FINAL

BAYOU CANE WATERSHED TMDL
FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES—PHASE I

SUBSEGMENTS 040903 and 040904

SURVEYED June 16 – 20, 2008

TMDL REPORT

By:
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Louisiana Department of Environmental Quality

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TECHNICAL SUMMARY

Bayou Cane, located in St. Tammany Parish in subsegments 040903 and 040904, was listed in the 2006 Integrated Report and the consent decree. Bayou Cane was subsequently scheduled for TMDL development with other listed waters in the Lake Pontchartrain Basin. Bayou Cane is also listed in the Draft 2008 Integrated Report which is currently under review by EPA and has not yet been approved. This TMDL report addresses the organic enrichment/low DO impairment.

Subsegment 040903 was assessed using Louisiana's Ambient Water Quality Monitoring Site number 0302 which is on Bayou Cane at the U.S. 190 bridge. There is no other ambient monitoring site located on Bayou Cane. Subsegment 040904 was assessed using ambient monitoring site number 1046 which is on Bayou Castine at Prieto Marina. Ambient monitoring site 1046 was previously selected by LDEQ to represent the Subsegment 040904. However, site 1046 may not be an appropriate assessment site for Bayou Cane since Bayou Cane has been designated as an Outstanding Natural Resource Water (ONRW). Historical data from site 1046 was not used in the development of these TMDLs.

Subsegment 040903 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Fish and Wildlife Propagation, and Outstanding Natural Resource Waters.

Subsegment 040904 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Secondary Contact Recreation, Fish and Wildlife Propagation, and Outstanding Natural Resource Waters.

This TMDL establishes load limitations for oxygen-demanding substances for the Bayou Cane watershed in subsegments 040903 and 040904. Oxygen-demanding parameters modeled included CBOD, NBOD, and DO.

LDEQ is utilizing a phased TMDL approach for Bayou Cane as shown in the Table 1. This approach will allow LDEQ to meet its TMDL commitments, revise the subsegments, revise the dissolved oxygen criteria, develop nutrient criteria, and develop meaningful and implementable TMDL reports based on appropriate DO criteria. At the same time, it will lead to improved water quality while providing local governments, businesses, and stakeholders the opportunity to prepare and adjust to new permit requirements that will be required as a result of the TMDLs developed in Phases I and II.

Phase I consists of the implementation of a permitting strategy and the calculation of the TMDL. The TMDL calculation was based on the nonpoint and point source loading values that meet the current DO criteria for Bayou Cane. The nonpoint reductions and the limits for the hospital were acquired through the modeling process. Phase I will serve as the first step towards meeting the DO criteria for Bayou Cane.

Table 1. Bayou Cane Phased TMDL Approach

Stage / Phase	DO Criteria (mg/L)	Implementation Date
Phase I	5.0 (Subsegment 040903) 4.0 (Subsegment 040904)	Phase I implementation required upon EPA approval of the TMDL and subsequent update of the Louisiana's Water Quality Management Plan
Ecoregion-based UAA developed and DO criteria revised and promulgated		
Phase II	Appropriate DO criteria based on UAA	Phase II implementation required upon EPA approval of Phase II of the TMDL and subsequent update of the Louisiana's Water Quality Management Plan

LDEQ has designated Bayou Cane to be an Outstanding Natural Resource Water (ONRW). A review of point source dischargers and modeling results indicate that the impairments under the existing criteria may be caused largely by natural conditions. The only point source having a significant impact on Bayou Cane is the Southeast Louisiana State hospital. The permitting strategy for the Bayou Cane TMDL is intended to protect the ONRW status of Bayou Cane by improving the water quality at this time and preventing the degradation of the water quality in the future.

The implementation of permit limits will occur according to the following strategy:

Phase I Permit Implementation

All TMDL, permitting, and enforcement activities will be conducted in accordance with the Clean Water Act, the Louisiana Environmental Regulatory Code, and applicable state laws.

1. New Discharges of oxygen-demanding loads:

   Due to the ONRW status of Bayou Cane, the waterbody is afforded Tier 3 protection according to 40 CFR 131.12 (a)(3). New or increased discharges that will cause degradation, as defined in LAC 33:IX.1119.C.4, will not be approved. However, in the event that such a discharge will not cause degradation and one of the following requirements can be attained, LDEQ may permit the new discharge. Such new facilities may be required to submit an environmental impact assessment to LDEQ's permitting staff which will conduct a thorough evaluation of the proposed facility based on environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors. The typical permit limits will be 5 mg/L BOD_5 / 2 mg/L NH_3 / 5 mg/L DO.

a. The facility demonstrates that it will provide a significant load reduction of man-made oxygen-demanding constituents to the impaired watershed(s) serviced by the facility. The facility must also contribute to a reduction in the number of facilities discharging to the watershed(s). Facilities that may be considered for permits under this provision include, but are not limited to:

    i. A facility that will provide improved sewage treatment to multiple subdivisions previously serviced by wastewater treatment plants that are incapable of treating to tertiary limits.

    ii. A facility that will provide sewage treatment to previously unsewered areas in which many of the sanitary discharges from permitted facilities and individual home treatment units were entering an impaired watershed. As a result, the facility would be expected to provide more efficient treatment to the wastewater and reduce the net loading of oxygen-demanding substances in the watershed.

b. The facility demonstrates that its wastewater will not leave the facility or its property. Significant stormwater events do not apply to this provision. For the purpose of this provision, a significant stormwater event is defined as the 25 year, 24 hour rainfall event or its numerical equivalent, as defined by the Southern Regional Climate Center.

    i. Facilities that may be considered under this provision include, but are not limited to:

        a. Effluent reduction systems that have been approved by the Louisiana Department of Health and Hospitals.

        b. Wastewater treatment plants equipped with overland flow systems in which the effluent will not leave the facility.

        c. Wastewater treatment plants equipped with holding ponds that will retain the effluent such that the effluent will not leave the facility.

    ii. LDEQ recognizes that some local governments are in the process of building or expanding regional sewage collection and treatment systems. In such areas, LDEQ may, on a limited basis, grant permits to facilities that agree to tie into a regional collection and treatment system when it becomes available. LDEQ must have reasonable assurance that the facility will connect to the regional collection system. Reasonable assurance may include a formal agreement

between the facility, the owner and operator of the regional wastewater treatment system, and LDEQ. The regional system must have the capacity to treat the additional wastewater. Such a permit may have a duration of less than five years or it may have a five year duration with interim permit limits. The facility will be required to cease all wastewater discharges to Bayou Cane and transfer the discharge to the regional collection system once the permit or interim limits expire or the collection system is available to the facility, whichever comes first. Such new facilities will be required to submit an environmental impact assessment to LDEQ's permitting staff which will conduct a thorough evaluation of the proposed facility based on environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors.

c. LDEQ reassesses Subsegments 040903 and/or 040904 (Bayou Cane). LDEQ determines that Subsegments 040903 and/or 040904 are meeting the appropriate DO criteria and designated uses.

2. Existing Discharges of oxygen-demanding loads:

   Below are the reductions for existing dischargers in the Bayou Cane TMDL. Facilities discharging oxygen-demanding loads without LPDES permits as of the TMDL approval date are to be permitted in accordance with the limits established for existing facilities with permits. Unpermitted facilities that are newly activated or reactivated after the TMDL approval date may be subjected to enforcement actions and will be required to tie into regional collection and treatment systems once they are available.

   a. The Southeast Louisiana State Hospital (AI# 9371) will receive a compliance schedule of up to 3 years with final limitations of 5 mg/L BOD_5 / 2 mg/L NH_3 / 5 mg/L DO (with post reaeration).

   b. All other facilities within the Bayou Cane Watershed will keep existing permits limits for Phase I of the TMDL.

3. Nutrient monitoring (i.e. reporting for Total Nitrogen and Total Phosphorus) will be required for individual permits. Nutrient monitoring will be added to the general permit series (LAG530000, LAG540000, LAG560000, and LAG570000) upon the next scheduled renewal of each series.

Phase II will be developed based on the outcome of an ecoregion-based use attainability analysis (UAA) planned for the watershed. Based on existing data for the Lower Mississippi River Alluvial Plains Ecoregion, many of the Lake Pontchartrain Basin TMDLs that are currently being developed may be candidates for DO criteria revisions. TMDL survey data and modeling also indicate that existing DO criteria may be inappropriate. These TMDLs have an interim (state) deadline of March

31, 2011 and a final deadline of March 31, 2012. New ecoregion data is being collected in order to evaluate the need to revise the DO criteria. If needed, such revisions are expected to occur within the next three to five years.

In the event the new criteria are not developed and promulgated within five years from the TMDL approval date for each individual waterbody, LDEQ intends to proceed in the following manner:

> Case 1: UAA study indicates that the current DO criteria are appropriate - the TMDL will be fully implemented based on the existing DO criteria.
> Case 2: The UAA is not likely to be completed and/or approved - the TMDL will be fully implemented based on the existing DO criteria.
> Case 3: The UAA is in progress and is expected to be approved – Phase II of the TMDL will be postponed for a maximum period of 2 years, at which time the UAA status will be reviewed again according to the criteria set in Cases 1 and 2 above.

LDEQ recognizes there may be many unpermitted sources of oxygen-demanding loading within the Lake Pontchartrain Basin. These sources may include unpermitted facilities (privately owned treatment units for subdivisions or businesses). LDEQ has been locating unpermitted facilities and updating location information on permitted facilities in the Lake Pontchartrain Basin. LDEQ has conducted these activities within the Bayou Cane watershed. The unpermitted facilities are required to apply for the appropriate LPDES (Louisiana Pollutant Discharge Elimination System) permits. These unpermitted sources of oxygen-demanding loading may also include individual treatment units for residential homes and small businesses. The ability to accurately quantify the loads provided from these systems is extremely difficult due to lack of reliable information regarding the number of units and the loading provided by each individual unit. Such unpermitted sources of loading may add to the uncertainty of this TMDL and provide additional justification for the use of the phased TMDL approach.

LDEQ believes a primary component of the solution to improving conditions in many of the Lake Pontchartrain Basin waterbodies is the regionalization of wastewater treatment for all sanitary wastewater sources including individual treatment systems.

LDEQ is also investigating the need to modify the subsegment lines for subsegments 040903 and 040904. A significant portion of Bayou Cane contained within subsegment 040903 is intermittent. In addition, subsegment 040904 includes many waterbodies with no connection to Bayou Cane. The load from these waterbodies does not impact Bayou Cane.

There are no MS4 permittees in the Bayou Cane watershed. Subsegment 040904 does contain two MS4 permittees, but they do not impact Bayou Cane.

The final TMDL loading for Phase I is presented in Table 2. LDEQ estimates that the overall nonpoint loading must be reduced by 90% in reach 1, and the overall nonpoint loading must be reduced by 60% in reaches 2-6 in order to meet the current DO criteria of 4.0 mg/L in subsegment 040904 and 5.0 mg/L in subsegment 040903. The percent reduction is different due to the two different DO criteria for the two subsegments. During Phase I, LDEQ recommends load reductions not be implemented in reaches 2-6 because these reaches appeared to be at or near natural background conditions during the survey. These natural conditions may include wetland seepage from neighboring wetlands. In

addition, the projected load reductions indicate that the dissolved oxygen criteria for Bayou Cane may be inappropriate based on the experience of LDEQ's water quality modelers. The load reductions implemented in reach 1, in particular, the new permit limits established for the Southeast Louisiana State Hospital, may contribute to some load reductions in reaches 2-6. Phase II may require different load reductions based on the DO criteria and in-stream conditions.

Existing ecoregion data suggests that the summer and winter DO criteria should be 2.3 mg/L and 4.0 mg/L, respectively. Based on a potential summer criterion of 2.3 mg/L, a 50% overall reduction of nonpoint loading would be required. Southeast Louisiana State Hospital would have permit limits of 5/2/5 ($CBOD_5/NH_3$-N/DO). Water quality monitoring site 0302 is located in the reaches of Bayou Cane for which these proposed criteria would apply.

Table 2. Total Maximum Daily Load (Sum of UCBOD[1], UNBOD, and SOD) for the current dissolved oxygen criteria of 5.0 (Subsegment 040903) and 4.0 (Subsegment 040904)

ALLOCATION Subsegment 040903	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA		53		53
Point Source Reserve MOS (20%)		13		13
Nonpoint Source LA	90	7	90	13
Nonpoint Source Reserve MOS Summer (20%) Winter (20%)		2		4
TMDL		75		83
ALLOCATION Subsegment 040904	SUMMER		WINTER	
	% Reduction Required	(MAY-OCT) (lbs/day)	% Reduction Required	(NOV-APR) (lbs/day)
Point Source WLA		1,010		1,010
Point Source Reserve MOS (20%)		254		254
Nonpoint Source LA	60	423	60	348
Nonpoint Source Reserve MOS Summer (20%) Winter (20%)		106		86
TMDL		1,793		1,698

Note 1: UCBOD as stated in this allocation is Ultimate CBOD.
UCBOD to $CBOD_5$ ratio = 2.3 for all treatment levels
Permit allocations are generally based on $CBOD_5$

Table 3. TMDL Summary – Point Sources in Subsegment 040903, Current DO Criterion of 5.0 mg/L

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRATION DATE	FACILITY TYPE	OUTFALL NO.	OUTFALL DESCRIPTION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS			
							GPD	BOD5/ CBOD5, mg/L	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L	NH_3-N, mg/L	DO, mg/L	MODELING COMMENTS
Southeast Louisiana State Hospital	9371/ LA0049671	1/28/11	POTW	001	Bayou Cane to Lake Pontchartrain	Bayou Cane	280,000	10	5	None	350,000	5	2	5	Included in the model; implementation of permit limits will occur in a phased manner.
Lakeshore High School	165696/ LAG570500	4/30/14	STP	001	LA Hwy. 1088 ditch, unnamed ditch for 4.5 miles, Bayou Cane	Bayou Cane	26,000	10	None	None	32,500	10	None	None	Not modeled; Keep existing permit limits.

Table 4. TMDL Summary – Point Sources in Subsegment 040904, Current DO Criterion of 4.0 mg/L

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRATION DATE	FACILITY TYPE	OUTFALL NO.	OUTFALL DESCRIPTION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
St. Tammany Fire Protection District #4 Station #44	104230/ LAG531412	11/30/12	STP	001	Local drainage, Bayou Cane, Lake Pontchartrain	Bayou Cane	120	45 WA	None	None	150	45 WA	None	None	Not modeled; Keep existing permit limits
Bayou Moon Antiques	40735/ LAG530613	11/30/12	STP	001	Roadside ditch, Bayou Cane, Lake Pontchartrain	Bayou Cane	20	45 WA	None	None	25	45 WA	None	None	Not modeled; Keep existing permit limits
Demmonli-cious Catering LLC	140644/ LAG532086	11/30/12	STP	001	Unnamed ditch, local drainage, Bayou Cane, Lake Pontchartrain	Bayou Cane	60	30	None	None	75	30	None	None	Not modeled; Keep existing permit limits
Bayou Snowballs	122623/ LAG531781	11/30/12	STP	001	Hwy. 190 ditch, unnamed canal, Big Branch Marsh	Big Branch Marsh	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Big Branch Mobile Home Community LLC - Big Branch Mobile Home Community	93933/ LAG541172	6/30/13	STP	001	Local drainage, Big Branch Marsh	Big Branch Marsh	7,800	30	none	none	9,750	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Union Service & Maintenance Co Inc	119824/ LAG531583	11/30/12	STP	001	Highway ditch, unnamed slough, Big Branch Marsh, Lake Pontchartrain	Big Branch Marsh	120	45 WA	none	none	150	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Ace Auto Source LLC - WWTP	156805/ LAG470268	8/31/14	STP	001	Hwy. 190 roadside ditch, unnamed creek, Lake Pontchartrain	Lake Pontchartrain	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
H2O Systems Inc - Autumn Haven STP	128014/ LAG570352	4/30/14	STP	001	Parish drainage ditch, Big Branch, Lake Pontchartrain	Big Branch	36,400	10	none	none	45,500	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
Northshore Duplicate Bridge Club	41150/ LAG530558	11/30/12	STP	001	Local drainage, highway ditch, Big Branch, Lake Pontchartrain	Big Branch	1,500	45 WA	none	none	1,875	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
LADCRT - Fountainbleau State Park	84081/ LAG532681	11/30/12	STP	001	Unnamed drainage, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	120	45 WA	none	none	150	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Rec District #1	18237/ LAG530528	11/30/12	STP	001	Ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	2,499	45 WA	none	none	3,124	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Transitions Law & Professional Center	42477/ LAG530771	11/30/12	STP	001	Local drainage, Bayou Castine	Bayou Castine	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish - Municipal Separate Storm Sewer System	108405/ LAR041024	12/4/12	MS4		Various waterbodies	Various waterbodies	NA	NA	NA	NA	NA	NA	NA	NA	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Marine	52166/ LAG470054	8/31/14	STP	001	Local drainage, Bayou Castine	Bayou Castine	4,999	45 WA	none	none	6,249	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Iqbal Properties LLC - Chahta Mobile Home Park	40994/ LAG570011	6/30/14	STP	001	Ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	22,000	10	none	none	27,500	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
West Wind Sails LLC - West Wind Sails	136253/ LAG532012	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine	Little Bayou Castine	120	30	none	none	150	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Parent Teacher Child Services Inc	42769/ LAG530842	11/30/12	STP	001	Local drainage, Bayou Castine	Bayou Castine	800	45 WA	none	none	1,000	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Bert Cortes - Rented Building	25476/ LAG532057	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	60	45 WA	none	none	75	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Daiquiri's & Cream of Mandeville LLC/Daiquiri's & Cream-Mandeville	96291/ LAG532403	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine	Little Bayou Castine	500	45 WA	none	none	625	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
H2O Systems Inc - Monterey Timbers Marigny Trace Subdivisions	42667/ LA0105554	10/31/12	STP	001	Parish drainage ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	182,400	10	5	none	228,000	10	5	none	Not in Bayou Cane watershed; keep existing permit limits
Delta Fence Inc	143737/ LAG532748	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Ola's Place	42714/ LAG530401	11/30/12	STP	001	Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	2,275	30	none	none	2,844	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Harry Mayeaux - CARQUEST Auto Parts	156959/ LAG532733	11/30/12	STP	001	Roadside ditch, Little Bayou Castine	Little Bayou Castine	60	45 WA	none	none	75	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Government - Red Oak Subdivision	43291/ LAG540902	6/30/13	STP	001	Local drainage, Little Bayou Castine	Little Bayou Castine	5,600	30	none	none	7,000	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Country Kitchen Restaurant	41151/ LAG530696	11/30/12	STP	001	Local drainage, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	1,960	30	none	none	2,450	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Deliverance Tabernacle United Pentecost	41230/ LAG530747	11/30/12	STP	001	Local drainage, Bayou Castine	Bayou Castine	630	45 WA	none	none	788	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Automotive Air Services	126638/ LAG531780	11/30/12	STP	001	Unnamed ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
The Bounce House	41186/ LAG530853	11/30/12	STP	001	Local drainage, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Thomas & Nancy Heidingsfelder - Property	156925/ LAG532929	11/30/12	STP	001	Unnamed ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Patrick Brackley & William Brackley Trust Dollar General & Retail Spaces	93684/ LAG531290	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine	Little Bayou Castine	320	45 WA	none	none	400	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Paul Gement - 915-975 Carroll Street	157198/ LAG533029	11/30/12	STP	001	Unnamed ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Marquez's Auto Service Center	30937/ LAG470216	8/31/14	STP	001	Parish drainage ditch, Bayou Castine	Bayou Castine	4,999	45 WA	none	none	6,249	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Northshore Animal Hospital Inc	98461/ LAG531313	11/30/12	STP	001	Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	80	45 WA	none	none	100	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Paul Gement - Orleans Building	139383/ LAG532065	11/30/12	STP	001	Local drainage, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Mamacita's Gerard Street LLC	42369/ LAG530704	11/30/12	STP	001	Local drainage, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	2,120	30	none	none	2,650	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Government - Castine Regional Sewage Treatment Plant	122025/ LA0120154	4/30/11	STP	001	Bayou Castine, Lake Pontchartrain	Bayou Castine	1,000,000	10	4	none	1,250,000	10	4	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Square 188 Rural Mandeville POA Inc	103883/ LAG531422	11/30/12	STP	001	Local drainage, Bayou Castine, Lake Pontchartrain	Bayou Castine	4,000	30	none	none	5,000	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Kinder Haus Mandeville Inc - Kinder Haus Montessori	156749/ LAG532752	11/30/12	STP	001	Unnamed ditch, Lake Pontchartrain	Lake Pontchartrain	1,345	30	none	none	1,681	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Mandeville City of - Municipal Separate Storm Sewer System	108432/ LAR041008	12/4/12	MS4		Various waterbodies	Various waterbodies	NA	NA	NA	NA	NA	NA	NA	NA	Not in Bayou Cane watershed; keep existing permit limits
Mandeville Karate Training Center	117484/ LAG531528	11/30/12	STP	001	Local drainage, Hwy. 59 ditch, Lake Pontchartrain	Lake Pontchartrain	1,240	45 WA	none	none	1,550	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Service Master Absolute Cleaning Services LLC	238/ LAG532951	11/30/12	STP	001	Local drainage, Hwy. 59 ditch, Bayou Chinchuba	Bayou Chinchuba	540	45 WA	none	none	675	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Knight's Wrecker Service	157222/ LAG532795	11/30/12	STP	001	Unnamed drainage ditch, Bayou Chinchuba	Bayou Chinchuba	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
KT Automotive Inc	94160/ LAG470161	8/31/14	STP	001	Unnamed ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRA-TION DATE	FACILITY TYPE	OUT-FALL NO.	OUTFALL DESCRIP-TION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Lazaro's Heating & Air Conditioning Inc	157216/ LAG532805	11/30/12	STP	001	Roadside ditch, Bayou Chinchuba	Bayou Chinchuba	120	45 WA	none	none	150	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Crossroads Shopping Center	122239/ LAG531649	11/30/12	STP	001	Hwy 59 ditch, Lake Pontchartrain	Lake Pontchartrain	4,400	45 WA	none	none	5,500	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Richard J Vanek Properties LLC - HMIH	144461/ LAG532148	11/30/12	STP	001	Hwy. 59 ditch, Lake Pontchartrain	Lake Pontchartrain	80	45 WA	none	none	100	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Dave's Collision Shop	24182/ LAG531471	11/30/12	STP	001	Hwy 59 ditch, Lake Pontchartrain	Lake Pontchartrain	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Governor Control Systems Inc	157040/ LAG532741	11/30/12	STP	001	Hwy. 59 ditch, unnamed canal, Lake Pontchartrain	Lake Pontchartrain	300	45 WA	none	none	375	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
JRM Bel LLC - Southern Pipe & Supply Inc	157197/ LAG533062	11/30/12	STP	001	Local drainage ditch, highway ditch, Bayou Chinchuba	Bayou Chinchuba	150	45 WA	none	none	188	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
WREDCO - Weyerhauser Real Estate & Development Co	153566/ LA0123382	7/31/14	STP	001	Unnamed ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	300,000	10	5	none	375,000	10	5	none	Not in Bayou Cane watershed; keep existing permit limits

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRA-TION DATE	FACILITY TYPE	OUT-FALL NO.	OUTFALL DESCRIP-TION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Greenleaves Utility Co - Greenleaves Subdivision	19599/ LA0068730	8/31/12	STP	001	Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	950,000	10	4	5	1,187, 500	10	4	5	Not in Bayou Cane watershed; keep existing permit limits
Brookside Office Complex - Northshore I Commercial Condo Association Inc	42673/ LAG530395	11/30/12	STP	001	Roadside ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	2,100	45 WA	none	none	2,625	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Lanier Music	42260/ LAG530731	11/30/12	STP	001	Roadside ditch, Bayou Chinchuba	Bayou Chinchuba	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Mandeville Christian Fellowship Church	123007/ LAG531674	11/30/12	STP	001	Local drainage, Little Bayou Castine	Little Bayou Castine	1,000	30	none	none	1,250	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Marbar LLC	42393/ LAG530837	11/30/12	STP	001	Local drainage, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	160	45 WA	none	none	200	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Hosanna Lutheran Church Inc	41529/ LAG530208	11/30/12	STP	001	Parish drainage ditch, Bayou Chinchuba	Bayou Chinchuba	3,500	30	none	none	4,375	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Chilly's Famous Sno-Balls	108508/ LAG531411	11/30/12	STP	001	Roadside ditch, Little Bayou Castine, Lake Pontchartrain	Little Bayou Castine	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Latter & Blum Inc	157162/ LAG532757	11/30/12	STP	001	Unnamed ditch, Bayou Chinchuba	Bayou Chinchuba	560	45 WA	none	none	700	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
OPS Turnkey LLC	42729/ LAG530823	11/30/12	STP	001	Local drainage, Bayou Chinchuba	Bayou Chinchuba	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Government - Forest Park Apts STP	38224/ LAG540551	6/30/13	STP	001	Unnamed ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	5,400	30	none	none	6,750	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish of - Wadsworth Subdivision WWTP	155943/ LA0124214	4/30/14	STP	001	Parish drainage ditch, Pipeline ditch, Bayou Castine	Bayou Castine	180,000	10	5	none	225,000	10	5	none	Not in Bayou Cane watershed; keep existing permit limits
The Soil & Garden Depot	156853/ LAG532769	11/30/12	STP	001	Local drainage, Bayou Chinchuba	Bayou Chinchuba	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
All Creatures Country Club - Shari K Karanas - WWTP	156979/ LAG537212	11/30/12	STP	001	Hwy. 1088 ditch, Bayou Castine, Lake Pontchartrain	Bayou Castine	800	45 WA	none	none	1,000	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRA-TION DATE	FACILITY TYPE	OUT-FALL NO.	OUTFALL DESCRIP-TION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
S&G Investments LLC	40945/ LAG530765	11/30/12	STP	001	Local Drainage then to Bayou Chinchuba	Bayou Chinchuba	160	45 WA	none	none	200	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Dejaunay Hair Design	156961/ LAG532815	11/30/12	STP	001	Parish drainage ditch then into Bayou Chinchuba	Bayou Chinchuba	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Gayle Betz - Century 21 Gaylaxey Office Building	149191/ LAG532219	11/30/12	STP	001	Roadside ditch then into Bayou Chinchuba	Bayou Chinchuba	380	45 WA	none	none	475	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Liberty Self Storage #11	128003/ LAG531885	11/30/12	STP	001	Highway ditch then into local drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	320	45 WA	none	none	400	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
B&N Investments	41988/ LAG530273	11/30/12	STP	001	Roadside ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	2,480	45 WA	none	none	3,100	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
H2O Systems Inc - Woodland Apartments STF	19967/ LAG570039	4/30/14	STP	001	Parish drainage ditch then into Bayou Chinchuba then to Lake Pontchartrain	Bayou Chinchuba	45,000	10	none	none	56,250	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
Liberty Self Storage LLC #3	98959/ LAG531491	11/30/12	STP	001	Roadside ditch then to Bayou Chinchuba then to Lake Pontchartrain	Bayou Chinchuba	320	45 WA	none	none	400	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
C&C Drugs	163607/ LAG533331	11/30/12	STP	001	Effluent pipe then into a retention pond then 0.04 miles into Highway 59 ditch then into Bayou Chinchuba	Bayou Chinchuba	160	45 WA	none	none	200	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Government - Woodcrest Subdivision	38142/ LAG540657	6/30/13	STP	001	Roadside ditch then into Little Bayou Castine then into Lake Pontchartrain	Little Bayou Castine	5,600	30	none	none	7,000	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
St Tammany Parish Government - Twin Oaks	91147/ LAG570487	4/30/14	STP	001	By effluent pipe to local drainage then into Highway 59 drainage ditch then to Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	8,000	10	none	none	10,000	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
Southern Fastening Systems	157223/ LAG532791	11/30/12	STP	001	Unnamed drainage ditch then into Bayou Chinchuba	Bayou Chinchuba	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Mandeville Christian Church	42371/ LAG530862	11/30/12	STP	001	Highway ditch then to Bayou Chinchuba	Bayou Chinchuba	150	45 WA	none	none	188	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Northlake Automotive	22673/ LAG470237	8/31/14	STP	001	Effluent pipe then into parish drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
B&N Investments - Southern Country Designs	157103/ LAG532739	11/30/12	STP	001	Unnamed ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRA-TION DATE	FACILITY TYPE	OUT-FALL NO.	OUTFALL DESCRIP-TION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Dr Robert Hurst - SWWT	157199/ LAG533208	11/30/12	STP	001	Effluent pipe, then 1.11 miles into an unnamed ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	40	45 WA	none	none	50	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Richard St Pe Co Inc	118207/ LAG531521	11/30/12	STP	001	Local drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	60	45 WA	none	none	75	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Yeoh & Williams LLC - Little Tokyo	52163/ LAG531848	11/30/12	STP	001	By effluent pipe then into parish drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	1,620	30	none	none	2,025	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
B&N Investments - Onesource Professional Search	157102/ LAG532743	11/30/12	STP	001	Unnamed ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	120	45 WA	none	none	150	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Tire Kingdom #180	28048/ LAG470263	8/31/14	STP	001	Parish drainage ditch then into Bayou Chinchuba then to Lake Pontchartrain	Bayou Chinchuba	4,999	45 WA	none	none	6,249	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
B&N Investments - Basic Elements Day Spa	157104/ LAG532742	11/30/12	STP	001	Unnamed ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	160	45 WA	none	none	200	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Patrick Shannon Allison DDS	36613/ LAG531558	11/30/12	STP	001	Local drainage then to Bayou Chinchuba	Bayou Chinchuba	220	45 WA	none	none	275	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Redi Med Clinic	94543/ LAG532062	11/30/12	STP	001	Local drainage then into Bayou Chinchuba	Bayou Chinchuba	200	45 WA	none	none	250	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Tiffany Lanes	22229/ LAG540886	6/30/13	STP	001	Unnamed ditch then to Bayou Chinchuba	Bayou Chinchuba	8,480	30	none	none	10,600	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Quad Investments LLC	94639/ LAG531555	11/30/12	STP	001	Roadside ditch then to Bayou Chinchuba then to Lake Pontchartrain	Bayou Chinchuba	500	45 WA	none	none	625	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Darby Holdings LLC - Asbury Square	139426/ LAG532090	11/30/12	STP	001	Parish drainage ditch then into Bayou Chinchuba	Bayou Chinchuba	300	45 WA	none	none	375	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
2156 3rd Street LLC - Creations Galore	119791/ LAG531571	11/30/12	STP	001	Unnamed ditch then into local drainage then into Bayou Chinchuba	Bayou Chinchuba	240	45 WA	none	none	300	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
La Petite Maison Childcare LLC	163672/ LAG533129	11/30/12	STP	001	Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	400	45 WA	none	none	500	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Asbury Drive Office Building	122547/ LAG531656	11/30/12	STP	001	Local drainage into Bayou Chinchuba	Bayou Chinchuba	240	45 WA	none	none	300	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Sun Cleaners LLC	52159/ LAG532087	11/30/12	STP	001	Retention pond then via local drainage to Bayou Chinchuba	Bayou Chinchuba	480	45 WA	none	none	600	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Thomas Danos - STP	129243/ LAG531821	11/30/12	STP	001	Roadside ditch along the La. Highway 22 right-of-way then to Bayou Chinchuba	Bayou Chinchuba	280	30	none	none	350	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Safeway Industries	139646/ LAG532135	11/30/12	STP	001	Unnamed ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	120	45 WA	none	none	150	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
St Tammany Parish Hospital - Hospice	3756/ LAG530527	11/30/12	STP	001	Ditch then to Bayou Chinchuba then to Lake Pontchartrain	Bayou Chinchuba	400	45 WA	none	none	500	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Marret LLC - 2180 3rd St Bldg	41235/ LAG530165	11/30/12	STP	001	Unnamed ditch, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	80	45 WA	none	none	100	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Riverside Veterinary Hospital	87273/ LAG531653	11/30/12	STP	001	From veterinary offices, hospital and animal boarding facility into Bayou Chinchuba via local drainage then to Lake Pontchartrain	Bayou Chinchuba	500	30	none	none	625	30	none	none	Not in Bayou Cane watershed; keep existing permit limits

FACILITY	AI NO./PERMIT NO.	PERMIT EXPIRATION DATE	FACILITY TYPE	OUTFALL NO.	OUTFALL DESCRIPTION	RECEIVING WATER	CURRENT EXPECTED FLOW	CURRENT MONTHLY AVERAGE CONCENTRATION LIMITS			TMDL FLOW	TMDL MONTHLY AVERAGE CONCENTRATION LIMITS**			
							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
NU-Lite Electrical Supply	139647/ LAG532133	11/30/12	STP	001	Unnamed ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
DECS Investments LLC	41224/ LAG530873	11/30/12	STP	001	Highway 59 Ditch then to Bayou Chinchuba	Bayou Chinchuba	800	45 WA	none	none	1,000	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Tammany Oaks Church of Christ	129835/ LAG531953	11/30/12	STP	001	Unnamed ditch then into local drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	2,250	45 WA	none	none	2,813	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
HJH Land Development	83638/ LAG531061	11/30/12	STP	001	Local Drainage then to Bayou Chinchuba	Bayou Chinchuba	260	45 WA	none	none	325	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
WSA LLC - 3933 Hwy 59 Building	127091/ LAG531964	11/30/12	STP	001	Unnamed ditch then into Chinchuba Creek then into Lake Pontchartrain	Bayou Chinchuba	300	45 WA	none	none	375	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Total Environmental Solutions Inc - Beau Pre Subdivision	18603/ LAG570104	4/30/14	STP	001	By effluent discharge pipe then into unnamed ditch then into Bayou Chinchuba	Bayou Chinchuba	30,000	10	none	none	37,500	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
DeVun Veterinary Medical Hospital	125738/ LAG531738	11/30/12	STP	001	Unnamed ditch then to Bayou Chinchuba	Bayou Chinchuba	120	30	none	none	150	30	none	none	Not in Bayou Cane watershed; keep existing permit limits
Fountainbleau Junior & Fountainbleau High Schools	43404/ LAG570064	4/30/14	STP	001	By effluent pipe then into unnamed drainage ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	66,900	10	none	none	83,625	10	none	none	Not in Bayou Cane watershed; keep existing permit limits
Campbell Cabinet Co Inc	116474/ LAG531502	11/30/12	STP	001	Local drainage, Chinchuba Creek, Bayou Chinchuba, Lake Pontchartrain	Bayou Chinchuba	280	45 WA	none	none	350	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Hwy 59 Project - Construction	118212/ LAG531514	11/30/12	STP	001	Highway 59 Ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	140	45 WA	none	none	175	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

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							GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	GPD	BOD5/ CBOD5, mg/L*	NH_3-N, mg/L	DO, mg/L	COMMENTS
Campbell Shelving	126566/ LAG531986	11/30/12	STP	001	Local drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	160	45 WA	none	none	200	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Campbell Ventures No 3 LLC	146789/ LAG532177	11/30/12	STP	001	Roadside ditch then into Bayou Chinchuba	Bayou Chinchuba	280	45 WA	none	none	350	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
Campbell Shelving Co Inc - Campbell Building	99213/ LAG531402	11/30/12	STP	001	Local drainage then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	100	45 WA	none	none	125	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
OJALA Ltd - 5 Minute Oil Change	99280/ LAG532680	11/30/12	STP	001	Unnamed ditch then into Bayou Chinchuba then into Lake Pontchartrain	Bayou Chinchuba	80	45 WA	none	none	100	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits
BMC Investments LLC - Strip Mall	98456/ LAG531263	11/30/12	STP	001	Roadside ditch then through local drainage then to Bayou Chinchuba	Bayou Chinchuba	400	45 WA	none	none	500	45 WA	none	none	Not in Bayou Cane watershed; keep existing permit limits

* WA= Weekly average
** Permit limits for facilities listed in Table 4 will not change as a result of this TMDL.

EXECUTIVE SUMMARY

This report presents the results of a watershed-based calibrated modeling analysis of Bayou Cane. Bayou Cane is in the Lake Pontchartrain Basin and is located in subsegments 040903 and 040904. Bayou Cane was the only waterbody modeled for this TMDL effort since it is the waterbody designated in the subsegment name. The modeling was conducted to establish a TMDL for biochemical oxygen-demanding pollutants for subsegments 040903 and 040904. The model extends from just above the Southeast Louisiana State Hospital discharge point to Lake Pontchartrain. Due to lack of access to the waterbody and intermittent flow conditions, Bayou Cane was not surveyed any further upstream. The land use of the area is primarily scrub/shrub, forest, agriculture/cropland/grassland, and water.

There are five dischargers located within the Bayou Cane watershed, including two in Subsegment 040903 and three in Subsegment 040904. One discharger, Southeast Louisiana State Hospital, was included in the model. The remaining four are small enough so as to not contribute a significant load to Bayou Cane. Most, if not all, of the loading will be expressed in local drainage ditches before it reaches Bayou Cane. These dischargers are accounted for as nonpoint loading through the process of calibration. In order to meet the current dissolved oxygen (DO) criteria of 5.0 mg/L in subsegment 040903 and 4.0 mg/L in subsegment 040904, an overall nonpoint reduction of 90% in reach 1 and 60% in reaches 2-6 is required in addition to more stringent discharge limits of 5/2/5 ($CBOD_5/NH_3$-N/DO) for Southeast Louisiana State Hospital.

