5.79	4.74	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.69
2	9	81.30	1.80	0.00	0.00	5.80	4.70	0.21	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.61
2	10	81.30	1.80	0.00	0.00	5.81	4.66	0.21	0.12	0.01	0.17	0.51	0.02	0.01	0.04	0.00	0.00	5.54
2	11	81.30	1.80	0.00	0.00	5.82	4.62	0.21	0.12	0.01	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.47
2	12	81.30	1.80	0.00	0.00	5.82	4.58	0.21	0.12	0.01	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.39
2	13	81.30	1.80	0.00	0.00	5.83	4.54	0.20	0.12	0.02	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.32
2	14	81.30	1.80	0.00	0.00	5.84	4.51	0.20	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.25
2	15	81.30	1.80	0.00	0.00	5.85	4.47	0.20	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.18
2	16	81.30	1.80	0.00	0.00	5.86	4.43	0.19	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.11
2	17	81.30	1.80	0.00	0.00	5.87	4.40	0.19	0.13	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.05
2	18	81.30	1.80	0.00	0.00	5.87	4.36	0.19	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.98
2	19	81.30	1.80	0.00	0.00	5.88	4.32	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.91
2	20	81.30	1.80	0.00	0.00	5.89	4.29	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.85
3	1	81.30	1.80	0.00	0.00	5.90	4.25	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.79
3	2	81.30	1.80	0.00	0.00	5.91	4.22	0.18	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.72
3	3	81.30	1.80	0.00	0.00	5.92	4.18	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.66
3	4	81.30	1.80	0.00	0.00	5.92	4.15	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.60
3	5	81.30	1.80	0.00	0.00	5.93	4.11	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.54
3	6	81.30	1.80	0.00	0.00	5.94	4.08	0.17	0.13	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.48
3	7	81.30	1.80	0.00	0.00	5.95	4.05	0.16	0.13	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.42
3	8	81.30	1.80	0.00	0.00	5.96	4.01	0.16	0.13	0.02	0.21	0.52	0.03	0.01	0.04	0.00	0.00	4.36
3	9	81.30	1.80	0.00	0.00	5.96	3.98	0.16	0.13	0.02	0.21	0.52	0.03	0.01	0.04	0.00	0.00	4.31
3	10	81.30	1.80	0.00	0.00	5.97	3.95	0.16	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.25

3	11	81.30	1.80	0.00	0.00	5.98	3.91	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.20
3	12	81.30	1.80	0.00	0.00	5.99	3.88	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.14
3	13	81.30	1.80	0.00	0.00	5.99	3.85	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.09
3	14	81.30	1.80	0.00	0.00	6.00	3.82	0.15	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	4.03
3	15	81.30	1.80	0.00	0.00	6.01	3.79	0.14	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	3.98
3	16	81.30	1.80	0.00	0.00	6.02	3.75	0.14	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	3.93
3	17	81.30	1.80	0.00	0.00	6.03	3.72	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.88
3	18	81.30	1.80	0.00	0.00	6.03	3.69	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.83
3	19	81.30	1.80	0.00	0.00	6.04	3.66	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.78
3	20	81.30	1.80	0.00	0.00	6.05	3.63	0.13	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.73
4	1	81.30	1.80	0.00	0.00	6.05	3.60	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.68
4	2	81.30	1.80	0.00	0.00	6.05	3.57	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.63
4	3	81.30	1.80	0.00	0.00	6.04	3.54	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.59
4	4	81.30	1.80	0.00	0.00	6.04	3.51	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.54
4	5	81.30	1.80	0.00	0.00	6.04	3.48	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.50

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 8
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	81.30	1.80	0.00	0.00	6.04	3.46	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.45
4	7	81.30	1.80	0.00	0.00	6.04	3.43	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.41
4	8	81.30	1.80	0.00	0.00	6.04	3.40	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.36
4	9	81.30	1.80	0.00	0.00	6.04	3.37	0.12	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.32
4	10	81.30	1.80	0.00	0.00	6.04	3.34	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.28
4	11	81.30	1.80	0.00	0.00	6.05	3.31	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.23
4	12	81.30	1.80	0.00	0.00	6.05	3.29	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.19
4	13	81.30	1.80	0.00	0.00	6.05	3.26	0.11	0.12	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.15
4	14	81.30	1.80	0.00	0.00	6.05	3.23	0.11	0.12	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.11
4	15	81.30	1.80	0.00	0.00	6.05	3.21	0.11	0.11	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.07
4	16	81.30	1.80	0.00	0.00	6.05	3.18	0.10	0.11	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.03
4	17	81.30	1.80	0.00	0.00	6.06	3.15	0.10	0.11	0.02	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.99
4	18	81.30	1.80	0.00	0.00	6.06	3.13	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.95
4	19	81.30	1.80	0.00	0.00	6.06	3.10	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.92
4	20	81.30	1.80	0.00	0.00	6.07	3.08	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.88
5	1	81.30	1.80	0.00	0.00	6.07	3.05	0.10	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.84
5	2	81.30	1.80	0.00	0.00	6.07	3.03	0.10	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.81
5	3	81.30	1.80	0.00	0.00	6.08	3.00	0.09	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.77
5	4	81.30	1.80	0.00	0.00	6.08	2.98	0.09	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.73
5	5	81.30	1.80	0.00	0.00	6.08	2.95	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.70

5	6	81.30	1.80	0.00	0.00	6.09	2.93	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.66
5	7	81.30	1.80	0.00	0.00	6.09	2.90	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.63
5	8	81.30	1.80	0.00	0.00	6.10	2.88	0.09	0.10	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.60
5	9	81.30	1.80	0.00	0.00	6.10	2.85	0.09	0.10	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.56
5	10	81.30	1.80	0.00	0.00	6.10	2.83	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.53
5	11	81.30	1.80	0.00	0.00	6.11	2.81	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.50
5	12	81.30	1.80	0.00	0.00	6.11	2.78	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.47
5	13	81.30	1.80	0.00	0.00	6.12	2.76	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.43
5	14	81.30	1.80	0.00	0.00	6.12	2.74	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.40
5	15	81.30	1.80	0.00	0.00	6.13	2.72	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.37
5	16	81.30	1.80	0.00	0.00	6.13	2.69	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.34
5	17	81.30	1.80	0.00	0.00	6.14	2.67	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.31
5	18	81.30	1.80	0.00	0.00	6.14	2.65	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.28
5	19	81.30	1.80	0.00	0.00	6.15	2.63	0.07	0.10	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.25
5	20	81.30	1.80	0.00	0.00	6.15	2.60	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.23
6	1	81.30	1.80	0.00	0.00	6.16	2.58	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.20
6	2	81.30	1.80	0.00	0.00	6.16	2.56	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.17
6	3	81.30	1.80	0.00	0.00	6.17	2.54	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.14
6	4	81.30	1.80	0.00	0.00	6.18	2.52	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.12
6	5	81.30	1.80	0.00	0.00	6.18	2.50	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.09
6	6	81.30	1.80	0.00	0.00	6.19	2.48	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.06
6	7	81.30	1.80	0.00	0.00	6.19	2.46	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.04
6	8	81.30	1.80	0.00	0.00	6.20	2.44	0.06	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.01
6	9	81.30	1.80	0.00	0.00	6.20	2.42	0.06	0.09	0.01	0.36	0.52	0.03	0.01	0.04	0.00	0.00	1.99
6	10	81.30	1.80	0.00	0.00	6.21	2.40	0.06	0.09	0.01	0.36	0.52	0.03	0.02	0.04	0.00	0.00	1.96
6	11	81.30	1.80	0.00	0.00	6.21	2.38	0.06	0.09	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.94
6	12	81.30	1.80	0.00	0.00	6.22	2.36	0.06	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.91
6	13	81.30	1.80	0.00	0.00	6.23	2.34	0.06	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.89
6	14	81.30	1.80	0.00	0.00	6.23	2.32	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.87
6	15	81.30	1.80	0.00	0.00	6.24	2.30	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.84
6	16	81.30	1.80	0.00	0.00	6.24	2.28	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.82
6	17	81.30	1.80	0.00	0.00	6.25	2.26	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.80
6	18	81.30	1.80	0.00	0.00	6.25	2.24	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.78
6	19	81.30	1.80	0.00	0.00	6.26	2.22	0.05	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.75
6	20	81.30	1.80	0.00	0.00	6.27	2.21	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.73
7	1	81.30	1.80	0.00	0.00	6.28	2.19	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.71
7	2	81.30	1.80	0.00	0.00	6.30	2.17	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.69
7	3	81.30	1.80	0.00	0.00	6.31	2.15	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.67
7	4	81.30	1.80	0.00	0.00	6.33	2.13	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.65
7	5	81.30	1.80	0.00	0.00	6.34	2.12	0.05	0.07	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.63
7	6	81.30	1.80	0.00	0.00	6.36	2.10	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.61
7	7	81.30	1.80	0.00	0.00	6.37	2.08	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.59
7	8	81.30	1.80	0.00	0.00	6.38	2.06	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.57
7	9	81.30	1.80	0.00	0.00	6.39	2.05	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.55
7	10	81.30	1.80	0.00	0.00	6.41	2.03	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.54

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	81.30	1.80	0.00	0.00	6.42	2.01	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.52
7	12	81.30	1.80	0.00	0.00	6.43	2.00	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.50
7	13	81.30	1.80	0.00	0.00	6.44	1.98	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.51
7	14	81.30	1.80	0.00	0.00	6.45	1.97	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.50
7	15	81.30	1.80	0.00	0.00	6.46	1.95	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.48
7	16	81.30	1.80	0.00	0.00	6.47	1.93	0.04	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.46
7	17	81.30	1.80	0.00	0.00	6.48	1.92	0.04	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.44
7	18	81.30	1.80	0.00	0.00	6.49	1.90	0.04	0.07	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.43
7	19	81.30	1.80	0.00	0.00	6.51	1.89	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.41
7	20	81.30	1.80	0.00	0.00	6.52	1.87	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.39
8	1	81.30	1.80	0.00	0.00	6.53	1.86	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.38
8	2	81.30	1.80	0.00	0.00	6.54	1.84	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.36
8	3	81.30	1.80	0.00	0.00	6.55	1.83	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.34
8	4	81.30	1.80	0.00	0.00	6.55	1.81	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.33
8	5	81.30	1.80	0.00	0.00	6.56	1.80	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.31
8	6	81.30	1.80	0.00	0.00	6.57	1.78	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.30
8	7	81.30	1.80	0.00	0.00	6.58	1.77	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.28
8	8	81.30	1.80	0.00	0.00	6.59	1.75	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.27

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.28	0.02	0.07	0.95	0.32	-0.05	0.50	0.33	4.23	0.03	0.43	0.58
2	1	2	8.16	0.03	0.07	0.95	0.33	-0.05	0.50	0.34	4.23	0.03	0.44	0.58
3	1	3	8.05	0.03	0.07	0.95	0.34	-0.05	0.50	0.35	4.23	0.03	0.45	0.58
4	1	4	7.93	0.03	0.07	0.95	0.34	-0.05	0.50	0.36	4.22	0.03	0.46	0.58
5	1	5	7.82	0.03	0.07	0.95	0.35	-0.05	0.50	0.36	4.22	0.03	0.47	0.58
6	1	6	7.71	0.03	0.07	0.95	0.35	-0.05	0.50	0.37	4.22	0.03	0.48	0.58

75' Flood Scenario - Monthly Average - Output

7	1	7	7.60	0.03	0.07	0.95	0.36	-0.05	0.50	0.38	4.22	0.03	0.49	0.58
8	1	8	7.50	0.03	0.07	0.95	0.36	-0.04	0.50	0.38	4.21	0.03	0.49	0.58
9	1	9	7.39	0.03	0.07	0.95	0.37	-0.04	0.50	0.39	4.21	0.03	0.50	0.58
10	1	10	7.29	0.03	0.07	0.95	0.37	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
11	1	11	7.19	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
12	1	12	7.09	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.20	0.03	0.52	0.58
13	1	13	6.99	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.52	0.58
14	1	14	6.89	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
15	1	15	6.80	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
16	1	16	6.71	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.19	0.03	0.54	0.58
17	1	17	6.61	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
18	1	18	6.52	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
19	1	19	6.43	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.55	0.58
20	1	20	6.35	0.03	0.07	0.95	0.41	-0.04	0.50	0.42	4.18	0.03	0.55	0.58
21	2	1	6.25	0.03	0.07	0.95	0.42	-0.03	0.50	0.43	4.18	0.03	0.56	0.59
22	2	2	6.17	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.18	0.03	0.56	0.59
23	2	3	6.09	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.18	0.03	0.57	0.59
24	2	4	6.01	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.57	0.59
25	2	5	5.92	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.57	0.59
26	2	6	5.85	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
27	2	7	5.77	0.03	0.07	0.95	0.44	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
28	2	8	5.69	0.03	0.07	0.95	0.44	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
29	2	9	5.61	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
30	2	10	5.54	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
31	2	11	5.47	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
32	2	12	5.39	0.03	0.07	0.95	0.45	-0.03	0.50	0.42	4.16	0.03	0.59	0.58
33	2	13	5.32	0.03	0.07	0.95	0.45	-0.03	0.50	0.42	4.16	0.03	0.60	0.58
34	2	14	5.25	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
35	2	15	5.18	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
36	2	16	5.11	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
37	2	17	5.05	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.61	0.58
38	2	18	4.98	0.04	0.07	0.95	0.46	-0.03	0.50	0.40	4.15	0.03	0.61	0.58
39	2	19	4.91	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.15	0.03	0.61	0.58
40	2	20	4.85	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.14	0.03	0.61	0.58
41	3	1	4.79	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.14	0.03	0.62	0.58
42	3	2	4.72	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
43	3	3	4.66	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
44	3	4	4.60	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
45	3	5	4.54	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.14	0.03	0.62	0.58
46	3	6	4.48	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.62	0.58
47	3	7	4.42	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.63	0.58
48	3	8	4.36	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.63	0.58
49	3	9	4.31	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
50	3	10	4.25	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
51	3	11	4.20	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
52	3	12	4.14	0.04	0.07	0.95	0.47	-0.02	0.50	0.36	4.13	0.03	0.64	0.58

53	3	13	4.09	0.04	0.07	0.95	0.48	-0.02	0.50	0.36	4.12	0.03	0.64	0.58
54	3	14	4.03	0.04	0.07	0.95	0.48	-0.02	0.50	0.36	4.12	0.03	0.64	0.58
55	3	15	3.98	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
56	3	16	3.93	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
57	3	17	3.88	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
58	3	18	3.83	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.12	0.03	0.64	0.58
59	3	19	3.78	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.12	0.03	0.65	0.58
60	3	20	3.73	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.11	0.03	0.65	0.58
61	4	1	3.68	0.04	0.07	0.95	0.48	-0.02	0.50	0.33	4.11	0.03	0.65	0.58
62	4	2	3.63	0.04	0.07	0.95	0.48	-0.02	0.50	0.33	4.11	0.03	0.65	0.58
63	4	3	3.59	0.04	0.07	0.95	0.49	-0.02	0.50	0.33	4.11	0.03	0.65	0.57
64	4	4	3.54	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57
65	4	5	3.50	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.45	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57
67	4	7	3.41	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.11	0.03	0.66	0.57
68	4	8	3.36	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.10	0.03	0.66	0.57
69	4	9	3.32	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.10	0.03	0.66	0.57
70	4	10	3.28	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
71	4	11	3.23	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
72	4	12	3.19	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
73	4	13	3.15	0.04	0.07	0.95	0.49	-0.01	0.50	0.30	4.10	0.03	0.66	0.57
74	4	14	3.11	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.66	0.57
75	4	15	3.07	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.66	0.57
76	4	16	3.03	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.67	0.57
77	4	17	2.99	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
78	4	18	2.95	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
79	4	19	2.92	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
80	4	20	2.88	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
81	5	1	2.84	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
82	5	2	2.81	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
83	5	3	2.77	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
84	5	4	2.73	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57
85	5	5	2.70	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57
86	5	6	2.66	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57

75' Flood Scenario - Monthly Average - Output

87	5	7	2.63	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.67	0.57
88	5	8	2.60	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
89	5	9	2.56	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
90	5	10	2.53	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
91	5	11	2.50	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
92	5	12	2.47	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
93	5	13	2.43	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
94	5	14	2.40	0.04	0.07	0.95	0.50	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
95	5	15	2.37	0.04	0.07	0.95	0.50	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
96	5	16	2.34	0.04	0.07	0.95	0.51	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
97	5	17	2.31	0.04	0.07	0.95	0.51	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
98	5	18	2.28	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
99	5	19	2.25	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
100	5	20	2.23	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
101	6	1	2.20	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
102	6	2	2.17	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.57
103	6	3	2.14	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.58
104	6	4	2.12	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.58
105	6	5	2.09	0.04	0.07	0.95	0.53	-0.01	0.50	0.21	4.07	0.03	0.69	0.59
106	6	6	2.06	0.04	0.07	0.95	0.53	-0.01	0.50	0.20	4.07	0.03	0.69	0.59
107	6	7	2.04	0.04	0.07	0.95	0.53	-0.01	0.50	0.20	4.07	0.03	0.69	0.59
108	6	8	2.01	0.04	0.07	0.95	0.54	-0.01	0.50	0.20	4.07	0.03	0.69	0.60
109	6	9	1.99	0.04	0.07	0.95	0.54	-0.01	0.50	0.20	4.07	0.03	0.69	0.60
110	6	10	1.96	0.04	0.07	0.95	0.54	-0.01	0.50	0.19	4.07	0.03	0.69	0.60
111	6	11	1.94	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
112	6	12	1.91	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
113	6	13	1.89	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
114	6	14	1.87	0.04	0.07	0.95	0.56	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
115	6	15	1.84	0.04	0.07	0.95	0.56	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
116	6	16	1.82	0.04	0.07	0.95	0.56	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
117	6	17	1.80	0.04	0.07	0.95	0.57	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
118	6	18	1.78	0.04	0.07	0.95	0.57	-0.01	0.50	0.18	4.06	0.03	0.69	0.63
119	6	19	1.75	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.63
120	6	20	1.73	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.63
121	7	1	1.71	0.04	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.63
122	7	2	1.69	0.05	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.64
123	7	3	1.67	0.05	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.64
124	7	4	1.65	0.05	0.07	0.95	0.58	-0.01	0.50	0.16	4.06	0.03	0.70	0.64
125	7	5	1.63	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.06	0.03	0.70	0.64
126	7	6	1.61	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.64
127	7	7	1.59	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.65
128	7	8	1.57	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.65
129	7	9	1.55	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.65
130	7	10	1.54	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.65

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.52	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
132	7	12	1.50	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
133	7	13	1.51	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
134	7	14	1.50	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
135	7	15	1.48	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
136	7	16	1.46	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
137	7	17	1.44	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
138	7	18	1.43	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
139	7	19	1.41	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
140	7	20	1.39	0.05	0.07	0.95	0.62	-0.01	0.50	0.13	4.05	0.03	0.70	0.67
141	8	1	1.38	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
142	8	2	1.36	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
143	8	3	1.34	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
144	8	4	1.33	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
145	8	5	1.31	0.05	0.07	0.95	0.63	0.00	0.50	0.13	4.05	0.03	0.70	0.68
146	8	6	1.30	0.05	0.07	0.95	0.63	0.00	0.50	0.13	4.05	0.03	0.70	0.68
147	8	7	1.28	0.05	0.07	0.95	0.63	0.00	0.50	0.12	4.05	0.03	0.70	0.68
148	8	8	1.27	0.05	0.07	0.95	0.63	0.00	0.50	0.12	4.04	0.03	0.70	0.69

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	81.30	7.91	5.42	2.49	0.00	1.00	45.47	0.89	-0.39	-0.01	-0.05	-0.03	-0.04
2	1	2	81.30	7.91	5.44	2.48	0.00	1.00	0.00	0.89	-0.39	-0.01	-0.05	-0.03	-0.03
3	1	3	81.30	7.91	5.46	2.46	0.00	1.00	0.00	0.88	-0.38	-0.01	-0.05	-0.04	-0.03
4	1	4	81.30	7.91	5.47	2.44	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
5	1	5	81.30	7.91	5.49	2.42	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
6	1	6	81.30	7.91	5.51	2.40	0.00	1.00	0.00	0.86	-0.37	-0.01	-0.05	-0.04	-0.02

7	1	7	81.30	7.91	5.53	2.39	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.05	-0.04	-0.02
8	1	8	81.30	7.91	5.54	2.37	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.04	-0.05	-0.02
9	1	9	81.30	7.91	5.56	2.35	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
10	1	10	81.30	7.91	5.58	2.34	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
11	1	11	81.30	7.91	5.59	2.32	0.00	1.00	0.00	0.83	-0.36	-0.01	-0.04	-0.05	-0.02
12	1	12	81.30	7.91	5.61	2.31	0.00	1.00	0.00	0.82	-0.36	-0.01	-0.04	-0.05	-0.02
13	1	13	81.30	7.91	5.62	2.29	0.00	1.00	0.00	0.82	-0.35	-0.01	-0.04	-0.06	-0.02
14	1	14	81.30	7.91	5.64	2.28	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
15	1	15	81.30	7.91	5.65	2.26	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
16	1	16	81.30	7.91	5.66	2.25	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
17	1	17	81.30	7.91	5.68	2.23	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
18	1	18	81.30	7.91	5.69	2.22	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
19	1	19	81.30	7.91	5.70	2.21	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
20	1	20	81.30	7.91	5.72	2.20	0.00	1.00	0.00	0.79	-0.33	-0.01	-0.04	-0.06	-0.02
21	2	1	81.30	7.91	5.72	2.19	0.00	1.00	0.04	0.78	-0.35	-0.01	-0.03	-0.07	-0.02
22	2	2	81.30	7.91	5.73	2.18	0.00	1.00	0.00	0.78	-0.35	-0.01	-0.03	-0.07	-0.02
23	2	3	81.30	7.91	5.74	2.17	0.00	1.00	0.00	0.78	-0.35	-0.01	-0.03	-0.07	-0.02
24	2	4	81.30	7.91	5.75	2.16	0.00	1.00	0.00	0.77	-0.34	-0.01	-0.03	-0.07	-0.02
25	2	5	81.30	7.91	5.76	2.15	0.00	1.00	0.00	0.77	-0.34	-0.01	-0.03	-0.07	-0.02
26	2	6	81.30	7.91	5.77	2.14	0.00	1.00	0.00	0.77	-0.34	-0.01	-0.03	-0.07	-0.02
27	2	7	81.30	7.91	5.78	2.13	0.00	1.00	0.00	0.76	-0.34	-0.01	-0.03	-0.07	-0.02
28	2	8	81.30	7.91	5.79	2.12	0.00	1.00	0.00	0.76	-0.33	-0.01	-0.03	-0.07	-0.02
29	2	9	81.30	7.91	5.80	2.12	0.00	1.00	0.00	0.76	-0.33	-0.01	-0.03	-0.07	-0.02
30	2	10	81.30	7.91	5.81	2.11	0.00	1.00	0.00	0.75	-0.33	-0.01	-0.03	-0.07	-0.02
31	2	11	81.30	7.91	5.82	2.10	0.00	1.00	0.00	0.75	-0.32	-0.01	-0.03	-0.08	-0.02
32	2	12	81.30	7.91	5.82	2.09	0.00	1.00	0.00	0.75	-0.32	-0.01	-0.03	-0.08	-0.02
33	2	13	81.30	7.91	5.83	2.08	0.00	1.00	0.00	0.74	-0.32	-0.01	-0.03	-0.08	-0.02
34	2	14	81.30	7.91	5.84	2.07	0.00	1.00	0.00	0.74	-0.32	-0.01	-0.03	-0.08	-0.02
35	2	15	81.30	7.91	5.85	2.06	0.00	1.00	0.00	0.74	-0.31	-0.01	-0.03	-0.08	-0.02
36	2	16	81.30	7.91	5.86	2.06	0.00	1.00	0.00	0.73	-0.31	-0.01	-0.03	-0.08	-0.02
37	2	17	81.30	7.91	5.87	2.05	0.00	1.00	0.00	0.73	-0.31	-0.01	-0.03	-0.08	-0.02
38	2	18	81.30	7.91	5.87	2.04	0.00	1.00	0.00	0.73	-0.31	-0.01	-0.03	-0.08	-0.02
39	2	19	81.30	7.91	5.88	2.03	0.00	1.00	0.00	0.73	-0.30	-0.01	-0.02	-0.08	-0.03
40	2	20	81.30	7.91	5.89	2.02	0.00	1.00	0.00	0.72	-0.30	-0.01	-0.02	-0.08	-0.03
41	3	1	81.30	7.91	5.90	2.01	0.00	1.00	0.00	0.72	-0.30	-0.01	-0.02	-0.08	-0.03
42	3	2	81.30	7.91	5.91	2.01	0.00	1.00	0.00	0.72	-0.30	-0.01	-0.02	-0.08	-0.03
43	3	3	81.30	7.91	5.92	2.00	0.00	1.00	0.00	0.71	-0.29	-0.01	-0.02	-0.08	-0.03
44	3	4	81.30	7.91	5.92	1.99	0.00	1.00	0.00	0.71	-0.29	-0.01	-0.02	-0.08	-0.03
45	3	5	81.30	7.91	5.93	1.98	0.00	1.00	0.00	0.71	-0.29	-0.01	-0.02	-0.08	-0.03
46	3	6	81.30	7.91	5.94	1.97	0.00	1.00	0.00	0.71	-0.29	-0.01	-0.02	-0.08	-0.03
47	3	7	81.30	7.91	5.95	1.97	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.03
48	3	8	81.30	7.91	5.96	1.96	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.03
49	3	9	81.30	7.91	5.96	1.95	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.03
50	3	10	81.30	7.91	5.97	1.94	0.00	1.00	0.00	0.69	-0.28	-0.01	-0.02	-0.08	-0.03
51	3	11	81.30	7.91	5.98	1.93	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.03
52	3	12	81.30	7.91	5.99	1.93	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.03

53	3	13	81.30	7.91	5.99	1.92	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.03
54	3	14	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
55	3	15	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
56	3	16	81.30	7.91	6.02	1.89	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
57	3	17	81.30	7.91	6.03	1.89	0.00	1.00	0.00	0.67	-0.26	-0.01	-0.02	-0.08	-0.03
58	3	18	81.30	7.91	6.03	1.88	0.00	1.00	0.00	0.67	-0.26	-0.01	-0.02	-0.08	-0.03
59	3	19	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.26	-0.01	-0.02	-0.08	-0.03
60	3	20	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.26	-0.01	-0.02	-0.08	-0.03
61	4	1	81.30	7.91	6.05	1.87	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
62	4	2	81.30	7.91	6.05	1.87	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
63	4	3	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
64	4	4	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
65	4	5	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.24	-0.01	-0.02	-0.07	-0.03

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.24	-0.01	-0.02	-0.07	-0.03
67	4	7	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.24	-0.01	-0.02	-0.07	-0.03
68	4	8	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.24	-0.01	-0.02	-0.07	-0.03
69	4	9	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.24	-0.01	-0.02	-0.07	-0.02
70	4	10	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.02	-0.07	-0.02
71	4	11	81.30	7.91	6.05	1.87	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.02	-0.07	-0.02
72	4	12	81.30	7.91	6.05	1.87	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.02	-0.07	-0.02
73	4	13	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
74	4	14	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
75	4	15	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
76	4	16	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
77	4	17	81.30	7.91	6.06	1.86	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
78	4	18	81.30	7.91	6.06	1.85	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
79	4	19	81.30	7.91	6.06	1.85	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
80	4	20	81.30	7.91	6.07	1.85	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
81	5	1	81.30	7.91	6.07	1.84	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.07	-0.02
82	5	2	81.30	7.91	6.07	1.84	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.07	-0.02
83	5	3	81.30	7.91	6.08	1.84	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.07	-0.02
84	5	4	81.30	7.91	6.08	1.83	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.07	-0.02
85	5	5	81.30	7.91	6.08	1.83	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02
86	5	6	81.30	7.91	6.09	1.83	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02

