# APPENDIX A:
# Point Source Discharge Information

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

**Table A-1. Active point source discharge permit information**

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

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

| AI | Permit # | Outfall | Outfall type | Facility name | Facility type | Expiration date | Receiving waterbody |
|---|---|---|---|---|---|---|---|
| 144369 | LAG110174 | 005 | Treated sanitary wastewater | Standard Materials LLC - Robert Ready-Mix Plant | Stone, Clay, Glass, And Concrete Products | 03/14/14 | Effluent pipe-LA Highway 445 roadside ditch-Pole Bridge Branch-Washley Creek-Tangipahoa River |
| 145060 | LAG750585 | 001 | Exterior vehicle and equipment washwater | Sudsy's Car Wash | Automotive Repair, Services, And Parking | 03/14/14 | Parish drainage ditch to Walker Canal |
| 146808 | LAG750584 | 001 | Exterior vehicle and equipment wash wastewater | Tony's Car Wash | Automotive Repair, Services, And Parking | 03/14/14 | River Rd ditch to Parish drainage ditch to Walker Canal to LakePontchartrain |
| 147551 | LAR10E264 | | Construction stormwater | REG Inc - St Rose Biodiesel Production Plant | Chemicals And Allied Products | 09/30/14 | Labranche wetlands to Lake Pontchartrain |
| 168262 | LAR10G076 | | Construction stormwater | Levee-Reach 2B from Good Hope to Cross Bayou Phase 2 LPV-05.2B - Phylway Const LLC | Nonclassifiable Establishments | 12/08/14 | ditch to Cross Bayou Canal to Bayou LaBranch to Lake Pontchartrain |
| 170587 | LAG533466 | 001 | Treated sanitary wastewater | Metro Investment LLC - WWTP | Nonclassifiable Establishments | 11/30/12 | Airline HWY ditch to Cross Bayou Canal to Bayou Labranche |
| 171552 | LAR10G559 | | Construction stormwater | Cross Bayou Drainage Structure - Lakeshore Engineering Services | Nonclassifiable Establishments | 09/30/14 | |
| 115009 | LAR041032 | | MS4 permit | St Charles Parish Government - Municipal Separate Storm Sewer System | MS4 permit | 12/04/12 | Lake Pontchartrain, Lake Pontchartrain Drainage Canals, Bayou St. John, Inner Harbor Navigational Canal |

Note: Permits in red bold received WLAs in this TMDL.

### Table A-2. Terminated point source discharge permits

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

# APPENDIX B:
# Monitoring Data Tables and Plots

## Tables

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

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

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

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

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

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

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

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

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

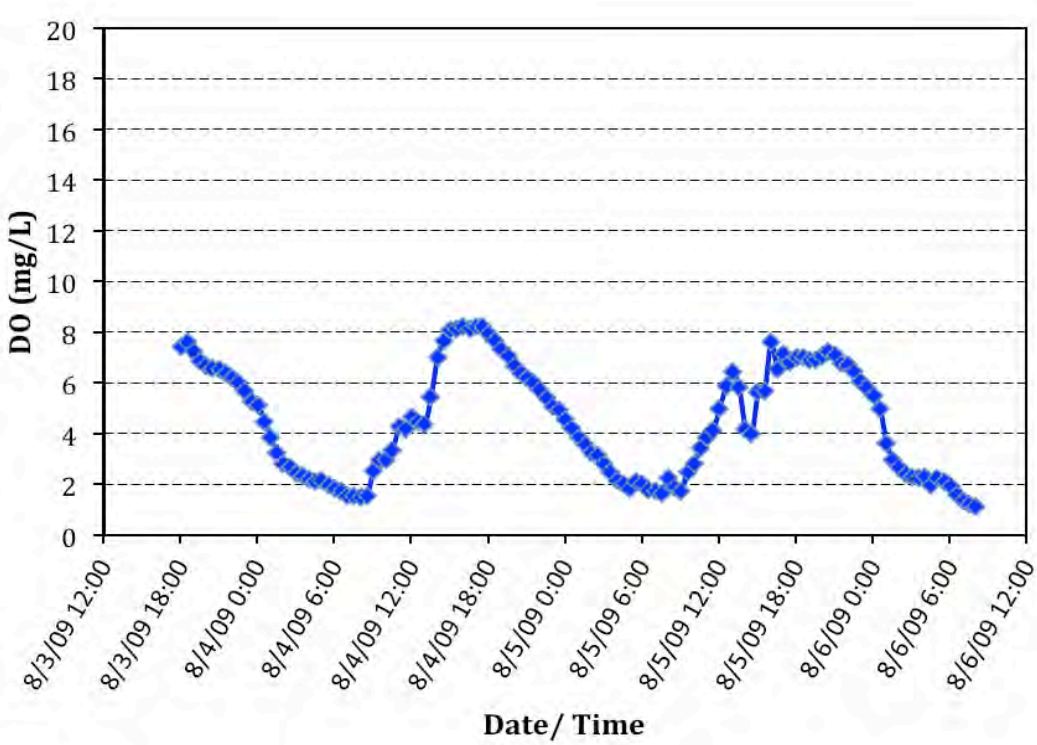



**Figure B-1. Continuous dissolved oxygen data observed at LABR2.**

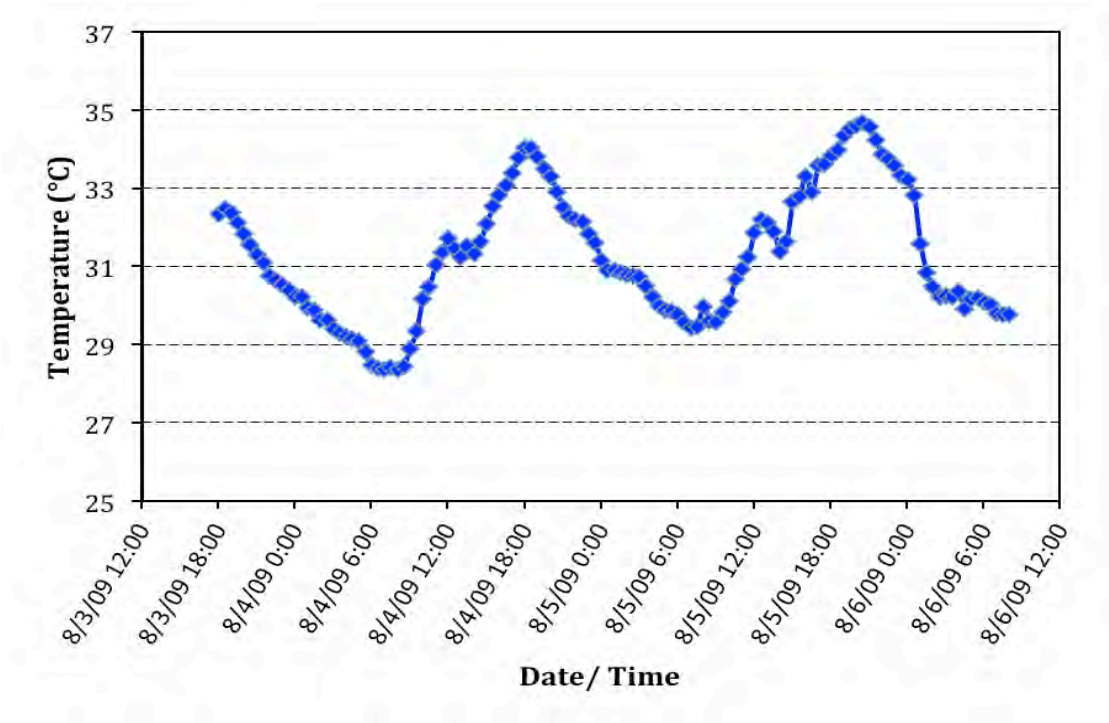



**Figure B-2. Continuous temperature data observed at LABR2.**

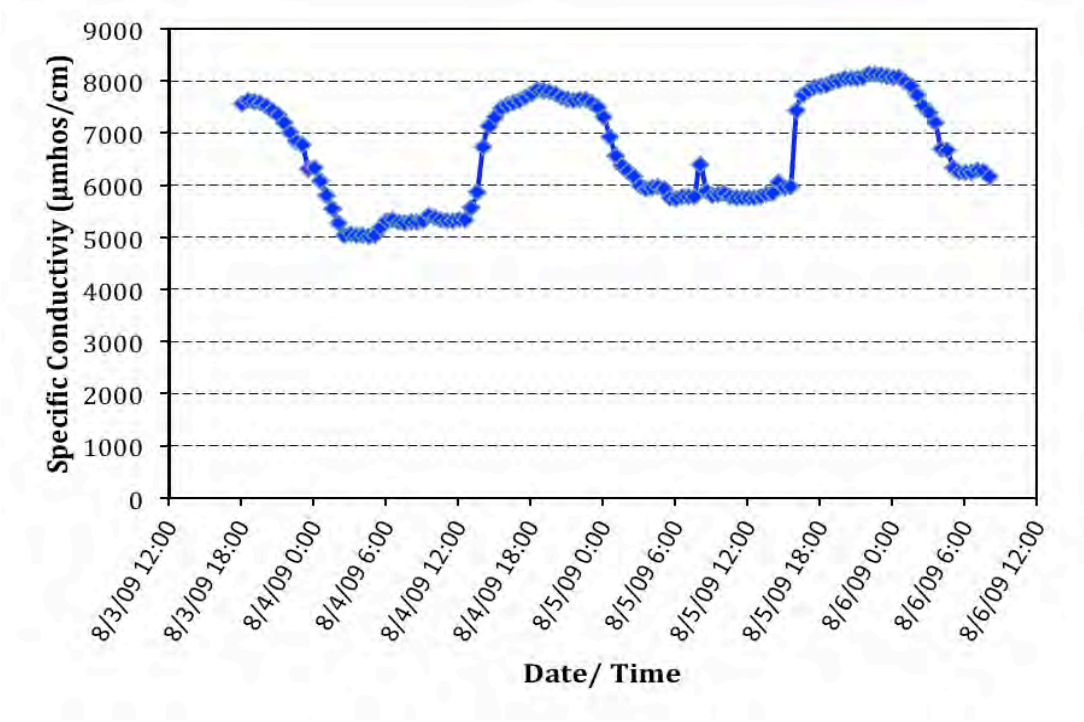



**Figure B-3. Continuous specific conductivity data observed at LABR2.**

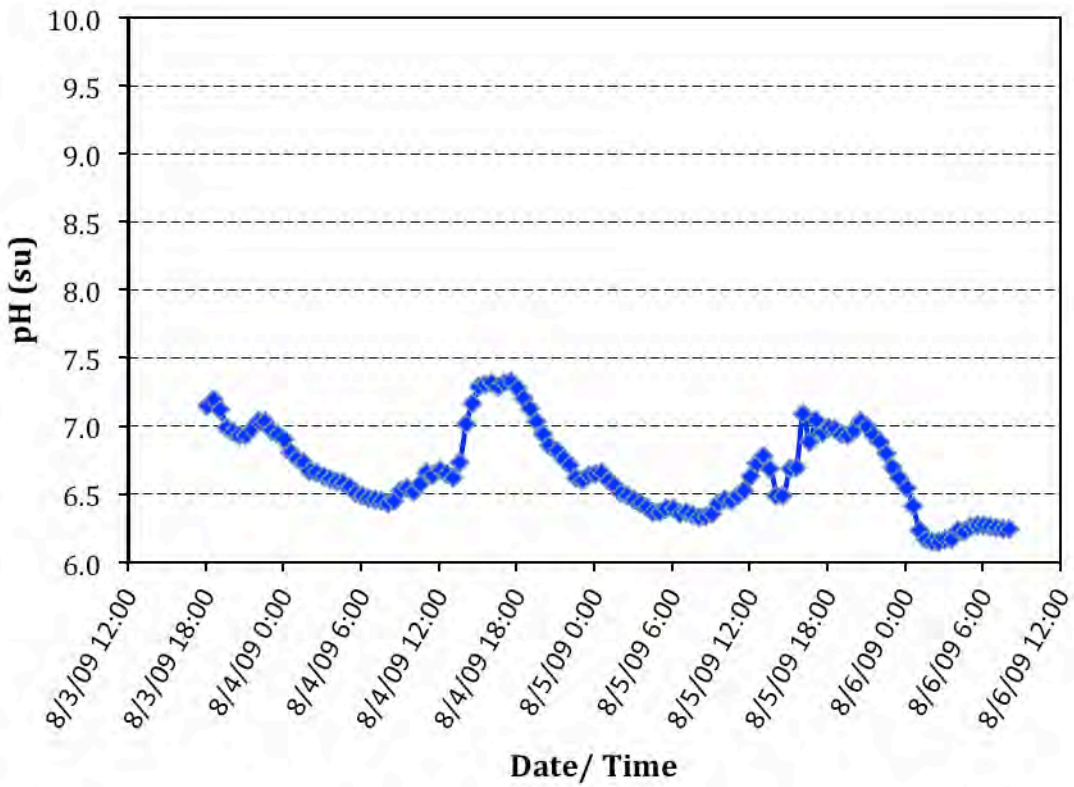



**Figure B-4. Continuous pH data observed at LABR2.**

# APPENDIX C:
# Field Survey Notes

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: CROSS-1 Date/time: 04 AUG 09 10:01 Crew: JMR DSG

Description of measurement location (position relative to landmarks and horizontal position): near outfall

GPS coordinates: UTM 15 R 0755758 3320197

Wind speed (mph) and direction wind is coming from: ~7 mph West

General appearance of water (including vegetation, if any): Limpy, Tan steelhead

Sample collected? (Yes) No Number of sample bottles:

Sample depth (m): 2-3 Total depth (m): 4.75 Apparatus used: UD

QA/QC sample collected? Yes No Type: Dup Blank ID:

Cross section measured? Yes (No) Method (circle one): ADCP GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue No flow

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 2.02'

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 29.60 | 2688 | 1.95 | 6.67 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

Note: increase in Veg, and maybe veg health as we drove toward Cross-1. (salt water intrusion)

Pic 602 603

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: Cross - 2 Date/time: 04 AUG 09 11:46 Crew: BSG Sma

Description of measurement location (position relative to landmarks and horizontal position): Cross canal

GPS coordinates: UTM 15R 0755629 3321044

Wind speed (mph) and direction wind is coming from: S

General appearance of water (including vegetation, if any): Tint Liana

Sample collected? Yes (No) Number of sample bottles: —

Sample depth (m): — Total depth (m): 3.5 Apparatus used: —

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 1.7'

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.47 | 2752 | 3.72 | 6.92 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

604 605 pics always upstream than downstream

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: Cross 3 Date/time: 04 AUG 09 Crew: BSA Jank

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates:

Wind speed (mph) and direction wind is coming from:

General appearance of water (including vegetation, if any): Gilmra

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): — Total depth (m): — Apparatus used: —

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 1.17

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.75 | 2758 | 3.74 | 6.89 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

607 608

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: CROSS-4 Date/time: 04 AUG 09 15:09 Crew: JMR/BJG

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: UTM 15R 0755000 E 3322674 N

Wind speed (mph) and direction wind is coming from: 0-5 mph

General appearance of water (including vegetation, if any): stained, limna

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): — Total depth (m): — Apparatus used: —

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 0.99 ft

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 32.66 | 2914 | 5.30 | 7.26 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

photos 609-610

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: Cross 5 Date/time: 04 AUG 09 Crew: BJG JMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: UTM 15 R0 754636 3323456

Wind speed (mph) and direction wind is coming from: 0-5 North

General appearance of water (including vegetation, if any): Lilies stained

Sample collected? (Yes) No Number of sample bottles:

Sample depth (m): 2.3 Total depth (m): 3.7 Apparatus used: VD

QA/QC sample collected? Yes No Type: Dup Blank ID:

Cross section measured? Yes No Method (circle one): ADCP GPSFath SurvRod

Flow measured? Yes No Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 0-98

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.40 | 5127 | 4.88 | 7.30 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

photos 612-613

Flow not serial → USB port

04 AUG 09 ~ 0945

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: PONT-1 Date/time: 06 AUG 09 10:41 Crew: JMR/RJG

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: UTM 15 0753774 E 3328235 N

Wind speed (mph) and direction wind is coming from: 5-10 mph from the south

General appearance of water (including vegetation, if any): turbid

Sample collected? (Yes) No Number of sample bottles: 9

Sample depth (~~m~~ ft): 1.0 Total depth (~~m~~ ft): 2.05 Apparatus used: VD

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? Yes (No) Method (circle one): ADCP GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 1.65 ft

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.23 | 7570 | 5.42 | 7.51 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

663 664

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: Trav. 1 Date/time: 05 AUG09 11:04 Crew: 576 JMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R0755 4416 3324135

Wind speed (mph) and direction wind is coming from: N 5

General appearance of water (including vegetation, if any): stained Lilma

Sample collected? (Yes) No Number of sample bottles:

Sample depth (m): 1.3 Total depth (m): 2.7 Apparatus used: VD

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? Yes (No) Method (circle one): ADCP GPSFath SurvRod

Flow measured? (Yes) No Method (circle one): (ADCP) MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 0.65

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 29.55 | 78.73 | 4.36 | 7.33 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

640 641 LABR-1 Flow may be labeled as a Cross 5

look for a later time

FD

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: 06AU609B Date/time: 06AU609 2100 Crew: BSL SMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates:

Wind speed (mph) and direction wind is coming from:

General appearance of water (including vegetation, if any):

Sample collected? Yes No Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes No Type: Dup Blank ID: 06AU609B

Cross section measured? Yes No Method (circle one): ADCP GPSFath SurvRod

Flow measured? Yes No Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units):

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: Labr-1 Date/time: 05 Aug 09 1011 Crew: BSG JNR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0754249 3324030

Wind speed (mph) and direction wind is coming from: NE 5-10

General appearance of water (including vegetation, if any): Stained

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes No Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? (Yes) No Method (circle one): (ADCP) MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 0.96

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 30.93 | 3490 | 3.51 | 6.99 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

638 639

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: LABR-2 Date/time: 06 AUG 09 1200 Crew: BSG JMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15R 0754257 3324956

Wind speed (mph) and direction wind is coming from: N W 10 mph

General appearance of water (including vegetation, if any): Muddied Stained

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units):

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 32.78 | 5531 | 6.47 | 7.25 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

659 660 Pulled LABR Hydro @
pulled Trap Hydro 12:15

@ 1224
Trap Hydro pics 661, 662 Pick 11 682 683

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: LABR-3 Date/time: 06 AUG 09 1140 Crew: BSG JME

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 754145 3332 5801

Wind speed (mph) and direction wind is coming from: 5 North

General appearance of water (including vegetation, if any): turbid

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes No Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 1.16

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.96 | 5896 | 5.24 | 7.59 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

657 656 Tide out

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: LABR-4 Date/time: 6A0609 11:25 Crew: BJG SMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0753765 3322664Z

Wind speed (mph) and direction wind is coming from: 5 mph N

General appearance of water (including vegetation, if any):

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 1.00

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.85 | 5928 | 5.57 | 7.59 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

655 656

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: LABR-S Date/time: 06 AUG 09 0849 Crew: BSG Jmc

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0753869 3327897

Wind speed (mph) and direction wind is coming from: 5-10 South

General appearance of water (including vegetation, if any): Stained

Sample collected? (Yes) No Number of sample bottles:

Sample depth (m): 3.75' Total depth (m): 7.5' Apparatus used: UD

QA/QC sample collected? (Yes) No Type: Dup Blank ID: 06AUG09

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? (Yes) No Method (circle one): (ADCP) MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units):

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 31.76 | 7292 | 3.70 | 7.11 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

tide going out

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs



Site ID: LGLD-1 Date/time: 29 AUG 09 1808 Crew: BSB JMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0751335 3324868

Wind speed (mph) and direction wind is coming from: W South

General appearance of water (including vegetation, if any): Limpa, slightly algae

Sample collected? Yes No Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used: VAD

QA/QC sample collected? Yes No Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): ADCP GPSFath (SurvRod)

Flow measured? Yes (No) Later Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units):

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 33.50 | 7096 | 10.15 | 8.55 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

614 615 Tide has been coming in for last 6-8 hrs seems to have stopped/reversed

flooded on

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: LGLD-2 Date/time: 05 AUG 04 1621 Crew: BSC JMR

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0751928 3325716

Wind speed (mph) and direction wind is coming from: South 5-10

General appearance of water (including vegetation, if any): Stained Limna

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: 4 Secchi depth (specify units): 0.81

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 35.83 | 7312 | 11.22 | 8.35 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

648 649

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: LGLD-3 Date/time: 5AU609 Crew: BSC Jmk

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15 R 0752496 3326512

Wind speed (mph) and direction wind is coming from: Ø

General appearance of water (including vegetation, if any): Lilma stained

Sample collected? Yes (No) Number of sample bottles:

Sample depth (m): Total depth (m): Apparatus used:

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

Flow measured? Yes (No) Method (circle one): ADCP MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 0.54

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 37.05 | 6459 | 10.34 | 8.29 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):

650 651

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs

Page 1 of 1

Site ID: LGLD 4 Date/time: 03/10/09 1838 Crew: BSG JMC

Description of measurement location (position relative to landmarks and horizontal position):

GPS coordinates: 15R 0753186 3327376

Wind speed (mph) and direction wind is coming from: Ø

General appearance of water (including vegetation, if any): stained

Sample collected? (Yes) No Number of sample bottles:

Sample depth (m): 1.5' Total depth (m): 3.00' Apparatus used: UP

QA/QC sample collected? Yes (No) Type: Dup Blank ID:

Cross section measured? (Yes) No Method (circle one): (ADCP) GPSFath SurvRod

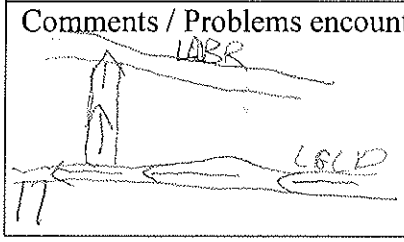
Flow measured? (Yes) No Method (circle one): (ADCP) MMcB Drogue

| ADCP flows for each run (m3/sec): | Run 1: | Run 3: | Run 5: |
|---|---|---|---|
| | Run 2: | Run 4: | Run 6: |

In situ meter used: Secchi depth (specify units): 1.10

| Depth (m) | Temperature (C) | Conductivity (µmhos/cm) | Dissolved Oxygen (mg/L) | pH (su) |
|---|---|---|---|---|
| | 34.62 | 7969 | 5.87 | 7.58 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Comments / Problems encountered (if any) / Corrective action (if any):




652 653

Boat Ramp

Dominate Flow direction assumed

# APPENDIX D:
# Model Vector Diagrams

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

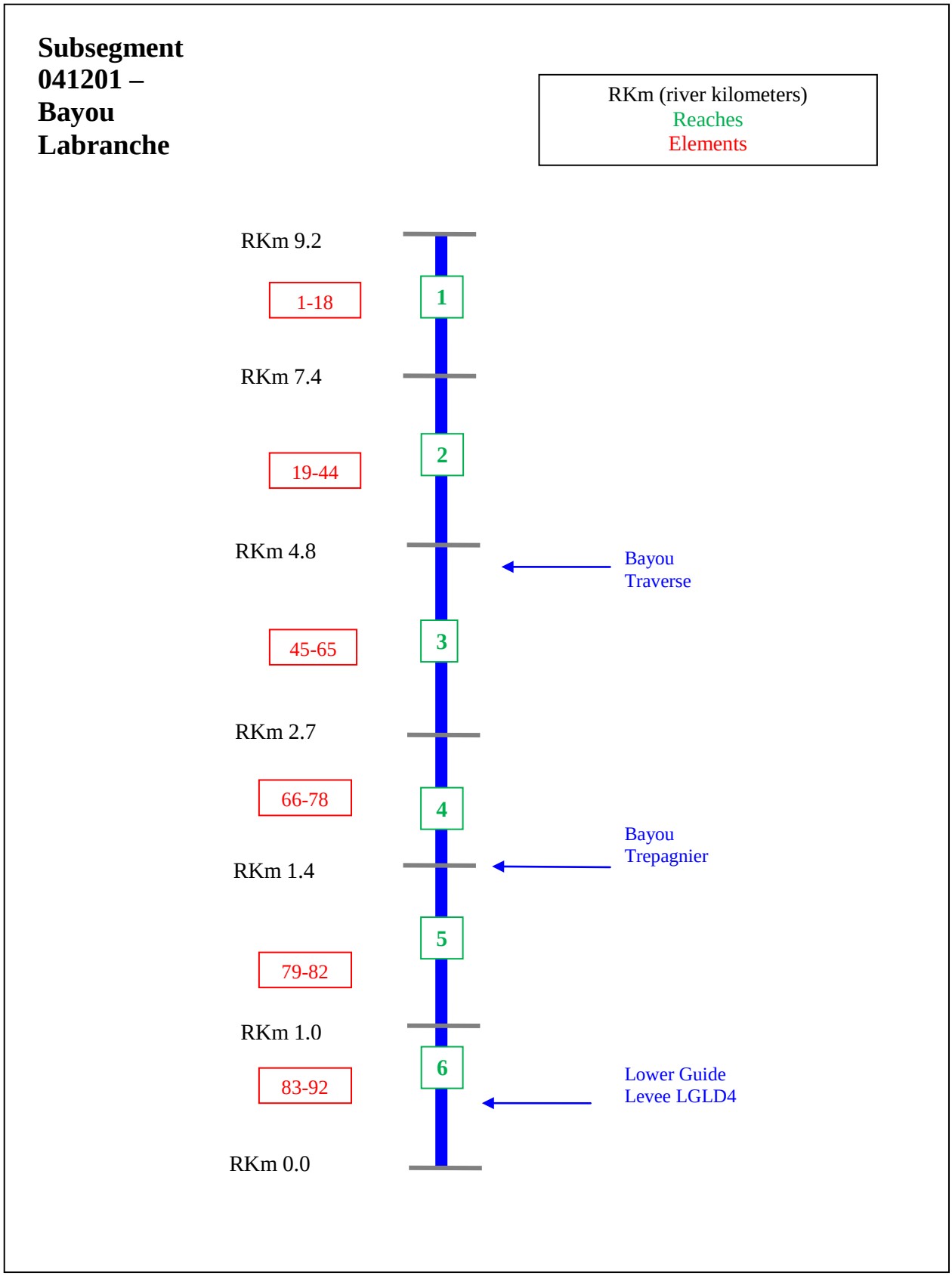



**Figure D-1. Vector diagram for subsegment 041201.**

# APPENDIX E:
# Model Calibration Output File

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

LA-QUAL Version 9.05
Louisiana Department of Environmental Quality

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

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

CARD TYPE       CONTROL TITLES

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

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

CARD TYPE       MODEL OPTION

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

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

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

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

PROGRAM         ELEVATION                                     60.96000 meters above MSL
ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE
```

```
PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg 0/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg 0/mg algae
PROGRAM         C CONTENT                                   0.40000 mg C/mg algae
PROGRAM         N CONTENT                                   0.08500 mg N/mg algae
PROGRAM         P CONTENT                                   0.01300 mg P/mg algae
PROGRAM         N HALF SATURATION CONSTANT                  0.30000 mg/L N
PROGRAM         P HALF SATURATION CONTSTANT                 0.04000 mg/L P
PROGRAM         LIGHT SATURATION CONSTANT                  30.00000 Langleys/hr
PROGRAM         L OPTION                                    3.00000 (Steel Equation)
PROGRAM         COEF LINEAR SELF-SHADING                    0.00800
PROGRAM         COEF NONLINEAR SELF-SHADING                 0.05400
PROGRAM         EXP NONLINEAR SELF-SHADING                  0.66700
PROGRAM         N OPTION                                    1.00000 (Harmonic Mean)
ENDATA06

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA07

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ENDATA15

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

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

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

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

ENDATA17

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

ENDATA18

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

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

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

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

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

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

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

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

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

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

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

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

WSTLD-1        1       9.20  LAG533466             0.00001    0.00035    0.000   30.00     0.00     0.000     0.000
WSTLD-1       47       4.60  Bayou Traverse        0.17000    6.00282    3.880   30.00     0.00  3490.000  3490.000
```

```
WSTLD-1       78       1.50  Bayou Trepagnier       0.17000    6.00282    3.880   30.00     0.00  7292.000  7000.000
WSTLD-1       88       0.50  LGLD4                  0.17000    6.00282    3.880   34.60     0.00  7969.000  7969.000
ENDATA24

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

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

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

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

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

CARD TYPE    CONSTITUENT                     CONCENTRATION

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

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

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

ENDATA28

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

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

ENDATA29

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

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

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

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

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

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

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

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

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

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

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

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

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

  C1     1     1     38.10     37.51     36.94     36.37     35.81     35.27     34.73     34.20     33.68     33.17
  C1     1    11     32.67     32.18     31.70     31.22     30.76     30.30     29.86     29.45
  C2     2    19     29.03     28.61     28.18     27.77     27.37     26.97     26.58     26.20     25.83     25.46
```

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

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

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

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

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

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

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

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

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

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

INTERMEDIATE REPORT

Ammonia Nitrogen
mg/L

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

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

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

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

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

INTERMEDIATE REPORT
Total Nitrogen
mg/L

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

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

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

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

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

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

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Total Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Chlorophyll a
µg/L

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

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

INTERMEDIATE REPORT
Temperature
deg C

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

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

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

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

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

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

INTERMEDIATE REPORT
River Distance
km

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

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

INTERMEDIATE REPORT
Flow
$m^3/s$

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

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

INTERMEDIATE REPORT
Dispersion
$m^2/s$

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

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

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

INTERMEDIATE REPORT
Depth
m

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

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

INTERMEDIATE REPORT
Width
m

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

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

INTERMEDIATE REPORT
Advective Velocity
m/s

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

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

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 7 | 83 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

INTERMEDIATE REPORT
Mean Velocity
m/s

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

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

INTERMEDIATE REPORT
Cross-Sectional Area
$m^2$

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

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

INTERMEDIATE REPORT
Reaeration Rate
per day

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

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

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

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

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

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

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

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

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

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

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

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

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

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

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

CAPSULE SUMMARY FOR Cross Bayou Canal

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

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

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

CAPSULE SUMMARY FOR Cross Bayou Canal

| IOR | REACH | | DIST | FLOW | TEMP | SALN | DO | BOD1 | BOD2 | ORG-N | NH3-N | NO3-N | TOT-N | ORG-P | PO4-P | CHLA | DISP | DEPTH | WIDTH | ADVEC VELO | MEAN VELO | DO SAT | REAER RATE | BOD1 DECA | BOD1 SETT | BOD2 DECA | BOD2 SETT | NH3 DECA | SOD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | km | m³/s | deg C | ppt | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | m²/s | m | m | m/s | m/s | mg/L | 1/da | 1/da | 1/da | 1/da | 1/da | 1/da | g/m²/d |
| 72 | L3 | 5 | 2.00 | 0.540 | 32.98 | 0.0 | 5.40 | 10.46 | 0.00 | 1.12 | 0.30 | 0.08 | 1.50 | 0.03 | 0.47 | 74.3 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.186 | 1.210 | 0.18 | 0.37 | 0.00 | 0.00 | 0.31 | 1.13 |
| 73 | L3 | 5 | 1.90 | 0.540 | 33.01 | 0.0 | 5.46 | 10.28 | 0.00 | 1.09 | 0.29 | 0.08 | 1.47 | 0.03 | 0.47 | 74.8 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.182 | 1.211 | 0.18 | 0.37 | 0.00 | 0.00 | 0.32 | 1.13 |
| 74 | L3 | 5 | 1.80 | 0.540 | 33.03 | 0.0 | 5.51 | 10.11 | 0.00 | 1.06 | 0.29 | 0.08 | 1.44 | 0.03 | 0.47 | 75.3 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.179 | 1.211 | 0.18 | 0.37 | 0.00 | 0.00 | 0.32 | 1.14 |
| 75 | L3 | 5 | 1.70 | 0.540 | 33.05 | 0.0 | 5.56 | 9.94 | 0.00 | 1.05 | 0.29 | 0.08 | 1.42 | 0.03 | 0.47 | 75.7 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.177 | 1.211 | 0.18 | 0.37 | 0.00 | 0.00 | 0.32 | 1.14 |
| 76 | L3 | 5 | 1.60 | 0.540 | 33.04 | 0.0 | 5.61 | 9.76 | 0.00 | 1.11 | 0.28 | 0.08 | 1.47 | 0.03 | 0.47 | 75.4 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.178 | 1.211 | 0.18 | 0.37 | 0.00 | 0.00 | 0.32 | 1.14 |
| 77 | L3 | 5 | 1.50 | 0.540 | 32.92 | 0.0 | 5.63 | 9.55 | 0.00 | 1.37 | 0.28 | 0.08 | 1.74 | 0.03 | 0.46 | 73.2 | 1.5 | 0.73 | 20.8 | 0.036 | 0.036 | 7.193 | 1.209 | 0.18 | 0.37 | 0.00 | 0.00 | 0.32 | 1.13 |
| | | WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 78 | L3 | 5 | 1.40 | 0.710 | 32.44 | 0.0 | 5.56 | 9.24 | 0.00 | 2.39 | 0.27 | 0.08 | 2.74 | 0.04 | 0.44 | 64.4 | 1.5 | 0.73 | 20.8 | 0.047 | 0.047 | 7.251 | 1.199 | 0.18 | 0.37 | 0.00 | 0.00 | 0.30 | 1.09 |
| 79 | L2 | 6 | 1.30 | 0.710 | 32.48 | 0.0 | 5.40 | 8.99 | 0.00 | 2.29 | 0.29 | 0.09 | 2.66 | 0.03 | 0.43 | 64.6 | 1.5 | 1.99 | 24.1 | 0.015 | 0.015 | 7.246 | 0.441 | 0.18 | 0.13 | 0.00 | 0.00 | 0.30 | 2.19 |
| 80 | L2 | 6 | 1.20 | 0.710 | 32.52 | 0.0 | 5.25 | 8.78 | 0.00 | 2.21 | 0.30 | 0.09 | 2.60 | 0.03 | 0.43 | 64.6 | 1.5 | 1.99 | 24.1 | 0.015 | 0.015 | 7.241 | 0.441 | 0.18 | 0.13 | 0.00 | 0.00 | 0.30 | 2.20 |
| 81 | L2 | 6 | 1.10 | 0.710 | 32.56 | 0.0 | 5.09 | 8.56 | 0.00 | 2.12 | 0.31 | 0.10 | 2.53 | 0.03 | 0.43 | 64.7 | 1.5 | 1.99 | 24.1 | 0.015 | 0.015 | 7.236 | 0.441 | 0.18 | 0.14 | 0.00 | 0.00 | 0.30 | 2.21 |
| 82 | L2 | 6 | 1.00 | 0.710 | 32.62 | 0.0 | 4.88 | 8.32 | 0.00 | 2.02 | 0.33 | 0.11 | 2.46 | 0.03 | 0.43 | 64.7 | 1.5 | 1.99 | 24.1 | 0.015 | 0.015 | 7.229 | 0.442 | 0.18 | 0.14 | 0.00 | 0.00 | 0.30 | 2.21 |
| 83 | L1 | 7 | 0.90 | 0.710 | 32.67 | 0.0 | 4.63 | 8.06 | 0.00 | 1.92 | 0.34 | 0.12 | 2.38 | 0.03 | 0.43 | 64.6 | 1.5 | 1.99 | 34.1 | 0.010 | 0.010 | 7.223 | 0.442 | 0.18 | 0.14 | 0.00 | 0.00 | 0.30 | 4.44 |
| 84 | L1 | 7 | 0.80 | 0.710 | 32.73 | 0.0 | 4.42 | 7.84 | 0.00 | 1.83 | 0.36 | 0.13 | 2.31 | 0.03 | 0.43 | 64.3 | 1.5 | 1.99 | 34.1 | 0.010 | 0.010 | 7.216 | 0.442 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.46 |
| 85 | L1 | 7 | 0.70 | 0.710 | 32.79 | 0.0 | 4.24 | 7.64 | 0.00 | 1.74 | 0.37 | 0.13 | 2.24 | 0.03 | 0.42 | 63.7 | 1.5 | 1.99 | 34.1 | 0.010 | 0.010 | 7.208 | 0.443 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.48 |
| 86 | L1 | 7 | 0.60 | 0.710 | 32.86 | 0.0 | 4.10 | 7.47 | 0.00 | 1.65 | 0.39 | 0.14 | 2.18 | 0.03 | 0.41 | 62.5 | 1.5 | 1.99 | 34.1 | 0.010 | 0.010 | 7.200 | 0.443 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.50 |
| 87 | L1 | 7 | 0.50 | 0.710 | 32.96 | 0.0 | 4.02 | 7.35 | 0.00 | 1.55 | 0.42 | 0.14 | 2.11 | 0.04 | 0.40 | 60.3 | 1.5 | 1.99 | 34.1 | 0.010 | 0.010 | 7.187 | 0.444 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.52 |
| | | WASTELOAD # 088 (LGLD4) ENTERS HERE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88 | L1 | 7 | 0.40 | 0.880 | 33.09 | 0.0 | 4.05 | 7.30 | 0.00 | 1.44 | 0.45 | 0.14 | 2.03 | 0.05 | 0.38 | 56.3 | 1.5 | 1.99 | 34.1 | 0.013 | 0.013 | 7.172 | 0.445 | 0.18 | 0.14 | 0.00 | 0.00 | 0.30 | 4.56 |
| 89 | L1 | 7 | 0.30 | 0.880 | 33.04 | 0.0 | 3.96 | 7.09 | 0.00 | 1.36 | 0.44 | 0.14 | 1.95 | 0.05 | 0.37 | 55.0 | 1.5 | 1.99 | 34.1 | 0.013 | 0.013 | 7.178 | 0.445 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.55 |
| 90 | L1 | 7 | 0.20 | 0.880 | 32.93 | 0.0 | 3.95 | 6.87 | 0.00 | 1.27 | 0.42 | 0.14 | 1.82 | 0.05 | 0.36 | 52.5 | 1.5 | 1.99 | 34.1 | 0.013 | 0.013 | 7.192 | 0.444 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.51 |
| 91 | L1 | 7 | 0.10 | 0.880 | 32.67 | 0.0 | 4.08 | 6.61 | 0.00 | 1.13 | 0.37 | 0.13 | 1.63 | 0.05 | 0.34 | 47.6 | 1.5 | 1.99 | 34.1 | 0.013 | 0.013 | 7.223 | 0.442 | 0.18 | 0.14 | 0.00 | 0.00 | 0.29 | 4.44 |
| 92 | L1 | 7 | 0.00 | 0.880 | 32.17 | 0.0 | 4.49 | 6.26 | 0.00 | 0.92 | 0.27 | 0.10 | 1.29 | 0.06 | 0.30 | 38.3 | 1.5 | 1.99 | 34.1 | 0.013 | 0.013 | 7.284 | 0.438 | 0.17 | 0.13 | 0.00 | 0.00 | 0.28 | 4.31 |

FINAL REPORT Cross Bayou Canal LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 1 Cross Bayou Canal 1 Calibration Simulation with Algal Dynamics

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

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

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

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

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

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

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

 *   g/m²/d            **   mg/L/day

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

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

   1    9.100  29.94  0.00  2687.93     0.00   2.11  33.48   0.00  38.10   0.00   1.10   0.11   0.04   1.24   1.46   1.61   0.19   0.50   0.69   0.24   0.74   43.2      0.0
0.    0.00
   2    9.000  30.04  0.00  2687.93     0.00   2.19  32.88   0.00  37.51   0.00   1.06   0.11   0.04   1.21   1.43   1.58   0.18   0.50   0.67   0.23   0.73   43.4      0.0
0.    0.00
   3    8.900  30.13  0.00  2687.93     0.00   2.26  32.28   0.00  36.94   0.00   1.02   0.11   0.04   1.17   1.40   1.55   0.17   0.50   0.66   0.22   0.72   43.6      0.0
0.    0.00
   4    8.800  30.22  0.00  2687.93     0.00   2.33  31.70   0.00  36.37   0.00   0.99   0.11   0.04   1.14   1.36   1.51   0.16   0.50   0.66   0.21   0.71   43.8      0.0
0.    0.00
   5    8.700  30.31  0.00  2687.93     0.00   2.40  31.12   0.00  35.81   0.00   0.96   0.11   0.04   1.11   1.33   1.48   0.15   0.50   0.65   0.20   0.70   43.9      0.0
0.    0.00
   6    8.600  30.39  0.00  2687.93     0.00   2.46  30.56   0.00  35.27   0.00   0.92   0.12   0.04   1.08   1.30   1.46   0.14   0.50   0.64   0.20   0.69   44.1      0.0
0.    0.00
   7    8.500  30.48  0.00  2687.93     0.00   2.53  30.00   0.00  34.73   0.00   0.89   0.12   0.04   1.05   1.27   1.43   0.13   0.50   0.63   0.19   0.69   44.3      0.0
0.    0.00
   8    8.400  30.56  0.00  2687.93     0.00   2.59  29.45   0.00  34.20   0.00   0.86   0.12   0.04   1.02   1.24   1.40   0.12   0.50   0.62   0.18   0.68   44.5      0.0
0.    0.00
   9    8.300  30.64  0.00  2687.93     0.00   2.66  28.91   0.00  33.68   0.00   0.83   0.12   0.04   1.00   1.21   1.38   0.12   0.50   0.61   0.17   0.67   44.7      0.0
0.    0.00
  10    8.200  30.72  0.00  2687.93     0.00   2.72  28.38   0.00  33.17   0.00   0.81   0.12   0.04   0.97   1.19   1.35   0.11   0.50   0.61   0.17   0.67   44.9      0.0
0.    0.00
  11    8.100  30.80  0.00  2687.93     0.00   2.78  27.86   0.00  32.67   0.00   0.78   0.12   0.04   0.94   1.16   1.33   0.10   0.50   0.60   0.16   0.66   45.1      0.0
0.    0.00
  12    8.000  30.88  0.00  2687.93     0.00   2.84  27.34   0.00  32.18   0.00   0.75   0.12   0.04   0.92   1.14   1.30   0.10   0.50   0.59   0.15   0.65   45.3      0.0
0.    0.00
  13    7.900  30.95  0.00  2687.93     0.00   2.89  26.84   0.00  31.70   0.00   0.73   0.12   0.04   0.89   1.11   1.28   0.09   0.50   0.59   0.15   0.65   45.5      0.0
0.    0.00
  14    7.800  31.03  0.00  2687.93     0.00   2.95  26.34   0.00  31.22   0.00   0.70   0.12   0.04   0.87   1.09   1.26   0.08   0.50   0.58   0.14   0.64   45.7      0.0
0.    0.00
  15    7.700  31.10  0.00  2687.93     0.00   3.01  25.85   0.00  30.76   0.00   0.68   0.13   0.04   0.84   1.07   1.23   0.08   0.50   0.58   0.14   0.64   45.9      0.0
0.    0.00
  16    7.600  31.17  0.00  2687.93     0.00   3.06  25.38   0.00  30.30   0.00   0.65   0.13   0.04   0.82   1.05   1.21   0.08   0.50   0.57   0.14   0.63   46.1      0.0
0.    0.00
  17    7.500  31.24  0.00  2687.93     0.00   3.13  24.91   0.00  29.86   0.00   0.63   0.13   0.04   0.80   1.03   1.19   0.07   0.50   0.57   0.13   0.63   46.4      0.0
0.    0.00
  18    7.400  31.30  0.00  2687.93     0.00   3.21  24.47   0.00  29.45   0.00   0.61   0.12   0.04   0.78   1.01   1.17   0.07   0.50   0.56   0.13   0.62   46.6      0.0
0.    0.00

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

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

    1    9.100   0.00   0.18    0.28 0.14 0.33 0.93 0.48 0.07  0.219  0.063  0.032  0.031   2.8   43.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    2    9.000   0.00   0.18    0.27 0.14 0.33 0.93 0.49 0.07  0.221  0.063  0.032  0.031   2.8   43.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    3    8.900   0.00   0.18    0.27 0.14 0.33 0.93 0.49 0.07  0.224  0.064  0.032  0.031   2.8   43.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    4    8.800   0.00   0.18    0.26 0.14 0.34 0.93 0.49 0.07  0.227  0.064  0.032  0.031   2.8   43.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
    5    8.700   0.00   0.18    0.26 0.14 0.34 0.93 0.50 0.07  0.229  0.064  0.032  0.031   2.9   43.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
```

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

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

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

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

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

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

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW $m^3/s$ | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME $m^3$ | SURFACE AREA $m^2$ | X-SECT AREA $m^2$ | TIDAL PRISM $m^3$ | TIDAL VELO m/s | DISPRSN $m^2/s$ | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.40 | 7.30 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.75 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 1789.86 | 0.009 | 1.500 | 0.041 |
| 20 | 7.30 | 7.20 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.78 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 1901.40 | 0.010 | 1.500 | 0.041 |
| 21 | 7.20 | 7.10 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.81 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2012.94 | 0.010 | 1.500 | 0.041 |
| 22 | 7.10 | 7.00 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.83 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2124.48 | 0.011 | 1.500 | 0.041 |
| 23 | 7.00 | 6.90 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.86 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2236.02 | 0.011 | 1.500 | 0.041 |
| 24 | 6.90 | 6.80 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.89 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2347.56 | 0.012 | 1.500 | 0.041 |
| 25 | 6.80 | 6.70 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.92 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2459.10 | 0.013 | 1.500 | 0.041 |
| 26 | 6.70 | 6.60 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.95 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2570.64 | 0.013 | 1.500 | 0.041 |
| 27 | 6.60 | 6.50 | 0.37001 | 0.0 | 0.04079 | 0.03 | 0.98 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2682.18 | 0.014 | 1.500 | 0.041 |
| 28 | 6.50 | 6.40 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.00 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2793.72 | 0.014 | 1.500 | 0.041 |
| 29 | 6.40 | 6.30 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.03 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2905.26 | 0.015 | 1.500 | 0.041 |
| 30 | 6.30 | 6.20 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.06 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3016.80 | 0.015 | 1.500 | 0.041 |
| 31 | 6.20 | 6.10 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.09 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3128.34 | 0.016 | 1.500 | 0.041 |
| 32 | 6.10 | 6.00 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.12 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3239.88 | 0.017 | 1.500 | 0.041 |
| 33 | 6.00 | 5.90 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.15 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3351.42 | 0.017 | 1.500 | 0.041 |
| 34 | 5.90 | 5.80 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.17 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3462.96 | 0.018 | 1.500 | 0.041 |
| 35 | 5.80 | 5.70 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.20 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3574.50 | 0.018 | 1.500 | 0.041 |
| 36 | 5.70 | 5.60 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.23 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3686.04 | 0.019 | 1.500 | 0.041 |
| 37 | 5.60 | 5.50 | 0.37001 | 0.0 | 0.04079 | 0.03 | 1.26 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3797.58 | 0.019 | 1.500 | 0.041 |

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

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

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

* g/m²/d ** mg/L/day

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

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

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

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

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

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

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

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

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

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

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

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

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

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

  TOT                                                 0.19                                   6300.00   12600.00
  AVG                                        0.0430                         0.50   18.00                           9.00

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

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

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

 *   g/m²/d            **   mg/L/day

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

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

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

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

FINAL REPORT Cross Bayou Canal — LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 4 Bayou LaBranche (CBC to LABR3) — Calibration Simulation with Algal Dynamics

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

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

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

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

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

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

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

* g/m²/d ** mg/L/day

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

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

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

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

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

```
   63    2.900   0.00   0.17    0.17 0.15 0.56 0.92 0.70 0.11  0.383  0.072  0.036  0.037   4.3   69.3    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   64    2.800   0.00   0.17    0.17 0.15 0.56 0.92 0.70 0.11  0.384  0.072  0.036  0.037   4.3   69.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   65    2.700   0.00   0.17    0.18 0.15 0.56 0.92 0.70 0.11  0.384  0.072  0.036  0.037   4.3   70.3    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

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

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  5    Bayou LaBranche (LABR3 to BT)                    Calibration Simulation with Algal Dynamics

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

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

   66  UPR RCH   0.54001   32.74     0.00  2940.43     0.00   4.97  11.77   0.00  19.28   0.00   1.42   0.32   0.07   0.48  70.30     0.00    0.00
   78  WSTLD     0.17000   30.00     0.00  7292.00  7000.00   5.60   9.00   0.00   9.00   0.00   7.50   0.17   0.04   0.34  23.00     0.00    0.00

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

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

   66    2.70    2.60    0.54001  31.5   0.03554     0.03     2.08    0.73   20.76   1519.63    2076.00   15.20   6988.08   0.021     1.500   0.036
   67    2.60    2.50    0.54001  31.5   0.03554     0.03     2.11    0.73   20.76   1519.63    2076.00   15.20   7112.65   0.022     1.500   0.036
   68    2.50    2.40    0.54001  31.5   0.03554     0.03     2.15    0.73   20.76   1519.63    2076.00   15.20   7237.21   0.022     1.500   0.036
   69    2.40    2.30    0.54001  31.5   0.03554     0.03     2.18    0.73   20.76   1519.63    2076.00   15.20   7361.77   0.022     1.500   0.036
   70    2.30    2.20    0.54001  31.5   0.03554     0.03     2.21    0.73   20.76   1519.63    2076.00   15.20   7486.33   0.023     1.500   0.036
   71    2.20    2.10    0.54001  31.5   0.03554     0.03     2.24    0.73   20.76   1519.63    2076.00   15.20   7610.89   0.023     1.500   0.036
   72    2.10    2.00    0.54001  31.5   0.03554     0.03     2.28    0.73   20.76   1519.63    2076.00   15.20   7735.45   0.024     1.500   0.036
   73    2.00    1.90    0.54001  31.5   0.03554     0.03     2.31    0.73   20.76   1519.63    2076.00   15.20   7860.01   0.024     1.500   0.036
   74    1.90    1.80    0.54001  31.5   0.03554     0.03     2.34    0.73   20.76   1519.63    2076.00   15.20   7984.57   0.024     1.500   0.036
   75    1.80    1.70    0.54001  31.5   0.03554     0.03     2.37    0.73   20.76   1519.63    2076.00   15.20   8109.13   0.025     1.500   0.036
   76    1.70    1.60    0.54001  31.5   0.03554     0.03     2.41    0.73   20.76   1519.63    2076.00   15.20   8233.69   0.025     1.500   0.036
   77    1.60    1.50    0.54001  31.5   0.03554     0.03     2.44    0.73   20.76   1519.63    2076.00   15.20   8358.25   0.025     1.500   0.036
   78    1.50    1.40    0.71001  47.9   0.04672     0.02     2.46    0.73   20.76   1519.63    2076.00   15.20   8482.80   0.026     1.500   0.047

  TOT                                                 0.42                           19755.22   26988.00
  AVG                                        0.0362                      0.73   20.76                          15.20

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

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

  66    2.600  7.21   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.12  1.12  1.12  0.13  0.92  0.30  0.00  0.00  0.06  1.85  0.00  3.34  0.00  0.00  0.00  0.00
  67    2.500  7.21   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.12  1.12  1.12  0.13  0.93  0.31  0.00  0.00  0.06  1.85  0.00  3.36  0.00  0.00  0.00  0.00
  68    2.400  7.20   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.12  1.12  1.12  0.13  0.93  0.31  0.00  0.00  0.06  1.85  0.00  3.39  0.00  0.00  0.00  0.00
  69    2.300  7.20   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.31  0.00  0.00  0.06  1.85  0.00  3.42  0.00  0.00  0.00  0.00
  70    2.200  7.19   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.31  0.00  0.00  0.06  1.86  0.00  3.44  0.00  0.00  0.00  0.00
  71    2.100  7.19   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.31  0.00  0.00  0.06  1.86  0.00  3.47  0.00  0.00  0.00  0.00
  72    2.000  7.19   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.31  0.00  0.00  0.06  1.86  0.00  3.49  0.00  0.00  0.00  0.00
  73    1.900  7.18   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.32  0.00  0.00  0.06  1.86  0.00  3.51  0.00  0.00  0.00  0.00
  74    1.800  7.18   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.14  1.14  1.14  0.13  0.93  0.32  0.00  0.00  0.06  1.86  0.00  3.53  0.00  0.00  0.00  0.00
  75    1.700  7.18   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.14  1.14  1.14  0.13  0.93  0.32  0.00  0.00  0.06  1.86  0.00  3.54  0.00  0.00  0.00  0.00
  76    1.600  7.18   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.14  1.14  1.14  0.13  0.93  0.32  0.00  0.00  0.06  1.86  0.00  3.52  0.00  0.00  0.00  0.00
  77    1.500  7.19   1.21  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.13  1.13  1.13  0.13  0.93  0.32  0.00  0.00  0.06  1.86  0.00  3.40  0.00  0.00  0.00  0.00
  78    1.400  7.25   1.20  0.18  0.37  0.00  0.00  0.00  0.00  0.00  1.09  1.09  1.09  0.13  0.92  0.30  0.00  0.00  0.06  1.83  0.00  2.94  0.00  0.00  0.00  0.00
```