Subsegment 040904 also contains 112 facilities that have no impact on Bayou Cane. They received a wasteload allocation based on their existing permit limits and flows.

Input data for the calibration model was developed from data collected during the June 2008 intensive survey. The nonpoint source loads included nonpoint loading not associated with flow. A satisfactory calibration was achieved for the main stem. For the projection models, ambient temperature and dissolved oxygen data were taken from ambient water quality network station 0302. The Louisiana Total Maximum Daily Load Technical Procedures, Revision 12, was followed in this study.

The various spreadsheets that were used in conjunction with the modeling program may be found in the appendices. During the projection stage of modeling, nonpoint and point source loads were reduced to meet the dissolved oxygen criteria. At the time of the survey, the average dissolved oxygen in Bayou Cane was below the current criteria except for the last modeled reach of the waterbody.

Modeling was limited to low flow scenarios for both the calibration and the projections since the constituent of concern was dissolved oxygen and the available data was limited to low flow conditions. The model used was LA-QUAL, a modified version of QUAL-TX, which has been adapted to address specific needs of Louisiana waters.

Bayou Cane, Subsegments 040903 and 040904, was listed in the 2006 Integrated Report and the Consent Decree. Bayou Cane was subsequently scheduled for TMDL development with other listed waters in the Lake Pontchartrain Basin.

Subsegment 040903 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Fish and Wildlife Propagation, and Outstanding Natural Resource Waters. The suspected

causes of impairment are organic enrichment/low dissolved oxygen, chloride, fecal coliform, pH, and turbidity. The suspected sources are Site Clearance (Land Development or Redevelopment), On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), and Drought-related Impacts.

Subsegment 040904 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Secondary Contact Recreation, Fish and Wildlife Propagation, and Outstanding Natural Resource Waters. The suspected causes of impairment are organic enrichment/low dissolved oxygen, fecal coliform, pH, mercury, turbidity, and dissolved copper. The suspected sources are On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Package Plant or Other Permitted Small Flows Discharges, and unknown sources.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criteria are supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources. However, nutrients were not modeled and this TMDL does not provide allocations for nutrients (total phosphorus, total nitrogen).

Louisiana does not have numeric nutrient criteria at the present time. The original nutrient impairments for waterbodies in the Pontchartrain Basin were not based on quantitative assessments of historical nutrient data. The impairments were based on evaluative assessments that may have included dissolved oxygen. LDEQ and EPA plan to reevaluate the previous nutrient impairments in the Pontchartrain Basin. As a result, both the EPA and LDEQ expect the nutrient impairments to change from category 5 (impairment exists; TMDL required) to category 3 (insufficient data) for Louisiana's 2010 Integrated Report. Therefore, LDEQ believes that TMDLs for dissolved oxygen should adequately address any potential nutrient impairments in the absence of numeric nutrient criteria and quantitative assessments.

LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

http://www.deq.louisiana.gov/portal/Portals/0/planning/LA%20Nutrient%20Strategy%20Plan%20Final%20FOR%20WEB.pdf.

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

Upon development of nutrient criteria, a subsequent quantitative assessment of the waterbodies, and the development of full nutrient models, nutrient limits may be established for all facilities discharging to impaired waterbodies in the Pontchartrain Basin. LDEQ recommends that all facilities discharging to impaired waterbodies take a proactive approach and prepare to receive nutrient limitations in the

near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

LDEQ recognizes that there are many unpermitted facilities within the Pontchartrain Basin. LDEQ is in the process of locating these facilities in an effort to get them permitted. LDEQ is also updating its location information on all permitted facilities within the basin.

A calibrated water quality model for the watershed was developed and projections were modeled to quantify the point and nonpoint source load reductions which would be necessary for Bayou Cane to comply with its established water quality standards and criteria. This report presents the results of that analysis.

This TMDL will implement a phased approach as shown in Table 1. This report represents Phase I of the TMDL. For Phase I, a 90% overall reduction of the nonpoint load in reach 1 and a 60% overall reduction of the nonpoint load in reaches 2-6 are required to achieve the current DO criteria of 4.0 mg/L in subsegment 040904 and 5.0 mg/L in subsegment 040903. In addition, more stringent permit limits of 5/2/5 ($CBOD_5/NH_3$-N/DO) are required for Southeast Louisiana State Hospital. Permit limits for facilities in subsegment 040904 are summarized in Table 4. During Phase I, LDEQ recommends load reductions not be implemented in reaches 2-6 because these reaches appeared to be at or near natural background conditions during the survey. In addition, the projected load reductions indicate that the dissolved oxygen criteria for Bayou Cane may be inappropriate based on the experience of LDEQ's water quality modelers. The load reductions implemented in reach 1, in particular, the new permit limits established for the Southeast Louisiana State Hospital, may contribute to some load reductions in reaches 2-6. Phase II may require different load reductions based on the DO criteria and in-stream conditions.

LDEQ is in the process of reevaluating Louisiana's ecoregions and modifying the ecoregion boundaries where appropriate. Bayou Cane appears to reside in two different ecoregions, the Lower Mississippi River Alluvial Plain (LMRAP) ecoregion and a transitional zone between the LMRAP and the Terrace Uplands (TU) ecoregions. Therefore, Bayou Cane may continue to have two different dissolved oxygen criteria. Data for the LMRAP and TU ecoregions indicate that the DO criteria could be 2.3 mg/L during the summer and 4.0 mg/L during the winter. LDEQ is evaluating the geographic location of the break between the two ecoregions. As a result, LDEQ has run a preliminary summer projection based on the DO criteria of 2.3 mg/L for the summer and 4.0 mg/L for the winter. This projection is an indication of what the required load reductions may be if the DO criteria are revised for Bayou Cane. The final required load reductions may be different based on the final DO criteria. Based on a potential summer DO criterion of 2.3 mg/L, a 50% overall reduction of nonpoint sources would be required, and Southeast Louisiana State Hospital would have 5/2/5 ($CBOD_5/NH_3$-N/DO) limits.

Once this planned UAA is complete, Phase II of the TMDL will be conducted. This may include the development of new model projections based on the new DO criteria. A new TMDL will be calculated, and the report will be revised.

Such high load reductions as those required in a waterbody that is minimally impacted by point sources indicate that the DO criteria may be inappropriate. This scenario also provides justification

for the ecoregion based UAA. The target DO values used in the calibration model were similar to the existing summer DO criteria for the LMRAP Ecoregion further strengthening the justification for a revision of the DO criteria for Bayou Cane.

DEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the Federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ collects surface water samples at various locations utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term data base for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303 (d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to the surface water quality monitoring. In 2004 a four-year sampling cycle replaced the previous five-year cycle. Approximately one-quarter of the state's watersheds will be sampled in each year so that all of the state's watersheds will be sampled within the four-year cycle. This will allow the LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated by LDEQ and approved by EPA, waterbodies may be added to or removed from the 303(d) list.

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1. Introduction

Bayou Cane, located in St. Tammany Parish in subsegments 040903 and 040904, was listed in the 2006 Integrated Report and the consent decree. Because of these listings, a total maximum daily load (TMDL) for oxygen-demanding substances was required. A calibrated water quality model for the Bayou Cane watershed was developed, and projections for current dissolved oxygen criteria were run to quantify the loads required to meet established dissolved oxygen criteria. This report presents the model development and resulting TMDL for oxygen-demanding substances.

2. Study Area Description

2.1 General Information

"The Lake Pontchartrain Basin, located in southeastern Louisiana, consists of the tributaries and distributaries of Lake Pontchartrain, a large estuarine lake. The basin is bounded on the north by the Mississippi state line, on the west and south by the east bank Mississippi River levee, on the east by the Pearl River Basin and on the southeast by Breton and Chandeleur Sounds. This basin includes Lake Borgne, Breton Sound, Chandeleur Sound and the Chandeleur Islands. The northern part of the basin consists of wooded uplands, both pine and hardwood forests. The southern portions of the basin consist of cypress-tupelo swamps and lowlands and brackish and saline marshes. The marshes of the southeastern part of the basin constitute the most rapidly eroding area along the Louisiana coast. Elevations in this basin range from minus five feet at New Orleans to over two hundred feet near the Mississippi border." (LDEQ, 2000)

This TMDL addresses Bayou Cane, located in the Lake Pontchartrain Basin, from just above the Southeast Louisiana State Hospital discharge point to Lake Pontchartrain. The land use of the watershed is primarily scrub/shrub, forest, agriculture/cropland/grassland, and water as shown in Tables 5 and 6. Subsegment 040904 has a significant amount of vegetated urban area; however, this area is not in the Bayou Cane watershed. Detailed land cover maps of Subsegments 040903 and 040904 are included in Appendix H2. Annual precipitation in the area is approximately 64 inches as shown on the precipitation map in Appendix H3.

Table 5. Land Uses in Subsegment 040903

Land Use Summary

Subsegment: 40903

Data Source Name: LA-GAP June 2000

Grid Name	*Area (Acres)*	*% Land Use*
Upland S/S Mixed	1182.25	24.13
Upland Forest Evergreen	1031.91	21.06
Wetland Forest Evergreen	1024.35	20.91
Agriculture/Cropland/Grassland	590.24	12.05
Wetland Forest Deciduous	442.57	9.03
Wetland Forest Mixed	144.11	2.94
Upland Forest Mixed	118.76	2.42
Water	95.85	1.96
Vegetated Urban	95.41	1.95
Dense Pine Thicket	52.49	1.07
Wetland S/S Mixed	49.82	1.02
Wetland S/S Deciduous	30.02	0.61
Wetland S/S Evergreen	13.12	0.27
Fresh Marsh	12.45	0.25
Upland S/S Deciduous	10.67	0.22
Upland Barren	2.89	0.06
Upland S/S Evergreen	2.00	0.04
Wetland Barren	0.22	0.00

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Table 6. Land Uses in Subsegment 040904

Land Use Summary

Subsegment: 40904

Data Source Name: LA-GAP June 2000

Grid Name	*Area (Acres)*	*% Land Use*
Upland Forest Evergreen	6688.29	25.89
Vegetated Urban	5757.35	22.29
Water	2457.90	9.51
Upland S/S Mixed	2335.59	9.04
Intermediate Marsh	1944.40	7.53
Upland Forest Mixed	1457.80	5.64
Wetland Forest Mixed	1321.47	5.12
Agriculture/Cropland/Grassland	1162.23	4.50
Wetland Forest Evergreen	714.55	2.77
Wetland Forest Deciduous	611.81	2.37
Brackish Marsh	451.46	1.75
Wetland S/S Deciduous	308.68	1.19
Dense Pine Thicket	190.15	0.74
Wetland S/S Mixed	149.89	0.58
Fresh Marsh	98.30	0.38
Upland Barren	73.61	0.28
Upland S/S Deciduous	49.59	0.19
Upland Forest Deciduous	34.25	0.13
Upland S/S Evergreen	20.02	0.08
Wetland Barren	7.56	0.03

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Figure 1. Model Layout

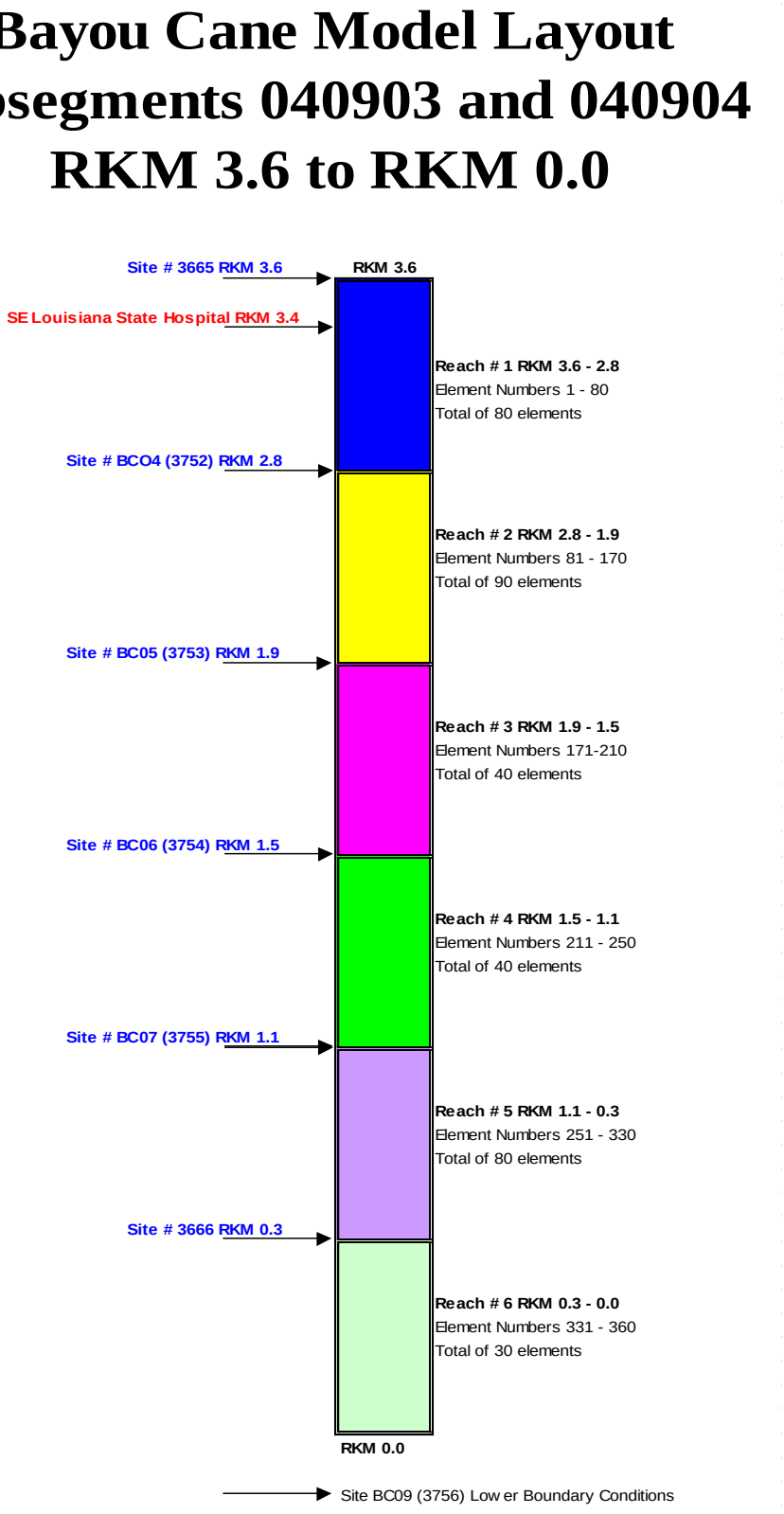
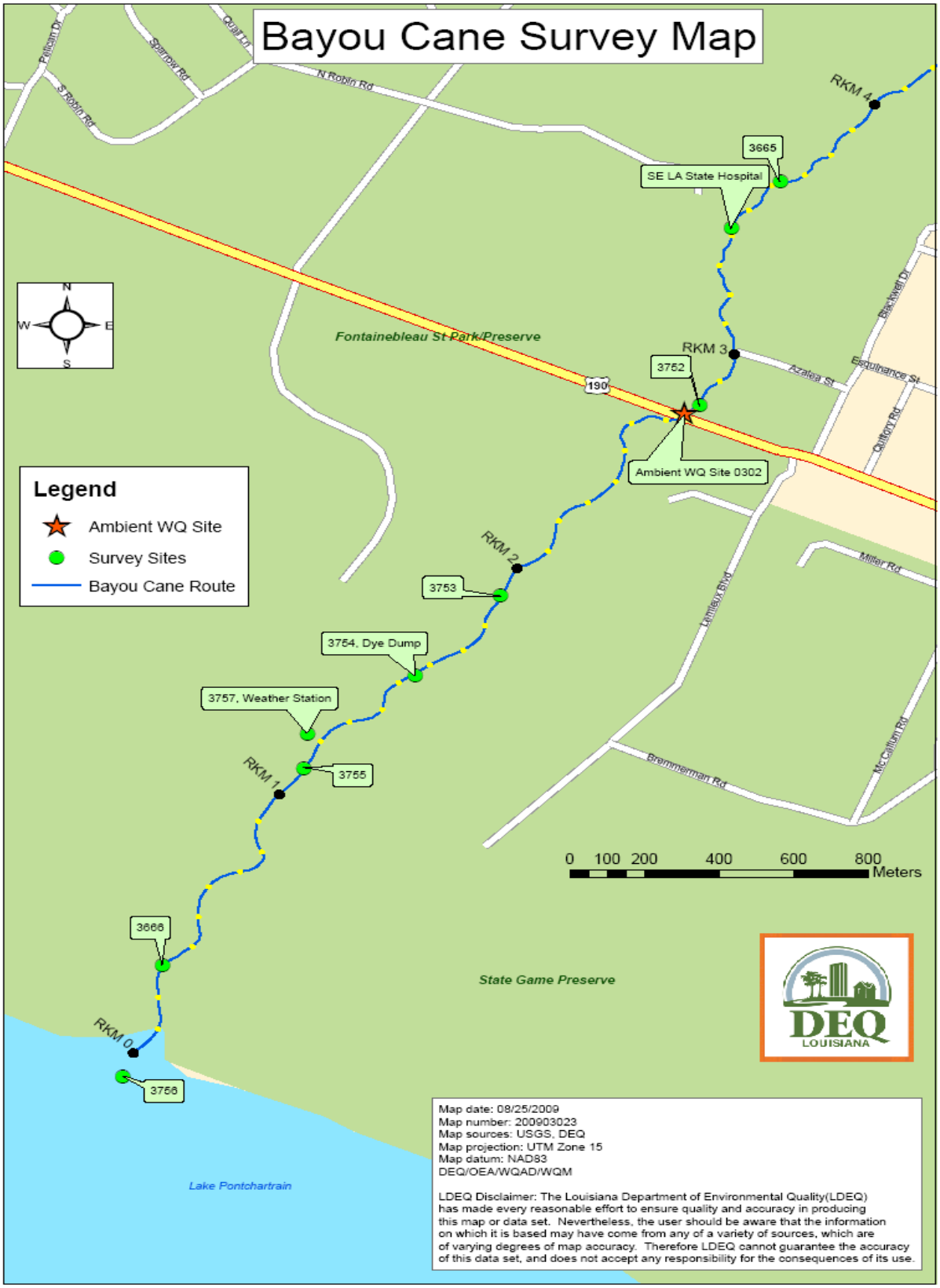


Figure 2. Map of Study Area



2.2 Water Quality Standards

The water quality criteria and designated uses for the two subsegments of Bayou Cane are shown in Table 7. Subsegment 040903 includes Bayou Cane from the headwaters to US-190 (Scenic). Subsegment 040904 begins at US-190 and extends to Lake Pontchartrain (Scenic) (Estuarine). The dissolved oxygen criteria noted in the table are year-round.

Table 7. Water Quality Numerical Criteria and Designated Uses for Subsegments 040903 and 040904

Parameter	Value
Designated Uses	A B C G
DO, mg/L	5.0 (040903), 4.0 (040904)
Cl, mg/L	30 (040903), N/A (040904)
SO_4, mg/L	30 (040903), N/A (040904)
pH	6.0 – 8.5
BAC	1*
Temperature, deg Celsius	30 (040903), 32 (040904)
TDS, mg/L	150 (040903), N/A (040904)

USES: A – primary contact recreation; B - secondary contact recreation; C – fish and wildlife propagation; D – drinking water supply; E – oyster propagation; F – agriculture; G – outstanding natural resource waters; L – limited aquatic life and wildlife use.

*No more than 25% of samples shall exceed a fecal coliform density of 400/100 mL for the period May through October. No more than 25% of samples shall exceed a fecal coliform density of 2,000/100 mL for the period November through April.

2.3 Wastewater Discharges

There are five dischargers located within the Bayou Cane watershed including two in Subsegment 040903 and three in Subsegment 040904. One discharger, the Southeast Louisiana State Hospital, was included in the model. The remaining four facilities are small enough so as to not contribute a significant load. Most, if not all, of the loading will be expressed in local drainage ditches before it reaches Bayou Cane. These dischargers are accounted for as nonpoint loading through the process of calibration.

Based on survey data and modeling, LDEQ determined that the Southeast Louisiana State Hospital (SLSH, AI # 9371) was the only facility having a significant impact on Bayou Cane. The SLSH enters Bayou Cane in reach 1 at river kilometer 3.4. It appeared to be contributing significant phosphorus and nitrite/nitrate loads to Bayou Cane. From the water quality data in Appendix F1, the total phosphorus (TP) and nitrite/nitrate values for the hospital were 3.12 mg/L and 2.63 mg/L, respectively. The survey data indicated that the phosphorus and ammonia levels were higher at sites 3665 and 3752 (BC04), then decreasing for the remainder of the waterbody except for Site 3666, where the levels increased slightly. LDEQ attributes the higher levels at sites 3665 and 3752 to loading from the hospital. The TOC and turbidity levels at site 3752 also appear to show the impact of the hospital as does the ammonia levels at sites 3665 and 3752. In order to meet the current dissolved oxygen criteria, Southeast Louisiana State Hospital will have more stringent limits of 5/2/5 (mg/L $CBOD_5$/ mg/L NH_3-

N/ mg/L DO). Because of the higher nutrient loading produced by the Southeast Louisiana State Hospital, LDEQ recommends that the facility begin monitoring for nutrients (total phosphorus and total nitrogen) and consider tertiary treatment for the removal of nutrients. LDEQ is in the process of developing nutrient criteria and this facility may receive permit limits for total phosphorus and total nitrogen in the future.

Lakeshore High School (AI # 165696) is located approximately 4.5 miles from the modeled (perennial) reaches of Bayou Cane. Effluent from the school does not impact Bayou Cane. The facility discharges to a local roadside ditch which then goes to a ditch along Hwy 1088. There are no discernable streams in Subsegment 040903 north of I-12. There is a canal along the north side of I-12 that would serve to intercept any flow from streams or facilities north of I-12 including Lakeshore High School and reroute the flow to the headwaters of Bayou Castine in Subsegment 040904. Lakeshore High School does not impact Bayou Cane. The permit limits for this facility will not be modified as a result of this TMDL.

The other facilities in the Bayou Cane watershed are Station # 44 of the St. Tammany Fire Protection District #4, Bayou Moon Antiques, and Demmonlicious Catering, LLC (AI #s 104230, 40735, 140644). All of these facilities are located in Subsegment 040904. They contribute approximately 120 gpd, 20 gpd, and 60 gpd, respectively, and are therefore not expected to impact Bayou Cane. Additional projection runs indicated that these facilities do not provide a discernable impact to Bayou Cane. The permit limits for these facilities will not be modified as a result of this TMDL.

The remaining 112 facilities in Subsegment 040904 are outside of the Bayou Cane watershed and they have no impact on Bayou Cane. Therefore, they were not modeled, and their permit limits will not be modified as a result of this TMDL.

Tables 3 and 4 in the Technical Summary include details about the facilities.

LDEQ recognizes that home treatment systems and camps may exist along the bayou. LDEQ is not able to quantify these dischargers but recommends that such systems be incorporated into a community or regional treatment system if available.

The LDEQ is updating current information on permitted facilities and actively locating unpermitted facilities in the Lake Pontchartrain Basin. The unpermitted facilities are encouraged to apply for the appropriate LPDES permit.

EPA's stormwater permitting regulations require municipalities to obtain permit coverage for all stormwater discharges from MS4s. Areas regulated by MS4 permits border the Bayou Cane watershed; however, the loading from these regulated areas does not impact Bayou Cane. There are no MS4's in the Bayou Cane watershed.

2.4 Water Quality Conditions/Assessment

Bayou Cane, located in St. Tammany Parish in subsegments 040903 and 040904, was listed in the 2006 Integrated Report and the consent decree. Subsegment 040903 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Fish and Wildlife Propagation, and

Outstanding Natural Resource Waters. The suspected causes of impairment are organic enrichment/low dissolved oxygen, chloride, fecal coliform, pH, and turbidity. The suspected sources are Site Clearance (Land Development or Redevelopment), On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), and Drought-related Impacts. Subsegment 040903 was assessed using ambient water quality network site number 0302 which is on Bayou Cane at the U.S. 190 bridge.

Subsegment 040904 was found to be "not supporting" any of its designated uses of Primary Contact Recreation, Secondary Contact Recreation, Fish and Wildlife Propagation, and Outstanding Natural Resource Waters. The suspected causes of impairment are organic enrichment/low dissolved oxygen, fecal coliform, pH, mercury, turbidity, and dissolved copper. The suspected sources are On-site Treatment Systems (Septic Systems and Similar Decentralized Systems), Package Plant or Other Permitted Small Flows Discharges, and unknown sources. Subsegment 040904 was assessed using ambient site number 1046 which is located on Bayou Castine at Prieto Marina.

Because of the impairment, a total maximum daily load (TMDL) for oxygen-demanding substances was required.

The last two sampling cycles of ambient water quality data from site 0302 are shown in Appendix G2. Data points for TKN, NH_3-N, NO_2-NO_3 N, chloride, specific conductance, phosphorus, TOC, color, and turbidity were retrieved from LDEQ's website and then plotted. The graphs also include a survey data point from site BC04 (3752) which is approximately 145 feet from ambient monitoring site 0302. The survey data was within the range of the ambient data. However, both the total phosphorus and ammonia values measured during the survey were near the top of the range of the ambient data.

2.5 Prior Studies

LDEQ has not conducted previous TMDL surveys on Bayou Cane. LDEQ has one ambient water quality monitoring site on Bayou Cane. Site 0302, Bayou Cane east of Mandeville, Louisiana, has a period of record from 1991-1998, 2001, and 2007. Data collected during the Eulerian survey in June 2008 included discharge data, cross-section data, field in-situ data, continuous monitor data, lab water quality data, and a dye study. This data was used to establish the input for the model calibration and is presented in Appendix F.

3. Documentation Calibration Model

The development of a TMDL for dissolved oxygen generally occurs in 3 stages. Stage 1 encompasses the data collection activities. These activities may include gathering such information as stream cross-sections, stream flow, stream water chemistry, stream temperature and dissolved oxygen at various locations on the stream, location of the stream centerline and the boundaries of the watershed which drains into the stream, and other physical and chemical factors which are associated with the stream. Additional data gathering activities include gathering all available information on each facility which discharges pollutants in to the stream, gathering all available stream water quality chemistry and flow data from other agencies and groups, gathering population statistics for the watershed to assist in developing projections of future loadings to the water body, land use and crop rotation data where available, and any other information which may have some bearing on the quality of the waters within

the watershed. During Stage 1, any data available from reference or least impacted streams which can be used to gauge the relative health of the watershed is also collected.

Stage 2 involves organizing all of this data into one or more useable forms from which the input data required by the model can be obtained or derived. Water quality samples, field measurements, and historical data must be analyzed and statistically evaluated in order to determine a set of conditions which have actually been measured in the watershed. The findings are then input to the model. Best professional judgment is used to determine initial estimates for parameters which were not or could not be measured in the field. These estimated variables are adjusted in sequential runs of the model until the model reproduces the field conditions which were measured. In other words, the model produces a value of dissolved oxygen, temperature, or other parameter which matches the measured value within an acceptable margin of error at the locations along the stream where the measurements were actually made. When this happens, the model is said to be calibrated to the actual stream conditions. At this point, the model should confirm that there is an impairment and give some indications of the causes of the impairment. If a second set of measurements is available for slightly different conditions, the calibrated model is run with these conditions to see if the calibration holds for both sets of data. When this happens, the model is said to be verified.

Stage 3 covers the projection modeling which results in the TMDL. The critical conditions of flow and temperature are determined for the waterbody and the maximum pollutant discharge conditions from the point sources are determined. These conditions are then substituted into the model along with any related condition changes which are required to perform worst case scenario predictions. At this point, the loadings from the point and nonpoint sources (increased by an acceptable margin of safety) are run at various levels and distributions until the model output shows that dissolved oxygen criteria are achieved. It is critical that a balanced distribution of the point and nonpoint source loads be made in order to predict any success in future achievement of water quality standards. At the end of Stage 3, a TMDL is produced which shows the point source permit limits and the amount of reduction in man-made nonpoint source pollution which must be achieved to attain water quality standards. The man-made portion of the NPS pollution is estimated from the difference between the calibration loads and the loads observed on reference or least impacted streams.

4. Calibration Model Documentation

4.1 Program Description

The model used for this TMDL was LA-QUAL, a steady-state one-dimensional water quality model. LA-QUAL has the mechanisms for incorporating tidal fluctuations, dispersion, and algal impacts in the simulation and was suitable for use in modeling Bayou Cane. For a history of LA-QUAL, refer to the LA-QUAL for Windows User's Manual (Wiland, 2007).

4.2 Input Data Documentation

Data collected during an intensive survey from June 16-20, 2008 was used to establish the input for the model calibration. Field and laboratory water quality data were entered in spreadsheets for ease of analysis. The data is presented in Appendix F.

Data from LDEQ's reference streams projects is presented in Appendix E3. A comparison of the reference stream data and survey data was made for specific conductance, chlorides, ammonia, and phosphorus. Even though the reference stream data was collected in the months of January, March, October, and November and does not include any tidal waterbodies, it can still be used to obtain a general indication of how Bayou Cane compares to waterbodies in least-impacted natural conditions.

Chloride and specific conductance measured in Bayou Cane during the survey were much higher than in the reference streams. This difference may indicate some influence from the hospital's discharge, but the tidal nature of Bayou Cane and the influence of Lake Pontchartrain are most likely the primary causes. This indicates that the lower reaches of Bayou Cane may be primarily dominated by natural loading conditions and stream characteristics.

Reference stream values for ammonia ranged from 0.12-0.23 mg/L; however, the majority of values were non-detect. For the Bayou Cane survey, ammonia values were measured at the survey sites. Three sites had readings of 0.21-0.25 mg/L, and three sites were non-detect including the lower boundary site in Lake Pontchartrain. The measured levels of ammonia in Bayou Cane were similar to the reference stream values with the possible exception of two sites where the ammonia levels may have been slightly higher than reference stream values.

Phosphorus data for the reference streams ranged from 0.05 mg/L to 0.27 mg/L. Phosphorus values in the middle and lower portions of Bayou Cane during the survey were similar to the reference stream values and ranged from 0.17 to 0.23 mg/L. The phosphorus values in the modeled headwaters were 0.58-0.61 mg/L which indicates some possible influence from the Southeast Louisiana State Hospital's discharge. The phosphorus level measured for the hospital during the TMDL survey was 3.12 mg/L.

The TOC, turbidity, and TSS values also seem to indicate a possible influence from the hospital at site 3752 (BC04). It would appear as if the hospital was providing an effluent with a low turbidity and TOC but high levels of nutrients.

The DO levels in the hospital effluent appear to temporarily improve the levels in the stream.

The UBOD concentrations were relatively low throughout Bayou Cane. The UBOD concentrations for the Southeast Louisiana State Hospital were also low, but the mass loading provided by the facility appears to be overloading the waterbody which has a low assimilative capacity due to the hydrologic characteristics.

4.2.1 Model Schematics and Maps

A vector diagram of the modeled area is presented in Figure 1 and Appendix C1. The vector diagram shows the locations of survey stations and the reach/element design. An ARCVIEW map of the stream showing river kilometers, survey stations, and other points of interest is included in Figure 2 and Appendix H1.

4.2.2 Model Options, Data Type 2

Five constituents were modeled during the calibration process. These were dissolved oxygen, carbonaceous biochemical oxygen demand, nitrogenous biochemical oxygen demand, chloride, and

conductivity. The continuous monitors showed diurnal swings indicative of algal activity. The algae cycle was not modeled; however, the measured chlorophyll-a values were included in the initial conditions. This allowed the model to simulate the oxygen production associated with algae without modeling the entire algal cycle.

4.2.3 Program Constants, Data Type 3

A minimum K_L value of 0.7 m/day was used. This value is a conversion from 2.3 ft/day which is a Louisiana standard minimum. The K_2 maximum was set to 10 1/day at 20^o C which is the model default.

The inhibition control value was set to option 3 which is all rates but sediment oxygen demand. The water column dissolved oxygen demand is assumed to come primarily from facultative bacteria under anoxic conditions and SOD is not influenced by modeled dissolved oxygen levels in the upper water column.

The hydraulic calculation method was set to option 2 which is "widths and depths." This was done because the low slopes in this waterbody cause a substantial amount of water to be present in some reaches during critical flow. Using a modified Leopold relationship allows the model to predict a more accurate depth and width during low flow.

The settling rate units were set to option 2 which is 1/day.

The algae oxygen production was set to 0.05 to account for the net oxygen production per unit of chlorophyll-a.

Dispersion equation option 3 was used to take into account all modes of transport.

4.2.4 Temperature Correction of Kinetics, Data Type 4

The temperature values computed are used to correct the rate coefficients in the source/sink terms for the other water quality variables. These coefficients are input at 20 °C and are then corrected to temperature using the following equation:

$$X_T = X_{20} * \text{Theta}^{(T-20)}$$

Where:

X_T = the value of the coefficient at the local temperature T in degrees Celsius
X_{20} = the value of the coefficient at the standard temperature at 20 degrees Celsius
Theta = an empirical constant for each reaction coefficient

In the absence of specified values for data type 4, the model uses default values. A complete listing of these values can be found in the LA-QUAL for Windows User's Manual (Wiland, 2007). For this model, LA-QUAL default values were used.

4.2.5 Reach Identification Data, Data Type 8

A diagram of the modeled area is presented in Appendix C1. The vector diagram shows the reach/element design and survey sites. The modeled area is characterized by seven survey sites. The model begins just above the discharge point of Southeast Louisiana State Hospital and extends to Lake Pontchartrain. This calibrated model includes six reaches, 360 elements, and one headwater. Reach 1 is in subsegment 040903, and reaches 2-6 are in subsegment 040904. A digitized map of the stream showing river kilometers and the June 2008 survey sites is included in Figure 2 and Appendix H1.

4.2.6 Advective Hydraulic Coefficients, Data Type 9

The Leopold equations are used to scale the velocity (U), width (W), and depth (H) of a free flowing stream from a lower value of flow to a higher value or from a higher value of flow to a lower value. Note that the exponents add to one and the coefficients multiply to 1. This is known as the "rule of ones". This method is not appropriate for streams which are not dependent entirely on flow such as waterbodies where flow approaches zero, but contain some depth.

$U = aQ^b$ $H = cQ^d$ $W = eQ^f$

$b + d + f = 1$ $(a)(c)(e) = 1$

The Leopold equations presume that the water surface width and average depth of a stream are zero at zero flow. Most Louisiana streams, such as Bayou Cane, retain a significant width and depth at zero flow. The equations have therefore been modified to allow for a zero-flow width and depth. The "rule of ones" does not apply to the modified equations. The modified Leopold equations are:

$W = aQ^b + c$ $H = dQ^e + f$ $U = gQ^h$

For this model, the width and depths were assumed to be independent of flow. Consequently, the modified Leopold coefficients and exponents were not calculated.

4.2.7 Dispersive Hydraulic Coefficients, Data Type 10

A dye study was conducted during the survey between sites 3752 and 3666. Dye concentrations were recorded in two separate runs using the moving site method. Run 1 consisted of readings at approximately 30 hours after the dye was dumped into the waterbody. Run 2 consisted of readings at approximately 54 hours after the dye was dumped into the waterbody.

A dispersion value was calculated for each run using the dye concentration measurements. Based on the data collected, run 2 was determined to be most representative of the stream since it had the longest time span. The longer time frame allowed the dye to become more uniformly dispersed in the waterbody. Dispersion was determined to be 0.288 m^2/s.

To take into consideration all modes of transport, equation 3 ($E = aD^bQ^cV_M^d$) in LA-QUAL was used. Using b=5/6, c=0, and d=1 took into account all modes of transport in the manner of the Tracor and QUAL2E equations. The value for coefficient "a" was varied during calibration until the measured

dispersion value was obtained. The measured dispersion value was applied to the stretch of water that encompassed dye run 2. Information associated with the dye study can be found in Appendix F6.

4.2.8 Initial Conditions, Data Type 11

The initial conditions are used to reduce the number of iterations required by the model. The parameters required for this model were temperature, salinity, DO, and chlorophyll-a by reach. The input values came from the survey site located at the top of each reach.

Chlorophyll-a values were used since the effects of algae on the dissolved oxygen concentrations were simulated with this model. The chlorophyll-a values are used in calculating the net oxygen production due to photosynthesis.

The input data and sources are shown in Appendix B2.

4.2.9 Reaeration Rates, Data Type 12

The applicability of the various reaeration equations was examined. The Texas Equation was considered to be the most appropriate equation for reaches 1-4. The equation is stated below.

$$K_2 = \frac{1.923\ V^{0.273}}{D^{0.894}}$$

where: V = stream velocity
D = stream depth

The last two reaches of the waterbody are marsh which allows more windy conditions than in the upstream reaches. Therefore, the Mattingly equation (Bowie, 1985) was used to account for wind reaeration in reaches 5 and 6. Reaeration option number 1 in LA-QUAL was used. The calculations were performed manually. The calculated rate was used as input for the model. The Mattingly equation is shown below. The calculations for the Mattingly equation are shown in Appendix B3.

$$\frac{k_2}{(k_2)_o} - 1 = 0.2395\ V_w^{1.643}$$

where: k_2=reaeration coefficient under windy conditions, 1/day
$(k_2)_o$=reaeration coefficient without wind, 1/day
V_w=wind velocity in the free stream above the boundary layer near the water surface, m/s

4.2.10 Sediment Oxygen Demand, Data Type 12

The SOD values were achieved through calibration. The SOD value for each reach is shown in Appendix B2. The values were considered to be reasonable for this type of stream. The conversion ratio of settled BOD to SOD was considered to be zero for all reaches due to the resuspension of bottom sediments.