87	5	7	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.07	-0.02
88	5	8	81.30	7.91	6.10	1.82	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
89	5	9	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
90	5	10	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
91	5	11	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.06	-0.02
92	5	12	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.06	-0.02
93	5	13	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
94	5	14	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
95	5	15	81.30	7.91	6.13	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
96	5	16	81.30	7.91	6.13	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
97	5	17	81.30	7.91	6.14	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
98	5	18	81.30	7.91	6.14	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
99	5	19	81.30	7.91	6.15	1.76	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
100	5	20	81.30	7.91	6.15	1.76	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
101	6	1	81.30	7.91	6.16	1.75	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
102	6	2	81.30	7.91	6.16	1.75	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
103	6	3	81.30	7.91	6.17	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
104	6	4	81.30	7.91	6.18	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
105	6	5	81.30	7.91	6.18	1.73	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
106	6	6	81.30	7.91	6.19	1.73	0.00	1.00	0.00	0.62	-0.17	-0.01	-0.01	-0.06	-0.02
107	6	7	81.30	7.91	6.19	1.72	0.00	1.00	0.00	0.62	-0.17	-0.01	-0.01	-0.06	-0.02
108	6	8	81.30	7.91	6.20	1.72	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
109	6	9	81.30	7.91	6.20	1.71	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
110	6	10	81.30	7.91	6.21	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
111	6	11	81.30	7.91	6.21	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
112	6	12	81.30	7.91	6.22	1.69	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
113	6	13	81.30	7.91	6.23	1.69	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
114	6	14	81.30	7.91	6.23	1.68	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
115	6	15	81.30	7.91	6.24	1.68	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
116	6	16	81.30	7.91	6.24	1.67	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
117	6	17	81.30	7.91	6.25	1.66	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
118	6	18	81.30	7.91	6.25	1.66	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
119	6	19	81.30	7.91	6.26	1.65	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
120	6	20	81.30	7.91	6.27	1.65	0.00	1.00	0.00	0.59	-0.15	-0.01	-0.01	-0.05	-0.02
121	7	1	81.30	7.91	6.28	1.63	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
122	7	2	81.30	7.91	6.30	1.62	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
123	7	3	81.30	7.91	6.31	1.60	0.00	1.00	0.00	0.57	-0.15	-0.01	-0.01	-0.05	-0.02
124	7	4	81.30	7.91	6.33	1.59	0.00	1.00	0.00	0.57	-0.15	-0.01	-0.01	-0.05	-0.02
125	7	5	81.30	7.91	6.34	1.57	0.00	1.00	0.00	0.56	-0.15	-0.01	-0.01	-0.05	-0.02
126	7	6	81.30	7.91	6.36	1.56	0.00	1.00	0.00	0.56	-0.15	-0.01	-0.01	-0.05	-0.02
127	7	7	81.30	7.91	6.37	1.54	0.00	1.00	0.00	0.55	-0.15	-0.01	-0.01	-0.05	-0.02
128	7	8	81.30	7.91	6.38	1.53	0.00	1.00	0.00	0.55	-0.14	-0.01	-0.01	-0.04	-0.02
129	7	9	81.30	7.91	6.39	1.52	0.00	1.00	0.00	0.54	-0.14	-0.01	-0.01	-0.04	-0.02
130	7	10	81.30	7.91	6.41	1.51	0.00	1.00	0.00	0.54	-0.14	-0.01	-0.01	-0.04	-0.02

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75' Flood Scenario - Monthly Average - Output

QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	81.30	7.91	6.42	1.49	0.00	1.00	0.00	0.53	-0.14	-0.01	-0.01	-0.04	-0.02
132	7	12	81.30	7.91	6.43	1.48	0.00	1.00	0.00	0.53	-0.14	-0.01	-0.01	-0.04	-0.02
133	7	13	81.30	7.91	6.44	1.47	0.00	1.00	0.22	0.53	-0.14	-0.01	-0.01	-0.04	-0.02
134	7	14	81.30	7.91	6.45	1.46	0.00	1.00	0.00	0.52	-0.14	-0.01	-0.01	-0.04	-0.02
135	7	15	81.30	7.91	6.46	1.45	0.00	1.00	0.00	0.52	-0.14	-0.01	-0.01	-0.04	-0.02
136	7	16	81.30	7.91	6.47	1.44	0.00	1.00	0.00	0.51	-0.14	-0.01	-0.01	-0.04	-0.01
137	7	17	81.30	7.91	6.48	1.43	0.00	1.00	0.00	0.51	-0.13	-0.01	-0.01	-0.04	-0.01
138	7	18	81.30	7.91	6.49	1.42	0.00	1.00	0.00	0.51	-0.13	-0.01	-0.01	-0.04	-0.01
139	7	19	81.30	7.91	6.51	1.41	0.00	1.00	0.00	0.50	-0.13	-0.01	-0.01	-0.04	-0.01
140	7	20	81.30	7.91	6.52	1.40	0.00	1.00	0.00	0.50	-0.13	-0.01	-0.01	-0.04	-0.01
141	8	1	81.30	7.91	6.53	1.39	0.00	1.00	0.00	0.50	-0.13	-0.01	0.00	-0.04	-0.01
142	8	2	81.30	7.91	6.54	1.38	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
143	8	3	81.30	7.91	6.55	1.37	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
144	8	4	81.30	7.91	6.55	1.36	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
145	8	5	81.30	7.91	6.56	1.35	0.00	1.00	0.00	0.48	-0.13	-0.01	0.00	-0.04	-0.01
146	8	6	81.30	7.91	6.57	1.34	0.00	1.00	0.00	0.48	-0.13	-0.01	0.00	-0.04	-0.01
147	8	7	81.30	7.91	6.58	1.33	0.00	1.00	0.00	0.48	-0.12	-0.01	0.00	-0.04	-0.01
148	8	8	81.30	7.91	6.59	1.32	0.00	1.00	0.00	0.47	-0.12	-0.01	0.00	-0.04	-0.01

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0            REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0            REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0            REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0            REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0            REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0            REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0            REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  2.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  3.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  4.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  5.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  6.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  7.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  8.0   81.3   5.40   5.60 1.77
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  2.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  3.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  4.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  5.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  6.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  7.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  8.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   5.6 1.77
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  2.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  3.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  4.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  5.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  6.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  7.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
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INCR INFLOW-2  RCH=  8.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    46364  81.3  5.40  5.60 1.77
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.33 0.045 0.025 0.098 0.023 0.014
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   69.63  86.9  3.50 419.7 37.62
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.77
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.77
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 YES CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

75' Flood Scenario - Daily Maximum Output

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	2.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	3.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	4.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	5.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	6.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	7.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	8.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	2.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	3.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	4.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	5.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	6.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	7.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	8.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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        ENDATA9                0.                                0.        0.        0.
0        $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

        CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                     ORDER
        HEADWTR-1      1.    OUACHITA RIVER  46364.00     81.30      5.40      5.60      1.77      0.00      0.00
        ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0        $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                           COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

        CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                      ORDER
        HEADWTR-2       1.     0.00     0.00     8.40     0.33     0.05     0.03     0.10     0.02     0.01
        ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0        $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                      POINT
        CARD TYPE      LOAD    NAME              EFF     FLOW     TEMP     D.O.      BOD     CM-1     CM-2     CM-3
                      ORDER
        POINTLD-1       1.  COFFEE CREEK         0.00    69.63    86.90     3.50   419.70    37.62     0.00     0.00
        POINTLD-1       2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
        POINTLD-1       3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
        POINTLD-1       4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
        POINTLD-1       5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
        POINTLD-1       6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
        POINTLD-1       7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     1.77     0.00     0.00
        POINTLD-1       8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     1.77     0.00     0.00
        ENDATA11        0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0        $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                           COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                      POINT
        CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                      ORDER
        POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
        POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
        POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
        POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
        POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
        POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
        POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
        POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
        ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0        $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                             DAM   RCH   ELE    ADAM    BDAM    FDAM    HDAM

        ENDATA12                0.    0.    0.    0.00    0.00    0.00    0.00
0        $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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75' Flood Scenario - Daily Maximum Output

CARD TYPE TEMP D.O. BOD CM-1 CM-2 CM-3 ANC COLI

ENDATA13 DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

0 $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

CARD TYPE CHL-A ORG-N NH3-N NO2-N NH3-N ORG-P DIS-P

ENDATA13A DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

1

0 CONSERVATIVE MINERAL I ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
3	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
4	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
5	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
6	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
7	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
8	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.76
2	5.32	5.28	5.23	5.19	5.15	5.10	5.06	5.02	4.98	4.94	4.90	4.86	4.82	4.78	4.74	4.70	4.66	4.62	4.58	4.54
3	4.51	4.47	4.43	4.40	4.36	4.32	4.29	4.25	4.22	4.18	4.15	4.11	4.08	4.04	4.01	3.98	3.95	3.91	3.88	3.85
4	3.82	3.78	3.75	3.72	3.69	3.66	3.63	3.60	3.57	3.54	3.51	3.48	3.45	3.43	3.40	3.37	3.34	3.31	3.29	3.26
5	3.23	3.21	3.18	3.15	3.13	3.10	3.07	3.05	3.02	3.00	2.97	2.95	2.93	2.90	2.88	2.85	2.83	2.81	2.78	2.76
6	2.74	2.71	2.69	2.67	2.65	2.63	2.60	2.58	2.56	2.54	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.38	2.36	2.34
7	2.32	2.30	2.28	2.26	2.24	2.22	2.21	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.07	2.05	2.03	2.02	2.00	1.98
8	1.97	1.95	1.93	1.92	1.90	1.89	1.87	1.86												

1

STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:

VARIABLE ITERATION NUMBER OF NONCONVERGENT ELEMENTS

0 ALGAE AS CHL-A IN UG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.04	7.93	7.81	7.70	7.59	7.48	7.37	7.26	7.16	7.06	6.95	6.85	6.75	6.66	6.56	6.47	6.37	6.28
2	6.18	6.09	6.00	5.92	5.83	5.75	5.67	5.58	5.50	5.42	5.35	5.27	5.19	5.12	5.04	4.97	4.90	4.83	4.76	4.69
3	4.62	4.56	4.49	4.43	4.36	4.30	4.24	4.18	4.12	4.06	4.00	3.94	3.88	3.83	3.77	3.72	3.66	3.61	3.56	3.51
4	3.46	3.41	3.36	3.31	3.26	3.21	3.17	3.12	3.08	3.03	2.99	2.95	2.90	2.86	2.82	2.78	2.74	2.70	2.66	2.62
5	2.58	2.55	2.51	2.47	2.44	2.40	2.37	2.33	2.30	2.27	2.23	2.20	2.17	2.14	2.11	2.08	2.05	2.02	1.99	1.96
6	1.93	1.90	1.88	1.85	1.82	1.80	1.77	1.74	1.72	1.69	1.67	1.65	1.62	1.60	1.58	1.55	1.53	1.51	1.49	1.47
7	1.44	1.42	1.40	1.38	1.36	1.34	1.32	1.30	1.29	1.27	1.25	1.23	1.25	1.23	1.21	1.19	1.18	1.16	1.14	1.13

8 1.11 1.09 1.08 1.06 1.05 1.03 1.02 1.00

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13
4	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13
3	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06
8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01													

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19
3	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24	0.24	0.24
4	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29	0.30
5	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.34	0.34	0.34
6	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38
7	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41	0.41	0.41	0.41
8	0.41	0.41	0.42	0.42	0.42	0.42	0.42	0.42												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.52	5.54	5.56	5.57	5.59	5.60	5.62	5.63	5.65	5.66	5.67	5.69	5.70	5.71
2	5.71	5.72	5.73	5.74	5.74	5.75	5.76	5.76	5.77	5.78	5.78	5.79	5.80	5.81	5.81	5.82	5.83	5.83	5.84	5.85
3	5.86	5.86	5.87	5.88	5.88	5.89	5.90	5.91	5.91	5.92	5.93	5.94	5.94	5.95	5.96	5.97	5.97	5.98	5.99	6.00
4	6.00	5.99	5.99	5.99	5.99	5.99	5.99	5.99	5.99	5.99	5.99	5.99	6.00	6.00	6.00	6.00	6.01	6.01	6.01	6.01
5	6.02	6.02	6.03	6.03	6.03	6.04	6.04	6.05	6.05	6.06	6.06	6.07	6.07	6.08	6.08	6.09	6.09	6.10	6.10	6.11
6	6.11	6.12	6.13	6.13	6.14	6.14	6.15	6.15	6.16	6.17	6.17	6.18	6.18	6.19	6.20	6.20	6.21	6.21	6.22	6.23
7	6.24	6.26	6.27	6.29	6.30	6.32	6.33	6.34	6.36	6.37	6.38	6.40	6.40	6.42	6.43	6.44	6.45	6.46	6.47	6.48
8	6.49	6.50	6.51	6.52	6.53	6.54	6.55	6.56												

ALGAE GROWTH RATE	1	124
ALGAE GROWTH RATE	2	0
ALGAE GROWTH RATE	3	0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

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1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1
0 DISSOLVED OXYGEN IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.53	5.54	5.56	5.58	5.59	5.61	5.62	5.64	5.65	5.66	5.68	5.69	5.70	5.72
2	5.72	5.73	5.74	5.74	5.75	5.76	5.77	5.77	5.78	5.79	5.79	5.80	5.81	5.82	5.82	5.83	5.84	5.85	5.85	5.86
3	5.87	5.87	5.88	5.89	5.90	5.90	5.91	5.92	5.93	5.93	5.94	5.95	5.96	5.97	5.97	5.98	5.99	6.00	6.00	6.01
4	6.01	6.01	6.01	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.01	6.01	6.01	6.01	6.01	6.02	6.02	6.02	6.02	6.03
5	6.03	6.03	6.04	6.04	6.05	6.05	6.05	6.06	6.06	6.07	6.07	6.08	6.08	6.09	6.09	6.10	6.10	6.11	6.11	6.12
6	6.12	6.13	6.14	6.14	6.15	6.15	6.16	6.16	6.17	6.18	6.18	6.19	6.19	6.20	6.21	6.21	6.22	6.22	6.23	6.24
7	6.25	6.27	6.28	6.30	6.31	6.33	6.34	6.35	6.37	6.38	6.39	6.40	6.41	6.42	6.43	6.45	6.46	6.47	6.48	6.49
8	6.50	6.51	6.52	6.53	6.54	6.55	6.56	6.57												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.76
2	5.32	5.28	5.23	5.19	5.15	5.10	5.06	5.02	4.98	4.94	4.90	4.86	4.82	4.78	4.74	4.70	4.66	4.62	4.58	4.54
3	4.51	4.47	4.43	4.40	4.36	4.32	4.29	4.25	4.22	4.18	4.15	4.11	4.08	4.04	4.01	3.98	3.95	3.91	3.88	3.85
4	3.82	3.78	3.75	3.72	3.69	3.66	3.63	3.60	3.57	3.54	3.51	3.48	3.45	3.43	3.40	3.37	3.34	3.31	3.29	3.26
5	3.23	3.21	3.18	3.15	3.13	3.10	3.07	3.05	3.02	3.00	2.97	2.95	2.93	2.90	2.88	2.85	2.83	2.81	2.78	2.76
6	2.74	2.71	2.69	2.67	2.65	2.63	2.60	2.58	2.56	2.54	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.38	2.36	2.34
7	2.32	2.30	2.28	2.26	2.24	2.22	2.21	2.19	2.17	2.15	2.13	2.12	2.10	2.08	2.07	2.05	2.03	2.02	2.00	1.98
8	1.97	1.95	1.93	1.92	1.90	1.89	1.87	1.86												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18
3	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13
4	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10
5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13
3	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06

75' Flood Scenario - Daily Maximum Output

8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

0 NITRITE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19	0.19
3	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.24
4	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29	0.29
5	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.34	0.34
6	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.38
7	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.41	0.41	0.41
8	0.41	0.41	0.41	0.41	0.42	0.42	0.42	0.42												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.05	7.93	7.82	7.71	7.60	7.50	7.39	7.29	7.19	7.09	6.99	6.89	6.80	6.71	6.61	6.52	6.43	6.35
2	6.25	6.17	6.09	6.01	5.92	5.85	5.77	5.69	5.61	5.54	5.47	5.39	5.32	5.25	5.18	5.11	5.05	4.98	4.91	4.85

3	4.79	4.72	4.66	4.60	4.54	4.48	4.42	4.36	4.31	4.25	4.20	4.14	4.09	4.03	3.98	3.93	3.88	3.83	3.78	3.73
4	3.68	3.63	3.59	3.54	3.50	3.45	3.41	3.36	3.32	3.28	3.23	3.19	3.15	3.11	3.07	3.03	2.99	2.95	2.92	2.88
5	2.84	2.81	2.77	2.73	2.70	2.66	2.63	2.60	2.56	2.53	2.50	2.47	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.23
6	2.20	2.17	2.14	2.12	2.09	2.06	2.04	2.01	1.99	1.96	1.94	1.91	1.89	1.87	1.84	1.82	1.80	1.78	1.75	1.73
7	1.71	1.69	1.67	1.65	1.63	1.61	1.59	1.57	1.55	1.54	1.52	1.50	1.51	1.50	1.48	1.46	1.44	1.43	1.41	1.39
8	1.38	1.36	1.34	1.33	1.31	1.30	1.28	1.27												

0 CONSERVATIVE MINERAL I ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
3	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
4	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
5	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
6	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
7	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
8	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04
3	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
5	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
6	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
7	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
8	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.41
2	0.42	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46
3	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
4	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50
5	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.51	0.51	0.51	0.51
6	0.51	0.52	0.52	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.55	0.55	0.55	0.56	0.56	0.56	0.57	0.57	0.57	0.57
7	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.62
8	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC	END LOC	POINT FLOW	INCR SRCE	INCR FLOW	VEL	TRVL TIME	DEPTH	WIDTH	VOLUME	BOTTOM AREA	X-SECT AREA	DSPRSN COEF

75' Flood Scenario - Daily Maximum Output

			MILE	MILE	CFS	CFS	CFS	FPS	DAY	FT	FT	FT-3	FT-2	FT-2	FT-2/S
1	1	1	227.00	226.7546364.10	0.00	0.10	0.129	0.119	12.33429218.080	475711104.0	38600428.0	360387.19	5.30		
2	1	2	226.75	226.5046364.20	0.00	0.10	0.129	0.119	12.33429218.098	475712800.0	38600452.0	360388.50	5.30		
3	1	3	226.50	226.2546364.30	0.00	0.10	0.129	0.119	12.33429218.115	475714528.0	38600476.0	360389.78	5.30		
4	1	4	226.25	226.0046364.41	0.00	0.10	0.129	0.119	12.33529218.131	475716224.0	38600496.0	360391.06	5.30		
5	1	5	226.00	225.7546364.51	0.00	0.10	0.129	0.119	12.33529218.146	475717920.0	38600516.0	360392.37	5.30		
6	1	6	225.75	225.5046364.61	0.00	0.10	0.129	0.119	12.33529218.164	475719616.0	38600540.0	360393.66	5.30		
7	1	7	225.50	225.2546364.71	0.00	0.10	0.129	0.119	12.33529218.184	475721376.0	38600564.0	360395.00	5.30		
8	1	8	225.25	225.0046364.81	0.00	0.10	0.129	0.119	12.33529218.203	475723072.0	38600592.0	360396.28	5.30		
9	1	9	225.00	224.7546364.91	0.00	0.10	0.129	0.119	12.33529218.219	475724800.0	38600612.0	360397.56	5.30		
10	1	10	224.75	224.5046365.02	0.00	0.10	0.129	0.119	12.33529218.236	475726496.0	38600636.0	360398.84	5.30		
11	1	11	224.50	224.2546365.12	0.00	0.10	0.129	0.119	12.33529218.252	475728192.0	38600656.0	360400.16	5.30		
12	1	12	224.25	224.0046365.22	0.00	0.10	0.129	0.119	12.33529218.270	475729888.0	38600680.0	360401.44	5.30		
13	1	13	224.00	223.7546365.32	0.00	0.10	0.129	0.119	12.33529218.291	475731648.0	38600708.0	360402.78	5.30		
14	1	14	223.75	223.5046365.42	0.00	0.10	0.129	0.119	12.33529218.307	475733344.0	38600728.0	360404.06	5.30		
15	1	15	223.50	223.2546365.52	0.00	0.10	0.129	0.119	12.33529218.324	475735072.0	38600752.0	360405.34	5.30		
16	1	16	223.25	223.0046365.62	0.00	0.10	0.129	0.119	12.33529218.340	475736768.0	38600772.0	360406.66	5.30		
17	1	17	223.00	222.7546365.73	0.00	0.10	0.129	0.119	12.33529218.357	475738464.0	38600796.0	360407.94	5.30		
18	1	18	222.75	222.5046365.83	0.00	0.10	0.129	0.119	12.33529218.373	475740160.0	38600816.0	360409.22	5.30		
19	1	19	222.50	222.2546365.93	0.00	0.10	0.129	0.119	12.33529218.395	475741920.0	38600844.0	360410.56	5.30		
20	1	20	222.25	222.0046366.03	0.00	0.10	0.129	0.119	12.33529218.412	475743648.0	38600868.0	360411.84	5.30		
21	2	1	222.00	221.7546435.76	69.63	0.10	0.129	0.119	12.36129230.400	476919712.0	38616760.0	361302.81	5.30		
22	2	2	221.75	221.5046435.86	0.00	0.10	0.129	0.119	12.36129230.416	476921408.0	38616780.0	361304.09	5.30		
23	2	3	221.50	221.2546435.96	0.00	0.10	0.129	0.119	12.36129230.434	476923136.0	38616804.0	361305.41	5.30		
24	2	4	221.25	221.0046436.07	0.00	0.10	0.129	0.119	12.36129230.451	476924832.0	38616828.0	361306.69	5.30		
25	2	5	221.00	220.7546436.17	0.00	0.10	0.129	0.119	12.36129230.473	476926592.0	38616856.0	361308.03	5.30		
26	2	6	220.75	220.5046436.27	0.00	0.10	0.129	0.119	12.36129230.488	476928288.0	38616876.0	361309.31	5.30		
27	2	7	220.50	220.2546436.37	0.00	0.10	0.129	0.119	12.36129230.506	476930016.0	38616900.0	361310.62	5.30		
28	2	8	220.25	220.0046436.47	0.00	0.10	0.129	0.119	12.36129230.521	476931712.0	38616920.0	361311.91	5.30		
29	2	9	220.00	219.7546436.57	0.00	0.10	0.129	0.119	12.36129230.539	476933408.0	38616944.0	361313.19	5.30		
30	2	10	219.75	219.5046436.68	0.00	0.10	0.129	0.119	12.36129230.557	476935136.0	38616968.0	361314.50	5.30		
31	2	11	219.50	219.2546436.78	0.00	0.10	0.129	0.119	12.36129230.574	476936832.0	38616992.0	361315.78	5.30		
32	2	12	219.25	219.0046436.88	0.00	0.10	0.129	0.119	12.36129230.592	476938528.0	38617016.0	361317.06	5.30		
33	2	13	219.00	218.7546436.98	0.00	0.10	0.129	0.119	12.36129230.611	476940320.0	38617040.0	361318.41	5.30		
34	2	14	218.75	218.5046437.08	0.00	0.10	0.129	0.119	12.36129230.627	476942016.0	38617060.0	361319.72	5.30		
35	2	15	218.50	218.2546437.18	0.00	0.10	0.129	0.119	12.36129230.645	476943712.0	38617084.0	361321.00	5.30		
36	2	16	218.25	218.0046437.29	0.00	0.10	0.129	0.119	12.36129230.664	476945440.0	38617108.0	361322.28	5.30		
37	2	17	218.00	217.7546437.39	0.00	0.10	0.129	0.119	12.36129230.680	476947136.0	38617132.0	361323.59	5.30		
38	2	18	217.75	217.5046437.49	0.00	0.10	0.129	0.119	12.36129230.697	476948832.0	38617152.0	361324.87	5.30		
39	2	19	217.50	217.2546437.59	0.00	0.10	0.129	0.119	12.36129230.713	476950560.0	38617176.0	361326.16	5.30		
40	2	20	217.25	217.0046437.69	0.00	0.10	0.129	0.119	12.36129230.730	476952256.0	38617196.0	361327.47	5.30		
41	3	1	217.00	216.7546437.79	0.00	0.10	0.129	0.119	12.36129230.750	476954016.0	38617224.0	361328.81	3.07		
42	3	2	216.75	216.5046437.89	0.00	0.10	0.129	0.119	12.36129230.770	476955712.0	38617248.0	361330.09	3.07		
43	3	3	216.50	216.2546438.00	0.00	0.10	0.129	0.119	12.36129230.785	476957440.0	38617272.0	361331.37	3.07		
44	3	4	216.25	216.0046438.10	0.00	0.10	0.129	0.119	12.36129230.803	476959136.0	38617292.0	361332.69	3.07		

75' Flood Scenario - Daily Maximum Output

45	3	5	216.00	215.7546438.20	0.00	0.10	0.129	0.119	12.36129230.818	476960832.0	38617316.0	361333.97	3.07
46	3	6	215.75	215.5046438.30	0.00	0.10	0.129	0.119	12.36129230.836	476962560.0	38617336.0	361335.25	3.07
47	3	7	215.50	215.2546438.40	0.00	0.10	0.129	0.119	12.36129230.852	476964256.0	38617360.0	361336.56	3.07
48	3	8	215.25	215.0046438.50	0.00	0.10	0.129	0.119	12.36229230.875	476966016.0	38617388.0	361337.91	3.07
49	3	9	215.00	214.7546438.61	0.00	0.10	0.129	0.119	12.36229230.891	476967712.0	38617412.0	361339.19	3.07
50	3	10	214.75	214.5046438.71	0.00	0.10	0.129	0.119	12.36229230.908	476969440.0	38617432.0	361340.47	3.07
51	3	11	214.50	214.2546438.81	0.00	0.10	0.129	0.119	12.36229230.924	476971136.0	38617456.0	361341.78	3.07
52	3	12	214.25	214.0046438.91	0.00	0.10	0.129	0.119	12.36229230.941	476972832.0	38617476.0	361343.06	3.07
53	3	13	214.00	213.7546439.01	0.00	0.10	0.129	0.119	12.36229230.957	476974560.0	38617500.0	361344.34	3.07
54	3	14	213.75	213.5046439.11	0.00	0.10	0.129	0.119	12.36229230.977	476976256.0	38617524.0	361345.66	3.07
55	3	15	213.50	213.2546439.21	0.00	0.10	0.129	0.119	12.36229230.992	476977952.0	38617544.0	361346.94	3.07
56	3	16	213.25	213.0046439.32	0.00	0.10	0.129	0.119	12.36229231.014	476979712.0	38617572.0	361348.28	3.07
57	3	17	213.00	212.7546439.42	0.00	0.10	0.129	0.119	12.36229231.029	476981440.0	38617592.0	361349.56	3.07
58	3	18	212.75	212.5046439.52	0.00	0.10	0.129	0.119	12.36229231.047	476983136.0	38617616.0	361350.87	3.07
59	3	19	212.50	212.2546439.62	0.00	0.10	0.129	0.119	12.36229231.062	476984832.0	38617636.0	361352.16	3.07
60	3	20	212.25	212.0046439.72	0.00	0.10	0.129	0.119	12.36229231.082	476986560.0	38617664.0	361353.44	3.07
61	4	1	212.00	211.7546439.82	0.00	0.10	0.129	0.119	12.36229231.098	476988256.0	38617684.0	361354.75	2.93
62	4	2	211.75	211.5046439.93	0.00	0.10	0.129	0.119	12.36229231.115	476989952.0	38617708.0	361356.03	2.93
63	4	3	211.50	211.2546440.03	0.00	0.10	0.129	0.119	12.36229231.131	476991680.0	38617728.0	361357.34	2.93
64	4	4	211.25	211.0046441.13	1.00	0.10	0.129	0.119	12.36229231.322	477010304.0	38617984.0	361371.44	2.93
65	4	5	211.00	210.7546441.23	0.00	0.10	0.129	0.119	12.36329231.340	477012000.0	38618004.0	361372.72	2.93

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5046441.33	0.00	0.10	0.129	0.119	12.36329231.357	477013696.0	38618028.0	361374.03	2.93		
67	4	7	210.50	210.2546441.43	0.00	0.10	0.129	0.119	12.36329231.373	477015424.0	38618048.0	361375.31	2.93		
68	4	8	210.25	210.0046441.54	0.00	0.10	0.129	0.119	12.36329231.391	477017120.0	38618072.0	361376.59	2.93		
69	4	9	210.00	209.7546441.64	0.00	0.10	0.129	0.119	12.36329231.412	477018880.0	38618100.0	361377.94	2.93		
70	4	10	209.75	209.5046441.74	0.00	0.10	0.129	0.119	12.36329231.430	477020576.0	38618124.0	361379.22	2.93		
71	4	11	209.50	209.2546441.84	0.00	0.10	0.129	0.119	12.36329231.445	477022304.0	38618144.0	361380.53	2.93		
72	4	12	209.25	209.0046441.94	0.00	0.10	0.129	0.119	12.36329231.463	477024000.0	38618168.0	361381.81	2.93		
73	4	13	209.00	208.7546442.04	0.00	0.10	0.129	0.119	12.36329231.479	477025696.0	38618188.0	361383.12	2.93		
74	4	14	208.75	208.5046442.14	0.00	0.10	0.129	0.119	12.36329231.496	477027424.0	38618212.0	361384.41	2.93		
75	4	15	208.50	208.2546442.25	0.00	0.10	0.129	0.119	12.36329231.514	477029120.0	38618236.0	361385.69	2.93		
76	4	16	208.25	208.0046442.35	0.00	0.10	0.129	0.119	12.36329231.535	477030880.0	38618264.0	361387.03	2.93		
77	4	17	208.00	207.7546442.45	0.00	0.10	0.129	0.119	12.36329231.551	477032576.0	38618284.0	361388.31	2.93		
78	4	18	207.75	207.5046442.65	0.10	0.10	0.129	0.119	12.36329231.584	477035904.0	38618328.0	361390.84	2.93		
79	4	19	207.50	207.2546442.75	0.00	0.10	0.129	0.119	12.36329231.604	477037664.0	38618356.0	361392.19	2.93		
80	4	20	207.25	207.0046442.85	0.00	0.10	0.129	0.119	12.36329231.619	477039392.0	38618376.0	361393.47	2.93		