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

 *   g/m²/d            **   mg/L/day

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

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

  66    2.600  32.77  0.00  2940.43     0.00   5.04  11.57   0.00  19.14   0.00   1.37   0.31   0.07   1.75   1.97   2.35   0.04   0.48   0.52   0.13   0.61   70.9      0.0
0.    0.00
  67    2.500  32.81  0.00  2940.43     0.00   5.10  11.38   0.00  19.00   0.00   1.32   0.31   0.07   1.71   1.93   2.31   0.04   0.48   0.52   0.13   0.61   71.4      0.0
0.    0.00
  68    2.400  32.84  0.00  2940.43     0.00   5.16  11.19   0.00  18.87   0.00   1.28   0.31   0.07   1.66   1.89   2.28   0.04   0.48   0.51   0.13   0.61   72.0      0.0
0.    0.00
  69    2.300  32.88  0.00  2940.44     0.00   5.22  11.00   0.00  18.75   0.00   1.24   0.31   0.07   1.62   1.86   2.24   0.04   0.47   0.51   0.13   0.60   72.5      0.0
0.    0.00
  70    2.200  32.91  0.00  2940.49     0.00   5.28  10.81   0.00  18.62   0.00   1.20   0.30   0.08   1.58   1.82   2.20   0.03   0.47   0.51   0.13   0.60   73.1      0.0
0.    0.00
  71    2.100  32.94  0.00  2940.64     0.00   5.34  10.63   0.00  18.50   0.00   1.16   0.30   0.08   1.54   1.79   2.17   0.03   0.47   0.50   0.13   0.60   73.7      0.0
0.    0.00
  72    2.000  32.98  0.00  2941.14     0.00   5.40  10.46   0.00  18.39   0.00   1.12   0.30   0.08   1.50   1.76   2.13   0.03   0.47   0.50   0.13   0.60   74.3      0.0
0.    0.00
  73    1.900  33.01  0.00  2942.83     0.00   5.46  10.28   0.00  18.27   0.00   1.09   0.29   0.08   1.47   1.73   2.10   0.03   0.47   0.50   0.13   0.60   74.8      0.0
0.    0.00
  74    1.800  33.03  0.00  2948.53     0.00   5.51  10.11   0.00  18.15   0.00   1.06   0.29   0.08   1.44   1.70   2.08   0.03   0.47   0.50   0.13   0.59   75.3      0.0
0.    0.00
  75    1.700  33.05  0.00  2967.72     0.00   5.56   9.94   0.00  18.02   0.00   1.05   0.29   0.08   1.42   1.70   2.07   0.03   0.47   0.49   0.12   0.59   75.7      0.0
0.    0.00
  76    1.600  33.04  0.00  3032.38     0.00   5.61   9.76   0.00  17.81   0.00   1.11   0.28   0.08   1.47   1.75   2.12   0.03   0.47   0.49   0.12   0.59   75.4      0.0
0.    0.00
  77    1.500  32.92  0.00  3250.22     0.00   5.63   9.55   0.00  17.37   0.00   1.37   0.28   0.08   1.74   2.00   2.36   0.03   0.46   0.49   0.12   0.58   73.2      0.0
0.    0.00
  78    1.400  32.44  0.00  3984.13     0.00   5.56   9.24   0.00  16.12   0.00   2.39   0.27   0.08   2.74   2.94   3.29   0.04   0.44   0.47   0.12   0.56   64.4      0.0
0.    0.00

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

   66    2.600   0.00   0.17    0.18 0.15 0.56 0.92 0.70 0.11  0.384  0.072  0.036  0.037   4.3   70.9    0.28 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   67    2.500   0.00   0.17    0.18 0.15 0.56 0.92 0.70 0.11  0.384  0.072  0.036  0.037   4.3   71.4    0.27 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   68    2.400   0.00   0.17    0.19 0.15 0.56 0.92 0.70 0.11  0.385  0.072  0.036  0.037   4.3   72.0    0.26 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   69    2.300   0.00   0.17    0.19 0.15 0.56 0.92 0.70 0.11  0.385  0.072  0.036  0.037   4.3   72.5    0.25 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   70    2.200   0.00   0.17    0.20 0.15 0.56 0.92 0.70 0.11  0.385  0.072  0.036  0.037   4.3   73.1    0.24 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   71    2.100   0.00   0.17    0.20 0.15 0.56 0.92 0.69 0.11  0.385  0.072  0.036  0.037   4.2   73.7    0.23 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   72    2.000   0.00   0.17    0.21 0.15 0.56 0.92 0.69 0.11  0.384  0.073  0.036  0.037   4.2   74.3    0.23 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   73    1.900   0.00   0.17    0.21 0.15 0.56 0.92 0.69 0.11  0.384  0.073  0.036  0.037   4.2   74.8    0.22 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   74    1.800   0.00   0.17    0.22 0.15 0.55 0.92 0.69 0.11  0.384  0.073  0.036  0.037   4.2   75.3    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   75    1.700   0.00   0.17    0.22 0.15 0.55 0.92 0.69 0.11  0.383  0.073  0.036  0.037   4.2   75.7    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
```

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

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                      0.000  0.000  0.000

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

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

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

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

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

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

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

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

  TOT                                                0.31                           19206.21    9632.00
  AVG                                     0.0148                      1.99   24.08                          48.02

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

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

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

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

 *   g/m²/d            **   mg/L/day

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

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

  79    1.300  32.48  0.00  3986.82     0.00   5.40   8.99   0.00  15.88   0.00   2.29   0.29   0.09   2.66   2.84   3.21   0.03   0.43   0.47   0.12   0.55   64.6      0.0
0.    0.00
  80    1.200  32.52  0.00  3991.23     0.00   5.25   8.78   0.00  15.69   0.00   2.21   0.30   0.09   2.60   2.76   3.15   0.03   0.43   0.47   0.12   0.55   64.6      0.0
0.    0.00
  81    1.100  32.56  0.00  4000.00     0.00   5.09   8.56   0.00  15.47   0.00   2.12   0.31   0.10   2.53   2.67   3.08   0.03   0.43   0.46   0.12   0.55   64.7      0.0
0.    0.00
```

```
  82    1.000  32.62  0.00  4017.42     0.00   4.88   8.32   0.00  15.23   0.00   2.02   0.33   0.11   2.46   2.57   3.01   0.03   0.43   0.46   0.11   0.55   64.7      0.0
0.    0.00

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

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

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

 20 DEG C RATE                                                  2.000  0.040  0.020  0.020                                                      0.000  0.000  0.000

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

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

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

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

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

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

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

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

  TOT                                              1.00                            67955.52   34080.00
  AVG                                     0.0116                       1.99   34.08                          67.96

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

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

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

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

* g/m²/d ** mg/L/day

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

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

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

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

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

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

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

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

REACH SUMMARY REPORT: Cross Bayou Canal

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

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

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

STREAM SUMMARY REPORT: Cross Bayou Canal

 TRAVEL TIME       =           3.78 DAYS
 MAXIMUM EFFLUENT  =          57.96 PERCENT

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

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

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

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

INPUT/OUTPUT LOADING SUMMARY

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

 HEADWATER FLOW                      0.37000       63.94   1099.94      0.00     36.91      3.20      1.28      6.52     15.95   1374.62                0.00
 INCREMENTAL INFLOW                  0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00                0.00
 INCREMENTAL OUTFLOW                 0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00                0.00
 WASTELOADS                          0.51001      233.54    543.55      0.00    236.48     28.36      1.76      9.74     15.35   1777.26                0.00
 WITHDRAWLS                          0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00                0.00
 FLOW THRU LOWER BNDRY              -0.88001     -341.23   -476.15      0.00    -69.70    -20.89     -7.59     -4.62    -22.79  -2914.18                0.00
 DISPERSION THRU LOWER BNDRY                      80.33    -44.49      0.00    -32.16    -15.39     -5.27      1.67     -6.58  -1526.08                0.00
 DISPERSION THRU HDWTR BNDRY                       0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00                0.00
 NON-POINT INPUT                                   0.00      0.00      0.00      0.00                          0.00                                        0.00
```

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATURAL REAERATION | | 618.14 | | | | | | | | | | | |
| DAM REAERATION | | 0.00 | | | | | | | | | | | |
| SOD BACKGROUND | | -466.58 | | | | | | | | | | | |
| BOD1 DECAY | | -405.88 | -405.88 | | | | | | | | | | |
| BOD1 SETTLING | | 0.00 | -756.77 | | | | | | | | | | |
| ANAEROBIC BOD1 DECAY | | | 0.00 | | | | | | | | | | |
| BOD2 DECAY | | 0.00 | | 0.00 | | | | | | | | | |
| BOD2 SETTLING | | 0.00 | | 0.00 | | | | | | | | | |
| ANAEROBIC BOD2 DECAY | | | | 0.00 | | | | | | | | | |
| BOD2 HYDROLYSIS | | | 0.00 | 0.00 | | | | | | | | | |
| ORG-N DECAY | | 0.00 | | | -31.11 | 31.11 | | | | | | | |
| ORG-N SETTLING | | | | | -143.59 | 0.00 | | | | | | | |
| NH3-N DECAY (NITRIFICATION) | | -64.19 | | | | -14.82 | 14.82 | | | | | | |
| NH3-N BACKGROUND SEDIMENT SOURCE | | | | | | 0.00 | | | | | | | |
| DENITRIFICATION | | | 0.00 | | | | 0.00 | | | | | | |
| ORG-P HYDROLYSIS | | | | | | | | -0.59 | 0.59 | | | | |
| ORG-P SETTLING | | | | | | | | -13.20 | 0.00 | | | | |
| PO4-P BACKGROUND SEDIMENT SOURCE | | | | | | | | | 0.00 | | | | |
| PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS | | 431.30 | | | | -17.91 | -5.00 | | -3.50 | 2695.64 | | | |
| PHYTOPLANKTON RESPIRATION/EXCRETION | | -149.06 | | | | 6.34 | | | 0.97 | -745.31 | | | |
| PHYTOPLANKTON SETTLING | | 0.00 | | | | 0.00 | | | 0.00 | -287.33 | | | |
| PHYTOPLANKTON DEATH | | | 39.80 | 0.00 | 3.17 | | | 0.48 | | -372.65 | | | |
| PERIPHYTON GROWTH/PHOTOSYNTHESIS | | 0.00 | | | | 0.00 | 0.00 | | 0.00 | | 0.00 | | |
| PERIPHYTON RESPIRATION/EXCRETION | | 0.00 | | | | 0.00 | | | 0.00 | | 0.00 | | |
| PERIPHYTON DEATH | | | 0.00 | 0.00 | 0.00 | | | 0.00 | | | 0.00 | | |
| NCM DECAY | | 0.00 | | | | | | | | | | | 0.00 |
| NCM SETTLING | | 0.00 | | | | | | | | | | | 0.00 |
| TOTAL INPUTS | 0.88001 | 1427.24 | 1683.29 | 0.00 | 276.56 | 69.00 | 17.87 | 18.41 | 32.86 | 5847.52 | 0.00 | 0.00 | |
| TOTAL OUTPUTS | -0.88001 | -1426.94 | -1683.29 | 0.00 | -276.56 | -69.01 | -17.87 | -18.41 | -32.87 | -5845.55 | 0.00 | 0.00 | |
| NET CONVERGENCE ERROR | 0.00000 | 0.31 | 0.00 | 0.00 | 0.00 | -0.02 | 0.00 | 0.00 | 0.00 | 1.97 | 0.00 | 0.00 | |