The nitrogen series was not modeled, and UCBOD and UNBOD were combined into a single parameter, UBOD. These simplifications eliminated the possibility of allowing LA-QUAL to internally generate SOD from the conversion of settled CBOD. In this case, settled UBOD disappears from the model and the nonpoint "resuspended" loading is used to calibrate the model to measured values of UBOD. LDEQ used reasonable settling rates in accordance with the Louisiana Technical Procedures.

All SOD was added as "background sediment oxygen demand" to calibrate to the measured dissolved oxygen values. This should not be taken to imply that this level of SOD represents natural background SOD. In the case of Bayou Cane, no natural background loading was specified, and the loading needed to calibrate represents both natural background loading and anthropogenic loading, if present. The term "Background SOD" in the LA-QUAL input file is actually a baseline input value void of any settled CBOD that has been converted to SOD. "Background SOD" does not refer to any type of natural background loading present in the stream.

4.2.11 CBOD & NBOD Decay and Settling Rates, Data Types 12 and 13

The Louisiana BOD program was applied to the BOD data in a spreadsheet and values were computed for each sample taken during the survey. The spreadsheet calculates ultimate CBOD and NBOD, CBOD and NBOD decay rates, and CBOD and NBOD lag times.

The NBOD bottle decay rates ranged from 0.059 to 0.462 per day but had to be adjusted in order to calibrate the model. The two most upstream sampling sites had rather high bottle values of 0.307 and 0.462 per day compared to the remaining downstream sites. This may indicate the influence of anthropogenic loading, in particular, the Southeast Louisiana State Hospital. The decay rate of the effluent from Southeast Louisiana State Hospital was 0.431 per day.

The CBOD decay rates ranged from 0.044 to 0.068 per day.

The BOD curves presented in Appendix F5 were derived using the Microsoft Excel Solver and were based on the measured daily BOD values. The decay rates are shown in Appendix F5.

Settling rates were achieved through calibration.

4.2.12 Nonpoint Sources, Data Type 19

Nonpoint source loads which are not associated with a flow are input into this part of the model. These can be most easily understood as resuspended load from the bottom sediments and are modeled as CBOD, NBOD, and SOD. These values are achieved through calibration. The loads determined through calibration were reasonable for this type of waterbody and stream geometry.

4.2.13 Headwaters, Data Types 20, 21, and 22

The headwater flow was measured at Site 3665 during the survey. The data and sources are presented in Appendix B2.

4.2.14 Wasteloads, Data Types 23, 24, and 25

There are five dischargers located within the Bayou Cane watershed. One discharger, Southeast Louisiana State Hospital, was included in the model. The remaining four are small enough so as to not contribute a significant load. Limits for these facilities are generally set by state policy. The load, as discharged, is expected to be small. In addition, most, if not all, of the loading will be expressed in local drainage ditches before it reaches Bayou Cane. These dischargers are accounted for as nonpoint loading through the process of calibration.

4.2.15 Boundary Conditions, Data Type 27

Data from Site 3756 was used for the lower boundary conditions.

4.3 Model Discussion and Results

The calibration model input and output are presented in Appendix B. The overlay plotting option was used to determine if calibration had been achieved. A plot of the dissolved oxygen concentration versus river kilometer is presented in Figure 3. The calibration points for dissolved oxygen were based on average DO values from the continuous monitors. SOD and nonpoint CBOD and NBOD were varied until the model matched the measured values of DO, UCBOD, and UNBOD.

An adequate calibration was achieved for DO, UCBOD, UNBOD, chlorides, and conductivity on the main stem. The calibration model showed that during the June 2008 survey period, the DO criterion was met only in the last modeled reach of Bayou Cane. The calibration model minimum DO on the main stem was 0.47 mg/L. The chlorides and conductivity values steadily increased from upstream to downstream indicating the tidal influence of Lake Pontchartrain on Bayou Cane.

LA-QUAL simulates tidal dispersion and transport by calculating the flow into and out of a tidal prism, element by element. This is combined with advective flow to produce a combined average flow for the water quality model. This combined flow is used by the model to calculate reaeration rate, dispersion, and transport time for the steady state model.

The lower boundary option in the model is used for systems that contain high dispersion or flow reversals (such as tidal impacts) in the lower reaches. The lower portion of Bayou Cane (Subsegment 040904) is dominated by Lake Pontchartrain influent and adjacent wetlands. From the Louisiana reference stream studies, wetlands have been demonstrated to discharge constituents that contribute to low DO in receiving waters.

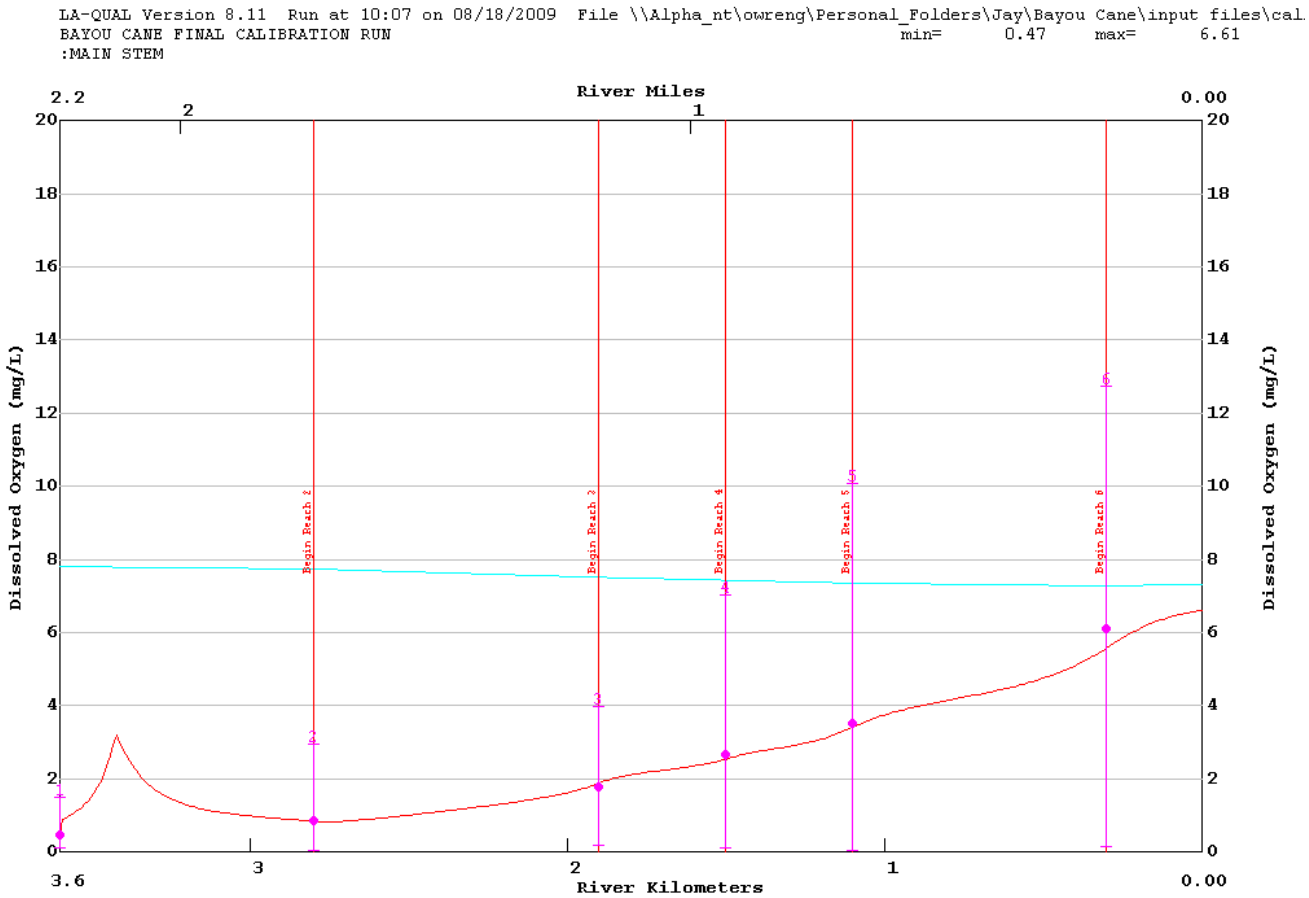
The DO value chosen for the lower boundary condition will force the model to converge on that particular value. The DO value at the lower boundary did not cause an increase in the load reductions required to meet the DO criteria. LDEQ used the average continuous monitor DO value of 6.61 mg/L that was measured during the survey since this value is not expected to change substantially during critical conditions.

The DO levels in Bayou Cane (high SOD, high resuspended CBOD and NBOD) may be influenced by the loads delivered from the relatively small number of dischargers (permitted and non-permitted) but is certainly compounded by continuous, long-term BOD loading from the wetlands adjacent to Bayou

Cane and the low reaeration capacity of the bayou. Wetland seepage is very low in solids and is high in color from the dissolved tannins (see Appendix F1 for color data); it would be expected to remain in the water column, not dropped out to be resuspended at a later time. These constituents are naturally occurring and will remain even after TMDL allocations are implemented.

LDEQ recognizes that Bayou Cane may be minimally impacted by permitted and non-permitted dischargers. In addition, LDEQ realizes that the lower reaches of the modeled portion of Bayou Cane may have been at or near natural loading conditions during the time of the TMDL survey. Nonetheless, the water quality conditions may be improved and protected by the regionalization of wastewater treatment for all sanitary wastewater sources, including individual treatment systems, and the consideration of innovative forms of wastewater treatment.

Figure 3. Calibration Model Dissolved Oxygen versus River Kilometer, Subsegments 040903 & 040904



- numbered points indicate survey sites
- vertical lines indicate beginning of reach
- upper plotted line indicates DO saturation
- lower plotted line indicates calibration model output

5. Water Quality Projections

The traditional summer critical projection loading scenario was performed at the current DO criteria of 5.0 mg/L for subsegment 040903 and 4.0 mg/L for subsegment 040904. This scenario was based on reduced point and nonpoint loads at summer season critical conditions (i.e., 90th percentile seasonal temperatures and summer default flows) in accordance with the Louisiana Technical Procedures (LTP). A winter projection was run based on the percent reduction of nonpoint loads used for the summer critical projections.

5.1 Critical Conditions, Seasonality and Margin of Safety

The Clean Water Act requires the consideration of seasonal variation of conditions affecting the constituent of concern and the inclusion of a margin of safety (MOS) in the development of a TMDL. For Bayou Cane, an analysis of LDEQ ambient data was used to determine critical seasonal conditions.

Critical conditions for dissolved oxygen were determined for Bayou Cane using data from Site 0302 of the LDEQ Ambient Water Quality Monitoring Network. The 90th percentile temperature for each season and the corresponding 90% of DO saturation were determined. Ambient temperature data, critical temperatures, and DO saturation determinations are shown in Appendix G1.

Graphical and regression analysis techniques have been used by LDEQ historically to evaluate the temperature and dissolved oxygen data from the Ambient Monitoring Network and run-off determinations from the Louisiana Office of Climatology water budget. Since nonpoint loading is conveyed by run-off, this was a reasonable correlation to use. Temperature is strongly inversely proportional to dissolved oxygen and moderately inversely proportional to run-off. Dissolved oxygen and run-off are also moderately directly proportional. The analysis concluded that the critical conditions for stream dissolved oxygen concentrations were those of negligible nonpoint run-off and low stream flow combined with high stream temperature.

When the rainfall run-off (and non-point loading) and stream flow are high, turbulence is higher due to the higher flow and the temperature is lowered by the run-off. In addition, run-off coefficients are higher in cooler weather due to reduced evaporation and evapotranspiration, so that the high flow periods of the year tend to be the cooler periods. Reaeration rates and DO saturation are, of course, much higher when water temperatures are cooler, but BOD decay rates are much lower. For these reasons, periods of high loading are periods of higher reaeration and dissolved oxygen but not necessarily periods of high BOD decay.

This phenomenon is interpreted in TMDL modeling by assuming that nonpoint loading associated with flows into the stream are responsible for the benthic blanket which accumulates on the stream bottom and that the accumulated benthic blanket of the stream, expressed as SOD and/or resuspended BOD in the calibration model, has reached steady state or normal conditions over the long term and that short term additions to the blanket are off set by short term losses. This accumulated loading has its greatest impact on the stream during periods of higher temperature and lower flow. The man-made portion of the NPS loading is the difference between the calibration load and the reference stream load where the calibration load is higher. The only mechanism for changing this normal benthic blanket condition is to implement best management practices and reduce the amount of nonpoint source loading entering the stream and feeding the benthic blanket.

Critical season conditions were simulated in the Bayou Cane dissolved oxygen TMDL projection modeling by using the LTP seasonal defaults for all flows and the 90th percentile temperature. For the headwater DO, 90% of DO saturation at the 90 percentile seasonal temperature from ambient monitoring site 0302 was used.

In reality, the highest temperatures occur in July-August, the lowest stream flows occur in October-November, and the maximum point source discharge occurs following a significant rainfall, i.e., high-flow conditions. The summer projection model is established as if all these conditions happened at the same time. The winter projection model accounts for the seasonal differences in flows and BMP efficiencies. Other conservative assumptions regarding rates and loadings are also made during the modeling process. In addition to the conservative measures, an explicit MOS of 20% was used for all loads to account for future growth, safety, model uncertainty and data inadequacies.

5.2 Input Data Documentation

The LTP states that the flow for summer conditions should be 0.1 cfs or the 7Q10, whichever is greater. In the absence of historical data, a 7Q10 value could not be determined for Bayou Cane. Therefore, the critical flows were set to 0.1 cfs (0.0028 cms) and 1 cfs (0.028 cms) for the summer and winter seasons, respectfully.

Parameters that are affected by critical conditions include dissolved oxygen, temperature, and flow. Pollutant loading is adjusted in the projection models to meet the dissolved oxygen criteria.

Chlorophyll-a was set at 10 µg/L for the summer and winter projections to account for improvements in nutrient loading while realizing that the algae will not completely disappear.

The calibration values were retained for the remaining parameters and used as input values in the summer and winter projections. The model adjusts the input values of SOD, BOD decay rates, and BOD settling rates based upon the input temperature.

5.2.1 Model Options, Data Type 2

Five constituents were modeled during the projection process. These were dissolved oxygen, carbonaceous biochemical oxygen demand, nitrogenous biochemical oxygen demand, chloride, and conductivity.

5.2.2 Temperature Correction Constants, Data Type 4

The default temperature correction factors in the model were used.

5.2.3 Reach Identification Data, Data Type 8

The reach and element design from the calibration was used in the projection modeling.

5.2.4 Advective Hydraulic Coefficients, Data Type 9

The hydraulic coefficients, exponents, and constants determined for the calibration were used in the projection modeling.

5.2.5 Initial Conditions, Data Type 11

Temperature was set to the 90th percentile critical season temperature in accordance with the LTP. For summer, the temperature was set to 27.91^{o}C. For winter, the temperature was set to 20.71^{o}C. The dissolved oxygen values for the initial conditions were set at the stream criteria (5.0 mg/L for subsegment 040903 and 4.0 mg/L for subsegment 040904). Chlorophyll-a was set at 10 µg/L for the summer and winter projections.

5.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Types 12 and 13

The reaeration rate equations, CBOD decay and settling rates, NBOD decay and settling rates, and the fractions converting settled CBOD and settled NBOD to SOD were not changed from the calibration.

5.2.7 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Types 12, 19, 20, 21, 22, 24, 25, and 26

The headwater DO was set to 90% of DO saturation based on the 90th percentile temperature. Data was obtained from water quality ambient monitoring site 0302. The headwater DO for summer was set to 7.06 mg/L. The headwater DO for winter was set to 8.07 mg/L.

The NPS values were calculated for each projection scenario using a load equivalent spreadsheet. An analysis was made of the calibration NPS and SOD loads in terms of loading in units of g O_2/m^2/day. The same spreadsheet also calculated load reductions for the headwaters and included calculations for wasteloads. The spreadsheets are found in Appendix E.

LDEQ has collected and measured the CBOD and NBOD oxygen demand loading components for a number of years. These loads have been found in all streams including the non-impacted reference streams. It is LDEQ's opinion that much of this loading is attributable to run-off loads which are flushed into the stream during run-off events and subsequently settle to the bottom in our slow moving streams. These benthic loads decay and breakdown during the year becoming easily resuspended into the water column during the low flow/high temperature season. This season has historically been identified as the critical dissolved oxygen season.

LDEQ simulates part of the nonpoint source oxygen demand loading as resuspended benthic load and SOD. The calibrated nonpoint loads, UCBOD, UNBOD and SOD, are summed to produce the total calibrated benthic load. The total calibrated benthic load is then reduced by the total background benthic load (determined from LDEQ's reference stream research) to determine the total man-made benthic loading. The man-made portion is then reduced incrementally on a percentage basis to determine the necessary percentage reduction of man-made loading required to meet the waterbody's dissolved oxygen criteria. These reductions are applied uniformly to all reaches sharing similar hydrology and land uses.

Following the same protocol as the point source discharges, the total reduced man-made benthic load is adjusted for the margin of safety by dividing the value by one minus the margin of safety. This adjusted load is added back to the total background benthic value to obtain the total projection model benthic load. This total projection benthic load is then broken out into its components of SOD, resuspended CBOD, and resuspended NBOD by multiplying the total projection benthic load by the ratio of each calibrated component to the total calibrated benthic load. The calculations described above are shown in Appendix E.

LDEQ has found variations in the breakdown of the individual CBOD and NBOD components. While the total BOD is reliable, the carbonaceous and nitrogenous component allocation is subject to the type of test method. In the past, LDEQ used a method which suppressed the nitrogenous component to obtain the carbonaceous component value, which was then subtracted from the total measured BOD to determine the nitrogenous value. The suppressant in this method was only reliable for twenty days thus leading to the assumption that the majority of the carbonaceous loading was depleted within that period of time. The test results supported this assumption. A new method was found in Standard Methods for testing long term BODs and was implemented in 2000. This new method was necessary because the nitrogen suppressant started failing around day seven and the manufacturer of the suppressant would only guarantee its potency for a five-day period. LDEQ felt a five-day test would not adequately depict the water quality of streams.

This proposed method is a sixty-day test which measures the incremental total BOD of the sample while at the same time measuring the increase in nitrite/nitrate in the sample. This increase in nitrite/nitrate allows LDEQ to calculate the incremental nitrogenous portion by multiplying the increase by 4.57 to determine the NBOD daily readings. These NBOD daily readings are then subtracted from the daily reading for total BOD to determine the CBOD daily values. A curve fit algorithm is then applied to the daily component readings to obtain the estimated ultimate values of each component as well as the decay rate and lag times of the first order equations.

The results obtained using the new method showed that a portion of the CBOD first order equation does begin to level off prior to the twentieth day; however, a secondary CBOD component begins to use dissolved oxygen sometime between day ten and day twenty-five. This secondary CBOD component was not being assessed as CBOD using the previous method but was being included in the NBOD load. Thus the CBOD and NBOD component loading used in the reference stream studies is not consistent with the results using the new proposed 60-day method and the individual values should not be used to determine background values for samples processed using the new test methods. However, the sum of CBOD and NBOD should be about the same for both new and old test methods. For this reason, LDEQ usually decides to use the average of reference stream benthic loads as background values. However, for the Bayou Cane TMDL, background values were not determined due to the lack of a representative reference stream.

The projections show that Bayou Cane cannot meet the current 5.0 mg/L and 4.0 mg/L criteria without significant load reductions. Since LDEQ assumes these benthic loads are long-term loads brought to the stream by various sources throughout the year, the same percentage reductions were made in the winter projection model as were in the summer critical projection model. These reductions met the summer dissolved oxygen criteria and well surpassed requirements in the winter projection.

5.2.8 Boundary Conditions, Data Type 27

For all projections and scenarios, the lower boundary conditions were set to the DO, UCBOD, and UNBOD measured during the survey and the 90th percentile critical season temperature.

5.3 Model Discussion and Results

The projection model input, output, and sources of the inputs are presented in Appendix D.

The impact of unpermitted, and therefore unmodeled, dischargers is captured in the benthic loading (nonpoint loading not associated with a flow and SOD loading).

Natural background loading was not separated from anthropogenic loading. In the absence of a representative reference stream, LDEQ chose to do an overall load reduction.

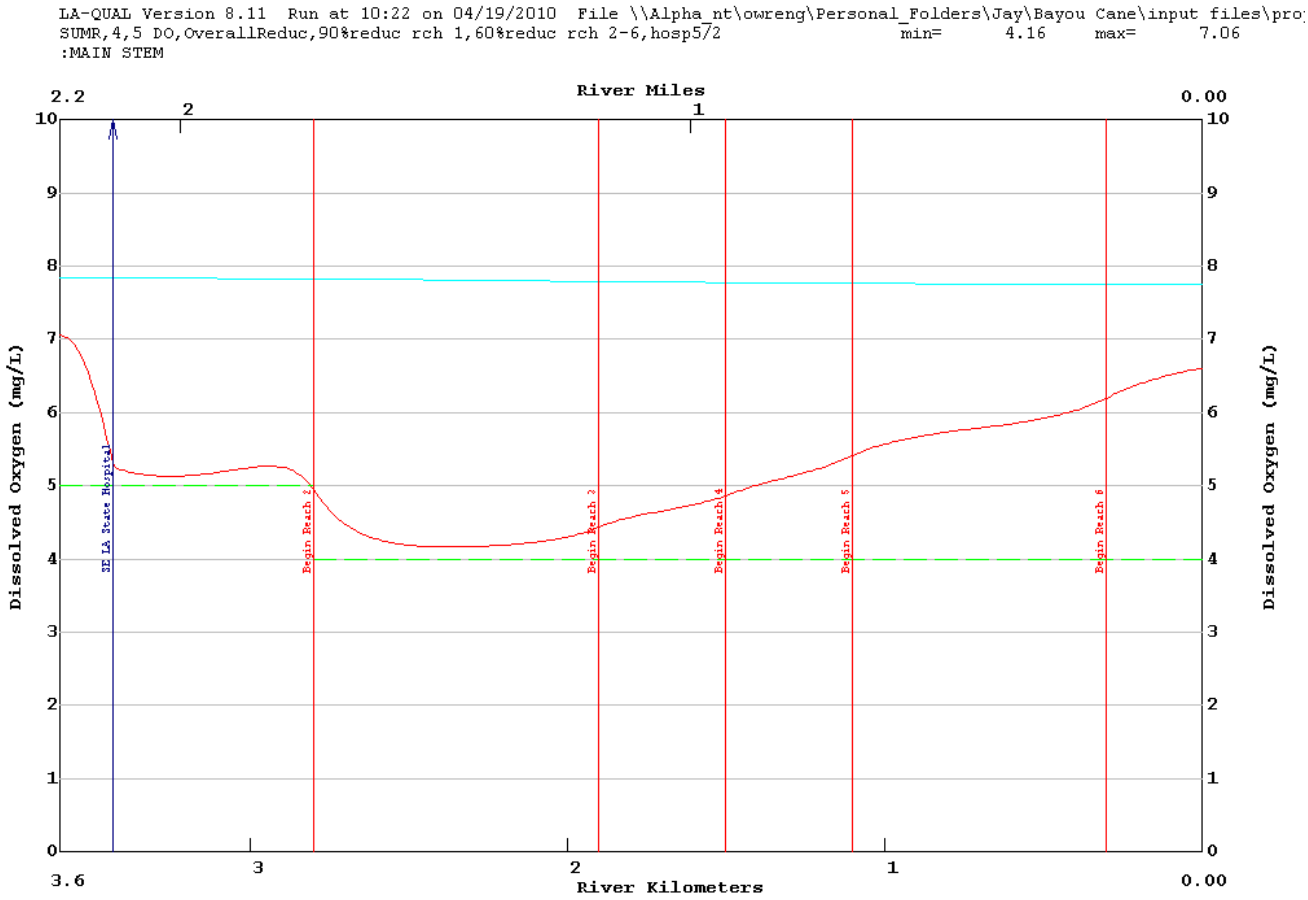
In order to meet the existing DO criteria of 5.0 mg/L and 4.0 mg/L, the SOD had to be reduced to less than reference stream average values which may indicate that much of Bayou Cane was at or near natural conditions during the survey and the DO criteria may be inappropriate.

5.3.1 Summer Projection

In order to meet the current dissolved oxygen (DO) criteria of 5.0 mg/L in subsegment 040903 and 4.0 mg/L in subsegment 040904, an overall nonpoint reduction of 90% in reach 1 and 60% in reaches 2-6 is required in addition to more stringent discharge limits of 5/2/5 ($CBOD_5/NH_3$-N/DO) for Southeast Louisiana State Hospital. The two different percent reductions are due to the two different DO criteria for Bayou Cane. The nonpoint loading includes unquantifiable sources such as individual home treatment systems. In order to reduce nonpoint loading, appropriate BMPs are usually employed in a watershed. The Bayou Cane watershed may benefit from the use of BMPs. This TMDL supports the revision of the DO criteria as discussed in the Technical Summary of this report.

A graph of the dissolved oxygen concentration versus river kilometer for the summer projection is presented in Figure 4.

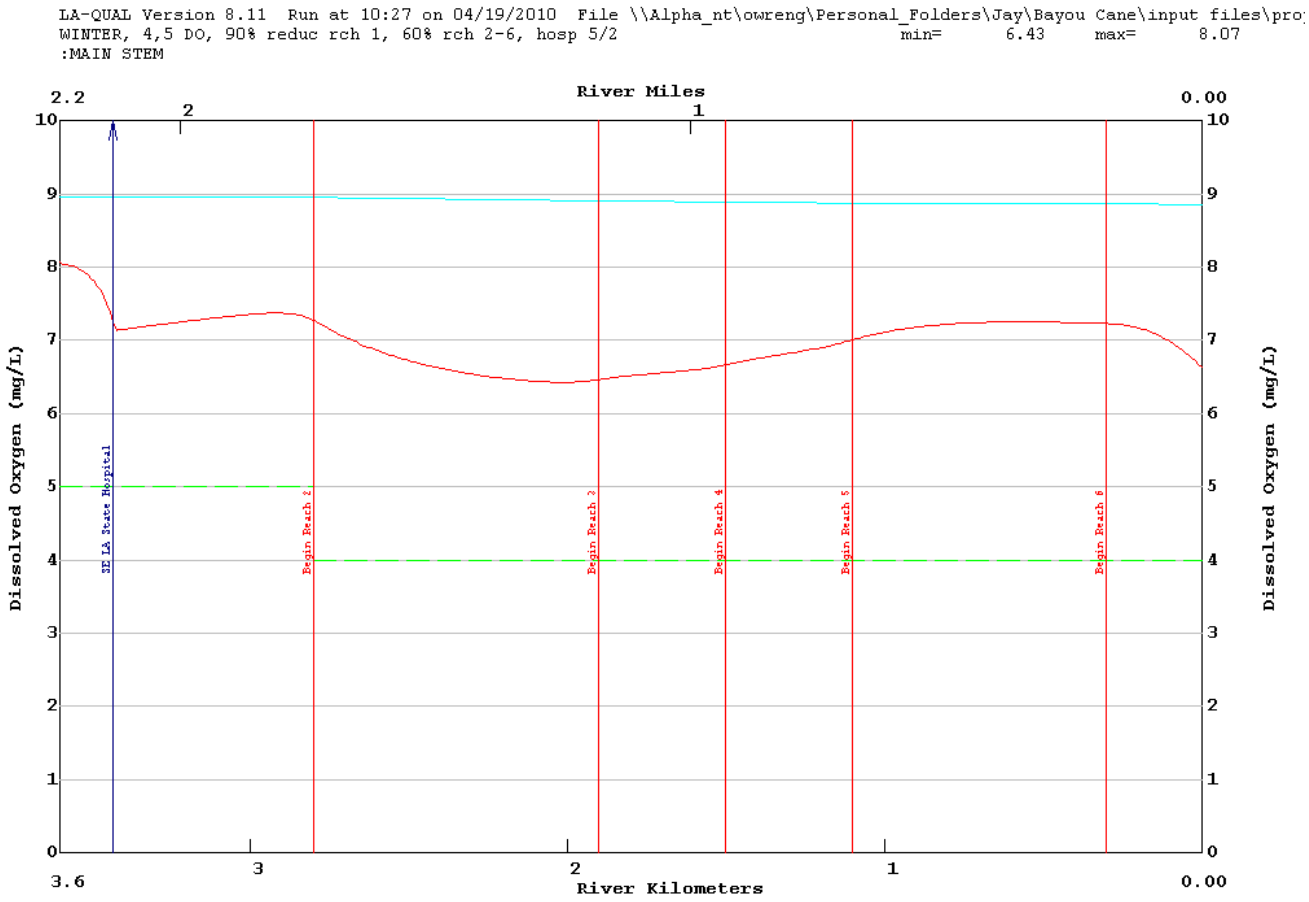
Figure 4. Summer Projection at 90% Nonpoint Removal in Reach 1, 60% Nonpoint Removal in Reaches 2-6, Subsegments 040903 & 040904



5.3.2 Winter Projection

Winter runs were made at the same level of load reduction as the summer runs. A graph of the dissolved oxygen concentration versus river kilometer for the winter projection is presented in Figure 5.

Figure 5. Winter Projection at 90% Nonpoint Removal in Reach 1, 60% Nonpoint Removal in Reaches 2-6, Subsegments 040903 & 040904



5.4 Calculated TMDL, WLAs and LAs

5.4.1 Outline of TMDL Calculations

An outline of the TMDL calculations is provided to assist in understanding the TMDL calculations. The outline is presented in Appendix A1.

5.4.2 Bayou Cane TMDL

TMDLs for biochemical oxygen demanding constituents (CBOD, NBOD, and SOD) were calculated for the summer and winter critical seasons based on the current dissolved oxygen criteria. They are presented in Appendices A2 and A3. A summary of the loads is presented in Table 2.

6. Sensitivity Analysis

All modeling studies necessarily involve uncertainty and some degree of approximation. It is therefore of value to consider the sensitivity of the model output to changes in model coefficients and in the hypothesized relationships among the parameters of the model. The LA-QUAL model allows multiple parameters to be varied with a single run. The model adjusts each parameter up or down by the percentage given in the input set. The rest of the parameters listed in the sensitivity section are held at their original projection value. Thus, the sensitivity of each parameter is reviewed separately. A sensitivity analysis was performed on the calibration. The sensitivity of the model's minimum DO projections to these parameters is presented in Appendix I. Parameters were varied by +/- 30%, except temperature, which was adjusted +/- 2 degrees Celsius.

As shown in Table 8, stream reaeration and benthal demand are the parameters to which DO is most sensitive. The model is moderately sensitive to initial temperature.

Table 8. Summary of Calibration Model Sensitivity Analysis

SENSITIVITY ANALYSIS SUMMARY

:MAIN STEM
BAYOU CANE FINAL CALIBRATION RUN

Plot 1 Base Model Minimum DO = 0.47

Parameter	%Param Chg	Min D.O.	%D.O. Chg	%Param Chg	Min D.O.	%D.O. Chg
Stream Baseflow	30.	0.47	0.0	-30.	0.47	0.0
Stream Velocity	30.	0.47	0.0	-30.	0.47	0.0
Stream Depth	30.	0.47	0.0	-30.	0.47	0.0
Stream Dispersion	30.	0.47	0.0	-30.	0.47	0.0
Stream Reaeration	30.	0.47	0.0	-30.	0.00	-100.0
CBOD Aerobic Decay Rate	30.	0.47	0.0	-30.	0.47	0.0
CBOD Settling Rate	30.	0.47	0.0	-30.	0.47	0.0
Tidal Range	30.	0.47	0.0	-30.	0.47	0.0
NBOD Decay Rate	30.	0.47	0.0	-30.	0.47	0.0
NBOD Settling Rate	30.	0.47	0.0	-30.	0.47	0.0
Benthal Demand	30.	0.00	-100.0	-30.	0.47	0.0
Initial Temperature	2.	0.28	-41.0	-2.	0.47	0.0
Initial Salinity	30.	0.47	0.0	-30.	0.47	0.0
Initial Chorophyll a	30.	0.47	0.0	-30.	0.47	0.0
Headwater Flow	30.	0.47	0.0	-30.	0.47	0.0
Headwater DO	30.	0.47	0.0	-30.	0.47	0.0
Headwater CBOD	30.	0.47	0.0	-30.	0.47	0.0
Headwater NBOD	30.	0.47	0.0	-30.	0.47	0.0
Wasteload Flow	30.	0.47	0.0	-30.	0.47	0.0
Wasteload DO	30.	0.47	0.0	-30.	0.47	0.0
Wasteload CBOD	30.	0.47	0.0	-30.	0.47	0.0
Wasteload NBOD	30.	0.47	0.0	-30.	0.47	0.0

Ocean Exchange Ratio	30.	0.47	0.0	-30.	0.47	0.0
Lower Boundary Temperature	2.	0.47	0.0	-2.	0.47	0.0
Lower Boundary DO	30.	0.47	0.0	-30.	0.47	0.0
Lower Boundary CBOD	30.	0.47	0.0	-30.	0.47	0.0
Lower Boundary NBOD	30.	0.47	0.0	-30.	0.47	0.0
Non-Point Source CBOD	30.	0.47	0.0	-30.	0.47	0.0
Non-Point Source NBOD	30.	0.47	0.0	-30.	0.47	0.0

7. Conclusions

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position is that when oxygen-demanding loads from point and nonpoint sources are reduced in order to ensure that the dissolved oxygen criteria are supported, nutrients are also reduced. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also reduce the nutrient loading from those sources.

LDEQ has designated Bayou Cane to be an Outstanding Natural Resource Water (ONRW). A review of point source discharges indicates that Bayou Cane is minimally impacted by man-made sources. It is being considered for possible use in studies involving reference streams.

A calibrated water quality model and projections were developed for the watershed to quantify the load reductions which would be necessary in order for Bayou Cane to comply with its established water quality criteria. This report presents the results of that analysis.

The load reductions required to meet the current DO criteria are 90% for reach 1 and 60% for reaches 2-6. However, LDEQ recommends load reductions not be implemented in reaches 2-6 because these reaches appear to have been at or near natural background conditions during the survey. These natural conditions may include wetland seepage from neighboring wetlands. In addition, the projected load reduction indicates that the dissolved oxygen criteria for Bayou Cane may be inappropriate based on the experience of LDEQ's water quality modelers. The load reductions implemented in reach 1, in particular, the new permit limits established for the Southeast Louisiana State Hospital, may contribute to some load reductions in reaches 2-6.

The modeling conducted for this TMDL was conservative and based on limited information.

LDEQ is utilizing a phased TMDL approach for Bayou Cane as shown in the Table 1. This approach will allow LDEQ to meet its TMDL commitments, revise the subsegments, revise the dissolved oxygen criteria, develop nutrient criteria, and develop meaningful and implementable TMDL reports based on appropriate DO criteria. At the same time, it will lead to improved water quality while providing local governments and businesses the opportunity to prepare and adjust to new permit requirements that will be required as a result of the TMDLs developed in Phases I and II.

Phase I consists of the implementation of a permitting strategy and the calculation of the TMDL. The TMDL calculation was based on the nonpoint and point source loading values that meet the current DO criteria for Bayou Cane. The nonpoint reductions and the limits for the hospital were acquired

through the modeling process. Phase I will serve as the first step towards meeting the DO criteria for Bayou Cane.

LDEQ has designated Bayou Cane to be an Outstanding Natural Resource Water (ONRW). A review of point source dischargers and the modeling results indicate that the impairments under the existing criteria may be caused largely by natural conditions. The only point source having a significant impact on Bayou Cane is the Southeast Louisiana State Hospital. The permitting strategy for the Bayou Cane TMDL is intended to protect the ONRW status of Bayou Cane by improving the water quality at this time and preventing the degradation of the water quality in the future.

The implementation of permit limits will occur according to the following strategy:

Phase I Permit Implementation

All TMDL, permitting, and enforcement activities will be conducted in accordance with the Clean Water Act, the Louisiana Environmental Regulatory Code, and applicable state laws.