81	5	1	207.00	206.7546442.95	0.00	0.10	0.129	0.119	12.36329231.637	477041088.0	38618400.0	361394.75	1.40
82	5	2	206.75	206.5046443.05	0.00	0.10	0.129	0.119	12.36329231.652	477042784.0	38618420.0	361396.06	1.40
83	5	3	206.50	206.2546443.16	0.00	0.10	0.129	0.119	12.36329231.672	477044512.0	38618444.0	361397.34	1.40
84	5	4	206.25	206.0046443.26	0.00	0.10	0.129	0.119	12.36329231.689	477046208.0	38618468.0	361398.62	1.40
85	5	5	206.00	205.7546443.36	0.00	0.10	0.129	0.119	12.36329231.705	477047904.0	38618488.0	361399.94	1.40
86	5	6	205.75	205.5046443.46	0.00	0.10	0.129	0.119	12.36329231.723	477049632.0	38618512.0	361401.22	1.40
87	5	7	205.50	205.2546443.56	0.00	0.10	0.129	0.119	12.36329231.742	477051392.0	38618540.0	361402.56	1.40
88	5	8	205.25	205.0046443.66	0.00	0.10	0.129	0.119	12.36329231.758	477053088.0	38618560.0	361403.84	1.40
89	5	9	205.00	204.7546443.77	0.00	0.10	0.129	0.119	12.36329231.775	477054784.0	38618584.0	361405.16	1.40
90	5	10	204.75	204.5046443.87	0.00	0.10	0.129	0.119	12.36329231.795	477056512.0	38618608.0	361406.44	1.40
91	5	11	204.50	204.2546443.97	0.00	0.10	0.129	0.119	12.36429231.811	477058208.0	38618628.0	361407.72	1.40
92	5	12	204.25	204.0046444.07	0.00	0.10	0.129	0.119	12.36429231.828	477059904.0	38618652.0	361409.03	1.40
93	5	13	204.00	203.7546444.17	0.00	0.10	0.129	0.119	12.36429231.844	477061632.0	38618672.0	361410.31	1.40
94	5	14	203.75	203.5046444.27	0.00	0.10	0.129	0.119	12.36429231.861	477063328.0	38618696.0	361411.62	1.40
95	5	15	203.50	203.2546444.37	0.00	0.10	0.129	0.119	12.36429231.881	477065088.0	38618724.0	361412.94	1.40
96	5	16	203.25	203.0046444.48	0.00	0.10	0.129	0.119	12.36429231.900	477066784.0	38618748.0	361414.25	1.40
97	5	17	203.00	202.7546445.58	1.00	0.10	0.129	0.119	12.36429232.086	477085376.0	38618996.0	361428.31	1.40
98	5	18	202.75	202.5046445.68	0.00	0.10	0.129	0.119	12.36429232.105	477087072.0	38619020.0	361429.59	1.40
99	5	19	202.50	202.2546445.78	0.00	0.10	0.129	0.119	12.36429232.121	477088768.0	38619040.0	361430.87	1.40
100	5	20	202.25	202.0046445.88	0.00	0.10	0.129	0.119	12.36429232.141	477090528.0	38619068.0	361432.22	1.40
101	6	1	202.00	201.7546445.98	0.00	0.10	0.129	0.119	12.36429232.158	477092256.0	38619092.0	361433.53	2.37
102	6	2	201.75	201.5046446.09	0.00	0.10	0.129	0.119	12.36429232.174	477093952.0	38619112.0	361434.81	2.37
103	6	3	201.50	201.2546446.19	0.00	0.10	0.129	0.119	12.36429232.191	477095648.0	38619136.0	361436.09	2.37
104	6	4	201.25	201.0046446.29	0.00	0.10	0.129	0.119	12.36429232.207	477097376.0	38619156.0	361437.41	2.37
105	6	5	201.00	200.7546446.39	0.00	0.10	0.129	0.119	12.36429232.227	477099072.0	38619180.0	361438.69	2.37
106	6	6	200.75	200.5046446.49	0.00	0.10	0.129	0.119	12.36429232.244	477100768.0	38619204.0	361440.00	2.37
107	6	7	200.50	200.2546446.59	0.00	0.10	0.129	0.119	12.36429232.260	477102496.0	38619224.0	361441.28	2.37
108	6	8	200.25	200.0046446.70	0.00	0.10	0.129	0.119	12.36529232.279	477104256.0	38619252.0	361442.62	2.37
109	6	9	200.00	199.7546446.80	0.00	0.10	0.129	0.119	12.36529232.297	477105952.0	38619276.0	361443.91	2.37
110	6	10	199.75	199.5046446.90	0.00	0.10	0.129	0.119	12.36529232.314	477107680.0	38619296.0	361445.19	2.37
111	6	11	199.50	199.2546447.00	0.00	0.10	0.129	0.119	12.36529232.332	477109376.0	38619320.0	361446.50	2.37
112	6	12	199.25	199.0046447.10	0.00	0.10	0.129	0.119	12.36529232.350	477111072.0	38619344.0	361447.78	2.37
113	6	13	199.00	198.7546447.30	0.10	0.10	0.129	0.119	12.36529232.385	477114464.0	38619392.0	361450.34	2.37
114	6	14	198.75	198.5046447.40	0.00	0.10	0.129	0.119	12.36529232.400	477116160.0	38619412.0	361451.62	2.37
115	6	15	198.50	198.2546447.50	0.00	0.10	0.129	0.119	12.36529232.418	477117856.0	38619436.0	361452.94	2.37
116	6	16	198.25	198.0046447.61	0.00	0.10	0.129	0.119	12.36529232.434	477119584.0	38619456.0	361454.22	2.37
117	6	17	198.00	197.7546447.71	0.00	0.10	0.129	0.119	12.36529232.451	477121280.0	38619480.0	361455.53	2.37
118	6	18	197.75	197.5046447.81	0.00	0.10	0.129	0.119	12.36529232.471	477123040.0	38619504.0	361456.84	2.37
119	6	19	197.50	197.2546447.91	0.00	0.10	0.129	0.119	12.36529232.490	477124736.0	38619532.0	361458.16	2.37
120	6	20	197.25	197.0046448.01	0.00	0.10	0.129	0.119	12.36529232.508	477126464.0	38619552.0	361459.44	2.37
121	7	1	197.00	196.7546448.21	0.10	0.10	0.129	0.119	12.36529232.539	477129824.0	38619596.0	361462.00	0.98
122	7	2	196.75	196.5046448.31	0.00	0.10	0.129	0.119	12.36529232.559	477131552.0	38619620.0	361463.28	0.98
123	7	3	196.50	196.2546448.41	0.00	0.10	0.129	0.119	12.36529232.576	477133248.0	38619644.0	361464.59	0.98
124	7	4	196.25	196.0046448.52	0.00	0.10	0.129	0.119	12.36529232.592	477134944.0	38619664.0	361465.87	0.98
125	7	5	196.00	195.7546448.62	0.00	0.10	0.129	0.119	12.36529232.609	477136672.0	38619688.0	361467.16	0.98

75' Flood Scenario - Daily Maximum Output

126	7	6	195.75	195.5046448.72	0.00	0.10	0.129	0.119	12.36529232.625	477138368.0	38619708.0	361468.47	0.98
127	7	7	195.50	195.2546448.82	0.00	0.10	0.128	0.119	12.36529232.643	477140064.0	38619732.0	361469.75	0.98
128	7	8	195.25	195.0046448.92	0.00	0.10	0.128	0.119	12.36529232.662	477141792.0	38619760.0	361471.06	0.98
129	7	9	195.00	194.7546449.02	0.00	0.10	0.128	0.119	12.36529232.682	477143552.0	38619784.0	361472.37	0.98
130	7	10	194.75	194.5046449.12	0.00	0.10	0.128	0.119	12.36529232.697	477145248.0	38619804.0	361473.69	0.98

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 3
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2546449.23	0.00	0.10	0.128	0.119	12.36529232.715	477146976.0	38619828.0	361474.97	0.98
132	7	12	194.25	194.0046449.33	0.00	0.10	0.128	0.119	12.36529232.730	477148672.0	38619848.0	361476.25	0.98
133	7	13	194.00	193.7546671.43	222.00	0.10	0.128	0.119	12.44729270.824	480902944.0	38670348.0	364320.41	0.98
134	7	14	193.75	193.5046671.53	0.00	0.10	0.128	0.119	12.44729270.840	480904672.0	38670368.0	364321.72	0.98
135	7	15	193.50	193.2546671.63	0.00	0.10	0.128	0.119	12.44729270.857	480906400.0	38670392.0	364323.03	0.98
136	7	16	193.25	193.0046671.73	0.00	0.10	0.128	0.119	12.44729270.879	480908160.0	38670420.0	364324.37	0.98
137	7	17	193.00	192.7546671.84	0.00	0.10	0.128	0.119	12.44729270.895	480909888.0	38670440.0	364325.66	0.98
138	7	18	192.75	192.5046671.94	0.00	0.10	0.128	0.119	12.44729270.912	480911584.0	38670464.0	364326.97	0.98
139	7	19	192.50	192.2546672.04	0.00	0.10	0.128	0.119	12.44729270.932	480913312.0	38670488.0	364328.28	0.98
140	7	20	192.25	192.0046672.14	0.00	0.10	0.128	0.119	12.44729270.949	480915040.0	38670512.0	364329.56	0.98
141	8	1	192.00	191.7546673.16	0.77	0.25	0.128	0.119	12.44729271.119	480932256.0	38670736.0	364342.62	0.98
142	8	2	191.75	191.5046673.41	0.00	0.25	0.128	0.119	12.44729271.164	480936512.0	38670796.0	364345.84	0.98
143	8	3	191.50	191.2546673.66	0.00	0.25	0.128	0.119	12.44729271.207	480940768.0	38670856.0	364349.06	0.98
144	8	4	191.25	191.0046673.91	0.00	0.25	0.128	0.119	12.44729271.250	480944960.0	38670912.0	364352.25	0.98
145	8	5	191.00	190.7546674.16	0.00	0.25	0.128	0.119	12.44829271.293	480949216.0	38670968.0	364355.47	0.98
146	8	6	190.75	190.5046674.41	0.00	0.25	0.128	0.119	12.44829271.334	480953408.0	38671024.0	364358.66	0.98
147	8	7	190.50	190.2546674.66	0.00	0.25	0.128	0.119	12.44829271.377	480957664.0	38671080.0	364361.87	0.98
148	8	8	190.25	190.0046674.91	0.00	0.25	0.128	0.119	12.44829271.424	480961920.0	38671140.0	364365.09	0.98

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 4
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
1	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

75' Flood Scenario - Daily Maximum Output

3	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

7	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	81.30	1.77	0.00	0.00	5.42	5.55	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.28
1	2	81.30	1.77	0.00	0.00	5.44	5.51	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.16
1	3	81.30	1.77	0.00	0.00	5.46	5.46	0.32	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	8.05
1	4	81.30	1.77	0.00	0.00	5.47	5.42	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.93

75' Flood Scenario - Daily Maximum Output

1	5	81.30	1.77	0.00	0.00	5.49	5.37	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.82
1	6	81.30	1.77	0.00	0.00	5.51	5.33	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.71
1	7	81.30	1.77	0.00	0.00	5.53	5.28	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.60
1	8	81.30	1.77	0.00	0.00	5.54	5.24	0.29	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.50
1	9	81.30	1.77	0.00	0.00	5.56	5.20	0.29	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.39
1	10	81.30	1.77	0.00	0.00	5.58	5.15	0.28	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.29
1	11	81.30	1.77	0.00	0.00	5.59	5.11	0.28	0.08	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.19
1	12	81.30	1.77	0.00	0.00	5.61	5.07	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.09
1	13	81.30	1.77	0.00	0.00	5.62	5.03	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.99
1	14	81.30	1.77	0.00	0.00	5.64	4.99	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.89
1	15	81.30	1.77	0.00	0.00	5.65	4.94	0.26	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.80
1	16	81.30	1.77	0.00	0.00	5.66	4.90	0.26	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.71
1	17	81.30	1.77	0.00	0.00	5.68	4.86	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.61
1	18	81.30	1.77	0.00	0.00	5.69	4.82	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.52
1	19	81.30	1.77	0.00	0.00	5.70	4.78	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.43
1	20	81.30	1.77	0.00	0.00	5.72	4.76	0.24	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.35
2	1	81.30	1.82	0.00	0.00	5.72	5.32	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.25
2	2	81.30	1.82	0.00	0.00	5.73	5.28	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.17
2	3	81.30	1.82	0.00	0.00	5.74	5.23	0.24	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.09
2	4	81.30	1.82	0.00	0.00	5.74	5.19	0.23	0.11	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	6.01
2	5	81.30	1.82	0.00	0.00	5.75	5.15	0.23	0.12	0.01	0.15	0.51	0.02	0.01	0.04	0.00	0.00	5.92
2	6	81.30	1.82	0.00	0.00	5.76	5.10	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.85
2	7	81.30	1.82	0.00	0.00	5.77	5.06	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.77
2	8	81.30	1.82	0.00	0.00	5.77	5.02	0.22	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.69
2	9	81.30	1.82	0.00	0.00	5.78	4.98	0.21	0.12	0.01	0.16	0.51	0.02	0.01	0.04	0.00	0.00	5.61
2	10	81.30	1.82	0.00	0.00	5.79	4.94	0.21	0.12	0.01	0.17	0.51	0.02	0.01	0.04	0.00	0.00	5.54
2	11	81.30	1.82	0.00	0.00	5.79	4.90	0.21	0.12	0.01	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.47
2	12	81.30	1.82	0.00	0.00	5.80	4.86	0.21	0.12	0.01	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.39
2	13	81.30	1.82	0.00	0.00	5.81	4.82	0.20	0.12	0.02	0.17	0.51	0.03	0.01	0.04	0.00	0.00	5.32
2	14	81.30	1.82	0.00	0.00	5.82	4.78	0.20	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.25
2	15	81.30	1.82	0.00	0.00	5.82	4.74	0.20	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.18
2	16	81.30	1.82	0.00	0.00	5.83	4.70	0.19	0.12	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.11
2	17	81.30	1.82	0.00	0.00	5.84	4.66	0.19	0.13	0.02	0.18	0.51	0.03	0.01	0.04	0.00	0.00	5.05
2	18	81.30	1.82	0.00	0.00	5.85	4.62	0.19	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.98
2	19	81.30	1.82	0.00	0.00	5.85	4.58	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.91
2	20	81.30	1.82	0.00	0.00	5.86	4.54	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.85
3	1	81.30	1.82	0.00	0.00	5.87	4.51	0.18	0.13	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.79
3	2	81.30	1.82	0.00	0.00	5.87	4.47	0.18	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.72
3	3	81.30	1.82	0.00	0.00	5.88	4.43	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.66
3	4	81.30	1.82	0.00	0.00	5.89	4.40	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.60
3	5	81.30	1.82	0.00	0.00	5.90	4.36	0.17	0.13	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.54
3	6	81.30	1.82	0.00	0.00	5.90	4.32	0.17	0.13	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.48
3	7	81.30	1.82	0.00	0.00	5.91	4.29	0.16	0.13	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.42
3	8	81.30	1.82	0.00	0.00	5.92	4.25	0.16	0.13	0.02	0.21	0.52	0.03	0.01	0.04	0.00	0.00	4.36
3	9	81.30	1.82	0.00	0.00	5.93	4.22	0.16	0.13	0.02	0.21	0.52	0.03	0.01	0.04	0.00	0.00	4.31
3	10	81.30	1.82	0.00	0.00	5.93	4.18	0.16	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.25

75' Flood Scenario - Daily Maximum Output

3	11	81.30	1.82	0.00	0.00	5.94	4.15	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.20
3	12	81.30	1.82	0.00	0.00	5.95	4.11	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.14
3	13	81.30	1.82	0.00	0.00	5.96	4.08	0.15	0.13	0.02	0.22	0.52	0.03	0.01	0.04	0.00	0.00	4.09
3	14	81.30	1.82	0.00	0.00	5.97	4.04	0.15	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	4.03
3	15	81.30	1.82	0.00	0.00	5.97	4.01	0.14	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	3.98
3	16	81.30	1.82	0.00	0.00	5.98	3.98	0.14	0.13	0.02	0.23	0.52	0.03	0.01	0.04	0.00	0.00	3.93
3	17	81.30	1.82	0.00	0.00	5.99	3.95	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.88
3	18	81.30	1.82	0.00	0.00	6.00	3.91	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.83
3	19	81.30	1.82	0.00	0.00	6.00	3.88	0.14	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.78
3	20	81.30	1.82	0.00	0.00	6.01	3.85	0.13	0.12	0.02	0.24	0.52	0.03	0.01	0.04	0.00	0.00	3.73
4	1	81.30	1.82	0.00	0.00	6.01	3.82	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.68
4	2	81.30	1.82	0.00	0.00	6.01	3.78	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.63
4	3	81.30	1.82	0.00	0.00	6.01	3.75	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.59
4	4	81.30	1.82	0.00	0.00	6.00	3.72	0.13	0.12	0.02	0.25	0.52	0.03	0.01	0.04	0.00	0.00	3.54
4	5	81.30	1.82	0.00	0.00	6.00	3.69	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.50

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 8
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	81.30	1.82	0.00	0.00	6.00	3.66	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.45
4	7	81.30	1.82	0.00	0.00	6.00	3.63	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.41
4	8	81.30	1.82	0.00	0.00	6.00	3.60	0.12	0.12	0.02	0.26	0.52	0.03	0.01	0.04	0.00	0.00	3.36
4	9	81.30	1.82	0.00	0.00	6.00	3.57	0.12	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.32
4	10	81.30	1.82	0.00	0.00	6.00	3.54	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.28
4	11	81.30	1.82	0.00	0.00	6.01	3.51	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.23
4	12	81.30	1.82	0.00	0.00	6.01	3.48	0.11	0.12	0.02	0.27	0.52	0.03	0.01	0.04	0.00	0.00	3.19
4	13	81.30	1.82	0.00	0.00	6.01	3.45	0.11	0.12	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.15
4	14	81.30	1.82	0.00	0.00	6.01	3.43	0.11	0.12	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.11
4	15	81.30	1.82	0.00	0.00	6.01	3.40	0.11	0.11	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.07
4	16	81.30	1.82	0.00	0.00	6.02	3.37	0.10	0.11	0.02	0.28	0.52	0.03	0.01	0.04	0.00	0.00	3.03
4	17	81.30	1.82	0.00	0.00	6.02	3.34	0.10	0.11	0.02	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.99
4	18	81.30	1.82	0.00	0.00	6.02	3.31	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.95
4	19	81.30	1.82	0.00	0.00	6.02	3.29	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.92
4	20	81.30	1.82	0.00	0.00	6.03	3.26	0.10	0.11	0.01	0.29	0.52	0.03	0.01	0.04	0.00	0.00	2.88
5	1	81.30	1.82	0.00	0.00	6.03	3.23	0.10	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.84
5	2	81.30	1.82	0.00	0.00	6.03	3.21	0.10	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.81
5	3	81.30	1.82	0.00	0.00	6.04	3.18	0.09	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.77
5	4	81.30	1.82	0.00	0.00	6.04	3.15	0.09	0.11	0.01	0.30	0.52	0.03	0.01	0.04	0.00	0.00	2.73
5	5	81.30	1.82	0.00	0.00	6.05	3.13	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.70

75' Flood Scenario - Daily Maximum Output

5	6	81.30	1.82	0.00	0.00	6.05	3.10	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.66
5	7	81.30	1.82	0.00	0.00	6.05	3.07	0.09	0.11	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.63
5	8	81.30	1.82	0.00	0.00	6.06	3.05	0.09	0.10	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.60
5	9	81.30	1.82	0.00	0.00	6.06	3.02	0.09	0.10	0.01	0.31	0.52	0.03	0.01	0.04	0.00	0.00	2.56
5	10	81.30	1.82	0.00	0.00	6.07	3.00	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.53
5	11	81.30	1.82	0.00	0.00	6.07	2.97	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.50
5	12	81.30	1.82	0.00	0.00	6.08	2.95	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.47
5	13	81.30	1.82	0.00	0.00	6.08	2.93	0.08	0.10	0.01	0.32	0.52	0.03	0.01	0.04	0.00	0.00	2.43
5	14	81.30	1.82	0.00	0.00	6.09	2.90	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.40
5	15	81.30	1.82	0.00	0.00	6.09	2.88	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.37
5	16	81.30	1.82	0.00	0.00	6.10	2.85	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.34
5	17	81.30	1.82	0.00	0.00	6.10	2.83	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.31
5	18	81.30	1.82	0.00	0.00	6.11	2.81	0.08	0.10	0.01	0.33	0.52	0.03	0.01	0.04	0.00	0.00	2.28
5	19	81.30	1.82	0.00	0.00	6.11	2.78	0.07	0.10	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.25
5	20	81.30	1.82	0.00	0.00	6.12	2.76	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.23
6	1	81.30	1.82	0.00	0.00	6.12	2.74	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.20
6	2	81.30	1.82	0.00	0.00	6.13	2.71	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.17
6	3	81.30	1.82	0.00	0.00	6.14	2.69	0.07	0.09	0.01	0.34	0.52	0.03	0.01	0.04	0.00	0.00	2.14
6	4	81.30	1.82	0.00	0.00	6.14	2.67	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.12
6	5	81.30	1.82	0.00	0.00	6.15	2.65	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.09
6	6	81.30	1.82	0.00	0.00	6.15	2.63	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.06
6	7	81.30	1.82	0.00	0.00	6.16	2.60	0.07	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.04
6	8	81.30	1.82	0.00	0.00	6.16	2.58	0.06	0.09	0.01	0.35	0.52	0.03	0.01	0.04	0.00	0.00	2.01
6	9	81.30	1.82	0.00	0.00	6.17	2.56	0.06	0.09	0.01	0.36	0.52	0.03	0.01	0.04	0.00	0.00	1.99
6	10	81.30	1.82	0.00	0.00	6.18	2.54	0.06	0.09	0.01	0.36	0.52	0.03	0.02	0.04	0.00	0.00	1.96
6	11	81.30	1.82	0.00	0.00	6.18	2.52	0.06	0.09	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.94
6	12	81.30	1.82	0.00	0.00	6.19	2.50	0.06	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.91
6	13	81.30	1.82	0.00	0.00	6.19	2.48	0.06	0.08	0.01	0.36	0.52	0.02	0.02	0.04	0.00	0.00	1.89
6	14	81.30	1.82	0.00	0.00	6.20	2.46	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.87
6	15	81.30	1.82	0.00	0.00	6.21	2.44	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.84
6	16	81.30	1.82	0.00	0.00	6.21	2.42	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.82
6	17	81.30	1.82	0.00	0.00	6.22	2.40	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.80
6	18	81.30	1.82	0.00	0.00	6.22	2.38	0.06	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.78
6	19	81.30	1.82	0.00	0.00	6.23	2.36	0.05	0.08	0.01	0.37	0.52	0.02	0.02	0.04	0.00	0.00	1.75
6	20	81.30	1.82	0.00	0.00	6.24	2.34	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.73
7	1	81.30	1.82	0.00	0.00	6.25	2.32	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.71
7	2	81.30	1.82	0.00	0.00	6.27	2.30	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.69
7	3	81.30	1.82	0.00	0.00	6.28	2.28	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.67
7	4	81.30	1.82	0.00	0.00	6.30	2.26	0.05	0.08	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.65
7	5	81.30	1.82	0.00	0.00	6.31	2.24	0.05	0.07	0.01	0.38	0.52	0.02	0.02	0.04	0.00	0.00	1.63
7	6	81.30	1.82	0.00	0.00	6.33	2.22	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.61
7	7	81.30	1.82	0.00	0.00	6.34	2.21	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.59
7	8	81.30	1.82	0.00	0.00	6.35	2.19	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.57
7	9	81.30	1.82	0.00	0.00	6.37	2.17	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.55
7	10	81.30	1.82	0.00	0.00	6.38	2.15	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.54

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	81.30	1.82	0.00	0.00	6.39	2.13	0.05	0.07	0.01	0.39	0.52	0.02	0.02	0.04	0.00	0.00	1.52
7	12	81.30	1.82	0.00	0.00	6.40	2.12	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.50
7	13	81.30	1.82	0.00	0.00	6.41	2.10	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.51
7	14	81.30	1.82	0.00	0.00	6.42	2.08	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.50
7	15	81.30	1.82	0.00	0.00	6.43	2.07	0.05	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.48
7	16	81.30	1.82	0.00	0.00	6.45	2.05	0.04	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.46
7	17	81.30	1.82	0.00	0.00	6.46	2.03	0.04	0.07	0.01	0.40	0.52	0.02	0.02	0.04	0.00	0.00	1.44
7	18	81.30	1.82	0.00	0.00	6.47	2.02	0.04	0.07	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.43
7	19	81.30	1.82	0.00	0.00	6.48	2.00	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.41
7	20	81.30	1.82	0.00	0.00	6.49	1.98	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.39
8	1	81.30	1.82	0.00	0.00	6.50	1.97	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.38
8	2	81.30	1.82	0.00	0.00	6.51	1.95	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.36
8	3	81.30	1.82	0.00	0.00	6.52	1.93	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.34
8	4	81.30	1.82	0.00	0.00	6.53	1.92	0.04	0.06	0.01	0.41	0.52	0.02	0.02	0.04	0.00	0.00	1.33
8	5	81.30	1.82	0.00	0.00	6.54	1.90	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.31
8	6	81.30	1.82	0.00	0.00	6.55	1.89	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.30
8	7	81.30	1.82	0.00	0.00	6.56	1.87	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.28
8	8	81.30	1.82	0.00	0.00	6.57	1.86	0.04	0.06	0.01	0.42	0.52	0.02	0.02	0.04	0.00	0.00	1.27

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.28	0.02	0.07	0.95	0.32	-0.05	0.50	0.33	4.23	0.03	0.43	0.58
2	1	2	8.16	0.03	0.07	0.95	0.33	-0.05	0.50	0.34	4.23	0.03	0.44	0.58
3	1	3	8.05	0.03	0.07	0.95	0.34	-0.05	0.50	0.35	4.23	0.03	0.45	0.58
4	1	4	7.93	0.03	0.07	0.95	0.34	-0.05	0.50	0.36	4.22	0.03	0.46	0.58
5	1	5	7.82	0.03	0.07	0.95	0.35	-0.05	0.50	0.36	4.22	0.03	0.47	0.58
6	1	6	7.71	0.03	0.07	0.95	0.35	-0.05	0.50	0.37	4.22	0.03	0.48	0.58

75' Flood Scenario - Daily Maximum Output

7	1	7	7.60	0.03	0.07	0.95	0.36	-0.05	0.50	0.38	4.22	0.03	0.49	0.58
8	1	8	7.50	0.03	0.07	0.95	0.36	-0.04	0.50	0.38	4.21	0.03	0.49	0.58
9	1	9	7.39	0.03	0.07	0.95	0.37	-0.04	0.50	0.39	4.21	0.03	0.50	0.58
10	1	10	7.29	0.03	0.07	0.95	0.37	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
11	1	11	7.19	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
12	1	12	7.09	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.20	0.03	0.52	0.58
13	1	13	6.99	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.52	0.58
14	1	14	6.89	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
15	1	15	6.80	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
16	1	16	6.71	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.19	0.03	0.54	0.58
17	1	17	6.61	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
18	1	18	6.52	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
19	1	19	6.43	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.55	0.58
20	1	20	6.35	0.03	0.07	0.95	0.41	-0.04	0.50	0.42	4.18	0.03	0.55	0.58
21	2	1	6.25	0.03	0.07	0.95	0.42	-0.03	0.50	0.43	4.18	0.03	0.56	0.59
22	2	2	6.17	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.18	0.03	0.56	0.59
23	2	3	6.09	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.18	0.03	0.57	0.59
24	2	4	6.01	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.57	0.59
25	2	5	5.92	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.57	0.59
26	2	6	5.85	0.03	0.07	0.95	0.43	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
27	2	7	5.77	0.03	0.07	0.95	0.44	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
28	2	8	5.69	0.03	0.07	0.95	0.44	-0.03	0.50	0.43	4.17	0.03	0.58	0.59
29	2	9	5.61	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
30	2	10	5.54	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
31	2	11	5.47	0.03	0.07	0.95	0.44	-0.03	0.50	0.42	4.16	0.03	0.59	0.59
32	2	12	5.39	0.03	0.07	0.95	0.45	-0.03	0.50	0.42	4.16	0.03	0.59	0.58
33	2	13	5.32	0.03	0.07	0.95	0.45	-0.03	0.50	0.42	4.16	0.03	0.60	0.58
34	2	14	5.25	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
35	2	15	5.18	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
36	2	16	5.11	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.60	0.58
37	2	17	5.05	0.04	0.07	0.95	0.45	-0.03	0.50	0.41	4.15	0.03	0.61	0.58
38	2	18	4.98	0.04	0.07	0.95	0.46	-0.03	0.50	0.40	4.15	0.03	0.61	0.58
39	2	19	4.91	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.15	0.03	0.61	0.58
40	2	20	4.85	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.14	0.03	0.61	0.58
41	3	1	4.79	0.04	0.07	0.95	0.46	-0.02	0.50	0.40	4.14	0.03	0.62	0.58
42	3	2	4.72	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
43	3	3	4.66	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
44	3	4	4.60	0.04	0.07	0.95	0.46	-0.02	0.50	0.39	4.14	0.03	0.62	0.58
45	3	5	4.54	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.14	0.03	0.62	0.58
46	3	6	4.48	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.62	0.58
47	3	7	4.42	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.63	0.58
48	3	8	4.36	0.04	0.07	0.95	0.47	-0.02	0.50	0.38	4.13	0.03	0.63	0.58
49	3	9	4.31	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
50	3	10	4.25	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
51	3	11	4.20	0.04	0.07	0.95	0.47	-0.02	0.50	0.37	4.13	0.03	0.63	0.58
52	3	12	4.14	0.04	0.07	0.95	0.47	-0.02	0.50	0.36	4.13	0.03	0.64	0.58