.....EXECUTION COMPLETED

# APPENDIX F:
# Calibration Water Quality Plots

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

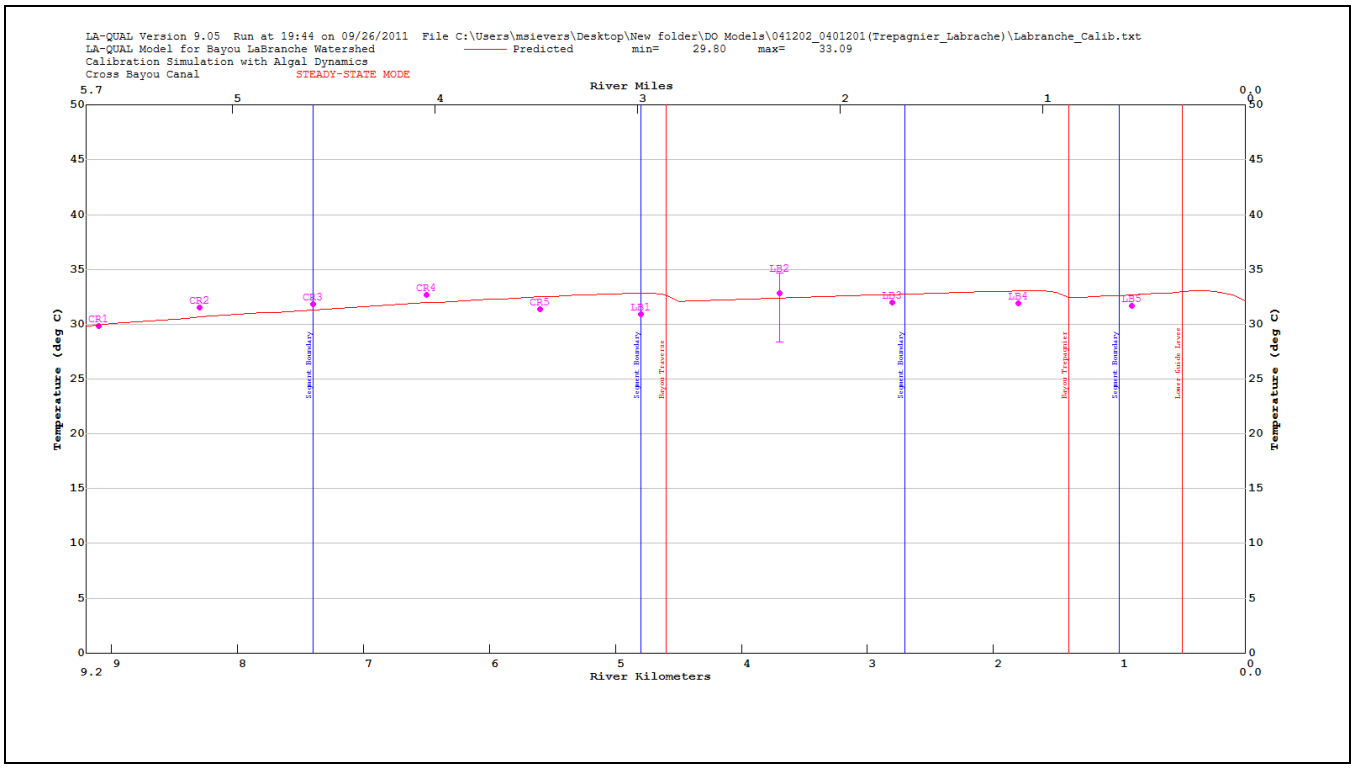


**Figure F-1. Temperature calibration results for subsegment 041201.**

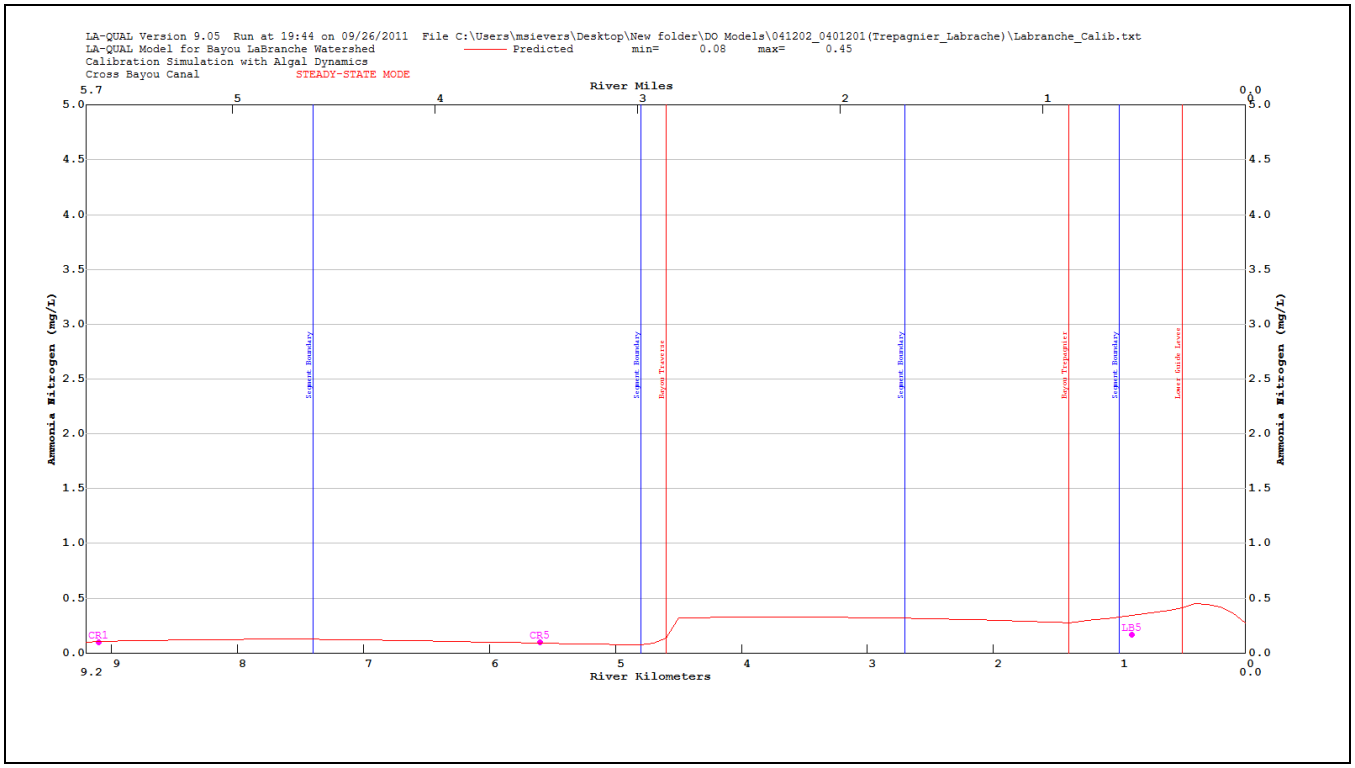


**Figure F-2. Ammonia calibration results for subsegment 041201.**

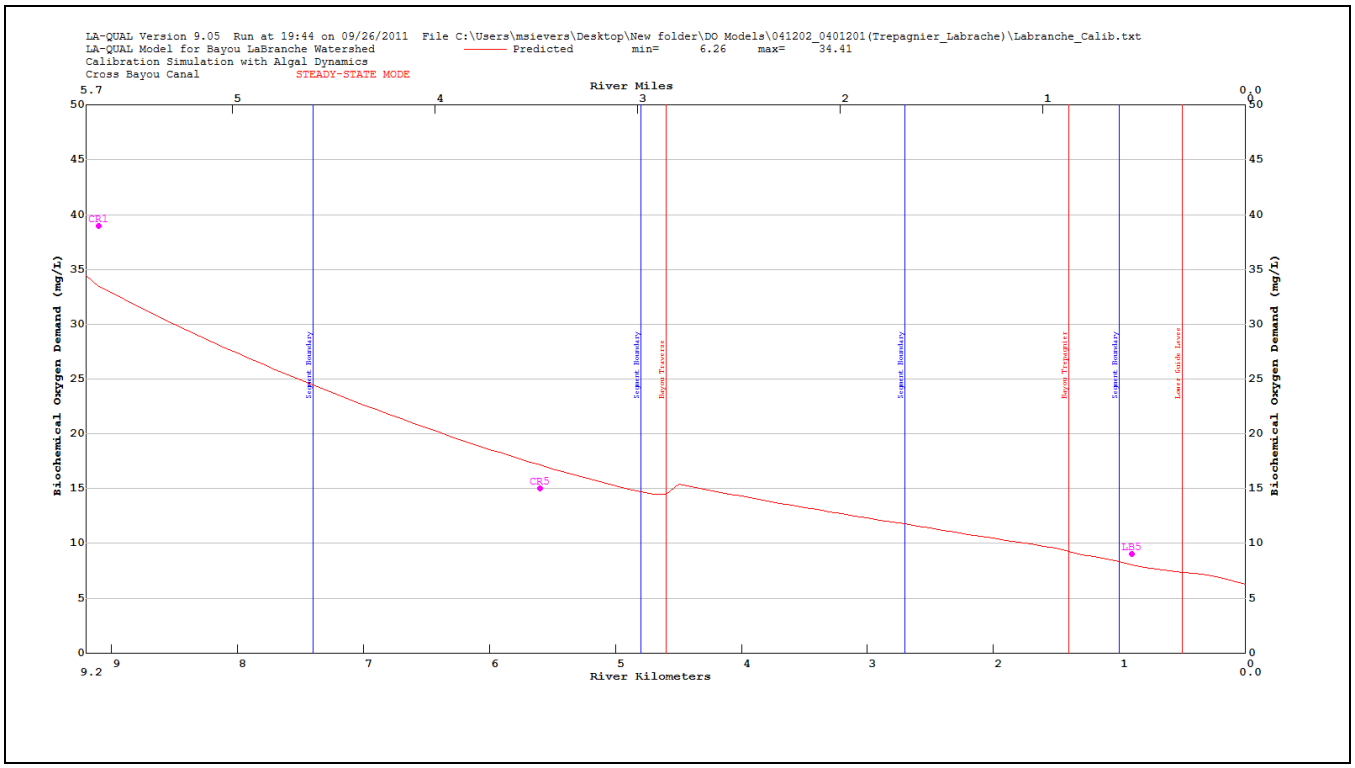


**Figure F-3. CBOD$_u$ calibration results for subsegment 041201.**

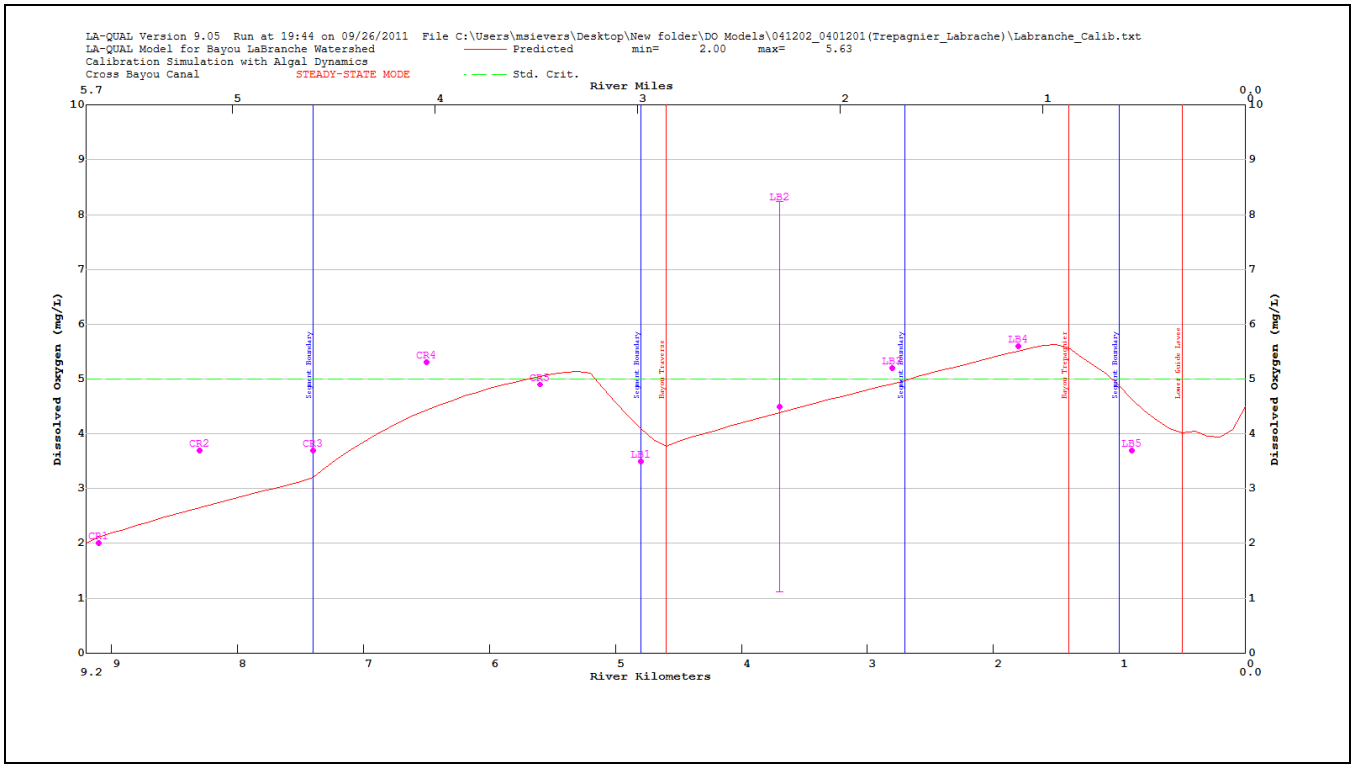


**Figure F-4. DO calibration results for subsegment 041201.**

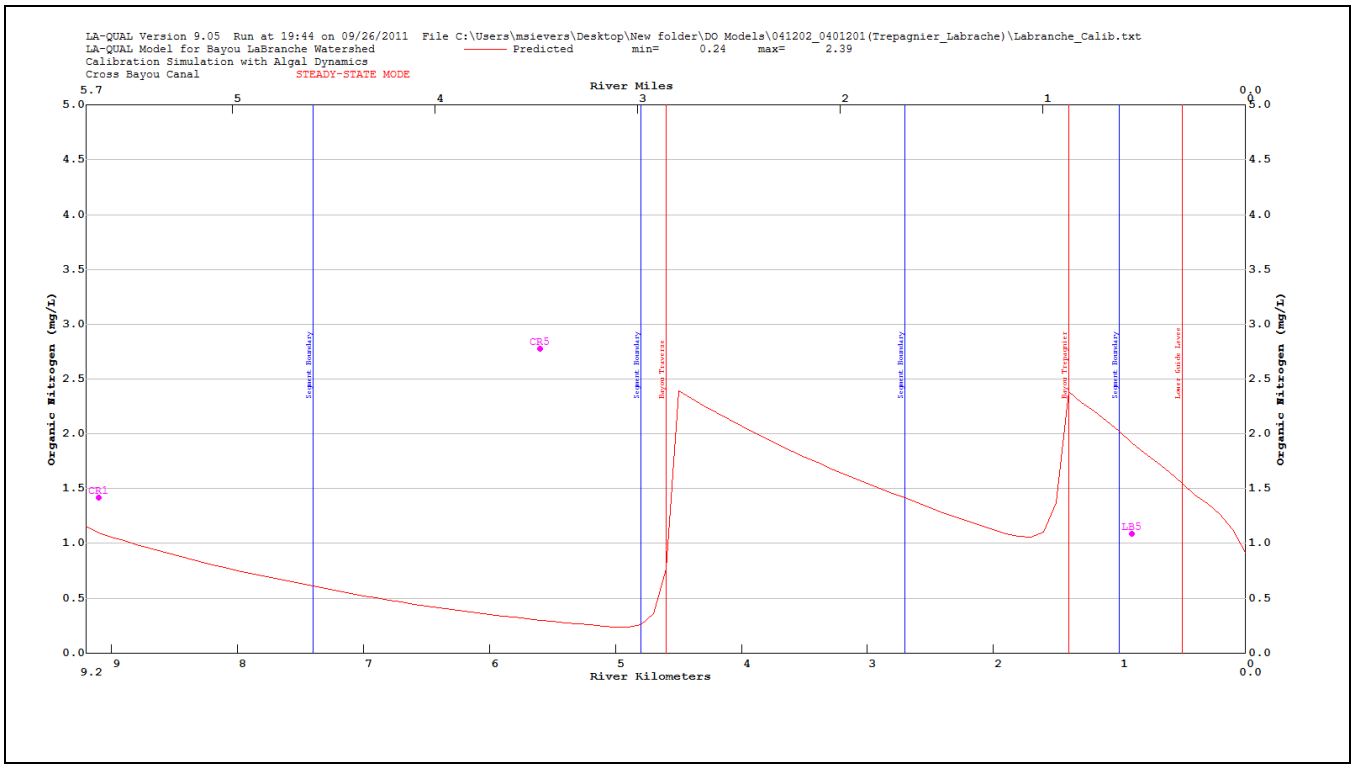


**Figure F-5. Organic nitrogen calibration results for subsegment 041201.**

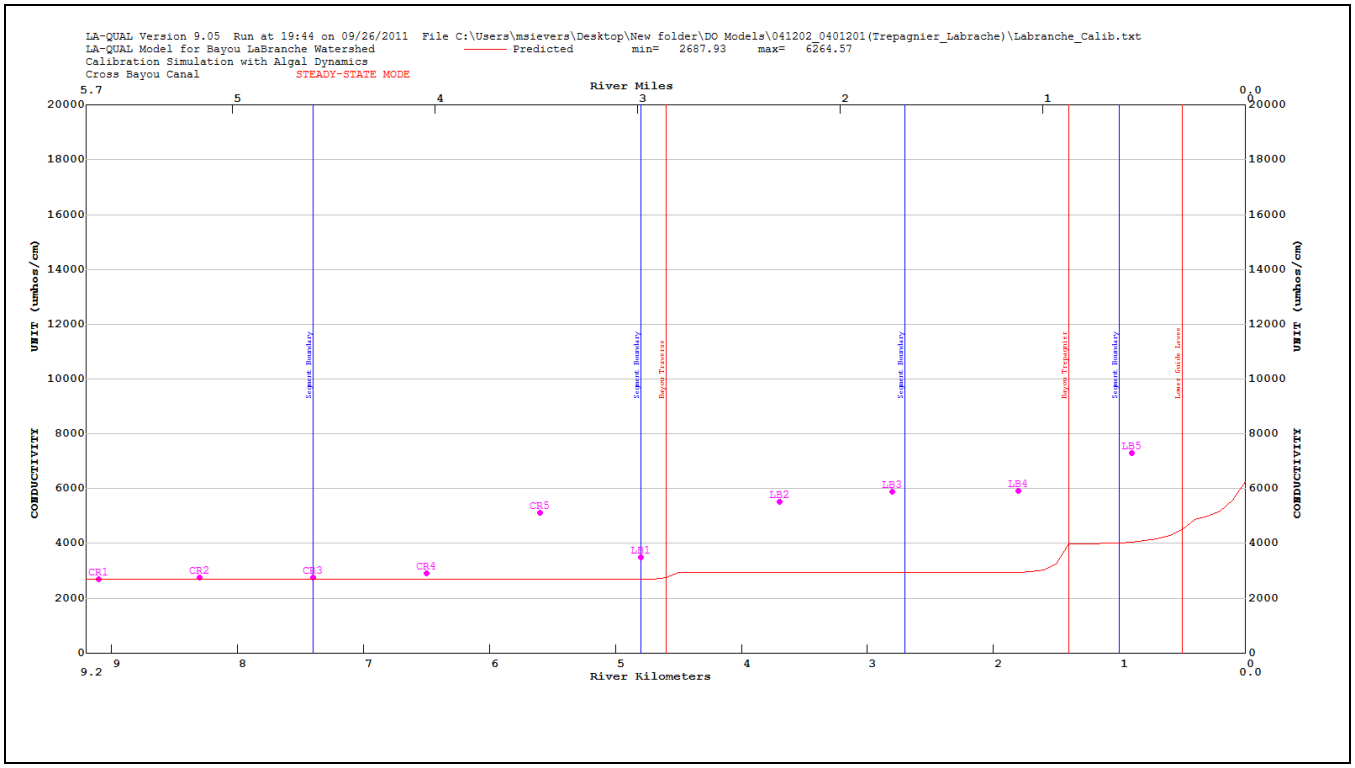


**Figure F-6. Conductivity calibration results for subsegment 041201.**

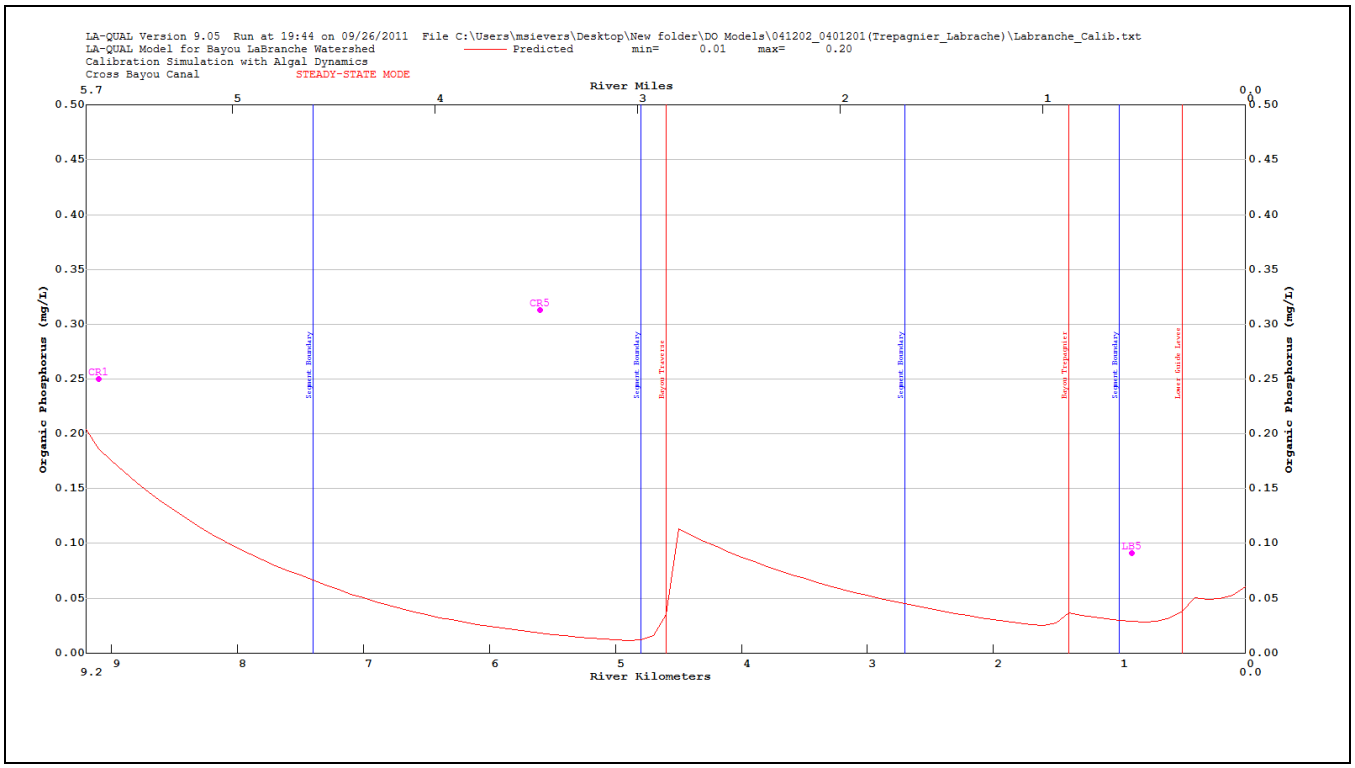


**Figure F-7. Organic phosphorus calibration results for subsegment 041201.**

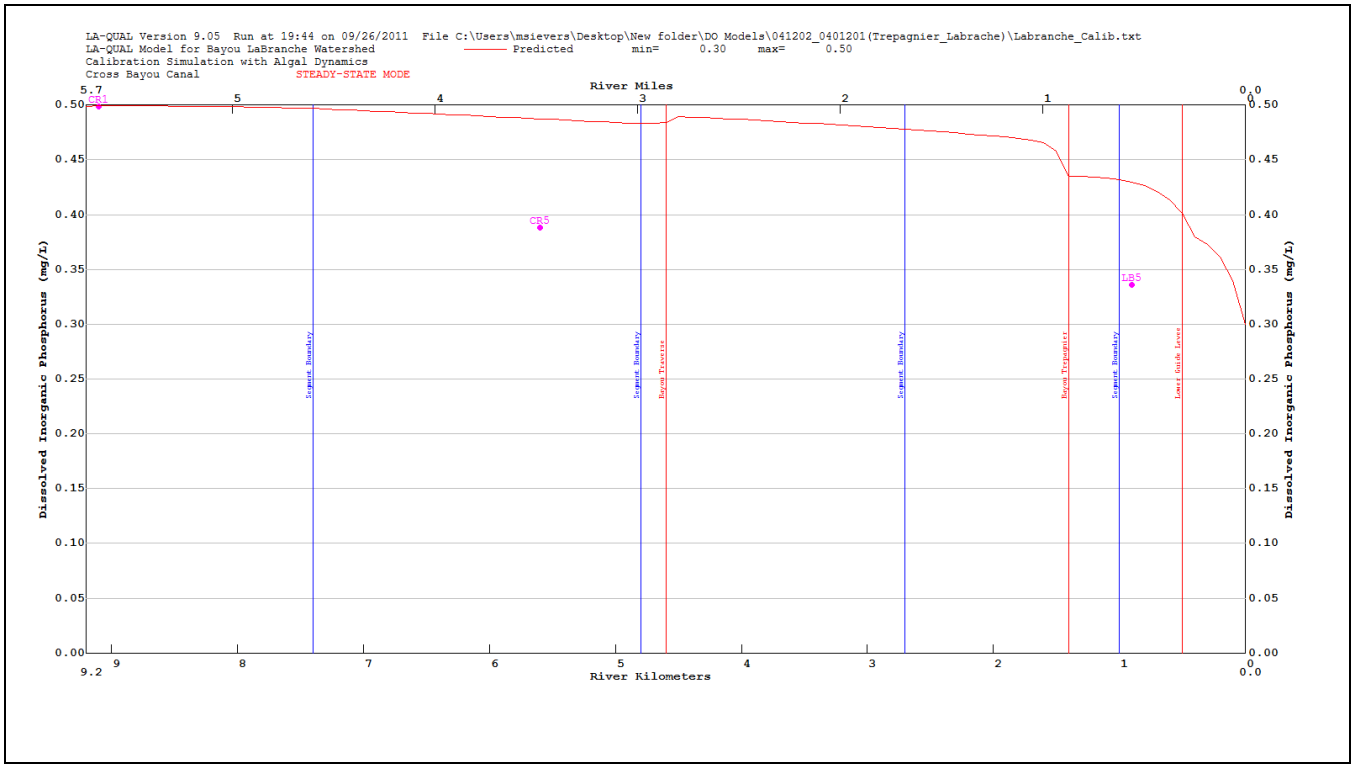


**Figure F-8. Dissolved organic phosphorus calibration results for subsegment 041201.**

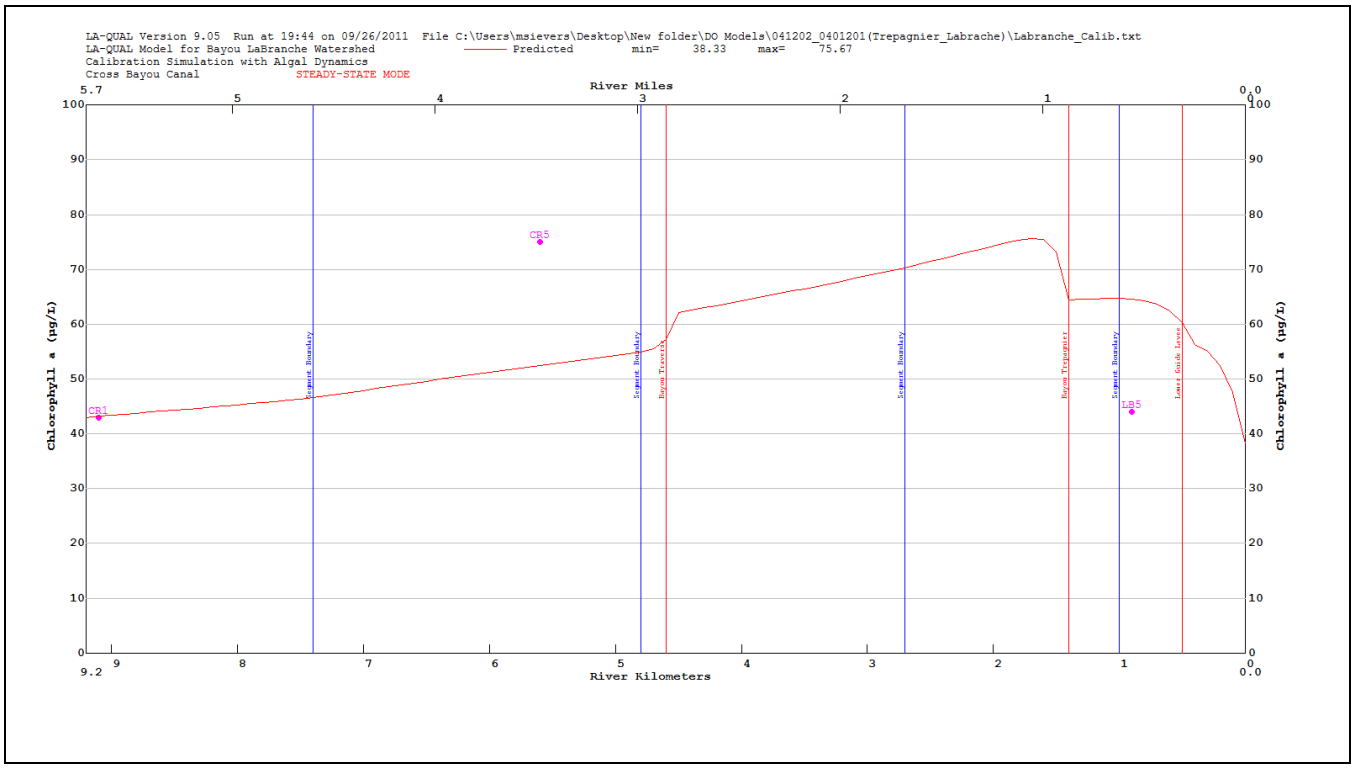


**Figure F-9. Chlorophyll *a* calibration results for subsegment 041201.**

# APPENDIX G:
# Sensitivity Analysis Plots

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

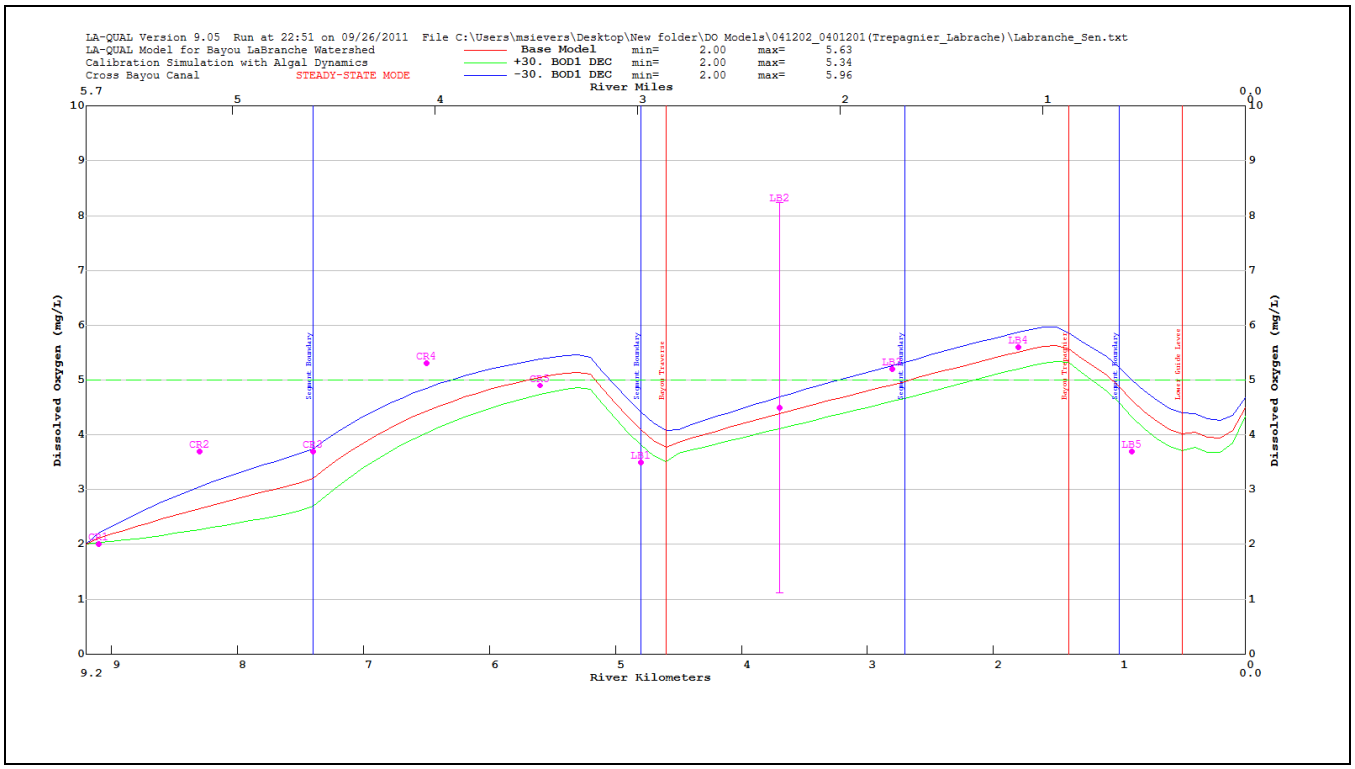


**Figure G-1. DO sensitivity results (CBOD aerobic decay rate) for subsegment 041201.**

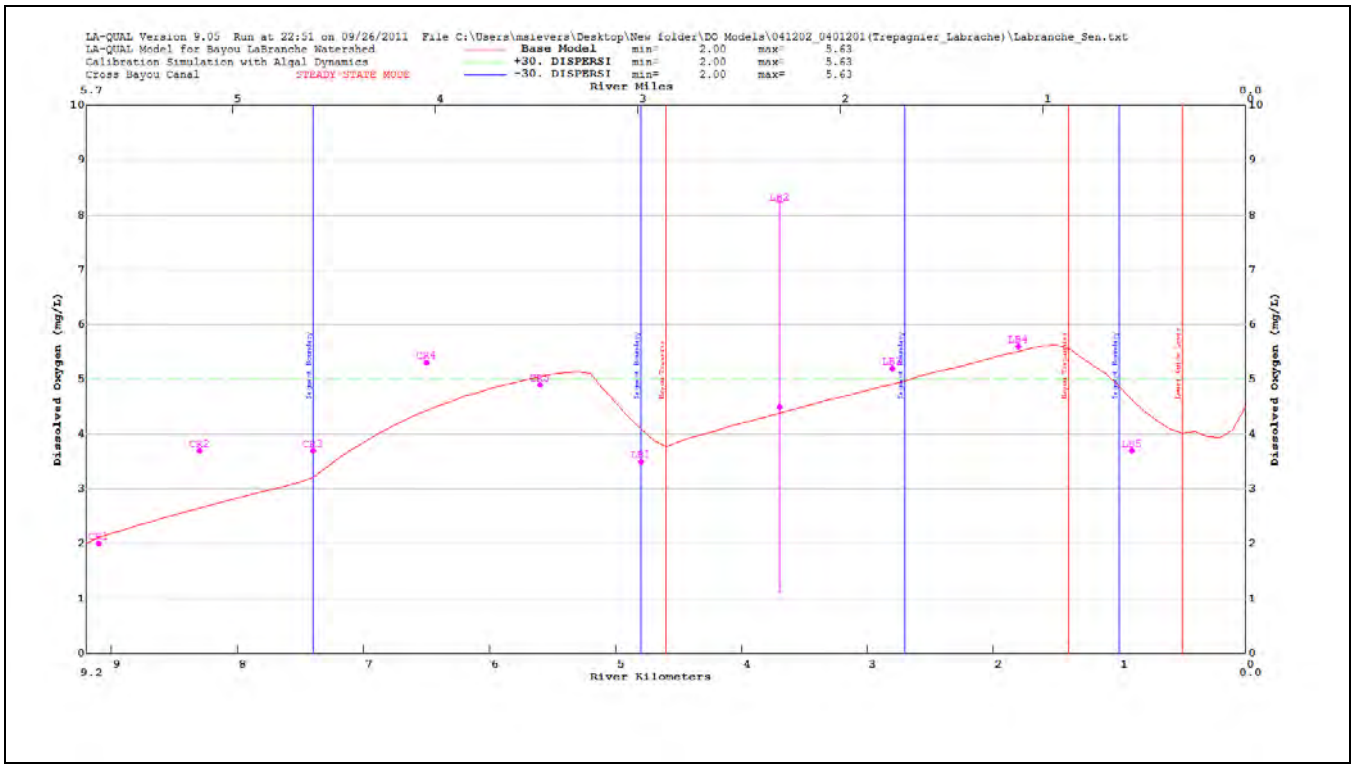


**Figure G-2. DO sensitivity results (dispersion) for subsegment 041201.**

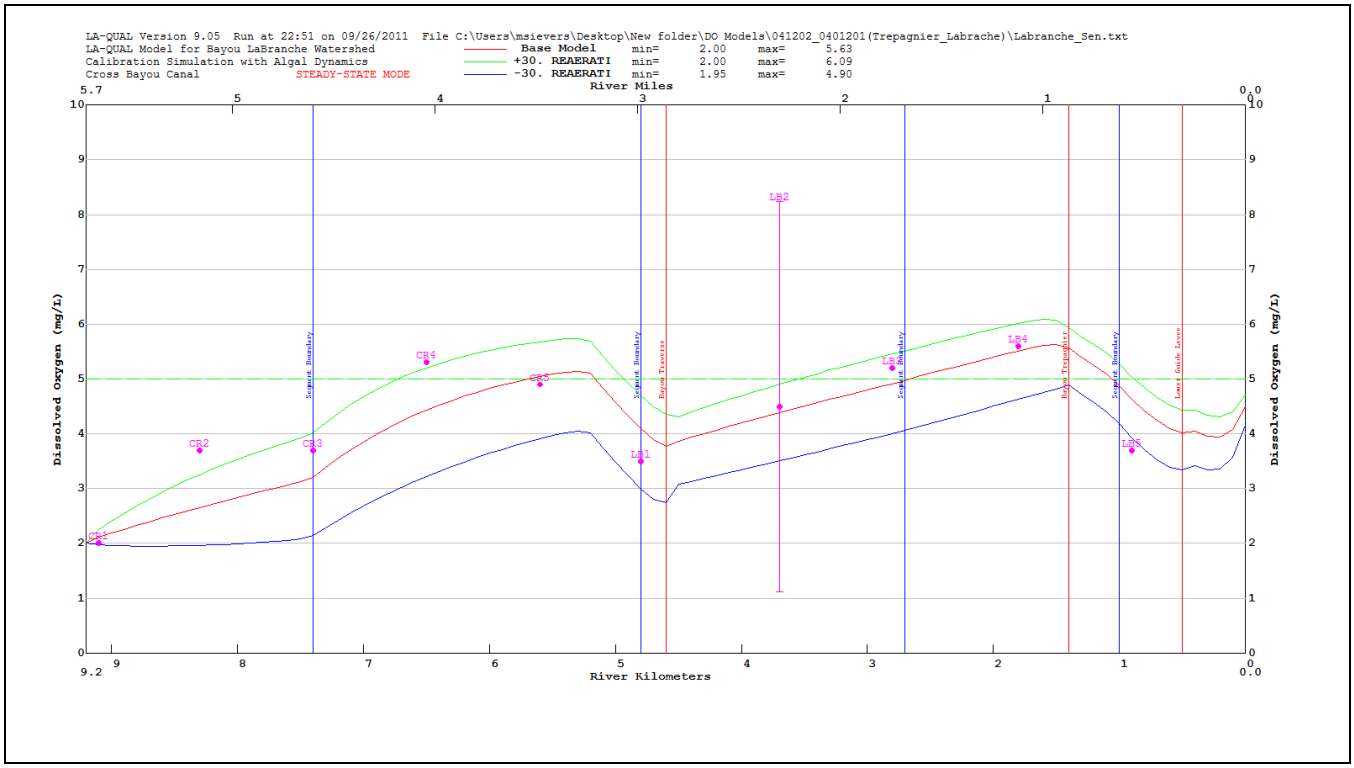


**Figure G-3. DO sensitivity results (reaeration) for subsegment 041201.**

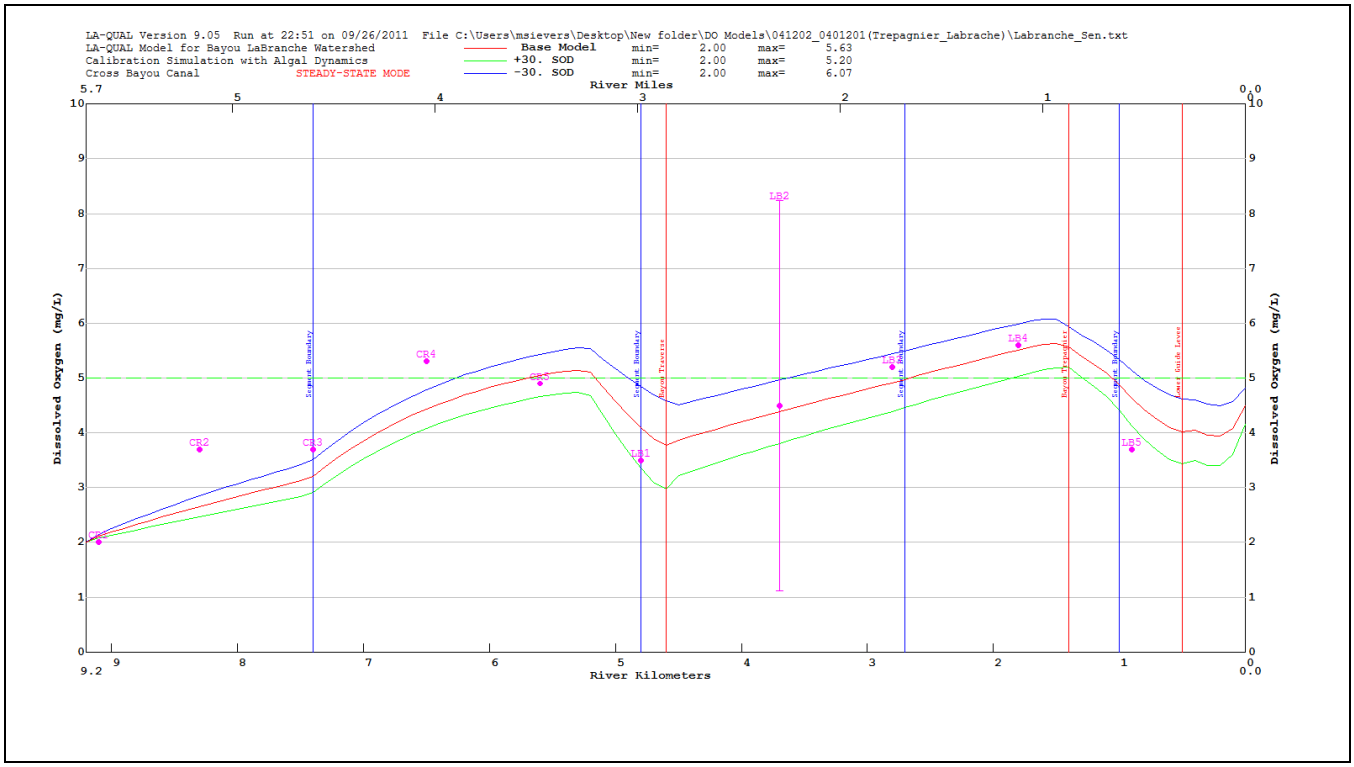


**Figure G-4. DO sensitivity results (background SOD) for subsegment 041201.**

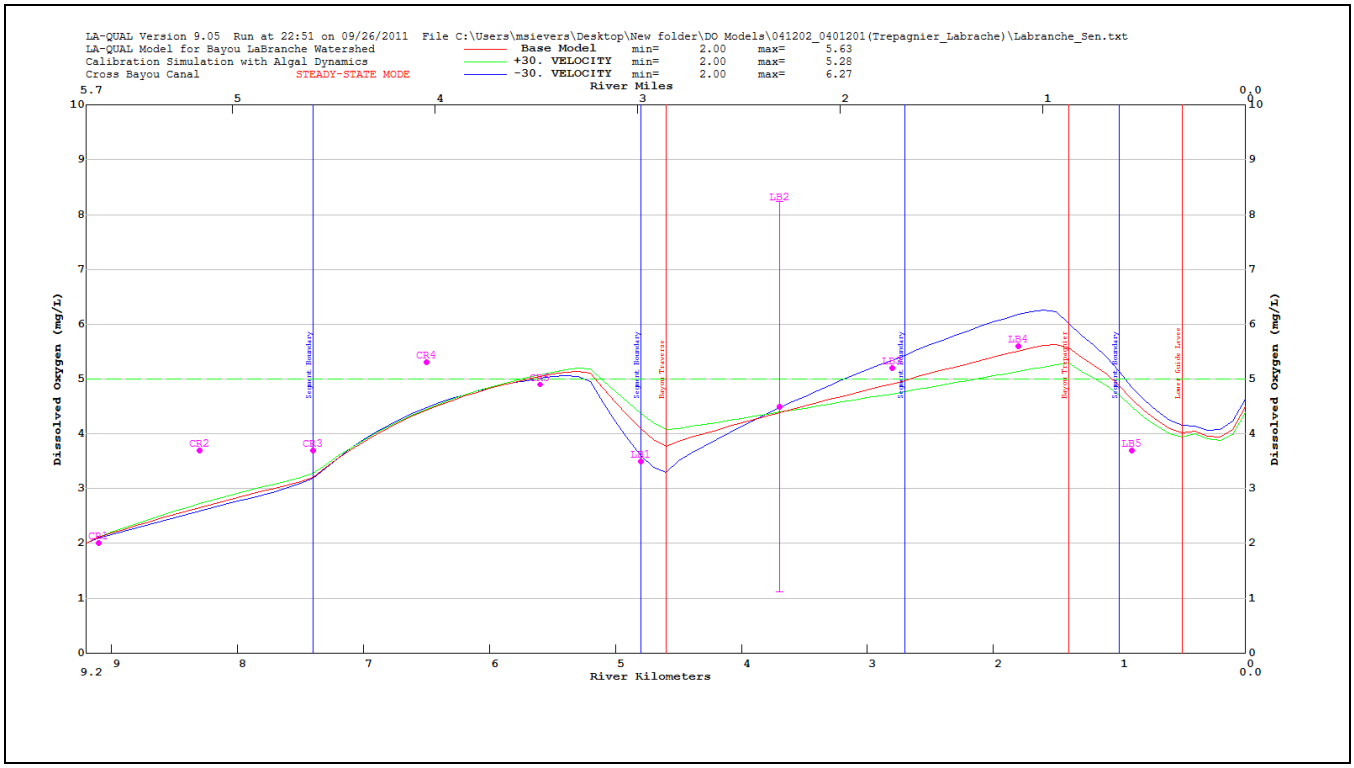


**Figure G-5. DO sensitivity results (stream velocity) for subsegment 041201.**

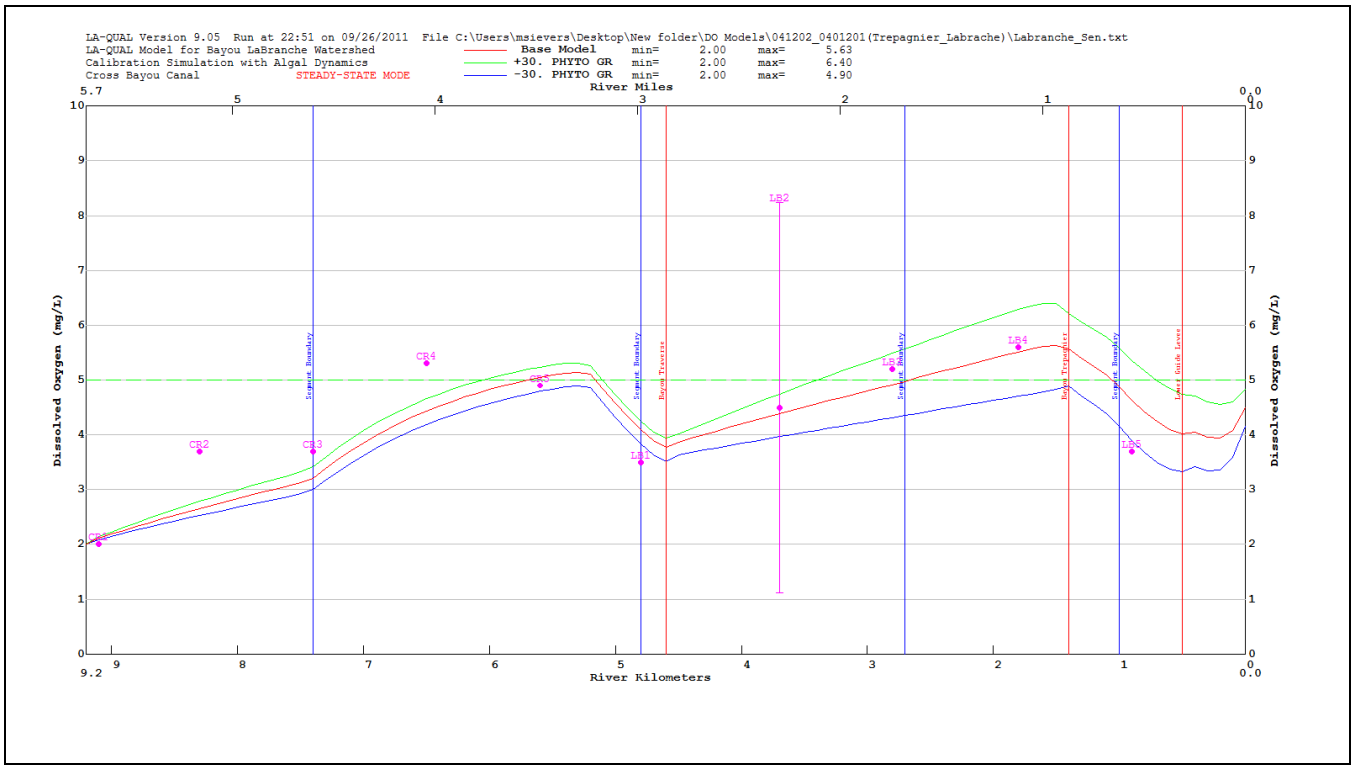


**Figure G-6. DO sensitivity results (phytoplankton growth rate) for subsegment 041201.**

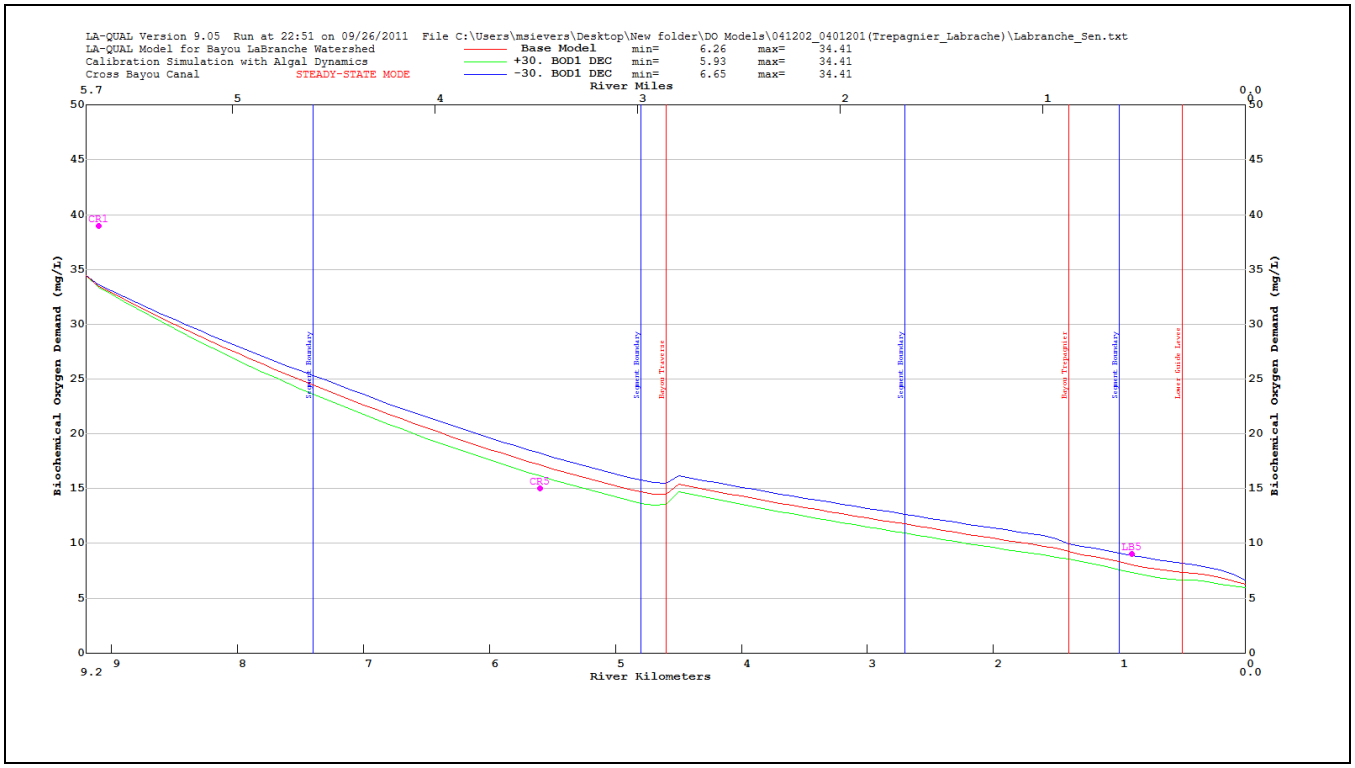


**Figure G-7. CBOD sensitivity results (CBOD aerobic decay rate) for subsegment 041201.**

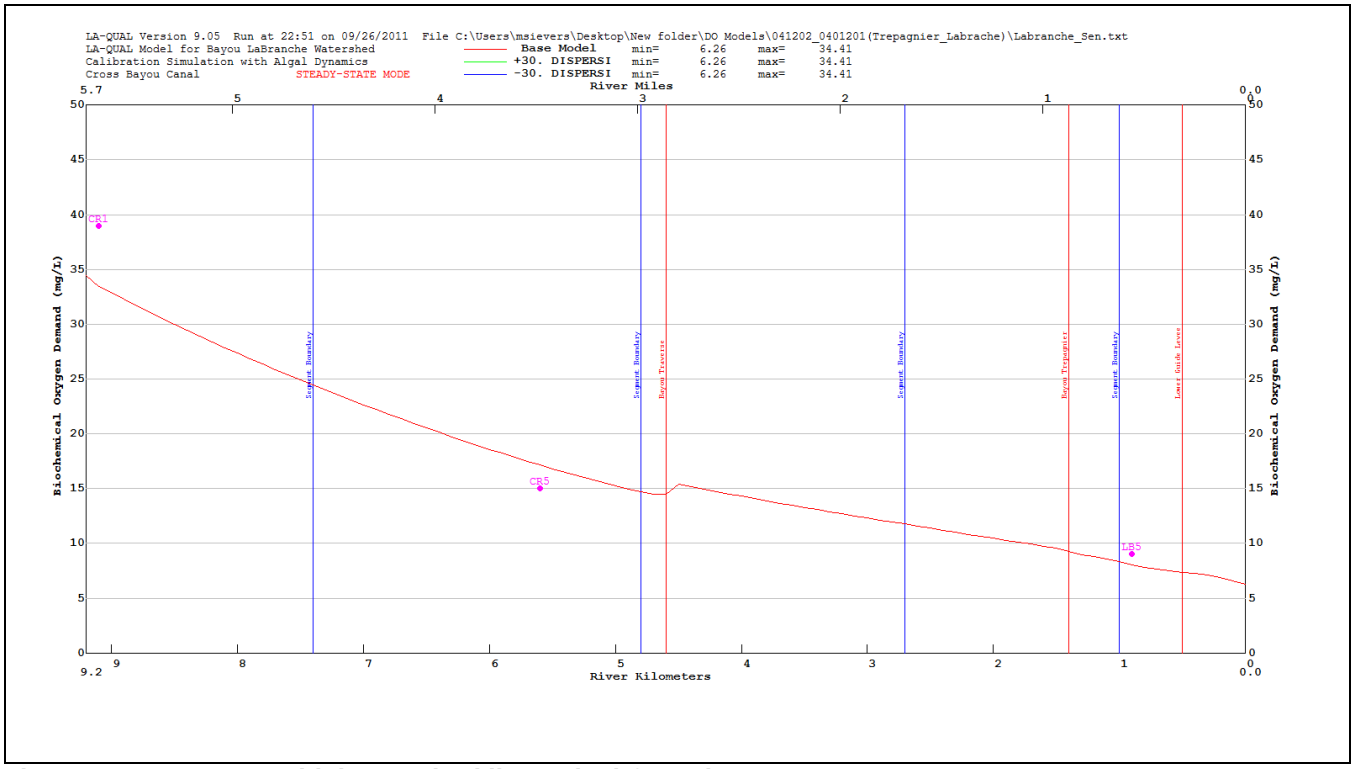


**Figure G-8. CBOD sensitivity results (dispersion) for subsegment 041201.**

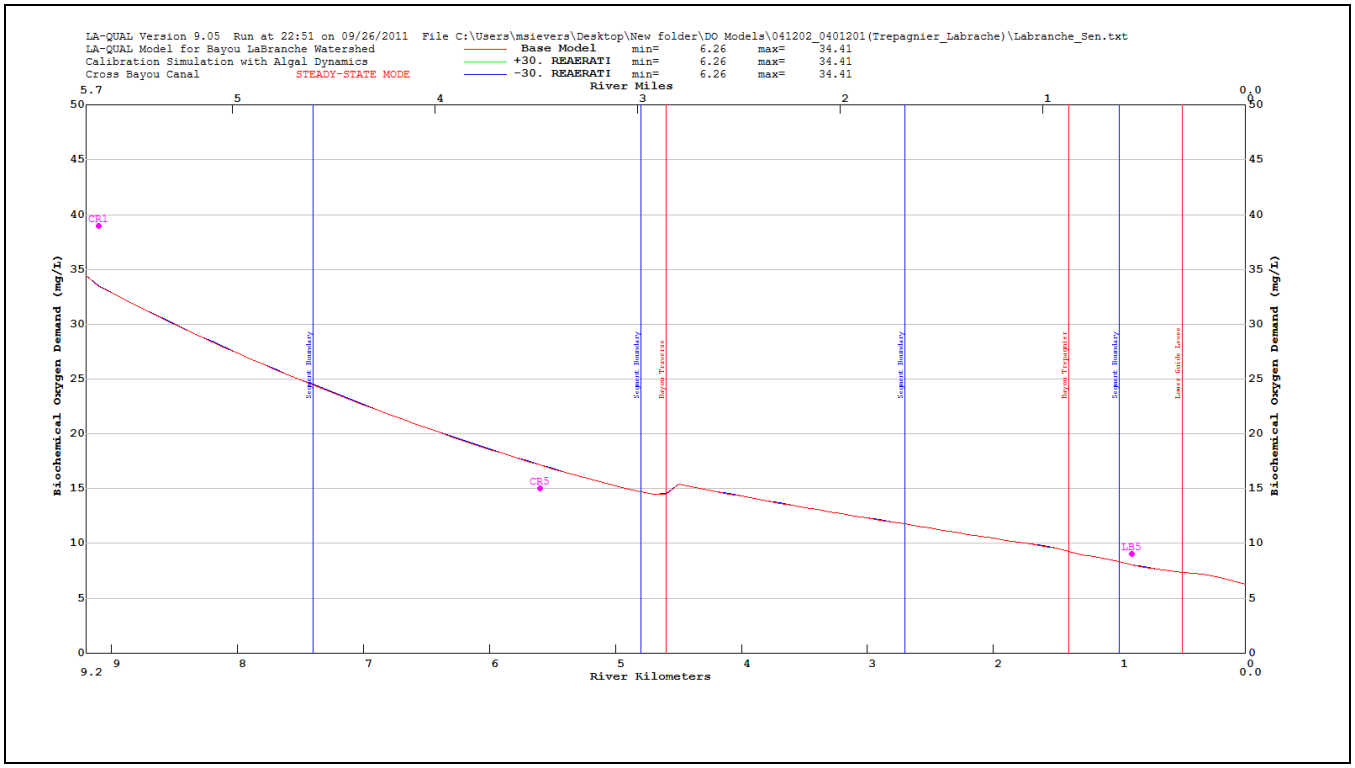


Figure G-9. CBOD sensitivity results (reaeration) for subsegment 041201.

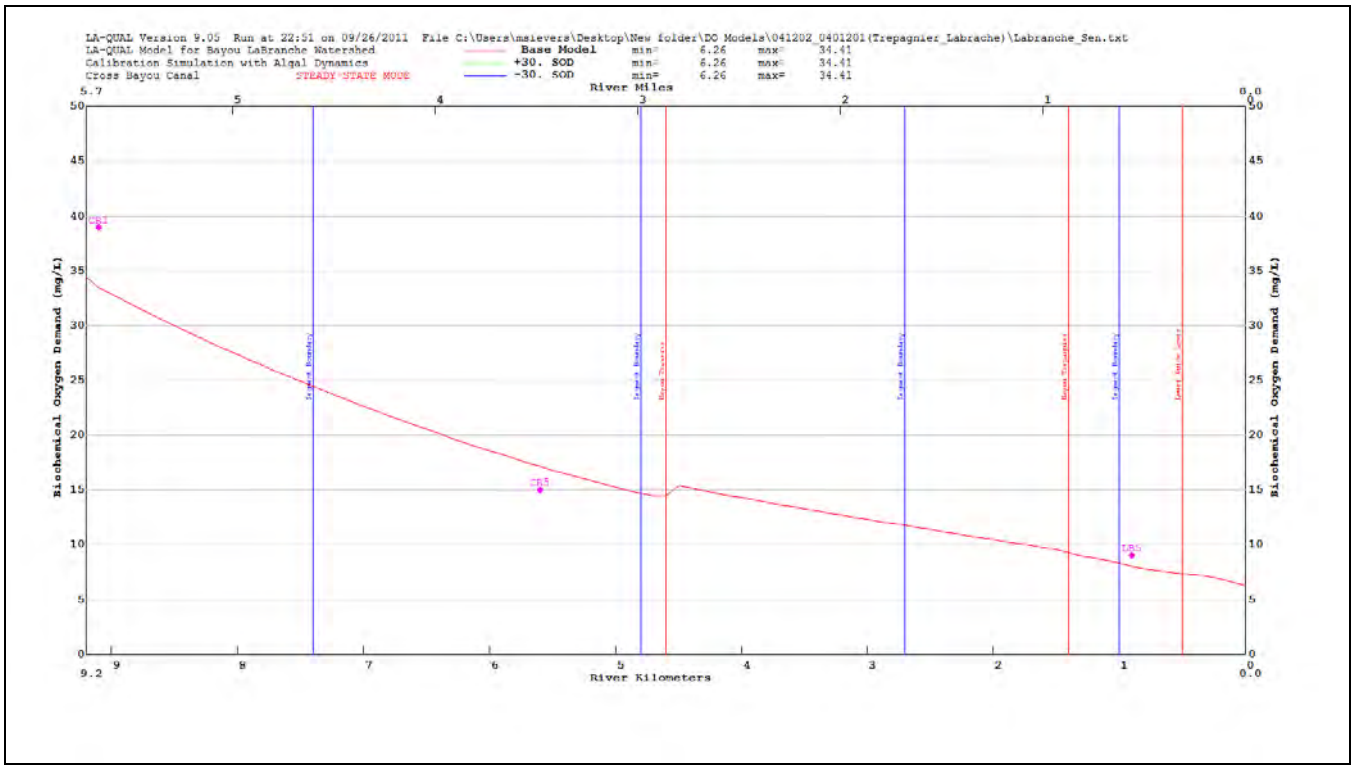


Figure G-10. CBOD sensitivity results (background SOD) for subsegment 041201.

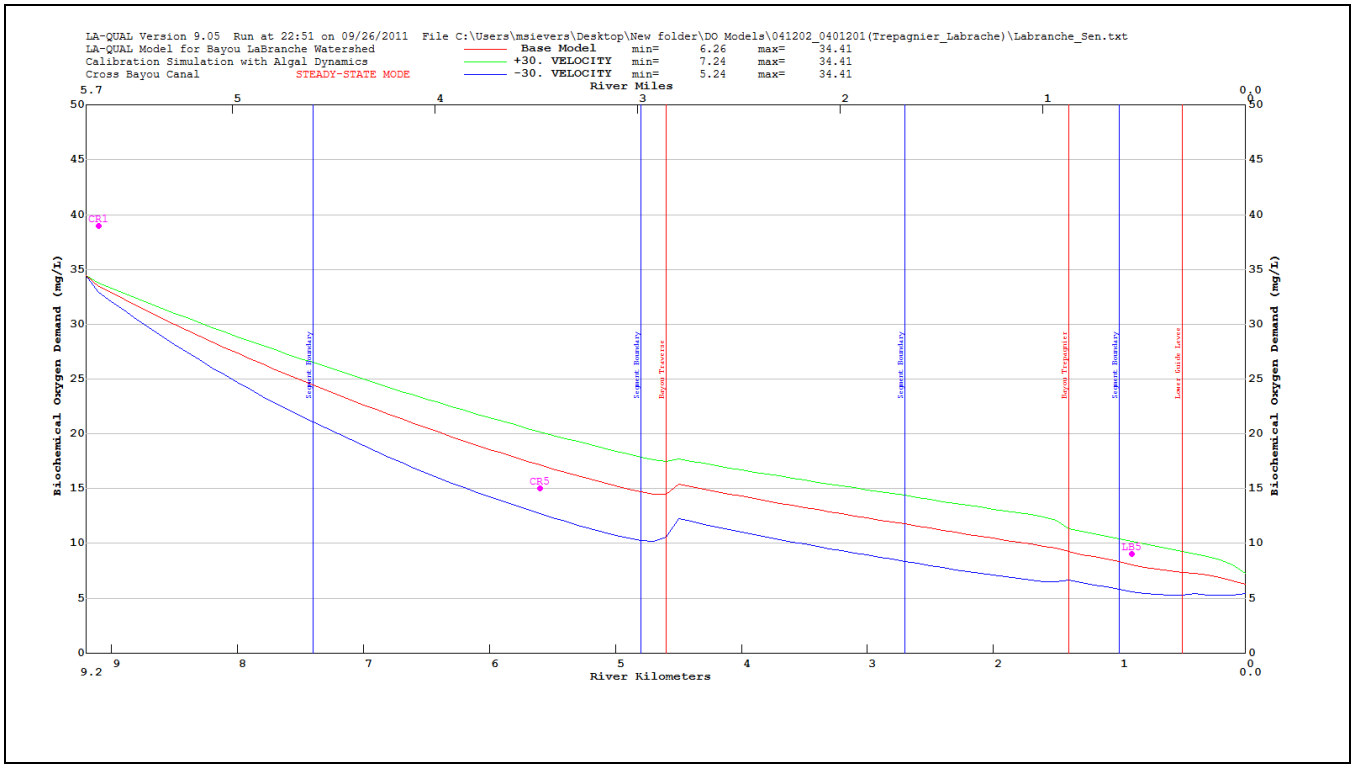


**Figure G-11. CBOD sensitivity results (stream velocity) for subsegment 041201.**

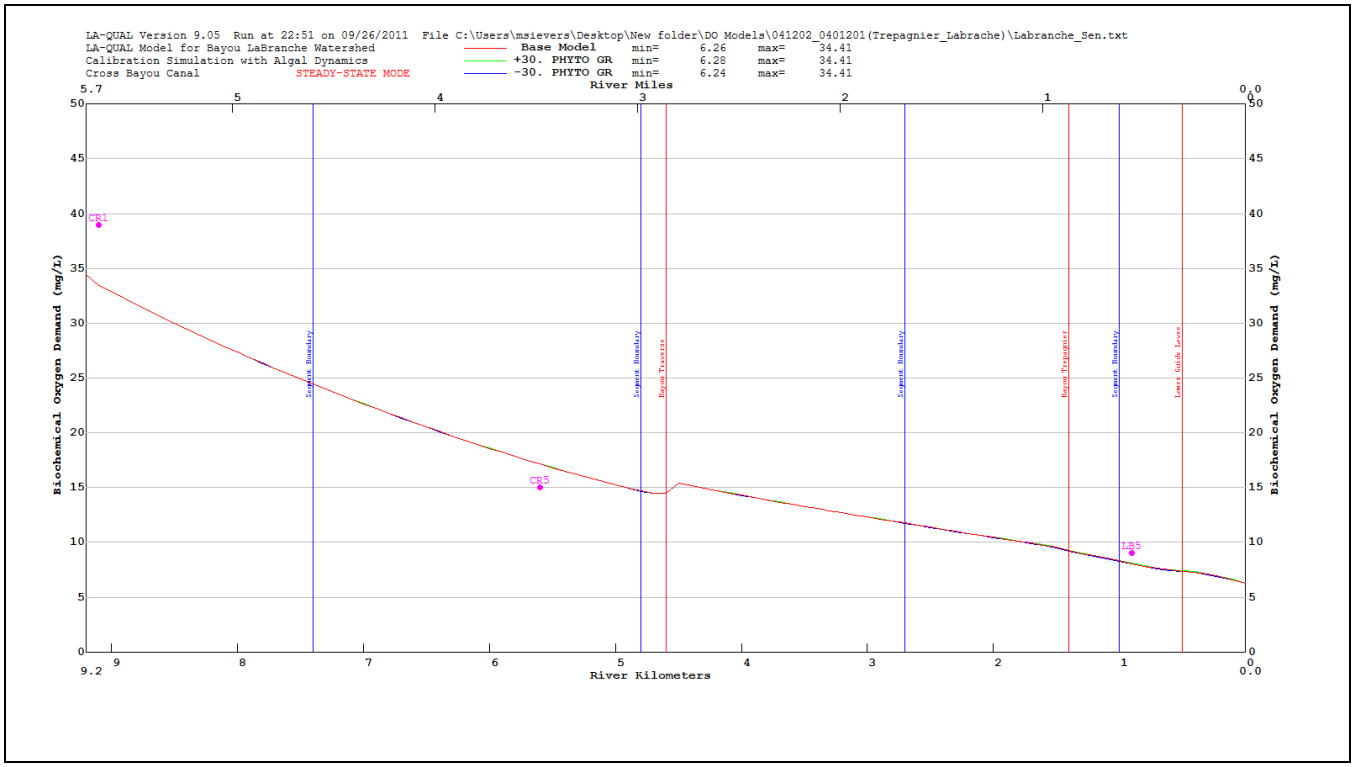


**Figure G-12. CBOD sensitivity results (phytoplankton growth rate) for subsegment 041201.**

# APPENDIX H:
# Model Baseline Output Files

Summer baseline LA-QUAL model output .....H-1
Winter baseline LA-QUAL model output .....H-34

## Summer baseline LA-QUAL model output

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

Input file is E:\EPA_R06\LA TMDL 2006\Phase IV (Lake P)\DO Models\041202_0401201(Trepagnier_Labrache)\Labranche_Baseline_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 14:35 on 11/20/2011

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

CARD TYPE       CONTROL TITLES

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

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

CARD TYPE       MODEL OPTION

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

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

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

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

PROGRAM         ELEVATION                                     60.96000 meters above MSL
ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE
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PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg 0/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg 0/mg algae
PROGRAM         C CONTENT                                   0.40000 mg C/mg algae
PROGRAM         N CONTENT                                   0.08500 mg N/mg algae
PROGRAM         P CONTENT                                   0.01300 mg P/mg algae
PROGRAM         N HALF SATURATION CONSTANT                  0.30000 mg/L N
PROGRAM         P HALF SATURATION CONTSTANT                 0.04000 mg/L P
PROGRAM         LIGHT SATURATION CONSTANT                  30.00000 Langleys/hr
PROGRAM         L OPTION                                    3.00000 (Steel Equation)
PROGRAM         COEF LINEAR SELF-SHADING                    0.00800
PROGRAM         COEF NONLINEAR SELF-SHADING                 0.05400
PROGRAM         EXP NONLINEAR SELF-SHADING                  0.66700
PROGRAM         N OPTION                                    1.00000 (Harmonic Mean)
ENDATA06

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

ENDATA07

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

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

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

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

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

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

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

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

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

CARD TYPE      REACH  ID     TEMP    SALIN       DO    NH3-N    NO3-N    PO4-P    CHL A    PERIP     BOD1     BOD2    ORG-N    ORG-P     COLI      NCM  Conduct     CM-2
                             deg C     ppt     mg/L     mg/L     mg/L     mg/L     µg/L     g/m²     mg/L     mg/L     mg/L     mg/L  #/100mL          umhos/cm      g/L
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INITIAL          1   C1    30.70     0.00     2.85     0.10     0.04     0.50    43.00     0.00    39.00     0.00     1.42     0.26     0.00     0.00  2688.00  2688.00
INITIAL          2   C2    32.10     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          3   L4    32.10     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          4   L4    32.40     0.00     5.85     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5531.00  5531.00
INITIAL          5   L3    31.90     0.00     5.20     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5928.00  5928.00
INITIAL          6   L2    31.70     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
INITIAL          7   L1    31.70     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
ENDATA11

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

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

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

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

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

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

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

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

ENDATA15

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

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

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

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

ENDATA17

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

ENDATA18

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

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

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

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

HDWTR-1           1     Cross Bayou Canal       0   0.12333    4.35487   29.80     0.00  2688.000  2688.000     0.000
ENDATA20

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

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

HDWTR-2           1     Cross Bayou Canal         6.50     39.00      1.52      0.10      0.04     39.00
ENDATA21

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

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

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

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

WSTLD-1        1       9.20  LAG533466             0.00001    0.00035    0.000   30.00     0.00     0.000     0.000
WSTLD-1       47       4.60  Bayou Traverse        0.05700    2.01271    1.301   30.00     0.00  3490.000  3490.000
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WSTLD-1       78       1.50  Bayou Trepagnier       0.05700    2.01271    1.301   30.00     0.00  7292.000  7000.000
WSTLD-1       88       0.50  LGLD4                  0.05700    2.01271    1.301   34.60     0.00  7969.000  7969.000
ENDATA24

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

WSTLD-2           1     LAG533466                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      0.00
WSTLD-2          47     Bayou Traverse              6.50     19.00      0.00      7.50      0.86      0.00      0.04      0.00
WSTLD-2          78     Bayou Trepagnier            6.50      9.00      0.00      7.50      0.17      0.00      0.04      0.00
WSTLD-2          88     LGLD4                       6.50      9.00      0.00      1.10      0.90      0.00      0.04      0.00
ENDATA25

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

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

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

CARD TYPE    CONSTITUENT                     CONCENTRATION

LOWER BC     TEMPERATURE                        =     31.200     deg C
LOWER BC     SALINITY                           =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I            =   7570.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                   =      6.500     mg/L
LOWER BC     BIOCHEMICAL OXYGEN DEMAND          =      8.000     mg/L
LOWER BC     BOD2 BIOCHEMICAL OXYGEN DEMAND     =      8.000     mg/L
LOWER BC     ORGANIC NITROGEN                   =      0.730     mg/L
LOWER BC     AMMONIA NITROGEN                   =      0.100     mg/L
LOWER BC     NITRATE + NITRITE                  =      0.040     mg/L
LOWER BC     PO4 PHOSPHORUS                     =      0.225     mg/L
LOWER BC     ORG PHOSPHORUS                     =      0.107     mg/L
LOWER BC     CHLOROPHYLL A                      =     21.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

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

 DAY OF YEAR                          = July **
 SUNRISE (add 1 hr if DLS in effect)  = 05:34a
 SUNSET (add 1 hr if DLS in effect)   = 07:37p
 NUMBER OF DAYLIGHT HOURS             =     14.05 HOURS
 DRY BULB TEMPERATURE                 =      20.0 DEG C ( 68.0 DEG F)
 WET BULB TEMPERATURE                 =      20.0 DEG C ( 68.0 DEG F)
 DEWPOINT                             =      20.0 DEG C  ( 68.0 DEG F)
 HUMIDITY                             =     100.0 PERCENT
 WIND VEOCITY                         =      0.00 METERS/SEC
 ELEVATION                            =     60.96 METERS (  200.0 FEET)
 ATMOSPHERIC PRESSURE                 =   1013.25 MILLIBARS
 ATMOSPHERIC VAPOR PRESSURE           =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT DRY BULB TEMP  =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT WET BULB TEMP  =     23.38              MILLIBARS
 SAT VAPOR PRESSURE AT WATER TEMP     =     43.45 TO     54.17 MILLIBARS
 WATER DENSITY                        =    994.18 TO    995.57 KILOGRAMS/CUBIC METER
 LATENT HEAT OF VAPORIZATION          =    577.19 TO    579.32 KILOCALORIES/KILOGRAM
 WATER TEMPERATURE                    =      30.4 TO      34.3 DEGREES C

 SOLAR CONSTANT                       =    2851.2 LANGLEYS/DAY
 SOLAR RADIATION AT TOP OF ATMOSPHERE =    2972.1 LANGLEYS/DAY
 NET SOLAR RADIATION BEFORE SHADING   =     691.2 LANGLEYS/DAY

 NET SOLAR RADIATION AFTER SHADING    =     691.2 TO     691.2 LANGLEYS/DAY
 NET ATMOSPHERIC RADIATION            =     674.9              LANGLEYS/DAY
 BACK RADIATION FROM WATER SURFACE    =   -1012.8 TO    -962.2 LANGLEYS/DAY
 EVAPORATIVE HEAT EXCHANGE            =    -259.8 TO    -170.2 LANGLEYS/DAY
 CONDUCTIVE HEAT EXCHANGE             =     -74.7 TO     -54.6 LANGLEYS/DAY
 TOTAL NET FLUX AT AIR-WATER INTERFACE =     18.9 TO     179.2 LANGLEYS/DAY

     .....PHOTOSYNTHETIC RATES CONVERGENT IN   98 ITERATIONS
     .....OXYGEN DEPENDENT RATES CONVERGENT IN    1 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
 ***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Nitrate+Nitrite Nitrogen
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

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

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

  C1     1     1      5.51      5.18      4.91      4.67      4.48      4.32      4.19      4.09      4.01      3.95
  C1     1    11      3.90      3.87      3.85      3.85      3.85      3.87      3.91      3.98
  C2     2    19      4.12      4.25      4.36      4.45      4.53      4.59      4.64      4.68      4.72      4.74
  C2     2    29      4.76      4.78      4.79      4.80      4.80      4.81      4.81      4.81      4.79      4.74
  C2     2    39      4.62      4.33
  L4     3    41      3.68      3.13      2.70      2.42      2.34      2.58      3.34
  L4     4    48      3.69      3.99      4.27      4.53      4.77      5.00      5.21      5.41      5.59      5.76
  L4     4    58      5.91      6.06      6.19      6.31      6.42      6.52      6.60      6.68
  L3     5    66      6.75      6.80      6.84      6.87      6.89      6.90      6.91      6.90      6.88      6.85
  L3     5    76      6.77      6.61      6.26
  L2     6    79      5.88      5.59      5.29      4.95
  L1     7    83      4.61      4.37      4.19      4.08      4.05      4.12      4.20      4.41      4.81      5.47