1. New Discharges of oxygen-demanding loads:

   Due to the ONRW status of Bayou Cane, the waterbody is afforded Tier 3 protection according to 40 CFR 131.12 (a)(3). New or increased discharges that will cause degradation, as defined in LAC 33:IX.1119.C.4, will not be approved. However, in the event that such a discharge will not cause degradation and one of the following requirements can be attained, LDEQ may permit the new discharge. Such new facilities may be required to submit an environmental impact assessment to LDEQ's permitting staff which will conduct a thorough evaluation of the proposed facility based on environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors. The typical permit limits will be 5 mg/L BOD_5 / 2 mg/L NH_3 / 5 mg/L DO.

   a. The facility demonstrates that it will provide a significant load reduction of man-made oxygen-demanding constituents to the impaired watershed(s) serviced by the facility. The facility must also contribute to a reduction in the number of facilities discharging to the watershed(s). Facilities that may be considered for permits under this provision include, but are not limited to:

      i. A facility that will provide improved sewage treatment to multiple subdivisions previously serviced by wastewater treatment plants that are incapable of treating to tertiary limits.

      ii. A facility that will provide sewage treatment to previously unsewered areas in which many of the sanitary discharges from permitted facilities and individual home treatment units were

entering an impaired watershed. As a result, the facility would be expected to provide more efficient treatment to the wastewater and reduce the net loading of oxygen-demanding substances in the watershed.

b. The facility demonstrates that its wastewater will not leave the facility or its property. Significant stormwater events do not apply to this provision. For the purpose of this provision, a significant stormwater event is defined as the 25 year, 24 hour rainfall event or its numerical equivalent, as defined by the Southern Regional Climate Center.

i. Facilities that may be considered under this provision include, but are not limited to:

a. Effluent reduction systems that have been approved by the Louisiana Department of Health and Hospitals.

b. Wastewater treatment plants equipped with overland flow systems in which the effluent will not leave the facility.

c. Wastewater treatment plants equipped with holding ponds that will retain the effluent such that the effluent will not leave the facility.

ii. LDEQ recognizes that some local governments are in the process of building or expanding regional sewage collection and treatment systems. In such areas, LDEQ may, on a limited basis, grant permits to facilities that agree to tie into a regional collection and treatment system when it becomes available. LDEQ must have reasonable assurance that the facility will connect to the regional collection system. Reasonable assurance may include a formal agreement between the facility, the owner and operator of the regional wastewater treatment system, and LDEQ. The regional system must have the capacity to treat the additional wastewater. Such a permit may have a duration of less than five years or it may have a five year duration with interim permit limits. The facility will be required to cease all wastewater discharges to Bayou Cane and transfer the discharge to the regional collection system once the permit or interim limits expire or the collection system is available to the facility, whichever comes first. Such new facilities will be required to submit an environmental impact assessment to LDEQ's permitting staff which will conduct a thorough evaluation of the proposed facility

based on environmental impacts, economic benefits, an analysis of alternatives, and other pertinent factors.

c. LDEQ reassesses Subsegments 040903 and/or 040904 (Bayou Cane). LDEQ determines that Subsegments 040903 and/or 040904 are meeting the appropriate DO criteria and designated uses.

2. Existing Discharges of oxygen-demanding loads:

Below are the reductions for existing dischargers in the Bayou Cane TMDL. Facilities discharging oxygen-demanding loads without LPDES permits as of the TMDL approval date are to be permitted in accordance with the limits established for existing facilities with permits. Unpermitted facilities that are newly activated or reactivated after the TMDL approval date may be subjected to enforcement actions and will be required to tie into regional collection and treatment systems once they are available.

a. The Southeast Louisiana State Hospital (AI# 9371) will receive a compliance schedule of up to 3 years with final limitations of 5 mg/L BOD_5 / 2 mg/L NH_3 / 5 mg/L DO (with post reaeration).

b. All other facilities within the Bayou Cane Watershed will keep existing permits limits for Phase I of the TMDL.

3. Nutrient monitoring (i.e. reporting for Total Nitrogen and Total Phosphorus) will be required for individual permits. Nutrient monitoring will be added to the general permit series (LAG530000, LAG540000, LAG560000, and LAG570000) upon the next scheduled renewal of each series.

Phase II will be developed based on the outcome of an ecoregion-based use attainability analysis (UAA) planned for the watershed. Based on existing data for the Lower Mississippi River Alluvial Plains Ecoregion, many of the Lake Pontchartrain Basin TMDLs that are currently being developed may be candidates for DO criteria revisions. TMDL survey data and modeling also indicate that existing DO criteria may be inappropriate. These TMDLs have an interim (state) deadline of March 31, 2011 and a final deadline of March 31, 2012. New ecoregion data is being collected in order to evaluate the need to revise the DO criteria. If needed, such revisions are expected to occur within the next three to five years.

In the event the new criteria are not developed and promulgated within five years from the TMDL approval date for each individual waterbody, LDEQ intends to proceed in the following manner:

Case 1: UAA study indicates that the current DO criteria are appropriate - the TMDL will be fully implemented based on the existing DO criteria.
Case 2: The UAA is not likely to be completed and/or approved - the TMDL will be fully implemented based on the existing DO criteria.

Case 3: The UAA is in progress and is expected to be approved – Phase II of the TMDL will be postponed for a maximum period of 2 years, at which time the UAA status will be reviewed again according to the criteria set in Cases 1 and 2 above.

LDEQ recognizes there may be many unpermitted sources of oxygen-demanding loading within the Lake Pontchartrain Basin. These sources may include unpermitted facilities (privately owned treatment units for subdivisions or businesses). LDEQ has been locating unpermitted facilities and updating location information on permitted facilities in the Lake Pontchartrain Basin. LDEQ has conducted these activities within the Bayou Cane watershed. The unpermitted facilities are required to apply for the appropriate LPDES (Louisiana Pollutant Discharge Elimination System) permits. These unpermitted sources of oxygen-demanding loading may also include individual treatment units for residential homes and small businesses. The ability to accurately quantify the loads provided from these systems is extremely difficult due to lack of reliable information regarding the number of units and the loading provided by each individual unit. Such unpermitted sources of loading may add to the uncertainty of this TMDL and provide additional justification for the use of the phased TMDL approach.

Louisiana does not have numeric nutrient criteria at the present time. The original nutrient impairments for waterbodies in the Pontchartrain Basin were not based on quantitative assessments of historical nutrient data. The impairments were based on evaluative assessments that may have included dissolved oxygen. LDEQ and EPA plan to reevaluate the previous nutrient impairments in the Pontchartrain Basin. As a result, both the EPA and LDEQ expect the nutrient impairments to change from category 5 (impairment exists; TMDL required) to category 3 (insufficient data) for Louisiana's 2010 Integrated Report. Therefore, LDEQ believes that TMDLs for dissolved oxygen should adequately address any potential nutrient impairments in the absence of numeric nutrient criteria and quantitative assessments.

LDEQ is developing numeric nutrient criteria for waterbody types based on ecoregions in accordance with LDEQ's plan "Developing Nutrient Criteria for Louisiana 2006" which can be found at:

http://www.deq.louisiana.gov/portal/Portals/0/planning/LA%20Nutrient%20Strategy%20Plan%20Final%20FOR%20WEB.pdf.

Water body types for nutrient criteria development in Louisiana are 1) inland rivers and streams; 2) freshwater wetlands; 3) freshwater lakes and reservoirs; 4) big rivers and floodplains/boundary rivers and associated water bodies; and 5) estuarine and coastal waters (including up to Louisiana's three mile boundary in the Gulf of Mexico). Proposed approaches for nutrient criteria development are currently under review by LDEQ and EPA. Nutrient criteria can be implemented upon state promulgation and EPA approval as per 40 CFR 131.21.

Upon development of nutrient criteria, a subsequent quantitative assessment of the waterbodies, and the development of full nutrient models, nutrient limits may be established for all facilities discharging to impaired waterbodies in the Pontchartrain Basin. LDEQ recommends that all facilities discharging to impaired waterbodies take a proactive approach and prepare to receive nutrient limitations in the near future. Such a proactive approach should include nutrient monitoring and documentation through facility Discharge Monitoring Reports (DMRs) in order to assess their nutrient loads and the need to modify their treatment processes for nutrient removal.

LDEQ recognizes that Bayou Cane may be minimally impacted by permitted dischargers. As such, Bayou Cane is being considered for possible use in studies involving reference streams. LDEQ also realizes that the water quality conditions may be improved and protected by the regionalization of wastewater treatment in the area to include all sanitary wastewater sources such as home treatment systems and camps along the bayou and the consideration of innovative forms of wastewater treatment.

Subsegment 040903 was assessed using ambient water quality network site number 0302 which is on Bayou Cane at the U.S. 190 bridge. Subsegment 040904 was assessed using ambient site number 1046 which is on Bayou Castine at Prieto Marina.

Existing ecoregion data suggests that the summer and winter DO criteria should be 2.3 mg/L and 4.0 mg/L, respectively. Water quality monitoring site 0302 is located in the reaches of Bayou Cane for which these proposed criteria would apply.

Model runs were also conducted for alternate dissolved oxygen criteria of 2.3 mg/L for the summer and 4.0 mg/L for the winter. Based on a summer criterion of 2.3 mg/L, an overall reduction of 50% of nonpoint loading would be required, and Southeast Louisiana State Hospital would have permit limits of 5/2/5 ($CBOD_5/NH_3$-N/DO). It is possible that the UAA may produce a DO criterion different than 2.3 mg/L.

LDEQ has developed this TMDL to be consistent with the state antidegradation policy (LAC 33:IX.1109.A).

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ collects surface water samples at various locations utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term database for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial Integrated Report. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four-year sampling cycle replaced the previous five-year cycle. Approximately one-quarter of the state's watersheds will be sampled each year so that all of the state's watersheds will be sampled within the four-year cycle. This will allow LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated by LDEQ and approved by EPA, waterbodies may be added to or removed from the 303(d) list.

8. References

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9. Appendices

Appendix A – Detailed TMDL Analysis

Appendix A1 – Outline of TMDL Calculations

Outline of Typical TMDL Calculations

Slight variances may occur based on individual cases.

1) The natural background benthic loading was estimated from reference stream resuspension (nonpoint CBOD and NBOD), and SOD load data.

2) The calibration man-made benthic loading was determined as follows:
   a) Calibration resuspension and SOD loads were summed for each reach as gm O_2/m^2-day to get the calibration benthic loading.
   b) The natural background benthic loading was subtracted from the calibration benthic loading to obtain the man-made calibration benthic loading.

3) Projection loads are determined by trial and error during the modeling process
   a) Resuspension and SOD loads are reduced by uniform percentages.
   b) Point sources are reduced as necessary to subsequently more stringent levels of treatment consistent with the size of the treatment facility as much as possible. Point source design flows are increased to obtain an explicit MOS of 20%.
   c) Headwater and tributary concentrations of CBOD, NBOD and DO range from reference stream levels to calibration levels based on the character of the headwater. Where headwaters and tributaries exhibit man-made pollutant loads in excess of reference stream values, the loadings are reduced by the same uniform percentages as the benthic loads.

4) The projection benthic loading at 20 °C is calculated as the sum of the projection resuspension and SOD components expressed as gm O_2/m^2-day.

5) The natural background benthic load is subtracted from the projection benthic load to obtain the man-made projection benthic load for each reach.

6) The percent reduction of man-made loads for each reach is determined from the difference between the projected man-made non-point load and the man-made non-point load found during calibration.

7) The projection loads are also computed in units of lb/d and kg/d for each kind.

8) The total stream loading capacity at critical water temperature is calculated as the sum of:
   a) Headwater and tributary CBOD and NBOD loading in lb/d and kg/d.
   b) The natural and man-made projection benthic loading for all reaches of the stream, converted to the loading at critical temperature and summed in lb/d and kg/d.
   c) Point source CBOD and NBOD loading in lb/d and kg/d.
   d) The margin of safety in lb/d and kg/d.

Appendix A2 – 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Summer TMDL Summary

Summer TMDL Summary: **Loading for 90% Overall Reduction in Reach 1**

BAYOU CANE (SUBSEGMENT 040903)

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	24								6
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		1	0	0	0	0	2	3	1
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**24**	**1**	**0**	**0**	**0**	**0**	**2**	**3**	**7**
TMDL = WLA + LA + MOS								***34***	***kg/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	53								13
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		2	0	0	0	0	4	7	2
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**53**	**2**	**0**	**0**	**0**	**0**	**4**	**7**	**15**
TMDL = WLA + LA + MOS								***75***	***lbs/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	24								6
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		1	0	0	0	0	2	3	1
SUB-TOTAL	**24**	**1**	**0**	**0**	**0**	**0**	**2**	**3**	**7**
TMDL = WLA + LA + MOS								***34***	***kg/day***

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	53								13
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		2	0	0	0	0	4	7	2
SUB-TOTAL	**53**	**2**	**0**	**0**	**0**	**0**	**4**	**7**	**15**
TMDL = WLA + LA + MOS								***75***	***lbs/day***

Summer TMDL Summary: **Loading for 60% Overall Reduction in Reaches 2-6**

BAYOU CANE (SUBSEGMENT 040904)

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	458								115
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		72	0	0	0	26	94	192	48
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**458**	**72**	**0**	**0**	**0**	**26**	**94**	**192**	**163**
TMDL = WLA + LA + MOS								***813***	***kg/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	1,010								254
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		159	0	0	0	57	207	423	106
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**1,010**	**159**	**0**	**0**	**0**	**57**	**207**	**423**	**360**
TMDL = WLA + LA + MOS								***1,793***	***lbs/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	458								115
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		72	0	0	0	26	94	192	48
SUB-TOTAL	**458**	**72**	**0**	**0**	**0**	**26**	**94**	**192**	**163**
TMDL = WLA + LA + MOS								***813***	***kg/day***

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	1,010								254
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		159	0	0	0	57	207	423	106
SUB-TOTAL	**1,010**	**159**	**0**	**0**	**0**	**57**	**207**	**423**	**360**
TMDL = WLA + LA + MOS								***1,793***	***lbs/day***

Appendix A3 – 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Winter TMDL Summary

Winter TMDL Summary: **Loading for 90% Overall Reduction in Reach 1**

BAYOU CANE (SUBSEGMENT 040903)

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	24								6
Headwater / Tributary loads		3	0	0	0	1		4	1
Benthic loads		1	0	0	0	0	1	2	1
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**24**	**4**	**0**	**0**	**0**	**1**	**1**	**6**	**8**
TMDL = WLA + LA + MOS								***38***	***kg/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	53								13
Headwater / Tributary loads		7	0	0	0	2		9	2
Benthic loads		2	0	0	0	0	2	4	2
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**53**	**9**	**0**	**0**	**0**	**2**	**2**	**13**	**17**
TMDL = WLA + LA + MOS								***83***	***lbs/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	24								6
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		4	0	0	0	1	1	6	2
SUB-TOTAL	**24**	**4**	**0**	**0**	**0**	**1**	**1**	**6**	**8**
TMDL = WLA + LA + MOS								***38***	***kg/day***

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	53								13
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		9	0	0	0	2	2	13	4
SUB-TOTAL	**53**	**9**	**0**	**0**	**0**	**2**	**2**	**13**	**17**
TMDL = WLA + LA + MOS								***83***	***lbs/day***

Winter TMDL Summary: **Loading for 60% Overall Reduction in Reaches 2-6**

BAYOU CANE (SUBSEGMENT 040904)

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	458								115
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		72	0	0	0	26	60	158	39
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**458**	**72**	**0**	**0**	**0**	**26**	**60**	**158**	**154**
TMDL = WLA + LA + MOS								***770***	***kg/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	1,010								254
Headwater / Tributary loads		0	0	0	0	0		0	0
Benthic loads		159	0	0	0	57	132	348	86
Incremental Loads		0	0	0	0	0		0	0
SUB-TOTAL	**1,010**	**159**	**0**	**0**	**0**	**57**	**132**	**348**	**340**
TMDL = WLA + LA + MOS								***1,698***	***lbs/day***

Notes:
(1) - Load(lbs/day) = Load(kg/day) x 2.205

Calculation of the TMDL - Kilograms per day

Load description	WLA (kg O_2/day)	CBOD1 LA (kg O_2/day)	CBOD2 LA (kg O_2/day)	Organic-N LA (kg/day)	Ammonia-N LA (kg/day)	NBOD LA (kg O_2/day)	SOD LA (kg O_2/day)	LA (kg O_2/day)	MOS Load (kg O_2/day)
Point Source loads	458								115
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		72	0	0	0	26	60	158	39
SUB-TOTAL	**458**	**72**	**0**	**0**	**0**	**26**	**60**	**158**	**154**
TMDL = WLA + LA + MOS								***770***	***kg/day***

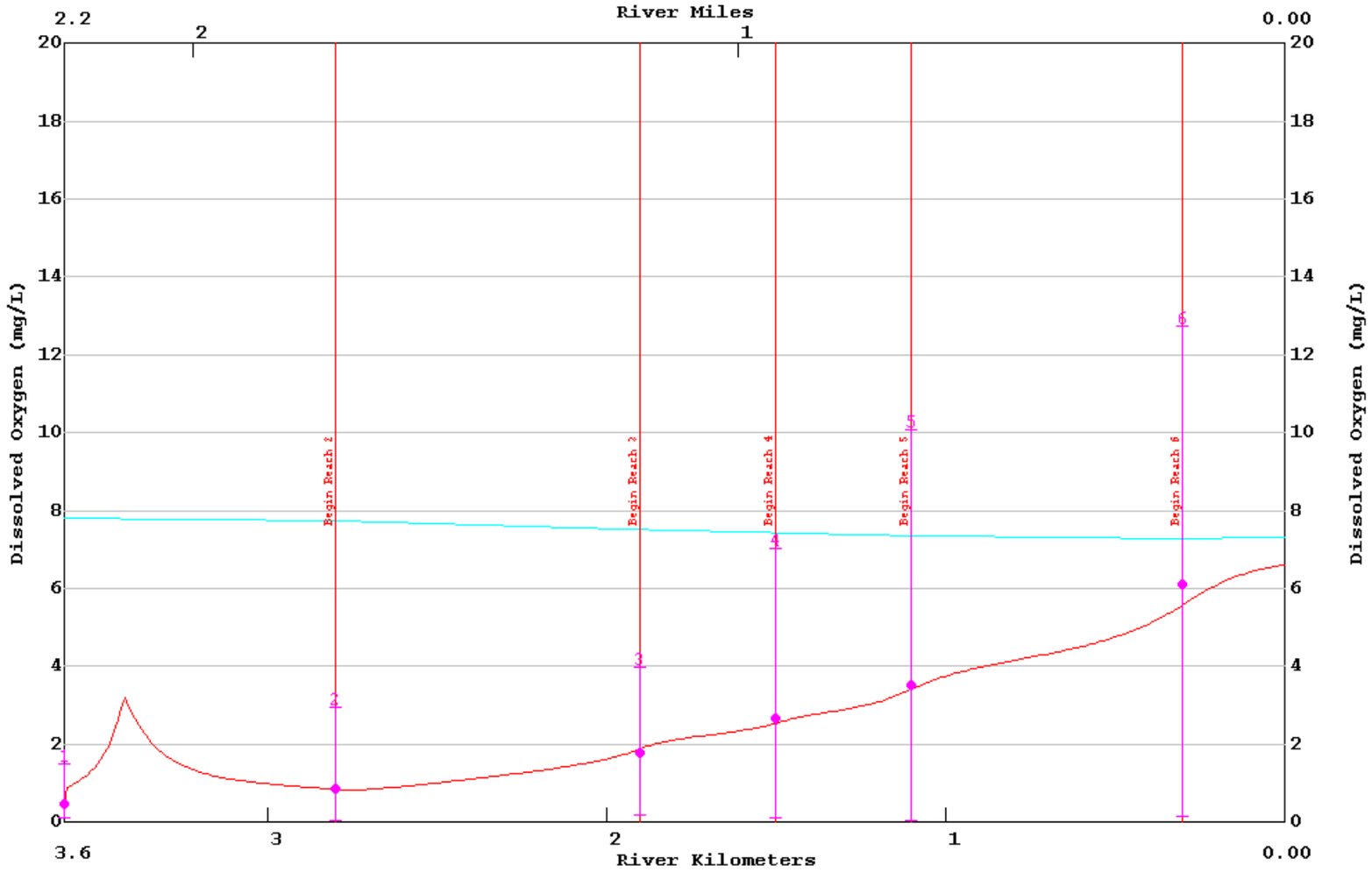
Calculation of the TMDL - Pounds per day

Load description	WLA (lbs O_2/day)	CBOD1 LA (lbs O_2/day)	CBOD2 LA (lbs O_2/day)	Organic-N LA (lbs/day)	Ammonia-N LA (lbs/day)	NBOD LA (lbs O_2/day)	SOD LA (lbs O_2/day)	LA (lbs O_2/day)	MOS Load (lbs O_2/day)
Point Source loads	1,010								254
Natural Nonpoint Loads		0	0	0	0	0	0	0	
Manmade Nonpoint Loads		159	0	0	0	57	132	348	86
SUB-TOTAL	**1,010**	**159**	**0**	**0**	**0**	**57**	**132**	**348**	**340**
TMDL = WLA + LA + MOS								***1,698***	***lbs/day***

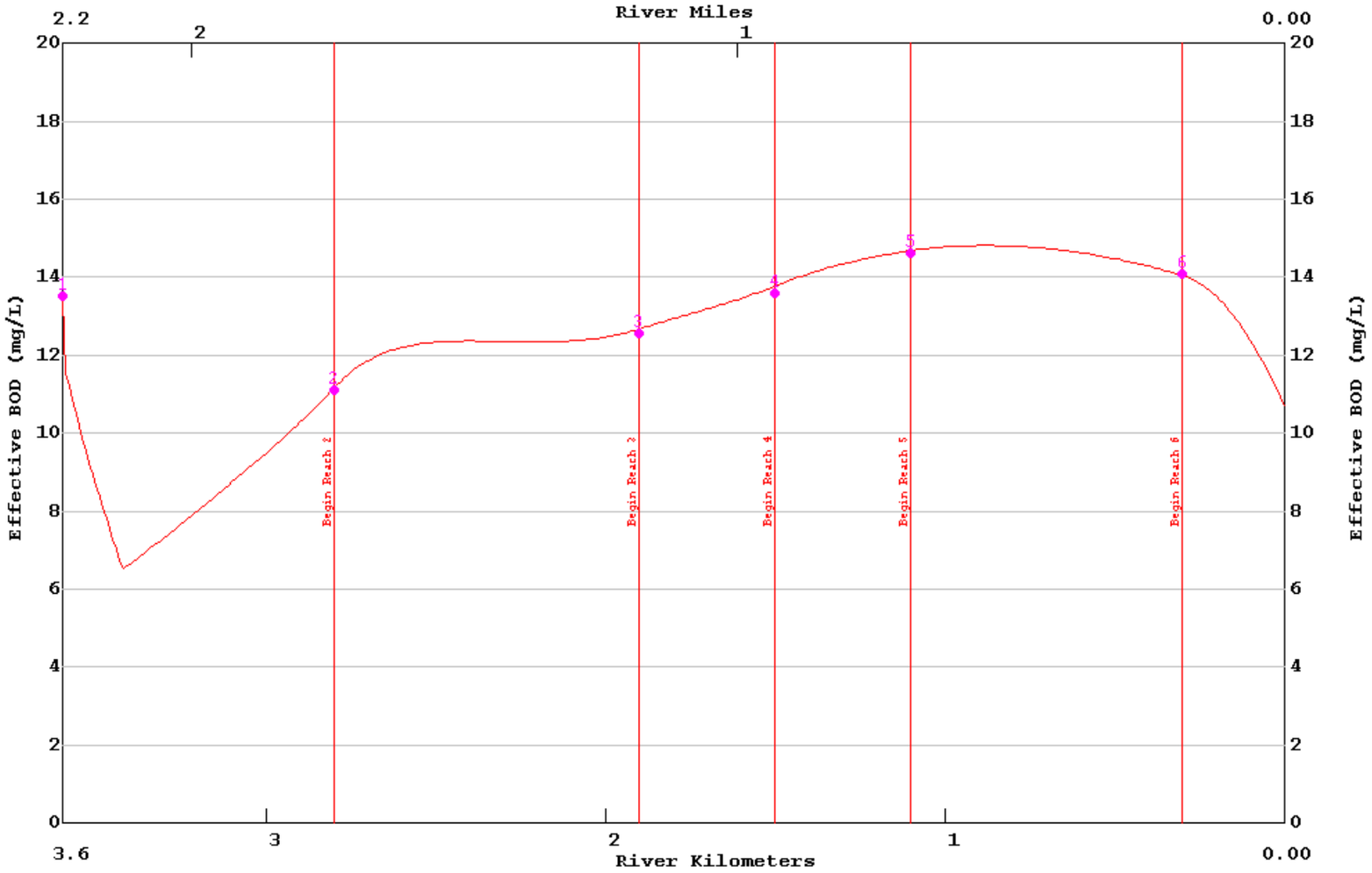
Appendix B – Calibration Model Input and Output

Appendix B1 – Calibration Output Graphs, Input, Output, & Overlay File for Subsegments 040903 and 040904

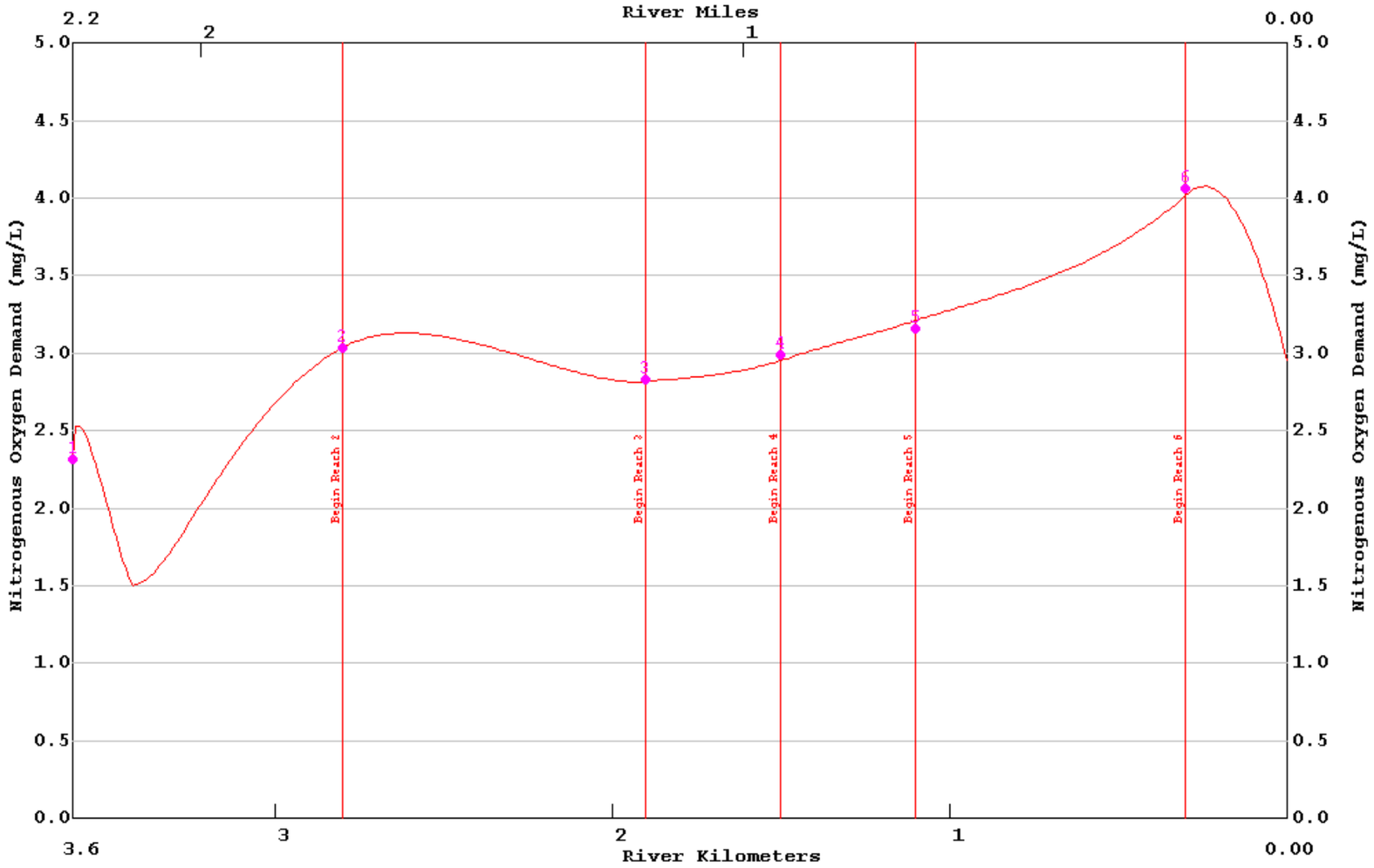
LA-QUAL Version 8.11 Run at 10:57 on 08/19/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 0.47 max= 6.61
:MAIN STEM



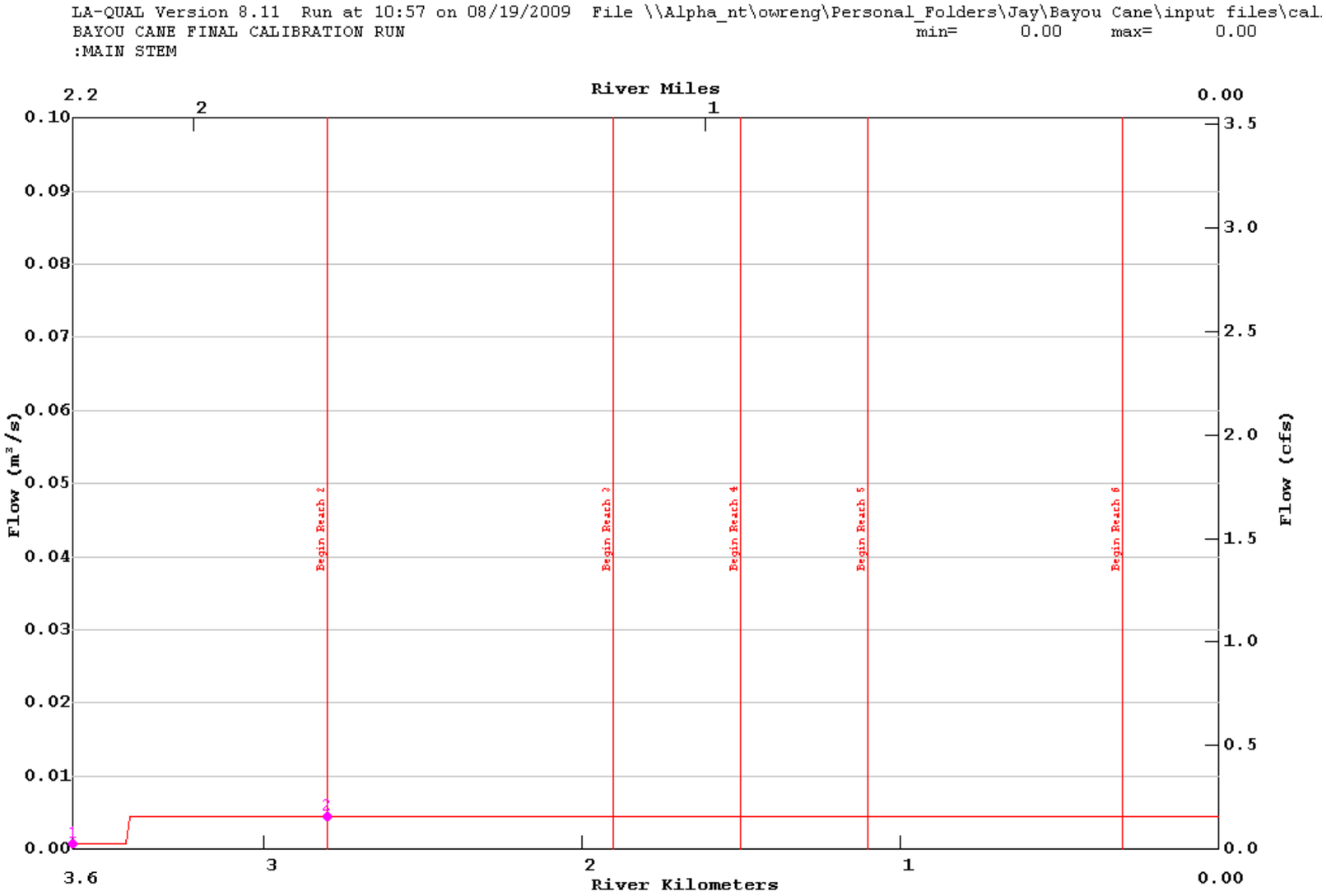
LA-QUAL Version 8.11 Run at 10:57 on 08/19/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 6.52 max= 14.81
:MAIN STEM

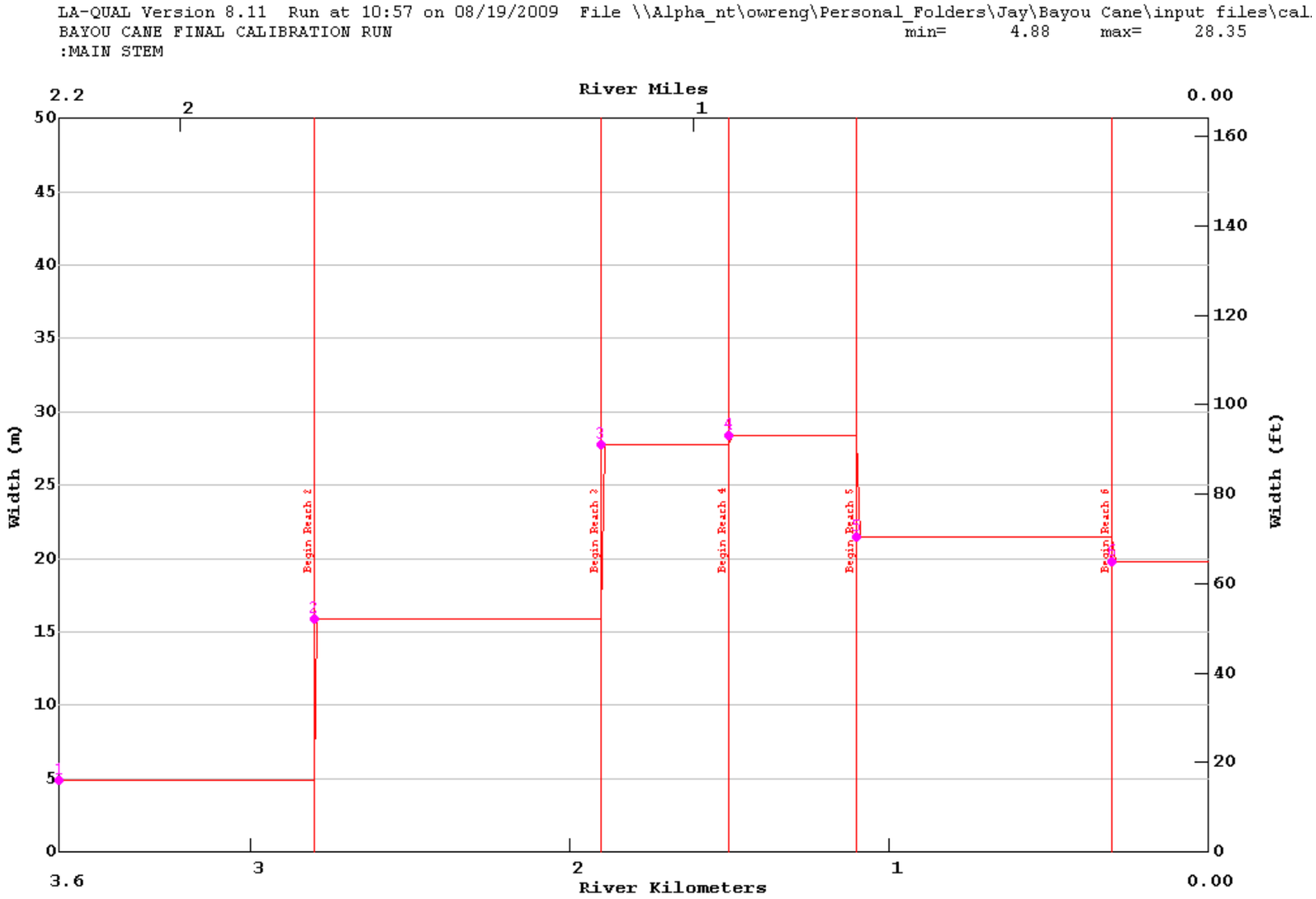


LA-QUAL Version 8.11 Run at 10:57 on 08/19/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 1.50 max= 4.08
:MAIN STEM