53	3	13	4.09	0.04	0.07	0.95	0.48	-0.02	0.50	0.36	4.12	0.03	0.64	0.58
54	3	14	4.03	0.04	0.07	0.95	0.48	-0.02	0.50	0.36	4.12	0.03	0.64	0.58
55	3	15	3.98	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
56	3	16	3.93	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
57	3	17	3.88	0.04	0.07	0.95	0.48	-0.02	0.50	0.35	4.12	0.03	0.64	0.58
58	3	18	3.83	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.12	0.03	0.64	0.58
59	3	19	3.78	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.12	0.03	0.65	0.58
60	3	20	3.73	0.04	0.07	0.95	0.48	-0.02	0.50	0.34	4.11	0.03	0.65	0.58
61	4	1	3.68	0.04	0.07	0.95	0.48	-0.02	0.50	0.33	4.11	0.03	0.65	0.58
62	4	2	3.63	0.04	0.07	0.95	0.48	-0.02	0.50	0.33	4.11	0.03	0.65	0.58
63	4	3	3.59	0.04	0.07	0.95	0.49	-0.02	0.50	0.33	4.11	0.03	0.65	0.57
64	4	4	3.54	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57
65	4	5	3.50	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.45	0.04	0.07	0.95	0.49	-0.02	0.50	0.32	4.11	0.03	0.65	0.57
67	4	7	3.41	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.11	0.03	0.66	0.57
68	4	8	3.36	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.10	0.03	0.66	0.57
69	4	9	3.32	0.04	0.07	0.95	0.49	-0.02	0.50	0.31	4.10	0.03	0.66	0.57
70	4	10	3.28	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
71	4	11	3.23	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
72	4	12	3.19	0.04	0.07	0.95	0.49	-0.02	0.50	0.30	4.10	0.03	0.66	0.57
73	4	13	3.15	0.04	0.07	0.95	0.49	-0.01	0.50	0.30	4.10	0.03	0.66	0.57
74	4	14	3.11	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.66	0.57
75	4	15	3.07	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.66	0.57
76	4	16	3.03	0.04	0.07	0.95	0.49	-0.01	0.50	0.29	4.10	0.03	0.67	0.57
77	4	17	2.99	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
78	4	18	2.95	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
79	4	19	2.92	0.04	0.07	0.95	0.50	-0.01	0.50	0.28	4.09	0.03	0.67	0.57
80	4	20	2.88	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
81	5	1	2.84	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
82	5	2	2.81	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
83	5	3	2.77	0.04	0.07	0.95	0.50	-0.01	0.50	0.27	4.09	0.03	0.67	0.57
84	5	4	2.73	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57
85	5	5	2.70	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57
86	5	6	2.66	0.04	0.07	0.95	0.50	-0.01	0.50	0.26	4.09	0.03	0.67	0.57

75' Flood Scenario - Daily Maximum Output

87	5	7	2.63	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.67	0.57
88	5	8	2.60	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
89	5	9	2.56	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
90	5	10	2.53	0.04	0.07	0.95	0.50	-0.01	0.50	0.25	4.08	0.03	0.68	0.57
91	5	11	2.50	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
92	5	12	2.47	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
93	5	13	2.43	0.04	0.07	0.95	0.50	-0.01	0.50	0.24	4.08	0.03	0.68	0.57
94	5	14	2.40	0.04	0.07	0.95	0.50	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
95	5	15	2.37	0.04	0.07	0.95	0.50	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
96	5	16	2.34	0.04	0.07	0.95	0.51	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
97	5	17	2.31	0.04	0.07	0.95	0.51	-0.01	0.50	0.23	4.08	0.03	0.68	0.57
98	5	18	2.28	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
99	5	19	2.25	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
100	5	20	2.23	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
101	6	1	2.20	0.04	0.07	0.95	0.51	-0.01	0.50	0.22	4.07	0.03	0.68	0.57
102	6	2	2.17	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.57
103	6	3	2.14	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.58
104	6	4	2.12	0.04	0.07	0.95	0.52	-0.01	0.50	0.21	4.07	0.03	0.69	0.58
105	6	5	2.09	0.04	0.07	0.95	0.53	-0.01	0.50	0.21	4.07	0.03	0.69	0.59
106	6	6	2.06	0.04	0.07	0.95	0.53	-0.01	0.50	0.20	4.07	0.03	0.69	0.59
107	6	7	2.04	0.04	0.07	0.95	0.53	-0.01	0.50	0.20	4.07	0.03	0.69	0.59
108	6	8	2.01	0.04	0.07	0.95	0.54	-0.01	0.50	0.20	4.07	0.03	0.69	0.60
109	6	9	1.99	0.04	0.07	0.95	0.54	-0.01	0.50	0.20	4.07	0.03	0.69	0.60
110	6	10	1.96	0.04	0.07	0.95	0.54	-0.01	0.50	0.19	4.07	0.03	0.69	0.60
111	6	11	1.94	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
112	6	12	1.91	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
113	6	13	1.89	0.04	0.07	0.95	0.55	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
114	6	14	1.87	0.04	0.07	0.95	0.56	-0.01	0.50	0.19	4.06	0.03	0.69	0.61
115	6	15	1.84	0.04	0.07	0.95	0.56	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
116	6	16	1.82	0.04	0.07	0.95	0.56	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
117	6	17	1.80	0.04	0.07	0.95	0.57	-0.01	0.50	0.18	4.06	0.03	0.69	0.62
118	6	18	1.78	0.04	0.07	0.95	0.57	-0.01	0.50	0.18	4.06	0.03	0.69	0.63
119	6	19	1.75	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.63
120	6	20	1.73	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.63
121	7	1	1.71	0.04	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.63
122	7	2	1.69	0.05	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.64
123	7	3	1.67	0.05	0.07	0.95	0.58	-0.01	0.50	0.17	4.06	0.03	0.70	0.64
124	7	4	1.65	0.05	0.07	0.95	0.58	-0.01	0.50	0.16	4.06	0.03	0.70	0.64
125	7	5	1.63	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.06	0.03	0.70	0.64
126	7	6	1.61	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.64
127	7	7	1.59	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.65
128	7	8	1.57	0.05	0.07	0.95	0.59	-0.01	0.50	0.16	4.05	0.03	0.70	0.65
129	7	9	1.55	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.65
130	7	10	1.54	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.65

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75' Flood Scenario - Daily Maximum Output

***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.52	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
132	7	12	1.50	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
133	7	13	1.51	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
134	7	14	1.50	0.05	0.07	0.95	0.60	-0.01	0.50	0.15	4.05	0.03	0.70	0.66
135	7	15	1.48	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
136	7	16	1.46	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
137	7	17	1.44	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
138	7	18	1.43	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
139	7	19	1.41	0.05	0.07	0.95	0.61	-0.01	0.50	0.14	4.05	0.03	0.70	0.67
140	7	20	1.39	0.05	0.07	0.95	0.62	-0.01	0.50	0.13	4.05	0.03	0.70	0.67
141	8	1	1.38	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
142	8	2	1.36	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
143	8	3	1.34	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
144	8	4	1.33	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.68
145	8	5	1.31	0.05	0.07	0.95	0.63	0.00	0.50	0.13	4.05	0.03	0.70	0.68
146	8	6	1.30	0.05	0.07	0.95	0.63	0.00	0.50	0.13	4.05	0.03	0.70	0.68
147	8	7	1.28	0.05	0.07	0.95	0.63	0.00	0.50	0.12	4.05	0.03	0.70	0.68
148	8	8	1.27	0.05	0.07	0.95	0.63	0.00	0.50	0.12	4.04	0.03	0.70	0.69

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	81.30	7.91	5.42	2.49	0.00	1.00	45.47	0.89	-0.39	-0.01	-0.05	-0.03	-0.04
2	1	2	81.30	7.91	5.44	2.48	0.00	1.00	0.00	0.89	-0.39	-0.01	-0.05	-0.03	-0.03
3	1	3	81.30	7.91	5.46	2.46	0.00	1.00	0.00	0.88	-0.38	-0.01	-0.05	-0.04	-0.03
4	1	4	81.30	7.91	5.47	2.44	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
5	1	5	81.30	7.91	5.49	2.42	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
6	1	6	81.30	7.91	5.51	2.40	0.00	1.00	0.00	0.86	-0.37	-0.01	-0.05	-0.04	-0.02

75' Flood Scenario - Daily Maximum Output

7	1	7	81.30	7.91	5.53	2.39	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.05	-0.04	-0.02
8	1	8	81.30	7.91	5.54	2.37	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.04	-0.05	-0.02
9	1	9	81.30	7.91	5.56	2.35	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
10	1	10	81.30	7.91	5.58	2.34	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
11	1	11	81.30	7.91	5.59	2.32	0.00	1.00	0.00	0.83	-0.36	-0.01	-0.04	-0.05	-0.02
12	1	12	81.30	7.91	5.61	2.31	0.00	1.00	0.00	0.82	-0.36	-0.01	-0.04	-0.05	-0.02
13	1	13	81.30	7.91	5.62	2.29	0.00	1.00	0.00	0.82	-0.35	-0.01	-0.04	-0.06	-0.02
14	1	14	81.30	7.91	5.64	2.28	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
15	1	15	81.30	7.91	5.65	2.26	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
16	1	16	81.30	7.91	5.66	2.25	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
17	1	17	81.30	7.91	5.68	2.23	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
18	1	18	81.30	7.91	5.69	2.22	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
19	1	19	81.30	7.91	5.70	2.21	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
20	1	20	81.30	7.91	5.72	2.20	0.00	1.00	0.00	0.79	-0.33	-0.01	-0.04	-0.06	-0.02
21	2	1	81.30	7.91	5.72	2.19	0.00	1.00	0.04	0.78	-0.37	-0.01	-0.03	-0.07	-0.02
22	2	2	81.30	7.91	5.73	2.18	0.00	1.00	0.00	0.78	-0.37	-0.01	-0.03	-0.07	-0.02
23	2	3	81.30	7.91	5.74	2.18	0.00	1.00	0.00	0.78	-0.37	-0.01	-0.03	-0.07	-0.02
24	2	4	81.30	7.91	5.74	2.17	0.00	1.00	0.00	0.78	-0.36	-0.01	-0.03	-0.07	-0.02
25	2	5	81.30	7.91	5.75	2.16	0.00	1.00	0.00	0.77	-0.36	-0.01	-0.03	-0.07	-0.02
26	2	6	81.30	7.91	5.76	2.16	0.00	1.00	0.00	0.77	-0.36	-0.01	-0.03	-0.07	-0.02
27	2	7	81.30	7.91	5.77	2.15	0.00	1.00	0.00	0.77	-0.36	-0.01	-0.03	-0.07	-0.02
28	2	8	81.30	7.91	5.77	2.14	0.00	1.00	0.00	0.77	-0.35	-0.01	-0.03	-0.07	-0.02
29	2	9	81.30	7.91	5.78	2.13	0.00	1.00	0.00	0.76	-0.35	-0.01	-0.03	-0.07	-0.02
30	2	10	81.30	7.91	5.79	2.13	0.00	1.00	0.00	0.76	-0.35	-0.01	-0.03	-0.07	-0.02
31	2	11	81.30	7.91	5.79	2.12	0.00	1.00	0.00	0.76	-0.34	-0.01	-0.03	-0.08	-0.02
32	2	12	81.30	7.91	5.80	2.11	0.00	1.00	0.00	0.75	-0.34	-0.01	-0.03	-0.08	-0.02
33	2	13	81.30	7.91	5.81	2.10	0.00	1.00	0.00	0.75	-0.34	-0.01	-0.03	-0.08	-0.02
34	2	14	81.30	7.91	5.82	2.10	0.00	1.00	0.00	0.75	-0.34	-0.01	-0.03	-0.08	-0.02
35	2	15	81.30	7.91	5.82	2.09	0.00	1.00	0.00	0.75	-0.33	-0.01	-0.03	-0.08	-0.02
36	2	16	81.30	7.91	5.83	2.08	0.00	1.00	0.00	0.74	-0.33	-0.01	-0.03	-0.08	-0.02
37	2	17	81.30	7.91	5.84	2.07	0.00	1.00	0.00	0.74	-0.33	-0.01	-0.03	-0.08	-0.02
38	2	18	81.30	7.91	5.85	2.07	0.00	1.00	0.00	0.74	-0.32	-0.01	-0.03	-0.08	-0.02
39	2	19	81.30	7.91	5.85	2.06	0.00	1.00	0.00	0.74	-0.32	-0.01	-0.02	-0.08	-0.03
40	2	20	81.30	7.91	5.86	2.05	0.00	1.00	0.00	0.73	-0.32	-0.01	-0.02	-0.08	-0.03
41	3	1	81.30	7.91	5.87	2.05	0.00	1.00	0.00	0.73	-0.32	-0.01	-0.02	-0.08	-0.03
42	3	2	81.30	7.91	5.87	2.04	0.00	1.00	0.00	0.73	-0.31	-0.01	-0.02	-0.08	-0.03
43	3	3	81.30	7.91	5.88	2.03	0.00	1.00	0.00	0.73	-0.31	-0.01	-0.02	-0.08	-0.03
44	3	4	81.30	7.91	5.89	2.02	0.00	1.00	0.00	0.72	-0.31	-0.01	-0.02	-0.08	-0.03
45	3	5	81.30	7.91	5.90	2.02	0.00	1.00	0.00	0.72	-0.31	-0.01	-0.02	-0.08	-0.03
46	3	6	81.30	7.91	5.90	2.01	0.00	1.00	0.00	0.72	-0.30	-0.01	-0.02	-0.08	-0.03
47	3	7	81.30	7.91	5.91	2.00	0.00	1.00	0.00	0.72	-0.30	-0.01	-0.02	-0.08	-0.03
48	3	8	81.30	7.91	5.92	1.99	0.00	1.00	0.00	0.71	-0.30	-0.01	-0.02	-0.08	-0.03
49	3	9	81.30	7.91	5.93	1.99	0.00	1.00	0.00	0.71	-0.30	-0.01	-0.02	-0.08	-0.03
50	3	10	81.30	7.91	5.93	1.98	0.00	1.00	0.00	0.71	-0.29	-0.01	-0.02	-0.08	-0.03
51	3	11	81.30	7.91	5.94	1.97	0.00	1.00	0.00	0.70	-0.29	-0.01	-0.02	-0.08	-0.03
52	3	12	81.30	7.91	5.95	1.96	0.00	1.00	0.00	0.70	-0.29	-0.01	-0.02	-0.08	-0.03

53	3	13	81.30	7.91	5.96	1.96	0.00	1.00	0.00	0.70	-0.29	-0.01	-0.02	-0.08	-0.03
54	3	14	81.30	7.91	5.97	1.95	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.03
55	3	15	81.30	7.91	5.97	1.94	0.00	1.00	0.00	0.69	-0.28	-0.01	-0.02	-0.08	-0.03
56	3	16	81.30	7.91	5.98	1.93	0.00	1.00	0.00	0.69	-0.28	-0.01	-0.02	-0.08	-0.03
57	3	17	81.30	7.91	5.99	1.92	0.00	1.00	0.00	0.69	-0.28	-0.01	-0.02	-0.08	-0.03
58	3	18	81.30	7.91	6.00	1.92	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.03
59	3	19	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
60	3	20	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
61	4	1	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
62	4	2	81.30	7.91	6.01	1.91	0.00	1.00	0.00	0.68	-0.27	-0.01	-0.02	-0.08	-0.03
63	4	3	81.30	7.91	6.01	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
64	4	4	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
65	4	5	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.07	-0.03

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.07	-0.03
67	4	7	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.25	-0.01	-0.02	-0.07	-0.03
68	4	8	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.25	-0.01	-0.02	-0.07	-0.03
69	4	9	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.25	-0.01	-0.02	-0.07	-0.02
70	4	10	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.25	-0.01	-0.02	-0.07	-0.02
71	4	11	81.30	7.91	6.01	1.91	0.00	1.00	0.00	0.68	-0.25	-0.01	-0.02	-0.07	-0.02
72	4	12	81.30	7.91	6.01	1.91	0.00	1.00	0.00	0.68	-0.24	-0.01	-0.02	-0.07	-0.02
73	4	13	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.24	-0.01	-0.01	-0.07	-0.02
74	4	14	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.24	-0.01	-0.01	-0.07	-0.02
75	4	15	81.30	7.91	6.01	1.90	0.00	1.00	0.00	0.68	-0.24	-0.01	-0.01	-0.07	-0.02
76	4	16	81.30	7.91	6.02	1.90	0.00	1.00	0.00	0.68	-0.24	-0.01	-0.01	-0.07	-0.02
77	4	17	81.30	7.91	6.02	1.89	0.00	1.00	0.00	0.68	-0.23	-0.01	-0.01	-0.07	-0.02
78	4	18	81.30	7.91	6.02	1.89	0.00	1.00	0.00	0.68	-0.23	-0.01	-0.01	-0.07	-0.02
79	4	19	81.30	7.91	6.02	1.89	0.00	1.00	0.00	0.68	-0.23	-0.01	-0.01	-0.07	-0.02
80	4	20	81.30	7.91	6.03	1.89	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
81	5	1	81.30	7.91	6.03	1.88	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
82	5	2	81.30	7.91	6.03	1.88	0.00	1.00	0.00	0.67	-0.23	-0.01	-0.01	-0.07	-0.02
83	5	3	81.30	7.91	6.04	1.88	0.00	1.00	0.00	0.67	-0.22	-0.01	-0.01	-0.07	-0.02
84	5	4	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.22	-0.01	-0.01	-0.07	-0.02
85	5	5	81.30	7.91	6.05	1.87	0.00	1.00	0.00	0.67	-0.22	-0.01	-0.01	-0.07	-0.02
86	5	6	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.22	-0.01	-0.01	-0.07	-0.02

87	5	7	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.66	-0.22	-0.01	-0.01	-0.07	-0.02
88	5	8	81.30	7.91	6.06	1.85	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.06	-0.02
89	5	9	81.30	7.91	6.06	1.85	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.06	-0.02
90	5	10	81.30	7.91	6.07	1.85	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.06	-0.02
91	5	11	81.30	7.91	6.07	1.84	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.06	-0.02
92	5	12	81.30	7.91	6.08	1.84	0.00	1.00	0.00	0.66	-0.21	-0.01	-0.01	-0.06	-0.02
93	5	13	81.30	7.91	6.08	1.83	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.06	-0.02
94	5	14	81.30	7.91	6.09	1.83	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
95	5	15	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
96	5	16	81.30	7.91	6.10	1.82	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
97	5	17	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
98	5	18	81.30	7.91	6.11	1.81	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.06	-0.02
99	5	19	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.06	-0.02
100	5	20	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
101	6	1	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
102	6	2	81.30	7.91	6.13	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
103	6	3	81.30	7.91	6.14	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
104	6	4	81.30	7.91	6.14	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
105	6	5	81.30	7.91	6.15	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
106	6	6	81.30	7.91	6.15	1.76	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
107	6	7	81.30	7.91	6.16	1.75	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
108	6	8	81.30	7.91	6.16	1.75	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.05	-0.02
109	6	9	81.30	7.91	6.17	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.05	-0.02
110	6	10	81.30	7.91	6.18	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.05	-0.02
111	6	11	81.30	7.91	6.18	1.73	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.05	-0.02
112	6	12	81.30	7.91	6.19	1.73	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.05	-0.02
113	6	13	81.30	7.91	6.19	1.72	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
114	6	14	81.30	7.91	6.20	1.71	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
115	6	15	81.30	7.91	6.21	1.71	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
116	6	16	81.30	7.91	6.21	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
117	6	17	81.30	7.91	6.22	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.05	-0.02
118	6	18	81.30	7.91	6.22	1.69	0.00	1.00	0.00	0.60	-0.17	-0.01	-0.01	-0.05	-0.02
119	6	19	81.30	7.91	6.23	1.68	0.00	1.00	0.00	0.60	-0.17	-0.01	-0.01	-0.05	-0.02
120	6	20	81.30	7.91	6.24	1.68	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
121	7	1	81.30	7.91	6.25	1.66	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
122	7	2	81.30	7.91	6.27	1.65	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
123	7	3	81.30	7.91	6.28	1.63	0.00	1.00	0.00	0.58	-0.16	-0.01	-0.01	-0.05	-0.02
124	7	4	81.30	7.91	6.30	1.62	0.00	1.00	0.00	0.58	-0.16	-0.01	-0.01	-0.05	-0.02
125	7	5	81.30	7.91	6.31	1.60	0.00	1.00	0.00	0.57	-0.16	-0.01	-0.01	-0.05	-0.02
126	7	6	81.30	7.91	6.33	1.59	0.00	1.00	0.00	0.57	-0.16	-0.01	-0.01	-0.05	-0.02
127	7	7	81.30	7.91	6.34	1.57	0.00	1.00	0.00	0.56	-0.15	-0.01	-0.01	-0.05	-0.02
128	7	8	81.30	7.91	6.35	1.56	0.00	1.00	0.00	0.56	-0.15	-0.01	-0.01	-0.04	-0.02
129	7	9	81.30	7.91	6.37	1.55	0.00	1.00	0.00	0.55	-0.15	-0.01	-0.01	-0.04	-0.02
130	7	10	81.30	7.91	6.38	1.53	0.00	1.00	0.00	0.55	-0.15	-0.01	-0.01	-0.04	-0.02

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75' Flood Scenario - Daily Maximum Output

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	81.30	7.91	6.39	1.52	0.00	1.00	0.00	0.54	-0.15	-0.01	-0.01	-0.04	-0.02
132	7	12	81.30	7.91	6.40	1.51	0.00	1.00	0.00	0.54	-0.15	-0.01	-0.01	-0.04	-0.02
133	7	13	81.30	7.91	6.41	1.50	0.00	1.00	0.22	0.54	-0.15	-0.01	-0.01	-0.04	-0.02
134	7	14	81.30	7.91	6.42	1.49	0.00	1.00	0.00	0.53	-0.15	-0.01	-0.01	-0.04	-0.02
135	7	15	81.30	7.91	6.43	1.48	0.00	1.00	0.00	0.53	-0.15	-0.01	-0.01	-0.04	-0.02
136	7	16	81.30	7.91	6.45	1.47	0.00	1.00	0.00	0.52	-0.14	-0.01	-0.01	-0.04	-0.01
137	7	17	81.30	7.91	6.46	1.46	0.00	1.00	0.00	0.52	-0.14	-0.01	-0.01	-0.04	-0.01
138	7	18	81.30	7.91	6.47	1.45	0.00	1.00	0.00	0.52	-0.14	-0.01	-0.01	-0.04	-0.01
139	7	19	81.30	7.91	6.48	1.43	0.00	1.00	0.00	0.51	-0.14	-0.01	-0.01	-0.04	-0.01
140	7	20	81.30	7.91	6.49	1.42	0.00	1.00	0.00	0.51	-0.14	-0.01	-0.01	-0.04	-0.01
141	8	1	81.30	7.91	6.50	1.41	0.00	1.00	0.00	0.51	-0.14	-0.01	0.00	-0.04	-0.01
142	8	2	81.30	7.91	6.51	1.40	0.00	1.00	0.00	0.50	-0.14	-0.01	0.00	-0.04	-0.01
143	8	3	81.30	7.91	6.52	1.39	0.00	1.00	0.00	0.50	-0.14	-0.01	0.00	-0.04	-0.01
144	8	4	81.30	7.91	6.53	1.38	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
145	8	5	81.30	7.91	6.54	1.37	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
146	8	6	81.30	7.91	6.55	1.37	0.00	1.00	0.00	0.49	-0.13	-0.01	0.00	-0.04	-0.01
147	8	7	81.30	7.91	6.56	1.36	0.00	1.00	0.00	0.48	-0.13	-0.01	0.00	-0.04	-0.01
148	8	8	81.30	7.91	6.57	1.35	0.00	1.00	0.00	0.48	-0.13	-0.01	0.00	-0.04	-0.01