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

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

  C1     1     1     35.09     33.64     32.25     30.93     29.68     28.49     27.36     26.28     25.27     24.30
  C1     1    11     23.38     22.52     21.70     20.92     20.20     19.52     18.89     18.33
```

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C2 | 2 | 19 | 17.78 | 17.20 | 16.65 | 16.12 | 15.62 | 15.14 | 14.69 | 14.25 | 13.83 | 13.43 |
| C2 | 2 | 29 | 13.04 | 12.67 | 12.32 | 11.98 | 11.66 | 11.35 | 11.05 | 10.77 | 10.50 | 10.25 |
| C2 | 2 | 39 | 10.02 | 9.82 | | | | | | | | |
| L4 | 3 | 41 | 9.66 | 9.56 | 9.59 | 9.81 | 10.41 | 11.70 | 14.30 | | | |
| L4 | 4 | 48 | 14.13 | 14.00 | 13.87 | 13.76 | 13.67 | 13.58 | 13.51 | 13.45 | 13.39 | 13.35 |
| L4 | 4 | 58 | 13.31 | 13.28 | 13.25 | 13.23 | 13.22 | 13.20 | 13.19 | 13.18 | | |
| L3 | 5 | 66 | 13.17 | 13.16 | 13.15 | 13.13 | 13.11 | 13.09 | 13.06 | 13.03 | 12.98 | 12.89 |
| L3 | 5 | 76 | 12.76 | 12.52 | 12.11 | | | | | | | |
| L2 | 6 | 79 | 11.83 | 11.63 | 11.41 | 11.16 | | | | | | |
| L1 | 7 | 83 | 10.93 | 10.72 | 10.50 | 10.28 | 10.05 | 9.81 | 9.50 | 9.15 | 8.78 | 8.40 |

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 30.35 | 28.83 | 27.38 | 25.99 | 24.67 | 23.42 | 22.22 | 21.08 | 20.00 | 18.96 |
| C1 | 1 | 11 | 17.99 | 17.06 | 16.18 | 15.34 | 14.56 | 13.82 | 13.14 | 12.52 | | |
| C2 | 2 | 19 | 11.90 | 11.25 | 10.63 | 10.04 | 9.49 | 8.97 | 8.47 | 8.01 | 7.57 | 7.15 |
| C2 | 2 | 29 | 6.76 | 6.39 | 6.04 | 5.71 | 5.40 | 5.11 | 4.83 | 4.57 | 4.33 | 4.10 |
| C2 | 2 | 39 | 3.89 | 3.70 | | | | | | | | |
| L4 | 3 | 41 | 3.55 | 3.44 | 3.41 | 3.53 | 3.95 | 4.96 | 7.16 | | | |
| L4 | 4 | 48 | 6.85 | 6.57 | 6.30 | 6.05 | 5.80 | 5.57 | 5.35 | 5.14 | 4.93 | 4.74 |
| L4 | 4 | 58 | 4.56 | 4.38 | 4.21 | 4.05 | 3.89 | 3.75 | 3.60 | 3.45 | | |
| L3 | 5 | 66 | 3.31 | 3.18 | 3.06 | 2.94 | 2.83 | 2.73 | 2.64 | 2.57 | 2.53 | 2.53 |
| L3 | 5 | 76 | 2.61 | 2.85 | 3.37 | | | | | | | |
| L2 | 6 | 79 | 3.20 | 3.09 | 2.99 | 2.91 | | | | | | |
| L1 | 7 | 83 | 2.87 | 2.87 | 2.91 | 3.03 | 3.22 | 3.52 | 3.65 | 3.89 | 4.28 | 4.88 |

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.93 | 0.85 | 0.78 | 0.71 | 0.65 | 0.59 | 0.54 | 0.49 | 0.45 | 0.41 |
| C1 | 1 | 11 | 0.38 | 0.34 | 0.31 | 0.29 | 0.26 | 0.24 | 0.22 | 0.20 | | |
| C2 | 2 | 19 | 0.18 | 0.17 | 0.15 | 0.14 | 0.12 | 0.11 | 0.10 | 0.09 | 0.08 | 0.08 |
| C2 | 2 | 29 | 0.07 | 0.06 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 |
| C2 | 2 | 39 | 0.03 | 0.04 | | | | | | | | |
| L4 | 3 | 41 | 0.05 | 0.07 | 0.12 | 0.22 | 0.44 | 0.91 | 1.92 | | | |
| L4 | 4 | 48 | 1.76 | 1.63 | 1.50 | 1.39 | 1.28 | 1.18 | 1.09 | 1.01 | 0.93 | 0.86 |
| L4 | 4 | 58 | 0.79 | 0.73 | 0.68 | 0.62 | 0.58 | 0.53 | 0.49 | 0.45 | | |
| L3 | 5 | 66 | 0.41 | 0.38 | 0.35 | 0.32 | 0.30 | 0.28 | 0.27 | 0.27 | 0.30 | 0.36 |
| L3 | 5 | 76 | 0.51 | 0.81 | 1.41 | | | | | | | |
| L2 | 6 | 79 | 1.26 | 1.14 | 1.04 | 0.93 | | | | | | |
| L1 | 7 | 83 | 0.84 | 0.77 | 0.71 | 0.67 | 0.63 | 0.61 | 0.57 | 0.55 | 0.53 | 0.53 |

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.31 | 1.23 | 1.16 | 1.10 | 1.05 | 1.00 | 0.95 | 0.91 | 0.87 | 0.84 |
| C1 | 1 | 11 | 0.81 | 0.78 | 0.75 | 0.73 | 0.71 | 0.69 | 0.68 | 0.67 | | |
| C2 | 2 | 19 | 0.65 | 0.64 | 0.63 | 0.62 | 0.61 | 0.60 | 0.59 | 0.59 | 0.58 | 0.57 |
| C2 | 2 | 29 | 0.57 | 0.56 | 0.56 | 0.55 | 0.55 | 0.54 | 0.54 | 0.53 | 0.53 | 0.52 |
| C2 | 2 | 39 | 0.52 | 0.52 | | | | | | | | |
| L4 | 3 | 41 | 0.53 | 0.56 | 0.61 | 0.72 | 0.95 | 1.45 | 2.49 | | | |
| L4 | 4 | 48 | 2.34 | 2.22 | 2.10 | 2.00 | 1.90 | 1.82 | 1.74 | 1.67 | 1.60 | 1.54 |
| L4 | 4 | 58 | 1.49 | 1.44 | 1.40 | 1.36 | 1.32 | 1.29 | 1.25 | 1.23 | | |
| L3 | 5 | 66 | 1.20 | 1.17 | 1.15 | 1.14 | 1.12 | 1.11 | 1.10 | 1.11 | 1.13 | 1.19 |
| L3 | 5 | 76 | 1.32 | 1.58 | 2.11 | | | | | | | |
| L2 | 6 | 79 | 1.94 | 1.82 | 1.71 | 1.59 | | | | | | |
| L1 | 7 | 83 | 1.48 | 1.40 | 1.32 | 1.24 | 1.17 | 1.11 | 1.04 | 0.97 | 0.89 | 0.81 |

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| C1 | 1 | 11 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | | |
| C2 | 2 | 19 | 0.07 | 0.07 | 0.06 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.03 |
| C2 | 2 | 29 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| C2 | 2 | 39 | 0.02 | 0.02 | | | | | | | | |
| L4 | 3 | 41 | 0.02 | 0.03 | 0.03 | 0.05 | 0.08 | 0.14 | 0.27 | | | |
| L4 | 4 | 48 | 0.27 | 0.27 | 0.26 | 0.26 | 0.25 | 0.24 | 0.24 | 0.23 | 0.22 | 0.21 |
| L4 | 4 | 58 | 0.20 | 0.20 | 0.19 | 0.18 | 0.17 | 0.16 | 0.15 | 0.15 | | |
| L3 | 5 | 66 | 0.14 | 0.13 | 0.13 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.12 | 0.12 |
| L3 | 5 | 76 | 0.13 | 0.15 | 0.17 | | | | | | | |
| L2 | 6 | 79 | 0.20 | 0.21 | 0.22 | 0.23 | | | | | | |
| L1 | 7 | 83 | 0.24 | 0.25 | 0.25 | 0.26 | 0.27 | 0.28 | 0.26 | 0.23 | 0.20 | 0.16 |

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

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

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

INTERMEDIATE REPORT
Total Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.08 | 1.01 | 0.93 | 0.87 | 0.81 | 0.75 | 0.70 | 0.65 | 0.60 | 0.56 |
| C1 | 1 | 11 | 0.52 | 0.48 | 0.45 | 0.42 | 0.39 | 0.36 | 0.34 | 0.31 | | |
| C2 | 2 | 19 | 0.29 | 0.26 | 0.24 | 0.22 | 0.20 | 0.18 | 0.16 | 0.15 | 0.14 | 0.12 |
| C2 | 2 | 29 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.07 | 0.07 | 0.06 | 0.06 | 0.06 |
| C2 | 2 | 39 | 0.06 | 0.06 | | | | | | | | |
| L4 | 3 | 41 | 0.07 | 0.10 | 0.15 | 0.27 | 0.52 | 1.06 | 2.21 | | | |
| L4 | 4 | 48 | 2.06 | 1.92 | 1.80 | 1.68 | 1.57 | 1.47 | 1.37 | 1.28 | 1.20 | 1.12 |
| L4 | 4 | 58 | 1.05 | 0.98 | 0.91 | 0.85 | 0.79 | 0.74 | 0.69 | 0.64 | | |
| L3 | 5 | 66 | 0.59 | 0.54 | 0.50 | 0.47 | 0.43 | 0.41 | 0.39 | 0.39 | 0.42 | 0.49 |
| L3 | 5 | 76 | 0.64 | 0.96 | 1.60 | | | | | | | |
| L2 | 6 | 79 | 1.47 | 1.39 | 1.30 | 1.22 | | | | | | |
| L1 | 7 | 83 | 1.15 | 1.09 | 1.05 | 1.01 | 0.99 | 0.98 | 0.92 | 0.87 | 0.81 | 0.75 |

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.46 | 1.39 | 1.32 | 1.26 | 1.21 | 1.15 | 1.11 | 1.06 | 1.02 | 0.98 |
| C1 | 1 | 11 | 0.95 | 0.92 | 0.89 | 0.86 | 0.84 | 0.82 | 0.80 | 0.78 | | |
| C2 | 2 | 19 | 0.76 | 0.74 | 0.72 | 0.70 | 0.69 | 0.67 | 0.66 | 0.64 | 0.63 | 0.62 |
| C2 | 2 | 29 | 0.61 | 0.60 | 0.59 | 0.59 | 0.58 | 0.57 | 0.56 | 0.56 | 0.55 | 0.55 |
| C2 | 2 | 39 | 0.55 | 0.55 | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L4 | 3 | 41 | 0.56 | 0.58 | 0.64 | 0.77 | 1.04 | 1.60 | 2.78 | | | |
| L4 | 4 | 48 | 2.64 | 2.51 | 2.40 | 2.29 | 2.20 | 2.11 | 2.02 | 1.94 | 1.87 | 1.81 |
| L4 | 4 | 58 | 1.74 | 1.69 | 1.63 | 1.58 | 1.54 | 1.49 | 1.45 | 1.41 | | |
| L3 | 5 | 66 | 1.37 | 1.34 | 1.31 | 1.28 | 1.25 | 1.23 | 1.22 | 1.22 | 1.25 | 1.31 |
| L3 | 5 | 76 | 1.45 | 1.73 | 2.29 | | | | | | | |
| L2 | 6 | 79 | 2.16 | 2.07 | 1.97 | 1.87 | | | | | | |
| L1 | 7 | 83 | 1.79 | 1.72 | 1.65 | 1.59 | 1.53 | 1.48 | 1.39 | 1.29 | 1.17 | 1.03 |

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.15 | 0.13 | 0.11 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 | 0.04 | 0.04 |
| C1 | 1 | 11 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | | |
| C2 | 2 | 19 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| C2 | 2 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| C2 | 2 | 39 | 0.00 | 0.00 | | | | | | | | |
| L4 | 3 | 41 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.04 | 0.08 | | | |
| L4 | 4 | 48 | 0.07 | 0.06 | 0.06 | 0.05 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 |
| L4 | 4 | 58 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | |
| L3 | 5 | 66 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 |
| L3 | 5 | 76 | 0.01 | 0.01 | 0.02 | | | | | | | |
| L2 | 6 | 79 | 0.02 | 0.02 | 0.01 | 0.01 | | | | | | |
| L1 | 7 | 83 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 | 0.05 | 0.06 |

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

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

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

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 |
| C1 | 1 | 11 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.48 | 0.48 | 0.48 | | |
| C2 | 2 | 19 | 0.48 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |
| C2 | 2 | 29 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |
| C2 | 2 | 39 | 0.47 | 0.47 | | | | | | | | |
| L4 | 3 | 41 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.47 | 0.47 | | | |
| L4 | 4 | 48 | 0.47 | 0.47 | 0.47 | 0.46 | 0.46 | 0.46 | 0.46 | 0.45 | 0.45 | 0.45 |
| L4 | 4 | 58 | 0.45 | 0.44 | 0.44 | 0.44 | 0.44 | 0.43 | 0.43 | 0.43 | | |
| L3 | 5 | 66 | 0.43 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 | 0.41 | 0.41 | 0.41 | 0.40 |
| L3 | 5 | 76 | 0.40 | 0.39 | 0.38 | | | | | | | |
| L2 | 6 | 79 | 0.38 | 0.37 | 0.37 | 0.36 | | | | | | |
| L1 | 7 | 83 | 0.35 | 0.35 | 0.34 | 0.33 | 0.32 | 0.31 | 0.30 | 0.29 | 0.27 | 0.25 |

INTERMEDIATE REPORT
Total Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.64 | 0.62 | 0.61 | 0.59 | 0.58 | 0.56 | 0.55 | 0.54 | 0.54 | 0.53 |
| C1 | 1 | 11 | 0.52 | 0.52 | 0.51 | 0.51 | 0.50 | 0.50 | 0.50 | 0.49 | | |
| C2 | 2 | 19 | 0.49 | 0.49 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 |
| C2 | 2 | 29 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 |
| C2 | 2 | 39 | 0.47 | 0.47 | | | | | | | | |
| L4 | 3 | 41 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.50 | 0.55 | | | |
| L4 | 4 | 48 | 0.54 | 0.53 | 0.52 | 0.51 | 0.50 | 0.50 | 0.49 | 0.48 | 0.48 | 0.47 |
| L4 | 4 | 58 | 0.47 | 0.46 | 0.46 | 0.45 | 0.45 | 0.45 | 0.44 | 0.44 | | |
| L3 | 5 | 66 | 0.44 | 0.43 | 0.43 | 0.43 | 0.42 | 0.42 | 0.42 | 0.42 | 0.41 | 0.41 |
| L3 | 5 | 76 | 0.41 | 0.40 | 0.40 | | | | | | | |
| L2 | 6 | 79 | 0.39 | 0.39 | 0.38 | 0.38 | | | | | | |
| L1 | 7 | 83 | 0.37 | 0.36 | 0.36 | 0.35 | 0.35 | 0.34 | 0.33 | 0.33 | 0.32 | 0.31 |

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.70 | 0.68 | 0.66 | 0.65 | 0.64 | 0.63 | 0.62 | 0.61 | 0.60 | 0.59 |
| C1 | 1 | 11 | 0.59 | 0.58 | 0.58 | 0.58 | 0.57 | 0.57 | 0.57 | 0.56 | | |
| C2 | 2 | 19 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| C2 | 2 | 29 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| C2 | 2 | 39 | 0.54 | 0.54 | | | | | | | | |
| L4 | 3 | 41 | 0.54 | 0.54 | 0.54 | 0.55 | 0.56 | 0.58 | 0.64 | | | |
| L4 | 4 | 48 | 0.63 | 0.62 | 0.61 | 0.61 | 0.60 | 0.59 | 0.59 | 0.58 | 0.58 | 0.58 |
| L4 | 4 | 58 | 0.57 | 0.57 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.56 | | |
| L3 | 5 | 66 | 0.56 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.54 | 0.54 | 0.54 |
| L3 | 5 | 76 | 0.53 | 0.52 | 0.50 | | | | | | | |
| L2 | 6 | 79 | 0.50 | 0.49 | 0.48 | 0.48 | | | | | | |
| L1 | 7 | 83 | 0.47 | 0.46 | 0.45 | 0.44 | 0.43 | 0.42 | 0.41 | 0.39 | 0.37 | 0.35 |

INTERMEDIATE REPORT
Chlorophyll a
µg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 44.44 | 45.03 | 45.63 | 46.24 | 46.86 | 47.48 | 48.11 | 48.73 | 49.35 | 49.96 |
| C1 | 1 | 11 | 50.56 | 51.14 | 51.71 | 52.27 | 52.81 | 53.34 | 53.87 | 54.41 | | |
| C2 | 2 | 19 | 55.09 | 55.78 | 56.40 | 56.95 | 57.43 | 57.83 | 58.16 | 58.42 | 58.62 | 58.75 |
| C2 | 2 | 29 | 58.82 | 58.83 | 58.80 | 58.72 | 58.59 | 58.43 | 58.24 | 58.03 | 57.81 | 57.59 |
| C2 | 2 | 39 | 57.39 | 57.25 | | | | | | | | |
| L4 | 3 | 41 | 57.22 | 57.39 | 57.88 | 58.86 | 60.53 | 63.10 | 66.80 | | | |
| L4 | 4 | 48 | 68.23 | 69.56 | 70.90 | 72.27 | 73.65 | 75.03 | 76.42 | 77.82 | 79.21 | 80.59 |
| L4 | 4 | 58 | 81.97 | 83.32 | 84.66 | 85.98 | 87.27 | 88.54 | 89.80 | 91.07 | | |
| L3 | 5 | 66 | 92.31 | 93.44 | 94.48 | 95.44 | 96.28 | 97.01 | 97.58 | 97.91 | 97.84 | 97.06 |
| L3 | 5 | 76 | 95.00 | 90.57 | 81.80 | | | | | | | |
| L2 | 6 | 79 | 80.85 | 79.97 | 78.80 | 77.23 | | | | | | |
| L1 | 7 | 83 | 75.47 | 73.51 | 71.02 | 67.89 | 63.93 | 58.97 | 54.77 | 49.28 | 42.14 | 32.90 |

INTERMEDIATE REPORT
Temperature
deg C

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

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

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L3 | 5 | 66 | 34.10 | 34.13 | 34.16 | 34.19 | 34.21 | 34.23 | 34.25 | 34.25 | 34.24 | 34.20 |
| L3 | 5 | 76 | 34.10 | 33.90 | 33.51 | | | | | | | |
| L2 | 6 | 79 | 33.57 | 33.60 | 33.64 | 33.66 | | | | | | |
| L1 | 7 | 83 | 33.68 | 33.68 | 33.66 | 33.62 | 33.55 | 33.45 | 33.24 | 32.94 | 32.53 | 31.97 |

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

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

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

INTERMEDIATE REPORT
River Distance
km

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

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

INTERMEDIATE REPORT
Flow
$m^3/s$

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

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

INTERMEDIATE REPORT
Dispersion
$m^2/s$

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

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

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

INTERMEDIATE REPORT
Depth
m

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

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

INTERMEDIATE REPORT
Width
m

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

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

INTERMEDIATE REPORT
Advective Velocity
m/s

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

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

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | 7 | 83 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

INTERMEDIATE REPORT
Mean Velocity
m/s

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

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

INTERMEDIATE REPORT
Cross-Sectional Area
$m^2$

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

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

INTERMEDIATE REPORT
Reaeration Rate
per day

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

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

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

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

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

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

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

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

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

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

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

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

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

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

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

CAPSULE SUMMARY FOR Cross Bayou Canal

| IOR | REACH | DIST | FLOW | TEMP | SALN | DO | BOD1 | BOD2 | ORG-N | NH3-N | NO3-N | TOT-N | ORG-P | PO4-P | CHLA | DISP | DEPTH | WIDTH | ADVEC VELO | MEAN VELO | DO SAT | REAER RATE | BOD1 DECA | BOD1 SETT | BOD2 DECA | BOD2 SETT | NH3 DECA | SOD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | km | m³/s | deg C | ppt | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | m²/s | m | m | m/s | m/s | mg/L | 1/da | 1/da | 1/da | 1/da | 1/da | 1/da | g/m²/d |
| | | HDWTR | 0.123 | 29.80 | 0.0 | 6.50 | 34.41 | 39.00 | 1.15 | 0.10 | 0.04 | 1.29 | 0.20 | 0.50 | 43.0 | | | | | | | | | | | | | |
| WASTELOAD # 001 (LAG533466) ENTERS HERE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | C1 1 | 9.10 | 0.123 | 30.41 | 0.0 | 5.51 | 30.35 | 0.00 | 0.93 | 0.11 | 0.04 | 1.08 | 0.15 | 0.50 | 44.4 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.505 | 1.180 | 0.16 | 0.31 | 0.00 | 0.00 | 0.26 | 1.93 |
| 2 | C1 1 | 9.00 | 0.123 | 30.64 | 0.0 | 5.18 | 28.83 | 0.00 | 0.85 | 0.11 | 0.04 | 1.01 | 0.13 | 0.50 | 45.0 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.475 | 1.185 | 0.16 | 0.31 | 0.00 | 0.00 | 0.26 | 1.95 |
| 3 | C1 1 | 8.90 | 0.123 | 30.86 | 0.0 | 4.91 | 27.38 | 0.00 | 0.78 | 0.12 | 0.04 | 0.93 | 0.11 | 0.50 | 45.6 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.448 | 1.189 | 0.16 | 0.31 | 0.00 | 0.00 | 0.26 | 1.98 |
| 4 | C1 1 | 8.80 | 0.123 | 31.06 | 0.0 | 4.67 | 25.99 | 0.00 | 0.71 | 0.12 | 0.04 | 0.87 | 0.09 | 0.50 | 46.2 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.422 | 1.193 | 0.17 | 0.32 | 0.00 | 0.00 | 0.26 | 2.01 |
| 5 | C1 1 | 8.70 | 0.123 | 31.26 | 0.0 | 4.48 | 24.67 | 0.00 | 0.65 | 0.12 | 0.04 | 0.81 | 0.08 | 0.50 | 46.9 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.398 | 1.197 | 0.17 | 0.32 | 0.00 | 0.00 | 0.26 | 2.03 |
| 6 | C1 1 | 8.60 | 0.123 | 31.44 | 0.0 | 4.32 | 23.42 | 0.00 | 0.59 | 0.11 | 0.04 | 0.75 | 0.07 | 0.49 | 47.5 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.375 | 1.201 | 0.17 | 0.32 | 0.00 | 0.00 | 0.26 | 2.06 |
| 7 | C1 1 | 8.50 | 0.123 | 31.61 | 0.0 | 4.19 | 22.22 | 0.00 | 0.54 | 0.11 | 0.04 | 0.70 | 0.06 | 0.49 | 48.1 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.353 | 1.205 | 0.17 | 0.32 | 0.00 | 0.00 | 0.26 | 2.08 |
| 8 | C1 1 | 8.40 | 0.123 | 31.78 | 0.0 | 4.09 | 21.08 | 0.00 | 0.49 | 0.11 | 0.04 | 0.65 | 0.05 | 0.49 | 48.7 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.332 | 1.208 | 0.17 | 0.32 | 0.00 | 0.00 | 0.27 | 2.10 |
| 9 | C1 1 | 8.30 | 0.123 | 31.93 | 0.0 | 4.01 | 20.00 | 0.00 | 0.45 | 0.11 | 0.04 | 0.60 | 0.04 | 0.49 | 49.3 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.313 | 1.211 | 0.17 | 0.32 | 0.00 | 0.00 | 0.27 | 2.12 |
| 10 | C1 1 | 8.20 | 0.123 | 32.08 | 0.0 | 3.95 | 18.96 | 0.00 | 0.41 | 0.11 | 0.04 | 0.56 | 0.04 | 0.49 | 50.0 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.295 | 1.214 | 0.17 | 0.32 | 0.00 | 0.00 | 0.27 | 2.14 |
| 11 | C1 1 | 8.10 | 0.123 | 32.22 | 0.0 | 3.90 | 17.99 | 0.00 | 0.38 | 0.10 | 0.04 | 0.52 | 0.03 | 0.49 | 50.6 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.278 | 1.217 | 0.18 | 0.32 | 0.00 | 0.00 | 0.27 | 2.16 |
| 12 | C1 1 | 8.00 | 0.123 | 32.35 | 0.0 | 3.87 | 17.06 | 0.00 | 0.34 | 0.10 | 0.04 | 0.48 | 0.03 | 0.49 | 51.1 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.262 | 1.220 | 0.18 | 0.33 | 0.00 | 0.00 | 0.27 | 2.18 |
| 13 | C1 1 | 7.90 | 0.123 | 32.48 | 0.0 | 3.85 | 16.18 | 0.00 | 0.31 | 0.10 | 0.04 | 0.45 | 0.02 | 0.49 | 51.7 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.246 | 1.222 | 0.18 | 0.33 | 0.00 | 0.00 | 0.28 | 2.19 |
| 14 | C1 1 | 7.80 | 0.123 | 32.59 | 0.0 | 3.85 | 15.34 | 0.00 | 0.29 | 0.09 | 0.04 | 0.42 | 0.02 | 0.49 | 52.3 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.232 | 1.225 | 0.18 | 0.33 | 0.00 | 0.00 | 0.28 | 2.21 |
| 15 | C1 1 | 7.70 | 0.123 | 32.71 | 0.0 | 3.85 | 14.56 | 0.00 | 0.26 | 0.09 | 0.04 | 0.39 | 0.02 | 0.49 | 52.8 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.218 | 1.227 | 0.18 | 0.33 | 0.00 | 0.00 | 0.28 | 2.23 |
| 16 | C1 1 | 7.60 | 0.123 | 32.81 | 0.0 | 3.87 | 13.82 | 0.00 | 0.24 | 0.08 | 0.04 | 0.36 | 0.02 | 0.48 | 53.3 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.205 | 1.229 | 0.18 | 0.33 | 0.00 | 0.00 | 0.29 | 2.24 |
| 17 | C1 1 | 7.50 | 0.123 | 32.91 | 0.0 | 3.91 | 13.14 | 0.00 | 0.22 | 0.08 | 0.04 | 0.34 | 0.01 | 0.48 | 53.9 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.193 | 1.231 | 0.18 | 0.33 | 0.00 | 0.00 | 0.29 | 2.25 |
| 18 | C1 1 | 7.40 | 0.123 | 33.00 | 0.0 | 3.98 | 12.52 | 0.00 | 0.20 | 0.08 | 0.04 | 0.31 | 0.01 | 0.48 | 54.4 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 7.182 | 1.233 | 0.18 | 0.33 | 0.00 | 0.00 | 0.29 | 2.27 |
| 19 | C2 2 | 7.30 | 0.123 | 33.10 | 0.0 | 4.12 | 11.90 | 0.00 | 0.18 | 0.07 | 0.03 | 0.29 | 0.01 | 0.48 | 55.1 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 7.171 | 2.234 | 0.18 | 0.56 | 0.00 | 0.00 | 0.30 | 2.28 |
| 20 | C2 2 | 7.20 | 0.123 | 33.20 | 0.0 | 4.25 | 11.25 | 0.00 | 0.17 | 0.07 | 0.03 | 0.26 | 0.01 | 0.48 | 55.8 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 7.158 | 2.246 | 0.18 | 0.56 | 0.00 | 0.00 | 0.30 | 2.30 |
| 21 | C2 2 | 7.10 | 0.123 | 33.30 | 0.0 | 4.36 | 10.63 | 0.00 | 0.15 | 0.06 | 0.03 | 0.24 | 0.01 | 0.48 | 56.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 7.147 | 2.260 | 0.18 | 0.56 | 0.00 | 0.00 | 0.31 | 2.31 |
| 22 | C2 2 | 7.00 | 0.123 | 33.39 | 0.0 | 4.45 | 10.04 | 0.00 | 0.14 | 0.06 | 0.03 | 0.22 | 0.01 | 0.48 | 56.9 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 7.136 | 2.276 | 0.18 | 0.56 | 0.00 | 0.00 | 0.31 | 2.32 |
| 23 | C2 2 | 6.90 | 0.123 | 33.48 | 0.0 | 4.53 | 9.49 | 0.00 | 0.12 | 0.05 | 0.02 | 0.20 | 0.01 | 0.47 | 57.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 7.126 | 2.292 | 0.19 | 0.56 | 0.00 | 0.00 | 0.31 | 2.34 |
| 24 | C2 2 | 6.80 | 0.123 | 33.55 | 0.0 | 4.59 | 8.97 | 0.00 | 0.11 | 0.05 | 0.02 | 0.18 | 0.00 | 0.47 | 57.8 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 7.116 | 2.310 | 0.19 | 0.57 | 0.00 | 0.00 | 0.32 | 2.35 |
| 25 | C2 2 | 6.70 | 0.123 | 33.63 | 0.0 | 4.64 | 8.47 | 0.00 | 0.10 | 0.04 | 0.02 | 0.16 | 0.00 | 0.47 | 58.2 | 1.5 | 0.49 | 18.6 | 0.014 | 0.016 | 7.108 | 2.328 | 0.19 | 0.57 | 0.00 | 0.00 | 0.32 | 2.36 |
| 26 | C2 2 | 6.60 | 0.123 | 33.70 | 0.0 | 4.68 | 8.01 | 0.00 | 0.09 | 0.04 | 0.02 | 0.15 | 0.00 | 0.47 | 58.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.016 | 7.100 | 2.346 | 0.19 | 0.57 | 0.00 | 0.00 | 0.32 | 2.37 |
| 27 | C2 2 | 6.50 | 0.123 | 33.76 | 0.0 | 4.72 | 7.57 | 0.00 | 0.08 | 0.04 | 0.02 | 0.14 | 0.00 | 0.47 | 58.6 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 7.092 | 2.365 | 0.19 | 0.57 | 0.00 | 0.00 | 0.32 | 2.38 |
| 28 | C2 2 | 6.40 | 0.123 | 33.82 | 0.0 | 4.74 | 7.15 | 0.00 | 0.08 | 0.03 | 0.01 | 0.12 | 0.00 | 0.47 | 58.7 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 7.085 | 2.384 | 0.19 | 0.57 | 0.00 | 0.00 | 0.33 | 2.39 |
| 29 | C2 2 | 6.30 | 0.123 | 33.88 | 0.0 | 4.76 | 6.76 | 0.00 | 0.07 | 0.03 | 0.01 | 0.11 | 0.00 | 0.47 | 58.8 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 7.078 | 2.403 | 0.19 | 0.57 | 0.00 | 0.00 | 0.33 | 2.40 |

```
  30 C2  2    6.20   0.123 33.93  0.0  4.78   6.39   0.00  0.06  0.03  0.01  0.10  0.00  0.47  58.8    1.5   0.49  18.6  0.014  0.018 7.072  2.423 0.19 0.57 0.00 0.00
0.33  2.40
  31 C2  2    6.10   0.123 33.98  0.0  4.79   6.04   0.00  0.06  0.03  0.01  0.09  0.00  0.47  58.8    1.5   0.49  18.6  0.014  0.018 7.066  2.443 0.19 0.57 0.00 0.00
0.33  2.41
  32 C2  2    6.00   0.123 34.03  0.0  4.80   5.71   0.00  0.05  0.03  0.01  0.09  0.00  0.47  58.7    1.5   0.49  18.6  0.014  0.019 7.061  2.463 0.19 0.57 0.00 0.00
0.33  2.42
  33 C2  2    5.90   0.123 34.08  0.0  4.80   5.40   0.00  0.05  0.02  0.01  0.08  0.00  0.47  58.6    1.5   0.49  18.6  0.014  0.019 7.056  2.483 0.19 0.57 0.00 0.00
0.33  2.43
  34 C2  2    5.80   0.123 34.12  0.0  4.81   5.11   0.00  0.04  0.02  0.01  0.07  0.00  0.47  58.4    1.5   0.49  18.6  0.014  0.020 7.051  2.504 0.19 0.57 0.00 0.00
0.34  2.43
  35 C2  2    5.70   0.123 34.15  0.0  4.81   4.83   0.00  0.04  0.02  0.01  0.07  0.00  0.47  58.2    1.5   0.49  18.6  0.014  0.020 7.046  2.524 0.19 0.57 0.00 0.00
0.34  2.44
  36 C2  2    5.60   0.123 34.19  0.0  4.81   4.57   0.00  0.04  0.02  0.01  0.06  0.00  0.47  58.0    1.5   0.49  18.6  0.014  0.021 7.043  2.544 0.19 0.57 0.00 0.00
0.34  2.44
  37 C2  2    5.50   0.123 34.22  0.0  4.79   4.33   0.00  0.04  0.02  0.00  0.06  0.00  0.47  57.8    1.5   0.49  18.6  0.014  0.021 7.039  2.565 0.19 0.57 0.00 0.00
0.34  2.45
  38 C2  2    5.40   0.123 34.25  0.0  4.74   4.10   0.00  0.03  0.02  0.00  0.06  0.00  0.47  57.6    1.5   0.49  18.6  0.014  0.022 7.035  2.586 0.19 0.57 0.00 0.00
0.34  2.45
  39 C2  2    5.30   0.123 34.28  0.0  4.62   3.89   0.00  0.03  0.02  0.00  0.06  0.00  0.47  57.4    1.5   0.49  18.6  0.014  0.022 7.032  2.606 0.19 0.58 0.00 0.00
0.34  2.46
  40 C2  2    5.20   0.123 34.31  0.0  4.33   3.70   0.00  0.04  0.02  0.00  0.06  0.00  0.47  57.2    1.5   0.49  18.6  0.014  0.023 7.029  2.627 0.19 0.58 0.00 0.00
0.33  2.46
  41 L4  3    5.10   0.123 34.32  0.0  3.68   3.55   0.00  0.05  0.02  0.00  0.07  0.00  0.46  57.2    1.5   0.50  18.0  0.014  0.024 7.027  1.811 0.19 0.56 0.00 0.00
0.32  7.39
  42 L4  3    5.00   0.123 34.33  0.0  3.13   3.44   0.00  0.07  0.03  0.00  0.10  0.00  0.46  57.4    1.5   0.50  18.0  0.014  0.024 7.026  1.812 0.19 0.56 0.00 0.00
0.30  7.40
  43 L4  3    4.90   0.123 34.31  0.0  2.70   3.41   0.00  0.12  0.03  0.00  0.15  0.00  0.46  57.9    1.5   0.50  18.0  0.014  0.025 7.028  1.811 0.19 0.56 0.00 0.00
0.29  7.39
  44 L4  3    4.80   0.123 34.26  0.0  2.42   3.53   0.00  0.22  0.05  0.00  0.27  0.01  0.46  58.9    1.5   0.50  18.0  0.014  0.025 7.034  1.810 0.19 0.56 0.00 0.00
0.27  7.36
  45 L4  3    4.70   0.123 34.13  0.0  2.34   3.95   0.00  0.44  0.08  0.01  0.52  0.02  0.46  60.5    1.5   0.50  18.0  0.014  0.026 7.050  1.806 0.19 0.56 0.00 0.00
0.27  7.30
  46 L4  3    4.60   0.123 33.84  0.0  2.58   4.96   0.00  0.91  0.14  0.01  1.06  0.04  0.47  63.1    1.5   0.50  18.0  0.014  0.026 7.083  1.797 0.19 0.56 0.00 0.00
0.27  7.17
         WASTELOAD # 047 (Bayou Traverse) ENTERS HERE
  47 L4  3    4.50   0.180 33.22  0.0  3.34   7.16   0.00  1.92  0.27  0.02  2.21  0.08  0.47  66.8    1.5   0.50  18.0  0.020  0.028 7.156  1.779 0.18 0.55 0.00 0.00
0.28  6.90
  48 L4  4    4.40   0.180 33.30  0.0  3.69   6.85   0.00  1.76  0.27  0.03  2.06  0.07  0.47  68.2    1.5   0.73  18.3  0.013  0.019 7.148  1.216 0.18 0.37 0.00 0.00
0.29  1.16
  49 L4  4    4.30   0.180 33.36  0.0  3.99   6.57   0.00  1.63  0.27  0.03  1.92  0.06  0.47  69.6    1.5   0.73  18.3  0.013  0.020 7.140  1.218 0.18 0.38 0.00 0.00
0.30  1.16
  50 L4  4    4.20   0.180 33.42  0.0  4.27   6.30   0.00  1.50  0.26  0.03  1.80  0.06  0.47  70.9    1.5   0.73  18.3  0.013  0.020 7.133  1.219 0.19 0.38 0.00 0.00
0.31  1.16
  51 L4  4    4.10   0.180 33.48  0.0  4.53   6.05   0.00  1.39  0.26  0.04  1.68  0.05  0.46  72.3    1.5   0.73  18.3  0.013  0.020 7.126  1.220 0.19 0.38 0.00 0.00
0.31  1.17
  52 L4  4    4.00   0.180 33.53  0.0  4.77   5.80   0.00  1.28  0.25  0.04  1.57  0.04  0.46  73.6    1.5   0.73  18.3  0.013  0.021 7.120  1.221 0.19 0.38 0.00 0.00
0.32  1.17
  53 L4  4    3.90   0.180 33.59  0.0  5.00   5.57   0.00  1.18  0.24  0.04  1.47  0.04  0.46  75.0    1.5   0.73  18.3  0.013  0.021 7.113  1.222 0.19 0.38 0.00 0.00
0.32  1.18
  54 L4  4    3.80   0.180 33.64  0.0  5.21   5.35   0.00  1.09  0.24  0.05  1.37  0.03  0.46  76.4    1.5   0.73  18.3  0.013  0.021 7.107  1.223 0.19 0.38 0.00 0.00
0.33  1.18
  55 L4  4    3.70   0.180 33.68  0.0  5.41   5.14   0.00  1.01  0.23  0.05  1.28  0.03  0.45  77.8    1.5   0.73  18.3  0.013  0.022 7.102  1.224 0.19 0.38 0.00 0.00
0.33  1.18
  56 L4  4    3.60   0.180 33.73  0.0  5.59   4.93   0.00  0.93  0.22  0.05  1.20  0.03  0.45  79.2    1.5   0.73  18.3  0.013  0.022 7.096  1.225 0.19 0.38 0.00 0.00
0.34  1.19
  57 L4  4    3.50   0.180 33.77  0.0  5.76   4.74   0.00  0.86  0.21  0.05  1.12  0.02  0.45  80.6    1.5   0.73  18.3  0.013  0.023 7.091  1.226 0.19 0.38 0.00 0.00
0.34  1.19
  58 L4  4    3.40   0.180 33.82  0.0  5.91   4.56   0.00  0.79  0.20  0.05  1.05  0.02  0.45  82.0    1.5   0.73  18.3  0.013  0.023 7.086  1.227 0.19 0.38 0.00 0.00
0.34  1.19
  59 L4  4    3.30   0.180 33.86  0.0  6.06   4.38   0.00  0.73  0.20  0.05  0.98  0.02  0.44  83.3    1.5   0.73  18.3  0.013  0.023 7.081  1.228 0.19 0.38 0.00 0.00
0.35  1.20
  60 L4  4    3.20   0.180 33.90  0.0  6.19   4.21   0.00  0.68  0.19  0.05  0.91  0.02  0.44  84.7    1.5   0.73  18.3  0.013  0.024 7.077  1.229 0.19 0.38 0.00 0.00
0.35  1.20
  61 L4  4    3.10   0.180 33.93  0.0  6.31   4.05   0.00  0.62  0.18  0.05  0.85  0.01  0.44  86.0    1.5   0.73  18.3  0.013  0.024 7.072  1.229 0.19 0.38 0.00 0.00
0.35  1.20
  62 L4  4    3.00   0.180 33.97  0.0  6.42   3.89   0.00  0.58  0.17  0.05  0.79  0.01  0.44  87.3    1.5   0.73  18.3  0.013  0.024 7.069  1.230 0.19 0.38 0.00 0.00
0.35  1.20
```

```
  63 L4  4    2.90   0.180 34.00  0.0  6.52   3.75   0.00  0.53  0.16  0.05  0.74  0.01  0.43  88.5    1.5   0.73  18.3  0.013  0.025 7.064  1.231 0.19 0.38 0.00 0.00
0.35  1.21
  64 L4  4    2.80   0.180 34.04  0.0  6.60   3.60   0.00  0.49  0.15  0.04  0.69  0.01  0.43  89.8    1.5   0.73  18.3  0.013  0.025 7.060  1.231 0.19 0.38 0.00 0.00
0.36  1.21
  65 L4  4    2.70   0.180 34.07  0.0  6.68   3.45   0.00  0.45  0.15  0.04  0.64  0.01  0.43  91.1    1.5   0.73  18.3  0.013  0.025 7.056  1.232 0.19 0.38 0.00 0.00
0.36  1.21
  66 L3  5    2.60   0.180 34.10  0.0  6.75   3.31   0.00  0.41  0.14  0.04  0.59  0.01  0.43  92.3    1.5   0.73  20.8  0.012  0.023 7.053  1.233 0.19 0.38 0.00 0.00
0.36  1.22
  67 L3  5    2.50   0.180 34.13  0.0  6.80   3.18   0.00  0.38  0.13  0.03  0.54  0.01  0.42  93.4    1.5   0.73  20.8  0.012  0.023 7.049  1.233 0.19 0.38 0.00 0.00
0.36  1.22
  68 L3  5    2.40   0.180 34.16  0.0  6.84   3.06   0.00  0.35  0.13  0.03  0.50  0.01  0.42  94.5    1.5   0.73  20.8  0.012  0.023 7.045  1.234 0.19 0.38 0.00 0.00
0.36  1.22
  69 L3  5    2.30   0.180 34.19  0.0  6.87   2.94   0.00  0.32  0.12  0.02  0.47  0.01  0.42  95.4    1.5   0.73  20.8  0.012  0.024 7.043  1.235 0.19 0.38 0.00 0.00
0.36  1.22
  70 L3  5    2.20   0.180 34.21  0.0  6.89   2.83   0.00  0.30  0.12  0.02  0.43  0.01  0.42  96.3    1.5   0.73  20.8  0.012  0.024 7.040  1.235 0.19 0.38 0.00 0.00
0.36  1.22
  71 L3  5    2.10   0.180 34.23  0.0  6.90   2.73   0.00  0.28  0.11  0.01  0.41  0.01  0.42  97.0    1.5   0.73  20.8  0.012  0.024 7.038  1.235 0.19 0.38 0.00 0.00
0.37  1.23

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

  72 L3  5    2.00   0.180 34.25  0.0  6.91   2.64   0.00  0.27  0.11  0.00  0.39  0.00  0.41  97.6    1.5   0.73  20.8  0.012  0.025 7.036  1.236 0.19 0.38 0.00 0.00
0.37  1.23
  73 L3  5    1.90   0.180 34.25  0.0  6.90   2.57   0.00  0.27  0.11  0.00  0.39  0.00  0.41  97.9    1.5   0.73  20.8  0.012  0.025 7.035  1.236 0.19 0.38 0.00 0.00
0.37  1.23
  74 L3  5    1.80   0.180 34.24  0.0  6.88   2.53   0.00  0.30  0.12  0.00  0.42  0.00  0.41  97.8    1.5   0.73  20.8  0.012  0.026 7.036  1.236 0.19 0.38 0.00 0.00
0.37  1.23
  75 L3  5    1.70   0.180 34.20  0.0  6.85   2.53   0.00  0.36  0.12  0.00  0.49  0.01  0.40  97.1    1.5   0.73  20.8  0.012  0.026 7.041  1.235 0.19 0.38 0.00 0.00
0.36  1.22
  76 L3  5    1.60   0.180 34.10  0.0  6.77   2.61   0.00  0.51  0.13  0.00  0.64  0.01  0.40  95.0    1.5   0.73  20.8  0.012  0.026 7.052  1.233 0.19 0.38 0.00 0.00
0.36  1.22
  77 L3  5    1.50   0.180 33.90  0.0  6.61   2.85   0.00  0.81  0.15  0.00  0.96  0.01  0.39  90.6    1.5   0.73  20.8  0.012  0.027 7.076  1.229 0.19 0.38 0.00 0.00
0.35  1.20
        WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE
  78 L3  5    1.40   0.237 33.51  0.0  6.26   3.37   0.00  1.41  0.17  0.01  1.60  0.02  0.38  81.8    1.5   0.73  20.8  0.016  0.028 7.122  1.221 0.19 0.38 0.00 0.00
0.34  1.17
  79 L2  6    1.30   0.237 33.57  0.0  5.88   3.20   0.00  1.26  0.20  0.02  1.47  0.02  0.38  80.9    1.5   1.99  24.1  0.005  0.009 7.115  0.449 0.19 0.14 0.00 0.00
0.34  2.35
  80 L2  6    1.20   0.237 33.60  0.0  5.59   3.09   0.00  1.14  0.21  0.03  1.39  0.02  0.37  80.0    1.5   1.99  24.1  0.005  0.009 7.111  0.449 0.19 0.14 0.00 0.00
0.33  2.36
  81 L2  6    1.10   0.237 33.64  0.0  5.29   2.99   0.00  1.04  0.22  0.04  1.30  0.01  0.37  78.8    1.5   1.99  24.1  0.005  0.009 7.107  0.449 0.19 0.14 0.00 0.00
0.33  2.36
  82 L2  6    1.00   0.237 33.66  0.0  4.95   2.91   0.00  0.93  0.23  0.06  1.22  0.01  0.36  77.2    1.5   1.99  24.1  0.005  0.009 7.104  0.449 0.19 0.14 0.00 0.00
0.33  2.36
  83 L1  7    0.90   0.237 33.68  0.0  4.61   2.87   0.00  0.84  0.24  0.07  1.15  0.02  0.35  75.5    1.5   1.99  34.1  0.003  0.007 7.103  0.449 0.19 0.14 0.00 0.00
0.32  4.73
  84 L1  7    0.80   0.237 33.68  0.0  4.37   2.87   0.00  0.77  0.25  0.08  1.09  0.02  0.35  73.5    1.5   1.99  34.1  0.003  0.007 7.103  0.449 0.19 0.14 0.00 0.00
0.32  4.73
  85 L1  7    0.70   0.237 33.66  0.0  4.19   2.91   0.00  0.71  0.25  0.08  1.05  0.02  0.34  71.0    1.5   1.99  34.1  0.003  0.007 7.105  0.449 0.19 0.14 0.00 0.00
0.31  4.73
  86 L1  7    0.60   0.237 33.62  0.0  4.08   3.03   0.00  0.67  0.26  0.09  1.01  0.02  0.33  67.9    1.5   1.99  34.1  0.003  0.007 7.110  0.449 0.19 0.14 0.00 0.00
0.31  4.71
  87 L1  7    0.50   0.237 33.55  0.0  4.05   3.22   0.00  0.63  0.27  0.09  0.99  0.03  0.32  63.9    1.5   1.99  34.1  0.003  0.007 7.118  0.448 0.19 0.14 0.00 0.00
0.31  4.69
        WASTELOAD # 088 (LGLD4) ENTERS HERE
  88 L1  7    0.40   0.294 33.45  0.0  4.12   3.52   0.00  0.61  0.28  0.09  0.98  0.03  0.31  59.0    1.5   1.99  34.1  0.004  0.008 7.130  0.448 0.19 0.14 0.00 0.00
0.31  4.66
  89 L1  7    0.30   0.294 33.24  0.0  4.20   3.65   0.00  0.57  0.26  0.09  0.92  0.04  0.30  54.8    1.5   1.99  34.1  0.004  0.008 7.155  0.446 0.18 0.14 0.00 0.00
0.30  4.60
  90 L1  7    0.20   0.294 32.94  0.0  4.41   3.89   0.00  0.55  0.23  0.09  0.87  0.04  0.29  49.3    1.5   1.99  34.1  0.004  0.008 7.190  0.444 0.18 0.14 0.00 0.00
0.30  4.52
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  91 L1  7    0.10   0.294 32.53  0.0  4.81   4.28   0.00  0.53  0.20  0.08  0.81  0.05  0.27  42.1    1.5   1.99  34.1  0.004  0.008 7.240  0.441 0.18 0.14 0.00 0.00
0.30  4.40
  92 L1  7    0.00   0.294 31.97  0.0  5.47   4.88   0.00  0.53  0.16  0.06  0.75  0.06  0.25  32.9    1.5   1.99  34.1  0.004  0.008 7.309  0.437 0.17 0.13 0.00 0.00
0.29  4.25

FINAL REPORT    Cross Bayou Canal                              LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  1    Cross Bayou Canal 1                            Baseline Simulation with Algal Dynamics

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

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

    1  HDWTR     0.12333   29.80     0.00  2688.00  2688.00   6.50  34.41  39.00  39.00  39.00   1.52   0.10   0.04   0.50  43.00     0.00    0.00
    1  WSTLD     0.00001   30.00     0.00     0.00     0.00   2.00 103.50   0.00 103.50   0.00   7.50  15.00   2.00   0.34  10.00     0.00    0.00

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

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

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

  TOT                                              2.16                            23020.96   27972.00
  AVG                                     0.0096                      0.82   15.54                         12.79