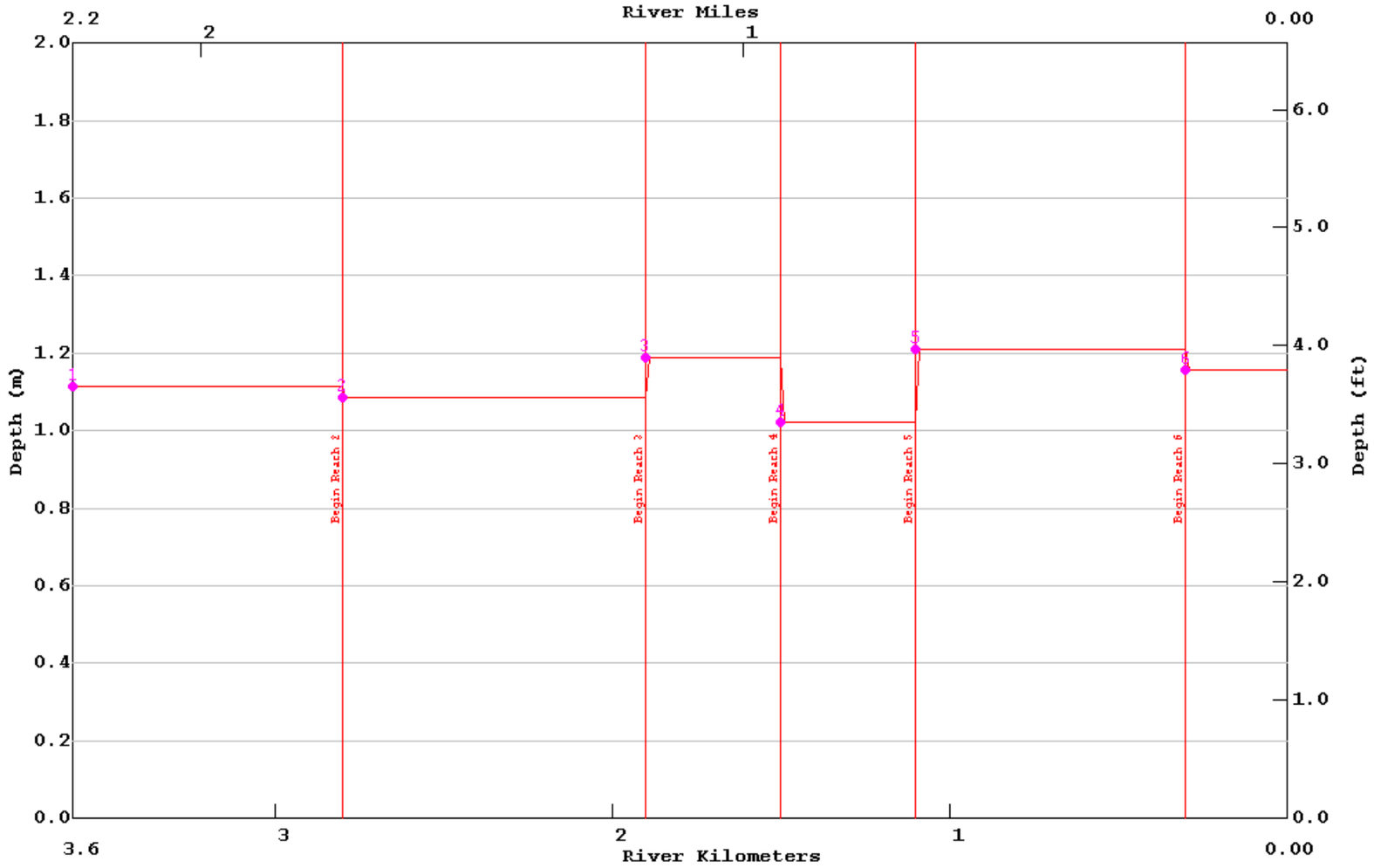


Bayou Cane Watershed TMDL
Subsegments 040903 and 040904
Originated: February 4, 2011

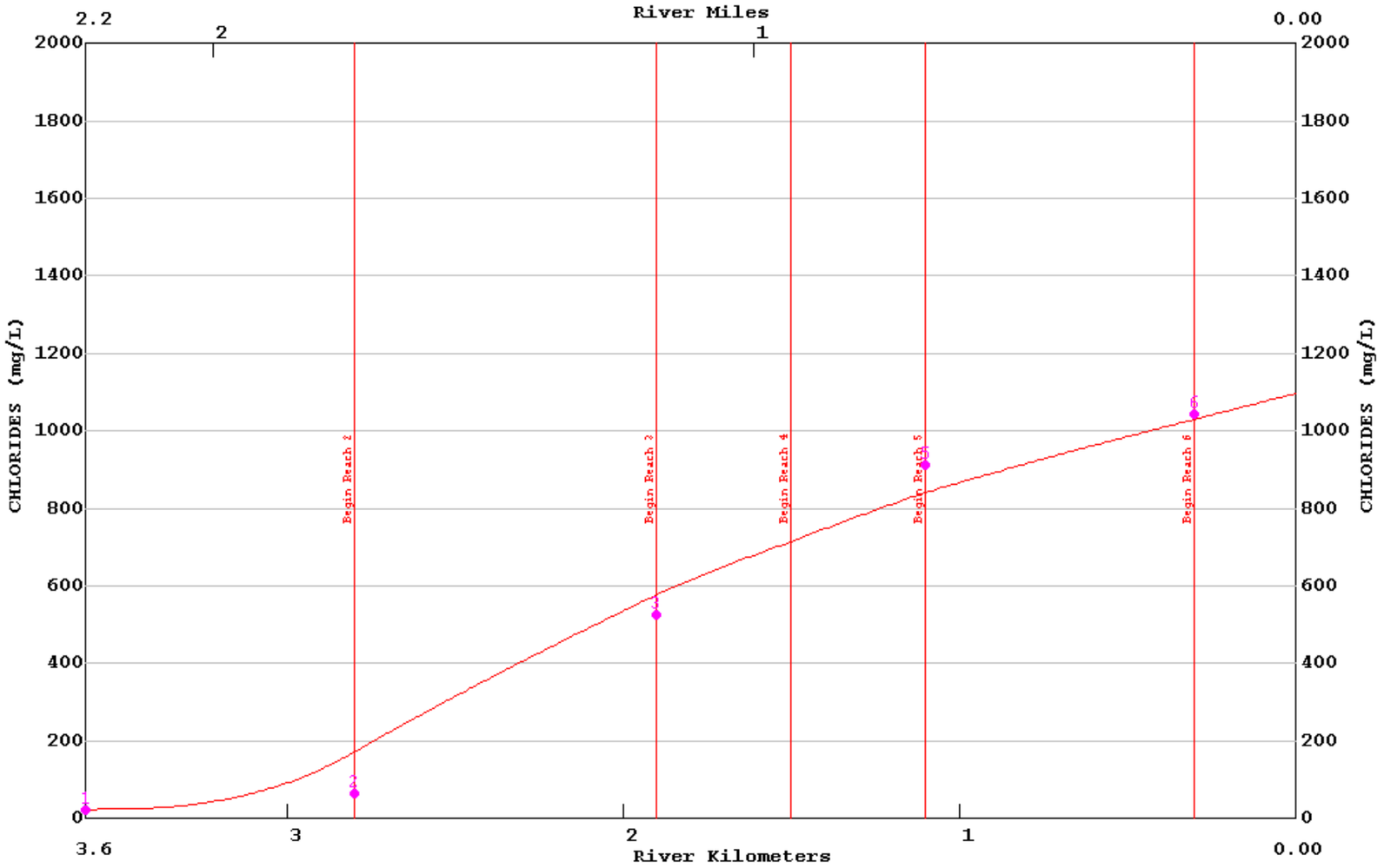



LA-QUAL Version 8.11 Run at 10:57 on 08/19/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
min= 4.88 max= 28.35
:MAIN STEM
River Miles
2.2
2
1
0.00
Width (m)
Width (ft)
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
River Kilometers
3.6
3
2
1
0.00

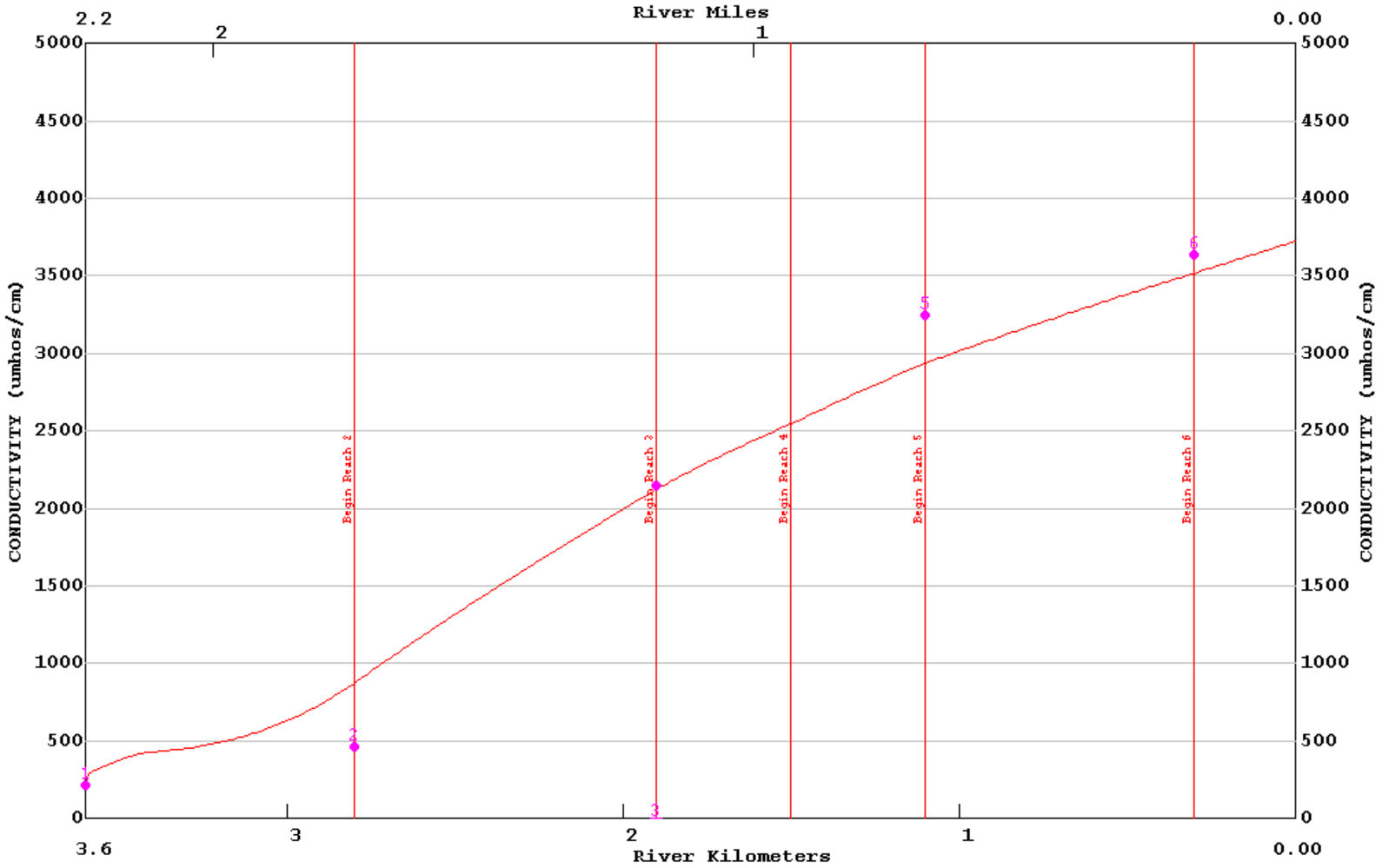
LA-QUAL Version 8.11 Run at 10:57 on 08/19/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN min= 1.02 max= 1.21
:MAIN STEM



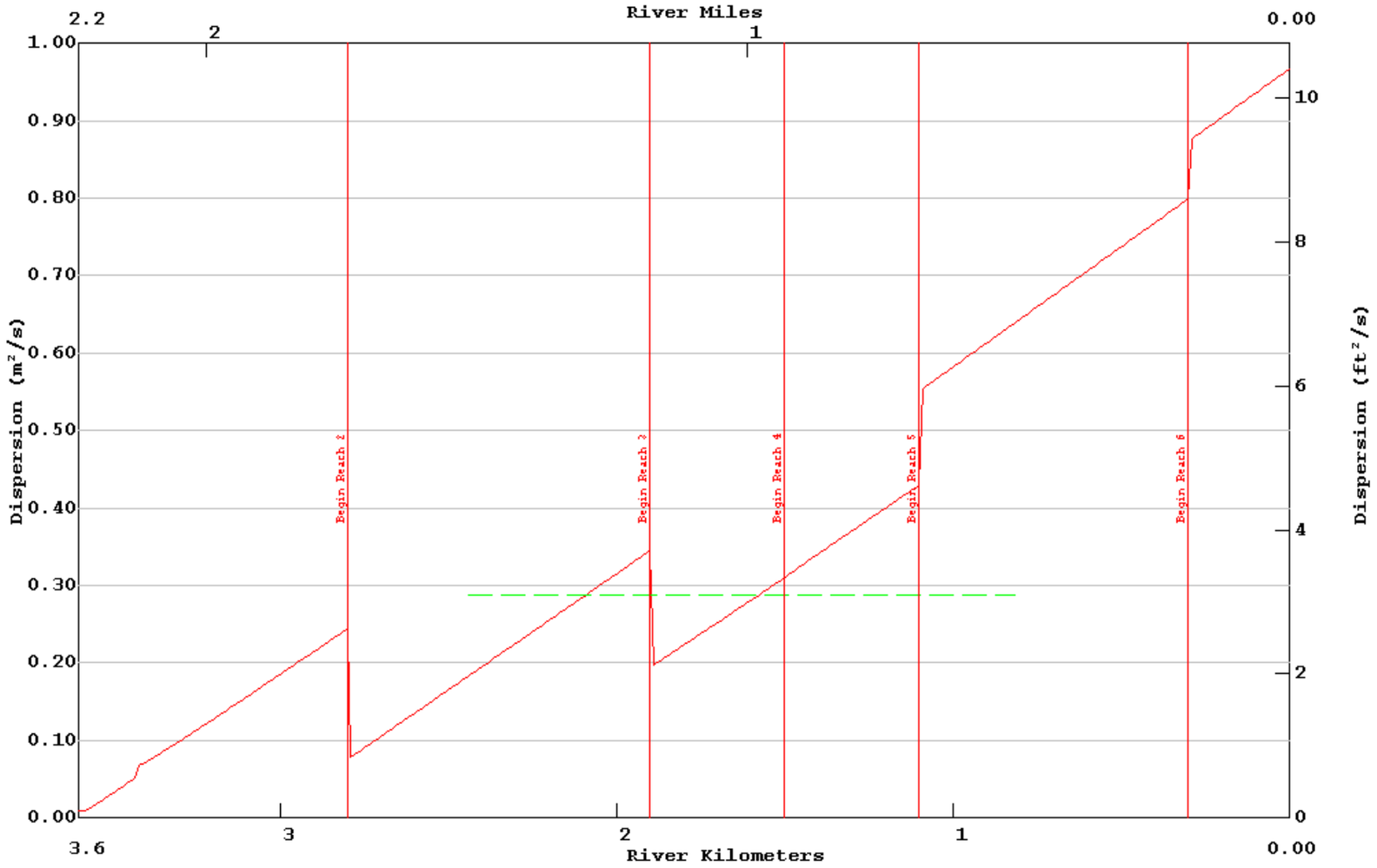
LA-QUAL Version 8.11 Run at 11:17 on 04/20/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 21.50 max= 1095.91
:MAIN STEM



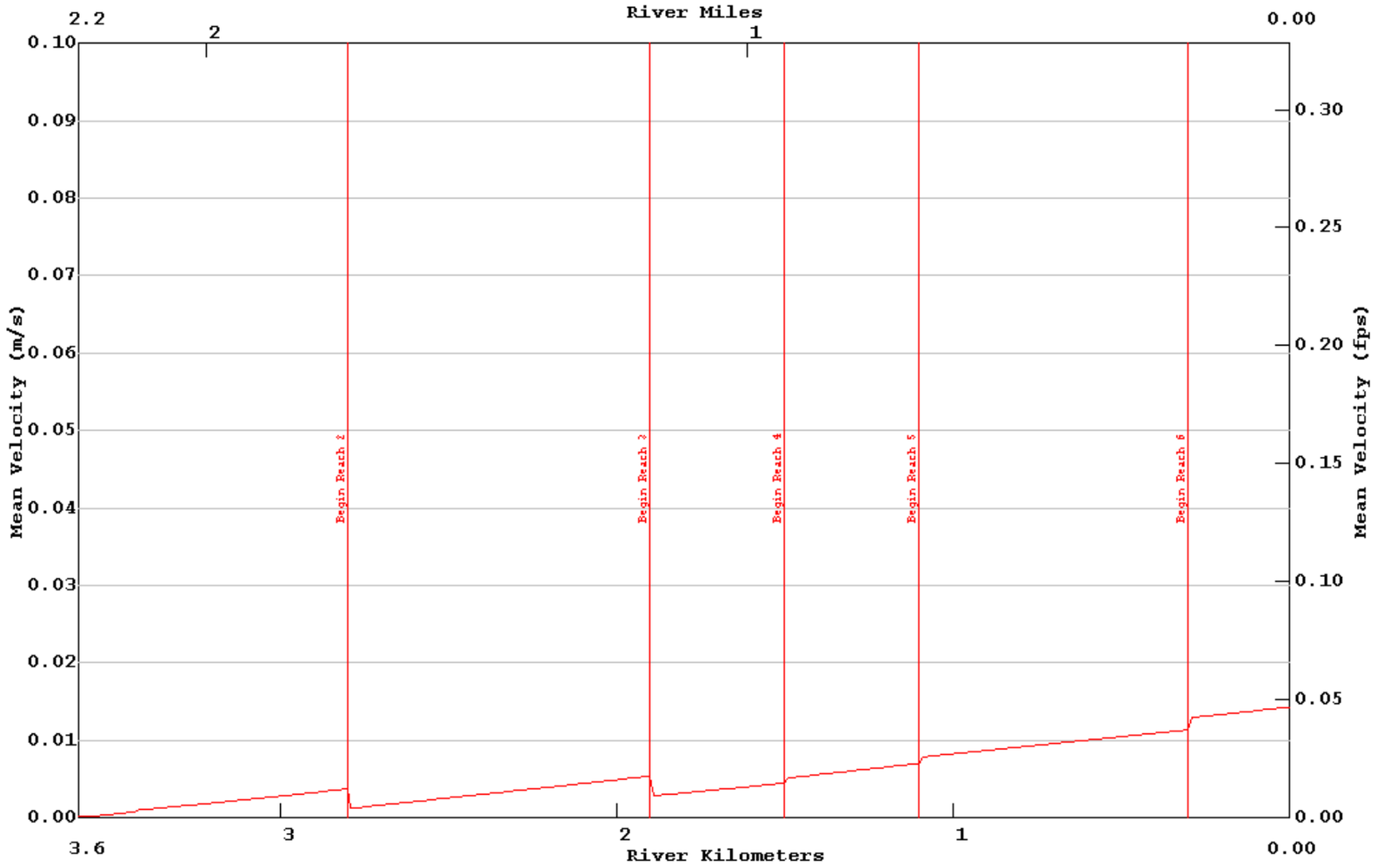
LA-QUAL Version 8.11 Run at 11:17 on 04/20/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 215.38 max= 3721.59
:MAIN STEM



LA-QUAL Version 8.11 Run at 11:17 on 04/20/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 0.01 max= 0.97
:MAIN STEM



LA-QUAL Version 8.11 Run at 11:17 on 04/20/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal.
BAYOU CANE FINAL CALIBRATION RUN min= 0.00 max= 0.01
:MAIN STEM



Bayou Cane Calibration Input File

```
TITLE01      BAYOU CANE WATERSHED MODEL
TITLE02      BAYOU CANE FINAL CALIBRATION RUN
CONTROL  YES METRIC UNITS
ENDATA01
MODOPT01  NO TEMPERATURE
MODOPT02  NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06  NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10  NO PHOSPHORUS
MODOPT11  NO CHLOROPHYLL A
MODOPT12  NO MACROPHYTES
MODOPT13  NO COLIFORM
ENDATA02
PROGRAM  DISPERSION EQUATION               =   3.
PROGRAM  OCEAN EXCHANGE RATIO              =   1.0
PROGRAM  TIDE HEIGHT                       =   0.236
PROGRAM  TIDAL PERIOD                      =   24.58
PROGRAM  PERIOD OF TIDAL RISE              =   11.625
PROGRAM  KL MINIMUM                        =   0.7
PROGRAM  INHIBITION CONTROL VALUE          =   3.
PROGRAM  EFFECTIVE BOD DUE TO ALGAE        =   0.0
PROGRAM  ALGAE OXYGEN PROD                 =   0.05
PROGRAM  K2 MAXIMUM                        =   10.0
PROGRAM  HYDRAULIC CALCULATION METHOD      =   2.
PROGRAM  SETTLING RATE UNITS               =   2.
ENDATA03
!Temperature Correction Constants
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ******** ********
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
```

```
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------**********----------
!          R#  ID   REACH NAME                          RKM       RKM    LENGTH
REACH ID    1  BC RKM 3.6 to 2.8                       3.6       2.8      0.01
REACH ID    2  BC RKM 2.8 to 1.9                       2.8       1.9      0.01
REACH ID    3  BC RKM 1.9 to 1.5                       1.9       1.5      0.01
REACH ID    4  BC RKM 1.5 to 1.1                       1.5       1.1      0.01
REACH ID    5  BC RKM 1.1 to 0.3                       1.1       0.3      0.01
REACH ID    6  BC RKM 0.3 to 0.0                       0.3       0.0      0.01
ENDATA08
!Advective Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******-------*******
!                a      b       c     d      e        f
!               WIDTH  WIDTH   WIDTH DEPTH  DEPTH   DEPTH
!          R#   COEFF   EXP    CONST COEFF   EXP    CONST SLOPE MANNING
! Reach 1 - 3665
HYDR-1      1   0.00   0.00    4.877 0.00   0.00    1.113
!
! Reach 2 - BC04 (3752)
HYDR-1      2   0.00   0.00   15.85  0.00   0.00    1.085
!
! Reach 3 - BC05 (3753)
HYDR-1      3   0.00   0.00   27.737 0.00   0.00    1.189
!
! Reach 4 - BC06 (3754)
HYDR-1      4   0.00   0.00   28.346 0.00   0.00    1.021
!
! Reach 5 - BC07 (3755)
HYDR-1      5   0.00   0.00   21.488 0.00   0.00    1.21
!
! Reach 6 - 3666
HYDR-1      6   0.00   0.00   19.812 0.00   0.00    1.156
ENDATA09
!Dispersive Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!The dispersion calculated from the dye study was entered into the overlay file under code 32.
!To take into consideration all modes of transport, equation 3 (E=aD^bQ^cVm^d ) in Laqual was used.
```

```
!Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and QUAL2E equations.
!The value for coefficient "a" was varied during calibration until the measured dispersion value was obtained.
!The measured dispersion value was applied to the stretch of water that encompassed Dye Run 2.
!          R#  RANGE    a          b         c         d
!         ***  ----------**********----------**********----------
HYDR-2      1  0.95     60.0     0.833     0.0       1.0
HYDR-2      2  0.95     60.0     0.833     0.0       1.0
HYDR-2      3  0.93     60.0     0.833     0.0       1.0
HYDR-2      4  0.93     60.0     0.833     0.0       1.0
HYDR-2      5  1.00     60.0     0.833     0.0       1.0
HYDR-2      6  1.00     60.0     0.833     0.0       1.0
ENDATA10
!Initial Conditions
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  --------********--------********--------********--------********
!          R#    TEMP  SALINITY   DO     NH3 N  NIT NIT  PHOS   CHL A   MACROPHYTES
!Temp - Cont Mont Avg (3665)
!Salinity - Cont Mont Avg (3665)
!DO - Cont Mont Avg (3665)
!Chlorophyll A (3665)
INITIAL     1    28.13    0.10   0.47                              8.5
!
!Temp - Cont Mont Avg (3752-BC04)
!Salinity - Cont Mont Avg (3752-BC04)
!DO - Cont Mont Avg (3752-BC04)
!Chlorophyll A (3665)
INITIAL     2    28.57    0.23   0.86                              8.5
!
!Temp - Cont Mont Avg (3753-BC05)
!Salinity - Cont Mont Avg (3753-BC05)
!DO - Cont Mont Avg (3753-BC05)
!Chlorophyll A (3753-BC05)
INITIAL     3    29.98    1.15   1.79                             33.6
!
!Temp - Cont Mont Avg (BC05, BC07)
!Salinity - Cont Mont Avg (BC05, BC07)
!DO - Cont Mont Avg (BC05, BC07)
!Chlorophyll A (3753-BC05)
INITIAL     4    30.51    1.45   2.66                             33.6
!
```

```
!Temp - Cont Mont Avg (3755-BC07)
!Salinity - Cont Mont Avg (3755-BC07)
!DO - Cont Mont Avg (3755-BC07)
!Chlorophyll A (3666)
INITIAL     5    31.04    1.76   3.52                            28.5
!
!Temp - Cont Mont Avg (3666)
!Salinity - Cont Mont Avg (3666)
!DO - Cont Mont Avg (3666)
!Chlorophyll A (3666)
INITIAL     6    31.59    1.98   6.12                            28.5
ENDATA11
!Reaeration, Sediment Oxygen Demand and BOD Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8---------9
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -----*****----- ******------*******-------*******------*******-------***
!               REA                          BOD 1  BOD 1   BOD 1       BOD 2    BOD 2
!          R#   EQ   "a"                SOD  DECAY  SETT    CONV        DECAY    SETT
!Texas Equation used for reaches 1-4.
!Mattingly equation was used for reaches 5 & 6 to account for wind reaeration.
!Settling rates determined through calibration.  Decay rates from lab.
!CB0D1 DECAY (3665)
COEF-1      1   11.0                   3.50  0.0440 0.05
!
!CB0D1 DECAY (3752-BC04)
COEF-1      2   11.0                   3.50  0.0680 0.05
!
!CB0D1 DECAY (3753-BC05)
COEF-1      3   11.0                   3.00  0.0570 0.05
!
!CB0D1 DECAY - Avg (3753-BC05, 3755-BC07)
COEF-1      4   11.0                   2.40  0.0570 0.05
!
!CB0D1 DECAY (3755-BC07)
COEF-1      5   1.0  0.738             1.90  0.0570 0.05
!
!CB0D1 DECAY (3666)
COEF-1      6   1.0  0.773             0.00  0.0620 0.05
ENDATA12
!Nitrogen and Phosphorus Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
```

```
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  -------*******-----------------*****************-------
!                    NBOD     NBOD
!           R#  DECAY    SETT
!Settling rates determined through calibration.  Began with decay rates from lab but adjusted
!them during calibration.
!NBOD Decay (3665)
COEF-2      1  0.200    0.05
!
!NBOD Decay (3752-BC04)
COEF-2      2  0.100    0.05
!
!NBOD Decay (3753-BC05)
COEF-2      3  0.100    0.05
!
!NBOD Decay - Avg (3753-BC05, 3755-BC07)
COEF-2      4  0.100    0.05
!
!NBOD Decay (3755-BC07)
COEF-2      5  0.100    0.05
!
!NBOD Decay (3666)
COEF-2      6  0.100    0.05
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  -------*******------*******
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  ---------*********---------*********---------*********
!           R#   OUTFLOW   INFLOW  TEMP     SALINITY CHLORIDE  COND
!
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  ---------*********---------*********---------*********
```

```
!          R#      DO     BOD 1     NBOD    NH3 N   NIT NIT    BOD 2
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  ---------*********---------*********
!          R#    PHOSPH    CHL A   COLIFORM NONCONSERVATIVE
!
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  ---------*********---------*********---------*********
!          R#     BOD 1    NBOD   COLIFORM NONCONS    DO      BOD 2
NONPOINT    1     5.00     1.80
NONPOINT    2    24.00     4.00
NONPOINT    3    26.00     7.30
NONPOINT    4    28.00     8.00
NONPOINT    5    55.00    16.50
NONPOINT    6    47.00    28.00
ENDATA19
!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ****  -------------------- *** --------********--------********---------
!          E#    NAME                      FLOW    TEMP  SALIN   CHLORIDE   COND
!Flow (3665)
!Salinity - Cont Mont (3665)
!Chloride - Lab Data (3665)
!Conductivity - Cont Mont (3665)
HDWTR-1     1  HEADWATER                 0.0008          0.10     21.5    215.38
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ****  ---------*********---------*********---------*********
!          E#      DO      BOD 1    NBOD    NH3-N    NIT NIT  BOD 2
!DO - Cont Mont Avg (3665)
!BOD1 and NBOD (3665)
HDWTR-2     1      0.47    13.528  2.315
ENDATA21
```

```
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ---------********---------********
!          E#  PHOSPHOR   CHL A   COLIFORM  NONCONSERVATIVE
ENDATA22
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  --------------------********---------********---------*********
!          E#     NAME               FLOW      TEMP   SALINITY CHLORIDE  COND
!Southeast Louisiana State Hospital AI# 9371
!Flow obtained from facility personnel during survey
!Salinity from insitu. Chloride and conductivity from lab data
WSTLD-1    18  SE LA State Hospital  0.0037              0.22    22.5    458
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ---------*********-----*********---------*****---------*********
!          E#       DO    BOD 1         NBOD    NH3-N          NIT NIT  BOD 2
!Southeast Louisiana State Hospital AI# 9371
WSTLD-2    18      8.09    3.725        0.984
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123457890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR  CHL A    COLIFORM NONCONSERVATIVE
ENDATA26
!Lower Boundary Conditions
!
!Site 3756-BC09 Cont Mont
LOWER BC TEMPERATURE                        =  31.18
!
!Site 3756-BC09 Cont Mont
LOWER BC SALINITY                           =   2.03
!
!Site 3756-BC09 Lab
LOWER BC CONSERVATIVE MATERIAL I (CHLORIDES)=  1097
```

```
!
!Site 3756-BC09 Cont Mont
LOWER BC CONSERVATIVE MATERIAL II (COND)    = 3724.94
!
!Site 3756-BC09 Cont Mont
LOWER BC DISSOLVED OXYGEN                   =   6.61
!
!Site 3756-BC09 Lab
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =  10.626
!
!Site 3666 Lab
LOWER BC CHLOROPHYLL A                      =   28.5
!
!Site 3756-BC09 Lab
LOWER BC NBOD                               =   2.91
ENDATA27
!Dam Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ******************** ** ******** ******** ********
ENDATA28
SENSITIV BASEFLOW   30    -30
SENSITIV VELOCITY   30    -30
SENSITIV DEPTH      30    -30
SENSITIV DISPERSI   30    -30
SENSITIV REAERATI   30    -30
SENSITIV BOD DECA   30    -30
SENSITIV BOD SETT   30    -30
SENSITIV TRANGE     30    -30
SENSITIV NBOD DEC   30    -30
SENSITIV NBOD SET   30    -30
SENSITIV BENTHAL    30    -30
SENSITIV TEMPERAT    2     -2
SENSITIV SALINITY   30    -30
SENSITIV CHLOR A    30    -30
SENSITIV HDW FLOW   30    -30
SENSITIV HDW DO     30    -30
SENSITIV HDW BOD    30    -30
SENSITIV HDW NBOD   30    -30
SENSITIV WSL FLOW   30    -30
SENSITIV WSL DO     30    -30
```

```
SENSITIV WSL BOD    30    -30
SENSITIV WSL NBOD   30    -30
SENSITIV OXR        30    -30
SENSITIV LBC TEMP    2     -2
SENSITIV LBC DO     30    -30
SENSITIV LBC BOD    30    -30
SENSITIV LBC NBOD   30    -30
SENSITIV NPS BOD    30    -30
SENSITIV NPS NBOD   30    -30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =   6                          INCREMENT =  0.1
PLOT RCH  1  2  3  4  5  6
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
ENDATA30
OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31
```

BAYOU CANE CALIBRATION OVERLAY DATA SET

```
STATION  1  KILOMETER  3.6
 5     0.13        0.47    1.48          DO
 6                 13.528                CBOD1
13                 8.5                   CHLOROPHYLL A
18                 2.315                 NBOD
31              0.0008                   FLOW
33              1.113                    DEPTH
34              4.877                    WIDTH
STATION  2  KILOMETER   2.8
 5     0.06        0.86    2.95          DO
 6                 11.104                CBOD1
18                 3.037                 NBOD
31              0.0045                   FLOW
33              1.085                    DEPTH
34             15.85                     WIDTH
STATION  3  KILOMETER    1.9
 5      0.20       1.79    3.98          DO
 6                 12.55                 CBOD1
```

```
13                  33.6                    CHLOROPHYLL A
18                  2.828                   NBOD
33               1.189                      DEPTH
34              27.737                      WIDTH
STATION  4  KILOMETER   1.5
 5     0.12         2.655    7.03          DO
 6                  13.576                  CBOD1
18                  2.994                   NBOD
33               1.021                      DEPTH
34              28.346                      WIDTH
STATION  5  KILOMETER   1.1
 5     0.04         3.52    10.08          DO
 6                  14.602                  CBOD1
18                  3.161                   NBOD
33               1.21                       DEPTH
34              21.488                      WIDTH
STATION  6  KILOMETER  0.3
 5     0.16         6.12   12.73           DO
 6                 14.091                   CBOD1
13                 28.5                     CHLOROPHYLL A
18                  4.059                   NBOD
33               1.156                      DEPTH
34              19.812                      WIDTH
STD 32   0.288     2.439      0.816
MRK 2.8         Begin Reach 2
MRK 1.9         Begin Reach 3
MRK 1.5         Begin Reach 4
MRK 1.1         Begin Reach 5
MRK 0.3         Begin Reach 6
END
```

BAYOU CANE CALIBRATION OUTPUT

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\calibration\canecalib.txt
Output produced at 11:21 on 08/19/2009

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

CARD TYPE       CONTROL TITLES
```

```
TITLE01         BAYOU CANE WATERSHED MODEL
TITLE02         BAYOU CANE FINAL CALIBRATION RUN
CONTROL   YES   METRIC UNITS
ENDATA01

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

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03  YES   CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04  YES   CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08  YES   NBOD OXYGEN DEMAND
MODOPT10   NO   PHOSPHORUS
MODOPT11   NO   CHLOROPHYLL A
MODOPT12   NO   MACROPHYTES
MODOPT13   NO   COLIFORM
ENDATA02

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

PROGRAM         DISPERSION EQUATION               =         3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM         OCEAN EXCHANGE RATIO              =         1.00000
PROGRAM         TIDE HEIGHT                       =         0.23600 meters
PROGRAM         TIDAL PERIOD                      =        24.58000 hours
PROGRAM         PERIOD OF TIDAL RISE              =        11.62500 hours
PROGRAM         KL MINIMUM                        =         0.70000 meters/day
PROGRAM         INHIBITION CONTROL VALUE          =         3.00000 (inhibit all rates but SOD)
PROGRAM         EFFECTIVE BOD DUE TO ALGAE        =         0.00000 mg/L BOD per ug/L chl a
PROGRAM         ALGAE OXYGEN PROD                 =         0.05000 mg O/ug chl a/day
PROGRAM         K2 MAXIMUM                        =        10.00000 per day
PROGRAM         HYDRAULIC CALCULATION METHOD      =         2.00000 (widths and depths)
PROGRAM         SETTLING RATE UNITS               =         2.00000 (values entered as per day)
ENDATA03

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE
```

```
ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                         VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

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   BC  RKM 3.6 to 2.8                    3.60  TO    2.80   0.0100     0.80       80        1       80
REACH ID      2   BC  RKM 2.8 to 1.9                    2.80  TO    1.90   0.0100     0.90       90       81      170
REACH ID      3   BC  RKM 1.9 to 1.5                    1.90  TO    1.50   0.0100     0.40       40      171      210
REACH ID      4   BC  RKM 1.5 to 1.1                    1.50  TO    1.10   0.0100     0.40       40      211      250
REACH ID      5   BC  RKM 1.1 to 0.3                    1.10  TO    0.30   0.0100     0.80       80      251      330
REACH ID      6   BC  RKM 0.3 to 0.0                    0.30  TO    0.00   0.0100     0.30       30      331      360
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   BC       0.000       0.000       4.877       0.000       0.000       1.113     0.00000   0.000
HYDR-1        2   BC       0.000       0.000      15.850       0.000       0.000       1.085     0.00000   0.000
HYDR-1        3   BC       0.000       0.000      27.737       0.000       0.000       1.189     0.00000   0.000
HYDR-1        4   BC       0.000       0.000      28.346       0.000       0.000       1.021     0.00000   0.000
HYDR-1        5   BC       0.000       0.000      21.488       0.000       0.000       1.210     0.00000   0.000
HYDR-1        6   BC       0.000       0.000      19.812       0.000       0.000       1.156     0.00000   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   BC      0.95        60.000           0.833           0.000           1.000
HYDR          2   BC      0.95        60.000           0.833           0.000           1.000
HYDR          3   BC      0.93        60.000           0.833           0.000           1.000
HYDR          4   BC      0.93        60.000           0.833           0.000           1.000
HYDR          5   BC      1.00        60.000           0.833           0.000           1.000
HYDR          6   BC      1.00        60.000           0.833           0.000           1.000
```

ENDATA10

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

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BC	28.13	0.10	0.47	0.00	0.00	0.00	8.50	0.00
INITIAL	2	BC	28.57	0.23	0.86	0.00	0.00	0.00	8.50	0.00
INITIAL	3	BC	29.98	1.15	1.79	0.00	0.00	0.00	33.60	0.00
INITIAL	4	BC	30.51	1.45	2.66	0.00	0.00	0.00	33.60	0.00
INITIAL	5	BC	31.04	1.76	3.52	0.00	0.00	0.00	28.50	0.00
INITIAL	6	BC	31.59	1.98	6.12	0.00	0.00	0.00	28.50	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEF-1	1	BC	11 TEXAS	0.000	0.000	0.000	3.500	0.044	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	2	BC	11 TEXAS	0.000	0.000	0.000	3.500	0.068	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	3	BC	11 TEXAS	0.000	0.000	0.000	3.000	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	4	BC	11 TEXAS	0.000	0.000	0.000	2.400	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	5	BC	1 K2=a	0.738	0.000	0.000	1.900	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	6	BC	1 K2=a	0.773	0.000	0.000	0.000	0.062	0.050	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BC	0.200	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	2	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	3	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	4	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	5	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	6	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

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

CARD TYPE	REACH	ID	COLIFORM	NCM	NCM	NCM CONV

```
                            DIE-OFF     DECAY      SETT     TO SOD

ENDATA15

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

CARD TYPE      REACH  ID       OUTFLOW      INFLOW      TEMP     SALIN      CM-I     CM-II   IN/DIST  OUT/DIST

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT           1   BC        5.00      1.80      0.00      0.00      0.00      0.00
NONPOINT           2   BC       24.00      4.00      0.00      0.00      0.00      0.00
NONPOINT           3   BC       26.00      7.30      0.00      0.00      0.00      0.00
NONPOINT           4   BC       28.00      8.00      0.00      0.00      0.00      0.00
NONPOINT           5   BC       55.00     16.50      0.00      0.00      0.00      0.00
NONPOINT           6   BC       47.00     28.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                  UNIT     FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                        m³/s      cfs   deg C      ppt      mg/L  umhos/cm