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TITLE01              GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02              CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03  YES         CONSERVATIVE MINERAL   I
TITLE04   NO         CONSERVATIVE MINERAL  II
TITLE05   NO         CONSERVATIVE MINERAL III
TITLE06   NO         TEMPERATURE
TITLE07  YES         BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08  YES         ALGAE AS CHL-A IN UG/L
TITLE09  YES         PHOSPHORUS CYCLE AS P IN MG/L
TITLE10                (ORGANIC-P; DISSOLVED-P)
TITLE11  YES         NITROGEN CYCLE AS N IN MG/L
TITLE12                (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13  YES         DISSOLVED OXYGEN IN MG/L
TITLE14   NO         FECAL COLIFORMS IN NO./100 ML
TITLE15   NO         ARBITRARY NON-CONSERVATIVE  BOD    MG/L
ENDTITLE
LIST DATA INPUT
WRITE OPTIONAL SUMMARY
NO FLOW AUGMENTATION
STEADY STATE
NO TRAPEZOIDAL X-SECTIONS
NO PRINT LCD/SOLAR DATA
NO PLOT DO AND BOD
FIXED DNSTM CONC (YES=1)=         0          ULT BOD CONV RATE COEF            0
INPUT METRIC (YES=1)    =         0          OUTPUT METRIC (YES=1)   =         0
NUMBER OF REACHES       =         8          NUMBER OF JUNCTIONS     =         0
NUM OF HEADWATERS       =         1          NUMBER OF POINT LOADS   =         8
TIME STEP (HOURS)       =         1          LNTH  COMP  ELEMENT (DX)=      0.25
MAXIMUM ROUTE TIME (HRS)=       250          TIME INC. FOR RPT2 (HRS)=         1
LATITUDE OF BASIN (DEG) =      33.0          LONGITUDE OF BASIN (DEG)=      92.0
STANDARD MERIDIAN (DEG) =      90.0          DAY OF YEAR START TIME  =     190.0
EVAP. COEFF. (AE)       =   0.00001          EVAP. COEF. (BE)        =   0.00010
ELEV  OF BASIN (ELEV)   =        60          DUST ATTENUATION COEF.  =      0.13
ENDATA1
O UPTAKE BY NH3 OXID(MG O/MG N)=   3.43  O UPTAKE BY NO2 OXID(MG O/MG N)=   1.14
O PROD  BY ALGAE (MG O/MG A)   =    1.8  O UPTAKE BY ALGAE (MG O/MG A)  =   2.00
N CONTENT OF ALGAE (MG N/MG A) =   .085  P CONTENT OF ALGAE (MG P/MG A) =  0.015
ALG MAX SPEC GROWTH RATE(1/DAY)=    2.5  ALGAE RESPIRATION RATE (1/DAY) =   0.05
N HALF SATURATION CONST  (MG/L)=   0.20  P HALF SATURATION CONST  (MG/L)=   0.01
LIN ALG EXCO (1/FT)/(UG-CHLA/L)=  .0200  NLINCO(1/FT)/(UG-CHLA/L)**(2/3)=  .0165
LIGHT FUNCTION OPTION (LFNOPT) =      2  LIGHT SATURATION COEF(LNGY/MIN)=   .100
DAILY AVERAGING OPTION (LAVOPT)=      2  LIGHT AVERAGING FACTOR (AFACT) =   0.92
NUMBER OF DAYLIGHT HOURS (DLH) =     13  TOTAL DAILY SOLAR RADTN (LNGYS)=    754
ALGY GROWTH CALC OPTION(LGROPT)=      1  ALGAL PREF FOR NH3-N (PREFN)   =    0.5
ALG/TEMP SOLR RAD FACTOR(TFACT)=   0.44  NITRIFICATION INHIBITION COEF  =   10.0
ENDATA1A
ENDATA1B
STREAM REACH     1.0             REACH 1    FROM       227.0    TO         222.0
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STREAM REACH     2.0             REACH 2    FROM       222.0    TO         217.0
STREAM REACH     3.0             REACH 3    FROM       217.0    TO         212.0
STREAM REACH     4.0             REACH 4    FROM       212.0    TO         207.0
STREAM REACH     5.0             REACH 5    FROM       207.0    TO         202.0
STREAM REACH     6.0             REACH 6    FROM       202.0    TO         197.0
STREAM REACH     7.0             REACH 7    FROM       197.0    TO         192.0
STREAM REACH     8.0             REACH 8    FROM       192.0    TO         190.0
ENDATA2
STREAM REACH              1.0       1.0       3.0   1.0
STREAM REACH              2.0       1.0       3.0   1.0
STREAM REACH              3.0       1.0       3.0   1.0
STREAM REACH              4.0       1.0       3.0   1.0
STREAM REACH              5.0       1.0       3.0   1.0
STREAM REACH              6.0       1.0       3.0   1.0
STREAM REACH              7.0       1.0       3.0   1.0
STREAM REACH              8.0       1.0       3.0   1.0
ENDATA3
FLAG FIELD RCH=  1.0      20.0          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  2.0      20.0          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  3.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
FLAG FIELD RCH=  4.0      20.0          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
FLAG FIELD RCH=  5.0      20.0          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
FLAG FIELD RCH=  6.0      20.0          2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  7.0      20.0          6.2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
FLAG FIELD RCH=  8.0       8.0          6.2.2.2.2.2.2.5.
ENDATA4
HYDRAULICS RCH=  1.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  2.0      38.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  3.0      22.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  4.0      21.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  5.0      10.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  6.0      17.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  7.0       7.0   128.756     -.643  4.994E-6      1.37      .035
HYDRAULICS RCH=  8.0       7.0   128.756     -.643  4.994E-6      1.37      .035
ENDATA5
REACT COEF RCH=  1.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  2.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  3.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  4.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  5.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  6.0   0.050     0.0   .0710 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  7.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
REACT COEF RCH=  8.0   0.050     0.0   .0510 1.0    0.30  0.0000 0.00E-4
ENDATA6
N AND P COEF   RCH=  1.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  2.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  3.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  4.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
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N AND P COEF   RCH=  5.0  0.100    .00  0.100    0.0    1.0    .00    0.0    0.0
N AND P COEF   RCH=  6.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  7.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
N AND P COEF   RCH=  8.0  0.100    .00  0.100    0.0    1.0    .05    0.0    0.0
ENDATA6A
ALG/OTHER COEF RCH=  1.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  2.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  3.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  4.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  5.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  6.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  7.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ALG/OTHER COEF RCH=  8.0   15.0   0.80   4.00    0.0    0.0    0.0    0.0
ENDATA6B
INITIAL COND-1 RCH=  1.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  2.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  3.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  4.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  5.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  6.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  7.0   81.3   5.40   5.60 1.77
INITIAL COND-1 RCH=  8.0   81.3   5.40   5.60 1.77
ENDATA7
INITIAL COND-2 RCH=  1.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  2.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  3.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  4.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  5.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  6.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  7.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
INITIAL COND-2 RCH=  8.0    8.4   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA7A
INCR INFLOW-1  RCH=  1.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  2.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  3.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  4.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  5.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  6.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  7.0    2.0   88.7  5.95   5.6 1.77
INCR INFLOW-1  RCH=  8.0    2.0   88.7  5.95   5.6 1.77
ENDATA8
INCR INFLOW-2  RCH=  1.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  2.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  3.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  4.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  5.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  6.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
INCR INFLOW-2  RCH=  7.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
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INCR INFLOW-2  RCH=  8.0   0.00   0.33  0.045  0.025  0.098  0.023  0.014
ENDATA8A
ENDATA9
HEADWTR-1 HDW=  1.0  OUACHITA RIVER    46364  81.3  5.40  5.60 1.77
ENDATA10
HEADWTR-2  HDW=  1.0   0.0   0.0   8.4  0.33 0.045 0.025 0.098 0.023 0.014
ENDATA10A
POINTLD-1 PTL=  1.0COFFEE CREEK  0.0   0.000  86.9  3.50 218.3 18.75
POINTLD-1 PTL=  2.0PIERRE CREEK  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  3.0POSSUM BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  4.0BAYOUDEBUTTE  0.0     1.0  88.7  5.50   5.0 1.77
POINTLD-1 PTL=  5.0 BOGGY BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  6.0PAWPAW BAYOU  0.0     0.1  88.7  5.50  2.80 1.77
POINTLD-1 PTL=  7.0BAYOU BARTHO  0.0   222.0  85.1  5.40  2.80 1.77
POINTLD-1 PTL=  8.0STERLINGTONW  0.0    0.77  88.7  3.00  60.0 1.77
ENDATA11
POINTLD-2 PTL=   1.0   0.0   0.0  1.00  2.73  3.56  0.10  0.40 0.220 0.589
POINTLD-2 PTL=   2.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   3.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   4.0   0.0   0.0  1.00 5.000  5.00  0.10  0.40 0.070 1.000
POINTLD-2 PTL=   5.0   0.0   0.0   2.8 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   6.0   0.0   0.0  1.00 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   7.0   0.0   0.0  8.40 0.484  0.05  0.10  0.40 0.070 0.040
POINTLD-2 PTL=   8.0   0.0   0.0  10.0 12.00  12.0  0.10  2.00 1.000 3.000
ENDATA11A
ENDATA12
ENDATA13
ENDATA13A
BEGIN  RCH    1    2    3    4    5    6    7    8    9
PLOT   RCH    1    2    3    4    5    6    7    8    9
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1 * * * QUAL-2E STREAM QUALITY ROUTING MODEL * * *
* * * EPA/NCASI VERSION * * *

0 $$$ (PROBLEM TITLES) $$$

CARD TYPE QUAL-2E PROGRAM TITLES
TITLE01 GEORGIA PACIFIC, OUACHITA RIVER NEAR CROSSETT, AR
TITLE02 CALIBRATION DATA SET, AUGUST 27, 1998 (12/98 REVISION)
TITLE03 YES CONSERVATIVE MINERAL I
TITLE04 NO CONSERVATIVE MINERAL II
TITLE05 NO CONSERVATIVE MINERAL III
TITLE06 NO TEMPERATURE
TITLE07 YES BIOCHEMICAL OXYGEN DEMAND IN MG/L
TITLE08 YES ALGAE AS CHL-A IN UG/L
TITLE09 YES PHOSPHORUS CYCLE AS P IN MG/L
TITLE10 (ORGANIC-P; DISSOLVED-P)
TITLE11 YES NITROGEN CYCLE AS N IN MG/L
TITLE12 (ORGANIC-N; AMMONIA-N; NITRITE-N; NITRATE-N)
TITLE13 YES DISSOLVED OXYGEN IN MG/L
TITLE14 NO FECAL COLIFORMS IN NO./100 ML
TITLE15 NO ARBITRARY NON-CONSERVATIVE BOD MG/L
ENDTITLE

0 $$$ DATA TYPE 1 (CONTROL DATA) $$$

CARD TYPE		CARD TYPE	
LIST DATA INPUT	0.00000		0.00000
WRITE OPTIONAL SUMMARY	0.00000		0.00000
NO FLOW AUGMENTATION	0.00000		0.00000
STEADY STATE	0.00000		0.00000
NO TRAPEZOIDAL X-SECTIONS	0.00000		0.00000
NO PRINT LCD/SOLAR DATA	0.00000		0.00000
NO PLOT DO AND BOD	0.00000		0.00000
FIXED DNSTM CONC (YES=1)=	0.00000	ULT BOD CONV RATE COEF	0.23000
INPUT METRIC (YES=1) =	0.00000	OUTPUT METRIC (YES=1) =	0.00000
NUMBER OF REACHES =	8.00000	NUMBER OF JUNCTIONS =	0.00000
NUM OF HEADWATERS =	1.00000	NUMBER OF POINT LOADS =	8.00000
TIME STEP (HOURS) =	1.00000	LNTH COMP ELEMENT (DX)=	0.25000
MAXIMUM ROUTE TIME (HRS)=	250.00000	TIME INC. FOR RPT2 (HRS)=	1.00000
LATITUDE OF BASIN (DEG) =	33.00000	LONGITUDE OF BASIN (DEG)=	92.00000
STANDARD MERIDIAN (DEG) =	90.00000	DAY OF YEAR START TIME =	190.00000
EVAP. COEFF. (AE) =	0.00001	EVAP. COEF. (BE) =	0.00010
ELEV OF BASIN (ELEV) =	60.00000	DUST ATTENUATION COEF. =	0.13000
ENDATA1	0.00000		0.00000

0 $$$ DATA TYPE 1A (ALGAE PRODUCTION AND NITROGEN OXIDATION CONSTANTS) $$$

CARD TYPE		CARD TYPE	
O UPTAKE BY NH3 OXID(MG O/MG N)=	3.4300	O UPTAKE BY NO2 OXID(MG O/MG N)=	1.1400
O PROD BY ALGAE (MG O/MG A) =	1.8000	O UPTAKE BY ALGAE (MG O/MG A) =	2.0000
N CONTENT OF ALGAE (MG N/MG A) =	0.0850	P CONTENT OF ALGAE (MG P/MG A) =	0.0150
ALG MAX SPEC GROWTH RATE(1/DAY)=	2.5000	ALGAE RESPIRATION RATE (1/DAY) =	0.0500

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          N HALF SATURATION CONST  (MG/L)=    0.2000          P HALF SATURATION CONST  (MG/L)=    0.0100
          LIN ALG SHADE CO (1/FT-UGCHA/L=)    0.0200          NLIN SHADE(1/FT-(UGCHA/L)**2/3)=    0.0165
          LIGHT FUNCTION OPTION (LFNOPT) =    2.0000          LIGHT SAT'N COEF (BTU/FT2-MIN) =    0.1000
          DAILY AVERAGING OPTION (LAVOPT)=    2.0000          LIGHT AVERAGING FACTOR (AFACT) =    0.9200
          NUMBER OF DAYLIGHT HOURS (DLH) =   13.0000          TOTAL DAILY SOLR RAD (BTU/FT-2)=  754.0000
          ALGY GROWTH CALC OPTION(LGROPT)=    1.0000          ALGAL PREF FOR NH3-N (PREFN)   =    0.5000
          ALG/TEMP SOLR RAD FACTOR(TFACT)=    0.4400          NITRIFICATION INHIBITION COEF  =   10.0000
          ENDATA1A                            0.0000                                              0.0000
0          $$$ DATA TYPE 1B (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) $$$

          CARD TYPE     RATE CODE     THETA VALUE

0          $$$ DATA TYPE 2 (REACH IDENTIFICATION) $$$

          CARD TYPE           REACH ORDER AND IDENT              R. MI/KM            R. MI/KM
          STREAM REACH     1.0               REACH 1    FRO        227.0    TO         222.0
          STREAM REACH     2.0               REACH 2    FRO        222.0    TO         217.0
          STREAM REACH     3.0               REACH 3    FRO        217.0    TO         212.0
          STREAM REACH     4.0               REACH 4    FRO        212.0    TO         207.0
          STREAM REACH     5.0               REACH 5    FRO        207.0    TO         202.0
          STREAM REACH     6.0               REACH 6    FRO        202.0    TO         197.0
          STREAM REACH     7.0               REACH 7    FRO        197.0    TO         192.0
          STREAM REACH     8.0               REACH 8    FRO        192.0    TO         190.0
          ENDATA2          0.0                                     0.0                   0.0
0          $$$ DATA TYPE 3 (TARGET LEVEL DO AND FLOW AUGMENTATION SOURCES) $$$

          CARD TYPE                 REACH  AVAIL HDWS TARGET     ORDER OF AVAIL SOURCES
          STREAM REACH               1.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               2.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               3.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               4.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               5.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               6.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               7.        1.       3.0   1.   0.   0.   0.   0.   0.
          STREAM REACH               8.        1.       3.0   1.   0.   0.   0.   0.   0.
          ENDATA3                    0.        0.       0.0   0.   0.   0.   0.   0.   0.
0          $$$ DATA TYPE 4 (COMPUTATIONAL REACH FLAG FIELD) $$$

          CARD TYPE        REACH ELEMENTS/REACH             COMPUTATIONAL FLAGS
          FLAG FIELD        1.       20.          1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        2.       20.          6.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        3.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
          FLAG FIELD        4.       20.          2.2.2.6.2.2.2.2.2.2.2.2.2.2.2.6.2.2.
          FLAG FIELD        5.       20.          2.2.2.2.2.2.2.2.2.2.2.2.2.2.6.2.2.2.
          FLAG FIELD        6.       20.          2.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        7.       20.          6.2.2.2.2.2.2.2.2.2.6.2.2.2.2.2.2.2.
          FLAG FIELD        8.        8.          6.2.2.2.2.2.2.5.0.0.0.0.0.0.0.0.0.0.
          ENDATA4           0.        0.          0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
0          $$$ DATA TYPE 5 (HYDRAULIC DATA FOR DETERMINING VELOCITY AND DEPTH) $$$
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CARD TYPE	REACH	COEF-DSPN	COEFQV	EXPOQV	COEFQH	EXPOQH	CMANN
HYDRAULICS	1.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	2.	38.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	3.	22.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	4.	21.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	5.	10.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	6.	17.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	7.	7.00	128.756	-0.643	0.000	1.370	0.035
HYDRAULICS	8.	7.00	128.756	-0.643	0.000	1.370	0.035
ENDATA5	0.	0.00	0.000	0.000	0.000	0.000	0.000

0 $$$ DATA TYPE 6 (REACTION COEFFICIENTS FOR DEOXYGENATION AND REAERATION) $$$

CARD TYPE	REACH	K1	K3	SOD RATE	K2OPT	K2	COEQK2 TSIV COEF FOR OPT 8	OR OR	EXPQK2 SLOPE FOR OPT 8	DELTAH FOR OPT 9
REACT COEF	1.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	2.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	3.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	4.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	5.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	6.	0.05	0.00	0.071	1.	0.30	0.000		0.00000	0.00
REACT COEF	7.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
REACT COEF	8.	0.05	0.00	0.051	1.	0.30	0.000		0.00000	0.00
ENDATA6	0.	0.00	0.00	0.000	0.	0.00	0.000		0.00000	0.00

0 $$$ DATA TYPE 6A (NITROGEN AND PHOSPHORUS CONSTANTS) $$$

CARD TYPE	REACH	CKNH2	SETNH2	CKNH3	SNH3	CKNO2	CKPORG	SETPORG	SPO4
N AND P COEF	1.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	2.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	3.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	4.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	5.	0.10	0.00	0.10	0.00	1.00	0.00	0.00	0.00
N AND P COEF	6.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	7.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
N AND P COEF	8.	0.10	0.00	0.10	0.00	1.00	0.05	0.00	0.00
ENDATA6A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 6B (ALGAE/OTHER COEFFICIENTS) $$$

CARD TYPE	REACH	ALPHAO	ALGSET	EXCOEF	CK5 CKCOLI	CKANC	SETANC	SRCANC
ALG/OTHER COEF	1.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	2.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	3.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	4.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	5.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	6.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	7.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ALG/OTHER COEF	8.	15.00	0.80	4.00	0.00	0.00	0.00	0.00
ENDATA6B	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7 (INITIAL CONDITIONS) $$$

CARD TYPE	REACH	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INITIAL COND-1	1.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	2.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	3.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	4.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	5.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	6.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	7.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
INITIAL COND-1	8.	81.30	5.40	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA7	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 7A (INITIAL CONDITIONS FOR CHOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INITIAL COND-2	1.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	2.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	3.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	4.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	5.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	6.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	7.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
INITIAL COND-2	8.	8.40	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA7A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8 (INCREMENTAL INFLOW CONDITIONS) $$$

CARD TYPE	REACH	FLOW	TEMP	D.O.	BOD	CM-1	CM-2	CM-3	ANC	COLI
INCR INFLOW-1	1.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	2.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	3.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	4.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	5.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	6.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	7.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
INCR INFLOW-1	8.	2.000	88.70	5.95	5.60	1.77	0.00	0.00	0.00	0.00
ENDATA8	0.	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 8A (INCREMENTAL INFLOW CONDITIONS FOR CHLOROPHYLL A, NITROGEN, AND PHOSPHORUS) $$$

CARD TYPE	REACH	CHL-A	ORG-N	NH3-N	NO2-N	NO3-N	ORG-P	DIS-P
INCR INFLOW-2	1.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	2.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	3.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	4.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	5.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	6.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	7.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
INCR INFLOW-2	8.	0.00	0.33	0.05	0.03	0.10	0.02	0.01
ENDATA8A	0.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0 $$$ DATA TYPE 9 (STREAM JUNCTIONS) $$$

CARD TYPE	JUNCTION ORDER AND IDENT	UPSTRM	JUNCTION	TRIB

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          ENDATA9               0.                                  0.        0.        0.
0          $$$ DATA TYPE 10 (HEADWATER SOURCES) $$$

          CARD TYPE    HDWTR     NAME              FLOW      TEMP      D.O.       BOD      CM-1      CM-2      CM-3
                       ORDER
          HEADWTR-1      1.    OUACHITA RIVER  46364.00     81.30      5.40      5.60      1.77      0.00      0.00
          ENDATA10       0.                        0.00      0.00      0.00      0.00      0.00      0.00      0.00
0          $$$ DATA TYPE 10A (HEADWATER CONDITIONS FOR CHLOROPHYLL, NITROGEN, PHOSPHORUS,
                              COLIFORM AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

          CARD TYPE     HDWTR     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    NO3-N    ORG-P    DIS-P
                        ORDER
          HEADWTR-2       1.     0.00     0.00     8.40     0.33     0.05     0.03     0.10     0.02     0.01
          ENDATA10A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11 (POINT SOURCE / POINT SOURCE CHARACTERISTICS) $$$

                        POINT
          CARD TYPE      LOAD    NAME              EFF      FLOW     TEMP     D.O.      BOD     CM-1     CM-2     CM-3
                        ORDER
          POINTLD-1      1.  COFFEE CREEK         0.00     0.00    86.90     3.50   218.30    18.75     0.00     0.00
          POINTLD-1      2.  PIERRE CREEK         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
          POINTLD-1      3.  POSSUM BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      4.  BAYOUDEBUTTE         0.00     1.00    88.70     5.50     5.00     1.77     0.00     0.00
          POINTLD-1      5.   BOGGY BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      6.  PAWPAW BAYOU         0.00     0.10    88.70     5.50     2.80     1.77     0.00     0.00
          POINTLD-1      7.  BAYOU BARTHO         0.00   222.00    85.10     5.40     2.80     1.77     0.00     0.00
          POINTLD-1      8.  STERLINGTONW         0.00     0.77    88.70     3.00    60.00     1.77     0.00     0.00
          ENDATA11       0.                       0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 11A (POINT SOURCE CHARACTERISTICS - CHLOROPHYLL A, NITROGEN, PHOSPHORUS,
                              COLIFORMS AND SELECTED NON-CONSERVATIVE CONSTITUENT) $$$

                        POINT
          CARD TYPE      LOAD     ANC     COLI    CHL-A    ORG-N    NH3-N    NO2-N    N03-N    ORG-P    DIS-P
                        ORDER
          POINTLD-2       1.     0.00     0.00     1.00     2.73     3.56     0.10     0.40     0.22     0.59
          POINTLD-2       2.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       3.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       4.     0.00     0.00     1.00     5.00     5.00     0.10     0.40     0.07     1.00
          POINTLD-2       5.     0.00     0.00     2.80     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       6.     0.00     0.00     1.00     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       7.     0.00     0.00     8.40     0.48     0.05     0.10     0.40     0.07     0.04
          POINTLD-2       8.     0.00     0.00    10.00    12.00    12.00     0.10     2.00     1.00     3.00
          ENDATA11A       0.     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00     0.00
0          $$$ DATA TYPE 12 (DAM CHARACTERISTICS) $$$

                               DAM   RCH   ELE    ADAM    BDAM    FDAM    HDAM

          ENDATA12               0.    0.    0.    0.00    0.00    0.00    0.00
0          $$$ DATA TYPE 13 (DOWNSTREAM BOUNDARY CONDITIONS-1) $$$
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CARD TYPE TEMP D.O. BOD CM-1 CM-2 CM-3 ANC COLI

ENDATA13 DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

0 $$$ DATA TYPE 13A (DOWNSTREAM BOUNDARY CONDITIONS-2) $$$

CARD TYPE CHL-A ORG-N NH3-N NO2-N NH3-N ORG-P DIS-P

ENDATA13A DOWNSTREAM BOUNDARY CONCENTRATIONS ARE UNCONSTRAINED

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0 CONSERVATIVE MINERAL I ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
3	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
4	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
5	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
6	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
7	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
8	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.74
2	4.70	4.67	4.63	4.59	4.55	4.51	4.48	4.44	4.40	4.37	4.33	4.29	4.26	4.22	4.19	4.15	4.12	4.08	4.05	4.02
3	3.98	3.95	3.92	3.89	3.85	3.82	3.79	3.76	3.73	3.70	3.67	3.64	3.61	3.58	3.55	3.52	3.49	3.46	3.43	3.40
4	3.38	3.35	3.32	3.29	3.26	3.24	3.21	3.18	3.16	3.13	3.11	3.08	3.06	3.03	3.00	2.98	2.96	2.93	2.91	2.88
5	2.86	2.84	2.81	2.79	2.77	2.74	2.72	2.70	2.68	2.65	2.63	2.61	2.59	2.57	2.55	2.52	2.50	2.48	2.46	2.44
6	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.27	2.25	2.23	2.21	2.19	2.17	2.16	2.14	2.12	2.10	2.09	2.07
7	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.80	1.79	1.77	1.76
8	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.64												

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STEADY STATE ALGAE/NUTRIENT/DISSOLVED OXYGEN SIMULATION; CONVERGENCE SUMMARY:

VARIABLE	ITERATION	NUMBER OF NONCONVERGENT ELEMENTS

0 ALGAE AS CHL-A IN UG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.04	7.93	7.81	7.70	7.59	7.48	7.37	7.26	7.16	7.06	6.95	6.85	6.75	6.66	6.56	6.47	6.37	6.28
2	6.19	6.10	6.01	5.93	5.84	5.76	5.67	5.59	5.51	5.43	5.35	5.27	5.20	5.12	5.05	4.98	4.90	4.83	4.76	4.70
3	4.63	4.56	4.50	4.43	4.37	4.30	4.24	4.18	4.12	4.06	4.00	3.94	3.89	3.83	3.78	3.72	3.67	3.61	3.56	3.51
4	3.46	3.41	3.36	3.31	3.26	3.22	3.17	3.13	3.08	3.04	2.99	2.95	2.91	2.86	2.82	2.78	2.74	2.70	2.66	2.62
5	2.59	2.55	2.51	2.48	2.44	2.41	2.37	2.34	2.30	2.27	2.24	2.20	2.17	2.14	2.11	2.08	2.05	2.02	1.99	1.96
6	1.93	1.91	1.88	1.85	1.82	1.80	1.77	1.75	1.72	1.70	1.67	1.65	1.62	1.60	1.58	1.56	1.53	1.51	1.49	1.47
7	1.45	1.43	1.40	1.38	1.36	1.34	1.33	1.31	1.29	1.27	1.25	1.23	1.25	1.23	1.21	1.19	1.18	1.16	1.14	1.13

8 1.11 1.10 1.08 1.06 1.05 1.03 1.02 1.00

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.18
3	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13	0.13
4	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
3	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06
8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06												

0 NITRITE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02

3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19
3	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24
4	0.24	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29	0.29
5	0.29	0.29	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.33
6	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37	0.37
7	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40	0.40
8	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.42												

0 DISSOLVED OXYGEN IN MG/L ITERATION 1

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.52	5.54	5.56	5.57	5.59	5.60	5.62	5.63	5.65	5.66	5.67	5.69	5.70	5.71
2	5.72	5.74	5.75	5.76	5.77	5.78	5.79	5.80	5.81	5.82	5.83	5.84	5.85	5.86	5.87	5.88	5.89	5.90	5.91	5.92
3	5.93	5.93	5.94	5.95	5.96	5.97	5.98	5.99	5.99	6.00	6.01	6.02	6.03	6.04	6.04	6.05	6.06	6.07	6.08	6.08
4	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.08	6.09	6.09	6.09	6.09	6.09	6.10	6.10
5	6.10	6.11	6.11	6.11	6.12	6.12	6.13	6.13	6.13	6.14	6.14	6.15	6.15	6.16	6.16	6.17	6.17	6.18	6.18	6.19
6	6.19	6.20	6.20	6.21	6.21	6.22	6.22	6.23	6.23	6.24	6.24	6.25	6.25	6.26	6.27	6.27	6.28	6.28	6.29	6.29
7	6.31	6.32	6.34	6.35	6.37	6.38	6.39	6.41	6.42	6.43	6.44	6.46	6.46	6.47	6.49	6.50	6.51	6.52	6.53	6.54
8	6.55	6.56	6.57	6.58	6.59	6.59	6.60	6.61												

ALGAE GROWTH RATE 1 117
ALGAE GROWTH RATE 2 0
ALGAE GROWTH RATE 3 0

SUMMARY OF CONDITIONS FOR ALGAL GROWTH RATE SIMULATION:

1. LIGHT AVERAGING OPTION. LAVOPT= 2

METHOD: MEAN SOLAR RADIATION DURING DAYLIGHT HOURS

SOURCE OF SOLAR VALUES: DATA TYPE 1A
DAILY NET SOLAR RADIATION: 754.000 BTU/FT-2 (204.613 LANGLEYS)
NUMBER OF DAYLIGHT HOURS: 13.0
PHOTOSYNTHETIC ACTIVE FRACTION OF SOLAR RADIATION (TFACT): N/A
MEAN SOLAR RADIATION ADJUSTMENT FACTOR (AFACT): 0.920

2. LIGHT FUNCTION OPTION: LFNOPT= 2

SMITH FUNCTION, WITH 71% IMAX = 0.027 LANGLEYS/MIN

3. GROWTH ATTENUATION OPTION FOR NUTRIENTS. LGROPT= 1

MULTIPLICATIVE: FL*FN*FP

1
0 DISSOLVED OXYGEN IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.42	5.44	5.46	5.47	5.49	5.51	5.53	5.54	5.56	5.58	5.59	5.61	5.62	5.64	5.65	5.66	5.68	5.69	5.70	5.72
2	5.73	5.74	5.75	5.77	5.78	5.79	5.80	5.81	5.82	5.83	5.84	5.85	5.86	5.87	5.88	5.89	5.90	5.91	5.92	5.93
3	5.94	5.95	5.96	5.96	5.97	5.98	5.99	6.00	6.01	6.02	6.02	6.03	6.04	6.05	6.06	6.06	6.07	6.08	6.09	6.10
4	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.09	6.10	6.10	6.10	6.10	6.10	6.11	6.11	6.11
5	6.11	6.12	6.12	6.12	6.13	6.13	6.14	6.14	6.14	6.15	6.15	6.16	6.16	6.17	6.17	6.18	6.18	6.18	6.19	6.19
6	6.20	6.20	6.21	6.21	6.22	6.23	6.23	6.24	6.24	6.25	6.25	6.26	6.26	6.27	6.27	6.28	6.28	6.29	6.30	6.30
7	6.32	6.33	6.35	6.36	6.37	6.39	6.40	6.41	6.43	6.44	6.45	6.46	6.47	6.48	6.49	6.50	6.51	6.52	6.54	6.55
8	6.56	6.56	6.57	6.58	6.59	6.60	6.61	6.62												

0 BIOCHEMICAL OXYGEN DEMAND IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	5.55	5.51	5.46	5.42	5.37	5.33	5.28	5.24	5.20	5.15	5.11	5.07	5.03	4.99	4.94	4.90	4.86	4.82	4.78	4.74
2	4.70	4.67	4.63	4.59	4.55	4.51	4.48	4.44	4.40	4.37	4.33	4.29	4.26	4.22	4.19	4.15	4.12	4.08	4.05	4.02
3	3.98	3.95	3.92	3.89	3.85	3.82	3.79	3.76	3.73	3.70	3.67	3.64	3.61	3.58	3.55	3.52	3.49	3.46	3.43	3.40
4	3.38	3.35	3.32	3.29	3.26	3.24	3.21	3.18	3.16	3.13	3.11	3.08	3.06	3.03	3.00	2.98	2.96	2.93	2.91	2.88
5	2.86	2.84	2.81	2.79	2.77	2.74	2.72	2.70	2.68	2.65	2.63	2.61	2.59	2.57	2.55	2.52	2.50	2.48	2.46	2.44
6	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.27	2.25	2.23	2.21	2.19	2.17	2.16	2.14	2.12	2.10	2.09	2.07
7	2.05	2.03	2.02	2.00	1.98	1.97	1.95	1.94	1.92	1.90	1.89	1.87	1.86	1.85	1.83	1.82	1.80	1.79	1.77	1.76
8	1.74	1.73	1.71	1.70	1.69	1.67	1.66	1.64												

0 ORGANIC NITROGEN AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.32	0.32	0.31	0.31	0.30	0.30	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.25	0.25	0.25	0.24
2	0.24	0.24	0.23	0.23	0.22	0.22	0.22	0.21	0.21	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.18
3	0.18	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.13	0.13
4	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
5	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
6	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05
7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
8	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04												

0 AMMONIA AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.10
2	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
3	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
4	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
5	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.09
6	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
7	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06

8	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

0 NITRITE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01												

0 NITRATE AS N IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14
2	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.19	0.19
3	0.19	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.24	0.24
4	0.24	0.24	0.25	0.25	0.25	0.25	0.26	0.26	0.26	0.26	0.27	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.29	0.29
5	0.29	0.29	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33
6	0.33	0.34	0.34	0.34	0.34	0.34	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37
7	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.40	0.40
8	0.40	0.40	0.40	0.41	0.41	0.41	0.41	0.41												