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

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

   1    9.100  7.50  1.18  0.16  0.31  0.00  0.00  0.00  0.00  0.00  1.93  1.93  1.93  0.12  0.78  0.26  0.00  0.00  0.06  1.56  0.00  1.05  0.00  0.00  0.00  0.00
   2    9.000  7.48  1.18  0.16  0.31  0.00  0.00  0.00  0.00  0.00  1.95  1.95  1.95  0.12  0.78  0.26  0.00  0.00  0.06  1.56  0.00  1.09  0.00  0.00  0.00  0.00
   3    8.900  7.45  1.19  0.16  0.31  0.00  0.00  0.00  0.00  0.00  1.98  1.98  1.98  0.12  0.79  0.26  0.00  0.00  0.06  1.57  0.00  1.13  0.00  0.00  0.00  0.00
   4    8.800  7.42  1.19  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.01  2.01  2.01  0.12  0.79  0.26  0.00  0.00  0.06  1.58  0.00  1.16  0.00  0.00  0.00  0.00
   5    8.700  7.40  1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.03  2.03  2.03  0.12  0.79  0.26  0.00  0.00  0.06  1.59  0.00  1.18  0.00  0.00  0.00  0.00
   6    8.600  7.37  1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.06  2.06  2.06  0.13  0.80  0.26  0.00  0.00  0.06  1.59  0.00  1.20  0.00  0.00  0.00  0.00
   7    8.500  7.35  1.20  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.08  2.08  2.08  0.13  0.80  0.26  0.00  0.00  0.06  1.60  0.00  1.21  0.00  0.00  0.00  0.00
   8    8.400  7.33  1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.10  2.10  2.10  0.13  0.80  0.27  0.00  0.00  0.06  1.61  0.00  1.23  0.00  0.00  0.00  0.00
   9    8.300  7.31  1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.12  2.12  2.12  0.13  0.81  0.27  0.00  0.00  0.06  1.61  0.00  1.23  0.00  0.00  0.00  0.00
  10    8.200  7.29  1.21  0.17  0.32  0.00  0.00  0.00  0.00  0.00  2.14  2.14  2.14  0.13  0.81  0.27  0.00  0.00  0.06  1.62  0.00  1.23  0.00  0.00  0.00  0.00
  11    8.100  7.28  1.22  0.18  0.32  0.00  0.00  0.00  0.00  0.00  2.16  2.16  2.16  0.13  0.81  0.27  0.00  0.00  0.06  1.62  0.00  1.23  0.00  0.00  0.00  0.00
  12    8.000  7.26  1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  2.18  2.18  2.18  0.13  0.81  0.27  0.00  0.00  0.06  1.63  0.00  1.22  0.00  0.00  0.00  0.00
  13    7.900  7.25  1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  2.19  2.19  2.19  0.13  0.82  0.28  0.00  0.00  0.06  1.63  0.00  1.21  0.00  0.00  0.00  0.00
  14    7.800  7.23  1.22  0.18  0.33  0.00  0.00  0.00  0.00  0.00  2.21  2.21  2.21  0.13  0.82  0.28  0.00  0.00  0.06  1.64  0.00  1.19  0.00  0.00  0.00  0.00
  15    7.700  7.22  1.23  0.18  0.33  0.00  0.00  0.00  0.00  0.00  2.23  2.23  2.23  0.13  0.82  0.28  0.00  0.00  0.06  1.64  0.00  1.17  0.00  0.00  0.00  0.00
```

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 7.600 | 7.21 | 1.23 | 0.18 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.24 | 2.24 | 2.24 | 0.13 | 0.82 | 0.29 | 0.00 | 0.00 | 0.06 | 1.65 | 0.00 | 1.15 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 17 | 7.500 | 7.19 | 1.23 | 0.18 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.25 | 2.25 | 2.25 | 0.13 | 0.83 | 0.29 | 0.00 | 0.00 | 0.06 | 1.65 | 0.00 | 1.12 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 18 | 7.400 | 7.18 | 1.23 | 0.18 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.27 | 2.27 | 2.27 | 0.13 | 0.83 | 0.29 | 0.00 | 0.00 | 0.06 | 1.65 | 0.00 | 1.08 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| AVG 20 DEG C RATE | | | 0.97 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | | | 0.10 | 0.03 | 0.12 | 0.00 | 0.02 | 0.05 | 0.07 | 0.00 | | | 0.00 | 0.00 | 0.00 | | |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.100 | 30.41 | 0.00 | 2687.78 | 0.00 | 5.51 | 30.35 | 0.00 | 35.09 | 0.00 | 0.93 | 0.11 | 0.04 | 1.08 | 1.31 | 1.46 | 0.15 | 0.50 | 0.64 | 0.20 | 0.70 | 44.4 | 0.0 | 0. 0.00 |
| 2 | 9.000 | 30.64 | 0.00 | 2687.78 | 0.00 | 5.18 | 28.83 | 0.00 | 33.64 | 0.00 | 0.85 | 0.11 | 0.04 | 1.01 | 1.23 | 1.39 | 0.13 | 0.50 | 0.62 | 0.18 | 0.68 | 45.0 | 0.0 | 0. 0.00 |
| 3 | 8.900 | 30.86 | 0.00 | 2687.78 | 0.00 | 4.91 | 27.38 | 0.00 | 32.25 | 0.00 | 0.78 | 0.12 | 0.04 | 0.93 | 1.16 | 1.32 | 0.11 | 0.50 | 0.61 | 0.17 | 0.66 | 45.6 | 0.0 | 0. 0.00 |
| 4 | 8.800 | 31.06 | 0.00 | 2687.78 | 0.00 | 4.67 | 25.99 | 0.00 | 30.93 | 0.00 | 0.71 | 0.12 | 0.04 | 0.87 | 1.10 | 1.26 | 0.09 | 0.50 | 0.59 | 0.15 | 0.65 | 46.2 | 0.0 | 0. 0.00 |
| 5 | 8.700 | 31.26 | 0.00 | 2687.78 | 0.00 | 4.48 | 24.67 | 0.00 | 29.68 | 0.00 | 0.65 | 0.12 | 0.04 | 0.81 | 1.05 | 1.21 | 0.08 | 0.50 | 0.58 | 0.14 | 0.64 | 46.9 | 0.0 | 0. 0.00 |
| 6 | 8.600 | 31.44 | 0.00 | 2687.78 | 0.00 | 4.32 | 23.42 | 0.00 | 28.49 | 0.00 | 0.59 | 0.11 | 0.04 | 0.75 | 1.00 | 1.15 | 0.07 | 0.49 | 0.56 | 0.13 | 0.63 | 47.5 | 0.0 | 0. 0.00 |
| 7 | 8.500 | 31.61 | 0.00 | 2687.78 | 0.00 | 4.19 | 22.22 | 0.00 | 27.36 | 0.00 | 0.54 | 0.11 | 0.04 | 0.70 | 0.95 | 1.11 | 0.06 | 0.49 | 0.55 | 0.12 | 0.62 | 48.1 | 0.0 | 0. 0.00 |
| 8 | 8.400 | 31.78 | 0.00 | 2687.78 | 0.00 | 4.09 | 21.08 | 0.00 | 26.28 | 0.00 | 0.49 | 0.11 | 0.04 | 0.65 | 0.91 | 1.06 | 0.05 | 0.49 | 0.54 | 0.11 | 0.61 | 48.7 | 0.0 | 0. 0.00 |
| 9 | 8.300 | 31.93 | 0.00 | 2687.78 | 0.00 | 4.01 | 20.00 | 0.00 | 25.27 | 0.00 | 0.45 | 0.11 | 0.04 | 0.60 | 0.87 | 1.02 | 0.04 | 0.49 | 0.54 | 0.11 | 0.60 | 49.3 | 0.0 | 0. 0.00 |
| 10 | 8.200 | 32.08 | 0.00 | 2687.78 | 0.00 | 3.95 | 18.96 | 0.00 | 24.30 | 0.00 | 0.41 | 0.11 | 0.04 | 0.56 | 0.84 | 0.98 | 0.04 | 0.49 | 0.53 | 0.10 | 0.59 | 50.0 | 0.0 | 0. 0.00 |
| 11 | 8.100 | 32.22 | 0.00 | 2687.78 | 0.00 | 3.90 | 17.99 | 0.00 | 23.38 | 0.00 | 0.38 | 0.10 | 0.04 | 0.52 | 0.81 | 0.95 | 0.03 | 0.49 | 0.52 | 0.10 | 0.59 | 50.6 | 0.0 | 0. 0.00 |
| 12 | 8.000 | 32.35 | 0.00 | 2687.78 | 0.00 | 3.87 | 17.06 | 0.00 | 22.52 | 0.00 | 0.34 | 0.10 | 0.04 | 0.48 | 0.78 | 0.92 | 0.03 | 0.49 | 0.52 | 0.09 | 0.58 | 51.1 | 0.0 | 0. 0.00 |
| 13 | 7.900 | 32.48 | 0.00 | 2687.78 | 0.00 | 3.85 | 16.18 | 0.00 | 21.70 | 0.00 | 0.31 | 0.10 | 0.04 | 0.45 | 0.75 | 0.89 | 0.02 | 0.49 | 0.51 | 0.09 | 0.58 | 51.7 | 0.0 | 0. 0.00 |
| 14 | 7.800 | 32.59 | 0.00 | 2687.78 | 0.00 | 3.85 | 15.34 | 0.00 | 20.92 | 0.00 | 0.29 | 0.09 | 0.04 | 0.42 | 0.73 | 0.86 | 0.02 | 0.49 | 0.51 | 0.09 | 0.58 | 52.3 | 0.0 | 0. 0.00 |
| 15 | 7.700 | 32.71 | 0.00 | 2687.78 | 0.00 | 3.85 | 14.56 | 0.00 | 20.20 | 0.00 | 0.26 | 0.09 | 0.04 | 0.39 | 0.71 | 0.84 | 0.02 | 0.49 | 0.50 | 0.09 | 0.57 | 52.8 | 0.0 | 0. 0.00 |
| 16 | 7.600 | 32.81 | 0.00 | 2687.78 | 0.00 | 3.87 | 13.82 | 0.00 | 19.52 | 0.00 | 0.24 | 0.08 | 0.04 | 0.36 | 0.69 | 0.82 | 0.02 | 0.48 | 0.50 | 0.09 | 0.57 | 53.3 | 0.0 | 0. 0.00 |
| 17 | 7.500 | 32.91 | 0.00 | 2687.78 | 0.00 | 3.91 | 13.14 | 0.00 | 18.89 | 0.00 | 0.22 | 0.08 | 0.04 | 0.34 | 0.68 | 0.80 | 0.01 | 0.48 | 0.50 | 0.08 | 0.57 | 53.9 | 0.0 | 0. 0.00 |
| 18 | 7.400 | 33.00 | 0.00 | 2687.78 | 0.00 | 3.98 | 12.52 | 0.00 | 18.33 | 0.00 | 0.20 | 0.08 | 0.04 | 0.31 | 0.67 | 0.78 | 0.01 | 0.48 | 0.49 | 0.08 | 0.56 | 54.4 | 0.0 | 0. 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE frac | SECCHI DEPTH m | PHYT N PREF | PHYT LIT LIM | PHYT N LIM | PHYT P LIM | PHYT N&P LIM | PHYT TOT LIM | PHYT GROW 1/da | PHYT RESP 1/da | PHYT DEATH 1/da | PHYT SETT 1/da | PHYT P/R RATIO | PHYTO µg/L | PERIP g/m² | PERI N PREF | PERI LIT LIM | PERI N LIM | PERI P LIM | PERI N&P LIM | PERI SPC LIM | PERI TOT LIM | PERI GROW 1/da | PERI RESP 1/da | PERI DEATH 1/da | PERI P/R RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.100 | 0.00 | 0.18 | 0.27 | 0.14 | 0.34 | 0.93 | 0.49 | 0.07 | 0.229 | 0.065 | 0.032 | 0.031 | 2.8 | 44.4 | 0.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 2 | 9.000 | 0.00 | 0.18 | 0.27 | 0.14 | 0.34 | 0.93 | 0.50 | 0.07 | 0.233 | 0.065 | 0.033 | 0.031 | 2.9 | 45.0 | 0.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 3 | 8.900 | 0.00 | 0.18 | 0.27 | 0.14 | 0.34 | 0.93 | 0.50 | 0.07 | 0.237 | 0.066 | 0.033 | 0.031 | 2.9 | 45.6 | 0.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 8.800 | 0.00 | 0.18 | 0.27 | 0.14 | 0.35 | 0.93 | 0.50 | 0.07 | 0.239 | 0.066 | 0.033 | 0.032 | 2.9 | 46.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 5 | 8.700 | 0.00 | 0.18 | 0.27 | 0.14 | 0.35 | 0.93 | 0.50 | 0.07 | 0.241 | 0.067 | 0.034 | 0.032 | 2.9 | 46.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 6 | 8.600 | 0.00 | 0.18 | 0.28 | 0.14 | 0.35 | 0.93 | 0.50 | 0.07 | 0.242 | 0.068 | 0.034 | 0.032 | 2.9 | 47.5 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 7 | 8.500 | 0.00 | 0.18 | 0.28 | 0.14 | 0.34 | 0.93 | 0.50 | 0.07 | 0.243 | 0.068 | 0.034 | 0.032 | 2.9 | 48.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 8 | 8.400 | 0.00 | 0.18 | 0.28 | 0.14 | 0.34 | 0.92 | 0.50 | 0.07 | 0.243 | 0.069 | 0.034 | 0.032 | 2.8 | 48.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 9 | 8.300 | 0.00 | 0.18 | 0.29 | 0.14 | 0.34 | 0.92 | 0.49 | 0.07 | 0.242 | 0.069 | 0.035 | 0.032 | 2.8 | 49.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 10 | 8.200 | 0.00 | 0.18 | 0.29 | 0.14 | 0.33 | 0.92 | 0.49 | 0.07 | 0.241 | 0.070 | 0.035 | 0.032 | 2.8 | 50.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 11 | 8.100 | 0.00 | 0.18 | 0.29 | 0.14 | 0.33 | 0.92 | 0.48 | 0.07 | 0.240 | 0.070 | 0.035 | 0.032 | 2.7 | 50.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 12 | 8.000 | 0.00 | 0.18 | 0.30 | 0.14 | 0.32 | 0.92 | 0.48 | 0.07 | 0.238 | 0.071 | 0.035 | 0.033 | 2.7 | 51.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 13 | 7.900 | 0.00 | 0.18 | 0.30 | 0.14 | 0.31 | 0.92 | 0.47 | 0.07 | 0.235 | 0.071 | 0.035 | 0.033 | 2.6 | 51.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 14 | 7.800 | 0.00 | 0.18 | 0.30 | 0.14 | 0.31 | 0.92 | 0.46 | 0.07 | 0.232 | 0.071 | 0.036 | 0.033 | 2.6 | 52.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 15 | 7.700 | 0.00 | 0.18 | 0.31 | 0.14 | 0.30 | 0.92 | 0.45 | 0.06 | 0.228 | 0.072 | 0.036 | 0.033 | 2.5 | 52.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 16 | 7.600 | 0.00 | 0.18 | 0.31 | 0.14 | 0.29 | 0.92 | 0.44 | 0.06 | 0.224 | 0.072 | 0.036 | 0.033 | 2.5 | 53.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 17 | 7.500 | 0.00 | 0.18 | 0.31 | 0.14 | 0.28 | 0.92 | 0.43 | 0.06 | 0.220 | 0.072 | 0.036 | 0.033 | 2.4 | 53.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 18 | 7.400 | 0.00 | 0.18 | 0.32 | 0.14 | 0.27 | 0.92 | 0.42 | 0.06 | 0.214 | 0.073 | 0.036 | 0.033 | 2.4 | 54.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | | |

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

FINAL REPORT Cross Bayou Canal LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 2 Cross Bayou Canal 2 Baseline Simulation with Algal Dynamics

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

| ELEM NO. | TYPE | FLOW | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | PO4-P mg/L | CHL A µg/L | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | UPR RCH | 0.12334 | 33.00 | 0.00 | 2687.78 | 0.00 | 3.98 | 12.52 | 0.00 | 18.33 | 0.00 | 0.20 | 0.08 | 0.04 | 0.48 | 54.41 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.40 | 7.30 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.25 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 1789.86 | 0.009 | 1.500 | 0.014 |
| 20 | 7.30 | 7.20 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.33 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 1901.40 | 0.010 | 1.500 | 0.014 |
| 21 | 7.20 | 7.10 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.42 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2012.94 | 0.010 | 1.500 | 0.014 |
| 22 | 7.10 | 7.00 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.50 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2124.48 | 0.011 | 1.500 | 0.015 |
| 23 | 7.00 | 6.90 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.59 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2236.02 | 0.011 | 1.500 | 0.015 |
| 24 | 6.90 | 6.80 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.67 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2347.56 | 0.012 | 1.500 | 0.015 |
| 25 | 6.80 | 6.70 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.76 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2459.10 | 0.013 | 1.500 | 0.016 |
| 26 | 6.70 | 6.60 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.84 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2570.64 | 0.013 | 1.500 | 0.016 |
| 27 | 6.60 | 6.50 | 0.12334 | 0.0 | 0.01360 | 0.09 | 2.93 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2682.18 | 0.014 | 1.500 | 0.017 |
| 28 | 6.50 | 6.40 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.01 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2793.72 | 0.014 | 1.500 | 0.017 |
| 29 | 6.40 | 6.30 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.10 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 2905.26 | 0.015 | 1.500 | 0.017 |
| 30 | 6.30 | 6.20 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.18 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3016.80 | 0.015 | 1.500 | 0.018 |
| 31 | 6.20 | 6.10 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.27 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3128.34 | 0.016 | 1.500 | 0.018 |
| 32 | 6.10 | 6.00 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.35 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3239.88 | 0.017 | 1.500 | 0.019 |
| 33 | 6.00 | 5.90 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.44 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3351.42 | 0.017 | 1.500 | 0.019 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | 5.90 | 5.80 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.52 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3462.96 | 0.018 | 1.500 | 0.020 |
| 35 | 5.80 | 5.70 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.61 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3574.50 | 0.018 | 1.500 | 0.020 |
| 36 | 5.70 | 5.60 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.69 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3686.04 | 0.019 | 1.500 | 0.021 |
| 37 | 5.60 | 5.50 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.78 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3797.58 | 0.019 | 1.500 | 0.021 |
| 38 | 5.50 | 5.40 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.86 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 3909.12 | 0.020 | 1.500 | 0.022 |
| 39 | 5.40 | 5.30 | 0.12334 | 0.0 | 0.01360 | 0.09 | 3.95 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 4020.66 | 0.021 | 1.500 | 0.022 |
| 40 | 5.30 | 5.20 | 0.12334 | 0.0 | 0.01360 | 0.09 | 4.03 | 0.49 | 18.59 | 907.19 | 1859.00 | 9.07 | 4132.20 | 0.021 | 1.500 | 0.023 |
| TOT | | | | | | 1.87 | | | | 19958.22 | 40898.00 | | | | | |
| AVG | | | | | 0.0136 | | | 0.49 | 18.59 | | | 9.07 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.300 | 7.17 | 2.23 | 0.18 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.28 | 2.28 | 2.28 | 0.13 | 1.40 | 0.30 | 0.00 | 0.00 | 0.06 | 2.80 | 0.00 | 2.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20 | 7.200 | 7.16 | 2.25 | 0.18 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.30 | 2.30 | 2.30 | 0.13 | 1.40 | 0.30 | 0.00 | 0.00 | 0.06 | 2.80 | 0.00 | 2.10 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21 | 7.100 | 7.15 | 2.26 | 0.18 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.31 | 2.31 | 2.31 | 0.13 | 1.40 | 0.31 | 0.00 | 0.00 | 0.07 | 2.81 | 0.00 | 1.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22 | 7.000 | 7.14 | 2.28 | 0.18 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.32 | 2.32 | 2.32 | 0.13 | 1.41 | 0.31 | 0.00 | 0.00 | 0.07 | 2.82 | 0.00 | 1.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23 | 6.900 | 7.13 | 2.29 | 0.19 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.34 | 2.34 | 2.34 | 0.13 | 1.41 | 0.31 | 0.00 | 0.00 | 0.07 | 2.82 | 0.00 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24 | 6.800 | 7.12 | 2.31 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 2.35 | 2.35 | 0.13 | 1.41 | 0.32 | 0.00 | 0.00 | 0.07 | 2.83 | 0.00 | 1.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25 | 6.700 | 7.11 | 2.33 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.36 | 2.36 | 2.36 | 0.13 | 1.42 | 0.32 | 0.00 | 0.00 | 0.07 | 2.83 | 0.00 | 1.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26 | 6.600 | 7.10 | 2.35 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.37 | 2.37 | 2.37 | 0.13 | 1.42 | 0.32 | 0.00 | 0.00 | 0.07 | 2.84 | 0.00 | 1.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 27 | 6.500 | 7.09 | 2.36 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.38 | 2.38 | 2.38 | 0.13 | 1.42 | 0.32 | 0.00 | 0.00 | 0.07 | 2.84 | 0.00 | 1.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | 6.400 | 7.09 | 2.38 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.39 | 2.39 | 2.39 | 0.13 | 1.42 | 0.33 | 0.00 | 0.00 | 0.07 | 2.84 | 0.00 | 1.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 29 | 6.300 | 7.08 | 2.40 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 2.40 | 2.40 | 0.13 | 1.42 | 0.33 | 0.00 | 0.00 | 0.07 | 2.85 | 0.00 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30 | 6.200 | 7.07 | 2.42 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.40 | 2.40 | 2.40 | 0.13 | 1.43 | 0.33 | 0.00 | 0.00 | 0.07 | 2.85 | 0.00 | 0.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31 | 6.100 | 7.07 | 2.44 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.41 | 2.41 | 2.41 | 0.13 | 1.43 | 0.33 | 0.00 | 0.00 | 0.07 | 2.86 | 0.00 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 32 | 6.000 | 7.06 | 2.46 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.42 | 2.42 | 2.42 | 0.13 | 1.43 | 0.33 | 0.00 | 0.00 | 0.07 | 2.86 | 0.00 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| 33 | 5.900 | 7.06 | 2.48 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.43 | 2.43 | 2.43 | 0.13 | 1.43 | 0.33 | 0.00 | 0.00 | 0.07 | 2.86 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34 | 5.800 | 7.05 | 2.50 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.43 | 2.43 | 2.43 | 0.13 | 1.43 | 0.34 | 0.00 | 0.00 | 0.07 | 2.86 | 0.00 | 0.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35 | 5.700 | 7.05 | 2.52 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.44 | 2.44 | 0.13 | 1.43 | 0.34 | 0.00 | 0.00 | 0.07 | 2.87 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 36 | 5.600 | 7.04 | 2.54 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.44 | 2.44 | 2.44 | 0.13 | 1.43 | 0.34 | 0.00 | 0.00 | 0.07 | 2.87 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37 | 5.500 | 7.04 | 2.57 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.45 | 2.45 | 2.45 | 0.13 | 1.44 | 0.34 | 0.00 | 0.00 | 0.07 | 2.87 | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 38 | 5.400 | 7.04 | 2.59 | 0.19 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.45 | 2.45 | 2.45 | 0.13 | 1.44 | 0.34 | 0.00 | 0.00 | 0.07 | 2.87 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 39 | 5.300 | 7.03 | 2.61 | 0.19 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.46 | 2.46 | 2.46 | 0.13 | 1.44 | 0.34 | 0.00 | 0.00 | 0.07 | 2.88 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40 | 5.200 | 7.03 | 2.63 | 0.19 | 0.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.46 | 2.46 | 2.46 | 0.13 | 1.44 | 0.33 | 0.00 | 0.00 | 0.07 | 2.88 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 1.88 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | | | 0.10 | 0.05 | 0.12 | 0.00 | 0.02 | 0.05 | 0.09 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL | NCM | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.300 | 33.10 | 0.00 | 2687.78 | 0.00 | 4.12 | 11.90 | 0.00 | 17.78 | 0.00 | 0.18 | 0.07 | 0.03 | 0.29 | 0.65 | 0.76 | 0.01 | 0.48 | 0.49 | 0.08 | 0.56 | 55.1 | 0.0 | 0. | 0.00 | |
| 20 | 7.200 | 33.20 | 0.00 | 2687.78 | 0.00 | 4.25 | 11.25 | 0.00 | 17.20 | 0.00 | 0.17 | 0.07 | 0.03 | 0.26 | 0.64 | 0.74 | 0.01 | 0.48 | 0.49 | 0.08 | 0.56 | 55.8 | 0.0 | 0. | 0.00 | |
| 21 | 7.100 | 33.30 | 0.00 | 2687.78 | 0.00 | 4.36 | 10.63 | 0.00 | 16.65 | 0.00 | 0.15 | 0.06 | 0.03 | 0.24 | 0.63 | 0.72 | 0.01 | 0.48 | 0.48 | 0.08 | 0.56 | 56.4 | 0.0 | 0. | 0.00 | |
| 22 | 7.000 | 33.39 | 0.00 | 2687.78 | 0.00 | 4.45 | 10.04 | 0.00 | 16.12 | 0.00 | 0.14 | 0.06 | 0.03 | 0.22 | 0.62 | 0.70 | 0.01 | 0.48 | 0.48 | 0.08 | 0.56 | 56.9 | 0.0 | 0. | 0.00 | |
| 23 | 6.900 | 33.48 | 0.00 | 2687.78 | 0.00 | 4.53 | 9.49 | 0.00 | 15.62 | 0.00 | 0.12 | 0.05 | 0.02 | 0.20 | 0.61 | 0.69 | 0.01 | 0.47 | 0.48 | 0.08 | 0.56 | 57.4 | 0.0 | 0. | 0.00 | |
| 24 | 6.800 | 33.55 | 0.00 | 2687.78 | 0.00 | 4.59 | 8.97 | 0.00 | 15.14 | 0.00 | 0.11 | 0.05 | 0.02 | 0.18 | 0.60 | 0.67 | 0.00 | 0.47 | 0.48 | 0.08 | 0.55 | 57.8 | 0.0 | 0. | 0.00 | |
| 25 | 6.700 | 33.63 | 0.00 | 2687.78 | 0.00 | 4.64 | 8.47 | 0.00 | 14.69 | 0.00 | 0.10 | 0.04 | 0.02 | 0.16 | 0.59 | 0.66 | 0.00 | 0.47 | 0.48 | 0.08 | 0.55 | 58.2 | 0.0 | 0. | 0.00 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 6.600 | 33.70 | 0.00 | 2687.78 | 0.00 | 4.68 | 8.01 | 0.00 | 14.25 | 0.00 | 0.09 | 0.04 | 0.02 | 0.15 | 0.59 | 0.64 | 0.00 | 0.47 | 0.48 | 0.08 | 0.55 | 58.4 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 6.500 | 33.76 | 0.00 | 2687.78 | 0.00 | 4.72 | 7.57 | 0.00 | 13.83 | 0.00 | 0.08 | 0.04 | 0.02 | 0.14 | 0.58 | 0.63 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 6.400 | 33.82 | 0.00 | 2687.78 | 0.00 | 4.74 | 7.15 | 0.00 | 13.43 | 0.00 | 0.08 | 0.03 | 0.01 | 0.12 | 0.57 | 0.62 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.7 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 6.300 | 33.88 | 0.00 | 2687.78 | 0.00 | 4.76 | 6.76 | 0.00 | 13.04 | 0.00 | 0.07 | 0.03 | 0.01 | 0.11 | 0.57 | 0.61 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 6.200 | 33.93 | 0.00 | 2687.78 | 0.00 | 4.78 | 6.39 | 0.00 | 12.67 | 0.00 | 0.06 | 0.03 | 0.01 | 0.10 | 0.56 | 0.60 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 6.100 | 33.98 | 0.00 | 2687.78 | 0.00 | 4.79 | 6.04 | 0.00 | 12.32 | 0.00 | 0.06 | 0.03 | 0.01 | 0.09 | 0.56 | 0.59 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 6.000 | 34.03 | 0.00 | 2687.79 | 0.00 | 4.80 | 5.71 | 0.00 | 11.98 | 0.00 | 0.05 | 0.03 | 0.01 | 0.09 | 0.55 | 0.59 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.7 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | 5.900 | 34.08 | 0.00 | 2687.80 | 0.00 | 4.80 | 5.40 | 0.00 | 11.66 | 0.00 | 0.05 | 0.02 | 0.01 | 0.08 | 0.55 | 0.58 | 0.00 | 0.47 | 0.47 | 0.08 | 0.55 | 58.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | 5.800 | 34.12 | 0.00 | 2687.83 | 0.00 | 4.81 | 5.11 | 0.00 | 11.35 | 0.00 | 0.04 | 0.02 | 0.01 | 0.07 | 0.54 | 0.57 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 58.4 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | 5.700 | 34.15 | 0.00 | 2687.88 | 0.00 | 4.81 | 4.83 | 0.00 | 11.05 | 0.00 | 0.04 | 0.02 | 0.01 | 0.07 | 0.54 | 0.56 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 58.2 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | 5.600 | 34.19 | 0.00 | 2687.98 | 0.00 | 4.81 | 4.57 | 0.00 | 10.77 | 0.00 | 0.04 | 0.02 | 0.01 | 0.06 | 0.53 | 0.56 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 58.0 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | 5.500 | 34.22 | 0.00 | 2688.16 | 0.00 | 4.79 | 4.33 | 0.00 | 10.50 | 0.00 | 0.04 | 0.02 | 0.00 | 0.06 | 0.53 | 0.55 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 57.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | 5.400 | 34.25 | 0.00 | 2688.51 | 0.00 | 4.74 | 4.10 | 0.00 | 10.25 | 0.00 | 0.03 | 0.02 | 0.00 | 0.06 | 0.52 | 0.55 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 57.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | 5.300 | 34.28 | 0.00 | 2689.19 | 0.00 | 4.62 | 3.89 | 0.00 | 10.02 | 0.00 | 0.03 | 0.02 | 0.00 | 0.06 | 0.52 | 0.55 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 57.4 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 5.200 | 34.31 | 0.00 | 2690.47 | 0.00 | 4.33 | 3.70 | 0.00 | 9.82 | 0.00 | 0.04 | 0.02 | 0.00 | 0.06 | 0.52 | 0.55 | 0.00 | 0.47 | 0.47 | 0.08 | 0.54 | 57.2 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 19 | 7.300 | 0.00 | 0.17 | 0.32 | 0.23 | 0.26 | 0.92 | 0.40 | 0.09 | 0.342 | 0.073 | 0.037 | 0.056 | 3.7 | 55.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 | 7.200 | 0.00 | 0.17 | 0.32 | 0.23 | 0.24 | 0.92 | 0.38 | 0.09 | 0.327 | 0.073 | 0.037 | 0.056 | 3.6 | 55.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 21 | 7.100 | 0.00 | 0.17 | 0.32 | 0.23 | 0.23 | 0.92 | 0.37 | 0.08 | 0.312 | 0.074 | 0.037 | 0.056 | 3.4 | 56.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 22 | 7.000 | 0.00 | 0.17 | 0.32 | 0.23 | 0.21 | 0.92 | 0.35 | 0.08 | 0.297 | 0.074 | 0.037 | 0.056 | 3.2 | 56.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 23 | 6.900 | 0.00 | 0.17 | 0.32 | 0.23 | 0.20 | 0.92 | 0.33 | 0.08 | 0.282 | 0.074 | 0.037 | 0.056 | 3.0 | 57.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 24 | 6.800 | 0.00 | 0.17 | 0.31 | 0.23 | 0.19 | 0.92 | 0.31 | 0.07 | 0.267 | 0.075 | 0.037 | 0.057 | 2.9 | 57.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 25 | 6.700 | 0.00 | 0.17 | 0.31 | 0.23 | 0.17 | 0.92 | 0.29 | 0.07 | 0.252 | 0.075 | 0.037 | 0.057 | 2.7 | 58.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 26 | 6.600 | 0.00 | 0.17 | 0.31 | 0.23 | 0.16 | 0.92 | 0.27 | 0.06 | 0.237 | 0.075 | 0.038 | 0.057 | 2.5 | 58.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 27 | 6.500 | 0.00 | 0.17 | 0.30 | 0.23 | 0.15 | 0.92 | 0.26 | 0.06 | 0.223 | 0.075 | 0.038 | 0.057 | 2.4 | 58.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 28 | 6.400 | 0.00 | 0.17 | 0.30 | 0.23 | 0.14 | 0.92 | 0.24 | 0.06 | 0.209 | 0.075 | 0.038 | 0.057 | 2.2 | 58.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 29 | 6.300 | 0.00 | 0.17 | 0.29 | 0.23 | 0.13 | 0.92 | 0.23 | 0.05 | 0.197 | 0.076 | 0.038 | 0.057 | 2.1 | 58.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 30 | 6.200 | 0.00 | 0.17 | 0.28 | 0.23 | 0.12 | 0.92 | 0.21 | 0.05 | 0.185 | 0.076 | 0.038 | 0.057 | 2.0 | 58.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 31 | 6.100 | 0.00 | 0.17 | 0.28 | 0.23 | 0.11 | 0.92 | 0.20 | 0.05 | 0.174 | 0.076 | 0.038 | 0.057 | 1.8 | 58.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 32 | 6.000 | 0.00 | 0.17 | 0.27 | 0.23 | 0.10 | 0.92 | 0.19 | 0.04 | 0.164 | 0.076 | 0.038 | 0.057 | 1.7 | 58.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |

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   33    5.900   0.00   0.17    0.26 0.23 0.10 0.92 0.18 0.04  0.155  0.076  0.038  0.057   1.6   58.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   34    5.800   0.00   0.17    0.24 0.23 0.09 0.92 0.17 0.04  0.147  0.076  0.038  0.057   1.5   58.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   35    5.700   0.00   0.17    0.23 0.23 0.09 0.92 0.16 0.04  0.139  0.077  0.038  0.057   1.5   58.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   36    5.600   0.00   0.17    0.22 0.23 0.08 0.92 0.15 0.03  0.133  0.077  0.038  0.057   1.4   58.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   37    5.500   0.00   0.17    0.20 0.23 0.08 0.92 0.14 0.03  0.127  0.077  0.038  0.057   1.3   57.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   38    5.400   0.00   0.17    0.18 0.23 0.07 0.92 0.14 0.03  0.123  0.077  0.038  0.057   1.3   57.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   39    5.300   0.00   0.17    0.15 0.23 0.07 0.92 0.13 0.03  0.120  0.077  0.039  0.058   1.2   57.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   40    5.200   0.00   0.17    0.12 0.23 0.07 0.92 0.13 0.03  0.119  0.077  0.039  0.058   1.2   57.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                     0.000  0.000  0.000

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

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

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

   41  UPR RCH   0.12334   34.31     0.00  2690.47     0.00   4.33   3.70   0.00   9.82   0.00   0.04   0.02   0.00   0.47  57.25     0.00    0.00
   47  WSTLD     0.05700   30.00     0.00  3490.00  3490.00   6.50  19.00   0.00  19.00   0.00   7.50   0.86   0.04   0.51  75.00     0.00    0.00

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

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

  TOT                                                0.56                            6300.00   12600.00
  AVG                                       0.0144                      0.50   18.00                        9.00

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

  41    5.100  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.39  7.39  7.39  0.13  1.40  0.32  0.00  0.00  0.07  2.81  0.00  0.22  0.00  0.00  0.00  0.00
  42    5.000  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.40  7.40  7.40  0.13  1.40  0.30  0.00  0.00  0.07  2.81  0.00  0.34  0.00  0.00  0.00  0.00
  43    4.900  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.39  7.39  7.39  0.13  1.40  0.29  0.00  0.00  0.07  2.81  0.00  0.61  0.00  0.00  0.00  0.00
  44    4.800  7.03   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.36  7.36  7.36  0.13  1.40  0.27  0.00  0.00  0.07  2.80  0.00  1.13  0.00  0.00  0.00  0.00
  45    4.700  7.05   1.81  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.30  7.30  7.30  0.13  1.40  0.27  0.00  0.00  0.07  2.80  0.00  2.03  0.00  0.00  0.00  0.00
  46    4.600  7.08   1.80  0.19  0.56  0.00  0.00  0.00  0.00  0.00  7.17  7.17  7.17  0.13  1.39  0.27  0.00  0.00  0.07  2.78  0.00  3.27  0.00  0.00  0.00  0.00
  47    4.500  7.16   1.78  0.18  0.55  0.00  0.00  0.00  0.00  0.00  6.90  6.90  6.90  0.13  1.37  0.28  0.00  0.00  0.06  2.74  0.00  4.63  0.00  0.00  0.00  0.00

 AVG 20 DEG C RATE    1.40  0.10  0.06  0.00  0.00  0.00  0.00  0.00  3.00              0.10  0.14  0.12  0.00  0.02  0.05  0.29  0.00              0.00  0.00  0.00
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 *   g/m²/d            **   mg/L/day

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

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

  41    5.100  34.32  0.00  2692.93     0.00   3.68   3.55   0.00   9.66   0.00   0.05   0.02   0.00   0.07   0.53   0.56   0.00   0.46   0.47   0.08   0.54   57.2
0.0       0.    0.00
  42    5.000  34.33  0.00  2697.65     0.00   3.13   3.44   0.00   9.56   0.00   0.07   0.03   0.00   0.10   0.56   0.58   0.00   0.46   0.47   0.08   0.54   57.4
0.0       0.    0.00
  43    4.900  34.31  0.00  2706.68     0.00   2.70   3.41   0.00   9.59   0.00   0.12   0.03   0.00   0.15   0.61   0.64   0.00   0.46   0.47   0.08   0.54   57.9
0.0       0.    0.00
  44    4.800  34.26  0.00  2723.95     0.00   2.42   3.53   0.00   9.81   0.00   0.22   0.05   0.00   0.27   0.72   0.77   0.01   0.46   0.47   0.08   0.55   58.9
0.0       0.    0.00
  45    4.700  34.13  0.00  2757.01     0.00   2.34   3.95   0.00  10.41   0.00   0.44   0.08   0.01   0.52   0.95   1.04   0.02   0.46   0.48   0.10   0.56   60.5
0.0       0.    0.00
  46    4.600  33.84  0.00  2820.27     0.00   2.58   4.96   0.00  11.70   0.00   0.91   0.14   0.01   1.06   1.45   1.60   0.04   0.47   0.50   0.12   0.58   63.1
0.0       0.    0.00
  47    4.500  33.22  0.00  2941.33     0.00   3.34   7.16   0.00  14.30   0.00   1.92   0.27   0.02   2.21   2.49   2.78   0.08   0.47   0.55   0.17   0.64   66.8
0.0       0.    0.00

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

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

   41    5.100   0.00   0.17    0.10 0.23 0.07 0.92 0.14 0.03  0.121  0.077  0.039  0.056   1.3   57.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   42    5.000   0.00   0.17    0.08 0.23 0.08 0.92 0.15 0.03  0.134  0.077  0.039  0.056   1.4   57.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   43    4.900   0.00   0.17    0.06 0.23 0.10 0.92 0.19 0.04  0.162  0.077  0.039  0.056   1.7   57.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   44    4.800   0.00   0.17    0.06 0.23 0.14 0.92 0.25 0.06  0.216  0.077  0.039  0.056   2.2   58.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   45    4.700   0.00   0.17    0.07 0.23 0.22 0.92 0.35 0.08  0.305  0.077  0.038  0.056   3.2   60.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   46    4.600   0.00   0.17    0.07 0.22 0.34 0.92 0.49 0.11  0.419  0.076  0.038  0.056   4.4   63.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   47    4.500   0.00   0.17    0.07 0.22 0.49 0.92 0.64 0.14  0.525  0.073  0.037  0.055   5.7   66.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                     0.000  0.000  0.000

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

FINAL REPORT    Cross Bayou Canal                              LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  4    Bayou LaBranche (CBC to LABR3)                 Baseline Simulation with Algal Dynamics

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

   48  UPR RCH   0.18034   33.22     0.00  2941.33     0.00   3.34   7.16   0.00  14.30   0.00   1.92   0.27   0.02   0.47  66.80     0.00    0.00

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

 ELEM   BEGIN  ENDING       FLOW   PCT    ADVCTV   TRAVEL      CUM   DEPTH   WIDTH    VOLUME    SURFACE  X-SECT     TIDAL   TIDAL   DISPRSN    MEAN
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| NO. | DIST km | DIST km | EFF m³/s | VELO m/s | TIME days | TIME days | m | m | m³ | AREA m² | AREA m² | PRISM m³ | VELO m/s | m²/s | VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 4.50 | 4.40 | 0.18034 | 31.6 | 0.01347 | 0.09 | 4.68 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 4997.94 | 0.017 | 1.500 | 0.019 |
| 49 | 4.40 | 4.30 | 0.18034 | 31.6 | 0.01347 | 0.09 | 4.77 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5107.68 | 0.018 | 1.500 | 0.020 |
| 50 | 4.30 | 4.20 | 0.18034 | 31.6 | 0.01347 | 0.09 | 4.86 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5217.42 | 0.018 | 1.500 | 0.020 |
| 51 | 4.20 | 4.10 | 0.18034 | 31.6 | 0.01347 | 0.09 | 4.94 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5327.16 | 0.018 | 1.500 | 0.020 |
| 52 | 4.10 | 4.00 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.03 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5436.90 | 0.019 | 1.500 | 0.021 |
| 53 | 4.00 | 3.90 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.11 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5546.64 | 0.019 | 1.500 | 0.021 |
| 54 | 3.90 | 3.80 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.20 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5656.38 | 0.020 | 1.500 | 0.021 |
| 55 | 3.80 | 3.70 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.29 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5766.12 | 0.020 | 1.500 | 0.022 |
| 56 | 3.70 | 3.60 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.37 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5875.86 | 0.020 | 1.500 | 0.022 |
| 57 | 3.60 | 3.50 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.46 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 5985.60 | 0.021 | 1.500 | 0.023 |
| 58 | 3.50 | 3.40 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.54 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6095.34 | 0.021 | 1.500 | 0.023 |
| 59 | 3.40 | 3.30 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.63 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6205.08 | 0.021 | 1.500 | 0.023 |
| 60 | 3.30 | 3.20 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.71 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6314.82 | 0.022 | 1.500 | 0.024 |
| 61 | 3.20 | 3.10 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.80 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6424.56 | 0.022 | 1.500 | 0.024 |
| 62 | 3.10 | 3.00 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.89 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6534.30 | 0.023 | 1.500 | 0.024 |
| 63 | 3.00 | 2.90 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.97 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6644.04 | 0.023 | 1.500 | 0.025 |
| 64 | 2.90 | 2.80 | 0.18034 | 31.6 | 0.01347 | 0.09 | 6.06 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6753.78 | 0.023 | 1.500 | 0.025 |
| 65 | 2.80 | 2.70 | 0.18034 | 31.6 | 0.01347 | 0.09 | 6.14 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6863.52 | 0.024 | 1.500 | 0.025 |
| TOT | | | | | | 1.55 | | | | 24098.91 | 32922.00 | | | | | |
| AVG | | | | | 0.0135 | | | 0.73 | 18.29 | | | 13.39 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 4.400 | 7.15 | 1.22 | 0.18 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 | 1.16 | 1.16 | 0.13 | 0.94 | 0.29 | 0.00 | 0.00 | 0.07 | 1.87 | 0.00 | 2.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 49 | 4.300 | 7.14 | 1.22 | 0.18 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 | 1.16 | 1.16 | 0.13 | 0.94 | 0.30 | 0.00 | 0.00 | 0.07 | 1.88 | 0.00 | 3.05 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50 | 4.200 | 7.13 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 | 1.16 | 1.16 | 0.13 | 0.94 | 0.31 | 0.00 | 0.00 | 0.07 | 1.88 | 0.00 | 3.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| 51 | 4.100 | 7.13 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.17 | 1.17 | 1.17 | 0.13 | 0.94 | 0.31 | 0.00 | 0.00 | 0.07 | 1.88 | 0.00 | 3.16 | 0.00 | 0.00 | 0.00 | 0.00 |
| 52 | 4.000 | 7.12 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.17 | 1.17 | 1.17 | 0.13 | 0.94 | 0.32 | 0.00 | 0.00 | 0.07 | 1.88 | 0.00 | 3.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 53 | 3.900 | 7.11 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.18 | 1.18 | 1.18 | 0.13 | 0.94 | 0.32 | 0.00 | 0.00 | 0.07 | 1.89 | 0.00 | 3.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 54 | 3.800 | 7.11 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.18 | 1.18 | 1.18 | 0.13 | 0.94 | 0.33 | 0.00 | 0.00 | 0.07 | 1.89 | 0.00 | 3.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| 55 | 3.700 | 7.10 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.18 | 1.18 | 1.18 | 0.13 | 0.94 | 0.33 | 0.00 | 0.00 | 0.07 | 1.89 | 0.00 | 3.30 | 0.00 | 0.00 | 0.00 | 0.00 |
| 56 | 3.600 | 7.10 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.19 | 1.19 | 1.19 | 0.13 | 0.95 | 0.34 | 0.00 | 0.00 | 0.07 | 1.89 | 0.00 | 3.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 57 | 3.500 | 7.09 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.19 | 1.19 | 1.19 | 0.13 | 0.95 | 0.34 | 0.00 | 0.00 | 0.07 | 1.89 | 0.00 | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 58 | 3.400 | 7.09 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.19 | 1.19 | 1.19 | 0.13 | 0.95 | 0.34 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 59 | 3.300 | 7.08 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 | 1.20 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60 | 3.200 | 7.08 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 | 1.20 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.00 |
| 61 | 3.100 | 7.07 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 | 1.20 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 62 | 3.000 | 7.07 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 | 1.20 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 63 | 2.900 | 7.06 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.21 | 1.21 | 1.21 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 3.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 64 | 2.800 | 7.06 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.21 | 1.21 | 1.21 | 0.13 | 0.95 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 3.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65 | 2.700 | 7.06 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.21 | 1.21 | 1.21 | 0.13 | 0.95 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 3.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.96 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | | | 0.10 | 0.04 | 0.12 | 0.00 | 0.02 | 0.05 | 0.08 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 4.400 | 33.30 | 0.00 | 2941.33 | 0.00 | 3.69 | 6.85 | 0.00 | 14.13 | 0.00 | 1.76 | 0.27 | 0.03 | 2.06 | 2.34 | 2.64 | 0.07 | 0.47 | 0.54 | 0.16 | 0.63 | 68.2 | 0.0 | 0. | 0.00 |
| 49 | 4.300 | 33.36 | 0.00 | 2941.33 | 0.00 | 3.99 | 6.57 | 0.00 | 14.00 | 0.00 | 1.63 | 0.27 | 0.03 | 1.92 | 2.22 | 2.51 | 0.06 | 0.47 | 0.53 | 0.15 | 0.62 | 69.6 | 0.0 | 0. | 0.00 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | 4.200 | 33.42 | 0.00 | 2941.33 | 0.00 | 4.27 | 6.30 | 0.00 | 13.87 | 0.00 | 1.50 | 0.26 | 0.03 | 1.80 | 2.10 | 2.40 | 0.06 | 0.47 | 0.52 | 0.15 | 0.61 | 70.9 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | 4.100 | 33.48 | 0.00 | 2941.33 | 0.00 | 4.53 | 6.05 | 0.00 | 13.76 | 0.00 | 1.39 | 0.26 | 0.04 | 1.68 | 2.00 | 2.29 | 0.05 | 0.46 | 0.51 | 0.14 | 0.61 | 72.3 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | 4.000 | 33.53 | 0.00 | 2941.33 | 0.00 | 4.77 | 5.80 | 0.00 | 13.67 | 0.00 | 1.28 | 0.25 | 0.04 | 1.57 | 1.90 | 2.20 | 0.04 | 0.46 | 0.50 | 0.14 | 0.60 | 73.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | 3.900 | 33.59 | 0.00 | 2941.33 | 0.00 | 5.00 | 5.57 | 0.00 | 13.58 | 0.00 | 1.18 | 0.24 | 0.04 | 1.47 | 1.82 | 2.11 | 0.04 | 0.46 | 0.50 | 0.13 | 0.59 | 75.0 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 54 | 3.800 | 33.64 | 0.00 | 2941.33 | 0.00 | 5.21 | 5.35 | 0.00 | 13.51 | 0.00 | 1.09 | 0.24 | 0.05 | 1.37 | 1.74 | 2.02 | 0.03 | 0.46 | 0.49 | 0.13 | 0.59 | 76.4 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | 3.700 | 33.68 | 0.00 | 2941.33 | 0.00 | 5.41 | 5.14 | 0.00 | 13.45 | 0.00 | 1.01 | 0.23 | 0.05 | 1.28 | 1.67 | 1.94 | 0.03 | 0.45 | 0.48 | 0.13 | 0.58 | 77.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | 3.600 | 33.73 | 0.00 | 2941.33 | 0.00 | 5.59 | 4.93 | 0.00 | 13.39 | 0.00 | 0.93 | 0.22 | 0.05 | 1.20 | 1.60 | 1.87 | 0.03 | 0.45 | 0.48 | 0.13 | 0.58 | 79.2 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 57 | 3.500 | 33.77 | 0.00 | 2941.33 | 0.00 | 5.76 | 4.74 | 0.00 | 13.35 | 0.00 | 0.86 | 0.21 | 0.05 | 1.12 | 1.54 | 1.81 | 0.02 | 0.45 | 0.47 | 0.13 | 0.58 | 80.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 58 | 3.400 | 33.82 | 0.00 | 2941.34 | 0.00 | 5.91 | 4.56 | 0.00 | 13.31 | 0.00 | 0.79 | 0.20 | 0.05 | 1.05 | 1.49 | 1.74 | 0.02 | 0.45 | 0.47 | 0.13 | 0.57 | 82.0 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 59 | 3.300 | 33.86 | 0.00 | 2941.34 | 0.00 | 6.06 | 4.38 | 0.00 | 13.28 | 0.00 | 0.73 | 0.20 | 0.05 | 0.98 | 1.44 | 1.69 | 0.02 | 0.44 | 0.46 | 0.13 | 0.57 | 83.3 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 3.200 | 33.90 | 0.00 | 2941.35 | 0.00 | 6.19 | 4.21 | 0.00 | 13.25 | 0.00 | 0.68 | 0.19 | 0.05 | 0.91 | 1.40 | 1.63 | 0.02 | 0.44 | 0.46 | 0.13 | 0.57 | 84.7 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | 3.100 | 33.93 | 0.00 | 2941.37 | 0.00 | 6.31 | 4.05 | 0.00 | 13.23 | 0.00 | 0.62 | 0.18 | 0.05 | 0.85 | 1.36 | 1.58 | 0.01 | 0.44 | 0.45 | 0.13 | 0.57 | 86.0 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 62 | 3.000 | 33.97 | 0.00 | 2941.41 | 0.00 | 6.42 | 3.89 | 0.00 | 13.22 | 0.00 | 0.58 | 0.17 | 0.05 | 0.79 | 1.32 | 1.54 | 0.01 | 0.44 | 0.45 | 0.13 | 0.56 | 87.3 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 2.900 | 34.00 | 0.00 | 2941.49 | 0.00 | 6.52 | 3.75 | 0.00 | 13.20 | 0.00 | 0.53 | 0.16 | 0.05 | 0.74 | 1.29 | 1.49 | 0.01 | 0.43 | 0.45 | 0.13 | 0.56 | 88.5 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | 2.800 | 34.04 | 0.00 | 2941.64 | 0.00 | 6.60 | 3.60 | 0.00 | 13.19 | 0.00 | 0.49 | 0.15 | 0.04 | 0.69 | 1.25 | 1.45 | 0.01 | 0.43 | 0.44 | 0.13 | 0.56 | 89.8 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 2.700 | 34.07 | 0.00 | 2941.91 | 0.00 | 6.68 | 3.45 | 0.00 | 13.18 | 0.00 | 0.45 | 0.15 | 0.04 | 0.64 | 1.23 | 1.41 | 0.01 | 0.43 | 0.44 | 0.13 | 0.56 | 91.1 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 48 | 4.400 | 0.00 | 0.17 | 0.09 | 0.15 | 0.49 | 0.92 | 0.64 | 0.10 | 0.366 | 0.074 | 0.037 | 0.037 | 4.0 | 68.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 49 | 4.300 | 0.00 | 0.17 | 0.10 | 0.15 | 0.50 | 0.92 | 0.64 | 0.10 | 0.367 | 0.074 | 0.037 | 0.038 | 4.0 | 69.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 50 | 4.200 | 0.00 | 0.17 | 0.11 | 0.15 | 0.50 | 0.92 | 0.64 | 0.10 | 0.367 | 0.074 | 0.037 | 0.038 | 4.0 | 70.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 51 | 4.100 | 0.00 | 0.17 | 0.13 | 0.15 | 0.49 | 0.92 | 0.64 | 0.10 | 0.366 | 0.074 | 0.037 | 0.038 | 3.9 | 72.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 52 | 4.000 | 0.00 | 0.17 | 0.14 | 0.15 | 0.49 | 0.92 | 0.64 | 0.10 | 0.365 | 0.074 | 0.037 | 0.038 | 3.9 | 73.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 53 | 3.900 | 0.00 | 0.17 | 0.15 | 0.15 | 0.49 | 0.92 | 0.64 | 0.10 | 0.364 | 0.075 | 0.037 | 0.038 | 3.9 | 75.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 54 | 3.800 | 0.00 | 0.17 | 0.16 | 0.15 | 0.49 | 0.92 | 0.64 | 0.10 | 0.362 | 0.075 | 0.037 | 0.038 | 3.9 | 76.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 55 | 3.700 | 0.00 | 0.17 | 0.17 | 0.15 | 0.48 | 0.92 | 0.63 | 0.10 | 0.359 | 0.075 | 0.037 | 0.038 | 3.8 | 77.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 56 | 3.600 | 0.00 | 0.17 | 0.18 | 0.15 | 0.47 | 0.92 | 0.63 | 0.09 | 0.356 | 0.075 | 0.038 | 0.038 | 3.8 | 79.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 57 | 3.500 | 0.00 | 0.17 | 0.19 | 0.15 | 0.47 | 0.92 | 0.62 | 0.09 | 0.353 | 0.075 | 0.038 | 0.038 | 3.7 | 80.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 58 | 3.400 | 0.00 | 0.17 | 0.20 | 0.15 | 0.46 | 0.92 | 0.61 | 0.09 | 0.349 | 0.075 | 0.038 | 0.038 | 3.7 | 82.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 59 | 3.300 | 0.00 | 0.17 | 0.20 | 0.15 | 0.45 | 0.92 | 0.60 | 0.09 | 0.344 | 0.076 | 0.038 | 0.038 | 3.6 | 83.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 60 | 3.200 | 0.00 | 0.17 | 0.21 | 0.15 | 0.44 | 0.92 | 0.60 | 0.09 | 0.339 | 0.076 | 0.038 | 0.038 | 3.6 | 84.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 61 | 3.100 | 0.00 | 0.17 | 0.22 | 0.15 | 0.43 | 0.92 | 0.59 | 0.09 | 0.334 | 0.076 | 0.038 | 0.038 | 3.5 | 86.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 62 | 3.000 | 0.00 | 0.17 | 0.22 | 0.15 | 0.42 | 0.92 | 0.58 | 0.09 | 0.328 | 0.076 | 0.038 | 0.038 | 3.5 | 87.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 63 | 2.900 | 0.00 | 0.17 | 0.22 | 0.15 | 0.41 | 0.92 | 0.57 | 0.08 | 0.321 | 0.076 | 0.038 | 0.038 | 3.4 | 88.5 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 64 | 2.800 | 0.00 | 0.17 | 0.22 | 0.15 | 0.40 | 0.92 | 0.55 | 0.08 | 0.314 | 0.076 | 0.038 | 0.038 | 3.3 | 89.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 65 | 2.700 | 0.00 | 0.16 | 0.21 | 0.15 | 0.38 | 0.91 | 0.54 | 0.08 | 0.306 | 0.076 | 0.038 | 0.038 | 3.2 | 91.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | | |

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

FINAL REPORT Cross Bayou Canal — LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 5 Bayou LaBranche (LABR3 to BT) — Baseline Simulation with Algal Dynamics

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

| ELEM NO. | TYPE | FLOW | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | PO4-P mg/L | CHL A µg/L | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | UPR RCH | 0.18034 | 34.07 | 0.00 | 2941.91 | 0.00 | 6.68 | 3.45 | 0.00 | 13.18 | 0.00 | 0.45 | 0.15 | 0.04 | 0.43 | 91.07 | 0.00 | 0.00 |
| 78 | WSTLD | 0.05700 | 30.00 | 0.00 | 7292.00 | 7000.00 | 6.50 | 9.00 | 0.00 | 9.00 | 0.00 | 7.50 | 0.17 | 0.04 | 0.34 | 23.00 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.70 | 2.60 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.24 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 6988.08 | 0.021 | 1.500 | 0.023 |
| 67 | 2.60 | 2.50 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.34 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7112.65 | 0.022 | 1.500 | 0.023 |
| 68 | 2.50 | 2.40 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.44 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7237.21 | 0.022 | 1.500 | 0.023 |
| 69 | 2.40 | 2.30 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.53 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7361.77 | 0.022 | 1.500 | 0.024 |
| 70 | 2.30 | 2.20 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.63 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7486.33 | 0.023 | 1.500 | 0.024 |
| 71 | 2.20 | 2.10 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.73 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7610.89 | 0.023 | 1.500 | 0.024 |
| 72 | 2.10 | 2.00 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.83 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7735.45 | 0.024 | 1.500 | 0.025 |
| 73 | 2.00 | 1.90 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.92 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7860.01 | 0.024 | 1.500 | 0.025 |
| 74 | 1.90 | 1.80 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.02 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7984.57 | 0.024 | 1.500 | 0.026 |
| 75 | 1.80 | 1.70 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.12 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8109.13 | 0.025 | 1.500 | 0.026 |
| 76 | 1.70 | 1.60 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.22 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8233.69 | 0.025 | 1.500 | 0.026 |
| 77 | 1.60 | 1.50 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.31 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8358.25 | 0.025 | 1.500 | 0.027 |
| 78 | 1.50 | 1.40 | 0.23734 | 48.0 | 0.01562 | 0.07 | 7.39 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8482.80 | 0.026 | 1.500 | 0.028 |
| TOT | | | | | | 1.24 | | | | 19755.22 | 26988.00 | | | | | |
| AVG | | | | | 0.0121 | | | 0.73 | 20.76 | | | 15.20 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.600 | 7.05 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.95 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67 | 2.500 | 7.05 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.96 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 68 | 2.400 | 7.05 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.96 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.77 | 0.00 | 0.00 | 0.00 | 0.00 |
| 69 | 2.300 | 7.04 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.96 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70 | 2.200 | 7.04 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.96 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 71 | 2.100 | 7.04 | 1.24 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 | 1.23 | 1.23 | 0.13 | 0.96 | 0.37 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| 72 | 2.000 | 7.04 | 1.24 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 | 1.23 | 1.23 | 0.13 | 0.96 | 0.37 | 0.00 | 0.00 | 0.07 | 1.92 | 0.00 | 2.32 | 0.00 | 0.00 | 0.00 | 0.00 |
| 73 | 1.900 | 7.04 | 1.24 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 | 1.23 | 1.23 | 0.13 | 0.96 | 0.37 | 0.00 | 0.00 | 0.07 | 1.92 | 0.00 | 2.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 74 | 1.800 | 7.04 | 1.24 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.23 | 1.23 | 1.23 | 0.13 | 0.96 | 0.37 | 0.00 | 0.00 | 0.07 | 1.92 | 0.00 | 2.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75 | 1.700 | 7.04 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.96 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.29 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76 | 1.600 | 7.05 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.22 | 1.22 | 1.22 | 0.13 | 0.95 | 0.36 | 0.00 | 0.00 | 0.07 | 1.91 | 0.00 | 2.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 77 | 1.500 | 7.08 | 1.23 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 | 1.20 | 0.13 | 0.95 | 0.35 | 0.00 | 0.00 | 0.07 | 1.90 | 0.00 | 2.57 | 0.00 | 0.00 | 0.00 | 0.00 |
| 78 | 1.400 | 7.12 | 1.22 | 0.19 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.17 | 1.17 | 1.17 | 0.13 | 0.94 | 0.34 | 0.00 | 0.00 | 0.07 | 1.88 | 0.00 | 2.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.96 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | | | 0.10 | 0.05 | 0.12 | 0.00 | 0.02 | 0.05 | 0.11 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. PERIP g/m² | ENDING DIST | COLI #/100mL | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.600 | 0.0 | 34.10 | 0.00 | 2942.40 | 0.00 | 6.75 | 3.31 | 0.00 | 13.17 | 0.00 | 0.41 | 0.14 | 0.04 | 0.59 | 1.20 | 1.37 | 0.01 | 0.43 | 0.44 | 0.13 | 0.56 | 92.3 |
| 67 | 2.500 | 0.0 | 34.13 | 0.00 | 2943.25 | 0.00 | 6.80 | 3.18 | 0.00 | 13.16 | 0.00 | 0.38 | 0.13 | 0.03 | 0.54 | 1.17 | 1.34 | 0.01 | 0.42 | 0.43 | 0.13 | 0.55 | 93.4 |
| 68 | 2.400 | 0.0 | 34.16 | 0.00 | 2944.76 | 0.00 | 6.84 | 3.06 | 0.00 | 13.15 | 0.00 | 0.35 | 0.13 | 0.03 | 0.50 | 1.15 | 1.31 | 0.01 | 0.42 | 0.43 | 0.13 | 0.55 | 94.5 |
| 69 | 2.300 | 0.0 | 34.19 | 0.00 | 2947.48 | 0.00 | 6.87 | 2.94 | 0.00 | 13.13 | 0.00 | 0.32 | 0.12 | 0.02 | 0.47 | 1.14 | 1.28 | 0.01 | 0.42 | 0.43 | 0.13 | 0.55 | 95.4 |
| 70 | 2.200 | 0.0 | 34.21 | 0.00 | 2952.35 | 0.00 | 6.89 | 2.83 | 0.00 | 13.11 | 0.00 | 0.30 | 0.12 | 0.02 | 0.43 | 1.12 | 1.25 | 0.01 | 0.42 | 0.42 | 0.13 | 0.55 | 96.3 |
| 71 | 2.100 | 0.0 | 34.23 | 0.00 | 2961.06 | 0.00 | 6.90 | 2.73 | 0.00 | 13.09 | 0.00 | 0.28 | 0.11 | 0.01 | 0.41 | 1.11 | 1.23 | 0.01 | 0.42 | 0.42 | 0.13 | 0.55 | 97.0 |
| 72 | 2.000 | 0.0 | 34.25 | 0.00 | 2976.67 | 0.00 | 6.91 | 2.64 | 0.00 | 13.06 | 0.00 | 0.27 | 0.11 | 0.00 | 0.39 | 1.10 | 1.22 | 0.00 | 0.41 | 0.42 | 0.13 | 0.55 | 97.6 |
| 73 | 1.900 | 0.0 | 34.25 | 0.00 | 3004.63 | 0.00 | 6.90 | 2.57 | 0.00 | 13.03 | 0.00 | 0.27 | 0.11 | 0.00 | 0.39 | 1.11 | 1.22 | 0.00 | 0.41 | 0.42 | 0.13 | 0.54 | 97.9 |
| 74 | 1.800 | 0.0 | 34.24 | 0.00 | 3054.72 | 0.00 | 6.88 | 2.53 | 0.00 | 12.98 | 0.00 | 0.30 | 0.12 | 0.00 | 0.42 | 1.13 | 1.25 | 0.00 | 0.41 | 0.41 | 0.13 | 0.54 | 97.8 |
| 75 | 1.700 | 0.0 | 34.20 | 0.00 | 3144.42 | 0.00 | 6.85 | 2.53 | 0.00 | 12.89 | 0.00 | 0.36 | 0.12 | 0.00 | 0.49 | 1.19 | 1.31 | 0.01 | 0.40 | 0.41 | 0.13 | 0.54 | 97.1 |
| 76 | 1.600 | 0.0 | 34.10 | 0.00 | 3305.10 | 0.00 | 6.77 | 2.61 | 0.00 | 12.76 | 0.00 | 0.51 | 0.13 | 0.00 | 0.64 | 1.32 | 1.45 | 0.01 | 0.40 | 0.41 | 0.13 | 0.53 | 95.0 |
| 77 | 1.500 | 0.0 | 33.90 | 0.00 | 3592.91 | 0.00 | 6.61 | 2.85 | 0.00 | 12.52 | 0.00 | 0.81 | 0.15 | 0.00 | 0.96 | 1.58 | 1.73 | 0.01 | 0.39 | 0.40 | 0.13 | 0.52 | 90.6 |
| 78 | 1.400 | 0.0 | 33.51 | 0.00 | 4108.40 | 0.00 | 6.26 | 3.37 | 0.00 | 12.11 | 0.00 | 1.41 | 0.17 | 0.01 | 1.60 | 2.11 | 2.29 | 0.02 | 0.38 | 0.40 | 0.12 | 0.50 | 81.8 |

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

| ELEM NO. PERIP g/m² | ENDING DIST | BANK SHADE frac | SECCHI DEPTH m | PHYT N PREF | PHYT LIT LIM | PHYT N LIM | PHYT P LIM | PHYT N&P LIM | PHYT TOT LIM | PHYT GROW 1/da | PHYT RESP 1/da | PHYT DEATH 1/da | PHYT SETT 1/da | PHYT P/R RATIO | PHYTO µg/L | PERI N PREF | PERI LIT LIM | PERI N LIM | PERI P LIM | PERI N&P LIM | PERI SPC LIM | PERI TOT LIM | PERI GROW 1/da | PERI RESP 1/da | PERI DEATH 1/da | PERI P/R RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.600 | 0.0 | 0.16 | 0.21 | 0.15 | 0.37 | 0.91 | 0.52 | 0.08 | 0.297 | 0.076 | 0.038 | 0.038 | 3.1 | 92.3 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 67 | 2.500 | 0.0 | 0.16 | 0.19 | 0.15 | 0.35 | 0.91 | 0.51 | 0.08 | 0.288 | 0.077 | 0.038 | 0.038 | 3.0 | 93.4 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 68 | 2.400 | 0.0 | 0.16 | 0.17 | 0.15 | 0.34 | 0.91 | 0.49 | 0.07 | 0.279 | 0.077 | 0.038 | 0.038 | 2.9 | 94.5 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 69 | 2.300 | 0.0 | 0.16 | 0.15 | 0.15 | 0.32 | 0.91 | 0.48 | 0.07 | 0.270 | 0.077 | 0.038 | 0.038 | 2.8 | 95.4 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 70 | 2.200 | 0.0 | 0.16 | 0.12 | 0.15 | 0.31 | 0.91 | 0.46 | 0.07 | 0.260 | 0.077 | 0.038 | 0.038 | 2.7 | 96.3 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 71 | 2.100 | 0.0 | 0.16 | 0.08 | 0.15 | 0.29 | 0.91 | 0.44 | 0.07 | 0.252 | 0.077 | 0.038 | 0.038 | 2.6 | 97.0 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 72 | 2.000 | 0.0 | 0.16 | 0.04 | 0.15 | 0.28 | 0.91 | 0.43 | 0.06 | 0.245 | 0.077 | 0.038 | 0.038 | 2.5 | 97.6 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 73 | 1.900 | 0.0 | 0.16 | 0.01 | 0.15 | 0.28 | 0.91 | 0.42 | 0.06 | 0.241 | 0.077 | 0.038 | 0.038 | 2.5 | 97.9 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |

```
   74    1.800   0.00   0.16    0.00 0.15 0.28 0.91 0.43 0.06  0.240  0.077  0.038  0.038   2.5   97.8    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   75    1.700   0.00   0.16    0.00 0.15 0.29 0.91 0.44 0.06  0.244  0.077  0.038  0.038   2.5   97.1    0.21 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   76    1.600   0.00   0.16    0.00 0.15 0.30 0.91 0.46 0.07  0.253  0.076  0.038  0.038   2.7   95.0    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   77    1.500   0.00   0.16    0.00 0.15 0.33 0.91 0.48 0.07  0.272  0.076  0.038  0.038   2.9   90.6    0.20 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   78    1.400   0.00   0.17    0.05 0.15 0.38 0.90 0.54 0.08  0.301  0.074  0.037  0.038   3.2   81.8    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                      0.000  0.000  0.000

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

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

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

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

   79  UPR RCH   0.23734   33.51     0.00  4108.40     0.00   6.26   3.37   0.00  12.11   0.00   1.41   0.17   0.01   0.38  81.80     0.00    0.00

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

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

   79    1.40    1.30    0.23734  48.0   0.00494     0.23     7.62    1.99   24.08   4801.55    2408.00   48.02   8627.29   0.008     1.500   0.009
   80    1.30    1.20    0.23734  48.0   0.00494     0.23     7.86    1.99   24.08   4801.55    2408.00   48.02   8771.77   0.008     1.500   0.009
   81    1.20    1.10    0.23734  48.0   0.00494     0.23     8.09    1.99   24.08   4801.55    2408.00   48.02   8916.25   0.009     1.500   0.009
   82    1.10    1.00    0.23734  48.0   0.00494     0.23     8.33    1.99   24.08   4801.55    2408.00   48.02   9060.73   0.009     1.500   0.009

  TOT                                                0.94                           19206.21    9632.00
  AVG                                     0.0049                      1.99   24.08                          48.02

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

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

  79    1.300  7.12   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  2.35  2.35  2.35  0.13  0.35  0.34  0.00  0.00  0.07  0.69  0.00  0.33  0.00  0.00  0.00  0.00
  80    1.200  7.11   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  2.36  2.36  2.36  0.13  0.35  0.33  0.00  0.00  0.07  0.69  0.00  0.39  0.00  0.00  0.00  0.00
  81    1.100  7.11   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  2.36  2.36  2.36  0.13  0.35  0.33  0.00  0.00  0.07  0.69  0.00  0.44  0.00  0.00  0.00  0.00
  82    1.000  7.10   0.45  0.19  0.14  0.00  0.00  0.00  0.00  0.00  2.36  2.36  2.36  0.13  0.35  0.33  0.00  0.00  0.07  0.69  0.00  0.48  0.00  0.00  0.00  0.00

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

 *   g/m²/d            **   mg/L/day

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

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

  79    1.300  33.57  0.00  4169.58     0.00   5.88   3.20   0.00  11.83   0.00   1.26   0.20   0.02   1.47   1.94   2.16   0.02   0.38   0.39   0.12   0.50   80.9
0.0       0.    0.00
```

```
  80    1.200  33.60  0.00  4230.02     0.00   5.59   3.09   0.00  11.63   0.00   1.14   0.21   0.03   1.39   1.82   2.07   0.02   0.37   0.39   0.12   0.49   80.0
0.0       0.    0.00
  81    1.100  33.64  0.00  4310.37     0.00   5.29   2.99   0.00  11.41   0.00   1.04   0.22   0.04   1.30   1.71   1.97   0.01   0.37   0.38   0.12   0.48   78.8
0.0       0.    0.00
  82    1.000  33.66  0.00  4417.19     0.00   4.95   2.91   0.00  11.16   0.00   0.93   0.23   0.06   1.22   1.59   1.87   0.01   0.36   0.38   0.12   0.48   77.2
0.0       0.    0.00

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

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

   79    1.300   0.00   0.17    0.10 0.06 0.42 0.90 0.57 0.03  0.119  0.075  0.037  0.014   1.3   80.9    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   80    1.200   0.00   0.17    0.13 0.06 0.45 0.90 0.60 0.03  0.124  0.075  0.037  0.014   1.3   80.0    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   81    1.100   0.00   0.17    0.17 0.06 0.47 0.90 0.62 0.03  0.128  0.075  0.037  0.014   1.4   78.8    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   82    1.000   0.00   0.17    0.19 0.06 0.49 0.90 0.63 0.04  0.132  0.075  0.037  0.014   1.4   77.2    0.19 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                  2.000  0.040  0.020  0.020                                                     0.000  0.000  0.000

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

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

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

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

   83  UPR RCH   0.23734   33.66     0.00  4417.19     0.00   4.95   2.91   0.00  11.16   0.00   0.93   0.23   0.06   0.36  77.23     0.00    0.00
   88  WSTLD     0.05700   34.60     0.00  7969.00  7969.00   6.50   9.00   0.00   9.00   0.00   1.10   0.90   0.04   0.20  23.00     0.00    0.00

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

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

   83    1.00   0.90    0.23734  48.0   0.00349     0.33     8.66    1.99   34.08   6795.55    3408.00   67.96   9265.21   0.006     1.500   0.007
   84    0.90   0.80    0.23734  48.0   0.00349     0.33     8.99    1.99   34.08   6795.55    3408.00   67.96   9469.69   0.006     1.500   0.007
   85    0.80   0.70    0.23734  48.0   0.00349     0.33     9.32    1.99   34.08   6795.55    3408.00   67.96   9674.17   0.007     1.500   0.007
   86    0.70   0.60    0.23734  48.0   0.00349     0.33     9.65    1.99   34.08   6795.55    3408.00   67.96   9878.65   0.007     1.500   0.007
   87    0.60   0.50    0.23734  48.0   0.00349     0.33     9.98    1.99   34.08   6795.55    3408.00   67.96  10083.13   0.007     1.500   0.007
   88    0.50   0.40    0.29434  58.1   0.00433     0.27    10.25    1.99   34.08   6795.55    3408.00   67.96  10287.61   0.007     1.500   0.008
   89    0.40   0.30    0.29434  58.1   0.00433     0.27    10.52    1.99   34.08   6795.55    3408.00   67.96  10492.09   0.007     1.500   0.008
   90    0.30   0.20    0.29434  58.1   0.00433     0.27    10.78    1.99   34.08   6795.55    3408.00   67.96  10696.57   0.007     1.500   0.008
   91    0.20   0.10    0.29434  58.1   0.00433     0.27    11.05    1.99   34.08   6795.55    3408.00   67.96  10901.05   0.007     1.500   0.008
   92    0.10   0.00    0.29434  58.1   0.00433     0.27    11.32    1.99   34.08   6795.55    3408.00   67.96  11105.53   0.008     1.500   0.008

  TOT                                             2.99                            67955.52   34080.00
  AVG                                   0.0039                      1.99   34.08                          67.96

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

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 7.10 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.73 | 4.73 | 4.73 | 0.13 | 0.35 | 0.32 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 0.800 | 7.10 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.73 | 4.73 | 4.73 | 0.13 | 0.35 | 0.32 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85 | 0.700 | 7.10 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.73 | 4.73 | 4.73 | 0.13 | 0.35 | 0.31 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 86 | 0.600 | 7.11 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.71 | 4.71 | 4.71 | 0.13 | 0.35 | 0.31 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 87 | 0.500 | 7.12 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.69 | 4.69 | 4.69 | 0.13 | 0.35 | 0.31 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 |
| 88 | 0.400 | 7.13 | 0.45 | 0.19 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.66 | 4.66 | 4.66 | 0.13 | 0.34 | 0.31 | 0.00 | 0.00 | 0.07 | 0.69 | 0.00 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| 89 | 0.300 | 7.15 | 0.45 | 0.18 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.60 | 4.60 | 4.60 | 0.13 | 0.34 | 0.30 | 0.00 | 0.00 | 0.06 | 0.69 | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90 | 0.200 | 7.19 | 0.44 | 0.18 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.52 | 4.52 | 4.52 | 0.13 | 0.34 | 0.30 | 0.00 | 0.00 | 0.06 | 0.68 | 0.00 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 |
| 91 | 0.100 | 7.24 | 0.44 | 0.18 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.40 | 4.40 | 4.40 | 0.13 | 0.34 | 0.30 | 0.00 | 0.00 | 0.06 | 0.68 | 0.00 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| 92 | 0.000 | 7.31 | 0.44 | 0.17 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.25 | 4.25 | 4.25 | 0.13 | 0.33 | 0.29 | 0.00 | 0.00 | 0.06 | 0.67 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.35 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | | | 0.10 | 0.03 | 0.12 | 0.00 | 0.02 | 0.05 | 0.05 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. PERIP | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | COLI NCM #/100mL | g/m² |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 33.68 | 0.00 | 4534.80 | 0.00 | 4.61 | 2.87 | 0.00 | 10.93 | 0.00 | 0.84 | 0.24 | 0.07 | 1.15 | 1.48 | 1.79 | 0.02 | 0.35 | 0.37 | 0.11 | 0.47 | 75.5 | 0.0 | 0. 0.00 |
| 84 | 0.800 | 33.68 | 0.00 | 4662.53 | 0.00 | 4.37 | 2.87 | 0.00 | 10.72 | 0.00 | 0.77 | 0.25 | 0.08 | 1.09 | 1.40 | 1.72 | 0.02 | 0.35 | 0.36 | 0.11 | 0.46 | 73.5 | 0.0 | 0. 0.00 |
| 85 | 0.700 | 33.66 | 0.00 | 4820.01 | 0.00 | 4.19 | 2.91 | 0.00 | 10.50 | 0.00 | 0.71 | 0.25 | 0.08 | 1.05 | 1.32 | 1.65 | 0.02 | 0.34 | 0.36 | 0.11 | 0.45 | 71.0 | 0.0 | 0. 0.00 |
| 86 | 0.600 | 33.62 | 0.00 | 5014.16 | 0.00 | 4.08 | 3.03 | 0.00 | 10.28 | 0.00 | 0.67 | 0.26 | 0.09 | 1.01 | 1.24 | 1.59 | 0.02 | 0.33 | 0.35 | 0.11 | 0.44 | 67.9 | 0.0 | 0. 0.00 |
| 87 | 0.500 | 33.55 | 0.00 | 5253.51 | 0.00 | 4.05 | 3.22 | 0.00 | 10.05 | 0.00 | 0.63 | 0.27 | 0.09 | 0.99 | 1.17 | 1.53 | 0.03 | 0.32 | 0.35 | 0.11 | 0.43 | 63.9 | 0.0 | 0. 0.00 |
| 88 | 0.400 | 33.45 | 0.00 | 5548.59 | 0.00 | 4.12 | 3.52 | 0.00 | 9.81 | 0.00 | 0.61 | 0.28 | 0.09 | 0.98 | 1.11 | 1.48 | 0.03 | 0.31 | 0.34 | 0.11 | 0.42 | 59.0 | 0.0 | 0. 0.00 |
| 89 | 0.300 | 33.24 | 0.00 | 5777.03 | 0.00 | 4.20 | 3.65 | 0.00 | 9.50 | 0.00 | 0.57 | 0.26 | 0.09 | 0.92 | 1.04 | 1.39 | 0.04 | 0.30 | 0.33 | 0.11 | 0.41 | 54.8 | 0.0 | 0. 0.00 |
| 90 | 0.200 | 32.94 | 0.00 | 6071.44 | 0.00 | 4.41 | 3.89 | 0.00 | 9.15 | 0.00 | 0.55 | 0.23 | 0.09 | 0.87 | 0.97 | 1.29 | 0.04 | 0.29 | 0.33 | 0.10 | 0.39 | 49.3 | 0.0 | 0. 0.00 |
| 91 | 0.100 | 32.53 | 0.00 | 6450.85 | 0.00 | 4.81 | 4.28 | 0.00 | 8.78 | 0.00 | 0.53 | 0.20 | 0.08 | 0.81 | 0.89 | 1.17 | 0.05 | 0.27 | 0.32 | 0.10 | 0.37 | 42.1 | 0.0 | 0. 0.00 |
| 92 | 0.000 | 31.97 | 0.00 | 6939.83 | 0.00 | 5.47 | 4.88 | 0.00 | 8.40 | 0.00 | 0.53 | 0.16 | 0.06 | 0.75 | 0.81 | 1.03 | 0.06 | 0.25 | 0.31 | 0.10 | 0.35 | 32.9 | 0.0 | 0. 0.00 |

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

| ELEM NO. PERIP | ENDING DIST | BANK SHADE frac | SECCHI DEPTH m | PHYT N PREF | PHYT LIT LIM | PHYT N LIM | PHYT P LIM | PHYT N&P LIM | PHYT TOT LIM | PHYT GROW 1/da | PHYT RESP 1/da | PHYT DEATH 1/da | PHYT SETT 1/da | PHYT P/R RATIO | PHYTO µg/L | PERI N PREF | PERI LIT LIM | PERI N LIM | PERI P LIM | PERI N&P LIM | PERI SPC LIM | PERI TOT LIM | PERI GROW 1/da | PERI RESP 1/da | PERI DEATH 1/da | PERI P/R RATIO | g/m² |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 0.00 | 0.17 | 0.22 | 0.06 | 0.50 | 0.90 | 0.65 | 0.04 | 0.136 | 0.075 | 0.037 | 0.014 | 1.4 | 75.5 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 84 | 0.800 | 0.00 | 0.17 | 0.24 | 0.06 | 0.52 | 0.90 | 0.66 | 0.04 | 0.138 | 0.075 | 0.037 | 0.014 | 1.5 | 73.5 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 85 | 0.700 | 0.00 | 0.17 | 0.25 | 0.06 | 0.53 | 0.89 | 0.66 | 0.04 | 0.140 | 0.075 | 0.037 | 0.014 | 1.5 | 71.0 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 86 | 0.600 | 0.00 | 0.17 | 0.26 | 0.06 | 0.54 | 0.89 | 0.67 | 0.04 | 0.142 | 0.075 | 0.037 | 0.014 | 1.5 | 67.9 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 87 | 0.500 | 0.00 | 0.17 | 0.26 | 0.06 | 0.55 | 0.89 | 0.68 | 0.04 | 0.144 | 0.075 | 0.037 | 0.014 | 1.5 | 63.9 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 88 | 0.400 | 0.00 | 0.17 | 0.25 | 0.06 | 0.55 | 0.89 | 0.68 | 0.04 | 0.145 | 0.074 | 0.037 | 0.014 | 1.6 | 59.0 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 89 | 0.300 | 0.00 | 0.17 | 0.27 | 0.06 | 0.54 | 0.88 | 0.67 | 0.04 | 0.143 | 0.073 | 0.037 | 0.014 | 1.6 | 54.8 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |

```
   90    0.200   0.00   0.18    0.28 0.06 0.52 0.88 0.65 0.04  0.138  0.072  0.036  0.014   1.5   49.3    0.26 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   91    0.100   0.00   0.18    0.28 0.06 0.48 0.87 0.62 0.04  0.131  0.071  0.036  0.014   1.5   42.1    0.27 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   92    0.000   0.00   0.18    0.29 0.06 0.42 0.86 0.57 0.03  0.119  0.069  0.035  0.013   1.4   32.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                      0.000  0.000  0.000

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

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

REACH SUMMARY REPORT: Cross Bayou Canal

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

   1 Cross Bayou Canal 1                   9.20      7.40     1.80     2.16   0.12334   0.00964   0.823   15.54     4.355     0.032   2.700   50.99
   2 Cross Bayou Canal 2                   7.40      5.20     2.20     1.87   0.12334   0.01360   0.488   18.59     4.355     0.045   1.601   60.99
   3 Bayou LaBranche (CBC to LABR3)        5.20      4.50     0.70     0.56   0.18034   0.01435   0.500   18.00     6.368     0.047   1.640   59.06
   4 Bayou LaBranche (CBC to LABR3)        4.50      2.70     1.80     1.55   0.18034   0.01347   0.732   18.29     6.368     0.044   2.402   60.01
   5 Bayou LaBranche (LABR3 to BT)         2.70      1.40     1.30     1.24   0.23734   0.01209   0.732   20.76     8.380     0.040   2.402   68.11
   6 Bayou LaBranche (BT to LGLD)          1.40      1.00     0.40     0.94   0.23734   0.00494   1.994   24.08     8.380     0.016   6.542   79.01
   7 Bayou LaBranche (LGLD to LP)          1.00      0.00     1.00     2.99   0.29434   0.00387   1.994   34.08    10.393     0.013   6.542  111.82

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

STREAM SUMMARY REPORT: Cross Bayou Canal

 TRAVEL TIME       =          11.32 DAYS
 MAXIMUM EFFLUENT  =          58.10 PERCENT

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

 BOD DECAY         =    0.16   TO    0.19      per day
 NH3 DECAY         =    0.26   TO    0.37      per day
 SOD               =    1.16   TO    7.40      g/m²/d
 NH3 SED SOURCE    =    0.00   TO    0.00      g/m²/d
 PO4 SED SOURCE    =    0.00   TO    0.00      g/m²/d
 REAERATION        =    0.44   TO    2.63      per day
 BOD SETTLING      =    0.13   TO    0.58      per day
 ORG-N DECAY       =    0.12   TO    0.13      per day
 ORG-N SETTLING    =    0.33   TO    1.44      per day

 TEMPERATURE       =   30.41   TO   34.33      deg C
 DISSOLVED OXYGEN  =    2.34   TO    6.91      mg/L

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

INPUT/OUTPUT LOADING SUMMARY

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

 HEADWATER FLOW                    0.12333       69.26    366.64      0.00     12.30      1.07      0.43      2.17      5.32    458.20              0.00
 INCREMENTAL INFLOW                0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 INCREMENTAL OUTFLOW               0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
 WASTELOADS                        0.17101       96.04    182.31      0.00     79.30      9.52      0.59      3.27      5.15    595.91              0.00
 WITHDRAWLS                        0.00000        0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00              0.00
```

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FLOW THRU LOWER BNDRY | -0.29434 | -139.23 | -124.13 | 0.00 | -13.55 | -3.97 | -1.60 | -1.54 | -6.38 | -836.78 | | 0.00 |
| DISPERSION THRU LOWER BNDRY | | 90.29 | 77.18 | 0.00 | 1.63 | -4.94 | -2.03 | 1.70 | -2.28 | -1048.40 | | 0.00 |
| DISPERSION THRU HDWTR BNDRY | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| NON-POINT INPUT | | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | | | | 0.00 |
| NATURAL REAERATION | | 402.00 | | | | | | | | | | |
| DAM REAERATION | | 0.00 | | | | | | | | | | |
| SOD BACKGROUND | | -500.16 | | | | | | | | | | |
| BOD1 DECAY | | -198.68 | -198.68 | | | | | | | | | |
| BOD1 SETTLING | | 0.00 | -350.96 | | | | | | | | | |
| ANAEROBIC BOD1 DECAY | | | 0.00 | | | | | | | | | |
| BOD2 DECAY | | 0.00 | | 0.00 | | | | | | | | |
| BOD2 SETTLING | | 0.00 | | 0.00 | | | | | | | | |
| ANAEROBIC BOD2 DECAY | | | | 0.00 | | | | | | | | |
| BOD2 HYDROLYSIS | | | 0.00 | 0.00 | | | | | | | | |
| ORG-N DECAY | | 0.00 | | | -14.72 | 14.72 | | | | | | |
| ORG-N SETTLING | | | | | -68.75 | 0.00 | | | | | | |
| NH3-N DECAY (NITRIFICATION) | | -43.12 | | | | -9.96 | 9.96 | | | | | |
| NH3-N BACKGROUND SEDIMENT SOURCE | | | | | | 0.00 | | | | | | |
| DENITRIFICATION | | | 0.00 | | | | 0.00 | | | | | |
| ORG-P HYDROLYSIS | | | | | | | | -0.31 | 0.31 | | | |
| ORG-P SETTLING | | | | | | | | -5.87 | 0.00 | | | |
| PO4-P BACKGROUND SEDIMENT SOURCE | | | | | | | | | 0.00 | | | |
| PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS | | 402.17 | | | | -17.30 | -4.07 | | -3.27 | 2513.54 | | |
| PHYTOPLANKTON RESPIRATION/EXCRETION | | -178.45 | | | | 7.58 | | | 1.16 | -892.25 | | |
| PHYTOPLANKTON SETTLING | | 0.00 | | | | 0.00 | | | 0.00 | -343.91 | | |
| PHYTOPLANKTON DEATH | | | 47.65 | 0.00 | 3.79 | | | 0.58 | | -446.12 | | |
| PERIPHYTON GROWTH/PHOTOSYNTHESIS | | 0.00 | | | | 0.00 | 0.00 | | 0.00 | | 0.00 | |
| PERIPHYTON RESPIRATION/EXCRETION | | 0.00 | | | | 0.00 | | | 0.00 | | 0.00 | |
| PERIPHYTON DEATH | | | 0.00 | 0.00 | 0.00 | | | 0.00 | | | 0.00 | |
| NCM DECAY | | 0.00 | | | | | | | | | | 0.00 |
| NCM SETTLING | | 0.00 | | | | | | | | | | 0.00 |
| TOTAL INPUTS | 0.29434 | 1059.75 | 673.77 | 0.00 | 97.02 | 32.89 | 10.98 | 7.72 | 11.93 | 3567.65 | 0.00 | 0.00 |
| TOTAL OUTPUTS | -0.29434 | -1059.64 | -673.77 | 0.00 | -97.02 | -36.17 | -7.70 | -7.72 | -11.93 | -3567.46 | 0.00 | 0.00 |
| NET CONVERGENCE ERROR | 0.00000 | 0.11 | 0.00 | 0.00 | 0.00 | -3.28 | 3.28 | 0.00 | 0.00 | 0.19 | 0.00 | 0.00 |

.....EXECUTION COMPLETED

## Winter baseline LA-QUAL model output

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

Input file is E:\EPA_R06\LA TMDL 2006\Phase IV (Lake P)\DO Models\041202_0401201(Trepagnier_Labrache)\Labranche_Baseline_winter_DO2.txt
Running in steady-state mode using LA defaults
Output produced at 14:41 on 11/20/2011

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

CARD TYPE       CONTROL TITLES

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

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

CARD TYPE       MODEL OPTION

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

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

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

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

PROGRAM         ELEVATION                                     60.96000 meters above MSL
ENDATA05

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE
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PROGRAM         O PROD DUE TO GROWTH                        1.60000 mg 0/mg algae
PROGRAM         O UPTAKE DUE TO RESP                        2.00000 mg 0/mg algae
PROGRAM         C CONTENT                                   0.40000 mg C/mg algae
PROGRAM         N CONTENT                                   0.08500 mg N/mg algae
PROGRAM         P CONTENT                                   0.01300 mg P/mg algae
PROGRAM         N HALF SATURATION CONSTANT                  0.30000 mg/L N
PROGRAM         P HALF SATURATION CONTSTANT                 0.04000 mg/L P
PROGRAM         LIGHT SATURATION CONSTANT                  30.00000 Langleys/hr
PROGRAM         L OPTION                                    3.00000 (Steel Equation)
PROGRAM         COEF LINEAR SELF-SHADING                    0.00800
PROGRAM         COEF NONLINEAR SELF-SHADING                 0.05400
PROGRAM         EXP NONLINEAR SELF-SHADING                  0.66700
PROGRAM         N OPTION                                    1.00000 (Harmonic Mean)
ENDATA06

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

CARD TYPE       DESCRIPTION OF CONSTANT                        VALUE

ENDATA07

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

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

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

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

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

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

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

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

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

CARD TYPE      REACH  ID     TEMP    SALIN       DO    NH3-N    NO3-N    PO4-P    CHL A    PERIP     BOD1     BOD2    ORG-N    ORG-P     COLI      NCM  Conduct     CM-2
                             deg C     ppt     mg/L     mg/L     mg/L     mg/L     µg/L     g/m²     mg/L     mg/L     mg/L     mg/L  #/100mL          umhos/cm      g/L
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INITIAL          1   C1    20.00     0.00     2.85     0.10     0.04     0.50    43.00     0.00    39.00     0.00     1.42     0.26     0.00     0.00  2688.00  2688.00
INITIAL          2   C2    20.00     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          3   L4    20.00     0.00     5.10     0.10     0.04     0.39    75.00     0.00    15.00     0.00     2.78     0.31     0.00     0.00  5127.00  5127.00
INITIAL          4   L4    20.00     0.00     5.85     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5531.00  5531.00
INITIAL          5   L3    20.00     0.00     5.20     0.10     0.04     0.34    59.00     0.00    17.00     0.00     1.26     0.09     0.00     0.00  5928.00  5928.00
INITIAL          6   L2    20.00     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
INITIAL          7   L1    20.00     0.00     3.70     0.17     0.04     0.34    44.00     0.00     9.00     0.00     1.26     0.09     0.00     0.00  7292.00  7292.00
ENDATA11

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

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

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

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

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

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

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

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

ENDATA15

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

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

ENDATA16
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$$$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) $$$

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

ENDATA17

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

ENDATA18

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

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

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

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

HDWTR-1           1     Cross Bayou Canal       0   0.12333    4.35487   20.00     0.00  2688.000  2688.000     0.000
ENDATA20

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

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

HDWTR-2           1     Cross Bayou Canal         6.50     39.00      1.52      0.10      0.04     39.00
ENDATA21

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

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

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

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

WSTLD-1        1       9.20  LAG533466             0.00001    0.00035    0.000   20.00     0.00     0.000     0.000
WSTLD-1       47       4.60  Bayou Traverse        0.05700    2.01271    1.301   20.00     0.00  3490.000  3490.000
WSTLD-1       78       1.50  Bayou Trepagnier      0.05700    2.01271    1.301   20.00     0.00  7292.000  7000.000
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WSTLD-1       88       0.50  LGLD4                 0.05700    2.01271    1.301   20.00     0.00  7969.000  7969.000
ENDATA24

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

WSTLD-2           1     LAG533466                   2.00    103.50      0.00      7.50     15.00      0.00      2.00      0.00
WSTLD-2          47     Bayou Traverse              6.50     19.00      0.00      7.50      0.86      0.00      0.04      0.00
WSTLD-2          78     Bayou Trepagnier            6.50      9.00      0.00      7.50      0.17      0.00      0.04      0.00
WSTLD-2          88     LGLD4                       6.50      9.00      0.00      1.10      0.90      0.00      0.04      0.00
ENDATA25

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

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

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

CARD TYPE    CONSTITUENT                     CONCENTRATION

LOWER BC     TEMPERATURE                        =     20.000     deg C
LOWER BC     SALINITY                           =      0.000     ppt
LOWER BC     CONSERVATIVE MATERIAL I            =   7570.000     umhos/cm
LOWER BC     DISSOLVED OXYGEN                   =      6.500     mg/L
LOWER BC     BIOCHEMICAL OXYGEN DEMAND          =      8.000     mg/L
LOWER BC     BOD2 BIOCHEMICAL OXYGEN DEMAND     =      8.000     mg/L
LOWER BC     ORGANIC NITROGEN                   =      0.730     mg/L
LOWER BC     AMMONIA NITROGEN                   =      0.100     mg/L
LOWER BC     NITRATE + NITRITE                  =      0.040     mg/L
LOWER BC     PO4 PHOSPHORUS                     =      0.225     mg/L
LOWER BC     ORG PHOSPHORUS                     =      0.107     mg/L
LOWER BC     CHLOROPHYLL A                      =     21.000     µg/L
ENDATA27

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

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

ENDATA28

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

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

ENDATA29

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

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

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

OVERLAY 1 CBBL.ovl                        :Cross Bayou & Bayou LaBranche
ENDATA31

     .....NO ERRORS DETECTED IN INPUT DATA
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     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....PHOTOSYNTHETIC RATES CONVERGENT IN   10 ITERATIONS
     .....OXYGEN DEPENDENT RATES CONVERGENT IN    1 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11
```

INTERMEDIATE REPORT
Dissolved Oxygen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 6.25 | 6.17 | 6.12 | 6.07 | 6.05 | 6.03 | 6.03 | 6.03 | 6.04 | 6.06 |
| C1 | 1 | 11 | 6.09 | 6.12 | 6.16 | 6.20 | 6.25 | 6.31 | 6.37 | 6.46 | | |
| C2 | 2 | 19 | 6.60 | 6.74 | 6.88 | 7.00 | 7.11 | 7.21 | 7.30 | 7.38 | 7.46 | 7.53 |
| C2 | 2 | 29 | 7.59 | 7.65 | 7.71 | 7.76 | 7.80 | 7.84 | 7.87 | 7.90 | 7.92 | 7.92 |
| C2 | 2 | 39 | 7.88 | 7.77 | | | | | | | | |
| L4 | 3 | 41 | 7.50 | 7.26 | 7.06 | 6.90 | 6.78 | 6.71 | 6.71 | | | |
| L4 | 4 | 48 | 6.87 | 7.01 | 7.15 | 7.27 | 7.40 | 7.51 | 7.62 | 7.73 | 7.83 | 7.93 |
| L4 | 4 | 58 | 8.02 | 8.10 | 8.19 | 8.27 | 8.35 | 8.42 | 8.49 | 8.57 | | |
| L3 | 5 | 66 | 8.64 | 8.71 | 8.77 | 8.83 | 8.89 | 8.94 | 8.98 | 9.01 | 9.02 | 9.00 |
| L3 | 5 | 76 | 8.91 | 8.70 | 8.27 | | | | | | | |
| L2 | 6 | 79 | 8.08 | 7.92 | 7.75 | 7.55 | | | | | | |
| L1 | 7 | 83 | 7.35 | 7.19 | 7.04 | 6.90 | 6.78 | 6.66 | 6.58 | 6.52 | 6.48 | 6.47 |

INTERMEDIATE REPORT
Effective BOD1
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 35.99 | 34.85 | 33.76 | 32.71 | 31.71 | 30.74 | 29.81 | 28.92 | 28.06 | 27.24 |
| C1 | 1 | 11 | 26.45 | 25.69 | 24.96 | 24.27 | 23.61 | 22.98 | 22.39 | 21.86 | | |
| C2 | 2 | 19 | 21.31 | 20.73 | 20.18 | 19.64 | 19.13 | 18.65 | 18.18 | 17.73 | 17.30 | 16.89 |
| C2 | 2 | 29 | 16.49 | 16.11 | 15.74 | 15.39 | 15.06 | 14.73 | 14.42 | 14.12 | 13.84 | 13.56 |
| C2 | 2 | 39 | 13.31 | 13.08 | | | | | | | | |
| L4 | 3 | 41 | 12.88 | 12.73 | 12.68 | 12.78 | 13.19 | 14.17 | 16.26 | | | |
| L4 | 4 | 48 | 16.03 | 15.83 | 15.65 | 15.47 | 15.30 | 15.13 | 14.98 | 14.83 | 14.69 | 14.55 |
| L4 | 4 | 58 | 14.42 | 14.30 | 14.19 | 14.08 | 13.98 | 13.88 | 13.78 | 13.69 | | |
| L3 | 5 | 66 | 13.59 | 13.51 | 13.43 | 13.36 | 13.29 | 13.22 | 13.15 | 13.07 | 12.98 | 12.86 |
| L3 | 5 | 76 | 12.69 | 12.42 | 12.00 | | | | | | | |
| L2 | 6 | 79 | 11.73 | 11.52 | 11.29 | 11.04 | | | | | | |
| L1 | 7 | 83 | 10.80 | 10.59 | 10.38 | 10.17 | 9.96 | 9.76 | 9.47 | 9.15 | 8.80 | 8.42 |

INTERMEDIATE REPORT
Biochemical Oxygen Demand
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 31.33 | 30.16 | 29.04 | 27.97 | 26.93 | 25.93 | 24.97 | 24.05 | 23.16 | 22.30 |
| C1 | 1 | 11 | 21.48 | 20.69 | 19.93 | 19.20 | 18.51 | 17.85 | 17.23 | 16.65 | | |
| C2 | 2 | 19 | 16.06 | 15.43 | 14.82 | 14.23 | 13.68 | 13.14 | 12.62 | 12.13 | 11.65 | 11.20 |
| C2 | 2 | 29 | 10.76 | 10.34 | 9.93 | 9.55 | 9.18 | 8.82 | 8.48 | 8.15 | 7.84 | 7.54 |
| C2 | 2 | 39 | 7.26 | 7.00 | | | | | | | | |
| L4 | 3 | 41 | 6.77 | 6.58 | 6.46 | 6.48 | 6.76 | 7.53 | 9.30 | | | |
| L4 | 4 | 48 | 9.01 | 8.75 | 8.50 | 8.25 | 8.02 | 7.79 | 7.57 | 7.35 | 7.14 | 6.94 |
| L4 | 4 | 58 | 6.74 | 6.55 | 6.37 | 6.19 | 6.01 | 5.84 | 5.67 | 5.49 | | |
| L3 | 5 | 66 | 5.32 | 5.15 | 4.99 | 4.84 | 4.70 | 4.56 | 4.43 | 4.32 | 4.23 | 4.17 |
| L3 | 5 | 76 | 4.18 | 4.29 | 4.61 | | | | | | | |
| L2 | 6 | 79 | 4.42 | 4.29 | 4.16 | 4.05 | | | | | | |
| L1 | 7 | 83 | 3.98 | 3.94 | 3.95 | 4.01 | 4.14 | 4.35 | 4.42 | 4.56 | 4.80 | 5.19 |

INTERMEDIATE REPORT
Organic Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.97 | 0.90 | 0.84 | 0.78 | 0.72 | 0.67 | 0.63 | 0.58 | 0.54 | 0.50 |
| C1 | 1 | 11 | 0.47 | 0.44 | 0.41 | 0.38 | 0.35 | 0.33 | 0.31 | 0.29 | | |
| C2 | 2 | 19 | 0.27 | 0.25 | 0.23 | 0.21 | 0.19 | 0.18 | 0.16 | 0.15 | 0.14 | 0.13 |
| C2 | 2 | 29 | 0.12 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | 0.08 | 0.07 | 0.07 | 0.06 |
| C2 | 2 | 39 | 0.06 | 0.06 | | | | | | | | |
| L4 | 3 | 41 | 0.07 | 0.10 | 0.15 | 0.26 | 0.50 | 1.00 | 2.03 | | | |
| L4 | 4 | 48 | 1.90 | 1.79 | 1.68 | 1.58 | 1.49 | 1.40 | 1.32 | 1.24 | 1.17 | 1.10 |
| L4 | 4 | 58 | 1.04 | 0.98 | 0.92 | 0.87 | 0.81 | 0.77 | 0.72 | 0.67 | | |
| L3 | 5 | 66 | 0.63 | 0.59 | 0.55 | 0.52 | 0.49 | 0.47 | 0.45 | 0.45 | 0.47 | 0.53 |
| L3 | 5 | 76 | 0.68 | 0.98 | 1.59 | | | | | | | |
| L2 | 6 | 79 | 1.44 | 1.34 | 1.23 | 1.13 | | | | | | |
| L1 | 7 | 83 | 1.03 | 0.96 | 0.90 | 0.84 | 0.79 | 0.75 | 0.70 | 0.66 | 0.62 | 0.58 |

INTERMEDIATE REPORT
Effective Organic Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.34 | 1.27 | 1.21 | 1.16 | 1.10 | 1.06 | 1.01 | 0.97 | 0.93 | 0.90 |
| C1 | 1 | 11 | 0.86 | 0.83 | 0.81 | 0.78 | 0.76 | 0.74 | 0.72 | 0.70 | | |
| C2 | 2 | 19 | 0.68 | 0.67 | 0.65 | 0.64 | 0.63 | 0.62 | 0.61 | 0.60 | 0.59 | 0.58 |
| C2 | 2 | 29 | 0.58 | 0.57 | 0.56 | 0.56 | 0.56 | 0.55 | 0.55 | 0.55 | 0.54 | 0.54 |
| C2 | 2 | 39 | 0.54 | 0.55 | | | | | | | | |
| L4 | 3 | 41 | 0.56 | 0.59 | 0.64 | 0.76 | 1.01 | 1.52 | 2.58 | | | |
| L4 | 4 | 48 | 2.46 | 2.35 | 2.25 | 2.16 | 2.07 | 1.99 | 1.91 | 1.84 | 1.77 | 1.71 |
| L4 | 4 | 58 | 1.65 | 1.59 | 1.54 | 1.49 | 1.45 | 1.41 | 1.37 | 1.33 | | |
| L3 | 5 | 66 | 1.29 | 1.25 | 1.22 | 1.20 | 1.17 | 1.15 | 1.14 | 1.14 | 1.16 | 1.22 |
| L3 | 5 | 76 | 1.36 | 1.63 | 2.18 | | | | | | | |
| L2 | 6 | 79 | 2.02 | 1.91 | 1.80 | 1.68 | | | | | | |
| L1 | 7 | 83 | 1.58 | 1.49 | 1.41 | 1.33 | 1.25 | 1.18 | 1.10 | 1.02 | 0.93 | 0.84 |

INTERMEDIATE REPORT
Ammonia Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.12 | 0.12 | 0.13 | 0.13 | 0.13 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| C1 | 1 | 11 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.13 | 0.13 | | |
| C2 | 2 | 19 | 0.13 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10 | 0.09 |
| C2 | 2 | 29 | 0.09 | 0.09 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 |
| C2 | 2 | 39 | 0.06 | 0.06 | | | | | | | | |
| L4 | 3 | 41 | 0.06 | 0.06 | 0.07 | 0.09 | 0.12 | 0.18 | 0.31 | | | |
| L4 | 4 | 48 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 |
| L4 | 4 | 58 | 0.33 | 0.33 | 0.33 | 0.32 | 0.32 | 0.32 | 0.31 | 0.31 | | |
| L3 | 5 | 66 | 0.30 | 0.30 | 0.29 | 0.29 | 0.28 | 0.28 | 0.27 | 0.27 | 0.26 | 0.26 |
| L3 | 5 | 76 | 0.27 | 0.27 | 0.29 | | | | | | | |
| L2 | 6 | 79 | 0.31 | 0.33 | 0.34 | 0.35 | | | | | | |
| L1 | 7 | 83 | 0.36 | 0.37 | 0.38 | 0.38 | 0.38 | 0.38 | 0.35 | 0.31 | 0.26 | 0.19 |

INTERMEDIATE REPORT
Nitrate+Nitrite Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| C1 | 1 | 11 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | | |
| C2 | 2 | 19 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| C2 | 2 | 29 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 |
| C2 | 2 | 39 | 0.02 | 0.02 | | | | | | | | |
| L4 | 3 | 41 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | | | |
| L4 | 4 | 48 | 0.03 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 |
| L4 | 4 | 58 | 0.05 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.07 | | |
| L3 | 5 | 66 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L3 | 5 | 76 | 0.08 | 0.08 | 0.08 | | | | | | | |
| L2 | 6 | 79 | 0.09 | 0.10 | 0.11 | 0.12 | | | | | | |
| L1 | 7 | 83 | 0.12 | 0.13 | 0.13 | 0.13 | 0.13 | 0.12 | 0.11 | 0.10 | 0.09 | 0.07 |

INTERMEDIATE REPORT
Total Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.13 | 1.06 | 1.00 | 0.95 | 0.90 | 0.85 | 0.81 | 0.76 | 0.72 | 0.69 |
| C1 | 1 | 11 | 0.65 | 0.62 | 0.59 | 0.56 | 0.53 | 0.51 | 0.49 | 0.46 | | |
| C2 | 2 | 19 | 0.44 | 0.41 | 0.39 | 0.37 | 0.35 | 0.33 | 0.31 | 0.29 | 0.27 | 0.26 |
| C2 | 2 | 29 | 0.24 | 0.23 | 0.22 | 0.21 | 0.19 | 0.18 | 0.17 | 0.16 | 0.16 | 0.15 |
| C2 | 2 | 39 | 0.15 | 0.15 | | | | | | | | |
| L4 | 3 | 41 | 0.15 | 0.18 | 0.24 | 0.37 | 0.64 | 1.21 | 2.37 | | | |
| L4 | 4 | 48 | 2.25 | 2.15 | 2.05 | 1.95 | 1.86 | 1.78 | 1.70 | 1.63 | 1.55 | 1.49 |
| L4 | 4 | 58 | 1.42 | 1.36 | 1.30 | 1.25 | 1.20 | 1.15 | 1.10 | 1.05 | | |
| L3 | 5 | 66 | 1.00 | 0.95 | 0.91 | 0.88 | 0.84 | 0.81 | 0.79 | 0.79 | 0.81 | 0.87 |
| L3 | 5 | 76 | 1.02 | 1.34 | 1.96 | | | | | | | |
| L2 | 6 | 79 | 1.85 | 1.76 | 1.68 | 1.60 | | | | | | |
| L1 | 7 | 83 | 1.52 | 1.46 | 1.40 | 1.35 | 1.30 | 1.25 | 1.17 | 1.08 | 0.97 | 0.84 |

INTERMEDIATE REPORT
Effective Total Nitrogen
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.50 | 1.44 | 1.38 | 1.33 | 1.28 | 1.23 | 1.19 | 1.15 | 1.12 | 1.08 |
| C1 | 1 | 11 | 1.05 | 1.02 | 0.99 | 0.96 | 0.94 | 0.92 | 0.90 | 0.88 | | |
| C2 | 2 | 19 | 0.86 | 0.84 | 0.82 | 0.80 | 0.78 | 0.76 | 0.75 | 0.74 | 0.72 | 0.71 |
| C2 | 2 | 29 | 0.70 | 0.69 | 0.68 | 0.67 | 0.66 | 0.65 | 0.65 | 0.64 | 0.63 | 0.63 |
| C2 | 2 | 39 | 0.63 | 0.63 | | | | | | | | |
| L4 | 3 | 41 | 0.64 | 0.67 | 0.73 | 0.87 | 1.15 | 1.73 | 2.93 | | | |
| L4 | 4 | 48 | 2.81 | 2.71 | 2.62 | 2.53 | 2.44 | 2.36 | 2.29 | 2.22 | 2.15 | 2.09 |
| L4 | 4 | 58 | 2.03 | 1.98 | 1.93 | 1.88 | 1.83 | 1.79 | 1.74 | 1.70 | | |
| L3 | 5 | 66 | 1.66 | 1.62 | 1.59 | 1.55 | 1.53 | 1.50 | 1.49 | 1.48 | 1.50 | 1.56 |
| L3 | 5 | 76 | 1.70 | 1.98 | 2.55 | | | | | | | |
| L2 | 6 | 79 | 2.43 | 2.34 | 2.25 | 2.15 | | | | | | |
| L1 | 7 | 83 | 2.06 | 1.99 | 1.91 | 1.84 | 1.76 | 1.68 | 1.57 | 1.44 | 1.29 | 1.10 |

INTERMEDIATE REPORT
Organic Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.15 | 0.14 | 0.12 | 0.11 | 0.10 | 0.08 | 0.07 | 0.07 | 0.06 | 0.05 |
| C1 | 1 | 11 | 0.05 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | | |
| C2 | 2 | 19 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| C2 | 2 | 29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| C2 | 2 | 39 | 0.00 | 0.00 | | | | | | | | |
| L4 | 3 | 41 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.04 | 0.09 | | | |
| L4 | 4 | 48 | 0.08 | 0.07 | 0.07 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.03 |
| L4 | 4 | 58 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | | |
| L3 | 5 | 66 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| L3 | 5 | 76 | 0.01 | 0.01 | 0.02 | | | | | | | |
| L2 | 6 | 79 | 0.02 | 0.02 | 0.02 | 0.02 | | | | | | |
| L1 | 7 | 83 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.04 | 0.04 | 0.05 | 0.06 |

INTERMEDIATE REPORT
Effective Organic Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.21 | 0.19 | 0.18 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | 0.12 | 0.11 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 11 | 0.11 | 0.10 | 0.10 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 | | |
| C2 | 2 | 19 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 | 0.07 |
| C2 | 2 | 29 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 |
| C2 | 2 | 39 | 0.08 | 0.08 | | | | | | | | |
| L4 | 3 | 41 | 0.08 | 0.08 | 0.08 | 0.09 | 0.10 | 0.12 | 0.17 | | | |
| L4 | 4 | 48 | 0.17 | 0.16 | 0.15 | 0.15 | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.12 |
| L4 | 4 | 58 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.11 | 0.11 | | |
| L3 | 5 | 66 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 |
| L3 | 5 | 76 | 0.11 | 0.11 | 0.11 | | | | | | | |
| L2 | 6 | 79 | 0.11 | 0.11 | 0.10 | 0.10 | | | | | | |
| L1 | 7 | 83 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

INTERMEDIATE REPORT
Dissolved Inorganic Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| C1 | 1 | 11 | 0.50 | 0.50 | 0.50 | 0.50 | 0.49 | 0.49 | 0.49 | 0.49 | | |
| C2 | 2 | 19 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.48 | 0.48 |
| C2 | 2 | 29 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| C2 | 2 | 39 | 0.48 | 0.47 | | | | | | | | |
| L4 | 3 | 41 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.48 | 0.48 | | | |
| L4 | 4 | 48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 | 0.47 |
| L4 | 4 | 58 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.46 | 0.46 | 0.46 | | |
| L3 | 5 | 66 | 0.46 | 0.46 | 0.46 | 0.46 | 0.45 | 0.45 | 0.45 | 0.45 | 0.45 | 0.44 |
| L3 | 5 | 76 | 0.44 | 0.43 | 0.41 | | | | | | | |
| L2 | 6 | 79 | 0.41 | 0.40 | 0.40 | 0.39 | | | | | | |
| L1 | 7 | 83 | 0.39 | 0.38 | 0.37 | 0.36 | 0.35 | 0.33 | 0.32 | 0.30 | 0.28 | 0.26 |

INTERMEDIATE REPORT
Total Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.65 | 0.64 | 0.62 | 0.61 | 0.59 | 0.58 | 0.57 | 0.56 | 0.56 | 0.55 |
| C1 | 1 | 11 | 0.54 | 0.54 | 0.53 | 0.53 | 0.52 | 0.52 | 0.52 | 0.51 | | |
| C2 | 2 | 19 | 0.51 | 0.51 | 0.50 | 0.50 | 0.50 | 0.50 | 0.49 | 0.49 | 0.49 | 0.49 |
| C2 | 2 | 29 | 0.49 | 0.49 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| C2 | 2 | 39 | 0.48 | 0.48 | | | | | | | | |
| L4 | 3 | 41 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.52 | 0.57 | | | |
| L4 | 4 | 48 | 0.56 | 0.55 | 0.54 | 0.54 | 0.53 | 0.52 | 0.52 | 0.51 | 0.51 | 0.50 |
| L4 | 4 | 58 | 0.50 | 0.50 | 0.49 | 0.49 | 0.49 | 0.48 | 0.48 | 0.48 | | |
| L3 | 5 | 66 | 0.47 | 0.47 | 0.47 | 0.47 | 0.46 | 0.46 | 0.46 | 0.46 | 0.45 | 0.45 |
| L3 | 5 | 76 | 0.44 | 0.44 | 0.43 | | | | | | | |
| L2 | 6 | 79 | 0.43 | 0.42 | 0.42 | 0.41 | | | | | | |
| L1 | 7 | 83 | 0.40 | 0.40 | 0.39 | 0.38 | 0.38 | 0.37 | 0.36 | 0.35 | 0.34 | 0.32 |

INTERMEDIATE REPORT
Effective Total Phosphorus
mg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.71 | 0.69 | 0.68 | 0.66 | 0.65 | 0.64 | 0.63 | 0.62 | 0.62 | 0.61 |
| C1 | 1 | 11 | 0.60 | 0.60 | 0.59 | 0.59 | 0.59 | 0.58 | 0.58 | 0.58 | | |
| C2 | 2 | 19 | 0.57 | 0.57 | 0.57 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 |
| C2 | 2 | 29 | 0.56 | 0.56 | 0.56 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| C2 | 2 | 39 | 0.55 | 0.55 | | | | | | | | |
| L4 | 3 | 41 | 0.55 | 0.55 | 0.55 | 0.56 | 0.57 | 0.60 | 0.66 | | | |
| L4 | 4 | 48 | 0.65 | 0.64 | 0.63 | 0.62 | 0.62 | 0.61 | 0.61 | 0.60 | 0.60 | 0.60 |
| L4 | 4 | 58 | 0.59 | 0.59 | 0.59 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | | |
| L3 | 5 | 66 | 0.57 | 0.57 | 0.57 | 0.57 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.55 |
| L3 | 5 | 76 | 0.55 | 0.54 | 0.52 | | | | | | | |
| L2 | 6 | 79 | 0.51 | 0.51 | 0.50 | 0.49 | | | | | | |
| L1 | 7 | 83 | 0.49 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.42 | 0.40 | 0.38 | 0.36 |

INTERMEDIATE REPORT
Chlorophyll a
µg/L

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 43.64 | 43.90 | 44.17 | 44.45 | 44.73 | 45.02 | 45.31 | 45.61 | 45.91 | 46.21 |
| C1 | 1 | 11 | 46.51 | 46.82 | 47.13 | 47.44 | 47.75 | 48.07 | 48.40 | 48.75 | | |
| C2 | 2 | 19 | 49.20 | 49.69 | 50.18 | 50.65 | 51.12 | 51.57 | 52.01 | 52.44 | 52.86 | 53.27 |
| C2 | 2 | 29 | 53.66 | 54.03 | 54.39 | 54.73 | 55.05 | 55.35 | 55.64 | 55.92 | 56.18 | 56.43 |
| C2 | 2 | 39 | 56.67 | 56.94 | | | | | | | | |
| L4 | 3 | 41 | 57.24 | 57.62 | 58.16 | 58.96 | 60.18 | 62.09 | 65.12 | | | |
| L4 | 4 | 48 | 65.75 | 66.34 | 66.93 | 67.54 | 68.14 | 68.76 | 69.39 | 70.01 | 70.65 | 71.29 |
| L4 | 4 | 58 | 71.94 | 72.59 | 73.24 | 73.91 | 74.58 | 75.27 | 75.98 | 76.73 | | |
| L3 | 5 | 66 | 77.51 | 78.26 | 79.00 | 79.73 | 80.42 | 81.06 | 81.59 | 81.93 | 81.94 | 81.35 |
| L3 | 5 | 76 | 79.69 | 76.12 | 69.15 | | | | | | | |
| L2 | 6 | 79 | 68.42 | 67.69 | 66.71 | 65.38 | | | | | | |
| L1 | 7 | 83 | 63.91 | 62.27 | 60.24 | 57.69 | 54.53 | 50.60 | 47.28 | 42.97 | 37.41 | 30.24 |

INTERMEDIATE REPORT
Temperature
deg C

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

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

INTERMEDIATE REPORT
Salinity
ppt

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

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

INTERMEDIATE REPORT
CONDUCTIVITY UNIT
umhos/cm

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 |
| C1 | 1 | 11 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | | |
| C2 | 2 | 19 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 | 2687.78 |
| C2 | 2 | 29 | 2687.78 | 2687.78 | 2687.78 | 2687.79 | 2687.80 | 2687.83 | 2687.88 | 2687.98 | 2688.16 | 2688.51 |

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

INTERMEDIATE REPORT
River Distance
km

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

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

INTERMEDIATE REPORT
Flow
$m^3/s$

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

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

INTERMEDIATE REPORT
Dispersion
$m^2/s$

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| C1 | 1 | 11 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | | |
| C2 | 2 | 19 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| C2 | 2 | 29 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| C2 | 2 | 39 | 1.5 | 1.5 | | | | | | | | |
| L4 | 3 | 41 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | | | |
| L4 | 4 | 48 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| L4 | 4 | 58 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | | |
| L3 | 5 | 66 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| L3 | 5 | 76 | 1.5 | 1.5 | 1.5 | | | | | | | |
| L2 | 6 | 79 | 1.5 | 1.5 | 1.5 | 1.5 | | | | | | |
| L1 | 7 | 83 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |

INTERMEDIATE REPORT
Depth

LA-QUAL Model for Bayou LaBranche Watershed

m

Baseline Simulation with Algal Dynamics

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

INTERMEDIATE REPORT
Width
m

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

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

INTERMEDIATE REPORT
Advective Velocity
m/s

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

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

INTERMEDIATE REPORT
Mean Velocity
m/s

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

| ID | RCH | ELEM | +0 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | 1 | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| C1 | 1 | 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| C2 | 2 | 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| C2 | 2 | 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| C2 | 2 | 39 | 0.0 | 0.0 | | | | | | | | |
| L4 | 3 | 41 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L4 | 4 | 48 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| L4 | 4 | 58 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| L3 | 5 | 66 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| L3 | 5 | 76 | 0.0 | 0.0 | 0.0 | | | | | | | |
| L2 | 6 | 79 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | |
| L1 | 7 | 83 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

INTERMEDIATE REPORT
Cross-Sectional Area
$m^2$

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

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

INTERMEDIATE REPORT
Reaeration Rate
per day

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

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

INTERMEDIATE REPORT
BOD1 Decay Rate
per day

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

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

INTERMEDIATE REPORT
BOD1 Settling Rate
m/d

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

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

INTERMEDIATE REPORT
Ammonia Nitrogen Decay Rate
per day

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

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

INTERMEDIATE REPORT
Sediment Oxygen Demand
g/m²/d

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

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

CAPSULE SUMMARY FOR Cross Bayou Canal

| IOR | REACH | DIST | FLOW | TEMP | SALN | DO | BOD1 | BOD2 | ORG-N | NH3-N | NO3-N | TOT-N | ORG-P | PO4-P | CHLA | DISP | DEPTH | WIDTH | ADVEC VELO | MEAN VELO | DO SAT | REAER RATE | BOD1 DECA | BOD1 SETT | BOD2 DECA | BOD2 SETT | NH3 DECA | SOD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | km | m³/s | deg C | ppt | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | m²/s | m | m | m/s | m/s | mg/L | 1/da | 1/da | 1/da | 1/da | 1/da | 1/da | g/m²/d |
| | HDWTR | | 0.123 | 20.00 | 0.0 | 6.50 | 34.41 | 39.00 | 1.15 | 0.10 | 0.04 | 1.29 | 0.20 | 0.50 | 43.0 | | | | | | | | | | | | | |
| WASTELOAD # 001 (LAG533466) ENTERS HERE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | C1 1 | 9.10 | 0.123 | 20.00 | 0.0 | 6.25 | 31.33 | 0.00 | 0.97 | 0.12 | 0.04 | 1.13 | 0.15 | 0.50 | 43.6 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 2 | C1 1 | 9.00 | 0.123 | 20.00 | 0.0 | 6.17 | 30.16 | 0.00 | 0.90 | 0.12 | 0.04 | 1.06 | 0.14 | 0.50 | 43.9 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | C1 | 1 | 8.90 | 0.123 | 20.00 | 0.0 | 6.12 | 29.04 | 0.00 | 0.84 | 0.13 | 0.04 | 1.00 | 0.12 | 0.50 | 44.2 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 4 | C1 | 1 | 8.80 | 0.123 | 20.00 | 0.0 | 6.07 | 27.97 | 0.00 | 0.78 | 0.13 | 0.04 | 0.95 | 0.11 | 0.50 | 44.4 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 5 | C1 | 1 | 8.70 | 0.123 | 20.00 | 0.0 | 6.05 | 26.93 | 0.00 | 0.72 | 0.13 | 0.04 | 0.90 | 0.10 | 0.50 | 44.7 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 6 | C1 | 1 | 8.60 | 0.123 | 20.00 | 0.0 | 6.03 | 25.93 | 0.00 | 0.67 | 0.14 | 0.04 | 0.85 | 0.08 | 0.50 | 45.0 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 7 | C1 | 1 | 8.50 | 0.123 | 20.00 | 0.0 | 6.03 | 24.97 | 0.00 | 0.63 | 0.14 | 0.04 | 0.81 | 0.07 | 0.50 | 45.3 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 8 | C1 | 1 | 8.40 | 0.123 | 20.00 | 0.0 | 6.03 | 24.05 | 0.00 | 0.58 | 0.14 | 0.04 | 0.76 | 0.07 | 0.50 | 45.6 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 9 | C1 | 1 | 8.30 | 0.123 | 20.00 | 0.0 | 6.04 | 23.16 | 0.00 | 0.54 | 0.14 | 0.04 | 0.72 | 0.06 | 0.50 | 45.9 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 10 | C1 | 1 | 8.20 | 0.123 | 20.00 | 0.0 | 6.06 | 22.30 | 0.00 | 0.50 | 0.14 | 0.04 | 0.69 | 0.05 | 0.50 | 46.2 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 11 | C1 | 1 | 8.10 | 0.123 | 20.00 | 0.0 | 6.09 | 21.48 | 0.00 | 0.47 | 0.14 | 0.04 | 0.65 | 0.05 | 0.50 | 46.5 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 12 | C1 | 1 | 8.00 | 0.123 | 20.00 | 0.0 | 6.12 | 20.69 | 0.00 | 0.44 | 0.14 | 0.04 | 0.62 | 0.04 | 0.50 | 46.8 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 13 | C1 | 1 | 7.90 | 0.123 | 20.00 | 0.0 | 6.16 | 19.93 | 0.00 | 0.41 | 0.14 | 0.04 | 0.59 | 0.04 | 0.50 | 47.1 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.11 | 1.00 |
| 14 | C1 | 1 | 7.80 | 0.123 | 20.00 | 0.0 | 6.20 | 19.20 | 0.00 | 0.38 | 0.14 | 0.04 | 0.56 | 0.03 | 0.50 | 47.4 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 15 | C1 | 1 | 7.70 | 0.123 | 20.00 | 0.0 | 6.25 | 18.51 | 0.00 | 0.35 | 0.14 | 0.04 | 0.53 | 0.03 | 0.49 | 47.7 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 16 | C1 | 1 | 7.60 | 0.123 | 20.00 | 0.0 | 6.31 | 17.85 | 0.00 | 0.33 | 0.14 | 0.04 | 0.51 | 0.03 | 0.49 | 48.1 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 17 | C1 | 1 | 7.50 | 0.123 | 20.00 | 0.0 | 6.37 | 17.23 | 0.00 | 0.31 | 0.13 | 0.04 | 0.49 | 0.02 | 0.49 | 48.4 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 18 | C1 | 1 | 7.40 | 0.123 | 20.00 | 0.0 | 6.46 | 16.65 | 0.00 | 0.29 | 0.13 | 0.04 | 0.46 | 0.02 | 0.49 | 48.7 | 1.5 | 0.82 | 15.5 | 0.010 | 0.010 | 9.092 | 0.974 | 0.10 | 0.24 | 0.00 | 0.00 | 0.12 | 1.00 |
| 19 | C2 | 2 | 7.30 | 0.123 | 20.00 | 0.0 | 6.60 | 16.06 | 0.00 | 0.27 | 0.13 | 0.04 | 0.44 | 0.02 | 0.49 | 49.2 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 9.092 | 1.762 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 20 | C2 | 2 | 7.20 | 0.123 | 20.00 | 0.0 | 6.74 | 15.43 | 0.00 | 0.25 | 0.12 | 0.04 | 0.41 | 0.02 | 0.49 | 49.7 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 9.092 | 1.768 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 21 | C2 | 2 | 7.10 | 0.123 | 20.00 | 0.0 | 6.88 | 14.82 | 0.00 | 0.23 | 0.12 | 0.04 | 0.39 | 0.01 | 0.49 | 50.2 | 1.5 | 0.49 | 18.6 | 0.014 | 0.014 | 9.092 | 1.777 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 22 | C2 | 2 | 7.00 | 0.123 | 20.00 | 0.0 | 7.00 | 14.23 | 0.00 | 0.21 | 0.12 | 0.04 | 0.37 | 0.01 | 0.49 | 50.7 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 9.092 | 1.786 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 23 | C2 | 2 | 6.90 | 0.123 | 20.00 | 0.0 | 7.11 | 13.68 | 0.00 | 0.19 | 0.11 | 0.04 | 0.35 | 0.01 | 0.49 | 51.1 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 9.092 | 1.797 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 24 | C2 | 2 | 6.80 | 0.123 | 20.00 | 0.0 | 7.21 | 13.14 | 0.00 | 0.18 | 0.11 | 0.04 | 0.33 | 0.01 | 0.49 | 51.6 | 1.5 | 0.49 | 18.6 | 0.014 | 0.015 | 9.092 | 1.808 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 25 | C2 | 2 | 6.70 | 0.123 | 20.00 | 0.0 | 7.30 | 12.62 | 0.00 | 0.16 | 0.11 | 0.04 | 0.31 | 0.01 | 0.49 | 52.0 | 1.5 | 0.49 | 18.6 | 0.014 | 0.016 | 9.092 | 1.820 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 26 | C2 | 2 | 6.60 | 0.123 | 20.00 | 0.0 | 7.38 | 12.13 | 0.00 | 0.15 | 0.10 | 0.04 | 0.29 | 0.01 | 0.49 | 52.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.016 | 9.092 | 1.832 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 27 | C2 | 2 | 6.50 | 0.123 | 20.00 | 0.0 | 7.46 | 11.65 | 0.00 | 0.14 | 0.10 | 0.04 | 0.27 | 0.01 | 0.48 | 52.9 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 9.092 | 1.845 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 28 | C2 | 2 | 6.40 | 0.123 | 20.00 | 0.0 | 7.53 | 11.20 | 0.00 | 0.13 | 0.09 | 0.04 | 0.26 | 0.01 | 0.48 | 53.3 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 9.092 | 1.858 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 29 | C2 | 2 | 6.30 | 0.123 | 20.00 | 0.0 | 7.59 | 10.76 | 0.00 | 0.12 | 0.09 | 0.03 | 0.24 | 0.00 | 0.48 | 53.7 | 1.5 | 0.49 | 18.6 | 0.014 | 0.017 | 9.092 | 1.871 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 30 | C2 | 2 | 6.20 | 0.123 | 20.00 | 0.0 | 7.65 | 10.34 | 0.00 | 0.11 | 0.09 | 0.03 | 0.23 | 0.00 | 0.48 | 54.0 | 1.5 | 0.49 | 18.6 | 0.014 | 0.018 | 9.092 | 1.885 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 31 | C2 | 2 | 6.10 | 0.123 | 20.00 | 0.0 | 7.71 | 9.93 | 0.00 | 0.10 | 0.08 | 0.03 | 0.22 | 0.00 | 0.48 | 54.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.018 | 9.092 | 1.899 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 32 | C2 | 2 | 6.00 | 0.123 | 20.00 | 0.0 | 7.76 | 9.55 | 0.00 | 0.09 | 0.08 | 0.03 | 0.21 | 0.00 | 0.48 | 54.7 | 1.5 | 0.49 | 18.6 | 0.014 | 0.019 | 9.092 | 1.913 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 33 | C2 | 2 | 5.90 | 0.123 | 20.00 | 0.0 | 7.80 | 9.18 | 0.00 | 0.09 | 0.08 | 0.03 | 0.19 | 0.00 | 0.48 | 55.0 | 1.5 | 0.49 | 18.6 | 0.014 | 0.019 | 9.092 | 1.927 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 34 | C2 | 2 | 5.80 | 0.123 | 20.00 | 0.0 | 7.84 | 8.82 | 0.00 | 0.08 | 0.07 | 0.03 | 0.18 | 0.00 | 0.48 | 55.4 | 1.5 | 0.49 | 18.6 | 0.014 | 0.020 | 9.092 | 1.942 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 35 | C2 | 2 | 5.70 | 0.123 | 20.00 | 0.0 | 7.87 | 8.48 | 0.00 | 0.08 | 0.07 | 0.03 | 0.17 | 0.00 | 0.48 | 55.6 | 1.5 | 0.49 | 18.6 | 0.014 | 0.020 | 9.092 | 1.956 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |
| 36 | C2 | 2 | 5.60 | 0.123 | 20.00 | 0.0 | 7.90 | 8.15 | 0.00 | 0.07 | 0.07 | 0.03 | 0.16 | 0.00 | 0.48 | 55.9 | 1.5 | 0.49 | 18.6 | 0.014 | 0.021 | 9.092 | 1.971 | 0.10 | 0.41 | 0.00 | 0.00 | 0.12 | 1.00 |