HDWTR-1           1     HEADWATER               0   0.00080    0.028    0.00     0.10    21.500   215.380   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                         DO     BOD#1     NBOD                          BOD#2
                                                     mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     HEADWATER                 0.47     13.53      2.32      0.00      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$
```

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA22

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

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME

ENDATA23

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

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I mg/L	CM-II umhos/cm
WSTLD-1	18	3.43	SE LA State Hospital	0.00370	0.13065	0.084	0.00	0.22	22.500	458.000

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	18	SE LA State Hospital	8.09	3.72	0.00	0.98	0.00	0.00	0.00	0.00

ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA26

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

CARD TYPE	CONSTITUENT		CONCENTRATION	
LOWER BC	TEMPERATURE	=	31.180	deg C
LOWER BC	SALINITY	=	2.030	ppt
LOWER BC	CONSERVATIVE MATERIAL I (CHLORIDES)	=	1097.000	mg/L
LOWER BC	CONSERVATIVE MATERIAL II (COND)	=	3724.940	umhos/cm
LOWER BC	DISSOLVED OXYGEN	=	6.610	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	10.626	mg/L
LOWER BC	CHLOROPHYLL A	=	28.500	µg/L
LOWER BC	NBOD	=	2.910	mg/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

SENSITIV         BASEFLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         VELOCITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DEPTH         30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DISPERSI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         REAERATI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD DECA      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD SETT      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TRANGE        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD DEC      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD SET      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BENTHAL       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TEMPERAT       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         SALINITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         CHLOR A       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         OXR           30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC TEMP       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
ENDATA29

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


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

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