0 ORGANIC PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
6	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 DISSOLVED PHOSPHORUS AS P IN MG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
7	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
8	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02												

0 ALGAE AS CHL-A IN UG/L ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	8.28	8.16	8.05	7.93	7.82	7.71	7.60	7.50	7.39	7.29	7.19	7.09	6.99	6.89	6.80	6.71	6.61	6.52	6.43	6.35
2	6.26	6.18	6.09	6.01	5.93	5.85	5.77	5.69	5.62	5.54	5.47	5.39	5.32	5.25	5.18	5.11	5.04	4.98	4.91	4.84

3	4.78	4.72	4.65	4.59	4.53	4.47	4.41	4.35	4.30	4.24	4.18	4.13	4.08	4.02	3.97	3.92	3.87	3.82	3.77	3.72
4	3.67	3.62	3.57	3.53	3.48	3.43	3.39	3.35	3.30	3.26	3.22	3.17	3.13	3.09	3.05	3.01	2.97	2.93	2.90	2.86
5	2.82	2.79	2.75	2.71	2.68	2.64	2.61	2.58	2.54	2.51	2.48	2.45	2.41	2.38	2.35	2.32	2.29	2.26	2.23	2.20
6	2.18	2.15	2.12	2.09	2.07	2.04	2.02	1.99	1.96	1.94	1.92	1.89	1.87	1.85	1.82	1.80	1.78	1.76	1.73	1.71
7	1.69	1.67	1.65	1.63	1.61	1.59	1.57	1.55	1.53	1.52	1.50	1.48	1.49	1.48	1.46	1.44	1.42	1.41	1.39	1.37
8	1.36	1.34	1.33	1.31	1.29	1.28	1.26	1.25												

0 CONSERVATIVE MINERAL I ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
2	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
3	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
4	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
5	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
6	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
7	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
8	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77												

0 ALGAE GROWTH RATES IN PER DAY ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
3	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
5	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
6	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
7	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
8	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05												

0 PHOTOSYNTHESIS-RESPIRATION RATIOS ARE ITERATION 3

RCH/CL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0.32	0.33	0.34	0.34	0.35	0.35	0.36	0.36	0.37	0.37	0.38	0.38	0.39	0.39	0.39	0.39	0.40	0.40	0.40	0.41
2	0.41	0.41	0.41	0.42	0.42	0.42	0.42	0.42	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.44	0.45
3	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47
4	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
5	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
6	0.50	0.50	0.50	0.51	0.51	0.52	0.52	0.52	0.53	0.53	0.53	0.54	0.54	0.54	0.55	0.55	0.55	0.56	0.56	0.56
7	0.56	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.59	0.60	0.60	0.60	0.60	0.61
8	0.61	0.61	0.61	0.61	0.62	0.62	0.62	0.62												

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 1
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC	END LOC	POINT FLOW	INCR SRCE	INCR FLOW	TRVL VEL	TRVL TIME	DEPTH	WIDTH	VOLUME	BOTTOM AREA	X-SECT AREA	DSPRSN COEF

			MILE	MILE	CFS	CFS	CFS	FPS	DAY	FT	FT	FT-3	FT-2	FT-2	FT-2/S
1	1	1	227.00	226.7546364.10	0.00	0.10	0.129	0.119	12.33429218.080	475711104.0	38600428.0	360387.19	5.30		
2	1	2	226.75	226.5046364.20	0.00	0.10	0.129	0.119	12.33429218.098	475712800.0	38600452.0	360388.50	5.30		
3	1	3	226.50	226.2546364.30	0.00	0.10	0.129	0.119	12.33429218.115	475714528.0	38600476.0	360389.78	5.30		
4	1	4	226.25	226.0046364.41	0.00	0.10	0.129	0.119	12.33529218.131	475716224.0	38600496.0	360391.06	5.30		
5	1	5	226.00	225.7546364.51	0.00	0.10	0.129	0.119	12.33529218.146	475717920.0	38600516.0	360392.37	5.30		
6	1	6	225.75	225.5046364.61	0.00	0.10	0.129	0.119	12.33529218.164	475719616.0	38600540.0	360393.66	5.30		
7	1	7	225.50	225.2546364.71	0.00	0.10	0.129	0.119	12.33529218.184	475721376.0	38600564.0	360395.00	5.30		
8	1	8	225.25	225.0046364.81	0.00	0.10	0.129	0.119	12.33529218.203	475723072.0	38600592.0	360396.28	5.30		
9	1	9	225.00	224.7546364.91	0.00	0.10	0.129	0.119	12.33529218.219	475724800.0	38600612.0	360397.56	5.30		
10	1	10	224.75	224.5046365.02	0.00	0.10	0.129	0.119	12.33529218.236	475726496.0	38600636.0	360398.84	5.30		
11	1	11	224.50	224.2546365.12	0.00	0.10	0.129	0.119	12.33529218.252	475728192.0	38600656.0	360400.16	5.30		
12	1	12	224.25	224.0046365.22	0.00	0.10	0.129	0.119	12.33529218.270	475729888.0	38600680.0	360401.44	5.30		
13	1	13	224.00	223.7546365.32	0.00	0.10	0.129	0.119	12.33529218.291	475731648.0	38600708.0	360402.78	5.30		
14	1	14	223.75	223.5046365.42	0.00	0.10	0.129	0.119	12.33529218.307	475733344.0	38600728.0	360404.06	5.30		
15	1	15	223.50	223.2546365.52	0.00	0.10	0.129	0.119	12.33529218.324	475735072.0	38600752.0	360405.34	5.30		
16	1	16	223.25	223.0046365.62	0.00	0.10	0.129	0.119	12.33529218.340	475736768.0	38600772.0	360406.66	5.30		
17	1	17	223.00	222.7546365.73	0.00	0.10	0.129	0.119	12.33529218.357	475738464.0	38600796.0	360407.94	5.30		
18	1	18	222.75	222.5046365.83	0.00	0.10	0.129	0.119	12.33529218.373	475740160.0	38600816.0	360409.22	5.30		
19	1	19	222.50	222.2546365.93	0.00	0.10	0.129	0.119	12.33529218.395	475741920.0	38600844.0	360410.56	5.30		
20	1	20	222.25	222.0046366.03	0.00	0.10	0.129	0.119	12.33529218.412	475743648.0	38600868.0	360411.84	5.30		
21	2	1	222.00	221.7546366.13	0.00	0.10	0.129	0.119	12.33529218.428	475745344.0	38600888.0	360413.12	5.30		
22	2	2	221.75	221.5046366.23	0.00	0.10	0.129	0.119	12.33529218.445	475747040.0	38600912.0	360414.44	5.30		
23	2	3	221.50	221.2546366.34	0.00	0.10	0.129	0.119	12.33529218.461	475748736.0	38600932.0	360415.72	5.30		
24	2	4	221.25	221.0046366.44	0.00	0.10	0.129	0.119	12.33529218.480	475750432.0	38600960.0	360417.00	5.30		
25	2	5	221.00	220.7546366.54	0.00	0.10	0.129	0.119	12.33529218.500	475752192.0	38600984.0	360418.34	5.30		
26	2	6	220.75	220.5046366.64	0.00	0.10	0.129	0.119	12.33529218.518	475753920.0	38601008.0	360419.62	5.30		
27	2	7	220.50	220.2546366.74	0.00	0.10	0.129	0.119	12.33529218.533	475755616.0	38601028.0	360420.91	5.30		
28	2	8	220.25	220.0046366.84	0.00	0.10	0.129	0.119	12.33529218.549	475757312.0	38601048.0	360422.22	5.30		
29	2	9	220.00	219.7546366.95	0.00	0.10	0.129	0.119	12.33529218.568	475759008.0	38601076.0	360423.50	5.30		
30	2	10	219.75	219.5046367.05	0.00	0.10	0.129	0.119	12.33529218.586	475760736.0	38601100.0	360424.78	5.30		
31	2	11	219.50	219.2546367.15	0.00	0.10	0.129	0.119	12.33629218.602	475762432.0	38601120.0	360426.09	5.30		
32	2	12	219.25	219.0046367.25	0.00	0.10	0.129	0.119	12.33629218.621	475764192.0	38601144.0	360427.41	5.30		
33	2	13	219.00	218.7546367.35	0.00	0.10	0.129	0.119	12.33629218.639	475765888.0	38601168.0	360428.72	5.30		
34	2	14	218.75	218.5046367.45	0.00	0.10	0.129	0.119	12.33629218.654	475767584.0	38601188.0	360430.00	5.30		
35	2	15	218.50	218.2546367.55	0.00	0.10	0.129	0.119	12.33629218.674	475769280.0	38601216.0	360431.28	5.30		
36	2	16	218.25	218.0046367.66	0.00	0.10	0.129	0.119	12.33629218.689	475771008.0	38601236.0	360432.56	5.30		
37	2	17	218.00	217.7546367.76	0.00	0.10	0.129	0.119	12.33629218.707	475772704.0	38601260.0	360433.87	5.30		
38	2	18	217.75	217.5046367.86	0.00	0.10	0.129	0.119	12.33629218.727	475774464.0	38601284.0	360435.19	5.30		
39	2	19	217.50	217.2546367.96	0.00	0.10	0.129	0.119	12.33629218.742	475776160.0	38601308.0	360436.50	5.30		
40	2	20	217.25	217.0046368.06	0.00	0.10	0.129	0.119	12.33629218.762	475777856.0	38601332.0	360437.78	5.30		
41	3	1	217.00	216.7546368.16	0.00	0.10	0.129	0.119	12.33629218.777	475779584.0	38601352.0	360439.06	3.07		
42	3	2	216.75	216.5046368.27	0.00	0.10	0.129	0.119	12.33629218.795	475781280.0	38601376.0	360440.37	3.07		
43	3	3	216.50	216.2546368.37	0.00	0.10	0.129	0.119	12.33629218.811	475782976.0	38601396.0	360441.66	3.07		
44	3	4	216.25	216.0046368.47	0.00	0.10	0.129	0.119	12.33629218.830	475784736.0	38601424.0	360442.97	3.07		

45	3	5	216.00	215.7546368.57	0.00	0.10	0.129	0.119	12.33629218.848	475786432.0	38601444.0	360444.28	3.07
46	3	6	215.75	215.5046368.67	0.00	0.10	0.129	0.119	12.33629218.867	475788128.0	38601472.0	360445.56	3.07
47	3	7	215.50	215.2546368.77	0.00	0.10	0.129	0.119	12.33629218.883	475789856.0	38601492.0	360446.84	3.07
48	3	8	215.25	215.0046368.87	0.00	0.10	0.129	0.119	12.33629218.898	475791552.0	38601512.0	360448.16	3.07
49	3	9	215.00	214.7546368.98	0.00	0.10	0.129	0.119	12.33629218.916	475793248.0	38601536.0	360449.44	3.07
50	3	10	214.75	214.5046369.08	0.00	0.10	0.129	0.119	12.33629218.932	475794944.0	38601556.0	360450.72	3.07
51	3	11	214.50	214.2546369.18	0.00	0.10	0.129	0.119	12.33629218.955	475796704.0	38601588.0	360452.06	3.07
52	3	12	214.25	214.0046369.28	0.00	0.10	0.129	0.119	12.33629218.971	475798432.0	38601608.0	360453.34	3.07
53	3	13	214.00	213.7546369.38	0.00	0.10	0.129	0.119	12.33629218.988	475800128.0	38601632.0	360454.62	3.07
54	3	14	213.75	213.5046369.48	0.00	0.10	0.129	0.119	12.33629219.004	475801824.0	38601652.0	360455.94	3.07
55	3	15	213.50	213.2546369.59	0.00	0.10	0.129	0.119	12.33629219.021	475803520.0	38601676.0	360457.22	3.07
56	3	16	213.25	213.0046369.69	0.00	0.10	0.129	0.119	12.33629219.039	475805248.0	38601700.0	360458.50	3.07
57	3	17	213.00	212.7546369.79	0.00	0.10	0.129	0.119	12.33629219.059	475807008.0	38601724.0	360459.84	3.07
58	3	18	212.75	212.5046369.89	0.00	0.10	0.129	0.119	12.33729219.076	475808704.0	38601748.0	360461.12	3.07
59	3	19	212.50	212.2546369.99	0.00	0.10	0.129	0.119	12.33729219.092	475810400.0	38601768.0	360462.44	3.07
60	3	20	212.25	212.0046370.09	0.00	0.10	0.129	0.119	12.33729219.109	475812096.0	38601792.0	360463.72	3.07
61	4	1	212.00	211.7546370.20	0.00	0.10	0.129	0.119	12.33729219.125	475813792.0	38601812.0	360465.00	2.93
62	4	2	211.75	211.5046370.30	0.00	0.10	0.129	0.119	12.33729219.145	475815520.0	38601840.0	360466.28	2.93
63	4	3	211.50	211.2546370.40	0.00	0.10	0.129	0.119	12.33729219.164	475817280.0	38601864.0	360467.62	2.93
64	4	4	211.25	211.0046371.50	1.00	0.10	0.129	0.119	12.33729219.352	475835808.0	38602112.0	360481.66	2.93
65	4	5	211.00	210.7546371.60	0.00	0.10	0.129	0.119	12.33729219.371	475837536.0	38602140.0	360483.00	2.93

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
66	4	6	210.75	210.5046371.70	0.00	0.10	0.129	0.119	12.33729219.387	475839264.0	38602160.0	360484.28	2.93		
67	4	7	210.50	210.2546371.80	0.00	0.10	0.129	0.119	12.33729219.404	475840960.0	38602184.0	360485.56	2.93		
68	4	8	210.25	210.0046371.91	0.00	0.10	0.129	0.119	12.33729219.422	475842656.0	38602208.0	360486.87	2.93		
69	4	9	210.00	209.7546372.01	0.00	0.10	0.129	0.119	12.33729219.439	475844352.0	38602232.0	360488.16	2.93		
70	4	10	209.75	209.5046372.11	0.00	0.10	0.129	0.119	12.33729219.455	475846080.0	38602252.0	360489.44	2.93		
71	4	11	209.50	209.2546372.21	0.00	0.10	0.129	0.119	12.33729219.475	475847840.0	38602276.0	360490.78	2.93		
72	4	12	209.25	209.0046372.31	0.00	0.10	0.129	0.119	12.33729219.492	475849536.0	38602300.0	360492.06	2.93		
73	4	13	209.00	208.7546372.41	0.00	0.10	0.129	0.119	12.33729219.508	475851232.0	38602320.0	360493.37	2.93		
74	4	14	208.75	208.5046372.52	0.00	0.10	0.129	0.119	12.33729219.527	475852928.0	38602348.0	360494.66	2.93		
75	4	15	208.50	208.2546372.62	0.00	0.10	0.129	0.119	12.33729219.543	475854656.0	38602368.0	360495.94	2.93		
76	4	16	208.25	208.0046372.72	0.00	0.10	0.129	0.119	12.33829219.561	475856352.0	38602392.0	360497.22	2.93		
77	4	17	208.00	207.7546372.82	0.00	0.10	0.129	0.119	12.33829219.576	475858048.0	38602412.0	360498.53	2.93		
78	4	18	207.75	207.5046373.02	0.10	0.10	0.129	0.119	12.33829219.611	475861408.0	38602460.0	360501.06	2.93		
79	4	19	207.50	207.2546373.12	0.00	0.10	0.129	0.119	12.33829219.629	475863136.0	38602480.0	360502.37	2.93		
80	4	20	207.25	207.0046373.22	0.00	0.10	0.129	0.119	12.33829219.648	475864864.0	38602508.0	360503.69	2.93		

81	5	1	207.00	206.7546373.32	0.00	0.10	0.129	0.119	12.33829219.668	475866592.0	38602532.0	360505.00	1.39
82	5	2	206.75	206.5046373.43	0.00	0.10	0.129	0.119	12.33829219.684	475868288.0	38602556.0	360506.28	1.39
83	5	3	206.50	206.2546373.53	0.00	0.10	0.129	0.119	12.33829219.699	475869984.0	38602576.0	360507.56	1.39
84	5	4	206.25	206.0046373.63	0.00	0.10	0.129	0.119	12.33829219.717	475871680.0	38602600.0	360508.87	1.39
85	5	5	206.00	205.7546373.73	0.00	0.10	0.129	0.119	12.33829219.732	475873408.0	38602620.0	360510.16	1.39
86	5	6	205.75	205.5046373.83	0.00	0.10	0.129	0.119	12.33829219.756	475875168.0	38602648.0	360511.47	1.39
87	5	7	205.50	205.2546373.93	0.00	0.10	0.129	0.119	12.33829219.771	475876864.0	38602672.0	360512.78	1.39
88	5	8	205.25	205.0046374.04	0.00	0.10	0.129	0.119	12.33829219.789	475878560.0	38602692.0	360514.06	1.39
89	5	9	205.00	204.7546374.14	0.00	0.10	0.129	0.119	12.33829219.805	475880256.0	38602716.0	360515.34	1.39
90	5	10	204.75	204.5046374.24	0.00	0.10	0.129	0.119	12.33829219.822	475881984.0	38602736.0	360516.66	1.39
91	5	11	204.50	204.2546374.34	0.00	0.10	0.129	0.119	12.33829219.838	475883680.0	38602760.0	360517.94	1.39
92	5	12	204.25	204.0046374.44	0.00	0.10	0.129	0.119	12.33829219.857	475885376.0	38602784.0	360519.22	1.39
93	5	13	204.00	203.7546374.54	0.00	0.10	0.129	0.119	12.33829219.877	475887136.0	38602812.0	360520.56	1.39
94	5	14	203.75	203.5046374.64	0.00	0.10	0.129	0.119	12.33829219.893	475888832.0	38602832.0	360521.84	1.39
95	5	15	203.50	203.2546374.75	0.00	0.10	0.129	0.119	12.33829219.910	475890560.0	38602856.0	360523.16	1.39
96	5	16	203.25	203.0046374.85	0.00	0.10	0.129	0.119	12.33829219.926	475892256.0	38602876.0	360524.44	1.39
97	5	17	203.00	202.7546375.95	1.00	0.10	0.129	0.119	12.33929220.117	475910816.0	38603128.0	360538.50	1.39
98	5	18	202.75	202.5046376.05	0.00	0.10	0.129	0.119	12.33929220.133	475912544.0	38603148.0	360539.81	1.39
99	5	19	202.50	202.2546376.15	0.00	0.10	0.129	0.119	12.33929220.152	475914240.0	38603176.0	360541.09	1.39
100	5	20	202.25	202.0046376.25	0.00	0.10	0.129	0.119	12.33929220.168	475915936.0	38603196.0	360542.37	1.39
101	6	1	202.00	201.7546376.36	0.00	0.10	0.129	0.119	12.33929220.187	475917696.0	38603224.0	360543.72	2.37
102	6	2	201.75	201.5046376.46	0.00	0.10	0.129	0.119	12.33929220.205	475919392.0	38603244.0	360545.00	2.37
103	6	3	201.50	201.2546376.56	0.00	0.10	0.129	0.119	12.33929220.221	475921120.0	38603268.0	360546.28	2.37
104	6	4	201.25	201.0046376.66	0.00	0.10	0.129	0.119	12.33929220.240	475922816.0	38603292.0	360547.59	2.37
105	6	5	201.00	200.7546376.76	0.00	0.10	0.129	0.119	12.33929220.256	475924512.0	38603312.0	360548.87	2.37
106	6	6	200.75	200.5046376.86	0.00	0.10	0.129	0.119	12.33929220.273	475926208.0	38603336.0	360550.16	2.37
107	6	7	200.50	200.2546376.96	0.00	0.10	0.129	0.119	12.33929220.293	475927968.0	38603360.0	360551.50	2.37
108	6	8	200.25	200.0046377.07	0.00	0.10	0.129	0.119	12.33929220.309	475929696.0	38603384.0	360552.78	2.37
109	6	9	200.00	199.7546377.17	0.00	0.10	0.129	0.119	12.33929220.326	475931392.0	38603404.0	360554.09	2.37
110	6	10	199.75	199.5046377.27	0.00	0.10	0.129	0.119	12.33929220.346	475933088.0	38603432.0	360555.37	2.37
111	6	11	199.50	199.2546377.37	0.00	0.10	0.129	0.119	12.33929220.361	475934784.0	38603452.0	360556.66	2.37
112	6	12	199.25	199.0046377.47	0.00	0.10	0.129	0.119	12.33929220.377	475936512.0	38603472.0	360557.97	2.37
113	6	13	199.00	198.7546377.67	0.10	0.10	0.129	0.119	12.33929220.412	475939872.0	38603520.0	360560.50	2.37
114	6	14	198.75	198.5046377.77	0.00	0.10	0.129	0.119	12.33929220.430	475941568.0	38603544.0	360561.78	2.37
115	6	15	198.50	198.2546377.87	0.00	0.10	0.129	0.119	12.33929220.445	475943264.0	38603564.0	360563.09	2.37
116	6	16	198.25	198.0046377.98	0.00	0.10	0.129	0.119	12.33929220.467	475945024.0	38603592.0	360564.41	2.37
117	6	17	198.00	197.7546378.08	0.00	0.10	0.129	0.119	12.33929220.484	475946752.0	38603616.0	360565.72	2.37
118	6	18	197.75	197.5046378.18	0.00	0.10	0.129	0.119	12.34029220.502	475948448.0	38603640.0	360567.00	2.37
119	6	19	197.50	197.2546378.28	0.00	0.10	0.129	0.119	12.34029220.518	475950144.0	38603660.0	360568.28	2.37
120	6	20	197.25	197.0046378.38	0.00	0.10	0.129	0.119	12.34029220.535	475951840.0	38603684.0	360569.59	2.37
121	7	1	197.00	196.7546378.58	0.10	0.10	0.129	0.119	12.34029220.570	475955232.0	38603728.0	360572.12	0.98
122	7	2	196.75	196.5046378.68	0.00	0.10	0.129	0.119	12.34029220.586	475956928.0	38603752.0	360573.44	0.98
123	7	3	196.50	196.2546378.79	0.00	0.10	0.129	0.119	12.34029220.604	475958624.0	38603772.0	360574.72	0.98
124	7	4	196.25	196.0046378.89	0.00	0.10	0.129	0.119	12.34029220.625	475960384.0	38603804.0	360576.06	0.98
125	7	5	196.00	195.7546378.99	0.00	0.10	0.129	0.119	12.34029220.641	475962080.0	38603824.0	360577.34	0.98

126	7	6	195.75	195.5046379.09	0.00	0.10	0.129	0.119	12.34029220.658	475963808.0	38603848.0	360578.62	0.98
127	7	7	195.50	195.2546379.19	0.00	0.10	0.129	0.119	12.34029220.674	475965504.0	38603868.0	360579.91	0.98
128	7	8	195.25	195.0046379.29	0.00	0.10	0.129	0.119	12.34029220.691	475967200.0	38603892.0	360581.22	0.98
129	7	9	195.00	194.7546379.39	0.00	0.10	0.129	0.119	12.34029220.707	475968896.0	38603912.0	360582.50	0.98
130	7	10	194.75	194.5046379.50	0.00	0.10	0.129	0.119	12.34029220.727	475970624.0	38603936.0	360583.78	0.98

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***** STEADY STATE SIMULATION *****

** HYDRAULICS SUMMARY **

ELE ORD	RCH NUM	ELE NUM	BEGIN LOC MILE	END LOC MILE	FLOW CFS	POINT SRCE CFS	INCR FLOW CFS	VEL FPS	TRVL TIME DAY	DEPTH FT	WIDTH FT	VOLUME FT-3	BOTTOM AREA FT-2	X-SECT AREA FT-2	DSPRSN COEF FT-2/S
131	7	11	194.50	194.2546379.60	0.00	0.10	0.129	0.119	12.34029220.746	475972352.0	38603964.0	360585.12	0.98
132	7	12	194.25	194.0046379.70	0.00	0.10	0.129	0.119	12.34029220.764	475974080.0	38603984.0	360586.41	0.98
133	7	13	194.00	193.7546601.80	222.00	0.10	0.128	0.119	12.42129258.896	479724736.0	38654536.0	363427.84	0.98
134	7	14	193.75	193.5046601.90	0.00	0.10	0.128	0.119	12.42129258.914	479726464.0	38654560.0	363429.12	0.98
135	7	15	193.50	193.2546602.00	0.00	0.10	0.128	0.119	12.42129258.930	479728160.0	38654580.0	363430.44	0.98
136	7	16	193.25	193.0046602.11	0.00	0.10	0.128	0.119	12.42129258.947	479729888.0	38654604.0	363431.72	0.98
137	7	17	193.00	192.7546602.21	0.00	0.10	0.128	0.119	12.42129258.967	479731648.0	38654628.0	363433.06	0.98
138	7	18	192.75	192.5046602.31	0.00	0.10	0.128	0.119	12.42129258.984	479733376.0	38654652.0	363434.37	0.98
139	7	19	192.50	192.2546602.41	0.00	0.10	0.128	0.119	12.42129259.002	479735072.0	38654676.0	363435.66	0.98
140	7	20	192.25	192.0046602.51	0.00	0.10	0.128	0.119	12.42129259.021	479736800.0	38654700.0	363436.97	0.98
141	8	1	192.00	191.7546603.53	0.77	0.25	0.128	0.119	12.42229259.193	479754048.0	38654928.0	363450.03	0.98
142	8	2	191.75	191.5046603.78	0.00	0.25	0.128	0.119	12.42229259.236	479758240.0	38654984.0	363453.22	0.98
143	8	3	191.50	191.2546604.03	0.00	0.25	0.128	0.119	12.42229259.279	479762464.0	38655044.0	363456.41	0.98
144	8	4	191.25	191.0046604.28	0.00	0.25	0.128	0.119	12.42229259.322	479766720.0	38655100.0	363459.62	0.98
145	8	5	191.00	190.7546604.53	0.00	0.25	0.128	0.119	12.42229259.363	479770912.0	38655152.0	363462.81	0.98
146	8	6	190.75	190.5046604.78	0.00	0.25	0.128	0.119	12.42229259.408	479775168.0	38655212.0	363466.03	0.98
147	8	7	190.50	190.2546605.03	0.00	0.25	0.128	0.119	12.42229259.451	479779392.0	38655272.0	363469.25	0.98
148	8	8	190.25	190.0046605.28	0.00	0.25	0.128	0.119	12.42229259.494	479783648.0	38655328.0	363472.47	0.98

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***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
1	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

1	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION OUTPUT PAGE NUMBER 5
QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
4	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	1	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	2	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	3	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	4	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	5	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	6	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	7	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	8	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	9	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	10	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	11	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	12	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	13	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	14	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	15	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	16	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	17	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	18	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	19	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
6	20	7.91	1	0.36	0.07	0.00	0.11	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

7	9	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	10	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 6
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** REACTION COEFFICIENT SUMMARY **

RCH NUM	ELE NUM	DO SAT MG/L	K2 OPT	OXYGN REAIR 1/DAY	BOD DECAY 1/DAY	BOD SETT 1/DAY	SOD RATE G/F2D	ORGN DECAY 1/DAY	ORGN SETT 1/DAY	NH3 DECAY 1/DAY	NH3 SRCE MG/F2D	NO2 DECAY 1/DAY	ORGP DECAY 1/DAY	ORGP SETT 1/DAY	DISP SRCE MG/F2D	COLI DECAY 1/DAY	ANC DECAY 1/DAY	ANC SETT 1/DAY	ANC SRCE MG/F2D
7	11	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	12	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	13	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	14	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	15	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	16	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	17	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	18	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	19	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
7	20	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	1	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	2	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	3	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	4	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	5	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	6	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	7	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00
8	8	7.91	1	0.36	0.07	0.00	0.08	0.14	0.00	0.18	0.00	1.40	0.07	0.00	0.00	0.00	0.00	0.00	0.00

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 7
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
1	1	81.30	1.77	0.00	0.00	5.42	5.55	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.28
1	2	81.30	1.77	0.00	0.00	5.44	5.51	0.32	0.05	0.02	0.10	0.50	0.02	0.01	0.04	0.00	0.00	8.16
1	3	81.30	1.77	0.00	0.00	5.46	5.46	0.32	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	8.05
1	4	81.30	1.77	0.00	0.00	5.47	5.42	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.93