```
  37 C2  2    5.50   0.123 20.00  0.0  7.92   7.84   0.00  0.07  0.06  0.03  0.16  0.00  0.48  56.2    1.5   0.49  18.6  0.014  0.021 9.092  1.986 0.10 0.41 0.00 0.00
0.12  1.00
  38 C2  2    5.40   0.123 20.00  0.0  7.92   7.54   0.00  0.06  0.06  0.02  0.15  0.00  0.48  56.4    1.5   0.49  18.6  0.014  0.022 9.092  2.001 0.10 0.41 0.00 0.00
0.12  1.00
  39 C2  2    5.30   0.123 20.00  0.0  7.88   7.26   0.00  0.06  0.06  0.02  0.15  0.00  0.48  56.7    1.5   0.49  18.6  0.014  0.022 9.092  2.016 0.10 0.41 0.00 0.00
0.12  1.00
  40 C2  2    5.20   0.123 20.00  0.0  7.77   7.00   0.00  0.06  0.06  0.02  0.15  0.00  0.47  56.9    1.5   0.49  18.6  0.014  0.023 9.092  2.031 0.10 0.41 0.00 0.00
0.12  1.00
  41 L4  3    5.10   0.123 20.00  0.0  7.50   6.77   0.00  0.07  0.06  0.02  0.15  0.00  0.47  57.2    1.5   0.50  18.0  0.014  0.024 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  42 L4  3    5.00   0.123 20.00  0.0  7.26   6.58   0.00  0.10  0.06  0.02  0.18  0.00  0.47  57.6    1.5   0.50  18.0  0.014  0.024 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  43 L4  3    4.90   0.123 20.00  0.0  7.06   6.46   0.00  0.15  0.07  0.02  0.24  0.01  0.47  58.2    1.5   0.50  18.0  0.014  0.025 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  44 L4  3    4.80   0.123 20.00  0.0  6.90   6.48   0.00  0.26  0.09  0.02  0.37  0.01  0.47  59.0    1.5   0.50  18.0  0.014  0.025 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  45 L4  3    4.70   0.123 20.00  0.0  6.78   6.76   0.00  0.50  0.12  0.02  0.64  0.02  0.47  60.2    1.5   0.50  18.0  0.014  0.026 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  46 L4  3    4.60   0.123 20.00  0.0  6.71   7.53   0.00  1.00  0.18  0.03  1.21  0.04  0.48  62.1    1.5   0.50  18.0  0.014  0.026 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
        WASTELOAD # 047 (Bayou Traverse) ENTERS HERE
  47 L4  3    4.50   0.180 20.00  0.0  6.71   9.30   0.00  2.03  0.31  0.03  2.37  0.09  0.48  65.1    1.5   0.50  18.0  0.020  0.028 9.092  1.400 0.10 0.40 0.00 0.00
0.12  3.00
  48 L4  4    4.40   0.180 20.00  0.0  6.87   9.01   0.00  1.90  0.32  0.03  2.25  0.08  0.48  65.8    1.5   0.73  18.3  0.013  0.019 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  49 L4  4    4.30   0.180 20.00  0.0  7.01   8.75   0.00  1.79  0.32  0.04  2.15  0.07  0.48  66.3    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  50 L4  4    4.20   0.180 20.00  0.0  7.15   8.50   0.00  1.68  0.33  0.04  2.05  0.07  0.48  66.9    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  51 L4  4    4.10   0.180 20.00  0.0  7.27   8.25   0.00  1.58  0.33  0.04  1.95  0.06  0.48  67.5    1.5   0.73  18.3  0.013  0.020 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  52 L4  4    4.00   0.180 20.00  0.0  7.40   8.02   0.00  1.49  0.33  0.04  1.86  0.05  0.48  68.1    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  53 L4  4    3.90   0.180 20.00  0.0  7.51   7.79   0.00  1.40  0.33  0.04  1.78  0.05  0.48  68.8    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  54 L4  4    3.80   0.180 20.00  0.0  7.62   7.57   0.00  1.32  0.33  0.05  1.70  0.04  0.47  69.4    1.5   0.73  18.3  0.013  0.021 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  55 L4  4    3.70   0.180 20.00  0.0  7.73   7.35   0.00  1.24  0.33  0.05  1.63  0.04  0.47  70.0    1.5   0.73  18.3  0.013  0.022 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  56 L4  4    3.60   0.180 20.00  0.0  7.83   7.14   0.00  1.17  0.33  0.05  1.55  0.04  0.47  70.6    1.5   0.73  18.3  0.013  0.022 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  57 L4  4    3.50   0.180 20.00  0.0  7.93   6.94   0.00  1.10  0.33  0.05  1.49  0.03  0.47  71.3    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  58 L4  4    3.40   0.180 20.00  0.0  8.02   6.74   0.00  1.04  0.33  0.05  1.42  0.03  0.47  71.9    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  59 L4  4    3.30   0.180 20.00  0.0  8.10   6.55   0.00  0.98  0.33  0.06  1.36  0.03  0.47  72.6    1.5   0.73  18.3  0.013  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  60 L4  4    3.20   0.180 20.00  0.0  8.19   6.37   0.00  0.92  0.33  0.06  1.30  0.02  0.47  73.2    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  61 L4  4    3.10   0.180 20.00  0.0  8.27   6.19   0.00  0.87  0.32  0.06  1.25  0.02  0.47  73.9    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  62 L4  4    3.00   0.180 20.00  0.0  8.35   6.01   0.00  0.81  0.32  0.06  1.20  0.02  0.47  74.6    1.5   0.73  18.3  0.013  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  63 L4  4    2.90   0.180 20.00  0.0  8.42   5.84   0.00  0.77  0.32  0.06  1.15  0.02  0.46  75.3    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  64 L4  4    2.80   0.180 20.00  0.0  8.49   5.67   0.00  0.72  0.31  0.06  1.10  0.02  0.46  76.0    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  65 L4  4    2.70   0.180 20.00  0.0  8.57   5.49   0.00  0.67  0.31  0.07  1.05  0.01  0.46  76.7    1.5   0.73  18.3  0.013  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  66 L3  5    2.60   0.180 20.00  0.0  8.64   5.32   0.00  0.63  0.30  0.07  1.00  0.01  0.46  77.5    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  67 L3  5    2.50   0.180 20.00  0.0  8.71   5.15   0.00  0.59  0.30  0.07  0.95  0.01  0.46  78.3    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  68 L3  5    2.40   0.180 20.00  0.0  8.77   4.99   0.00  0.55  0.29  0.07  0.91  0.01  0.46  79.0    1.5   0.73  20.8  0.012  0.023 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  69 L3  5    2.30   0.180 20.00  0.0  8.83   4.84   0.00  0.52  0.29  0.07  0.88  0.01  0.46  79.7    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
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```
  70 L3  5    2.20   0.180 20.00  0.0  8.89   4.70   0.00  0.49  0.28  0.07  0.84  0.01  0.45  80.4    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  71 L3  5    2.10   0.180 20.00  0.0  8.94   4.56   0.00  0.47  0.28  0.07  0.81  0.01  0.45  81.1    1.5   0.73  20.8  0.012  0.024 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50

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

  72 L3  5    2.00   0.180 20.00  0.0  8.98   4.43   0.00  0.45  0.27  0.07  0.79  0.01  0.45  81.6    1.5   0.73  20.8  0.012  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  73 L3  5    1.90   0.180 20.00  0.0  9.01   4.32   0.00  0.45  0.27  0.07  0.79  0.01  0.45  81.9    1.5   0.73  20.8  0.012  0.025 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  74 L3  5    1.80   0.180 20.00  0.0  9.02   4.23   0.00  0.47  0.26  0.07  0.81  0.01  0.45  81.9    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  75 L3  5    1.70   0.180 20.00  0.0  9.00   4.17   0.00  0.53  0.26  0.07  0.87  0.01  0.44  81.3    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  76 L3  5    1.60   0.180 20.00  0.0  8.91   4.18   0.00  0.68  0.27  0.08  1.02  0.01  0.44  79.7    1.5   0.73  20.8  0.012  0.026 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  77 L3  5    1.50   0.180 20.00  0.0  8.70   4.29   0.00  0.98  0.27  0.08  1.34  0.01  0.43  76.1    1.5   0.73  20.8  0.012  0.027 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
        WASTELOAD # 078 (Bayou Trepagnier) ENTERS HERE
  78 L3  5    1.40   0.237 20.00  0.0  8.27   4.61   0.00  1.59  0.29  0.08  1.96  0.02  0.41  69.1    1.5   0.73  20.8  0.016  0.028 9.092  0.956 0.10 0.27 0.00 0.00
0.12  0.50
  79 L2  6    1.30   0.237 20.00  0.0  8.08   4.42   0.00  1.44  0.31  0.09  1.85  0.02  0.41  68.4    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.00
  80 L2  6    1.20   0.237 20.00  0.0  7.92   4.29   0.00  1.34  0.33  0.10  1.76  0.02  0.40  67.7    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.00
  81 L2  6    1.10   0.237 20.00  0.0  7.75   4.16   0.00  1.23  0.34  0.11  1.68  0.02  0.40  66.7    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.00
  82 L2  6    1.00   0.237 20.00  0.0  7.55   4.05   0.00  1.13  0.35  0.12  1.60  0.02  0.39  65.4    1.5   1.99  24.1  0.005  0.009 9.092  0.351 0.10 0.10 0.00 0.00
0.12  1.00
  83 L1  7    0.90   0.237 20.00  0.0  7.35   3.98   0.00  1.03  0.36  0.12  1.52  0.02  0.39  63.9    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  84 L1  7    0.80   0.237 20.00  0.0  7.19   3.94   0.00  0.96  0.37  0.13  1.46  0.02  0.38  62.3    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  85 L1  7    0.70   0.237 20.00  0.0  7.04   3.95   0.00  0.90  0.38  0.13  1.40  0.02  0.37  60.2    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  86 L1  7    0.60   0.237 20.00  0.0  6.90   4.01   0.00  0.84  0.38  0.13  1.35  0.02  0.36  57.7    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  87 L1  7    0.50   0.237 20.00  0.0  6.78   4.14   0.00  0.79  0.38  0.13  1.30  0.03  0.35  54.5    1.5   1.99  34.1  0.003  0.007 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
        WASTELOAD # 088 (LGLD4) ENTERS HERE
  88 L1  7    0.40   0.294 20.00  0.0  6.66   4.35   0.00  0.75  0.38  0.12  1.25  0.04  0.33  50.6    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  89 L1  7    0.30   0.294 20.00  0.0  6.58   4.42   0.00  0.70  0.35  0.11  1.17  0.04  0.32  47.3    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  90 L1  7    0.20   0.294 20.00  0.0  6.52   4.56   0.00  0.66  0.31  0.10  1.08  0.04  0.30  43.0    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  91 L1  7    0.10   0.294 20.00  0.0  6.48   4.80   0.00  0.62  0.26  0.09  0.97  0.05  0.28  37.4    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00
  92 L1  7    0.00   0.294 20.00  0.0  6.47   5.19   0.00  0.58  0.19  0.07  0.84  0.06  0.26  30.2    1.5   1.99  34.1  0.004  0.008 9.092  0.351 0.10 0.10 0.00 0.00
0.12  2.00

FINAL REPORT    Cross Bayou Canal                              LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  1    Cross Bayou Canal 1                            Baseline Simulation with Algal Dynamics

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

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

    1  HDWTR     0.12333   20.00     0.00  2688.00  2688.00   6.50  34.41  39.00  39.00  39.00   1.52   0.10   0.04   0.50  43.00     0.00    0.00
```

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WSTLD | 0.00001 | 20.00 | 0.00 | 0.00 | 0.00 | 2.00 | 103.50 | 0.00 | 103.50 | 0.00 | 7.50 | 15.00 | 2.00 | 0.34 | 10.00 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.20 | 9.10 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.12 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 93.24 | 0.000 | 1.500 | 0.010 |
| 2 | 9.10 | 9.00 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.24 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 186.48 | 0.001 | 1.500 | 0.010 |
| 3 | 9.00 | 8.90 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.36 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 279.72 | 0.001 | 1.500 | 0.010 |
| 4 | 8.90 | 8.80 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.48 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 372.96 | 0.001 | 1.500 | 0.010 |
| 5 | 8.80 | 8.70 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.60 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 466.20 | 0.002 | 1.500 | 0.010 |
| 6 | 8.70 | 8.60 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.72 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 559.44 | 0.002 | 1.500 | 0.010 |
| 7 | 8.60 | 8.50 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.84 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 652.68 | 0.002 | 1.500 | 0.010 |
| 8 | 8.50 | 8.40 | 0.12334 | 0.0 | 0.00964 | 0.12 | 0.96 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 745.92 | 0.003 | 1.500 | 0.010 |
| 9 | 8.40 | 8.30 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.08 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 839.16 | 0.003 | 1.500 | 0.010 |
| 10 | 8.30 | 8.20 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.20 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 932.40 | 0.003 | 1.500 | 0.010 |
| 11 | 8.20 | 8.10 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.32 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1025.64 | 0.004 | 1.500 | 0.010 |
| 12 | 8.10 | 8.00 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.44 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1118.88 | 0.004 | 1.500 | 0.010 |
| 13 | 8.00 | 7.90 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.56 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1212.12 | 0.004 | 1.500 | 0.010 |
| 14 | 7.90 | 7.80 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.68 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1305.36 | 0.005 | 1.500 | 0.010 |
| 15 | 7.80 | 7.70 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.80 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1398.60 | 0.005 | 1.500 | 0.010 |
| 16 | 7.70 | 7.60 | 0.12334 | 0.0 | 0.00964 | 0.12 | 1.92 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1491.84 | 0.005 | 1.500 | 0.010 |
| 17 | 7.60 | 7.50 | 0.12334 | 0.0 | 0.00964 | 0.12 | 2.04 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1585.08 | 0.006 | 1.500 | 0.010 |
| 18 | 7.50 | 7.40 | 0.12334 | 0.0 | 0.00964 | 0.12 | 2.16 | 0.82 | 15.54 | 1278.94 | 1554.00 | 12.79 | 1678.32 | 0.006 | 1.500 | 0.010 |
| TOT | | | | | | 2.16 | | | | 23020.96 | 27972.00 | | | | | |
| AVG | | | | | 0.0096 | | | 0.82 | 15.54 | | | 12.79 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.100 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 9.000 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 8.900 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | 8.800 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 8.700 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | 8.600 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | 8.500 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | 8.400 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | 8.300 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | 8.200 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | 8.100 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | 8.000 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | 7.900 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.11 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | 7.800 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | 7.700 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | 7.600 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17 | 7.500 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18 | 7.400 | 9.09 | 0.97 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.61 | 0.12 | 0.00 | 0.00 | 0.05 | 1.22 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.97 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | | | 0.10 | 0.03 | 0.12 | 0.00 | 0.02 | 0.05 | 0.07 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

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

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.100 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.25 | 31.33 | 0.00 | 35.99 | 0.00 | 0.97 | 0.12 | 0.04 | 1.13 | 1.34 | 1.50 | 0.15 | 0.50 | 0.65 | 0.21 | 0.71 | 43.6 | 0.0 | 0. | 0.00 |
| 2 | 9.000 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.17 | 30.16 | 0.00 | 34.85 | 0.00 | 0.90 | 0.12 | 0.04 | 1.06 | 1.27 | 1.44 | 0.14 | 0.50 | 0.64 | 0.19 | 0.69 | 43.9 | 0.0 | 0. | 0.00 |
| 3 | 8.900 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.12 | 29.04 | 0.00 | 33.76 | 0.00 | 0.84 | 0.13 | 0.04 | 1.00 | 1.21 | 1.38 | 0.12 | 0.50 | 0.62 | 0.18 | 0.68 | 44.2 | 0.0 | 0. | 0.00 |
| 4 | 8.800 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.07 | 27.97 | 0.00 | 32.71 | 0.00 | 0.78 | 0.13 | 0.04 | 0.95 | 1.16 | 1.33 | 0.11 | 0.50 | 0.61 | 0.16 | 0.66 | 44.4 | 0.0 | 0. | 0.00 |
| 5 | 8.700 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.05 | 26.93 | 0.00 | 31.71 | 0.00 | 0.72 | 0.13 | 0.04 | 0.90 | 1.10 | 1.28 | 0.10 | 0.50 | 0.59 | 0.15 | 0.65 | 44.7 | 0.0 | 0. | 0.00 |
| 6 | 8.600 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.03 | 25.93 | 0.00 | 30.74 | 0.00 | 0.67 | 0.14 | 0.04 | 0.85 | 1.06 | 1.23 | 0.08 | 0.50 | 0.58 | 0.14 | 0.64 | 45.0 | 0.0 | 0. | 0.00 |
| 7 | 8.500 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.03 | 24.97 | 0.00 | 29.81 | 0.00 | 0.63 | 0.14 | 0.04 | 0.81 | 1.01 | 1.19 | 0.07 | 0.50 | 0.57 | 0.13 | 0.63 | 45.3 | 0.0 | 0. | 0.00 |
| 8 | 8.400 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.03 | 24.05 | 0.00 | 28.92 | 0.00 | 0.58 | 0.14 | 0.04 | 0.76 | 0.97 | 1.15 | 0.07 | 0.50 | 0.56 | 0.13 | 0.62 | 45.6 | 0.0 | 0. | 0.00 |
| 9 | 8.300 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.04 | 23.16 | 0.00 | 28.06 | 0.00 | 0.54 | 0.14 | 0.04 | 0.72 | 0.93 | 1.12 | 0.06 | 0.50 | 0.56 | 0.12 | 0.62 | 45.9 | 0.0 | 0. | 0.00 |
| 10 | 8.200 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.06 | 22.30 | 0.00 | 27.24 | 0.00 | 0.50 | 0.14 | 0.04 | 0.69 | 0.90 | 1.08 | 0.05 | 0.50 | 0.55 | 0.11 | 0.61 | 46.2 | 0.0 | 0. | 0.00 |
| 11 | 8.100 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.09 | 21.48 | 0.00 | 26.45 | 0.00 | 0.47 | 0.14 | 0.04 | 0.65 | 0.86 | 1.05 | 0.05 | 0.50 | 0.54 | 0.11 | 0.60 | 46.5 | 0.0 | 0. | 0.00 |
| 12 | 8.000 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.12 | 20.69 | 0.00 | 25.69 | 0.00 | 0.44 | 0.14 | 0.04 | 0.62 | 0.83 | 1.02 | 0.04 | 0.50 | 0.54 | 0.10 | 0.60 | 46.8 | 0.0 | 0. | 0.00 |
| 13 | 7.900 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.16 | 19.93 | 0.00 | 24.96 | 0.00 | 0.41 | 0.14 | 0.04 | 0.59 | 0.81 | 0.99 | 0.04 | 0.50 | 0.53 | 0.10 | 0.59 | 47.1 | 0.0 | 0. | 0.00 |
| 14 | 7.800 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.20 | 19.20 | 0.00 | 24.27 | 0.00 | 0.38 | 0.14 | 0.04 | 0.56 | 0.78 | 0.96 | 0.03 | 0.50 | 0.53 | 0.09 | 0.59 | 47.4 | 0.0 | 0. | 0.00 |
| 15 | 7.700 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.25 | 18.51 | 0.00 | 23.61 | 0.00 | 0.35 | 0.14 | 0.04 | 0.53 | 0.76 | 0.94 | 0.03 | 0.49 | 0.52 | 0.09 | 0.59 | 47.7 | 0.0 | 0. | 0.00 |
| 16 | 7.600 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.31 | 17.85 | 0.00 | 22.98 | 0.00 | 0.33 | 0.14 | 0.04 | 0.51 | 0.74 | 0.92 | 0.03 | 0.49 | 0.52 | 0.09 | 0.58 | 48.1 | 0.0 | 0. | 0.00 |
| 17 | 7.500 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.37 | 17.23 | 0.00 | 22.39 | 0.00 | 0.31 | 0.13 | 0.04 | 0.49 | 0.72 | 0.90 | 0.02 | 0.49 | 0.52 | 0.09 | 0.58 | 48.4 | 0.0 | 0. | 0.00 |
| 18 | 7.400 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.46 | 16.65 | 0.00 | 21.86 | 0.00 | 0.29 | 0.13 | 0.04 | 0.46 | 0.70 | 0.88 | 0.02 | 0.49 | 0.51 | 0.08 | 0.58 | 48.7 | 0.0 | 0. | 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 1 | 9.100 | 0.00 | 0.18 | 0.26 | 0.13 | 0.34 | 0.93 | 0.50 | 0.06 | 0.130 | 0.040 | 0.020 | 0.024 | 2.6 | 43.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 2 | 9.000 | 0.00 | 0.18 | 0.25 | 0.13 | 0.35 | 0.93 | 0.51 | 0.07 | 0.132 | 0.040 | 0.020 | 0.024 | 2.6 | 43.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 3 | 8.900 | 0.00 | 0.18 | 0.25 | 0.13 | 0.36 | 0.93 | 0.52 | 0.07 | 0.133 | 0.040 | 0.020 | 0.024 | 2.7 | 44.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 4 | 8.800 | 0.00 | 0.18 | 0.24 | 0.13 | 0.36 | 0.93 | 0.52 | 0.07 | 0.135 | 0.040 | 0.020 | 0.024 | 2.7 | 44.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 5 | 8.700 | 0.00 | 0.18 | 0.24 | 0.13 | 0.37 | 0.93 | 0.53 | 0.07 | 0.136 | 0.040 | 0.020 | 0.024 | 2.7 | 44.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 6 | 8.600 | 0.00 | 0.18 | 0.24 | 0.13 | 0.37 | 0.93 | 0.53 | 0.07 | 0.136 | 0.040 | 0.020 | 0.024 | 2.7 | 45.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 7 | 8.500 | 0.00 | 0.18 | 0.24 | 0.13 | 0.38 | 0.93 | 0.53 | 0.07 | 0.137 | 0.040 | 0.020 | 0.024 | 2.7 | 45.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 8 | 8.400 | 0.00 | 0.18 | 0.24 | 0.13 | 0.38 | 0.93 | 0.54 | 0.07 | 0.138 | 0.040 | 0.020 | 0.024 | 2.8 | 45.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 9 | 8.300 | 0.00 | 0.18 | 0.24 | 0.13 | 0.38 | 0.93 | 0.54 | 0.07 | 0.138 | 0.040 | 0.020 | 0.024 | 2.8 | 45.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 10 | 8.200 | 0.00 | 0.18 | 0.24 | 0.13 | 0.38 | 0.93 | 0.54 | 0.07 | 0.138 | 0.040 | 0.020 | 0.024 | 2.8 | 46.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |

```
   11    8.100   0.00   0.18    0.24 0.13 0.38 0.93 0.54 0.07  0.138  0.040  0.020  0.024   2.8   46.5    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   12    8.000   0.00   0.18    0.24 0.13 0.38 0.93 0.54 0.07  0.138  0.040  0.020  0.024   2.8   46.8    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   13    7.900   0.00   0.18    0.24 0.13 0.38 0.93 0.54 0.07  0.138  0.040  0.020  0.024   2.8   47.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   14    7.800   0.00   0.18    0.24 0.13 0.38 0.93 0.54 0.07  0.138  0.040  0.020  0.024   2.8   47.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   15    7.700   0.00   0.18    0.25 0.13 0.38 0.93 0.54 0.07  0.137  0.040  0.020  0.024   2.7   47.7    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   16    7.600   0.00   0.18    0.25 0.13 0.38 0.93 0.53 0.07  0.137  0.040  0.020  0.024   2.7   48.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   17    7.500   0.00   0.18    0.25 0.13 0.37 0.93 0.53 0.07  0.136  0.040  0.020  0.024   2.7   48.4    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   18    7.400   0.00   0.18    0.25 0.13 0.37 0.92 0.53 0.07  0.135  0.040  0.020  0.024   2.7   48.7    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                  0.000  0.000  0.000

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

FINAL REPORT    Cross Bayou Canal                                LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  2    Cross Bayou Canal 2                              Baseline Simulation with Algal Dynamics

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

   19  UPR RCH   0.12334   20.00     0.00  2687.78     0.00   6.46  16.65   0.00  21.86   0.00   0.29   0.13   0.04   0.49  48.75     0.00    0.00

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

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

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

  TOT                                                 1.87                            19958.22   40898.00
  AVG                                        0.0136                      0.49   18.59                          9.07

 ************************************************************************** BIOLOGICAL AND PHYSICAL COEFFICIENTS
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| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.300 | 9.09 | 1.76 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20 | 7.200 | 9.09 | 1.77 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21 | 7.100 | 9.09 | 1.78 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22 | 7.000 | 9.09 | 1.79 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23 | 6.900 | 9.09 | 1.80 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.31 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24 | 6.800 | 9.09 | 1.81 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.30 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25 | 6.700 | 9.09 | 1.82 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26 | 6.600 | 9.09 | 1.83 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 27 | 6.500 | 9.09 | 1.84 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | 6.400 | 9.09 | 1.86 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 29 | 6.300 | 9.09 | 1.87 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30 | 6.200 | 9.09 | 1.88 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31 | 6.100 | 9.09 | 1.90 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| 32 | 6.000 | 9.09 | 1.91 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 33 | 5.900 | 9.09 | 1.93 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34 | 5.800 | 9.09 | 1.94 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35 | 5.700 | 9.09 | 1.96 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 1.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 36 | 5.600 | 9.09 | 1.97 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 0.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37 | 5.500 | 9.09 | 1.99 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 0.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 38 | 5.400 | 9.09 | 2.00 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 0.93 | 0.00 | 0.00 | 0.00 | 0.00 |
| 39 | 5.300 | 9.09 | 2.02 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40 | 5.200 | 9.09 | 2.03 | 0.10 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 1.02 | 0.12 | 0.00 | 0.00 | 0.05 | 2.05 | 0.00 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 1.88 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | | | 0.10 | 0.05 | 0.12 | 0.00 | 0.02 | 0.05 | 0.09 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL | NCM | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | 7.300 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.60 | 16.06 | 0.00 | 21.31 | 0.00 | 0.27 | 0.13 | 0.04 | 0.44 | 0.68 | 0.86 | 0.02 | 0.49 | 0.51 | 0.08 | 0.57 | 49.2 | 0.0 | 0. | 0.00 | |
| 20 | 7.200 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.74 | 15.43 | 0.00 | 20.73 | 0.00 | 0.25 | 0.12 | 0.04 | 0.41 | 0.67 | 0.84 | 0.02 | 0.49 | 0.51 | 0.08 | 0.57 | 49.7 | 0.0 | 0. | 0.00 | |
| 21 | 7.100 | 20.00 | 0.00 | 2687.78 | 0.00 | 6.88 | 14.82 | 0.00 | 20.18 | 0.00 | 0.23 | 0.12 | 0.04 | 0.39 | 0.65 | 0.82 | 0.01 | 0.49 | 0.50 | 0.08 | 0.57 | 50.2 | 0.0 | 0. | 0.00 | |
| 22 | 7.000 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.00 | 14.23 | 0.00 | 19.64 | 0.00 | 0.21 | 0.12 | 0.04 | 0.37 | 0.64 | 0.80 | 0.01 | 0.49 | 0.50 | 0.08 | 0.57 | 50.7 | 0.0 | 0. | 0.00 | |
| 23 | 6.900 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.11 | 13.68 | 0.00 | 19.13 | 0.00 | 0.19 | 0.11 | 0.04 | 0.35 | 0.63 | 0.78 | 0.01 | 0.49 | 0.50 | 0.08 | 0.57 | 51.1 | 0.0 | 0. | 0.00 | |
| 24 | 6.800 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.21 | 13.14 | 0.00 | 18.65 | 0.00 | 0.18 | 0.11 | 0.04 | 0.33 | 0.62 | 0.76 | 0.01 | 0.49 | 0.50 | 0.08 | 0.56 | 51.6 | 0.0 | 0. | 0.00 | |
| 25 | 6.700 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.30 | 12.62 | 0.00 | 18.18 | 0.00 | 0.16 | 0.11 | 0.04 | 0.31 | 0.61 | 0.75 | 0.01 | 0.49 | 0.49 | 0.08 | 0.56 | 52.0 | 0.0 | 0. | 0.00 | |
| 26 | 6.600 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.38 | 12.13 | 0.00 | 17.73 | 0.00 | 0.15 | 0.10 | 0.04 | 0.29 | 0.60 | 0.74 | 0.01 | 0.49 | 0.49 | 0.08 | 0.56 | 52.4 | 0.0 | 0. | 0.00 | |
| 27 | 6.500 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.46 | 11.65 | 0.00 | 17.30 | 0.00 | 0.14 | 0.10 | 0.04 | 0.27 | 0.59 | 0.72 | 0.01 | 0.48 | 0.49 | 0.07 | 0.56 | 52.9 | 0.0 | 0. | 0.00 | |
| 28 | 6.400 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.53 | 11.20 | 0.00 | 16.89 | 0.00 | 0.13 | 0.09 | 0.04 | 0.26 | 0.58 | 0.71 | 0.01 | 0.48 | 0.49 | 0.07 | 0.56 | 53.3 | 0.0 | 0. | 0.00 | |
| 29 | 6.300 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.59 | 10.76 | 0.00 | 16.49 | 0.00 | 0.12 | 0.09 | 0.03 | 0.24 | 0.58 | 0.70 | 0.00 | 0.48 | 0.49 | 0.07 | 0.56 | 53.7 | 0.0 | 0. | 0.00 | |
| 30 | 6.200 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.65 | 10.34 | 0.00 | 16.11 | 0.00 | 0.11 | 0.09 | 0.03 | 0.23 | 0.57 | 0.69 | 0.00 | 0.48 | 0.49 | 0.07 | 0.56 | 54.0 | 0.0 | 0. | 0.00 | |
| 31 | 6.100 | 20.00 | 0.00 | 2687.78 | 0.00 | 7.71 | 9.93 | 0.00 | 15.74 | 0.00 | 0.10 | 0.08 | 0.03 | 0.22 | 0.56 | 0.68 | 0.00 | 0.48 | 0.48 | 0.07 | 0.56 | 54.4 | 0.0 | 0. | 0.00 | |
| 32 | 6.000 | 20.00 | 0.00 | 2687.79 | 0.00 | 7.76 | 9.55 | 0.00 | 15.39 | 0.00 | 0.09 | 0.08 | 0.03 | 0.21 | 0.56 | 0.67 | 0.00 | 0.48 | 0.48 | 0.07 | 0.55 | 54.7 | 0.0 | 0. | 0.00 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | 5.900 | 20.00 | 0.00 | 2687.80 | 0.00 | 7.80 | 9.18 | 0.00 | 15.06 | 0.00 | 0.09 | 0.08 | 0.03 | 0.19 | 0.56 | 0.66 | 0.00 | 0.48 | 0.48 | 0.07 | 0.55 | 55.0 | 0.0 | 0. | 0.00 |
| 34 | 5.800 | 20.00 | 0.00 | 2687.83 | 0.00 | 7.84 | 8.82 | 0.00 | 14.73 | 0.00 | 0.08 | 0.07 | 0.03 | 0.18 | 0.55 | 0.65 | 0.00 | 0.48 | 0.48 | 0.07 | 0.55 | 55.4 | 0.0 | 0. | 0.00 |
| 35 | 5.700 | 20.00 | 0.00 | 2687.88 | 0.00 | 7.87 | 8.48 | 0.00 | 14.42 | 0.00 | 0.08 | 0.07 | 0.03 | 0.17 | 0.55 | 0.65 | 0.00 | 0.48 | 0.48 | 0.07 | 0.55 | 55.6 | 0.0 | 0. | 0.00 |
| 36 | 5.600 | 20.00 | 0.00 | 2687.98 | 0.00 | 7.90 | 8.15 | 0.00 | 14.12 | 0.00 | 0.07 | 0.07 | 0.03 | 0.16 | 0.55 | 0.64 | 0.00 | 0.48 | 0.48 | 0.07 | 0.55 | 55.9 | 0.0 | 0. | 0.00 |
| 37 | 5.500 | 20.00 | 0.00 | 2688.16 | 0.00 | 7.92 | 7.84 | 0.00 | 13.84 | 0.00 | 0.07 | 0.06 | 0.03 | 0.16 | 0.54 | 0.63 | 0.00 | 0.48 | 0.48 | 0.08 | 0.55 | 56.2 | 0.0 | 0. | 0.00 |
| 38 | 5.400 | 20.00 | 0.00 | 2688.51 | 0.00 | 7.92 | 7.54 | 0.00 | 13.56 | 0.00 | 0.06 | 0.06 | 0.02 | 0.15 | 0.54 | 0.63 | 0.00 | 0.48 | 0.48 | 0.08 | 0.55 | 56.4 | 0.0 | 0. | 0.00 |
| 39 | 5.300 | 20.00 | 0.00 | 2689.19 | 0.00 | 7.88 | 7.26 | 0.00 | 13.31 | 0.00 | 0.06 | 0.06 | 0.02 | 0.15 | 0.54 | 0.63 | 0.00 | 0.48 | 0.48 | 0.08 | 0.55 | 56.7 | 0.0 | 0. | 0.00 |
| 40 | 5.200 | 20.00 | 0.00 | 2690.47 | 0.00 | 7.77 | 7.00 | 0.00 | 13.08 | 0.00 | 0.06 | 0.06 | 0.02 | 0.15 | 0.55 | 0.63 | 0.00 | 0.47 | 0.48 | 0.08 | 0.55 | 56.9 | 0.0 | 0. | 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 19 | 7.300 | 0.00 | 0.18 | 0.25 | 0.21 | 0.36 | 0.92 | 0.52 | 0.11 | 0.222 | 0.040 | 0.020 | 0.041 | 4.4 | 49.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 | 7.200 | 0.00 | 0.18 | 0.26 | 0.21 | 0.36 | 0.92 | 0.52 | 0.11 | 0.219 | 0.040 | 0.020 | 0.041 | 4.4 | 49.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 21 | 7.100 | 0.00 | 0.18 | 0.26 | 0.21 | 0.35 | 0.92 | 0.51 | 0.11 | 0.216 | 0.040 | 0.020 | 0.041 | 4.3 | 50.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 22 | 7.000 | 0.00 | 0.18 | 0.26 | 0.21 | 0.35 | 0.92 | 0.50 | 0.11 | 0.214 | 0.040 | 0.020 | 0.041 | 4.3 | 50.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 23 | 6.900 | 0.00 | 0.18 | 0.26 | 0.21 | 0.34 | 0.92 | 0.50 | 0.10 | 0.210 | 0.040 | 0.020 | 0.041 | 4.2 | 51.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 24 | 6.800 | 0.00 | 0.18 | 0.26 | 0.21 | 0.33 | 0.92 | 0.49 | 0.10 | 0.207 | 0.040 | 0.020 | 0.041 | 4.1 | 51.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 25 | 6.700 | 0.00 | 0.18 | 0.27 | 0.21 | 0.32 | 0.92 | 0.48 | 0.10 | 0.204 | 0.040 | 0.020 | 0.041 | 4.1 | 52.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 26 | 6.600 | 0.00 | 0.18 | 0.27 | 0.21 | 0.32 | 0.92 | 0.47 | 0.10 | 0.201 | 0.040 | 0.020 | 0.041 | 4.0 | 52.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 27 | 6.500 | 0.00 | 0.18 | 0.27 | 0.21 | 0.31 | 0.92 | 0.46 | 0.10 | 0.197 | 0.040 | 0.020 | 0.041 | 3.9 | 52.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 28 | 6.400 | 0.00 | 0.18 | 0.27 | 0.21 | 0.30 | 0.92 | 0.46 | 0.10 | 0.193 | 0.040 | 0.020 | 0.041 | 3.9 | 53.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 29 | 6.300 | 0.00 | 0.18 | 0.27 | 0.21 | 0.29 | 0.92 | 0.45 | 0.09 | 0.190 | 0.040 | 0.020 | 0.041 | 3.8 | 53.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 30 | 6.200 | 0.00 | 0.18 | 0.27 | 0.21 | 0.29 | 0.92 | 0.44 | 0.09 | 0.186 | 0.040 | 0.020 | 0.041 | 3.7 | 54.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 31 | 6.100 | 0.00 | 0.18 | 0.27 | 0.21 | 0.28 | 0.92 | 0.43 | 0.09 | 0.182 | 0.040 | 0.020 | 0.041 | 3.6 | 54.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 32 | 6.000 | 0.00 | 0.17 | 0.28 | 0.21 | 0.27 | 0.92 | 0.42 | 0.09 | 0.178 | 0.040 | 0.020 | 0.041 | 3.6 | 54.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 33 | 5.900 | 0.00 | 0.17 | 0.28 | 0.21 | 0.26 | 0.92 | 0.41 | 0.09 | 0.174 | 0.040 | 0.020 | 0.041 | 3.5 | 55.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 34 | 5.800 | 0.00 | 0.17 | 0.28 | 0.21 | 0.25 | 0.92 | 0.40 | 0.08 | 0.170 | 0.040 | 0.020 | 0.041 | 3.4 | 55.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 35 | 5.700 | 0.00 | 0.17 | 0.28 | 0.21 | 0.25 | 0.92 | 0.39 | 0.08 | 0.165 | 0.040 | 0.020 | 0.041 | 3.3 | 55.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 36 | 5.600 | 0.00 | 0.17 | 0.28 | 0.21 | 0.24 | 0.92 | 0.38 | 0.08 | 0.161 | 0.040 | 0.020 | 0.041 | 3.2 | 55.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 37 | 5.500 | 0.00 | 0.17 | 0.28 | 0.21 | 0.23 | 0.92 | 0.37 | 0.08 | 0.157 | 0.040 | 0.020 | 0.041 | 3.1 | 56.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 38 | 5.400 | 0.00 | 0.17 | 0.28 | 0.21 | 0.22 | 0.92 | 0.36 | 0.08 | 0.153 | 0.040 | 0.020 | 0.041 | 3.1 | 56.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 39 | 5.300 | 0.00 | 0.17 | 0.28 | 0.21 | 0.22 | 0.92 | 0.35 | 0.07 | 0.149 | 0.040 | 0.020 | 0.041 | 3.0 | 56.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |

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   40    5.200   0.00   0.17    0.27 0.21 0.21 0.92 0.35 0.07  0.147  0.040  0.020  0.041   2.9   56.9    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                    0.000  0.000  0.000

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

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

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

   41  UPR RCH   0.12334   20.00     0.00  2690.47     0.00   7.77   7.00   0.00  13.08   0.00   0.06   0.06   0.02   0.47  56.94     0.00    0.00
   47  WSTLD     0.05700   20.00     0.00  3490.00  3490.00   6.50  19.00   0.00  19.00   0.00   7.50   0.86   0.04   0.51  75.00     0.00    0.00