```
OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31


     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED


FINAL REPORT    HEADWATER                                    BAYOU CANE WATERSHED MODEL
REACH NO.  1    RKM 3.6 to 2.8                               BAYOU CANE FINAL CALIBRATION RUN
```

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00080	0.00	0.10	21.50	215.38	0.47	13.53	0.00	13.53	0.00	2.32	0.00	0.00	0.00	8.50	0.00	0.00
18	WSTLD	0.00370	0.00	0.22	22.50	458.00	8.09	3.72	0.00	3.72	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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	3.60	3.59	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	10.93	0.000	0.010	0.000
2	3.59	3.58	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	21.87	0.000	0.010	0.000
3	3.58	3.57	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	32.80	0.000	0.011	0.000
4	3.57	3.56	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	43.74	0.000	0.014	0.000
5	3.56	3.55	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	54.67	0.000	0.017	0.000
6	3.55	3.54	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	65.61	0.000	0.019	0.000
7	3.54	3.53	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	76.54	0.000	0.022	0.000
8	3.53	3.52	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	87.47	0.000	0.025	0.000
9	3.52	3.51	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	98.41	0.000	0.028	0.000
10	3.51	3.50	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	109.34	0.000	0.031	0.000
11	3.50	3.49	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	120.28	0.001	0.034	0.001
12	3.49	3.48	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	131.21	0.001	0.037	0.001
13	3.48	3.47	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	142.15	0.001	0.040	0.001
14	3.47	3.46	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	153.08	0.001	0.043	0.001
15	3.46	3.45	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	164.01	0.001	0.046	0.001
16	3.45	3.44	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	174.95	0.001	0.049	0.001
17	3.44	3.43	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	185.88	0.001	0.052	0.001
18	3.43	3.42	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	196.82	0.001	0.067	0.001
19	3.42	3.41	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	207.75	0.001	0.069	0.001
20	3.41	3.40	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	218.68	0.001	0.072	0.001

21	3.40	3.39	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	229.62	0.001	0.074	0.001
22	3.39	3.38	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	240.55	0.001	0.077	0.001
23	3.38	3.37	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	251.49	0.001	0.080	0.001
24	3.37	3.36	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	262.42	0.001	0.082	0.001
25	3.36	3.35	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	273.36	0.001	0.085	0.001
26	3.35	3.34	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	284.29	0.001	0.088	0.001
27	3.34	3.33	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	295.22	0.001	0.090	0.001
28	3.33	3.32	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	306.16	0.001	0.093	0.001
29	3.32	3.31	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	317.09	0.001	0.096	0.001
30	3.31	3.30	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	328.03	0.001	0.099	0.002
31	3.30	3.29	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	338.96	0.001	0.101	0.002
32	3.29	3.28	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	349.90	0.001	0.104	0.002
33	3.28	3.27	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	360.83	0.002	0.107	0.002
34	3.27	3.26	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	371.76	0.002	0.110	0.002
35	3.26	3.25	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	382.70	0.002	0.113	0.002
36	3.25	3.24	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	393.63	0.002	0.115	0.002
37	3.24	3.23	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	404.57	0.002	0.118	0.002
38	3.23	3.22	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	415.50	0.002	0.121	0.002
39	3.22	3.21	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	426.44	0.002	0.124	0.002
40	3.21	3.20	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	437.37	0.002	0.127	0.002
41	3.20	3.19	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	448.30	0.002	0.130	0.002
42	3.19	3.18	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	459.24	0.002	0.133	0.002
43	3.18	3.17	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	470.17	0.002	0.136	0.002
44	3.17	3.16	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	481.11	0.002	0.138	0.002
45	3.16	3.15	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	492.04	0.002	0.141	0.002
46	3.15	3.14	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	502.97	0.002	0.144	0.002
47	3.14	3.13	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	513.91	0.002	0.147	0.002
48	3.13	3.12	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	524.84	0.002	0.150	0.002
49	3.12	3.11	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	535.78	0.002	0.153	0.002
50	3.11	3.10	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	546.71	0.002	0.156	0.002
51	3.10	3.09	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	557.65	0.002	0.159	0.002
52	3.09	3.08	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	568.58	0.002	0.162	0.002
53	3.08	3.07	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	579.51	0.002	0.165	0.003
54	3.07	3.06	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	590.45	0.002	0.168	0.003
55	3.06	3.05	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	601.38	0.003	0.170	0.003
56	3.05	3.04	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	612.32	0.003	0.173	0.003
57	3.04	3.03	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	623.25	0.003	0.176	0.003
58	3.03	3.02	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	634.19	0.003	0.179	0.003
59	3.02	3.01	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	645.12	0.003	0.182	0.003
60	3.01	3.00	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	656.05	0.003	0.185	0.003
61	3.00	2.99	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	666.99	0.003	0.188	0.003
62	2.99	2.98	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	677.92	0.003	0.191	0.003
63	2.98	2.97	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	688.86	0.003	0.194	0.003
64	2.97	2.96	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	699.79	0.003	0.197	0.003
65	2.96	2.95	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	710.72	0.003	0.200	0.003
66	2.95	2.94	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	721.66	0.003	0.203	0.003
67	2.94	2.93	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	732.59	0.003	0.206	0.003
68	2.93	2.92	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	743.53	0.003	0.209	0.003
69	2.92	2.91	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	754.46	0.003	0.212	0.003
70	2.91	2.90	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	765.40	0.003	0.215	0.003
71	2.90	2.89	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	776.33	0.003	0.218	0.003

72	2.89	2.88	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	787.26	0.003	0.220	0.003
73	2.88	2.87	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	798.20	0.003	0.223	0.003
74	2.87	2.86	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	809.13	0.003	0.226	0.003
75	2.86	2.85	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	820.07	0.003	0.229	0.003
76	2.85	2.84	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	831.00	0.003	0.232	0.004
77	2.84	2.83	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	841.94	0.004	0.235	0.004
78	2.83	2.82	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	852.87	0.004	0.238	0.004
79	2.82	2.81	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	863.80	0.004	0.241	0.004
80	2.81	2.80	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	874.74	0.004	0.244	0.004
TOT						22.15			4342.48	3901.60					
AVG					0.0004		1.11	4.88			5.43				
CUM						22.15									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	3.590	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.84	5.84	5.84	0.01	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
2	3.580	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.84	5.84	5.84	0.01	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
3	3.570	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
4	3.560	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
5	3.550	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
6	3.540	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
7	3.530	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
8	3.520	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
9	3.510	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.06	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
10	3.500	7.80	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.08	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
11	3.490	7.80	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.11	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
12	3.480	7.80	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.15	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
13	3.470	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.22	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
14	3.460	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
15	3.450	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
16	3.440	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
17	3.430	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
18	3.420	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.28	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
19	3.410	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
20	3.400	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
21	3.390	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
22	3.380	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
23	3.370	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
24	3.360	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
25	3.350	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
26	3.340	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
27	3.330	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.22	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
28	3.320	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.18	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
29	3.310	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.16	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
30	3.300	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.14	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00

31	3.290	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
32	3.280	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.10	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
33	3.270	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.09	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
34	3.260	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.08	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
35	3.250	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.07	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
36	3.240	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.07	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
37	3.230	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.06	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
38	3.220	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
39	3.210	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
40	3.200	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
41	3.190	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
42	3.180	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
43	3.170	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
44	3.160	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
45	3.150	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
46	3.140	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
47	3.130	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
48	3.120	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
49	3.110	7.76	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
50	3.100	7.76	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
51	3.090	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
52	3.080	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
53	3.070	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
54	3.060	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
55	3.050	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
56	3.040	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
57	3.030	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
58	3.020	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
59	3.010	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
60	3.000	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
61	2.990	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
62	2.980	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
63	2.970	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
64	2.960	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
65	2.950	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
66	2.940	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
67	2.930	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
68	2.920	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
69	2.910	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
70	2.900	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
71	2.890	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
72	2.880	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
73	2.870	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
74	2.860	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
75	2.850	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
76	2.840	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
77	2.830	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
78	2.820	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
79	2.810	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
80	2.800	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.63 0.04 0.05 0.00 0.00 0.00 0.00 3.50 0.20 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	3.590	28.14	0.10	23.08	288.49	0.88	11.53	0.00	11.53	0.00	2.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
2	3.580	28.14	0.10	23.32	299.63	0.94	11.21	0.00	11.21	0.00	2.53	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
3	3.570	28.15	0.10	23.57	311.37	0.99	10.86	0.00	10.86	0.00	2.51	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
4	3.560	28.15	0.11	23.81	322.53	1.04	10.51	0.00	10.51	0.00	2.47	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
5	3.550	28.16	0.11	24.03	332.87	1.10	10.18	0.00	10.18	0.00	2.41	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
6	3.540	28.16	0.11	24.24	342.49	1.16	9.86	0.00	9.86	0.00	2.35	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
7	3.530	28.17	0.11	24.43	351.49	1.23	9.55	0.00	9.55	0.00	2.28	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
8	3.520	28.17	0.11	24.62	359.95	1.31	9.24	0.00	9.24	0.00	2.21	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
9	3.510	28.18	0.11	24.79	367.97	1.40	8.95	0.00	8.95	0.00	2.13	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
10	3.500	28.18	0.12	24.95	375.59	1.50	8.66	0.00	8.66	0.00	2.05	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
11	3.490	28.19	0.12	25.11	382.87	1.63	8.37	0.00	8.37	0.00	1.97	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
12	3.480	28.20	0.12	25.26	389.85	1.77	8.09	0.00	8.09	0.00	1.89	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
13	3.470	28.20	0.12	25.40	396.56	1.94	7.82	0.00	7.82	0.00	1.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
14	3.460	28.21	0.12	25.54	403.04	2.13	7.55	0.00	7.55	0.00	1.74	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
15	3.450	28.21	0.12	25.68	409.29	2.36	7.28	0.00	7.28	0.00	1.67	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
16	3.440	28.22	0.13	25.81	415.35	2.62	7.02	0.00	7.02	0.00	1.61	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
17	3.430	28.22	0.13	25.94	421.22	2.91	6.76	0.00	6.76	0.00	1.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
18	3.420	28.23	0.13	26.05	426.33	3.19	6.52	0.00	6.52	0.00	1.50	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
19	3.410	28.23	0.13	26.50	427.73	3.00	6.59	0.00	6.59	0.00	1.51	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
20	3.400	28.24	0.13	26.99	429.24	2.82	6.65	0.00	6.65	0.00	1.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
21	3.390	28.25	0.13	27.52	430.86	2.66	6.72	0.00	6.72	0.00	1.53	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
22	3.380	28.25	0.14	28.08	432.62	2.51	6.79	0.00	6.79	0.00	1.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
23	3.370	28.26	0.14	28.69	434.49	2.37	6.85	0.00	6.85	0.00	1.56	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
24	3.360	28.26	0.14	29.35	436.51	2.24	6.92	0.00	6.92	0.00	1.58	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
25	3.350	28.27	0.14	30.04	438.65	2.13	6.98	0.00	6.98	0.00	1.60	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
26	3.340	28.27	0.14	30.79	440.94	2.03	7.05	0.00	7.05	0.00	1.63	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
27	3.330	28.28	0.14	31.58	443.37	1.94	7.12	0.00	7.12	0.00	1.66	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
28	3.320	28.28	0.15	32.41	445.94	1.85	7.19	0.00	7.19	0.00	1.68	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
29	3.310	28.29	0.15	33.30	448.67	1.78	7.26	0.00	7.26	0.00	1.72	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
30	3.300	28.30	0.15	34.23	451.55	1.71	7.33	0.00	7.33	0.00	1.75	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
31	3.290	28.30	0.15	35.22	454.60	1.65	7.40	0.00	7.40	0.00	1.78	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
32	3.280	28.31	0.15	36.26	457.80	1.59	7.47	0.00	7.47	0.00	1.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
33	3.270	28.31	0.15	37.36	461.17	1.54	7.54	0.00	7.54	0.00	1.85	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
34	3.260	28.32	0.16	38.51	464.71	1.50	7.61	0.00	7.61	0.00	1.88	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
35	3.250	28.32	0.16	39.71	468.43	1.45	7.68	0.00	7.68	0.00	1.92	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
36	3.240	28.33	0.16	40.97	472.32	1.42	7.75	0.00	7.75	0.00	1.95	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
37	3.230	28.33	0.16	42.30	476.39	1.38	7.82	0.00	7.82	0.00	1.99	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
38	3.220	28.34	0.16	43.68	480.65	1.35	7.89	0.00	7.89	0.00	2.02	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
39	3.210	28.34	0.16	45.12	485.10	1.32	7.96	0.00	7.96	0.00	2.05	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
40	3.200	28.35	0.17	46.63	489.74	1.29	8.03	0.00	8.03	0.00	2.09	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
41	3.190	28.36	0.17	48.20	494.57	1.26	8.10	0.00	8.10	0.00	2.12	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00

42	3.180	28.36	0.17	49.83	499.61	1.24	8.18	0.00	8.18	0.00	2.15	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
43	3.170	28.37	0.17	51.53	504.85	1.21	8.25	0.00	8.25	0.00	2.19	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
44	3.160	28.37	0.17	53.30	510.29	1.19	8.32	0.00	8.32	0.00	2.22	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
45	3.150	28.38	0.17	55.14	515.94	1.17	8.39	0.00	8.39	0.00	2.25	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
46	3.140	28.38	0.17	57.04	521.81	1.16	8.46	0.00	8.46	0.00	2.28	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
47	3.130	28.39	0.18	59.02	527.90	1.14	8.53	0.00	8.53	0.00	2.32	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
48	3.120	28.39	0.18	61.07	534.20	1.12	8.61	0.00	8.61	0.00	2.35	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
49	3.110	28.40	0.18	63.18	540.73	1.11	8.68	0.00	8.68	0.00	2.38	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
50	3.100	28.40	0.18	65.38	547.49	1.09	8.75	0.00	8.75	0.00	2.41	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
51	3.090	28.41	0.18	67.65	554.47	1.08	8.82	0.00	8.82	0.00	2.44	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
52	3.080	28.42	0.18	69.99	561.70	1.07	8.89	0.00	8.89	0.00	2.46	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
53	3.070	28.42	0.19	72.41	569.15	1.05	8.97	0.00	8.97	0.00	2.49	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
54	3.060	28.43	0.19	74.91	576.86	1.04	9.04	0.00	9.04	0.00	2.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
55	3.050	28.43	0.19	77.49	584.80	1.03	9.11	0.00	9.11	0.00	2.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
56	3.040	28.44	0.19	80.15	592.99	1.02	9.19	0.00	9.19	0.00	2.57	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
57	3.030	28.44	0.19	82.89	601.44	1.01	9.26	0.00	9.26	0.00	2.60	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
58	3.020	28.45	0.19	85.72	610.13	1.00	9.34	0.00	9.34	0.00	2.63	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
59	3.010	28.45	0.20	88.62	619.09	0.99	9.41	0.00	9.41	0.00	2.65	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
60	3.000	28.46	0.20	91.62	628.31	0.98	9.49	0.00	9.49	0.00	2.68	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
61	2.990	28.47	0.20	94.70	637.79	0.98	9.56	0.00	9.56	0.00	2.70	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
62	2.980	28.47	0.20	97.86	647.54	0.97	9.64	0.00	9.64	0.00	2.72	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
63	2.970	28.48	0.20	101.11	657.56	0.96	9.72	0.00	9.72	0.00	2.75	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
64	2.960	28.48	0.20	104.46	667.85	0.95	9.79	0.00	9.79	0.00	2.77	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
65	2.950	28.49	0.21	107.89	678.43	0.94	9.87	0.00	9.87	0.00	2.79	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
66	2.940	28.49	0.21	111.41	689.28	0.94	9.95	0.00	9.95	0.00	2.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
67	2.930	28.50	0.21	115.03	700.41	0.93	10.03	0.00	10.03	0.00	2.83	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
68	2.920	28.50	0.21	118.74	711.84	0.92	10.11	0.00	10.11	0.00	2.85	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
69	2.910	28.51	0.21	122.54	723.55	0.92	10.19	0.00	10.19	0.00	2.87	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
70	2.900	28.51	0.21	126.44	735.56	0.91	10.28	0.00	10.28	0.00	2.89	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
71	2.890	28.52	0.22	130.43	747.86	0.90	10.36	0.00	10.36	0.00	2.90	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
72	2.880	28.53	0.22	134.52	760.47	0.90	10.44	0.00	10.44	0.00	2.92	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
73	2.870	28.53	0.22	138.71	773.38	0.89	10.53	0.00	10.53	0.00	2.94	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
74	2.860	28.54	0.22	143.00	786.59	0.88	10.61	0.00	10.61	0.00	2.95	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
75	2.850	28.54	0.22	147.39	800.11	0.88	10.70	0.00	10.70	0.00	2.97	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
76	2.840	28.55	0.22	151.89	813.95	0.87	10.79	0.00	10.79	0.00	2.98	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
77	2.830	28.55	0.23	156.48	828.10	0.86	10.88	0.00	10.88	0.00	3.00	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
78	2.820	28.56	0.23	161.18	842.57	0.86	10.97	0.00	10.97	0.00	3.01	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
79	2.810	28.56	0.23	165.98	857.36	0.85	11.06	0.00	11.06	0.00	3.02	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
80	2.800	28.57	0.23	170.89	872.48	0.84	11.15	0.00	11.15	0.00	3.03	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 2 RKM 2.8 to 1.9 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
81	UPR RCH	0.00450	28.57	0.23	170.89	872.48	0.84	11.15	0.00	11.15	0.00	3.03	0.00	0.00	0.00	8.50	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	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
81	2.80	2.79	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	910.27	0.001	0.078	0.001
82	2.79	2.78	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	945.81	0.001	0.081	0.001
83	2.78	2.77	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	981.34	0.001	0.084	0.001
84	2.77	2.76	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1016.88	0.001	0.087	0.001
85	2.76	2.75	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1052.42	0.001	0.090	0.001
86	2.75	2.74	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1087.95	0.001	0.093	0.001
87	2.74	2.73	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1123.49	0.001	0.096	0.001
88	2.73	2.72	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1159.02	0.002	0.099	0.002
89	2.72	2.71	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1194.56	0.002	0.102	0.002
90	2.71	2.70	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1230.09	0.002	0.105	0.002
91	2.70	2.69	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1265.63	0.002	0.108	0.002
92	2.69	2.68	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1301.17	0.002	0.111	0.002
93	2.68	2.67	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1336.70	0.002	0.114	0.002
94	2.67	2.66	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1372.24	0.002	0.117	0.002
95	2.66	2.65	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1407.77	0.002	0.120	0.002
96	2.65	2.64	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1443.31	0.002	0.123	0.002
97	2.64	2.63	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1478.84	0.002	0.126	0.002
98	2.63	2.62	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1514.38	0.002	0.129	0.002
99	2.62	2.61	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1549.92	0.002	0.132	0.002
100	2.61	2.60	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1585.45	0.002	0.135	0.002
101	2.60	2.59	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1620.99	0.002	0.138	0.002
102	2.59	2.58	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1656.52	0.002	0.141	0.002
103	2.58	2.57	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1692.06	0.002	0.144	0.002
104	2.57	2.56	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1727.59	0.002	0.147	0.002
105	2.56	2.55	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1763.13	0.002	0.150	0.002
106	2.55	2.54	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1798.66	0.002	0.153	0.002
107	2.54	2.53	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1834.20	0.002	0.156	0.002
108	2.53	2.52	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1869.74	0.002	0.159	0.002
109	2.52	2.51	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1905.27	0.003	0.162	0.003
110	2.51	2.50	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1940.81	0.003	0.165	0.003
111	2.50	2.49	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1976.34	0.003	0.168	0.003
112	2.49	2.48	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2011.88	0.003	0.171	0.003
113	2.48	2.47	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2047.41	0.003	0.174	0.003
114	2.47	2.46	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2082.95	0.003	0.177	0.003
115	2.46	2.45	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2118.49	0.003	0.180	0.003
116	2.45	2.44	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2154.02	0.003	0.183	0.003
117	2.44	2.43	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2189.56	0.003	0.186	0.003
118	2.43	2.42	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2225.09	0.003	0.189	0.003
119	2.42	2.41	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2260.63	0.003	0.192	0.003
120	2.41	2.40	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2296.16	0.003	0.195	0.003
121	2.40	2.39	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2331.70	0.003	0.198	0.003
122	2.39	2.38	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2367.24	0.003	0.201	0.003
123	2.38	2.37	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2402.77	0.003	0.204	0.003

124	2.37	2.36	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2438.31	0.003	0.207	0.003
125	2.36	2.35	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2473.84	0.003	0.210	0.003
126	2.35	2.34	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2509.38	0.003	0.213	0.003
127	2.34	2.33	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2544.91	0.003	0.216	0.003
128	2.33	2.32	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2580.45	0.003	0.219	0.003
129	2.32	2.31	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2615.98	0.003	0.222	0.003
130	2.31	2.30	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2651.52	0.003	0.225	0.004
131	2.30	2.29	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2687.06	0.004	0.228	0.004
132	2.29	2.28	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2722.59	0.004	0.231	0.004
133	2.28	2.27	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2758.13	0.004	0.234	0.004
134	2.27	2.26	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2793.66	0.004	0.237	0.004
135	2.26	2.25	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2829.20	0.004	0.240	0.004
136	2.25	2.24	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2864.73	0.004	0.243	0.004
137	2.24	2.23	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2900.27	0.004	0.246	0.004
138	2.23	2.22	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2935.81	0.004	0.249	0.004
139	2.22	2.21	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2971.34	0.004	0.252	0.004
140	2.21	2.20	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3006.88	0.004	0.255	0.004
141	2.20	2.19	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3042.41	0.004	0.258	0.004
142	2.19	2.18	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3077.95	0.004	0.261	0.004
143	2.18	2.17	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3113.48	0.004	0.264	0.004
144	2.17	2.16	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3149.02	0.004	0.267	0.004
145	2.16	2.15	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3184.55	0.004	0.270	0.004
146	2.15	2.14	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3220.09	0.004	0.273	0.004
147	2.14	2.13	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3255.63	0.004	0.276	0.004
148	2.13	2.12	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3291.16	0.004	0.279	0.004
149	2.12	2.11	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3326.70	0.004	0.282	0.004
150	2.11	2.10	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3362.23	0.004	0.285	0.004
151	2.10	2.09	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3397.77	0.004	0.288	0.004
152	2.09	2.08	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3433.30	0.005	0.291	0.005
153	2.08	2.07	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3468.84	0.005	0.294	0.005
154	2.07	2.06	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3504.38	0.005	0.297	0.005
155	2.06	2.05	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3539.91	0.005	0.300	0.005
156	2.05	2.04	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3575.45	0.005	0.303	0.005
157	2.04	2.03	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3610.98	0.005	0.306	0.005
158	2.03	2.02	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3646.52	0.005	0.309	0.005
159	2.02	2.01	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3682.05	0.005	0.312	0.005
160	2.01	2.00	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3717.59	0.005	0.315	0.005
161	2.00	1.99	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3753.13	0.005	0.318	0.005
162	1.99	1.98	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3788.66	0.005	0.321	0.005
163	1.98	1.97	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3824.20	0.005	0.324	0.005
164	1.97	1.96	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3859.73	0.005	0.327	0.005
165	1.96	1.95	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3895.27	0.005	0.330	0.005
166	1.95	1.94	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3930.80	0.005	0.333	0.005
167	1.94	1.93	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3966.34	0.005	0.336	0.005
168	1.93	1.92	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4001.87	0.005	0.339	0.005
169	1.92	1.91	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4037.41	0.005	0.342	0.005
170	1.91	1.90	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4072.95	0.005	0.345	0.005
TOT						39.81			15477.53	14265.00					
AVG					0.0003		1.08	15.85			17.20				
CUM						61.95									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
81	2.790	7.74	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.00	0.06	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00
82	2.780	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.00	0.06	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00
83	2.770	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.00	0.06	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00
84	2.760	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.00	0.06	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00
85	2.750	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.00	0.06	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
86	2.740	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.04	6.04	6.04	0.00	0.06	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
87	2.730	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.05	6.05	6.05	0.00	0.06	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
88	2.720	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.05	6.05	6.05	0.00	0.06	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
89	2.710	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.06	6.06	6.06	0.00	0.06	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
90	2.700	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.06	6.06	6.06	0.00	0.06	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00
91	2.690	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.07	6.07	6.07	0.00	0.06	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00
92	2.680	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.08	6.08	6.08	0.01	0.06	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00
93	2.670	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.08	6.08	6.08	0.01	0.06	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00
94	2.660	7.70	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.09	6.09	6.09	0.01	0.06	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
95	2.650	7.70	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.09	6.09	6.09	0.01	0.06	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00
96	2.640	7.70	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.10	6.10	6.10	0.01	0.06	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00
97	2.630	7.70	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.11	6.11	6.11	0.01	0.06	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
98	2.620	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.11	6.11	6.11	0.01	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
99	2.610	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.12	6.12	6.12	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
100	2.600	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.12	6.12	6.12	0.01	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00
101	2.590	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.13	6.13	6.13	0.01	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
102	2.580	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.14	6.14	6.14	0.01	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
103	2.570	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.14	6.14	6.14	0.01	0.06	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00
104	2.560	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.15	6.15	6.15	0.01	0.06	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00
105	2.550	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.15	6.15	6.15	0.01	0.06	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00
106	2.540	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.16	6.16	6.16	0.01	0.06	0.00	0.00	0.00	0.00	1.19	0.00	0.00	0.00	0.00
107	2.530	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.17	6.17	6.17	0.01	0.06	0.00	0.00	0.00	0.00	1.21	0.00	0.00	0.00	0.00
108	2.520	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.17	6.17	6.17	0.01	0.06	0.00	0.00	0.00	0.00	1.23	0.00	0.00	0.00	0.00
109	2.510	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.18	6.18	6.18	0.01	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00
110	2.500	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.18	6.18	6.18	0.01	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
111	2.490	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.19	6.19	6.19	0.01	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
112	2.480	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.20	6.20	6.20	0.01	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
113	2.470	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.20	6.20	6.20	0.01	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
114	2.460	7.65	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.21	6.21	6.21	0.01	0.06	0.00	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.00
115	2.450	7.65	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.22	6.22	6.22	0.01	0.06	0.00	0.00	0.00	0.00	1.39	0.00	0.00	0.00	0.00
116	2.440	7.65	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.22	6.22	6.22	0.01	0.06	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00
117	2.430	7.65	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.23	6.23	6.23	0.01	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
118	2.420	7.64	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.23	6.23	6.23	0.01	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
119	2.410	7.64	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.24	6.24	6.24	0.01	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
120	2.400	7.64	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.25	6.25	6.25	0.01	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
121	2.390	7.64	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.25	6.25	6.25	0.01	0.06	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00
122	2.380	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.26	6.26	6.26	0.01	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
123	2.370	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.26	6.26	6.26	0.02	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00

124	2.360	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.27	6.27	6.27	0.02	0.06	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.00
125	2.350	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.28	6.28	6.28	0.02	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
126	2.340	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.28	6.28	6.28	0.02	0.06	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00
127	2.330	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.29	6.29	6.29	0.02	0.06	0.00	0.00	0.00	0.00	1.66	0.00	0.00	0.00	0.00
128	2.320	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.02	0.06	0.00	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.00
129	2.310	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.02	0.06	0.00	0.00	0.00	0.00	1.70	0.00	0.00	0.00	0.00
130	2.300	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.02	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
131	2.290	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.02	0.06	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00
132	2.280	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.02	0.06	0.00	0.00	0.00	0.00	1.77	0.00	0.00	0.00	0.00
133	2.270	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.02	0.06	0.00	0.00	0.00	0.00	1.79	0.00	0.00	0.00	0.00
134	2.260	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.02	0.06	0.00	0.00	0.00	0.00	1.82	0.00	0.00	0.00	0.00
135	2.250	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.34	6.34	6.34	0.02	0.06	0.00	0.00	0.00	0.00	1.84	0.00	0.00	0.00	0.00
136	2.240	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.02	0.06	0.00	0.00	0.00	0.00	1.86	0.00	0.00	0.00	0.00
137	2.230	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.02	0.06	0.00	0.00	0.00	0.00	1.88	0.00	0.00	0.00	0.00
138	2.220	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.03	0.06	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00	0.00
139	2.210	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.03	0.06	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.00
140	2.200	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.37	6.37	6.37	0.03	0.06	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00
141	2.190	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.03	0.06	0.00	0.00	0.00	0.00	1.98	0.00	0.00	0.00	0.00
142	2.180	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.03	0.06	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
143	2.170	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.39	6.39	6.39	0.03	0.06	0.00	0.00	0.00	0.00	2.02	0.00	0.00	0.00	0.00
144	2.160	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.03	0.06	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00
145	2.150	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.03	0.06	0.00	0.00	0.00	0.00	2.07	0.00	0.00	0.00	0.00
146	2.140	7.57	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.03	0.06	0.00	0.00	0.00	0.00	2.09	0.00	0.00	0.00	0.00
147	2.130	7.57	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.04	0.06	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00
148	2.120	7.57	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.42	6.42	6.42	0.04	0.06	0.00	0.00	0.00	0.00	2.14	0.00	0.00	0.00	0.00
149	2.110	7.57	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.43	6.43	6.43	0.04	0.06	0.00	0.00	0.00	0.00	2.16	0.00	0.00	0.00	0.00
150	2.100	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.43	6.43	6.43	0.04	0.06	0.00	0.00	0.00	0.00	2.18	0.00	0.00	0.00	0.00
151	2.090	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.44	6.44	6.44	0.04	0.06	0.00	0.00	0.00	0.00	2.21	0.00	0.00	0.00	0.00
152	2.080	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.45	6.45	6.45	0.04	0.06	0.00	0.00	0.00	0.00	2.23	0.00	0.00	0.00	0.00
153	2.070	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.45	6.45	6.45	0.04	0.06	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
154	2.060	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.46	6.46	6.46	0.05	0.06	0.00	0.00	0.00	0.00	2.28	0.00	0.00	0.00	0.00
155	2.050	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.47	6.47	6.47	0.05	0.06	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00
156	2.040	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.47	6.47	6.47	0.05	0.06	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00
157	2.030	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.48	6.48	6.48	0.05	0.06	0.00	0.00	0.00	0.00	2.35	0.00	0.00	0.00	0.00
158	2.020	7.54	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.48	6.48	6.48	0.06	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
159	2.010	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.49	6.49	6.49	0.06	0.06	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
160	2.000	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.06	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
161	1.990	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.06	0.06	0.00	0.00	0.00	0.00	2.44	0.00	0.00	0.00	0.00
162	1.980	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.51	6.51	6.51	0.07	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
163	1.970	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.52	6.52	6.52	0.07	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
164	1.960	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.52	6.52	6.52	0.08	0.06	0.00	0.00	0.00	0.00	2.51	0.00	0.00	0.00	0.00
165	1.950	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.53	6.53	6.53	0.08	0.06	0.00	0.00	0.00	0.00	2.54	0.00	0.00	0.00	0.00
166	1.940	7.52	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.54	6.54	6.54	0.08	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
167	1.930	7.52	0.77	0.10	0.06	0.00	0.00	0.00	0.00	6.54	6.54	6.54	0.09	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
168	1.920	7.52	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.55	6.55	6.55	0.10	0.06	0.00	0.00	0.00	0.00	2.61	0.00	0.00	0.00	0.00
169	1.910	7.52	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.56	6.56	6.56	0.10	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
170	1.900	7.51	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.56	6.56	6.56	0.11	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.07	0.05	0.00	0.00	0.00	0.00	3.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
81	2.790	28.59	0.24	175.89	887.88	0.84	11.24	0.00	11.24	0.00	3.05	0.00	0.00	0.00	0.00	8.78	0.00	0.	0.00
82	2.780	28.60	0.25	180.92	903.37	0.83	11.33	0.00	11.33	0.00	3.06	0.00	0.00	0.00	0.00	9.06	0.00	0.	0.00
83	2.770	28.62	0.26	185.92	918.80	0.83	11.41	0.00	11.41	0.00	3.07	0.00	0.00	0.00	0.00	9.34	0.00	0.	0.00
84	2.760	28.63	0.27	190.91	934.16	0.83	11.49	0.00	11.49	0.00	3.07	0.00	0.00	0.00	0.00	9.62	0.00	0.	0.00
85	2.750	28.65	0.28	195.88	949.45	0.83	11.56	0.00	11.56	0.00	3.08	0.00	0.00	0.00	0.00	9.89	0.00	0.	0.00
86	2.740	28.66	0.29	200.82	964.69	0.83	11.63	0.00	11.63	0.00	3.09	0.00	0.00	0.00	0.00	10.17	0.00	0.	0.00
87	2.730	28.68	0.30	205.75	979.87	0.83	11.69	0.00	11.69	0.00	3.10	0.00	0.00	0.00	0.00	10.45	0.00	0.	0.00
88	2.720	28.70	0.31	210.66	994.99	0.84	11.75	0.00	11.75	0.00	3.10	0.00	0.00	0.00	0.00	10.73	0.00	0.	0.00
89	2.710	28.71	0.32	215.55	1010.05	0.84	11.81	0.00	11.81	0.00	3.11	0.00	0.00	0.00	0.00	11.01	0.00	0.	0.00
90	2.700	28.73	0.33	220.42	1025.07	0.84	11.86	0.00	11.86	0.00	3.11	0.00	0.00	0.00	0.00	11.29	0.00	0.	0.00
91	2.690	28.74	0.34	225.28	1040.03	0.85	11.90	0.00	11.90	0.00	3.12	0.00	0.00	0.00	0.00	11.57	0.00	0.	0.00
92	2.680	28.76	0.35	230.12	1054.94	0.86	11.95	0.00	11.95	0.00	3.12	0.00	0.00	0.00	0.00	11.85	0.00	0.	0.00
93	2.670	28.77	0.36	234.95	1069.80	0.86	11.99	0.00	11.99	0.00	3.12	0.00	0.00	0.00	0.00	12.13	0.00	0.	0.00
94	2.660	28.79	0.37	239.76	1084.61	0.87	12.03	0.00	12.03	0.00	3.12	0.00	0.00	0.00	0.00	12.40	0.00	0.	0.00
95	2.650	28.81	0.38	244.55	1099.38	0.88	12.06	0.00	12.06	0.00	3.13	0.00	0.00	0.00	0.00	12.68	0.00	0.	0.00
96	2.640	28.82	0.39	249.33	1114.10	0.88	12.09	0.00	12.09	0.00	3.13	0.00	0.00	0.00	0.00	12.96	0.00	0.	0.00
97	2.630	28.84	0.40	254.09	1128.78	0.89	12.12	0.00	12.12	0.00	3.13	0.00	0.00	0.00	0.00	13.24	0.00	0.	0.00
98	2.620	28.85	0.41	258.85	1143.41	0.90	12.15	0.00	12.15	0.00	3.13	0.00	0.00	0.00	0.00	13.52	0.00	0.	0.00
99	2.610	28.87	0.42	263.58	1158.01	0.91	12.17	0.00	12.17	0.00	3.13	0.00	0.00	0.00	0.00	13.80	0.00	0.	0.00
100	2.600	28.88	0.43	268.31	1172.56	0.92	12.20	0.00	12.20	0.00	3.13	0.00	0.00	0.00	0.00	14.08	0.00	0.	0.00
101	2.590	28.90	0.44	273.02	1187.07	0.92	12.22	0.00	12.22	0.00	3.13	0.00	0.00	0.00	0.00	14.36	0.00	0.	0.00
102	2.580	28.91	0.45	277.72	1201.54	0.93	12.24	0.00	12.24	0.00	3.13	0.00	0.00	0.00	0.00	14.64	0.00	0.	0.00
103	2.570	28.93	0.47	282.40	1215.98	0.94	12.25	0.00	12.25	0.00	3.13	0.00	0.00	0.00	0.00	14.91	0.00	0.	0.00
104	2.560	28.95	0.48	287.08	1230.38	0.95	12.27	0.00	12.27	0.00	3.12	0.00	0.00	0.00	0.00	15.19	0.00	0.	0.00
105	2.550	28.96	0.49	291.74	1244.74	0.96	12.28	0.00	12.28	0.00	3.12	0.00	0.00	0.00	0.00	15.47	0.00	0.	0.00
106	2.540	28.98	0.50	296.39	1259.06	0.97	12.30	0.00	12.30	0.00	3.12	0.00	0.00	0.00	0.00	15.75	0.00	0.	0.00
107	2.530	28.99	0.51	301.03	1273.36	0.98	12.31	0.00	12.31	0.00	3.12	0.00	0.00	0.00	0.00	16.03	0.00	0.	0.00
108	2.520	29.01	0.52	305.66	1287.61	0.99	12.32	0.00	12.32	0.00	3.11	0.00	0.00	0.00	0.00	16.31	0.00	0.	0.00
109	2.510	29.02	0.53	310.28	1301.83	1.00	12.33	0.00	12.33	0.00	3.11	0.00	0.00	0.00	0.00	16.59	0.00	0.	0.00
110	2.500	29.04	0.54	314.88	1316.03	1.01	12.34	0.00	12.34	0.00	3.11	0.00	0.00	0.00	0.00	16.87	0.00	0.	0.00
111	2.490	29.06	0.55	319.48	1330.18	1.02	12.34	0.00	12.34	0.00	3.10	0.00	0.00	0.00	0.00	17.15	0.00	0.	0.00
112	2.480	29.07	0.56	324.07	1344.31	1.03	12.35	0.00	12.35	0.00	3.10	0.00	0.00	0.00	0.00	17.42	0.00	0.	0.00
113	2.470	29.09	0.57	328.64	1358.41	1.04	12.35	0.00	12.35	0.00	3.10	0.00	0.00	0.00	0.00	17.70	0.00	0.	0.00
114	2.460	29.10	0.58	333.21	1372.47	1.05	12.36	0.00	12.36	0.00	3.09	0.00	0.00	0.00	0.00	17.98	0.00	0.	0.00
115	2.450	29.12	0.59	337.77	1386.50	1.06	12.36	0.00	12.36	0.00	3.09	0.00	0.00	0.00	0.00	18.26	0.00	0.	0.00
116	2.440	29.13	0.60	342.31	1400.51	1.07	12.36	0.00	12.36	0.00	3.08	0.00	0.00	0.00	0.00	18.54	0.00	0.	0.00
117	2.430	29.15	0.61	346.85	1414.49	1.08	12.36	0.00	12.36	0.00	3.08	0.00	0.00	0.00	0.00	18.82	0.00	0.	0.00
118	2.420	29.17	0.62	351.38	1428.44	1.09	12.37	0.00	12.37	0.00	3.07	0.00	0.00	0.00	0.00	19.10	0.00	0.	0.00
119	2.410	29.18	0.63	355.90	1442.36	1.10	12.37	0.00	12.37	0.00	3.07	0.00	0.00	0.00	0.00	19.38	0.00	0.	0.00
120	2.400	29.20	0.64	360.41	1456.25	1.11	12.37	0.00	12.37	0.00	3.06	0.00	0.00	0.00	0.00	19.66	0.00	0.	0.00
121	2.390	29.21	0.65	364.91	1470.12	1.12	12.37	0.00	12.37	0.00	3.06	0.00	0.00	0.00	0.00	19.93	0.00	0.	0.00
122	2.380	29.23	0.66	369.40	1483.96	1.13	12.37	0.00	12.37	0.00	3.05	0.00	0.00	0.00	0.00	20.21	0.00	0.	0.00
123	2.370	29.24	0.67	373.89	1497.77	1.14	12.37	0.00	12.37	0.00	3.04	0.00	0.00	0.00	0.00	20.49	0.00	0.	0.00
124	2.360	29.26	0.68	378.37	1511.56	1.15	12.36	0.00	12.36	0.00	3.04	0.00	0.00	0.00	0.00	20.77	0.00	0.	0.00

125	2.350	29.27	0.69	382.83	1525.32	1.16	12.36	0.00	12.36	0.00	3.03	0.00	0.00	0.00	0.00	21.05	0.00	0.	0.00
126	2.340	29.29	0.70	387.29	1539.06	1.17	12.36	0.00	12.36	0.00	3.03	0.00	0.00	0.00	0.00	21.33	0.00	0.	0.00
127	2.330	29.31	0.71	391.75	1552.77	1.18	12.36	0.00	12.36	0.00	3.02	0.00	0.00	0.00	0.00	21.61	0.00	0.	0.00
128	2.320	29.32	0.72	396.19	1566.46	1.19	12.36	0.00	12.36	0.00	3.01	0.00	0.00	0.00	0.00	21.89	0.00	0.	0.00
129	2.310	29.34	0.73	400.63	1580.13	1.20	12.36	0.00	12.36	0.00	3.01	0.00	0.00	0.00	0.00	22.17	0.00	0.	0.00
130	2.300	29.35	0.74	405.06	1593.77	1.21	12.35	0.00	12.35	0.00	3.00	0.00	0.00	0.00	0.00	22.44	0.00	0.	0.00
131	2.290	29.37	0.75	409.48	1607.39	1.22	12.35	0.00	12.35	0.00	2.99	0.00	0.00	0.00	0.00	22.72	0.00	0.	0.00
132	2.280	29.38	0.76	413.89	1620.99	1.23	12.35	0.00	12.35	0.00	2.99	0.00	0.00	0.00	0.00	23.00	0.00	0.	0.00
133	2.270	29.40	0.77	418.30	1634.56	1.24	12.35	0.00	12.35	0.00	2.98	0.00	0.00	0.00	0.00	23.28	0.00	0.	0.00
134	2.260	29.42	0.78	422.70	1648.11	1.25	12.35	0.00	12.35	0.00	2.97	0.00	0.00	0.00	0.00	23.56	0.00	0.	0.00
135	2.250	29.43	0.79	427.09	1661.65	1.27	12.35	0.00	12.35	0.00	2.97	0.00	0.00	0.00	0.00	23.84	0.00	0.	0.00
136	2.240	29.45	0.80	431.48	1675.16	1.28	12.34	0.00	12.34	0.00	2.96	0.00	0.00	0.00	0.00	24.12	0.00	0.	0.00
137	2.230	29.46	0.81	435.86	1688.64	1.29	12.34	0.00	12.34	0.00	2.95	0.00	0.00	0.00	0.00	24.40	0.00	0.	0.00
138	2.220	29.48	0.82	440.23	1702.11	1.30	12.34	0.00	12.34	0.00	2.95	0.00	0.00	0.00	0.00	24.68	0.00	0.	0.00
139	2.210	29.49	0.83	444.60	1715.56	1.31	12.34	0.00	12.34	0.00	2.94	0.00	0.00	0.00	0.00	24.95	0.00	0.	0.00
140	2.200	29.51	0.84	448.96	1728.98	1.32	12.34	0.00	12.34	0.00	2.94	0.00	0.00	0.00	0.00	25.23	0.00	0.	0.00
141	2.190	29.53	0.85	453.31	1742.39	1.33	12.34	0.00	12.34	0.00	2.93	0.00	0.00	0.00	0.00	25.51	0.00	0.	0.00
142	2.180	29.54	0.86	457.66	1755.78	1.35	12.34	0.00	12.34	0.00	2.92	0.00	0.00	0.00	0.00	25.79	0.00	0.	0.00
143	2.170	29.56	0.87	462.00	1769.14	1.36	12.34	0.00	12.34	0.00	2.92	0.00	0.00	0.00	0.00	26.07	0.00	0.	0.00
144	2.160	29.57	0.88	466.33	1782.49	1.37	12.35	0.00	12.35	0.00	2.91	0.00	0.00	0.00	0.00	26.35	0.00	0.	0.00
145	2.150	29.59	0.89	470.66	1795.82	1.38	12.35	0.00	12.35	0.00	2.90	0.00	0.00	0.00	0.00	26.63	0.00	0.	0.00
146	2.140	29.60	0.90	474.98	1809.13	1.40	12.35	0.00	12.35	0.00	2.90	0.00	0.00	0.00	0.00	26.91	0.00	0.	0.00
147	2.130	29.62	0.91	479.29	1822.42	1.41	12.35	0.00	12.35	0.00	2.89	0.00	0.00	0.00	0.00	27.19	0.00	0.	0.00
148	2.120	29.64	0.93	483.60	1835.69	1.42	12.36	0.00	12.36	0.00	2.88	0.00	0.00	0.00	0.00	27.46	0.00	0.	0.00
149	2.110	29.65	0.94	487.91	1848.95	1.44	12.36	0.00	12.36	0.00	2.88	0.00	0.00	0.00	0.00	27.74	0.00	0.	0.00
150	2.100	29.67	0.95	492.20	1862.18	1.45	12.37	0.00	12.37	0.00	2.87	0.00	0.00	0.00	0.00	28.02	0.00	0.	0.00
151	2.090	29.68	0.96	496.50	1875.40	1.47	12.37	0.00	12.37	0.00	2.87	0.00	0.00	0.00	0.00	28.30	0.00	0.	0.00
152	2.080	29.70	0.97	500.78	1888.61	1.48	12.38	0.00	12.38	0.00	2.86	0.00	0.00	0.00	0.00	28.58	0.00	0.	0.00
153	2.070	29.71	0.98	505.06	1901.79	1.50	12.39	0.00	12.39	0.00	2.86	0.00	0.00	0.00	0.00	28.86	0.00	0.	0.00
154	2.060	29.73	0.99	509.34	1914.96	1.51	12.39	0.00	12.39	0.00	2.85	0.00	0.00	0.00	0.00	29.14	0.00	0.	0.00
155	2.050	29.74	1.00	513.61	1928.11	1.53	12.40	0.00	12.40	0.00	2.85	0.00	0.00	0.00	0.00	29.42	0.00	0.	0.00
156	2.040	29.76	1.01	517.87	1941.24	1.55	12.41	0.00	12.41	0.00	2.84	0.00	0.00	0.00	0.00	29.70	0.00	0.	0.00
157	2.030	29.78	1.02	522.13	1954.36	1.56	12.42	0.00	12.42	0.00	2.84	0.00	0.00	0.00	0.00	29.97	0.00	0.	0.00
158	2.020	29.79	1.03	526.39	1967.46	1.58	12.44	0.00	12.44	0.00	2.83	0.00	0.00	0.00	0.00	30.25	0.00	0.	0.00
159	2.010	29.81	1.04	530.63	1980.55	1.60	12.45	0.00	12.45	0.00	2.83	0.00	0.00	0.00	0.00	30.53	0.00	0.	0.00
160	2.000	29.82	1.05	534.88	1993.62	1.62	12.46	0.00	12.46	0.00	2.83	0.00	0.00	0.00	0.00	30.81	0.00	0.	0.00
161	1.990	29.84	1.06	539.12	2006.68	1.64	12.48	0.00	12.48	0.00	2.82	0.00	0.00	0.00	0.00	31.09	0.00	0.	0.00
162	1.980	29.85	1.07	543.35	2019.72	1.66	12.49	0.00	12.49	0.00	2.82	0.00	0.00	0.00	0.00	31.37	0.00	0.	0.00
163	1.970	29.87	1.08	547.58	2032.74	1.68	12.51	0.00	12.51	0.00	2.82	0.00	0.00	0.00	0.00	31.65	0.00	0.	0.00
164	1.960	29.89	1.09	551.80	2045.75	1.71	12.53	0.00	12.53	0.00	2.82	0.00	0.00	0.00	0.00	31.93	0.00	0.	0.00
165	1.950	29.90	1.10	556.02	2058.75	1.73	12.55	0.00	12.55	0.00	2.82	0.00	0.00	0.00	0.00	32.21	0.00	0.	0.00
166	1.940	29.92	1.11	560.24	2071.73	1.76	12.57	0.00	12.57	0.00	2.82	0.00	0.00	0.00	0.00	32.48	0.00	0.	0.00
167	1.930	29.93	1.12	564.45	2084.69	1.79	12.60	0.00	12.60	0.00	2.82	0.00	0.00	0.00	0.00	32.76	0.00	0.	0.00
168	1.920	29.95	1.13	568.65	2097.64	1.82	12.62	0.00	12.62	0.00	2.82	0.00	0.00	0.00	0.00	33.04	0.00	0.	0.00
169	1.910	29.96	1.14	572.85	2110.58	1.85	12.65	0.00	12.65	0.00	2.82	0.00	0.00	0.00	0.00	33.32	0.00	0.	0.00
170	1.900	29.98	1.15	577.05	2123.50	1.88	12.67	0.00	12.67	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
171	UPR RCH	0.00450	29.98	1.15	577.05	2123.50	1.88	12.67	0.00	12.67	0.00	2.82	0.00	0.00	0.00	33.60	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	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
171	1.90	1.89	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4133.82	0.003	0.197	0.003
172	1.89	1.88	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4194.70	0.003	0.200	0.003
173	1.88	1.87	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4255.58	0.003	0.203	0.003
174	1.87	1.86	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4316.45	0.003	0.206	0.003
175	1.86	1.85	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4377.33	0.003	0.209	0.003
176	1.85	1.84	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4438.21	0.003	0.211	0.003
177	1.84	1.83	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4499.08	0.003	0.214	0.003
178	1.83	1.82	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4559.96	0.003	0.217	0.003
179	1.82	1.81	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4620.84	0.003	0.220	0.003
180	1.81	1.80	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4681.72	0.003	0.223	0.003
181	1.80	1.79	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4742.59	0.003	0.226	0.003
182	1.79	1.78	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4803.47	0.003	0.229	0.003
183	1.78	1.77	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4864.35	0.003	0.232	0.003
184	1.77	1.76	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4925.22	0.003	0.235	0.003
185	1.76	1.75	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4986.10	0.003	0.237	0.003
186	1.75	1.74	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5046.98	0.003	0.240	0.003
187	1.74	1.73	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5107.85	0.004	0.243	0.004
188	1.73	1.72	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5168.73	0.004	0.246	0.004
189	1.72	1.71	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5229.61	0.004	0.249	0.004
190	1.71	1.70	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5290.49	0.004	0.252	0.004
191	1.70	1.69	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5351.36	0.004	0.255	0.004
192	1.69	1.68	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5412.24	0.004	0.258	0.004
193	1.68	1.67	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5473.12	0.004	0.261	0.004
194	1.67	1.66	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5533.99	0.004	0.263	0.004
195	1.66	1.65	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5594.87	0.004	0.266	0.004
196	1.65	1.64	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5655.75	0.004	0.269	0.004
197	1.64	1.63	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5716.62	0.004	0.272	0.004
198	1.63	1.62	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5777.50	0.004	0.275	0.004
199	1.62	1.61	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5838.38	0.004	0.278	0.004
200	1.61	1.60	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5899.25	0.004	0.281	0.004
201	1.60	1.59	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5960.13	0.004	0.284	0.004
202	1.59	1.58	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6021.01	0.004	0.287	0.004
203	1.58	1.57	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6081.89	0.004	0.289	0.004
204	1.57	1.56	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6142.76	0.004	0.292	0.004
205	1.56	1.55	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6203.64	0.004	0.295	0.004
206	1.55	1.54	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6264.52	0.004	0.298	0.004

207	1.54	1.53	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6325.39	0.004	0.301	0.004
208	1.53	1.52	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6386.27	0.004	0.304	0.004
209	1.52	1.51	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6447.15	0.004	0.307	0.004
210	1.51	1.50	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6508.02	0.004	0.310	0.004
TOT						33.93			13191.72	11094.80					
AVG					0.0001		1.19	27.74			32.98				
CUM						95.88									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
171	1.890	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.63	5.63	5.63	0.12	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
172	1.880	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.63	5.63	5.63	0.12	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
173	1.870	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.64	5.64	5.64	0.13	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
174	1.860	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.64	5.64	5.64	0.13	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
175	1.850	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.65	5.65	5.65	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
176	1.840	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.65	5.65	5.65	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
177	1.830	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.66	5.66	5.66	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
178	1.820	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.66	5.66	5.66	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
179	1.810	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.67	5.67	5.67	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
180	1.800	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.67	5.67	5.67	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
181	1.790	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.68	5.68	5.68	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
182	1.780	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.68	5.68	5.68	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
183	1.770	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.69	5.69	5.69	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
184	1.760	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.69	5.69	5.69	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
185	1.750	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
186	1.740	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
187	1.730	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
188	1.720	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.71	5.71	5.71	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
189	1.710	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.71	5.71	5.71	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
190	1.700	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.72	5.72	5.72	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
191	1.690	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.72	5.72	5.72	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
192	1.680	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.73	5.73	5.73	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
193	1.670	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.73	5.73	5.73	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
194	1.660	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.74	5.74	5.74	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
195	1.650	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.74	5.74	5.74	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
196	1.640	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.75	5.75	5.75	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
197	1.630	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.75	5.75	5.75	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
198	1.620	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.76	5.76	5.76	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
199	1.610	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.76	5.76	5.76	0.15	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
200	1.600	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.77	5.77	5.77	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
201	1.590	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.77	5.77	5.77	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
202	1.580	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.78	5.78	5.78	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
203	1.570	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.78	5.78	5.78	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
204	1.560	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.79	5.79	5.79	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
205	1.550	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.79	5.79	5.79	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00

206	1.540	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.80	5.80	5.80	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
207	1.530	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.80	5.80	5.80	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
208	1.520	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.81	5.81	5.81	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
209	1.510	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.81	5.81	5.81	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
210	1.500	7.43	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.82	5.82	5.82	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.59	0.06	0.05	0.00	0.00	0.00	0.00	3.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
171	1.890	29.99	1.16	581.06	2135.88	1.91	12.70	0.00	12.70	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
172	1.880	30.01	1.16	584.91	2147.71	1.94	12.73	0.00	12.73	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
173	1.870	30.02	1.17	588.72	2159.46	1.97	12.76	0.00	12.76	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
174	1.860	30.03	1.18	592.51	2171.12	1.99	12.78	0.00	12.78	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
175	1.850	30.05	1.19	596.26	2182.69	2.02	12.81	0.00	12.81	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
176	1.840	30.06	1.19	599.99	2194.18	2.04	12.83	0.00	12.83	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
177	1.830	30.07	1.20	603.70	2205.58	2.06	12.86	0.00	12.86	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
178	1.820	30.09	1.21	607.37	2216.91	2.08	12.88	0.00	12.88	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
179	1.810	30.10	1.22	611.02	2228.16	2.09	12.91	0.00	12.91	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
180	1.800	30.11	1.23	614.65	2239.33	2.11	12.93	0.00	12.93	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
181	1.790	30.13	1.23	618.25	2250.42	2.12	12.96	0.00	12.96	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
182	1.780	30.14	1.24	621.83	2261.44	2.14	12.98	0.00	12.98	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
183	1.770	30.15	1.25	625.38	2272.39	2.15	13.01	0.00	13.01	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
184	1.760	30.17	1.25	628.91	2283.26	2.16	13.03	0.00	13.03	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
185	1.750	30.18	1.26	632.42	2294.07	2.18	13.06	0.00	13.06	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
186	1.740	30.19	1.27	635.91	2304.80	2.19	13.08	0.00	13.08	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
187	1.730	30.21	1.28	639.37	2315.47	2.20	13.11	0.00	13.11	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
188	1.720	30.22	1.28	642.81	2326.07	2.21	13.13	0.00	13.13	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
189	1.710	30.23	1.29	646.23	2336.61	2.22	13.16	0.00	13.16	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
190	1.700	30.25	1.30	649.63	2347.08	2.23	13.19	0.00	13.19	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
191	1.690	30.26	1.31	653.01	2357.49	2.25	13.21	0.00	13.21	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
192	1.680	30.27	1.32	656.37	2367.84	2.26	13.24	0.00	13.24	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
193	1.670	30.28	1.32	659.71	2378.13	2.27	13.26	0.00	13.26	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
194	1.660	30.30	1.33	663.03	2388.36	2.28	13.29	0.00	13.29	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
195	1.650	30.31	1.34	666.33	2398.53	2.29	13.32	0.00	13.32	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
196	1.640	30.32	1.35	669.62	2408.64	2.30	13.34	0.00	13.34	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
197	1.630	30.34	1.35	672.88	2418.69	2.31	13.37	0.00	13.37	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
198	1.620	30.35	1.36	676.13	2428.69	2.33	13.40	0.00	13.40	0.00	2.89	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
199	1.610	30.36	1.37	679.35	2438.63	2.34	13.43	0.00	13.43	0.00	2.89	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
200	1.600	30.38	1.38	682.57	2448.52	2.35	13.46	0.00	13.46	0.00	2.90	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
201	1.590	30.39	1.38	685.76	2458.36	2.37	13.48	0.00	13.48	0.00	2.90	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
202	1.580	30.40	1.39	688.93	2468.14	2.38	13.51	0.00	13.51	0.00	2.91	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
203	1.570	30.42	1.40	692.09	2477.87	2.40	13.54	0.00	13.54	0.00	2.91	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
204	1.560	30.43	1.41	695.24	2487.56	2.41	13.57	0.00	13.57	0.00	2.92	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
205	1.550	30.44	1.41	698.36	2497.19	2.43	13.60	0.00	13.60	0.00	2.92	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

206	1.540	30.46	1.42	701.47	2506.77	2.45	13.63	0.00	13.63	0.00	2.93	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
207	1.530	30.47	1.43	704.57	2516.30	2.47	13.67	0.00	13.67	0.00	2.93	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
208	1.520	30.48	1.44	707.65	2525.79	2.49	13.70	0.00	13.70	0.00	2.94	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
209	1.510	30.50	1.44	710.71	2535.23	2.51	13.73	0.00	13.73	0.00	2.94	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
210	1.500	30.51	1.45	713.76	2544.62	2.53	13.76	0.00	13.76	0.00	2.95	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 4 RKM 1.5 to 1.1 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
211	UPR RCH	0.00450	30.51	1.45	713.76	2544.62	2.53	13.76	0.00	13.76	0.00	2.95	0.00	0.00	0.00	33.60	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	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
211	1.50	1.49	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6570.24	0.005	0.314	0.005
212	1.49	1.48	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6632.45	0.005	0.317	0.005
213	1.48	1.47	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6694.67	0.005	0.320	0.005
214	1.47	1.46	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6756.88	0.005	0.323	0.005
215	1.46	1.45	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6819.09	0.005	0.326	0.005
216	1.45	1.44	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6881.31	0.005	0.329	0.005
217	1.44	1.43	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6943.52	0.005	0.332	0.005
218	1.43	1.42	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7005.74	0.005	0.335	0.005
219	1.42	1.41	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7067.95	0.006	0.338	0.006
220	1.41	1.40	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7130.16	0.006	0.341	0.006
221	1.40	1.39	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7192.38	0.006	0.344	0.006
222	1.39	1.38	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7254.59	0.006	0.346	0.006
223	1.38	1.37	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7316.80	0.006	0.349	0.006
224	1.37	1.36	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7379.02	0.006	0.352	0.006
225	1.36	1.35	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7441.23	0.006	0.355	0.006
226	1.35	1.34	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7503.45	0.006	0.358	0.006
227	1.34	1.33	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7565.66	0.006	0.361	0.006
228	1.33	1.32	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7627.87	0.006	0.364	0.006
229	1.32	1.31	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7690.09	0.006	0.367	0.006
230	1.31	1.30	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7752.30	0.006	0.370	0.006
231	1.30	1.29	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7814.52	0.006	0.373	0.006
232	1.29	1.28	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7876.73	0.006	0.376	0.006
233	1.28	1.27	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7938.94	0.006	0.379	0.006
234	1.27	1.26	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8001.16	0.006	0.382	0.006
235	1.26	1.25	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8063.37	0.006	0.385	0.006
236	1.25	1.24	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8125.58	0.006	0.388	0.006

237	1.24	1.23	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8187.80	0.006	0.391	0.006
238	1.23	1.22	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8250.01	0.006	0.394	0.006
239	1.22	1.21	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8312.23	0.006	0.397	0.007
240	1.21	1.20	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8374.44	0.007	0.400	0.007
241	1.20	1.19	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8436.65	0.007	0.403	0.007
242	1.19	1.18	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8498.87	0.007	0.406	0.007
243	1.18	1.17	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8561.08	0.007	0.409	0.007
244	1.17	1.16	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8623.30	0.007	0.412	0.007
245	1.16	1.15	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8685.51	0.007	0.415	0.007
246	1.15	1.14	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8747.72	0.007	0.418	0.007
247	1.14	1.13	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8809.94	0.007	0.421	0.007
248	1.13	1.12	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8872.15	0.007	0.424	0.007
249	1.12	1.11	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8934.37	0.007	0.427	0.007
250	1.11	1.10	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8996.58	0.007	0.430	0.007
TOT						29.77			11576.51	11338.40					
AVG					0.0002		1.02	28.35			28.94				
CUM						125.66									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
211	1.490	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
212	1.480	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
213	1.470	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
214	1.460	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.67	4.67	4.67	0.15	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
215	1.450	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.67	4.67	4.67	0.15	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
216	1.440	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
217	1.430	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
218	1.420	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.65	0.00	0.00	0.00	0.00
219	1.410	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.69	4.69	4.69	0.16	0.06	0.00	0.00	0.00	0.00	2.64	0.00	0.00	0.00	0.00
220	1.400	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.69	4.69	4.69	0.16	0.06	0.00	0.00	0.00	0.00	2.64	0.00	0.00	0.00	0.00
221	1.390	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
222	1.380	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.62	0.00	0.00	0.00	0.00
223	1.370	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.61	0.00	0.00	0.00	0.00
224	1.360	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.60	0.00	0.00	0.00	0.00
225	1.350	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
226	1.340	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.58	0.00	0.00	0.00	0.00
227	1.330	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.72	4.72	4.72	0.16	0.06	0.00	0.00	0.00	0.00	2.57	0.00	0.00	0.00	0.00
228	1.320	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.72	4.72	4.72	0.16	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
229	1.310	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
230	1.300	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00
231	1.290	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.54	0.00	0.00	0.00	0.00
232	1.280	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.74	4.74	4.74	0.16	0.06	0.00	0.00	0.00	0.00	2.53	0.00	0.00	0.00	0.00
233	1.270	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.74	4.74	4.74	0.16	0.06	0.00	0.00	0.00	0.00	2.52	0.00	0.00	0.00	0.00
234	1.260	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.51	0.00	0.00	0.00	0.00
235	1.250	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00

236	1.240	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
237	1.230	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.76	4.76	4.76	0.16	0.06	0.00	0.00	0.00	0.00	2.48	0.00	0.00	0.00	0.00
238	1.220	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.76	4.76	4.76	0.17	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
239	1.210	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
240	1.200	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00
241	1.190	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.45	0.00	0.00	0.00	0.00
242	1.180	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.78	4.78	4.78	0.17	0.06	0.00	0.00	0.00	0.00	2.44	0.00	0.00	0.00	0.00
243	1.170	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.78	4.78	4.78	0.17	0.06	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
244	1.160	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
245	1.150	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
246	1.140	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
247	1.130	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.80	4.80	4.80	0.17	0.06	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
248	1.120	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.80	4.80	4.80	0.17	0.06	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
249	1.110	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.81	4.81	4.81	0.17	0.06	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
250	1.100	7.35	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.81	4.81	4.81	0.17	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.69	0.06	0.05	0.00	0.00	0.00	0.00	2.40			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
211	1.490	30.52	1.46	716.99	2554.56	2.56	13.80	0.00	13.80	0.00	2.96	0.00	0.00	0.00	0.00	33.47	0.00	0.	0.00
212	1.480	30.54	1.47	720.41	2565.11	2.59	13.83	0.00	13.83	0.00	2.97	0.00	0.00	0.00	0.00	33.34	0.00	0.	0.00
213	1.470	30.55	1.47	723.83	2575.62	2.61	13.87	0.00	13.87	0.00	2.97	0.00	0.00	0.00	0.00	33.22	0.00	0.	0.00
214	1.460	30.56	1.48	727.22	2586.09	2.63	13.90	0.00	13.90	0.00	2.98	0.00	0.00	0.00	0.00	33.09	0.00	0.	0.00
215	1.450	30.58	1.49	730.61	2596.51	2.65	13.94	0.00	13.94	0.00	2.99	0.00	0.00	0.00	0.00	32.96	0.00	0.	0.00
216	1.440	30.59	1.50	733.97	2606.88	2.67	13.97	0.00	13.97	0.00	3.00	0.00	0.00	0.00	0.00	32.83	0.00	0.	0.00
217	1.430	30.60	1.50	737.33	2617.21	2.69	14.00	0.00	14.00	0.00	3.00	0.00	0.00	0.00	0.00	32.71	0.00	0.	0.00
218	1.420	30.62	1.51	740.67	2627.50	2.71	14.03	0.00	14.03	0.00	3.01	0.00	0.00	0.00	0.00	32.58	0.00	0.	0.00
219	1.410	30.63	1.52	743.99	2637.74	2.73	14.06	0.00	14.06	0.00	3.02	0.00	0.00	0.00	0.00	32.45	0.00	0.	0.00
220	1.400	30.64	1.53	747.30	2647.94	2.74	14.09	0.00	14.09	0.00	3.02	0.00	0.00	0.00	0.00	32.32	0.00	0.	0.00
221	1.390	30.66	1.54	750.60	2658.10	2.76	14.12	0.00	14.12	0.00	3.03	0.00	0.00	0.00	0.00	32.20	0.00	0.	0.00
222	1.380	30.67	1.54	753.88	2668.22	2.77	14.15	0.00	14.15	0.00	3.03	0.00	0.00	0.00	0.00	32.07	0.00	0.	0.00
223	1.370	30.68	1.55	757.16	2678.30	2.79	14.17	0.00	14.17	0.00	3.04	0.00	0.00	0.00	0.00	31.94	0.00	0.	0.00
224	1.360	30.70	1.56	760.41	2688.33	2.80	14.20	0.00	14.20	0.00	3.05	0.00	0.00	0.00	0.00	31.81	0.00	0.	0.00
225	1.350	30.71	1.57	763.66	2698.33	2.82	14.22	0.00	14.22	0.00	3.05	0.00	0.00	0.00	0.00	31.69	0.00	0.	0.00
226	1.340	30.72	1.57	766.89	2708.28	2.83	14.25	0.00	14.25	0.00	3.06	0.00	0.00	0.00	0.00	31.56	0.00	0.	0.00
227	1.330	30.74	1.58	770.11	2718.20	2.85	14.27	0.00	14.27	0.00	3.07	0.00	0.00	0.00	0.00	31.43	0.00	0.	0.00
228	1.320	30.75	1.59	773.32	2728.07	2.86	14.29	0.00	14.29	0.00	3.07	0.00	0.00	0.00	0.00	31.30	0.00	0.	0.00
229	1.310	30.76	1.60	776.51	2737.91	2.87	14.32	0.00	14.32	0.00	3.08	0.00	0.00	0.00	0.00	31.18	0.00	0.	0.00
230	1.300	30.78	1.61	779.69	2747.71	2.89	14.34	0.00	14.34	0.00	3.08	0.00	0.00	0.00	0.00	31.05	0.00	0.	0.00
231	1.290	30.79	1.61	782.86	2757.48	2.91	14.36	0.00	14.36	0.00	3.09	0.00	0.00	0.00	0.00	30.92	0.00	0.	0.00
232	1.280	30.80	1.62	786.02	2767.20	2.92	14.38	0.00	14.38	0.00	3.09	0.00	0.00	0.00	0.00	30.80	0.00	0.	0.00
233	1.270	30.81	1.63	789.16	2776.89	2.94	14.40	0.00	14.40	0.00	3.10	0.00	0.00	0.00	0.00	30.67	0.00	0.	0.00
234	1.260	30.83	1.64	792.30	2786.55	2.96	14.42	0.00	14.42	0.00	3.11	0.00	0.00	0.00	0.00	30.54	0.00	0.	0.00
235	1.250	30.84	1.64	795.42	2796.16	2.98	14.44	0.00	14.44	0.00	3.11	0.00	0.00	0.00	0.00	30.41	0.00	0.	0.00

236	1.240	30.85	1.65	798.53	2805.74	2.99	14.46	0.00	14.46	0.00	3.12	0.00	0.00	0.00	0.00	30.28	0.00	0.	0.00
237	1.230	30.87	1.66	801.63	2815.29	3.01	14.48	0.00	14.48	0.00	3.12	0.00	0.00	0.00	0.00	30.16	0.00	0.	0.00
238	1.220	30.88	1.67	804.72	2824.80	3.04	14.50	0.00	14.50	0.00	3.13	0.00	0.00	0.00	0.00	30.03	0.00	0.	0.00
239	1.210	30.89	1.67	807.79	2834.28	3.06	14.51	0.00	14.51	0.00	3.14	0.00	0.00	0.00	0.00	29.90	0.00	0.	0.00
240	1.200	30.91	1.68	810.86	2843.72	3.08	14.53	0.00	14.53	0.00	3.14	0.00	0.00	0.00	0.00	29.77	0.00	0.	0.00
241	1.190	30.92	1.69	813.92	2853.13	3.11	14.55	0.00	14.55	0.00	3.15	0.00	0.00	0.00	0.00	29.65	0.00	0.	0.00
242	1.180	30.93	1.70	816.96	2862.51	3.14	14.57	0.00	14.57	0.00	3.16	0.00	0.00	0.00	0.00	29.52	0.00	0.	0.00
243	1.170	30.95	1.71	819.99	2871.86	3.16	14.58	0.00	14.58	0.00	3.16	0.00	0.00	0.00	0.00	29.39	0.00	0.	0.00
244	1.160	30.96	1.71	823.02	2881.17	3.19	14.60	0.00	14.60	0.00	3.17	0.00	0.00	0.00	0.00	29.26	0.00	0.	0.00
245	1.150	30.97	1.72	826.03	2890.45	3.23	14.61	0.00	14.61	0.00	3.18	0.00	0.00	0.00	0.00	29.14	0.00	0.	0.00
246	1.140	30.99	1.73	829.03	2899.70	3.26	14.63	0.00	14.63	0.00	3.18	0.00	0.00	0.00	0.00	29.01	0.00	0.	0.00
247	1.130	31.00	1.74	832.02	2908.91	3.30	14.64	0.00	14.64	0.00	3.19	0.00	0.00	0.00	0.00	28.88	0.00	0.	0.00
248	1.120	31.01	1.74	835.01	2918.10	3.33	14.66	0.00	14.66	0.00	3.20	0.00	0.00	0.00	0.00	28.75	0.00	0.	0.00
249	1.110	31.03	1.75	837.98	2927.25	3.37	14.67	0.00	14.67	0.00	3.20	0.00	0.00	0.00	0.00	28.63	0.00	0.	0.00
250	1.100	31.04	1.76	840.94	2936.38	3.42	14.69	0.00	14.69	0.00	3.21	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 5 RKM 1.1 to 0.3 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
251	UPR RCH	0.00450	31.04	1.76	840.94	2936.38	3.42	14.69	0.00	14.69	0.00	3.21	0.00	0.00	0.00	28.50	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	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
251	1.10	1.09	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9047.29	0.008	0.554	0.008
252	1.09	1.08	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9098.00	0.008	0.557	0.008
253	1.08	1.07	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9148.71	0.008	0.560	0.008
254	1.07	1.06	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9199.43	0.008	0.563	0.008
255	1.06	1.05	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9250.14	0.008	0.566	0.008
256	1.05	1.04	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9300.85	0.008	0.569	0.008
257	1.04	1.03	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9351.56	0.008	0.572	0.008
258	1.03	1.02	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9402.27	0.008	0.576	0.008
259	1.02	1.01	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9452.99	0.008	0.579	0.008
260	1.01	1.00	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9503.70	0.008	0.582	0.008
261	1.00	0.99	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9554.41	0.008	0.585	0.008
262	0.99	0.98	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9605.12	0.008	0.588	0.008
263	0.98	0.97	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9655.83	0.008	0.591	0.008
264	0.97	0.96	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9706.55	0.008	0.594	0.008
265	0.96	0.95	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9757.26	0.008	0.597	0.008
266	0.95	0.94	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9807.97	0.009	0.600	0.009

267	0.94	0.93	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9858.68	0.009	0.603	0.009
268	0.93	0.92	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9909.39	0.009	0.607	0.009
269	0.92	0.91	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9960.11	0.009	0.610	0.009
270	0.91	0.90	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10010.82	0.009	0.613	0.009
271	0.90	0.89	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10061.53	0.009	0.616	0.009
272	0.89	0.88	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10112.24	0.009	0.619	0.009
273	0.88	0.87	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10162.95	0.009	0.622	0.009
274	0.87	0.86	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10213.67	0.009	0.625	0.009
275	0.86	0.85	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10264.38	0.009	0.628	0.009
276	0.85	0.84	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10315.09	0.009	0.631	0.009
277	0.84	0.83	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10365.80	0.009	0.634	0.009
278	0.83	0.82	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10416.51	0.009	0.638	0.009
279	0.82	0.81	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10467.22	0.009	0.641	0.009
280	0.81	0.80	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10517.94	0.009	0.644	0.009
281	0.80	0.79	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10568.65	0.009	0.647	0.009
282	0.79	0.78	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10619.36	0.009	0.650	0.009
283	0.78	0.77	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10670.07	0.009	0.653	0.009
284	0.77	0.76	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10720.78	0.009	0.656	0.009
285	0.76	0.75	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10771.50	0.009	0.659	0.009
286	0.75	0.74	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10822.21	0.009	0.662	0.009
287	0.74	0.73	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10872.92	0.009	0.665	0.009
288	0.73	0.72	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10923.63	0.009	0.669	0.010
289	0.72	0.71	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10974.34	0.010	0.672	0.010
290	0.71	0.70	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11025.06	0.010	0.675	0.010
291	0.70	0.69	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11075.77	0.010	0.678	0.010
292	0.69	0.68	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11126.48	0.010	0.681	0.010
293	0.68	0.67	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11177.19	0.010	0.684	0.010
294	0.67	0.66	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11227.90	0.010	0.687	0.010
295	0.66	0.65	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11278.62	0.010	0.690	0.010
296	0.65	0.64	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11329.33	0.010	0.693	0.010
297	0.64	0.63	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11380.04	0.010	0.696	0.010
298	0.63	0.62	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11430.75	0.010	0.700	0.010
299	0.62	0.61	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11481.46	0.010	0.703	0.010
300	0.61	0.60	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11532.17	0.010	0.706	0.010
301	0.60	0.59	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11582.89	0.010	0.709	0.010
302	0.59	0.58	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11633.60	0.010	0.712	0.010
303	0.58	0.57	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11684.31	0.010	0.715	0.010
304	0.57	0.56	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11735.02	0.010	0.718	0.010
305	0.56	0.55	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11785.73	0.010	0.721	0.010
306	0.55	0.54	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11836.45	0.010	0.724	0.010
307	0.54	0.53	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11887.16	0.010	0.727	0.010
308	0.53	0.52	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11937.87	0.010	0.731	0.010
309	0.52	0.51	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11988.58	0.010	0.734	0.010
310	0.51	0.50	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12039.29	0.010	0.737	0.010
311	0.50	0.49	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12090.01	0.011	0.740	0.011
312	0.49	0.48	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12140.72	0.011	0.743	0.011
313	0.48	0.47	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12191.43	0.011	0.746	0.011
314	0.47	0.46	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12242.14	0.011	0.749	0.011
315	0.46	0.45	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12292.85	0.011	0.752	0.011
316	0.45	0.44	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12343.57	0.011	0.755	0.011
317	0.44	0.43	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12394.28	0.011	0.758	0.011

318	0.43	0.42	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12444.99	0.011	0.762	0.011
319	0.42	0.41	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12495.70	0.011	0.765	0.011
320	0.41	0.40	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12546.41	0.011	0.768	0.011
321	0.40	0.39	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12597.12	0.011	0.771	0.011
322	0.39	0.38	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12647.84	0.011	0.774	0.011
323	0.38	0.37	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12698.55	0.011	0.777	0.011
324	0.37	0.36	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12749.26	0.011	0.780	0.011
325	0.36	0.35	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12799.97	0.011	0.783	0.011
326	0.35	0.34	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12850.68	0.011	0.786	0.011
327	0.34	0.33	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12901.40	0.011	0.789	0.011
328	0.33	0.32	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12952.11	0.011	0.793	0.011
329	0.32	0.31	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	13002.82	0.011	0.796	0.011
330	0.31	0.30	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	13053.53	0.011	0.799	0.011
TOT						53.50			20800.37	17190.40					
AVG					0.0002		1.21	21.49			26.00				
CUM						179.16									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
251	1.090	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.17	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
252	1.080	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
253	1.070	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
254	1.060	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
255	1.050	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
256	1.040	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
257	1.030	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
258	1.020	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
259	1.010	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
260	1.000	7.34	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
261	0.990	7.34	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
262	0.980	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
263	0.970	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
264	0.960	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
265	0.950	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
266	0.940	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
267	0.930	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
268	0.920	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
269	0.910	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
270	0.900	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
271	0.890	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
272	0.880	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
273	0.870	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
274	0.860	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
275	0.850	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
276	0.840	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00

277	0.830	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
278	0.820	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
279	0.810	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
280	0.800	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
281	0.790	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
282	0.780	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
283	0.770	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
284	0.760	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
285	0.750	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
286	0.740	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
287	0.730	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
288	0.720	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
289	0.710	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
290	0.700	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
291	0.690	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
292	0.680	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
293	0.670	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
294	0.660	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
295	0.650	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
296	0.640	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
297	0.630	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
298	0.620	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
299	0.610	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
300	0.600	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
301	0.590	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
302	0.580	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
303	0.570	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
304	0.560	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
305	0.550	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
306	0.540	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
307	0.530	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
308	0.520	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
309	0.510	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
310	0.500	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
311	0.490	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
312	0.480	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
313	0.470	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
314	0.460	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
315	0.450	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
316	0.440	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
317	0.430	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
318	0.420	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
319	0.410	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
320	0.400	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
321	0.390	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
322	0.380	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
323	0.370	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
324	0.360	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
325	0.350	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
326	0.340	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
327	0.330	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00

328	0.320	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
329	0.310	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
330	0.300	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.21	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.06	0.05	0.00	0.00	0.00	0.00	1.90			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
251	1.090	31.05	1.76	843.69	2944.83	3.46	14.70	0.00	14.70	0.00	3.22	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
252	1.080	31.05	1.77	846.25	2952.72	3.50	14.71	0.00	14.71	0.00	3.23	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
253	1.070	31.06	1.77	848.80	2960.58	3.53	14.72	0.00	14.72	0.00	3.23	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
254	1.060	31.07	1.77	851.34	2968.42	3.57	14.73	0.00	14.73	0.00	3.24	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
255	1.050	31.07	1.77	853.88	2976.24	3.60	14.74	0.00	14.74	0.00	3.24	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
256	1.040	31.08	1.78	856.42	2984.05	3.63	14.75	0.00	14.75	0.00	3.25	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
257	1.030	31.09	1.78	858.95	2991.84	3.66	14.76	0.00	14.76	0.00	3.26	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
258	1.020	31.10	1.78	861.47	2999.60	3.69	14.77	0.00	14.77	0.00	3.26	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
259	1.010	31.10	1.78	863.98	3007.35	3.72	14.77	0.00	14.77	0.00	3.27	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
260	1.000	31.11	1.79	866.49	3015.08	3.75	14.78	0.00	14.78	0.00	3.28	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
261	0.990	31.12	1.79	869.00	3022.79	3.77	14.78	0.00	14.78	0.00	3.28	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
262	0.980	31.12	1.79	871.49	3030.48	3.80	14.79	0.00	14.79	0.00	3.29	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
263	0.970	31.13	1.80	873.98	3038.16	3.82	14.80	0.00	14.80	0.00	3.30	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
264	0.960	31.14	1.80	876.47	3045.81	3.85	14.80	0.00	14.80	0.00	3.30	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
265	0.950	31.14	1.80	878.95	3053.45	3.87	14.80	0.00	14.80	0.00	3.31	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
266	0.940	31.15	1.80	881.42	3061.07	3.89	14.81	0.00	14.81	0.00	3.31	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
267	0.930	31.16	1.81	883.89	3068.67	3.91	14.81	0.00	14.81	0.00	3.32	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
268	0.920	31.16	1.81	886.36	3076.26	3.93	14.81	0.00	14.81	0.00	3.33	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
269	0.910	31.17	1.81	888.81	3083.83	3.95	14.81	0.00	14.81	0.00	3.33	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
270	0.900	31.18	1.82	891.26	3091.38	3.97	14.81	0.00	14.81	0.00	3.34	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
271	0.890	31.18	1.82	893.71	3098.91	3.99	14.81	0.00	14.81	0.00	3.35	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
272	0.880	31.19	1.82	896.15	3106.43	4.01	14.81	0.00	14.81	0.00	3.35	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
273	0.870	31.20	1.82	898.59	3113.93	4.03	14.81	0.00	14.81	0.00	3.36	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
274	0.860	31.20	1.83	901.02	3121.41	4.05	14.81	0.00	14.81	0.00	3.37	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
275	0.850	31.21	1.83	903.44	3128.88	4.06	14.81	0.00	14.81	0.00	3.38	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
276	0.840	31.22	1.83	905.86	3136.33	4.08	14.81	0.00	14.81	0.00	3.38	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
277	0.830	31.23	1.83	908.27	3143.76	4.10	14.81	0.00	14.81	0.00	3.39	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
278	0.820	31.23	1.84	910.68	3151.18	4.11	14.80	0.00	14.80	0.00	3.40	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
279	0.810	31.24	1.84	913.09	3158.58	4.13	14.80	0.00	14.80	0.00	3.40	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
280	0.800	31.25	1.84	915.48	3165.97	4.15	14.80	0.00	14.80	0.00	3.41	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
281	0.790	31.25	1.85	917.88	3173.34	4.16	14.79	0.00	14.79	0.00	3.42	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
282	0.780	31.26	1.85	920.26	3180.69	4.18	14.79	0.00	14.79	0.00	3.43	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
283	0.770	31.27	1.85	922.65	3188.03	4.20	14.78	0.00	14.78	0.00	3.43	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
284	0.760	31.27	1.85	925.02	3195.35	4.21	14.78	0.00	14.78	0.00	3.44	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
285	0.750	31.28	1.86	927.40	3202.66	4.23	14.77	0.00	14.77	0.00	3.45	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
286	0.740	31.29	1.86	929.76	3209.95	4.25	14.77	0.00	14.77	0.00	3.46	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
287	0.730	31.29	1.86	932.13	3217.22	4.26	14.76	0.00	14.76	0.00	3.47	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

288	0.720	31.30	1.86	934.48	3224.48	4.28	14.75	0.00	14.75	0.00	3.47	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
289	0.710	31.31	1.87	936.84	3231.73	4.30	14.74	0.00	14.74	0.00	3.48	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
290	0.700	31.32	1.87	939.19	3238.96	4.31	14.73	0.00	14.73	0.00	3.49	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
291	0.690	31.32	1.87	941.53	3246.18	4.33	14.73	0.00	14.73	0.00	3.50	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
292	0.680	31.33	1.88	943.87	3253.38	4.35	14.72	0.00	14.72	0.00	3.51	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
293	0.670	31.34	1.88	946.20	3260.56	4.37	14.71	0.00	14.71	0.00	3.52	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
294	0.660	31.34	1.88	948.53	3267.74	4.39	14.70	0.00	14.70	0.00	3.53	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
295	0.650	31.35	1.88	950.85	3274.89	4.41	14.69	0.00	14.69	0.00	3.54	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
296	0.640	31.36	1.89	953.17	3282.04	4.42	14.68	0.00	14.68	0.00	3.55	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
297	0.630	31.36	1.89	955.49	3289.16	4.44	14.66	0.00	14.66	0.00	3.56	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
298	0.620	31.37	1.89	957.80	3296.28	4.46	14.65	0.00	14.65	0.00	3.57	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
299	0.610	31.38	1.89	960.10	3303.38	4.48	14.64	0.00	14.64	0.00	3.58	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
300	0.600	31.38	1.90	962.40	3310.46	4.51	14.63	0.00	14.63	0.00	3.59	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
301	0.590	31.39	1.90	964.70	3317.54	4.53	14.61	0.00	14.61	0.00	3.60	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
302	0.580	31.40	1.90	966.99	3324.59	4.55	14.60	0.00	14.60	0.00	3.61	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
303	0.570	31.40	1.91	969.28	3331.64	4.57	14.59	0.00	14.59	0.00	3.62	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
304	0.560	31.41	1.91	971.56	3338.67	4.60	14.57	0.00	14.57	0.00	3.63	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
305	0.550	31.42	1.91	973.84	3345.69	4.62	14.56	0.00	14.56	0.00	3.64	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
306	0.540	31.43	1.91	976.12	3352.69	4.64	14.54	0.00	14.54	0.00	3.65	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
307	0.530	31.43	1.92	978.39	3359.68	4.67	14.53	0.00	14.53	0.00	3.67	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
308	0.520	31.44	1.92	980.65	3366.66	4.70	14.51	0.00	14.51	0.00	3.68	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
309	0.510	31.45	1.92	982.91	3373.62	4.72	14.49	0.00	14.49	0.00	3.69	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
310	0.500	31.45	1.93	985.17	3380.57	4.75	14.48	0.00	14.48	0.00	3.70	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
311	0.490	31.46	1.93	987.42	3387.51	4.78	14.46	0.00	14.46	0.00	3.72	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
312	0.480	31.47	1.93	989.67	3394.43	4.81	14.44	0.00	14.44	0.00	3.73	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
313	0.470	31.47	1.93	991.91	3401.34	4.84	14.42	0.00	14.42	0.00	3.74	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
314	0.460	31.48	1.94	994.15	3408.24	4.88	14.40	0.00	14.40	0.00	3.76	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
315	0.450	31.49	1.94	996.39	3415.12	4.91	14.38	0.00	14.38	0.00	3.77	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
316	0.440	31.49	1.94	998.62	3422.00	4.94	14.36	0.00	14.36	0.00	3.78	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
317	0.430	31.50	1.94	1000.85	3428.86	4.98	14.34	0.00	14.34	0.00	3.80	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
318	0.420	31.51	1.95	1003.07	3435.70	5.02	14.32	0.00	14.32	0.00	3.81	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
319	0.410	31.51	1.95	1005.29	3442.54	5.05	14.30	0.00	14.30	0.00	3.83	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
320	0.400	31.52	1.95	1007.51	3449.36	5.09	14.28	0.00	14.28	0.00	3.84	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
321	0.390	31.53	1.96	1009.72	3456.17	5.13	14.26	0.00	14.26	0.00	3.86	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
322	0.380	31.53	1.96	1011.93	3462.97	5.18	14.24	0.00	14.24	0.00	3.87	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
323	0.370	31.54	1.96	1014.13	3469.76	5.22	14.21	0.00	14.21	0.00	3.89	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
324	0.360	31.55	1.96	1016.33	3476.53	5.27	14.19	0.00	14.19	0.00	3.91	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
325	0.350	31.56	1.97	1018.53	3483.30	5.31	14.17	0.00	14.17	0.00	3.92	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
326	0.340	31.56	1.97	1020.72	3490.05	5.36	14.14	0.00	14.14	0.00	3.94	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
327	0.330	31.57	1.97	1022.91	3496.79	5.41	14.12	0.00	14.12	0.00	3.96	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
328	0.320	31.58	1.97	1025.09	3503.51	5.47	14.09	0.00	14.09	0.00	3.98	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
329	0.310	31.58	1.98	1027.27	3510.23	5.52	14.07	0.00	14.07	0.00	4.00	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
330	0.300	31.59	1.98	1029.45	3516.93	5.58	14.04	0.00	14.04	0.00	4.01	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 6 RKM 0.3 to 0.0 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
331	UPR RCH	0.00450	31.59	1.98	1029.45	3516.93	5.58	14.04	0.00	14.04	0.00	4.01	0.00	0.00	0.00	28.50	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	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
331	0.30	0.29	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13100.29	0.013	0.876	0.013
332	0.29	0.28	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13147.04	0.013	0.879	0.013
333	0.28	0.27	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13193.80	0.013	0.882	0.013
334	0.27	0.26	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13240.56	0.013	0.885	0.013
335	0.26	0.25	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13287.31	0.013	0.889	0.013
336	0.25	0.24	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13334.07	0.013	0.892	0.013
337	0.24	0.23	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13380.82	0.013	0.895	0.013
338	0.23	0.22	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13427.58	0.013	0.898	0.013
339	0.22	0.21	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13474.33	0.013	0.901	0.013
340	0.21	0.20	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13521.09	0.013	0.904	0.013
341	0.20	0.19	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13567.85	0.013	0.907	0.013
342	0.19	0.18	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13614.60	0.013	0.910	0.013
343	0.18	0.17	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13661.36	0.013	0.914	0.013
344	0.17	0.16	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13708.11	0.014	0.917	0.014
345	0.16	0.15	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13754.87	0.014	0.920	0.014
346	0.15	0.14	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13801.63	0.014	0.923	0.014
347	0.14	0.13	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13848.38	0.014	0.926	0.014
348	0.13	0.12	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13895.14	0.014	0.929	0.014
349	0.12	0.11	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13941.89	0.014	0.932	0.014
350	0.11	0.10	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13988.65	0.014	0.935	0.014
351	0.10	0.09	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14035.41	0.014	0.939	0.014
352	0.09	0.08	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14082.16	0.014	0.942	0.014
353	0.08	0.07	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14128.92	0.014	0.945	0.014
354	0.07	0.06	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14175.67	0.014	0.948	0.014
355	0.06	0.05	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14222.43	0.014	0.951	0.014
356	0.05	0.04	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14269.18	0.014	0.954	0.014
357	0.04	0.03	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14315.94	0.014	0.957	0.014
358	0.03	0.02	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14362.70	0.014	0.960	0.014
359	0.02	0.01	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14409.45	0.014	0.964	0.014
360	0.01	0.00	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14456.21	0.014	0.967	0.014
TOT						17.67			6870.80	5943.60					
AVG					0.0002		1.16	19.81			22.90				
CUM						196.83									

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

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM

NO.	DIST	D.O.	RATE	DECAY	SETT	DECAY	DECAY	SETT	DECAY	SOD	SOD	SOD	DECAY	SETT	DECAY	SRCE	RATE	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
331	0.290	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
332	0.280	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
333	0.270	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
334	0.260	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
335	0.250	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
336	0.240	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
337	0.230	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
338	0.220	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
339	0.210	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
340	0.200	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
341	0.190	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
342	0.180	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
343	0.170	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
344	0.160	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
345	0.150	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
346	0.140	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
347	0.130	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
348	0.120	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
349	0.110	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
350	0.100	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
351	0.090	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
352	0.080	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
353	0.070	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
354	0.060	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
355	0.050	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
356	0.040	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
357	0.030	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
358	0.020	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
359	0.010	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
360	0.000	7.33	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
331	0.290	31.58	1.98	1031.67	3523.75	5.64	14.01	0.00	14.01	0.00	4.03	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
332	0.280	31.56	1.98	1033.92	3530.70	5.69	13.98	0.00	13.98	0.00	4.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
333	0.270	31.55	1.99	1036.17	3537.63	5.75	13.94	0.00	13.94	0.00	4.06	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
334	0.260	31.54	1.99	1038.42	3544.56	5.80	13.90	0.00	13.90	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
335	0.250	31.52	1.99	1040.67	3551.48	5.86	13.85	0.00	13.85	0.00	4.08	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
336	0.240	31.51	1.99	1042.91	3558.38	5.91	13.79	0.00	13.79	0.00	4.08	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
337	0.230	31.49	1.99	1045.15	3565.28	5.95	13.73	0.00	13.73	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

338	0.220	31.48	1.99	1047.39	3572.17	6.00	13.66	0.00	13.66	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
339	0.210	31.47	2.00	1049.63	3579.06	6.04	13.59	0.00	13.59	0.00	4.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
340	0.200	31.45	2.00	1051.86	3585.93	6.09	13.51	0.00	13.51	0.00	4.04	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
341	0.190	31.44	2.00	1054.09	3592.79	6.13	13.42	0.00	13.42	0.00	4.02	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
342	0.180	31.43	2.00	1056.31	3599.65	6.17	13.33	0.00	13.33	0.00	4.00	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
343	0.170	31.41	2.00	1058.54	3606.50	6.20	13.23	0.00	13.23	0.00	3.97	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
344	0.160	31.40	2.00	1060.76	3613.33	6.24	13.13	0.00	13.13	0.00	3.94	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
345	0.150	31.39	2.01	1062.97	3620.16	6.27	13.02	0.00	13.02	0.00	3.91	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
346	0.140	31.37	2.01	1065.19	3626.98	6.31	12.91	0.00	12.91	0.00	3.87	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
347	0.130	31.36	2.01	1067.40	3633.80	6.34	12.79	0.00	12.79	0.00	3.83	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
348	0.120	31.34	2.01	1069.61	3640.60	6.37	12.67	0.00	12.67	0.00	3.79	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
349	0.110	31.33	2.01	1071.82	3647.40	6.40	12.54	0.00	12.54	0.00	3.74	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
350	0.100	31.32	2.01	1074.02	3654.18	6.42	12.40	0.00	12.40	0.00	3.68	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
351	0.090	31.30	2.01	1076.22	3660.96	6.45	12.26	0.00	12.26	0.00	3.63	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
352	0.080	31.29	2.02	1078.42	3667.73	6.47	12.11	0.00	12.11	0.00	3.57	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
353	0.070	31.28	2.02	1080.62	3674.49	6.49	11.96	0.00	11.96	0.00	3.51	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
354	0.060	31.26	2.02	1082.81	3681.24	6.51	11.80	0.00	11.80	0.00	3.44	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
355	0.050	31.25	2.02	1085.00	3687.99	6.53	11.63	0.00	11.63	0.00	3.37	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
356	0.040	31.23	2.02	1087.19	3694.72	6.55	11.46	0.00	11.46	0.00	3.29	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
357	0.030	31.22	2.03	1089.37	3701.45	6.57	11.29	0.00	11.29	0.00	3.21	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
358	0.020	31.21	2.03	1091.55	3708.17	6.58	11.11	0.00	11.11	0.00	3.13	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
359	0.010	31.19	2.03	1093.73	3714.88	6.59	10.92	0.00	10.92	0.00	3.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
360	0.000	31.18	2.03	1095.91	3721.59	6.61	10.73	0.00	10.73	0.00	2.96	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

STREAM SUMMARY
HEADWATER

BAYOU CANE WATERSHED MODEL
BAYOU CANE FINAL CALIBRATION RUN

TRAVEL TIME	=	196.83 DAYS		
MAXIMUM EFFLUENT	=	82.22 PERCENT		
FLOW	=	0.00080 TO	0.00450	m^3/s
DISPERSION	=	0.0097 TO	0.9667	m^2/s
VELOCITY	=	0.00014 TO	0.00083	m/s
DEPTH	=	1.02 TO	1.21	m
WIDTH	=	4.88 TO	28.35	m
BOD DECAY	=	0.03 TO	0.11	per day
NH3 DECAY	=	0.00 TO	0.00	per day
SOD	=	0.00 TO	6.56	$g/m^2/d$
NH3 SOURCE	=	0.00 TO	0.00	$g/m^2/d$
REAERATION	=	0.71 TO	0.95	per day
BOD SETTLING	=	0.06 TO	0.07	per day
NBOD DECAY	=	0.00 TO	0.28	per day
NBOD SETTLING	=	0.06 TO	0.07	per day
TEMPERATURE	=	28.14 TO	31.59	deg C
DISSOLVED OXYGEN	=	0.83 TO	6.61	mg/L