1	5	81.30	1.77	0.00	0.00	5.49	5.37	0.31	0.06	0.02	0.11	0.50	0.02	0.01	0.04	0.00	0.00	7.82
1	6	81.30	1.77	0.00	0.00	5.51	5.33	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.71
1	7	81.30	1.77	0.00	0.00	5.53	5.28	0.30	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.60
1	8	81.30	1.77	0.00	0.00	5.54	5.24	0.29	0.07	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.50
1	9	81.30	1.77	0.00	0.00	5.56	5.20	0.29	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.39
1	10	81.30	1.77	0.00	0.00	5.58	5.15	0.28	0.08	0.01	0.12	0.50	0.02	0.01	0.04	0.00	0.00	7.29
1	11	81.30	1.77	0.00	0.00	5.59	5.11	0.28	0.08	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.19
1	12	81.30	1.77	0.00	0.00	5.61	5.07	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	7.09
1	13	81.30	1.77	0.00	0.00	5.62	5.03	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.99
1	14	81.30	1.77	0.00	0.00	5.64	4.99	0.27	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.89
1	15	81.30	1.77	0.00	0.00	5.65	4.94	0.26	0.09	0.01	0.13	0.50	0.02	0.01	0.04	0.00	0.00	6.80
1	16	81.30	1.77	0.00	0.00	5.66	4.90	0.26	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.71
1	17	81.30	1.77	0.00	0.00	5.68	4.86	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.61
1	18	81.30	1.77	0.00	0.00	5.69	4.82	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.52
1	19	81.30	1.77	0.00	0.00	5.70	4.78	0.25	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.43
1	20	81.30	1.77	0.00	0.00	5.72	4.74	0.24	0.10	0.01	0.14	0.50	0.02	0.01	0.04	0.00	0.00	6.35
2	1	81.30	1.77	0.00	0.00	5.73	4.70	0.24	0.11	0.01	0.15	0.50	0.02	0.01	0.04	0.00	0.00	6.26
2	2	81.30	1.77	0.00	0.00	5.74	4.67	0.24	0.11	0.01	0.15	0.50	0.02	0.01	0.04	0.00	0.00	6.18
2	3	81.30	1.77	0.00	0.00	5.75	4.63	0.23	0.11	0.01	0.15	0.50	0.02	0.01	0.04	0.00	0.00	6.09
2	4	81.30	1.77	0.00	0.00	5.77	4.59	0.23	0.11	0.01	0.15	0.50	0.02	0.01	0.04	0.00	0.00	6.01
2	5	81.30	1.77	0.00	0.00	5.78	4.55	0.22	0.11	0.01	0.15	0.50	0.02	0.01	0.04	0.00	0.00	5.93
2	6	81.30	1.77	0.00	0.00	5.79	4.51	0.22	0.11	0.01	0.16	0.50	0.02	0.01	0.04	0.00	0.00	5.85
2	7	81.30	1.77	0.00	0.00	5.80	4.48	0.22	0.11	0.01	0.16	0.50	0.02	0.01	0.04	0.00	0.00	5.77
2	8	81.30	1.77	0.00	0.00	5.81	4.44	0.21	0.11	0.01	0.16	0.50	0.02	0.01	0.04	0.00	0.00	5.69
2	9	81.30	1.77	0.00	0.00	5.82	4.40	0.21	0.12	0.01	0.16	0.50	0.02	0.01	0.04	0.00	0.00	5.62
2	10	81.30	1.77	0.00	0.00	5.83	4.37	0.21	0.12	0.01	0.16	0.50	0.02	0.01	0.04	0.00	0.00	5.54
2	11	81.30	1.77	0.00	0.00	5.84	4.33	0.21	0.12	0.01	0.17	0.50	0.02	0.01	0.04	0.00	0.00	5.47
2	12	81.30	1.77	0.00	0.00	5.85	4.29	0.20	0.12	0.01	0.17	0.50	0.02	0.01	0.04	0.00	0.00	5.39
2	13	81.30	1.77	0.00	0.00	5.86	4.26	0.20	0.12	0.01	0.17	0.50	0.02	0.01	0.04	0.00	0.00	5.32
2	14	81.30	1.77	0.00	0.00	5.87	4.22	0.20	0.12	0.01	0.17	0.50	0.02	0.01	0.04	0.00	0.00	5.25
2	15	81.30	1.77	0.00	0.00	5.88	4.19	0.19	0.12	0.01	0.18	0.50	0.02	0.01	0.04	0.00	0.00	5.18
2	16	81.30	1.77	0.00	0.00	5.89	4.15	0.19	0.12	0.01	0.18	0.50	0.02	0.01	0.04	0.00	0.00	5.11
2	17	81.30	1.77	0.00	0.00	5.90	4.12	0.19	0.12	0.01	0.18	0.50	0.03	0.01	0.04	0.00	0.00	5.04
2	18	81.30	1.77	0.00	0.00	5.91	4.08	0.18	0.12	0.02	0.18	0.50	0.03	0.01	0.04	0.00	0.00	4.98
2	19	81.30	1.77	0.00	0.00	5.92	4.05	0.18	0.12	0.02	0.19	0.50	0.03	0.01	0.04	0.00	0.00	4.91
2	20	81.30	1.77	0.00	0.00	5.93	4.02	0.18	0.12	0.02	0.19	0.50	0.03	0.01	0.04	0.00	0.00	4.84
3	1	81.30	1.77	0.00	0.00	5.94	3.98	0.18	0.12	0.02	0.19	0.50	0.03	0.01	0.04	0.00	0.00	4.78
3	2	81.30	1.77	0.00	0.00	5.95	3.95	0.17	0.12	0.02	0.19	0.51	0.03	0.01	0.04	0.00	0.00	4.72
3	3	81.30	1.77	0.00	0.00	5.96	3.92	0.17	0.12	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.65
3	4	81.30	1.77	0.00	0.00	5.96	3.89	0.17	0.12	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.59
3	5	81.30	1.77	0.00	0.00	5.97	3.85	0.17	0.12	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.53
3	6	81.30	1.77	0.00	0.00	5.98	3.82	0.16	0.12	0.02	0.20	0.51	0.03	0.01	0.04	0.00	0.00	4.47
3	7	81.30	1.77	0.00	0.00	5.99	3.79	0.16	0.12	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.41
3	8	81.30	1.77	0.00	0.00	6.00	3.76	0.16	0.12	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.35
3	9	81.30	1.77	0.00	0.00	6.01	3.73	0.16	0.12	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.30
3	10	81.30	1.77	0.00	0.00	6.02	3.70	0.15	0.12	0.02	0.21	0.51	0.03	0.01	0.04	0.00	0.00	4.24

3	11	81.30	1.77	0.00	0.00	6.02	3.67	0.15	0.12	0.02	0.22	0.51	0.03	0.01	0.04	0.00	0.00	4.18
3	12	81.30	1.77	0.00	0.00	6.03	3.64	0.15	0.12	0.02	0.22	0.51	0.03	0.01	0.04	0.00	0.00	4.13
3	13	81.30	1.77	0.00	0.00	6.04	3.61	0.15	0.12	0.02	0.22	0.51	0.03	0.01	0.04	0.00	0.00	4.08
3	14	81.30	1.77	0.00	0.00	6.05	3.58	0.14	0.12	0.02	0.22	0.51	0.03	0.01	0.04	0.00	0.00	4.02
3	15	81.30	1.77	0.00	0.00	6.06	3.55	0.14	0.12	0.02	0.23	0.51	0.03	0.01	0.04	0.00	0.00	3.97
3	16	81.30	1.77	0.00	0.00	6.06	3.52	0.14	0.12	0.02	0.23	0.51	0.03	0.01	0.04	0.00	0.00	3.92
3	17	81.30	1.77	0.00	0.00	6.07	3.49	0.14	0.12	0.02	0.23	0.51	0.03	0.01	0.04	0.00	0.00	3.87
3	18	81.30	1.77	0.00	0.00	6.08	3.46	0.14	0.12	0.02	0.23	0.51	0.03	0.01	0.04	0.00	0.00	3.82
3	19	81.30	1.77	0.00	0.00	6.09	3.43	0.13	0.12	0.02	0.24	0.51	0.03	0.01	0.04	0.00	0.00	3.77
3	20	81.30	1.77	0.00	0.00	6.10	3.40	0.13	0.12	0.02	0.24	0.51	0.03	0.01	0.04	0.00	0.00	3.72
4	1	81.30	1.77	0.00	0.00	6.09	3.38	0.13	0.12	0.02	0.24	0.51	0.03	0.01	0.04	0.00	0.00	3.67
4	2	81.30	1.77	0.00	0.00	6.09	3.35	0.13	0.12	0.02	0.24	0.51	0.03	0.01	0.04	0.00	0.00	3.62
4	3	81.30	1.77	0.00	0.00	6.09	3.32	0.13	0.12	0.02	0.25	0.51	0.03	0.01	0.04	0.00	0.00	3.57
4	4	81.30	1.77	0.00	0.00	6.09	3.29	0.12	0.12	0.02	0.25	0.51	0.03	0.01	0.04	0.00	0.00	3.53
4	5	81.30	1.77	0.00	0.00	6.09	3.26	0.12	0.12	0.02	0.25	0.51	0.03	0.01	0.04	0.00	0.00	3.48

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STREAM QUALITY SIMULATION — OUTPUT PAGE NUMBER 8
QUAL-2E STREAM QUALITY ROUTING MODEL — EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
4	6	81.30	1.77	0.00	0.00	6.09	3.24	0.12	0.12	0.02	0.25	0.51	0.03	0.01	0.04	0.00	0.00	3.43
4	7	81.30	1.77	0.00	0.00	6.09	3.21	0.12	0.12	0.02	0.26	0.51	0.03	0.01	0.04	0.00	0.00	3.39
4	8	81.30	1.77	0.00	0.00	6.09	3.18	0.12	0.12	0.02	0.26	0.51	0.03	0.01	0.04	0.00	0.00	3.35
4	9	81.30	1.77	0.00	0.00	6.09	3.16	0.11	0.12	0.02	0.26	0.51	0.03	0.01	0.04	0.00	0.00	3.30
4	10	81.30	1.77	0.00	0.00	6.09	3.13	0.11	0.11	0.02	0.26	0.51	0.03	0.01	0.04	0.00	0.00	3.26
4	11	81.30	1.77	0.00	0.00	6.09	3.11	0.11	0.11	0.02	0.27	0.51	0.03	0.01	0.04	0.00	0.00	3.22
4	12	81.30	1.77	0.00	0.00	6.09	3.08	0.11	0.11	0.01	0.27	0.51	0.03	0.01	0.04	0.00	0.00	3.17
4	13	81.30	1.77	0.00	0.00	6.10	3.06	0.11	0.11	0.01	0.27	0.51	0.03	0.01	0.04	0.00	0.00	3.13
4	14	81.30	1.77	0.00	0.00	6.10	3.03	0.11	0.11	0.01	0.27	0.51	0.03	0.01	0.04	0.00	0.00	3.09
4	15	81.30	1.77	0.00	0.00	6.10	3.00	0.10	0.11	0.01	0.28	0.51	0.03	0.01	0.04	0.00	0.00	3.05
4	16	81.30	1.77	0.00	0.00	6.10	2.98	0.10	0.11	0.01	0.28	0.51	0.03	0.01	0.04	0.00	0.00	3.01
4	17	81.30	1.77	0.00	0.00	6.10	2.96	0.10	0.11	0.01	0.28	0.51	0.03	0.01	0.04	0.00	0.00	2.97
4	18	81.30	1.77	0.00	0.00	6.11	2.93	0.10	0.11	0.01	0.28	0.51	0.03	0.01	0.04	0.00	0.00	2.93
4	19	81.30	1.77	0.00	0.00	6.11	2.91	0.10	0.11	0.01	0.29	0.51	0.03	0.01	0.04	0.00	0.00	2.90
4	20	81.30	1.77	0.00	0.00	6.11	2.88	0.10	0.11	0.01	0.29	0.51	0.03	0.01	0.04	0.00	0.00	2.86
5	1	81.30	1.77	0.00	0.00	6.11	2.86	0.10	0.11	0.01	0.29	0.51	0.03	0.01	0.04	0.00	0.00	2.82
5	2	81.30	1.77	0.00	0.00	6.12	2.84	0.09	0.11	0.01	0.29	0.51	0.03	0.01	0.04	0.00	0.00	2.79
5	3	81.30	1.77	0.00	0.00	6.12	2.81	0.09	0.11	0.01	0.30	0.51	0.03	0.01	0.04	0.00	0.00	2.75
5	4	81.30	1.77	0.00	0.00	6.12	2.79	0.09	0.11	0.01	0.30	0.51	0.03	0.01	0.04	0.00	0.00	2.71
5	5	81.30	1.77	0.00	0.00	6.13	2.77	0.09	0.10	0.01	0.30	0.51	0.03	0.01	0.04	0.00	0.00	2.68

5	6	81.30	1.77	0.00	0.00	6.13	2.74	0.09	0.10	0.01	0.30	0.51	0.03	0.01	0.04	0.00	0.00	2.64
5	7	81.30	1.77	0.00	0.00	6.14	2.72	0.09	0.10	0.01	0.30	0.51	0.03	0.01	0.04	0.00	0.00	2.61
5	8	81.30	1.77	0.00	0.00	6.14	2.70	0.09	0.10	0.01	0.31	0.51	0.03	0.01	0.04	0.00	0.00	2.58
5	9	81.30	1.77	0.00	0.00	6.14	2.68	0.08	0.10	0.01	0.31	0.51	0.03	0.01	0.04	0.00	0.00	2.54
5	10	81.30	1.77	0.00	0.00	6.15	2.65	0.08	0.10	0.01	0.31	0.51	0.03	0.01	0.04	0.00	0.00	2.51
5	11	81.30	1.77	0.00	0.00	6.15	2.63	0.08	0.10	0.01	0.31	0.51	0.03	0.01	0.04	0.00	0.00	2.48
5	12	81.30	1.77	0.00	0.00	6.16	2.61	0.08	0.10	0.01	0.32	0.51	0.03	0.01	0.04	0.00	0.00	2.45
5	13	81.30	1.77	0.00	0.00	6.16	2.59	0.08	0.10	0.01	0.32	0.51	0.03	0.01	0.04	0.00	0.00	2.41
5	14	81.30	1.77	0.00	0.00	6.17	2.57	0.08	0.10	0.01	0.32	0.51	0.03	0.01	0.04	0.00	0.00	2.38
5	15	81.30	1.77	0.00	0.00	6.17	2.55	0.08	0.10	0.01	0.32	0.51	0.03	0.01	0.04	0.00	0.00	2.35
5	16	81.30	1.77	0.00	0.00	6.18	2.52	0.08	0.10	0.01	0.32	0.51	0.03	0.01	0.04	0.00	0.00	2.32
5	17	81.30	1.77	0.00	0.00	6.18	2.50	0.08	0.10	0.01	0.33	0.51	0.03	0.01	0.04	0.00	0.00	2.29
5	18	81.30	1.77	0.00	0.00	6.18	2.48	0.07	0.09	0.01	0.33	0.51	0.03	0.01	0.04	0.00	0.00	2.26
5	19	81.30	1.77	0.00	0.00	6.19	2.46	0.07	0.09	0.01	0.33	0.51	0.03	0.01	0.04	0.00	0.00	2.23
5	20	81.30	1.77	0.00	0.00	6.19	2.44	0.07	0.09	0.01	0.33	0.51	0.03	0.01	0.04	0.00	0.00	2.20
6	1	81.30	1.77	0.00	0.00	6.20	2.42	0.07	0.09	0.01	0.33	0.51	0.03	0.01	0.04	0.00	0.00	2.18
6	2	81.30	1.77	0.00	0.00	6.20	2.40	0.07	0.09	0.01	0.34	0.51	0.03	0.01	0.04	0.00	0.00	2.15
6	3	81.30	1.77	0.00	0.00	6.21	2.38	0.07	0.09	0.01	0.34	0.51	0.03	0.01	0.04	0.00	0.00	2.12
6	4	81.30	1.77	0.00	0.00	6.21	2.36	0.07	0.09	0.01	0.34	0.51	0.03	0.01	0.04	0.00	0.00	2.09
6	5	81.30	1.77	0.00	0.00	6.22	2.34	0.07	0.09	0.01	0.34	0.51	0.03	0.01	0.04	0.00	0.00	2.07
6	6	81.30	1.77	0.00	0.00	6.23	2.32	0.07	0.09	0.01	0.34	0.51	0.03	0.01	0.04	0.00	0.00	2.04
6	7	81.30	1.77	0.00	0.00	6.23	2.30	0.06	0.09	0.01	0.35	0.51	0.03	0.01	0.04	0.00	0.00	2.02
6	8	81.30	1.77	0.00	0.00	6.24	2.28	0.06	0.09	0.01	0.35	0.51	0.03	0.01	0.04	0.00	0.00	1.99
6	9	81.30	1.77	0.00	0.00	6.24	2.27	0.06	0.09	0.01	0.35	0.51	0.03	0.01	0.04	0.00	0.00	1.96
6	10	81.30	1.77	0.00	0.00	6.25	2.25	0.06	0.08	0.01	0.35	0.51	0.02	0.01	0.04	0.00	0.00	1.94
6	11	81.30	1.77	0.00	0.00	6.25	2.23	0.06	0.08	0.01	0.35	0.51	0.02	0.01	0.04	0.00	0.00	1.92
6	12	81.30	1.77	0.00	0.00	6.26	2.21	0.06	0.08	0.01	0.36	0.51	0.02	0.01	0.04	0.00	0.00	1.89
6	13	81.30	1.77	0.00	0.00	6.26	2.19	0.06	0.08	0.01	0.36	0.51	0.02	0.01	0.04	0.00	0.00	1.87
6	14	81.30	1.77	0.00	0.00	6.27	2.17	0.06	0.08	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.85
6	15	81.30	1.77	0.00	0.00	6.27	2.16	0.06	0.08	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.82
6	16	81.30	1.77	0.00	0.00	6.28	2.14	0.06	0.08	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.80
6	17	81.30	1.77	0.00	0.00	6.28	2.12	0.06	0.08	0.01	0.36	0.51	0.02	0.02	0.04	0.00	0.00	1.78
6	18	81.30	1.77	0.00	0.00	6.29	2.10	0.05	0.08	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.76
6	19	81.30	1.77	0.00	0.00	6.30	2.09	0.05	0.08	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.73
6	20	81.30	1.77	0.00	0.00	6.30	2.07	0.05	0.08	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.71
7	1	81.30	1.77	0.00	0.00	6.32	2.05	0.05	0.08	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.69
7	2	81.30	1.77	0.00	0.00	6.33	2.03	0.05	0.08	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.67
7	3	81.30	1.77	0.00	0.00	6.35	2.02	0.05	0.07	0.01	0.37	0.51	0.02	0.02	0.04	0.00	0.00	1.65
7	4	81.30	1.77	0.00	0.00	6.36	2.00	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.63
7	5	81.30	1.77	0.00	0.00	6.37	1.98	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.61
7	6	81.30	1.77	0.00	0.00	6.39	1.97	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.59
7	7	81.30	1.77	0.00	0.00	6.40	1.95	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.57
7	8	81.30	1.77	0.00	0.00	6.41	1.94	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.55
7	9	81.30	1.77	0.00	0.00	6.43	1.92	0.05	0.07	0.01	0.38	0.51	0.02	0.02	0.04	0.00	0.00	1.53
7	10	81.30	1.77	0.00	0.00	6.44	1.90	0.05	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.52

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***** STEADY STATE SIMULATION *****

** WATER QUALITY VARIABLES **

RCH NUM	ELE NUM	TEMP DEG-F	CM-1	CM-2	CM-3	DO MG/L	BOD MG/L	ORGN MG/L	NH3N MG/L	NO2N MG/L	NO3N MG/L	SUM-N MG/L	ORGP MG/L	DIS-P MG/L	SUM-P MG/L	COLI #/100ML	ANC BOD MG/L	CHLA UG/L
7	11	81.30	1.77	0.00	0.00	6.45	1.89	0.05	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.50
7	12	81.30	1.77	0.00	0.00	6.46	1.87	0.04	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.48
7	13	81.30	1.77	0.00	0.00	6.47	1.86	0.05	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.49
7	14	81.30	1.77	0.00	0.00	6.48	1.85	0.05	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.48
7	15	81.30	1.77	0.00	0.00	6.49	1.83	0.04	0.07	0.01	0.39	0.51	0.02	0.02	0.04	0.00	0.00	1.46
7	16	81.30	1.77	0.00	0.00	6.50	1.82	0.04	0.07	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.44
7	17	81.30	1.77	0.00	0.00	6.51	1.80	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.42
7	18	81.30	1.77	0.00	0.00	6.52	1.79	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.41
7	19	81.30	1.77	0.00	0.00	6.54	1.77	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.39
7	20	81.30	1.77	0.00	0.00	6.55	1.76	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.37
8	1	81.30	1.77	0.00	0.00	6.56	1.74	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.36
8	2	81.30	1.77	0.00	0.00	6.56	1.73	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.34
8	3	81.30	1.77	0.00	0.00	6.57	1.71	0.04	0.06	0.01	0.40	0.51	0.02	0.02	0.04	0.00	0.00	1.33
8	4	81.30	1.77	0.00	0.00	6.58	1.70	0.04	0.06	0.01	0.41	0.51	0.02	0.02	0.04	0.00	0.00	1.31
8	5	81.30	1.77	0.00	0.00	6.59	1.69	0.04	0.06	0.01	0.41	0.51	0.02	0.02	0.04	0.00	0.00	1.29
8	6	81.30	1.77	0.00	0.00	6.60	1.67	0.04	0.06	0.01	0.41	0.51	0.02	0.02	0.04	0.00	0.00	1.28
8	7	81.30	1.77	0.00	0.00	6.61	1.66	0.04	0.06	0.01	0.41	0.51	0.02	0.02	0.04	0.00	0.00	1.26
8	8	81.30	1.77	0.00	0.00	6.62	1.64	0.04	0.06	0.01	0.41	0.51	0.02	0.02	0.04	0.00	0.00	1.25

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
1	1	1	8.28	0.02	0.07	0.95	0.32	-0.05	0.50	0.33	4.23	0.03	0.43	0.58
2	1	2	8.16	0.03	0.07	0.95	0.33	-0.05	0.50	0.34	4.23	0.03	0.44	0.58
3	1	3	8.05	0.03	0.07	0.95	0.34	-0.05	0.50	0.35	4.23	0.03	0.45	0.58
4	1	4	7.93	0.03	0.07	0.95	0.34	-0.05	0.50	0.36	4.22	0.03	0.46	0.58
5	1	5	7.82	0.03	0.07	0.95	0.35	-0.05	0.50	0.36	4.22	0.03	0.47	0.58
6	1	6	7.71	0.03	0.07	0.95	0.35	-0.05	0.50	0.37	4.22	0.03	0.48	0.58

7	1	7	7.60	0.03	0.07	0.95	0.36	-0.05	0.50	0.38	4.22	0.03	0.49	0.58
8	1	8	7.50	0.03	0.07	0.95	0.36	-0.04	0.50	0.38	4.21	0.03	0.49	0.58
9	1	9	7.39	0.03	0.07	0.95	0.37	-0.04	0.50	0.39	4.21	0.03	0.50	0.58
10	1	10	7.29	0.03	0.07	0.95	0.37	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
11	1	11	7.19	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.21	0.03	0.51	0.58
12	1	12	7.09	0.03	0.07	0.95	0.38	-0.04	0.50	0.40	4.20	0.03	0.52	0.58
13	1	13	6.99	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.52	0.58
14	1	14	6.89	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
15	1	15	6.80	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.20	0.03	0.53	0.58
16	1	16	6.71	0.03	0.07	0.95	0.39	-0.04	0.50	0.41	4.19	0.03	0.54	0.58
17	1	17	6.61	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
18	1	18	6.52	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.54	0.58
19	1	19	6.43	0.03	0.07	0.95	0.40	-0.04	0.50	0.42	4.19	0.03	0.55	0.58
20	1	20	6.35	0.03	0.07	0.95	0.41	-0.04	0.50	0.42	4.18	0.03	0.55	0.57
21	2	1	6.26	0.03	0.07	0.95	0.41	-0.03	0.50	0.42	4.18	0.03	0.56	0.57
22	2	2	6.18	0.03	0.07	0.95	0.41	-0.03	0.50	0.42	4.18	0.03	0.56	0.57
23	2	3	6.09	0.03	0.07	0.95	0.41	-0.03	0.50	0.42	4.18	0.03	0.56	0.57
24	2	4	6.01	0.03	0.07	0.95	0.42	-0.03	0.50	0.42	4.17	0.03	0.57	0.57
25	2	5	5.93	0.03	0.07	0.95	0.42	-0.03	0.50	0.42	4.17	0.03	0.57	0.57
26	2	6	5.85	0.03	0.07	0.95	0.42	-0.03	0.50	0.42	4.17	0.03	0.57	0.57
27	2	7	5.77	0.03	0.07	0.95	0.42	-0.03	0.50	0.42	4.17	0.03	0.58	0.57
28	2	8	5.69	0.03	0.07	0.95	0.42	-0.03	0.50	0.42	4.17	0.03	0.58	0.57
29	2	9	5.62	0.03	0.07	0.95	0.43	-0.03	0.50	0.42	4.16	0.03	0.58	0.57
30	2	10	5.54	0.03	0.07	0.95	0.43	-0.03	0.50	0.41	4.16	0.03	0.58	0.57
31	2	11	5.47	0.03	0.07	0.95	0.43	-0.03	0.50	0.41	4.16	0.03	0.59	0.57
32	2	12	5.39	0.03	0.07	0.95	0.43	-0.03	0.50	0.41	4.16	0.03	0.59	0.57
33	2	13	5.32	0.03	0.07	0.95	0.43	-0.03	0.50	0.41	4.16	0.03	0.59	0.57
34	2	14	5.25	0.03	0.07	0.95	0.44	-0.03	0.50	0.41	4.15	0.03	0.59	0.57
35	2	15	5.18	0.03	0.07	0.95	0.44	-0.03	0.50	0.40	4.15	0.03	0.60	0.57
36	2	16	5.11	0.03	0.07	0.95	0.44	-0.03	0.50	0.40	4.15	0.03	0.60	0.57
37	2	17	5.04	0.03	0.07	0.95	0.44	-0.03	0.50	0.40	4.15	0.03	0.60	0.57
38	2	18	4.98	0.03	0.07	0.95	0.44	-0.03	0.50	0.40	4.15	0.03	0.60	0.57
39	2	19	4.91	0.03	0.07	0.95	0.44	-0.03	0.50	0.40	4.15	0.03	0.61	0.57
40	2	20	4.84	0.03	0.07	0.95	0.45	-0.03	0.50	0.39	4.14	0.03	0.61	0.57
41	3	1	4.78	0.03	0.07	0.95	0.45	-0.02	0.50	0.39	4.14	0.03	0.61	0.57
42	3	2	4.72	0.03	0.07	0.95	0.45	-0.02	0.50	0.39	4.14	0.03	0.61	0.57
43	3	3	4.65	0.04	0.07	0.95	0.45	-0.02	0.50	0.39	4.14	0.03	0.61	0.57
44	3	4	4.59	0.04	0.07	0.95	0.45	-0.02	0.50	0.38	4.14	0.03	0.62	0.57
45	3	5	4.53	0.04	0.07	0.95	0.45	-0.02	0.50	0.38	4.14	0.03	0.62	0.56
46	3	6	4.47	0.04	0.07	0.95	0.45	-0.02	0.50	0.38	4.13	0.03	0.62	0.56
47	3	7	4.41	0.04	0.07	0.95	0.45	-0.02	0.50	0.37	4.13	0.03	0.62	0.56
48	3	8	4.35	0.04	0.07	0.95	0.46	-0.02	0.50	0.37	4.13	0.03	0.62	0.56
49	3	9	4.30	0.04	0.07	0.95	0.46	-0.02	0.50	0.37	4.13	0.03	0.63	0.56
50	3	10	4.24	0.04	0.07	0.95	0.46	-0.02	0.50	0.36	4.13	0.03	0.63	0.56
51	3	11	4.18	0.04	0.07	0.95	0.46	-0.02	0.50	0.36	4.13	0.03	0.63	0.56
52	3	12	4.13	0.04	0.07	0.95	0.46	-0.02	0.50	0.36	4.13	0.03	0.63	0.56

53	3	13	4.08	0.04	0.07	0.95	0.46	-0.02	0.50	0.36	4.12	0.03	0.63	0.56
54	3	14	4.02	0.04	0.07	0.95	0.46	-0.02	0.50	0.35	4.12	0.03	0.63	0.56
55	3	15	3.97	0.04	0.07	0.95	0.46	-0.02	0.50	0.35	4.12	0.03	0.64	0.56
56	3	16	3.92	0.04	0.07	0.95	0.46	-0.02	0.50	0.35	4.12	0.03	0.64	0.56
57	3	17	3.87	0.04	0.07	0.95	0.46	-0.02	0.50	0.34	4.12	0.03	0.64	0.56
58	3	18	3.82	0.04	0.07	0.95	0.47	-0.02	0.50	0.34	4.12	0.03	0.64	0.56
59	3	19	3.77	0.04	0.07	0.95	0.47	-0.02	0.50	0.34	4.12	0.03	0.64	0.56
60	3	20	3.72	0.04	0.07	0.95	0.47	-0.02	0.50	0.33	4.11	0.03	0.64	0.56
61	4	1	3.67	0.04	0.07	0.95	0.47	-0.02	0.50	0.33	4.11	0.03	0.64	0.56
62	4	2	3.62	0.04	0.07	0.95	0.47	-0.02	0.50	0.33	4.11	0.03	0.65	0.56
63	4	3	3.57	0.04	0.07	0.95	0.47	-0.02	0.50	0.32	4.11	0.03	0.65	0.56
64	4	4	3.53	0.04	0.07	0.95	0.47	-0.02	0.50	0.32	4.11	0.03	0.65	0.56
65	4	5	3.48	0.04	0.07	0.95	0.47	-0.02	0.50	0.32	4.11	0.03	0.65	0.56