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

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

  TOT                                               0.56                            6300.00   12600.00
  AVG                                     0.0144                     0.50   18.00                        9.00

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

  41    5.100  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.85  0.00  0.00  0.00  0.00
  42    5.000  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.87  0.00  0.00  0.00  0.00
  43    4.900  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  0.95  0.00  0.00  0.00  0.00
  44    4.800  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  1.10  0.00  0.00  0.00  0.00
  45    4.700  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  1.38  0.00  0.00  0.00  0.00
  46    4.600  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  1.78  0.00  0.00  0.00  0.00
  47    4.500  9.09   1.40  0.10  0.40  0.00  0.00  0.00  0.00  0.00  3.00  3.00  3.00  0.10  1.00  0.12  0.00  0.00  0.05  2.00  0.00  2.29  0.00  0.00  0.00  0.00

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

 *   g/m²/d            **   mg/L/day

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

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

  41    5.100  20.00  0.00  2692.93     0.00   7.50   6.77   0.00  12.88   0.00   0.07   0.06   0.02   0.15   0.56   0.64   0.00   0.47   0.48   0.08   0.55   57.2
0.0       0.    0.00
  42    5.000  20.00  0.00  2697.65     0.00   7.26   6.58   0.00  12.73   0.00   0.10   0.06   0.02   0.18   0.59   0.67   0.00   0.47   0.48   0.08   0.55   57.6
0.0       0.    0.00
```

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  43    4.900  20.00  0.00  2706.68     0.00   7.06   6.46   0.00  12.68   0.00   0.15   0.07   0.02   0.24   0.64   0.73   0.01   0.47   0.48   0.08   0.55   58.2
0.0       0.    0.00
  44    4.800  20.00  0.00  2723.95     0.00   6.90   6.48   0.00  12.78   0.00   0.26   0.09   0.02   0.37   0.76   0.87   0.01   0.47   0.48   0.09   0.56   59.0
0.0       0.    0.00
  45    4.700  20.00  0.00  2757.01     0.00   6.78   6.76   0.00  13.19   0.00   0.50   0.12   0.02   0.64   1.01   1.15   0.02   0.47   0.49   0.10   0.57   60.2
0.0       0.    0.00
  46    4.600  20.00  0.00  2820.27     0.00   6.71   7.53   0.00  14.17   0.00   1.00   0.18   0.03   1.21   1.52   1.73   0.04   0.48   0.52   0.12   0.60   62.1
0.0       0.    0.00
  47    4.500  20.00  0.00  2941.33     0.00   6.71   9.30   0.00  16.26   0.00   2.03   0.31   0.03   2.37   2.58   2.93   0.09   0.48   0.57   0.17   0.66   65.1
0.0       0.    0.00

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

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

   41    5.100   0.00   0.17    0.27 0.20 0.21 0.92 0.34 0.07  0.143  0.040  0.020  0.040   2.9   57.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   42    5.000   0.00   0.17    0.25 0.20 0.22 0.92 0.35 0.07  0.144  0.040  0.020  0.040   2.9   57.6    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   43    4.900   0.00   0.17    0.23 0.20 0.23 0.92 0.37 0.08  0.152  0.040  0.020  0.040   3.0   58.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   44    4.800   0.00   0.17    0.20 0.20 0.26 0.92 0.41 0.08  0.167  0.040  0.020  0.040   3.3   59.0    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   45    4.700   0.00   0.17    0.16 0.20 0.32 0.92 0.48 0.10  0.193  0.040  0.020  0.040   3.9   60.2    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   46    4.600   0.00   0.17    0.12 0.20 0.41 0.92 0.57 0.12  0.230  0.040  0.020  0.040   4.6   62.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0
   47    4.500   0.00   0.17    0.09 0.20 0.53 0.92 0.68 0.14  0.270  0.040  0.020  0.040   5.4   65.1    0.29 0.00 0.00 0.00 0.00 0.00 0.00  0.000  0.000  0.000   0.0
0.0

 20 DEG C RATE                                                 2.000  0.040  0.020  0.020                                                     0.000  0.000  0.000

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

FINAL REPORT    Cross Bayou Canal                              LA-QUAL Model for Bayou LaBranche Watershed
REACH NO.  4    Bayou LaBranche (CBC to LABR3)                 Baseline Simulation with Algal Dynamics

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

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

   48  UPR RCH   0.18034   20.00     0.00  2941.33     0.00   6.71   9.30   0.00  16.26   0.00   2.03   0.31   0.03   0.48  65.12     0.00    0.00

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

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

   48    4.50    4.40    0.18034  31.6   0.01347     0.09     4.68    0.73   18.29   1338.83   1829.00   13.39   4997.94   0.017     1.500   0.019
   49    4.40    4.30    0.18034  31.6   0.01347     0.09     4.77    0.73   18.29   1338.83   1829.00   13.39   5107.68   0.018     1.500   0.020
   50    4.30    4.20    0.18034  31.6   0.01347     0.09     4.86    0.73   18.29   1338.83   1829.00   13.39   5217.42   0.018     1.500   0.020
   51    4.20    4.10    0.18034  31.6   0.01347     0.09     4.94    0.73   18.29   1338.83   1829.00   13.39   5327.16   0.018     1.500   0.020
   52    4.10    4.00    0.18034  31.6   0.01347     0.09     5.03    0.73   18.29   1338.83   1829.00   13.39   5436.90   0.019     1.500   0.021
   53    4.00    3.90    0.18034  31.6   0.01347     0.09     5.11    0.73   18.29   1338.83   1829.00   13.39   5546.64   0.019     1.500   0.021
   54    3.90    3.80    0.18034  31.6   0.01347     0.09     5.20    0.73   18.29   1338.83   1829.00   13.39   5656.38   0.020     1.500   0.021
   55    3.80    3.70    0.18034  31.6   0.01347     0.09     5.29    0.73   18.29   1338.83   1829.00   13.39   5766.12   0.020     1.500   0.022
   56    3.70    3.60    0.18034  31.6   0.01347     0.09     5.37    0.73   18.29   1338.83   1829.00   13.39   5875.86   0.020     1.500   0.022
   57    3.60    3.50    0.18034  31.6   0.01347     0.09     5.46    0.73   18.29   1338.83   1829.00   13.39   5985.60   0.021     1.500   0.023
   58    3.50    3.40    0.18034  31.6   0.01347     0.09     5.54    0.73   18.29   1338.83   1829.00   13.39   6095.34   0.021     1.500   0.023
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| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 59 | 3.40 | 3.30 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.63 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6205.08 | 0.021 | 1.500 | 0.023 |
| 60 | 3.30 | 3.20 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.71 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6314.82 | 0.022 | 1.500 | 0.024 |
| 61 | 3.20 | 3.10 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.80 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6424.56 | 0.022 | 1.500 | 0.024 |
| 62 | 3.10 | 3.00 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.89 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6534.30 | 0.023 | 1.500 | 0.024 |
| 63 | 3.00 | 2.90 | 0.18034 | 31.6 | 0.01347 | 0.09 | 5.97 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6644.04 | 0.023 | 1.500 | 0.025 |
| 64 | 2.90 | 2.80 | 0.18034 | 31.6 | 0.01347 | 0.09 | 6.06 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6753.78 | 0.023 | 1.500 | 0.025 |
| 65 | 2.80 | 2.70 | 0.18034 | 31.6 | 0.01347 | 0.09 | 6.14 | 0.73 | 18.29 | 1338.83 | 1829.00 | 13.39 | 6863.52 | 0.024 | 1.500 | 0.025 |
| TOT | | | | | | 1.55 | | | | 24098.91 | 32922.00 | | | | | |
| AVG | | | | | 0.0135 | | | 0.73 | 18.29 | | | 13.39 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 4.400 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 49 | 4.300 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.47 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50 | 4.200 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| 51 | 4.100 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| 52 | 4.000 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 53 | 3.900 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| 54 | 3.800 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.57 | 0.00 | 0.00 | 0.00 | 0.00 |
| 55 | 3.700 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| 56 | 3.600 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 57 | 3.500 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| 58 | 3.400 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.62 | 0.00 | 0.00 | 0.00 | 0.00 |
| 59 | 3.300 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.64 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60 | 3.200 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| 61 | 3.100 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 62 | 3.000 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 63 | 2.900 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.68 | 0.00 | 0.00 | 0.00 | 0.00 |
| 64 | 2.800 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65 | 2.700 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.70 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.96 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | | | 0.10 | 0.04 | 0.12 | 0.00 | 0.02 | 0.05 | 0.08 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | 4.400 | 20.00 | 0.00 | 2941.33 | 0.00 | 6.87 | 9.01 | 0.00 | 16.03 | 0.00 | 1.90 | 0.32 | 0.03 | 2.25 | 2.46 | 2.81 | 0.08 | 0.48 | 0.56 | 0.17 | 0.65 | 65.8 | 0.0 | 0. | 0.00 |
| 49 | 4.300 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.01 | 8.75 | 0.00 | 15.83 | 0.00 | 1.79 | 0.32 | 0.04 | 2.15 | 2.35 | 2.71 | 0.07 | 0.48 | 0.55 | 0.16 | 0.64 | 66.3 | 0.0 | 0. | 0.00 |
| 50 | 4.200 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.15 | 8.50 | 0.00 | 15.65 | 0.00 | 1.68 | 0.33 | 0.04 | 2.05 | 2.25 | 2.62 | 0.07 | 0.48 | 0.54 | 0.15 | 0.63 | 66.9 | 0.0 | 0. | 0.00 |
| 51 | 4.100 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.27 | 8.25 | 0.00 | 15.47 | 0.00 | 1.58 | 0.33 | 0.04 | 1.95 | 2.16 | 2.53 | 0.06 | 0.48 | 0.54 | 0.15 | 0.62 | 67.5 | 0.0 | 0. | 0.00 |
| 52 | 4.000 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.40 | 8.02 | 0.00 | 15.30 | 0.00 | 1.49 | 0.33 | 0.04 | 1.86 | 2.07 | 2.44 | 0.05 | 0.48 | 0.53 | 0.14 | 0.62 | 68.1 | 0.0 | 0. | 0.00 |
| 53 | 3.900 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.51 | 7.79 | 0.00 | 15.13 | 0.00 | 1.40 | 0.33 | 0.04 | 1.78 | 1.99 | 2.36 | 0.05 | 0.48 | 0.52 | 0.14 | 0.61 | 68.8 | 0.0 | 0. | 0.00 |
| 54 | 3.800 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.62 | 7.57 | 0.00 | 14.98 | 0.00 | 1.32 | 0.33 | 0.05 | 1.70 | 1.91 | 2.29 | 0.04 | 0.47 | 0.52 | 0.13 | 0.61 | 69.4 | 0.0 | 0. | 0.00 |
| 55 | 3.700 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.73 | 7.35 | 0.00 | 14.83 | 0.00 | 1.24 | 0.33 | 0.05 | 1.63 | 1.84 | 2.22 | 0.04 | 0.47 | 0.51 | 0.13 | 0.60 | 70.0 | 0.0 | 0. | 0.00 |
| 56 | 3.600 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.83 | 7.14 | 0.00 | 14.69 | 0.00 | 1.17 | 0.33 | 0.05 | 1.55 | 1.77 | 2.15 | 0.04 | 0.47 | 0.51 | 0.13 | 0.60 | 70.6 | 0.0 | 0. | 0.00 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 57 | 3.500 | 20.00 | 0.00 | 2941.33 | 0.00 | 7.93 | 6.94 | 0.00 | 14.55 | 0.00 | 1.10 | 0.33 | 0.05 | 1.49 | 1.71 | 2.09 | 0.03 | 0.47 | 0.50 | 0.12 | 0.60 | 71.3 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 58 | 3.400 | 20.00 | 0.00 | 2941.34 | 0.00 | 8.02 | 6.74 | 0.00 | 14.42 | 0.00 | 1.04 | 0.33 | 0.05 | 1.42 | 1.65 | 2.03 | 0.03 | 0.47 | 0.50 | 0.12 | 0.59 | 71.9 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 59 | 3.300 | 20.00 | 0.00 | 2941.34 | 0.00 | 8.10 | 6.55 | 0.00 | 14.30 | 0.00 | 0.98 | 0.33 | 0.06 | 1.36 | 1.59 | 1.98 | 0.03 | 0.47 | 0.50 | 0.12 | 0.59 | 72.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 3.200 | 20.00 | 0.00 | 2941.35 | 0.00 | 8.19 | 6.37 | 0.00 | 14.19 | 0.00 | 0.92 | 0.33 | 0.06 | 1.30 | 1.54 | 1.93 | 0.02 | 0.47 | 0.49 | 0.12 | 0.59 | 73.2 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | 3.100 | 20.00 | 0.00 | 2941.37 | 0.00 | 8.27 | 6.19 | 0.00 | 14.08 | 0.00 | 0.87 | 0.32 | 0.06 | 1.25 | 1.49 | 1.88 | 0.02 | 0.47 | 0.49 | 0.12 | 0.58 | 73.9 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 62 | 3.000 | 20.00 | 0.00 | 2941.41 | 0.00 | 8.35 | 6.01 | 0.00 | 13.98 | 0.00 | 0.81 | 0.32 | 0.06 | 1.20 | 1.45 | 1.83 | 0.02 | 0.47 | 0.49 | 0.12 | 0.58 | 74.6 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 2.900 | 20.00 | 0.00 | 2941.49 | 0.00 | 8.42 | 5.84 | 0.00 | 13.88 | 0.00 | 0.77 | 0.32 | 0.06 | 1.15 | 1.41 | 1.79 | 0.02 | 0.46 | 0.48 | 0.12 | 0.58 | 75.3 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | 2.800 | 20.00 | 0.00 | 2941.64 | 0.00 | 8.49 | 5.67 | 0.00 | 13.78 | 0.00 | 0.72 | 0.31 | 0.06 | 1.10 | 1.37 | 1.74 | 0.02 | 0.46 | 0.48 | 0.11 | 0.58 | 76.0 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | 2.700 | 20.00 | 0.00 | 2941.91 | 0.00 | 8.57 | 5.49 | 0.00 | 13.69 | 0.00 | 0.67 | 0.31 | 0.07 | 1.05 | 1.33 | 1.70 | 0.01 | 0.46 | 0.48 | 0.11 | 0.58 | 76.7 | 0.0 | 0. |
| 0.00 | | | | | | | | | | | | | | | | | | | | | | | | |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 48 | 4.400 | 0.00 | 0.17 | 0.09 | 0.14 | 0.54 | 0.92 | 0.68 | 0.10 | 0.188 | 0.040 | 0.020 | 0.027 | 3.8 | 65.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 49 | 4.300 | 0.00 | 0.17 | 0.10 | 0.14 | 0.54 | 0.92 | 0.68 | 0.10 | 0.189 | 0.040 | 0.020 | 0.027 | 3.8 | 66.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 50 | 4.200 | 0.00 | 0.17 | 0.10 | 0.14 | 0.55 | 0.92 | 0.69 | 0.10 | 0.189 | 0.040 | 0.020 | 0.027 | 3.8 | 66.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 51 | 4.100 | 0.00 | 0.17 | 0.11 | 0.14 | 0.55 | 0.92 | 0.69 | 0.10 | 0.190 | 0.040 | 0.020 | 0.027 | 3.8 | 67.5 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 52 | 4.000 | 0.00 | 0.17 | 0.11 | 0.14 | 0.56 | 0.92 | 0.69 | 0.10 | 0.190 | 0.040 | 0.020 | 0.027 | 3.8 | 68.1 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 53 | 3.900 | 0.00 | 0.17 | 0.12 | 0.14 | 0.56 | 0.92 | 0.69 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 68.8 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 54 | 3.800 | 0.00 | 0.17 | 0.12 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 69.4 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 55 | 3.700 | 0.00 | 0.17 | 0.13 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 70.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 56 | 3.600 | 0.00 | 0.17 | 0.13 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 70.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 57 | 3.500 | 0.00 | 0.17 | 0.14 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 71.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 58 | 3.400 | 0.00 | 0.17 | 0.14 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 71.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 59 | 3.300 | 0.00 | 0.17 | 0.15 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 72.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 60 | 3.200 | 0.00 | 0.17 | 0.15 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 73.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 61 | 3.100 | 0.00 | 0.17 | 0.16 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.190 | 0.040 | 0.020 | 0.027 | 3.8 | 73.9 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 62 | 3.000 | 0.00 | 0.17 | 0.16 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.190 | 0.040 | 0.020 | 0.027 | 3.8 | 74.6 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 63 | 2.900 | 0.00 | 0.17 | 0.17 | 0.14 | 0.56 | 0.92 | 0.70 | 0.10 | 0.190 | 0.040 | 0.020 | 0.027 | 3.8 | 75.3 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 64 | 2.800 | 0.00 | 0.17 | 0.17 | 0.14 | 0.56 | 0.92 | 0.69 | 0.10 | 0.189 | 0.040 | 0.020 | 0.027 | 3.8 | 76.0 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 65 | 2.700 | 0.00 | 0.17 | 0.18 | 0.14 | 0.55 | 0.92 | 0.69 | 0.09 | 0.188 | 0.040 | 0.020 | 0.027 | 3.8 | 76.7 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | | |

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

FINAL REPORT Cross Bayou Canal LA-QUAL Model for Bayou LaBranche Watershed
REACH NO. 5 Bayou LaBranche (LABR3 to BT) Baseline Simulation with Algal Dynamics

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

| ELEM NO. | TYPE | FLOW | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | PO4-P mg/L | CHL A µg/L | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | UPR RCH | 0.18034 | 20.00 | 0.00 | 2941.91 | 0.00 | 8.57 | 5.49 | 0.00 | 13.69 | 0.00 | 0.67 | 0.31 | 0.07 | 0.46 | 76.73 | 0.00 | 0.00 |
| 78 | WSTLD | 0.05700 | 20.00 | 0.00 | 7292.00 | 7000.00 | 6.50 | 9.00 | 0.00 | 9.00 | 0.00 | 7.50 | 0.17 | 0.04 | 0.34 | 23.00 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.70 | 2.60 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.24 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 6988.08 | 0.021 | 1.500 | 0.023 |
| 67 | 2.60 | 2.50 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.34 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7112.65 | 0.022 | 1.500 | 0.023 |
| 68 | 2.50 | 2.40 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.44 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7237.21 | 0.022 | 1.500 | 0.023 |
| 69 | 2.40 | 2.30 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.53 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7361.77 | 0.022 | 1.500 | 0.024 |
| 70 | 2.30 | 2.20 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.63 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7486.33 | 0.023 | 1.500 | 0.024 |
| 71 | 2.20 | 2.10 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.73 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7610.89 | 0.023 | 1.500 | 0.024 |
| 72 | 2.10 | 2.00 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.83 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7735.45 | 0.024 | 1.500 | 0.025 |
| 73 | 2.00 | 1.90 | 0.18034 | 31.6 | 0.01187 | 0.10 | 6.92 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7860.01 | 0.024 | 1.500 | 0.025 |
| 74 | 1.90 | 1.80 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.02 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 7984.57 | 0.024 | 1.500 | 0.026 |
| 75 | 1.80 | 1.70 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.12 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8109.13 | 0.025 | 1.500 | 0.026 |
| 76 | 1.70 | 1.60 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.22 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8233.69 | 0.025 | 1.500 | 0.026 |
| 77 | 1.60 | 1.50 | 0.18034 | 31.6 | 0.01187 | 0.10 | 7.31 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8358.25 | 0.025 | 1.500 | 0.027 |
| 78 | 1.50 | 1.40 | 0.23734 | 48.0 | 0.01562 | 0.07 | 7.39 | 0.73 | 20.76 | 1519.63 | 2076.00 | 15.20 | 8482.80 | 0.026 | 1.500 | 0.028 |
| TOT | | | | | | 1.24 | | | | 19755.22 | 26988.00 | | | | | |
| AVG | | | | | 0.0121 | | | 0.73 | 20.76 | | | 15.20 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.600 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67 | 2.500 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 68 | 2.400 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.73 | 0.00 | 0.00 | 0.00 | 0.00 |
| 69 | 2.300 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.73 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70 | 2.200 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 71 | 2.100 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 72 | 2.000 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 73 | 1.900 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 74 | 1.800 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75 | 1.700 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.73 | 0.00 | 0.00 | 0.00 | 0.00 |
| 76 | 1.600 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 77 | 1.500 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 78 | 1.400 | 9.09 | 0.96 | 0.10 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.68 | 0.12 | 0.00 | 0.00 | 0.05 | 1.37 | 0.00 | 1.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.96 | 0.10 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | | | 0.10 | 0.05 | 0.12 | 0.00 | 0.02 | 0.05 | 0.11 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM | ENDING | TEMP | SALN | Conduct | CM-2 | DO | BOD1 | BOD2 | EBOD1 | EBOD2 | ORG-N | NH3-N | NO3-N | TOT-N | EORG-N | ETOT-N | ORG-P | PO4-P | TOT-P | EORG-P | ETOT-P | CHL A | PERIP | COLI | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| NO. | DIST | deg C | ppt | umhos/cm | g/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | µg/L | g/m² | #/100mL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2.600 | 20.00 | 0.00 | 2942.40 | 0.00 | 8.64 | 5.32 | 0.00 | 13.59 | 0.00 | 0.63 | 0.30 | 0.07 | 1.00 | 1.29 | 1.66 | 0.01 | 0.46 | 0.47 | 0.11 | 0.57 | 77.5 | 0.0 | 0. | 0.00 |
| 67 | 2.500 | 20.00 | 0.00 | 2943.25 | 0.00 | 8.71 | 5.15 | 0.00 | 13.51 | 0.00 | 0.59 | 0.30 | 0.07 | 0.95 | 1.25 | 1.62 | 0.01 | 0.46 | 0.47 | 0.11 | 0.57 | 78.3 | 0.0 | 0. | 0.00 |
| 68 | 2.400 | 20.00 | 0.00 | 2944.76 | 0.00 | 8.77 | 4.99 | 0.00 | 13.43 | 0.00 | 0.55 | 0.29 | 0.07 | 0.91 | 1.22 | 1.59 | 0.01 | 0.46 | 0.47 | 0.11 | 0.57 | 79.0 | 0.0 | 0. | 0.00 |
| 69 | 2.300 | 20.00 | 0.00 | 2947.48 | 0.00 | 8.83 | 4.84 | 0.00 | 13.36 | 0.00 | 0.52 | 0.29 | 0.07 | 0.88 | 1.20 | 1.55 | 0.01 | 0.46 | 0.47 | 0.11 | 0.57 | 79.7 | 0.0 | 0. | 0.00 |
| 70 | 2.200 | 20.00 | 0.00 | 2952.35 | 0.00 | 8.89 | 4.70 | 0.00 | 13.29 | 0.00 | 0.49 | 0.28 | 0.07 | 0.84 | 1.17 | 1.53 | 0.01 | 0.45 | 0.46 | 0.11 | 0.57 | 80.4 | 0.0 | 0. | 0.00 |
| 71 | 2.100 | 20.00 | 0.00 | 2961.06 | 0.00 | 8.94 | 4.56 | 0.00 | 13.22 | 0.00 | 0.47 | 0.28 | 0.07 | 0.81 | 1.15 | 1.50 | 0.01 | 0.45 | 0.46 | 0.11 | 0.57 | 81.1 | 0.0 | 0. | 0.00 |
| 72 | 2.000 | 20.00 | 0.00 | 2976.67 | 0.00 | 8.98 | 4.43 | 0.00 | 13.15 | 0.00 | 0.45 | 0.27 | 0.07 | 0.79 | 1.14 | 1.49 | 0.01 | 0.45 | 0.46 | 0.11 | 0.56 | 81.6 | 0.0 | 0. | 0.00 |
| 73 | 1.900 | 20.00 | 0.00 | 3004.63 | 0.00 | 9.01 | 4.32 | 0.00 | 13.07 | 0.00 | 0.45 | 0.27 | 0.07 | 0.79 | 1.14 | 1.48 | 0.01 | 0.45 | 0.46 | 0.11 | 0.56 | 81.9 | 0.0 | 0. | 0.00 |
| 74 | 1.800 | 20.00 | 0.00 | 3054.72 | 0.00 | 9.02 | 4.23 | 0.00 | 12.98 | 0.00 | 0.47 | 0.26 | 0.07 | 0.81 | 1.16 | 1.50 | 0.01 | 0.45 | 0.45 | 0.11 | 0.56 | 81.9 | 0.0 | 0. | 0.00 |
| 75 | 1.700 | 20.00 | 0.00 | 3144.42 | 0.00 | 9.00 | 4.17 | 0.00 | 12.86 | 0.00 | 0.53 | 0.26 | 0.07 | 0.87 | 1.22 | 1.56 | 0.01 | 0.44 | 0.45 | 0.11 | 0.55 | 81.3 | 0.0 | 0. | 0.00 |
| 76 | 1.600 | 20.00 | 0.00 | 3305.10 | 0.00 | 8.91 | 4.18 | 0.00 | 12.69 | 0.00 | 0.68 | 0.27 | 0.08 | 1.02 | 1.36 | 1.70 | 0.01 | 0.44 | 0.44 | 0.11 | 0.55 | 79.7 | 0.0 | 0. | 0.00 |
| 77 | 1.500 | 20.00 | 0.00 | 3592.91 | 0.00 | 8.70 | 4.29 | 0.00 | 12.42 | 0.00 | 0.98 | 0.27 | 0.08 | 1.34 | 1.63 | 1.98 | 0.01 | 0.43 | 0.44 | 0.11 | 0.54 | 76.1 | 0.0 | 0. | 0.00 |
| 78 | 1.400 | 20.00 | 0.00 | 4108.40 | 0.00 | 8.27 | 4.61 | 0.00 | 12.00 | 0.00 | 1.59 | 0.29 | 0.08 | 1.96 | 2.18 | 2.55 | 0.02 | 0.41 | 0.43 | 0.11 | 0.52 | 69.1 | 0.0 | 0. | 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO | g/m² |
| 66 | 2.600 | 0.00 | 0.17 | 0.18 | 0.14 | 0.55 | 0.92 | 0.69 | 0.09 | 0.188 | 0.040 | 0.020 | 0.027 | 3.8 | 77.5 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 67 | 2.500 | 0.00 | 0.17 | 0.19 | 0.14 | 0.55 | 0.92 | 0.69 | 0.09 | 0.187 | 0.040 | 0.020 | 0.027 | 3.7 | 78.3 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 68 | 2.400 | 0.00 | 0.17 | 0.19 | 0.14 | 0.55 | 0.92 | 0.69 | 0.09 | 0.187 | 0.040 | 0.020 | 0.027 | 3.7 | 79.0 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 69 | 2.300 | 0.00 | 0.17 | 0.20 | 0.14 | 0.54 | 0.92 | 0.68 | 0.09 | 0.186 | 0.040 | 0.020 | 0.027 | 3.7 | 79.7 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 70 | 2.200 | 0.00 | 0.17 | 0.20 | 0.14 | 0.54 | 0.92 | 0.68 | 0.09 | 0.185 | 0.040 | 0.020 | 0.027 | 3.7 | 80.4 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 71 | 2.100 | 0.00 | 0.17 | 0.21 | 0.14 | 0.54 | 0.92 | 0.68 | 0.09 | 0.184 | 0.040 | 0.020 | 0.027 | 3.7 | 81.1 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 72 | 2.000 | 0.00 | 0.17 | 0.21 | 0.14 | 0.53 | 0.92 | 0.67 | 0.09 | 0.184 | 0.040 | 0.020 | 0.027 | 3.7 | 81.6 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 73 | 1.900 | 0.00 | 0.17 | 0.21 | 0.14 | 0.53 | 0.92 | 0.67 | 0.09 | 0.183 | 0.040 | 0.020 | 0.027 | 3.7 | 81.9 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 74 | 1.800 | 0.00 | 0.17 | 0.22 | 0.14 | 0.53 | 0.92 | 0.67 | 0.09 | 0.183 | 0.040 | 0.020 | 0.027 | 3.7 | 81.9 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 75 | 1.700 | 0.00 | 0.17 | 0.22 | 0.14 | 0.53 | 0.92 | 0.67 | 0.09 | 0.183 | 0.040 | 0.020 | 0.027 | 3.7 | 81.3 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 76 | 1.600 | 0.00 | 0.17 | 0.22 | 0.14 | 0.53 | 0.92 | 0.67 | 0.09 | 0.184 | 0.040 | 0.020 | 0.027 | 3.7 | 79.7 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 77 | 1.500 | 0.00 | 0.17 | 0.23 | 0.14 | 0.54 | 0.91 | 0.68 | 0.09 | 0.187 | 0.040 | 0.020 | 0.027 | 3.7 | 76.1 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 78 | 1.400 | 0.00 | 0.17 | 0.23 | 0.14 | 0.55 | 0.91 | 0.69 | 0.10 | 0.191 | 0.040 | 0.020 | 0.027 | 3.8 | 69.1 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | | |

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

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

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

| ELEM NO. | TYPE | FLOW | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | PO4-P mg/L | CHL A µg/L | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79 | UPR RCH | 0.23734 | 20.00 | 0.00 | 4108.40 | 0.00 | 8.27 | 4.61 | 0.00 | 12.00 | 0.00 | 1.59 | 0.29 | 0.08 | 0.41 | 69.15 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79 | 1.40 | 1.30 | 0.23734 | 48.0 | 0.00494 | 0.23 | 7.62 | 1.99 | 24.08 | 4801.55 | 2408.00 | 48.02 | 8627.29 | 0.008 | 1.500 | 0.009 |
| 80 | 1.30 | 1.20 | 0.23734 | 48.0 | 0.00494 | 0.23 | 7.86 | 1.99 | 24.08 | 4801.55 | 2408.00 | 48.02 | 8771.77 | 0.008 | 1.500 | 0.009 |
| 81 | 1.20 | 1.10 | 0.23734 | 48.0 | 0.00494 | 0.23 | 8.09 | 1.99 | 24.08 | 4801.55 | 2408.00 | 48.02 | 8916.25 | 0.009 | 1.500 | 0.009 |
| 82 | 1.10 | 1.00 | 0.23734 | 48.0 | 0.00494 | 0.23 | 8.33 | 1.99 | 24.08 | 4801.55 | 2408.00 | 48.02 | 9060.73 | 0.009 | 1.500 | 0.009 |
| TOT | | | | | | 0.94 | | | | 19206.21 | 9632.00 | | | | | |
| AVG | | | | | 0.0049 | | | 1.99 | 24.08 | | | 48.02 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79 | 1.300 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 80 | 1.200 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 81 | 1.100 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 82 | 1.000 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.35 | 0.10 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | | | 0.10 | 0.06 | 0.12 | 0.00 | 0.02 | 0.05 | 0.13 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP g/m² | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79 | 1.300 | 20.00 | 0.00 | 4169.58 | 0.00 | 8.08 | 4.42 | 0.00 | 11.73 | 0.00 | 1.44 | 0.31 | 0.09 | 1.85 | 2.02 | 2.43 | 0.02 | 0.41 | 0.43 | 0.11 | 0.51 | 68.4 | 0.0 | 0. | 0.00 |
| 80 | 1.200 | 20.00 | 0.00 | 4230.02 | 0.00 | 7.92 | 4.29 | 0.00 | 11.52 | 0.00 | 1.34 | 0.33 | 0.10 | 1.76 | 1.91 | 2.34 | 0.02 | 0.40 | 0.42 | 0.11 | 0.51 | 67.7 | 0.0 | 0. | 0.00 |
| 81 | 1.100 | 20.00 | 0.00 | 4310.37 | 0.00 | 7.75 | 4.16 | 0.00 | 11.29 | 0.00 | 1.23 | 0.34 | 0.11 | 1.68 | 1.80 | 2.25 | 0.02 | 0.40 | 0.42 | 0.10 | 0.50 | 66.7 | 0.0 | 0. | 0.00 |
| 82 | 1.000 | 20.00 | 0.00 | 4417.19 | 0.00 | 7.55 | 4.05 | 0.00 | 11.04 | 0.00 | 1.13 | 0.35 | 0.12 | 1.60 | 1.68 | 2.15 | 0.02 | 0.39 | 0.41 | 0.10 | 0.49 | 65.4 | 0.0 | 0. | 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE | SECCHI DEPTH | PHYT N | PHYT LIT | PHYT N | PHYT P | PHYT N&P | PHYT TOT | PHYT GROW | PHYT RESP | PHYT DEATH | PHYT SETT | PHYT P/R | PHYTO | PERI N | PERI LIT | PERI N | PERI P | PERI N&P | PERI SPC | PERI TOT | PERI GROW | PERI RESP | PERI DEATH | PERI P/R | PERIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | frac | m | PREF | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | 1/da | RATIO | µg/L | PREF | LIM | LIM | LIM | LIM | LIM | LIM | 1/da | 1/da | 1/da | RATIO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g/m² | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 79 | 1.300 | 0.00 | 0.17 | 0.23 | 0.05 | 0.57 | 0.91 | 0.70 | 0.04 | 0.072 | 0.040 | 0.020 | 0.010 | 1.4 | 68.4 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 1.200 | 0.00 | 0.17 | 0.24 | 0.05 | 0.59 | 0.91 | 0.71 | 0.04 | 0.073 | 0.040 | 0.020 | 0.010 | 1.5 | 67.7 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 81 | 1.100 | 0.00 | 0.17 | 0.24 | 0.05 | 0.60 | 0.91 | 0.72 | 0.04 | 0.074 | 0.040 | 0.020 | 0.010 | 1.5 | 66.7 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 82 | 1.000 | 0.00 | 0.17 | 0.25 | 0.05 | 0.61 | 0.91 | 0.73 | 0.04 | 0.075 | 0.040 | 0.020 | 0.010 | 1.5 | 65.4 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 |
| 0.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | |

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

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

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

| ELEM NO. | TYPE | FLOW | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | PO4-P mg/L | CHL A µg/L | COLI #/100mL | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | UPR RCH | 0.23734 | 20.00 | 0.00 | 4417.19 | 0.00 | 7.55 | 4.05 | 0.00 | 11.04 | 0.00 | 1.13 | 0.35 | 0.12 | 0.39 | 65.38 | 0.00 | 0.00 |
| 88 | WSTLD | 0.05700 | 20.00 | 0.00 | 7969.00 | 7969.00 | 6.50 | 9.00 | 0.00 | 9.00 | 0.00 | 1.10 | 0.90 | 0.04 | 0.20 | 23.00 | 0.00 | 0.00 |

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

| ELEM NO. | BEGIN DIST km | ENDING DIST km | FLOW m³/s | PCT EFF | ADVCTV VELO m/s | TRAVEL TIME days | CUM TIME days | DEPTH m | WIDTH m | VOLUME m³ | SURFACE AREA m² | X-SECT AREA m² | TIDAL PRISM m³ | TIDAL VELO m/s | DISPRSN m²/s | MEAN VELO m/s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 1.00 | 0.90 | 0.23734 | 48.0 | 0.00349 | 0.33 | 8.66 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 9265.21 | 0.006 | 1.500 | 0.007 |
| 84 | 0.90 | 0.80 | 0.23734 | 48.0 | 0.00349 | 0.33 | 8.99 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 9469.69 | 0.006 | 1.500 | 0.007 |
| 85 | 0.80 | 0.70 | 0.23734 | 48.0 | 0.00349 | 0.33 | 9.32 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 9674.17 | 0.007 | 1.500 | 0.007 |
| 86 | 0.70 | 0.60 | 0.23734 | 48.0 | 0.00349 | 0.33 | 9.65 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 9878.65 | 0.007 | 1.500 | 0.007 |
| 87 | 0.60 | 0.50 | 0.23734 | 48.0 | 0.00349 | 0.33 | 9.98 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 10083.13 | 0.007 | 1.500 | 0.007 |
| 88 | 0.50 | 0.40 | 0.29434 | 58.1 | 0.00433 | 0.27 | 10.25 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 10287.61 | 0.007 | 1.500 | 0.008 |
| 89 | 0.40 | 0.30 | 0.29434 | 58.1 | 0.00433 | 0.27 | 10.52 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 10492.09 | 0.007 | 1.500 | 0.008 |
| 90 | 0.30 | 0.20 | 0.29434 | 58.1 | 0.00433 | 0.27 | 10.78 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 10696.57 | 0.007 | 1.500 | 0.008 |
| 91 | 0.20 | 0.10 | 0.29434 | 58.1 | 0.00433 | 0.27 | 11.05 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 10901.05 | 0.007 | 1.500 | 0.008 |
| 92 | 0.10 | 0.00 | 0.29434 | 58.1 | 0.00433 | 0.27 | 11.32 | 1.99 | 34.08 | 6795.55 | 3408.00 | 67.96 | 11105.53 | 0.008 | 1.500 | 0.008 |
| TOT | | | | | | 2.99 | | | | 67955.52 | 34080.00 | | | | | |
| AVG | | | | | 0.0039 | | | 1.99 | 34.08 | | | 67.96 | | | | |

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

| ELEM NO. | ENDING DIST | SAT D.O. mg/L | REAER RATE 1/da | BOD1 DECAY 1/da | BOD1 SETT 1/da | ABOD1 DECAY 1/da | BOD1 HYDR 1/da | BOD2 DECAY 1/da | BOD2 SETT 1/da | ABOD2 DECAY 1/da | BKGD SOD * | FULL SOD * | CORR SOD * | ORG-N HYDR 1/da | ORG-N SETT 1/da | NH3-N DECAY 1/da | NH3-N SRCE * | DENIT RATE 1/da | ORG-P HYDR 1/da | ORG-P SETT 1/da | PO4 SRCE * | PHYTO PROD ** | PERIP PROD ** | COLI DECAY 1/da | NCM DECAY 1/da | NCM SETT 1/da |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 0.800 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85 | 0.700 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 86 | 0.600 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| 87 | 0.500 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| 88 | 0.400 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 89 | 0.300 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90 | 0.200 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| 91 | 0.100 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 92 | 0.000 | 9.09 | 0.35 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 0.10 | 0.25 | 0.12 | 0.00 | 0.00 | 0.05 | 0.50 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| AVG 20 DEG C RATE | | | 0.35 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | | | 0.10 | 0.03 | 0.12 | 0.00 | 0.02 | 0.05 | 0.05 | 0.00 | | | 0.00 | 0.00 | 0.00 |

* g/m²/d ** mg/L/day

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

| ELEM NO. | ENDING DIST | TEMP deg C | SALN ppt | Conduct umhos/cm | CM-2 g/L | DO mg/L | BOD1 mg/L | BOD2 mg/L | EBOD1 mg/L | EBOD2 mg/L | ORG-N mg/L | NH3-N mg/L | NO3-N mg/L | TOT-N mg/L | EORG-N mg/L | ETOT-N mg/L | ORG-P mg/L | PO4-P mg/L | TOT-P mg/L | EORG-P mg/L | ETOT-P mg/L | CHL A µg/L | PERIP COLI NCM g/m² #/100mL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 20.00 | 0.00 | 4534.80 | 0.00 | 7.35 | 3.98 | 0.00 | 10.80 | 0.00 | 1.03 | 0.36 | 0.12 | 1.52 | 1.58 | 2.06 | 0.02 | 0.39 | 0.40 | 0.10 | 0.49 | 63.9 | 0.0 0. 0.00 |
| 84 | 0.800 | 20.00 | 0.00 | 4662.53 | 0.00 | 7.19 | 3.94 | 0.00 | 10.59 | 0.00 | 0.96 | 0.37 | 0.13 | 1.46 | 1.49 | 1.99 | 0.02 | 0.38 | 0.40 | 0.10 | 0.48 | 62.3 | 0.0 0. 0.00 |
| 85 | 0.700 | 20.00 | 0.00 | 4820.01 | 0.00 | 7.04 | 3.95 | 0.00 | 10.38 | 0.00 | 0.90 | 0.38 | 0.13 | 1.40 | 1.41 | 1.91 | 0.02 | 0.37 | 0.39 | 0.10 | 0.47 | 60.2 | 0.0 0. 0.00 |
| 86 | 0.600 | 20.00 | 0.00 | 5014.16 | 0.00 | 6.90 | 4.01 | 0.00 | 10.17 | 0.00 | 0.84 | 0.38 | 0.13 | 1.35 | 1.33 | 1.84 | 0.02 | 0.36 | 0.38 | 0.10 | 0.46 | 57.7 | 0.0 0. 0.00 |
| 87 | 0.500 | 20.00 | 0.00 | 5253.51 | 0.00 | 6.78 | 4.14 | 0.00 | 9.96 | 0.00 | 0.79 | 0.38 | 0.13 | 1.30 | 1.25 | 1.76 | 0.03 | 0.35 | 0.38 | 0.10 | 0.45 | 54.5 | 0.0 0. 0.00 |
| 88 | 0.400 | 20.00 | 0.00 | 5548.59 | 0.00 | 6.66 | 4.35 | 0.00 | 9.76 | 0.00 | 0.75 | 0.38 | 0.12 | 1.25 | 1.18 | 1.68 | 0.04 | 0.33 | 0.37 | 0.10 | 0.44 | 50.6 | 0.0 0. 0.00 |
| 89 | 0.300 | 20.00 | 0.00 | 5777.03 | 0.00 | 6.58 | 4.42 | 0.00 | 9.47 | 0.00 | 0.70 | 0.35 | 0.11 | 1.17 | 1.10 | 1.57 | 0.04 | 0.32 | 0.36 | 0.10 | 0.42 | 47.3 | 0.0 0. 0.00 |
| 90 | 0.200 | 20.00 | 0.00 | 6071.44 | 0.00 | 6.52 | 4.56 | 0.00 | 9.15 | 0.00 | 0.66 | 0.31 | 0.10 | 1.08 | 1.02 | 1.44 | 0.04 | 0.30 | 0.35 | 0.10 | 0.40 | 43.0 | 0.0 0. 0.00 |
| 91 | 0.100 | 20.00 | 0.00 | 6450.85 | 0.00 | 6.48 | 4.80 | 0.00 | 8.80 | 0.00 | 0.62 | 0.26 | 0.09 | 0.97 | 0.93 | 1.29 | 0.05 | 0.28 | 0.34 | 0.10 | 0.38 | 37.4 | 0.0 0. 0.00 |
| 92 | 0.000 | 20.00 | 0.00 | 6939.83 | 0.00 | 6.47 | 5.19 | 0.00 | 8.42 | 0.00 | 0.58 | 0.19 | 0.07 | 0.84 | 0.84 | 1.10 | 0.06 | 0.26 | 0.32 | 0.10 | 0.36 | 30.2 | 0.0 0. 0.00 |

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

| ELEM NO. | ENDING DIST | BANK SHADE frac | SECCHI DEPTH m | PHYT N PREF | PHYT LIT LIM | PHYT N LIM | PHYT P LIM | PHYT N&P LIM | PHYT TOT LIM | PHYT GROW 1/da | PHYT RESP 1/da | PHYT DEATH 1/da | PHYT SETT 1/da | PHYT P/R RATIO | PHYTO µg/L | PERI N PREF | PERI LIT LIM | PERI N LIM | PERI P LIM | PERI N&P LIM | PERI SPC LIM | PERI TOT LIM | PERI GROW 1/da | PERI RESP 1/da | PERI DEATH 1/da | PERI P/R RATIO | PERIP g/m² |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 0.900 | 0.00 | 0.17 | 0.25 | 0.05 | 0.62 | 0.91 | 0.73 | 0.04 | 0.075 | 0.040 | 0.020 | 0.010 | 1.5 | 63.9 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 84 | 0.800 | 0.00 | 0.17 | 0.25 | 0.05 | 0.62 | 0.90 | 0.74 | 0.04 | 0.076 | 0.040 | 0.020 | 0.010 | 1.5 | 62.3 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 85 | 0.700 | 0.00 | 0.17 | 0.25 | 0.05 | 0.63 | 0.90 | 0.74 | 0.04 | 0.076 | 0.040 | 0.020 | 0.010 | 1.5 | 60.2 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 86 | 0.600 | 0.00 | 0.17 | 0.25 | 0.05 | 0.63 | 0.90 | 0.74 | 0.04 | 0.077 | 0.040 | 0.020 | 0.010 | 1.5 | 57.7 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 87 | 0.500 | 0.00 | 0.18 | 0.25 | 0.05 | 0.63 | 0.90 | 0.74 | 0.04 | 0.077 | 0.040 | 0.020 | 0.010 | 1.5 | 54.5 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 88 | 0.400 | 0.00 | 0.18 | 0.24 | 0.05 | 0.63 | 0.89 | 0.74 | 0.04 | 0.077 | 0.040 | 0.020 | 0.010 | 1.5 | 50.6 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 89 | 0.300 | 0.00 | 0.18 | 0.24 | 0.05 | 0.61 | 0.89 | 0.72 | 0.04 | 0.076 | 0.040 | 0.020 | 0.010 | 1.5 | 47.3 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 90 | 0.200 | 0.00 | 0.18 | 0.25 | 0.05 | 0.58 | 0.88 | 0.70 | 0.04 | 0.074 | 0.040 | 0.020 | 0.010 | 1.5 | 43.0 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 91 | 0.100 | 0.00 | 0.18 | 0.26 | 0.05 | 0.54 | 0.88 | 0.67 | 0.04 | 0.072 | 0.040 | 0.020 | 0.010 | 1.4 | 37.4 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 92 | 0.000 | 0.00 | 0.18 | 0.26 | 0.05 | 0.47 | 0.87 | 0.61 | 0.03 | 0.066 | 0.040 | 0.020 | 0.010 | 1.3 | 30.2 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.000 | 0.000 | 0.000 | 0.0 | 0.0 |
| 20 DEG C RATE | | | | | | | | | | 2.000 | 0.040 | 0.020 | 0.020 | | | | | | | | | | 0.000 | 0.000 | 0.000 | | |

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

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

REACH SUMMARY REPORT: Cross Bayou Canal

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

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

STREAM SUMMARY REPORT: Cross Bayou Canal

| | | | | | |
|---|---|---|---|---|---|
| TRAVEL TIME | = | 11.32 DAYS | | | |
| MAXIMUM EFFLUENT | = | 58.10 PERCENT | | | |
| FLOW | = | 0.12334 | TO | 0.29434 | $m^3/s$ |
| DISPERSION | = | 1.5000 | TO | 1.5000 | $m^2/s$ |
| VELOCITY | = | 0.00349 | TO | 0.02004 | m/s |
| DEPTH | = | 0.49 | TO | 1.99 | m |
| WIDTH | = | 15.54 | TO | 34.08 | m |
| BOD DECAY | = | 0.10 | TO | 0.10 | per day |
| NH3 DECAY | = | 0.11 | TO | 0.12 | per day |
| SOD | = | 0.50 | TO | 3.00 | $g/m^2/d$ |
| NH3 SED SOURCE | = | 0.00 | TO | 0.00 | $g/m^2/d$ |
| PO4 SED SOURCE | = | 0.00 | TO | 0.00 | $g/m^2/d$ |
| REAERATION | = | 0.35 | TO | 2.03 | per day |
| BOD SETTLING | = | 0.10 | TO | 0.41 | per day |
| ORG-N DECAY | = | 0.10 | TO | 0.10 | per day |
| ORG-N SETTLING | = | 0.25 | TO | 1.02 | per day |
| TEMPERATURE | = | 20.00 | TO | 20.00 | deg C |
| DISSOLVED OXYGEN | = | 6.03 | TO | 9.02 | mg/L |

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

INPUT/OUTPUT LOADING SUMMARY

| | FLOW $m^3/s$ | DO kg/d | BOD1 kg/d | BOD2 kg/d | ORG-N kg/d | NH3-N kg/d | NO3-N kg/d | ORG-P kg/d | PO4-P kg/d | CHL A | PERIP | NCM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HEADWATER FLOW | 0.12333 | 69.26 | 366.64 | 0.00 | 12.30 | 1.07 | 0.43 | 2.17 | 5.32 | 458.20 | | 0.00 |
| INCREMENTAL INFLOW | 0.00000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| INCREMENTAL OUTFLOW | 0.00000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| WASTELOADS | 0.17101 | 96.04 | 182.31 | 0.00 | 79.30 | 9.52 | 0.59 | 3.27 | 5.15 | 595.91 | | 0.00 |
| WITHDRAWLS | 0.00000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| FLOW THRU LOWER BNDRY | -0.29434 | -164.41 | -131.91 | 0.00 | -14.79 | -4.89 | -1.75 | -1.59 | -6.57 | -768.95 | | 0.00 |
| DISPERSION THRU LOWER BNDRY | | 3.07 | 50.21 | 0.00 | -2.65 | -8.14 | -2.52 | 1.51 | -2.93 | -813.47 | | 0.00 |
| DISPERSION THRU HDWTR BNDRY | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| NON-POINT INPUT | | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | | | | 0.00 |
| NATURAL REAERATION | | 241.84 | | | | | | | | | | |
| DAM REAERATION | | 0.00 | | | | | | | | | | |
| SOD BACKGROUND | | -214.42 | | | | | | | | | | |
| BOD1 DECAY | | -143.45 | -143.45 | | | | | | | | | |
| BOD1 SETTLING | | 0.00 | -346.25 | | | | | | | | | |
| ANAEROBIC BOD1 DECAY | | | 0.00 | | | | | | | | | |
| BOD2 DECAY | | 0.00 | | 0.00 | | | | | | | | |
| BOD2 SETTLING | | 0.00 | | 0.00 | | | | | | | | |
| ANAEROBIC BOD2 DECAY | | | | 0.00 | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BOD2 HYDROLYSIS | | | 0.00 | 0.00 | | | | | | | | |
| ORG-N DECAY | | 0.00 | | | -13.86 | 13.86 | | | | | | |
| ORG-N SETTLING | | | | | -62.09 | 0.00 | | | | | | |
| NH3-N DECAY (NITRIFICATION) | | -24.74 | | | | -5.71 | 5.71 | | | | | |
| NH3-N BACKGROUND SEDIMENT SOURCE | | | | | | 0.00 | | | | | | |
| DENITRIFICATION | | | 0.00 | | | | 0.00 | | | | | |
| ORG-P HYDROLYSIS | | | | | | | | -0.28 | 0.28 | | | |
| ORG-P SETTLING | | | | | | | | -5.35 | 0.00 | | | |
| PO4-P BACKGROUND SEDIMENT SOURCE | | | | | | | | | 0.00 | | | |
| PHYTOPLANKTON GROWTH/PHOTOSYNTHESIS | | 221.05 | | | | -9.25 | -2.49 | | -1.80 | 1381.56 | | |
| PHYTOPLANKTON RESPIRATION/EXCRETION | | -84.13 | | | | 3.58 | | | 0.55 | -420.63 | | |
| PHYTOPLANKTON SETTLING | | 0.00 | | | | 0.00 | | | 0.00 | -221.63 | | |
| PHYTOPLANKTON DEATH | | | 22.46 | 0.00 | 1.79 | | | 0.27 | | -210.31 | | |
| PERIPHYTON GROWTH/PHOTOSYNTHESIS | | 0.00 | | | | 0.00 | 0.00 | | 0.00 | | 0.00 | |
| PERIPHYTON RESPIRATION/EXCRETION | | 0.00 | | | | 0.00 | | | 0.00 | | 0.00 | |
| PERIPHYTON DEATH | | | 0.00 | 0.00 | 0.00 | | | 0.00 | | | 0.00 | |
| NCM DECAY | | 0.00 | | | | | | | | | | 0.00 |
| NCM SETTLING | | 0.00 | | | | | | | | | | 0.00 |
| TOTAL INPUTS | 0.29434 | 631.25 | 621.61 | 0.00 | 93.39 | 28.02 | 6.73 | 7.22 | 11.29 | 2435.67 | 0.00 | 0.00 |
| TOTAL OUTPUTS | -0.29434 | -631.15 | -621.61 | 0.00 | -93.39 | -28.00 | -6.76 | -7.22 | -11.29 | -2434.99 | 0.00 | 0.00 |
| NET CONVERGENCE ERROR | 0.00000 | 0.11 | 0.00 | 0.00 | 0.00 | 0.02 | -0.02 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 |

.....EXECUTION COMPLETED