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
66	4	6	3.43	0.04	0.07	0.95	0.47	-0.02	0.50	0.32	4.11	0.03	0.65	0.56
67	4	7	3.39	0.04	0.07	0.95	0.47	-0.02	0.50	0.31	4.11	0.03	0.65	0.56
68	4	8	3.35	0.04	0.07	0.95	0.47	-0.02	0.50	0.31	4.10	0.03	0.65	0.56
69	4	9	3.30	0.04	0.07	0.95	0.47	-0.02	0.50	0.31	4.10	0.03	0.65	0.56
70	4	10	3.26	0.04	0.07	0.95	0.48	-0.02	0.50	0.30	4.10	0.03	0.65	0.56
71	4	11	3.22	0.04	0.07	0.95	0.48	-0.02	0.50	0.30	4.10	0.03	0.66	0.56
72	4	12	3.17	0.04	0.07	0.95	0.48	-0.02	0.50	0.30	4.10	0.03	0.66	0.56
73	4	13	3.13	0.04	0.07	0.95	0.48	-0.02	0.50	0.29	4.10	0.03	0.66	0.56
74	4	14	3.09	0.04	0.07	0.95	0.48	-0.02	0.50	0.29	4.10	0.03	0.66	0.56
75	4	15	3.05	0.04	0.07	0.95	0.48	-0.01	0.50	0.29	4.10	0.03	0.66	0.56
76	4	16	3.01	0.04	0.07	0.95	0.48	-0.01	0.50	0.28	4.09	0.03	0.66	0.56
77	4	17	2.97	0.04	0.07	0.95	0.48	-0.01	0.50	0.28	4.09	0.03	0.66	0.56
78	4	18	2.93	0.04	0.07	0.95	0.48	-0.01	0.50	0.28	4.09	0.03	0.66	0.55
79	4	19	2.90	0.04	0.07	0.95	0.48	-0.01	0.50	0.28	4.09	0.03	0.66	0.55
80	4	20	2.86	0.04	0.07	0.95	0.48	-0.01	0.50	0.27	4.09	0.03	0.66	0.55
81	5	1	2.82	0.04	0.07	0.95	0.48	-0.01	0.50	0.27	4.09	0.03	0.67	0.55
82	5	2	2.79	0.04	0.07	0.95	0.48	-0.01	0.50	0.27	4.09	0.03	0.67	0.55
83	5	3	2.75	0.04	0.07	0.95	0.48	-0.01	0.50	0.26	4.09	0.03	0.67	0.55
84	5	4	2.71	0.04	0.07	0.95	0.48	-0.01	0.50	0.26	4.09	0.03	0.67	0.55
85	5	5	2.68	0.04	0.07	0.95	0.48	-0.01	0.50	0.26	4.09	0.03	0.67	0.55
86	5	6	2.64	0.04	0.07	0.95	0.49	-0.01	0.50	0.26	4.08	0.03	0.67	0.55

87	5	7	2.61	0.04	0.07	0.95	0.49	-0.01	0.50	0.25	4.08	0.03	0.67	0.55
88	5	8	2.58	0.04	0.07	0.95	0.49	-0.01	0.50	0.25	4.08	0.03	0.67	0.55
89	5	9	2.54	0.04	0.07	0.95	0.49	-0.01	0.50	0.25	4.08	0.03	0.67	0.55
90	5	10	2.51	0.04	0.07	0.95	0.49	-0.01	0.50	0.24	4.08	0.03	0.67	0.55
91	5	11	2.48	0.04	0.07	0.95	0.49	-0.01	0.50	0.24	4.08	0.03	0.67	0.55
92	5	12	2.45	0.04	0.07	0.95	0.49	-0.01	0.50	0.24	4.08	0.03	0.67	0.55
93	5	13	2.41	0.04	0.07	0.95	0.49	-0.01	0.50	0.24	4.08	0.03	0.68	0.55
94	5	14	2.38	0.04	0.07	0.95	0.49	-0.01	0.50	0.23	4.08	0.03	0.68	0.55
95	5	15	2.35	0.04	0.07	0.95	0.49	-0.01	0.50	0.23	4.08	0.03	0.68	0.55
96	5	16	2.32	0.04	0.07	0.95	0.49	-0.01	0.50	0.23	4.08	0.03	0.68	0.55
97	5	17	2.29	0.04	0.07	0.95	0.49	-0.01	0.50	0.23	4.07	0.03	0.68	0.55
98	5	18	2.26	0.04	0.07	0.95	0.49	-0.01	0.50	0.22	4.07	0.03	0.68	0.55
99	5	19	2.23	0.04	0.07	0.95	0.49	-0.01	0.50	0.22	4.07	0.03	0.68	0.55
100	5	20	2.20	0.04	0.07	0.95	0.49	-0.01	0.50	0.22	4.07	0.03	0.68	0.55
101	6	1	2.18	0.04	0.07	0.95	0.50	-0.01	0.50	0.22	4.07	0.03	0.68	0.55
102	6	2	2.15	0.04	0.07	0.95	0.50	-0.01	0.50	0.21	4.07	0.03	0.68	0.56
103	6	3	2.12	0.04	0.07	0.95	0.50	-0.01	0.50	0.21	4.07	0.03	0.68	0.56
104	6	4	2.09	0.04	0.07	0.95	0.51	-0.01	0.50	0.21	4.07	0.03	0.68	0.57
105	6	5	2.07	0.04	0.07	0.95	0.51	-0.01	0.50	0.21	4.07	0.03	0.68	0.57
106	6	6	2.04	0.04	0.07	0.95	0.52	-0.01	0.50	0.20	4.07	0.03	0.68	0.57
107	6	7	2.02	0.04	0.07	0.95	0.52	-0.01	0.50	0.20	4.07	0.03	0.68	0.58
108	6	8	1.99	0.04	0.07	0.95	0.52	-0.01	0.50	0.20	4.07	0.03	0.68	0.58
109	6	9	1.96	0.04	0.07	0.95	0.53	-0.01	0.50	0.20	4.07	0.03	0.69	0.59
110	6	10	1.94	0.04	0.07	0.95	0.53	-0.01	0.50	0.19	4.06	0.03	0.69	0.59
111	6	11	1.92	0.04	0.07	0.95	0.53	-0.01	0.50	0.19	4.06	0.03	0.69	0.59
112	6	12	1.89	0.04	0.07	0.95	0.54	-0.01	0.50	0.19	4.06	0.03	0.69	0.59
113	6	13	1.87	0.04	0.07	0.95	0.54	-0.01	0.50	0.19	4.06	0.03	0.69	0.60
114	6	14	1.85	0.04	0.07	0.95	0.54	-0.01	0.50	0.19	4.06	0.03	0.69	0.60
115	6	15	1.82	0.04	0.07	0.95	0.55	-0.01	0.50	0.18	4.06	0.03	0.69	0.60
116	6	16	1.80	0.04	0.07	0.95	0.55	-0.01	0.50	0.18	4.06	0.03	0.69	0.61
117	6	17	1.78	0.04	0.07	0.95	0.55	-0.01	0.50	0.18	4.06	0.03	0.69	0.61
118	6	18	1.76	0.04	0.07	0.95	0.56	-0.01	0.50	0.18	4.06	0.03	0.69	0.61
119	6	19	1.73	0.04	0.07	0.95	0.56	-0.01	0.50	0.17	4.06	0.03	0.69	0.62
120	6	20	1.71	0.04	0.07	0.95	0.56	-0.01	0.50	0.17	4.06	0.03	0.69	0.62
121	7	1	1.69	0.04	0.07	0.95	0.56	-0.01	0.50	0.17	4.06	0.03	0.69	0.62
122	7	2	1.67	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.62
123	7	3	1.65	0.04	0.07	0.95	0.57	-0.01	0.50	0.17	4.06	0.03	0.69	0.63
124	7	4	1.63	0.04	0.07	0.95	0.57	-0.01	0.50	0.16	4.06	0.03	0.69	0.63
125	7	5	1.61	0.04	0.07	0.95	0.57	-0.01	0.50	0.16	4.05	0.03	0.69	0.63
126	7	6	1.59	0.05	0.07	0.95	0.58	-0.01	0.50	0.16	4.05	0.03	0.69	0.63
127	7	7	1.57	0.05	0.07	0.95	0.58	-0.01	0.50	0.16	4.05	0.03	0.69	0.64
128	7	8	1.55	0.05	0.07	0.95	0.58	-0.01	0.50	0.16	4.05	0.03	0.69	0.64
129	7	9	1.53	0.05	0.07	0.95	0.58	-0.01	0.50	0.15	4.05	0.03	0.69	0.64
130	7	10	1.52	0.05	0.07	0.95	0.59	-0.01	0.50	0.15	4.05	0.03	0.69	0.64

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***** STEADY STATE SIMULATION *****

** ALGAE DATA **

ELE ORD	RCH NUM	ELE NUM	CHLA UG/L	ALGY GRWTH 1/DAY	ALGY RESP 1/DAY	ALGY SETT FT/DA	A P/R RATIO *	NET P-R MG/L-D	NH3 PREF *	NH3-N FRACT N-UPTKE *	LIGHT EXTCO 1/FT	ALGAE GROWTH RATE ATTEN FACTORS LIGHT *	NITRGN *	PHSPRS *
131	7	11	1.50	0.05	0.07	0.95	0.59	-0.01	0.50	0.15	4.05	0.03	0.70	0.64
132	7	12	1.48	0.05	0.07	0.95	0.59	-0.01	0.50	0.15	4.05	0.03	0.70	0.65
133	7	13	1.49	0.05	0.07	0.95	0.59	-0.01	0.50	0.15	4.05	0.03	0.70	0.65
134	7	14	1.48	0.05	0.07	0.95	0.59	-0.01	0.50	0.15	4.05	0.03	0.70	0.65
135	7	15	1.46	0.05	0.07	0.95	0.59	-0.01	0.50	0.14	4.05	0.03	0.70	0.65
136	7	16	1.44	0.05	0.07	0.95	0.60	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
137	7	17	1.42	0.05	0.07	0.95	0.60	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
138	7	18	1.41	0.05	0.07	0.95	0.60	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
139	7	19	1.39	0.05	0.07	0.95	0.60	-0.01	0.50	0.14	4.05	0.03	0.70	0.66
140	7	20	1.37	0.05	0.07	0.95	0.61	-0.01	0.50	0.13	4.05	0.03	0.70	0.66
141	8	1	1.36	0.05	0.07	0.95	0.61	0.00	0.50	0.13	4.05	0.03	0.70	0.67
142	8	2	1.34	0.05	0.07	0.95	0.61	0.00	0.50	0.13	4.05	0.03	0.70	0.67
143	8	3	1.33	0.05	0.07	0.95	0.61	0.00	0.50	0.13	4.05	0.03	0.70	0.67
144	8	4	1.31	0.05	0.07	0.95	0.61	0.00	0.50	0.13	4.05	0.03	0.70	0.67
145	8	5	1.29	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.67
146	8	6	1.28	0.05	0.07	0.95	0.62	0.00	0.50	0.13	4.05	0.03	0.70	0.67
147	8	7	1.26	0.05	0.07	0.95	0.62	0.00	0.50	0.12	4.04	0.03	0.70	0.68
148	8	8	1.25	0.05	0.07	0.95	0.62	0.00	0.50	0.12	4.04	0.03	0.70	0.68

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
1	1	1	81.30	7.91	5.42	2.49	0.00	1.00	45.47	0.89	-0.39	-0.01	-0.05	-0.03	-0.04
2	1	2	81.30	7.91	5.44	2.48	0.00	1.00	0.00	0.89	-0.39	-0.01	-0.05	-0.03	-0.03
3	1	3	81.30	7.91	5.46	2.46	0.00	1.00	0.00	0.88	-0.38	-0.01	-0.05	-0.04	-0.03
4	1	4	81.30	7.91	5.47	2.44	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
5	1	5	81.30	7.91	5.49	2.42	0.00	1.00	0.00	0.87	-0.38	-0.01	-0.05	-0.04	-0.03
6	1	6	81.30	7.91	5.51	2.40	0.00	1.00	0.00	0.86	-0.37	-0.01	-0.05	-0.04	-0.02

7	1	7	81.30	7.91	5.53	2.39	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.05	-0.04	-0.02
8	1	8	81.30	7.91	5.54	2.37	0.00	1.00	0.00	0.85	-0.37	-0.01	-0.04	-0.05	-0.02
9	1	9	81.30	7.91	5.56	2.35	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
10	1	10	81.30	7.91	5.58	2.34	0.00	1.00	0.00	0.84	-0.36	-0.01	-0.04	-0.05	-0.02
11	1	11	81.30	7.91	5.59	2.32	0.00	1.00	0.00	0.83	-0.36	-0.01	-0.04	-0.05	-0.02
12	1	12	81.30	7.91	5.61	2.31	0.00	1.00	0.00	0.82	-0.36	-0.01	-0.04	-0.05	-0.02
13	1	13	81.30	7.91	5.62	2.29	0.00	1.00	0.00	0.82	-0.35	-0.01	-0.04	-0.06	-0.02
14	1	14	81.30	7.91	5.64	2.28	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
15	1	15	81.30	7.91	5.65	2.26	0.00	1.00	0.00	0.81	-0.35	-0.01	-0.04	-0.06	-0.02
16	1	16	81.30	7.91	5.66	2.25	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
17	1	17	81.30	7.91	5.68	2.23	0.00	1.00	0.00	0.80	-0.34	-0.01	-0.04	-0.06	-0.02
18	1	18	81.30	7.91	5.69	2.22	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
19	1	19	81.30	7.91	5.70	2.21	0.00	1.00	0.00	0.79	-0.34	-0.01	-0.04	-0.06	-0.02
20	1	20	81.30	7.91	5.72	2.20	0.00	1.00	0.00	0.78	-0.33	-0.01	-0.04	-0.06	-0.02
21	2	1	81.30	7.91	5.73	2.18	0.00	1.00	0.00	0.78	-0.33	-0.01	-0.03	-0.07	-0.02
22	2	2	81.30	7.91	5.74	2.17	0.00	1.00	0.00	0.78	-0.33	-0.01	-0.03	-0.07	-0.02
23	2	3	81.30	7.91	5.75	2.16	0.00	1.00	0.00	0.77	-0.32	-0.01	-0.03	-0.07	-0.02
24	2	4	81.30	7.91	5.77	2.15	0.00	1.00	0.00	0.77	-0.32	-0.01	-0.03	-0.07	-0.02
25	2	5	81.30	7.91	5.78	2.14	0.00	1.00	0.00	0.76	-0.32	-0.01	-0.03	-0.07	-0.02
26	2	6	81.30	7.91	5.79	2.12	0.00	1.00	0.00	0.76	-0.32	-0.01	-0.03	-0.07	-0.02
27	2	7	81.30	7.91	5.80	2.11	0.00	1.00	0.00	0.76	-0.31	-0.01	-0.03	-0.07	-0.02
28	2	8	81.30	7.91	5.81	2.10	0.00	1.00	0.00	0.75	-0.31	-0.01	-0.03	-0.07	-0.02
29	2	9	81.30	7.91	5.82	2.09	0.00	1.00	0.00	0.75	-0.31	-0.01	-0.03	-0.07	-0.02
30	2	10	81.30	7.91	5.83	2.08	0.00	1.00	0.00	0.74	-0.31	-0.01	-0.03	-0.07	-0.02
31	2	11	81.30	7.91	5.84	2.07	0.00	1.00	0.00	0.74	-0.30	-0.01	-0.03	-0.07	-0.02
32	2	12	81.30	7.91	5.85	2.06	0.00	1.00	0.00	0.74	-0.30	-0.01	-0.03	-0.07	-0.02
33	2	13	81.30	7.91	5.86	2.05	0.00	1.00	0.00	0.73	-0.30	-0.01	-0.03	-0.07	-0.02
34	2	14	81.30	7.91	5.87	2.04	0.00	1.00	0.00	0.73	-0.30	-0.01	-0.03	-0.07	-0.02
35	2	15	81.30	7.91	5.88	2.03	0.00	1.00	0.00	0.73	-0.29	-0.01	-0.03	-0.07	-0.02
36	2	16	81.30	7.91	5.89	2.02	0.00	1.00	0.00	0.72	-0.29	-0.01	-0.03	-0.07	-0.02
37	2	17	81.30	7.91	5.90	2.01	0.00	1.00	0.00	0.72	-0.29	-0.01	-0.03	-0.07	-0.02
38	2	18	81.30	7.91	5.91	2.00	0.00	1.00	0.00	0.72	-0.29	-0.01	-0.03	-0.08	-0.02
39	2	19	81.30	7.91	5.92	1.99	0.00	1.00	0.00	0.71	-0.28	-0.01	-0.03	-0.08	-0.02
40	2	20	81.30	7.91	5.93	1.98	0.00	1.00	0.00	0.71	-0.28	-0.01	-0.03	-0.08	-0.02
41	3	1	81.30	7.91	5.94	1.98	0.00	1.00	0.00	0.71	-0.28	-0.01	-0.02	-0.08	-0.02
42	3	2	81.30	7.91	5.95	1.97	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.02
43	3	3	81.30	7.91	5.96	1.96	0.00	1.00	0.00	0.70	-0.28	-0.01	-0.02	-0.08	-0.02
44	3	4	81.30	7.91	5.96	1.95	0.00	1.00	0.00	0.70	-0.27	-0.01	-0.02	-0.08	-0.02
45	3	5	81.30	7.91	5.97	1.94	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.02
46	3	6	81.30	7.91	5.98	1.93	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.02
47	3	7	81.30	7.91	5.99	1.92	0.00	1.00	0.00	0.69	-0.27	-0.01	-0.02	-0.08	-0.02
48	3	8	81.30	7.91	6.00	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
49	3	9	81.30	7.91	6.01	1.91	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
50	3	10	81.30	7.91	6.02	1.90	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
51	3	11	81.30	7.91	6.02	1.89	0.00	1.00	0.00	0.68	-0.26	-0.01	-0.02	-0.08	-0.03
52	3	12	81.30	7.91	6.03	1.88	0.00	1.00	0.00	0.67	-0.26	-0.01	-0.02	-0.08	-0.03

53	3	13	81.30	7.91	6.04	1.87	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
54	3	14	81.30	7.91	6.05	1.86	0.00	1.00	0.00	0.67	-0.25	-0.01	-0.02	-0.08	-0.03
55	3	15	81.30	7.91	6.06	1.86	0.00	1.00	0.00	0.66	-0.25	-0.01	-0.02	-0.08	-0.03
56	3	16	81.30	7.91	6.06	1.85	0.00	1.00	0.00	0.66	-0.25	-0.01	-0.02	-0.08	-0.03
57	3	17	81.30	7.91	6.07	1.84	0.00	1.00	0.00	0.66	-0.25	-0.01	-0.02	-0.07	-0.03
58	3	18	81.30	7.91	6.08	1.83	0.00	1.00	0.00	0.66	-0.24	-0.01	-0.02	-0.07	-0.03
59	3	19	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.24	-0.01	-0.02	-0.07	-0.03
60	3	20	81.30	7.91	6.10	1.82	0.00	1.00	0.00	0.65	-0.24	-0.01	-0.02	-0.07	-0.02
61	4	1	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.24	-0.01	-0.02	-0.07	-0.02
62	4	2	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.24	-0.01	-0.02	-0.07	-0.02
63	4	3	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.23	-0.01	-0.02	-0.07	-0.02
64	4	4	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.23	-0.01	-0.02	-0.07	-0.02
65	4	5	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.23	-0.01	-0.02	-0.07	-0.02

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***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
66	4	6	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.23	-0.01	-0.02	-0.07	-0.02
67	4	7	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.23	-0.01	-0.02	-0.07	-0.02
68	4	8	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.22	-0.01	-0.02	-0.07	-0.02
69	4	9	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.22	-0.01	-0.02	-0.07	-0.02
70	4	10	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.22	-0.01	-0.02	-0.07	-0.02
71	4	11	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.22	-0.01	-0.02	-0.07	-0.02
72	4	12	81.30	7.91	6.09	1.82	0.00	1.00	0.00	0.65	-0.22	-0.01	-0.02	-0.07	-0.02
73	4	13	81.30	7.91	6.10	1.82	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.02	-0.07	-0.02
74	4	14	81.30	7.91	6.10	1.82	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.02	-0.07	-0.02
75	4	15	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02
76	4	16	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02
77	4	17	81.30	7.91	6.10	1.81	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02
78	4	18	81.30	7.91	6.11	1.81	0.00	1.00	0.00	0.65	-0.21	-0.01	-0.01	-0.07	-0.02
79	4	19	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.65	-0.20	-0.01	-0.01	-0.07	-0.02
80	4	20	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.07	-0.02
81	5	1	81.30	7.91	6.11	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.07	-0.02
82	5	2	81.30	7.91	6.12	1.80	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.07	-0.02
83	5	3	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.07	-0.02
84	5	4	81.30	7.91	6.12	1.79	0.00	1.00	0.00	0.64	-0.20	-0.01	-0.01	-0.07	-0.02
85	5	5	81.30	7.91	6.13	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
86	5	6	81.30	7.91	6.13	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02

87	5	7	81.30	7.91	6.14	1.78	0.00	1.00	0.00	0.64	-0.19	-0.01	-0.01	-0.06	-0.02
88	5	8	81.30	7.91	6.14	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
89	5	9	81.30	7.91	6.14	1.77	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
90	5	10	81.30	7.91	6.15	1.76	0.00	1.00	0.00	0.63	-0.19	-0.01	-0.01	-0.06	-0.02
91	5	11	81.30	7.91	6.15	1.76	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
92	5	12	81.30	7.91	6.16	1.76	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
93	5	13	81.30	7.91	6.16	1.75	0.00	1.00	0.00	0.63	-0.18	-0.01	-0.01	-0.06	-0.02
94	5	14	81.30	7.91	6.17	1.75	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
95	5	15	81.30	7.91	6.17	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
96	5	16	81.30	7.91	6.18	1.74	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
97	5	17	81.30	7.91	6.18	1.73	0.00	1.00	0.00	0.62	-0.18	-0.01	-0.01	-0.06	-0.02
98	5	18	81.30	7.91	6.18	1.73	0.00	1.00	0.00	0.62	-0.17	-0.01	-0.01	-0.06	-0.02
99	5	19	81.30	7.91	6.19	1.72	0.00	1.00	0.00	0.62	-0.17	-0.01	-0.01	-0.06	-0.02
100	5	20	81.30	7.91	6.19	1.72	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.06	-0.02
101	6	1	81.30	7.91	6.20	1.71	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.06	-0.02
102	6	2	81.30	7.91	6.20	1.71	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.06	-0.02
103	6	3	81.30	7.91	6.21	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.06	-0.02
104	6	4	81.30	7.91	6.21	1.70	0.00	1.00	0.00	0.61	-0.17	-0.01	-0.01	-0.06	-0.02
105	6	5	81.30	7.91	6.22	1.69	0.00	1.00	0.00	0.61	-0.16	-0.01	-0.01	-0.05	-0.02
106	6	6	81.30	7.91	6.23	1.69	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
107	6	7	81.30	7.91	6.23	1.68	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
108	6	8	81.30	7.91	6.24	1.68	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
109	6	9	81.30	7.91	6.24	1.67	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
110	6	10	81.30	7.91	6.25	1.67	0.00	1.00	0.00	0.60	-0.16	-0.01	-0.01	-0.05	-0.02
111	6	11	81.30	7.91	6.25	1.66	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
112	6	12	81.30	7.91	6.26	1.66	0.00	1.00	0.00	0.59	-0.16	-0.01	-0.01	-0.05	-0.02
113	6	13	81.30	7.91	6.26	1.65	0.00	1.00	0.00	0.59	-0.15	-0.01	-0.01	-0.05	-0.02
114	6	14	81.30	7.91	6.27	1.64	0.00	1.00	0.00	0.59	-0.15	-0.01	-0.01	-0.05	-0.02
115	6	15	81.30	7.91	6.27	1.64	0.00	1.00	0.00	0.59	-0.15	-0.01	-0.01	-0.05	-0.02
116	6	16	81.30	7.91	6.28	1.63	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
117	6	17	81.30	7.91	6.28	1.63	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
118	6	18	81.30	7.91	6.29	1.62	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
119	6	19	81.30	7.91	6.30	1.62	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
120	6	20	81.30	7.91	6.30	1.61	0.00	1.00	0.00	0.58	-0.15	-0.01	-0.01	-0.05	-0.02
121	7	1	81.30	7.91	6.32	1.60	0.00	1.00	0.00	0.57	-0.14	-0.01	-0.01	-0.05	-0.02
122	7	2	81.30	7.91	6.33	1.58	0.00	1.00	0.00	0.57	-0.14	-0.01	-0.01	-0.05	-0.02
123	7	3	81.30	7.91	6.35	1.57	0.00	1.00	0.00	0.56	-0.14	-0.01	-0.01	-0.05	-0.02
124	7	4	81.30	7.91	6.36	1.55	0.00	1.00	0.00	0.55	-0.14	-0.01	-0.01	-0.05	-0.02
125	7	5	81.30	7.91	6.37	1.54	0.00	1.00	0.00	0.55	-0.14	-0.01	-0.01	-0.05	-0.02
126	7	6	81.30	7.91	6.39	1.52	0.00	1.00	0.00	0.55	-0.14	-0.01	-0.01	-0.04	-0.02
127	7	7	81.30	7.91	6.40	1.51	0.00	1.00	0.00	0.54	-0.14	-0.01	-0.01	-0.04	-0.02
128	7	8	81.30	7.91	6.41	1.50	0.00	1.00	0.00	0.54	-0.14	-0.01	-0.01	-0.04	-0.02
129	7	9	81.30	7.91	6.43	1.49	0.00	1.00	0.00	0.53	-0.13	-0.01	-0.01	-0.04	-0.02
130	7	10	81.30	7.91	6.44	1.47	0.00	1.00	0.00	0.53	-0.13	-0.01	-0.01	-0.04	-0.02

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QUAL-2E STREAM QUALITY ROUTING MODEL EPA/NCASI VERSION

***** STEADY STATE SIMULATION *****

** DISSOLVED OXYGEN DATA **

ELE ORD	RCH NUM	ELE NUM	TEMP DEG-F	DO SAT MG/L	DO MG/L	DO DEF MG/L	DAM INPUT MG/L	NIT INHIB FACT	COMPONENTS OF DISSOLVED OXYGEN MASS BALANCE (MG/L-DAY) F-FNCTN INPUT	OXYGN REAIR	C-BOD	SOD	NET P-R	NH3-N	NO2-N
131	7	11	81.30	7.91	6.45	1.46	0.00	1.00	0.00	0.52	-0.13	-0.01	-0.01	-0.04	-0.02
132	7	12	81.30	7.91	6.46	1.45	0.00	1.00	0.00	0.52	-0.13	-0.01	-0.01	-0.04	-0.01
133	7	13	81.30	7.91	6.47	1.44	0.00	1.00	0.22	0.52	-0.13	-0.01	-0.01	-0.04	-0.02
134	7	14	81.30	7.91	6.48	1.43	0.00	1.00	0.00	0.51	-0.13	-0.01	-0.01	-0.04	-0.02
135	7	15	81.30	7.91	6.49	1.42	0.00	1.00	0.00	0.51	-0.13	-0.01	-0.01	-0.04	-0.01
136	7	16	81.30	7.91	6.50	1.41	0.00	1.00	0.00	0.50	-0.13	-0.01	-0.01	-0.04	-0.01
137	7	17	81.30	7.91	6.51	1.40	0.00	1.00	0.00	0.50	-0.13	-0.01	-0.01	-0.04	-0.01
138	7	18	81.30	7.91	6.52	1.39	0.00	1.00	0.00	0.50	-0.13	-0.01	-0.01	-0.04	-0.01
139	7	19	81.30	7.91	6.54	1.38	0.00	1.00	0.00	0.49	-0.12	-0.01	-0.01	-0.04	-0.01
140	7	20	81.30	7.91	6.55	1.37	0.00	1.00	0.00	0.49	-0.12	-0.01	-0.01	-0.04	-0.01
141	8	1	81.30	7.91	6.56	1.36	0.00	1.00	0.00	0.49	-0.12	-0.01	0.00	-0.04	-0.01
142	8	2	81.30	7.91	6.56	1.35	0.00	1.00	0.00	0.48	-0.12	-0.01	0.00	-0.04	-0.01
143	8	3	81.30	7.91	6.57	1.34	0.00	1.00	0.00	0.48	-0.12	-0.01	0.00	-0.04	-0.01
144	8	4	81.30	7.91	6.58	1.33	0.00	1.00	0.00	0.48	-0.12	-0.01	0.00	-0.04	-0.01
145	8	5	81.30	7.91	6.59	1.32	0.00	1.00	0.00	0.47	-0.12	-0.01	0.00	-0.04	-0.01
146	8	6	81.30	7.91	6.60	1.31	0.00	1.00	0.00	0.47	-0.12	-0.01	0.00	-0.04	-0.01
147	8	7	81.30	7.91	6.61	1.30	0.00	1.00	0.00	0.47	-0.12	-0.01	0.00	-0.04	-0.01
148	8	8	81.30	7.91	6.62	1.29	0.00	1.00	0.00	0.46	-0.12	-0.01	0.00	-0.04	-0.01