```
     .....EXECUTION COMPLETED
```

Appendix B2 – Calibration Justification

Bayou Cane Calibration Justification			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	**VALUE**	**UNITS**	**DATA SOURCE**
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
INHIBITION CONTROL VALUE	3		The water column dissolved oxygen demand is assumed to come primarily from facultative bacteria under anoxic conditions and SOD is not influenced by modeled dissolved oxygen levels in the upper water column.
K2 MAXIMUM	10	1/day at 20 deg C	Model default.
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		Input settling in 1/day.
DISPERSION EQUATION	3		Equation used to account for all modes of transport.
ALGAE OXYGEN PROD	0.05	mg O/ug chl-a/day	Used to account for the net oxygen production per unit of chlorophyll-a
TIDE HEIGHT	0.236	m	Calculated from level monitor data.
TIDAL PERIOD	24.58	hours	Calculated from level monitor data.
PERIOD OF TIDAL RISE	11.625	hours	Calculated from level monitor data.
EFFECTIVE BOD DUE TO ALGAE	0		Used to model effects of algae

Bayou Cane Calibration Justification						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	**ID**	**Name**	**Upstream River Kilometer**	**Downstream River Kilometer**	**Element Length, meters**	**Data Source**
1	BC	RKM 3.6 to RKM 2.8	3.6	2.8	10	ARC MAP Calc.
2	BC	RKM 2.8 to RKM 1.9	2.8	1.9	10	Same as Reach 1
3	BC	RKM 1.9 to 1.5	1.9	1.5	10	Same as Reach 1
4	BC	RKM 1.5 to 1.1	1.5	1.1	10	Same as Reach 1
5	BC	RKM 1.1 to 0.3	1.1	0.3	10	Same as Reach 1
6	BC	RKM 0.3 to 0.0	0.3	0.0	10	Same as Reach 1

Bayou Cane Calibration Justification									
		Data Type 9 - Advective Hydraulic Coefficients							
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source
1	RKM 3.6 to RKM 2.8	0	0	4.877	3665	0	0	1.113	3665
2	RKM 2.8 to RKM 1.9	0	0	15.850	BC04 (3752)	0	0	1.085	BC04 (3752)
3	RKM 1.9 to 1.5	0	0	27.737	BC05 (3753)	0	0	1.189	BC05 (3753)
4	RKM 1.5 to 1.1	0	0	28.346	BC06 (3754)	0	0	1.021	BC06 (3754)
5	RKM 1.1 to 0.3	0	0	21.488	BC07 (3755)	0	0	1.210	BC07 (3755)
6	RKM 0.3 to 0.0	0	0	19.812	3666	0	0	1.156	3666

Bayou Cane Calibration Justification							
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS							
Reach	Tidal Range	Data Source	a	b	c	d	Data Source
1	0.95	Level monitor	60.00	0.833	0.0	1.0	"a" obtained from calibration. "b, c, and d" Tracor eqn.
2	0.95	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
3	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
4	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
5	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
6	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1

Bayou Cane Calibration Justification								
DATA TYPE 11-INITIAL CONDITIONS								
Reach	**Name**	**Temp, deg C**	**Sal, ppt**	**Data Source**	**DO, mg/l**	**Data Source**	**Chlorophyll a**	**Data Source**
1	RKM 3.6 to RKM 2.8	28.13	0.10	CONT MONT AVG (3665)	0.47	CONT MONT AVG (3665)	8.5	3665
2	RKM 2.8 to RKM 1.9	28.57	0.23	CONT MONT AVG (3752-BC04)	0.86	CONT MONT AVG (3752-BC04)	8.5	3665
3	RKM 1.9 to 1.5	29.98	1.15	CONT MONT AVG (3753-BC05)	1.79	CONT MONT AVG (3753-BC05)	33.6	BC05 (3753)
4	RKM 1.5 to 1.1	30.51	1.45	CONT MONT AVG (BC05, BC07)	2.66	CONT MONT AVG (BC05, BC07)	33.6	BC05 (3753)
5	RKM 1.1 to 0.3	31.04	1.76	CONT MONT AVG (3755-BC07)	3.52	CONT MONT AVG (3755-BC07)	28.5	3666
6	RKM 0.3 to 0.0	31.59	1.98	CONT MONT AVG (3666)	6.12	CONT MONT AVG (3666)	28.5	3666

Bayou Cane Calibration Justification

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS						
REACH	**NAME**	**K2 OPT**	**Data Source**	**BKGRND SOD, gmO2/m2/day at 20 deg C**	**Data Source**	**Aerobic BOD1 Dec Rate (1/day)**	**BOD1 SETT RATE (1/day)**	**Data Source**
1	RKM 3.6 to RKM 2.8	11	Texas Equation	3.50	Calibration	0.0440	0.05	Lab, Calibration
2	RKM 2.8 to RKM 1.9	11	Texas Equation	3.50	Same as Reach 1	0.0680	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	11	Texas Equation	3.00	Same as Reach 1	0.0570	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	11	Texas Equation	2.40	Same as Reach 1	0.0570	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	1	Mattingly equation-wind influence	1.90	Same as Reach 1	0.0570	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	1	Mattingly equation-wind influence	0.00	Same as Reach 1	0.0620	0.05	Same as Reach 1

Bayou Cane Calibration Justification					
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS					
Reach	**Name**	**NBOD decay rate, 1/day**	**Data Source**	**NBOD settling rate, 1/day**	**Data Source**
1	RKM 3.6 to RKM 2.8	0.20	Calibration	0.05	Calibration
2	RKM 2.8 to RKM 1.9	0.10	Same as Reach 1	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	0.10	Same as Reach 1	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	0.10	Same as Reach 1	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	0.10	Same as Reach 1	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	0.10	Same as Reach 1	0.05	Same as Reach 1

Bayou Cane Calibration Justification						
DATA TYPE 19 - NONPOINT SOURCE DATA						
Reach	**Reach Name**	**Length of Reach, km**	**UCBOD1, kg/day**	**UCBOD2, kg/day**	**NBOD, kg/day**	**Data Source**
1	RKM 3.6 to RKM 2.8	0.80	5.00		1.80	Calibration
2	RKM 2.8 to RKM 1.9	0.90	24.00		4.00	Same as Reach 1
3	RKM 1.9 to 1.5	0.40	26.00		7.30	Same as Reach 1
4	RKM 1.5 to 1.1	0.40	28.00		8.00	Same as Reach 1
5	RKM 1.1 to 0.3	0.80	55.00		16.50	Same as Reach 1
6	RKM 0.3 to 0.0	0.30	47.00		28.00	Same as Reach 1

Bayou Cane Calibration Justification								
DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	**Element No.**	**Headwater Flow, cms**	**Data Source**	**Temp, deg C**	**Salinity**	**Conductivity**	**Chlorides**	**Data Source**
Headwater 1	1	0.0008	Site 3665		0.1	215.38	21.50	SALINITY - CONT MONT AVG (3665) CHLORIDE - LAB DATA (3665) CONDUCTIVITY - CONT MONT AVG (3665)

Bayou Cane Calibration Justification					
DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN					
Headwater Name	**Dissolved Oxygen, mg/L**	**UCBOD1, mg/l**	**UCBOD2, mg/l**	**NBOD, mg/l**	**Data Source**
Headwater 1	0.47	13.528		2.315	DO - CONT MONT AVG (3665) BOD1 AND NBOD - (3665)

Bayou Cane Calibration Justification								
	DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	EL #	Flow, cms	Data Source	Temperature, deg C	Salinity	Conductivity	Chlorides	Data Source
Southeast Louisiana State Hospital, AI 9371	18	0.0037	Facility personnel during survey		0.22	458.0	22.5	Lab and insitu

Bayou Cane Calibration Justification							
DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN							
Wasteload / Withdrawal Name	EL #	DO, mg/l	Data Source	UCBOD1, mg/l	UCBOD2, mg/l	UNBOD, mg/l	Data Source
Southeast Louisiana State Hospital, AI 9371	18	8.09	Measured during survey	3.7250		0.9840	Lab data

Bayou Cane Calibration Justification			
DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	**Value**	**Units**	**Data Source**
TEMPERATURE	31.1800	^{O}C	BC09 (3756) Cont Mont
SALINITY	2.0300	ppt	BC09 (3756) Cont Mont
CHLORIDES	1097.0000	mg/L	BC09 (3756) Lab
CONDUCTIVITY	3724.9400	umhos/cm	BC09 (3756) Cont Mont
DISSOLVED OXYGEN	6.6100	mg/L	BC09 (3756) Cont Mont
CBOD1	10.6260	mg/L	BC09 (3756) Lab
CHLOROPHYLL A	28.5000	ug/L	3666 Lab
NBOD	2.9100	mg/L	BC09 (3756) Lab

Appendix B3 - Wind-aided Reaeration Calculations

CALIBRATION WIND-AIDED REAERATION CALCULATIONS								
REACH	AVG DEPTH (D)	AVG VELOCITY (V)	$K2_{20}$=TEXAS EQUATION	$K2_{20}$=0.7/D	MAX $K2_{20}$	V_W (10 m)	V_{WS} (0.3 m)	WIND-AIDED $K2_{20}$
	(m)	(m/s)	(1/d)	(1/d)	(1/d)	m/s	(m/s)	(1/d)
1								
2								
3								
4								
5	1.21	0.0096	0.456	0.579	0.579	1.80	1.09	0.738
6	1.156	0.0136	0.522	0.606	0.606	1.80	1.09	0.773

Wind Data				
Station	Date	knots	mi/hr	m/s
Slidell	6/16/2008	2.5	2.877	1.286
	6/17/2008	1.7	1.956	0.875
	6/18/2008	2.1	2.417	1.080
	6/19/2008	2.7	3.107	1.389
	6/20/2008	2.8	3.222	1.440
			avg=	1.214
Turtle Cove	6/16/2008		4.8	2.146
	6/17/2008		5.3	2.369
	6/18/2008		4.8	2.146
	6/19/2008		6.8	3.040
	6/20/2008		5	2.235
			avg=	2.387
Average of the two stations=		1.801	m/s	

Sources:

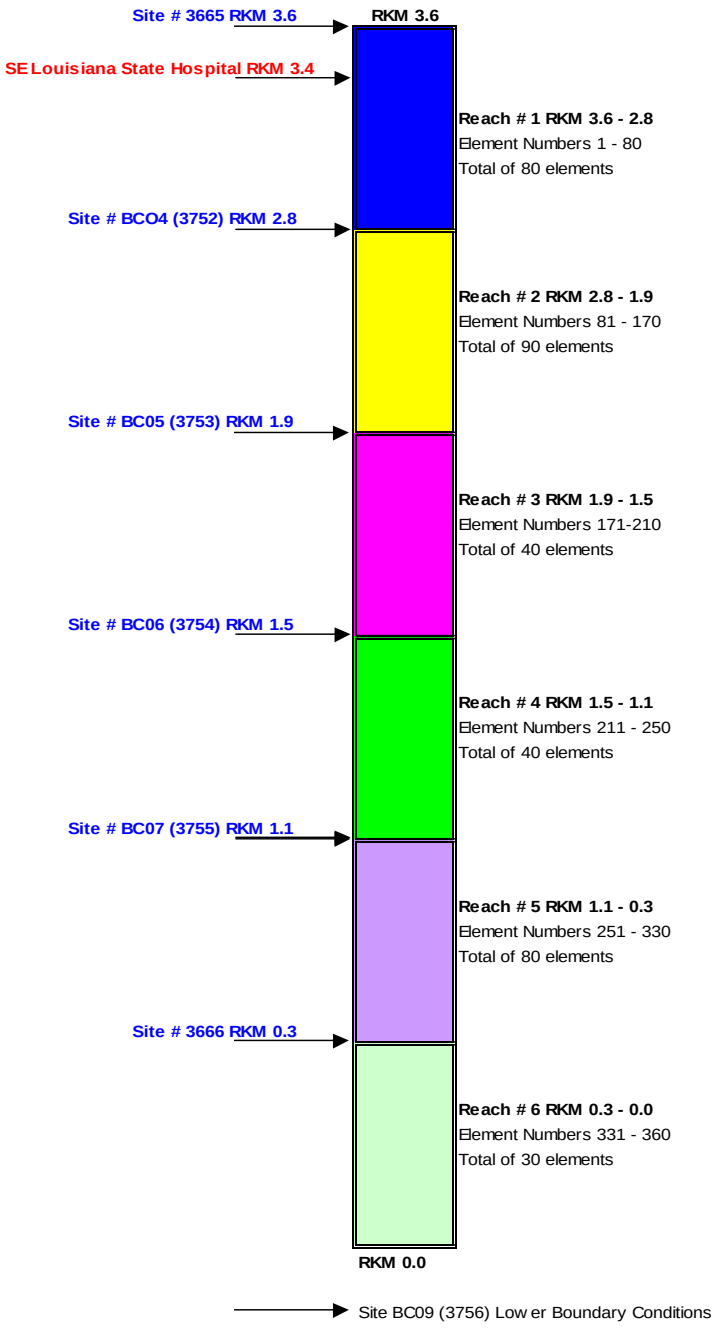
Slidell: http://www.losc.lsu.edu/products/climate/asd/jun_2008.html

Turtle Cove:
http://www2.lsuagcenter.com/weather/midnight2.asp?StationID=21&SMonth=06&SYear=2008&SDay=16&EDay=20&EMonth=06&EYear=2008

Appendix C - Calibration Model Development

Appendix C1 – Vector Diagram

Bayou Cane Model Layout
Subsegments 040903 and 040904
RKM 3.6 to RKM 0.0



Survey Site Descriptions

(3665) Most upstream site. Just above Southeast Louisiana State Hospital discharge point.
(3752) Bayou Cane just above Highway 190 4.1 miles southeast of Mandeville, 3.9 miles northwest of Lacombe
(3753) Bayou Cane below Highway 190 3.8 miles southeast of Mandeville, 4.3 miles northwest of Lacombe, 1.0 miles southwest of Big Branch
(3754) Dye Dump
(3755) Bayou Cane north of Lake Pontchartrain 4.3 miles northwest of Lacombe, 1.3 miles southwest of Big Branch, 3.7 miles southeast of Mandeville
(3666) Most downstream site on Bayou Cane. Just above Lake Pontchartrain.
(3756) Lake Pontchartrain about 150 yards south of the mouth of Bayou Cane 3.9 miles southeast of Mandeville, 4.6 miles west of Lacombe, 1.9 miles southwest of Big Branch

Appendix C2 – Calibration Loading

Calibration Model Non-Point Load Equivalent Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040903)**

Shaded cells are input values for calculations. If modeling the nitrogen series, be sure that column 'T" is clear of all values.

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	Calibration Model UCBOD1 Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model UNBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model UCBOD1 Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model SOD	Calibration Model TOTAL Benthic Load
	km	meters	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]
Reach 1 - Site 3665 to 3752-BC04	0.80	4.877	5.00	5.00	1.80	1.80	1.282	1.282	0.461	3.50	**5.24**

Calibration Model Non-Point Load Equivalent Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040904)**

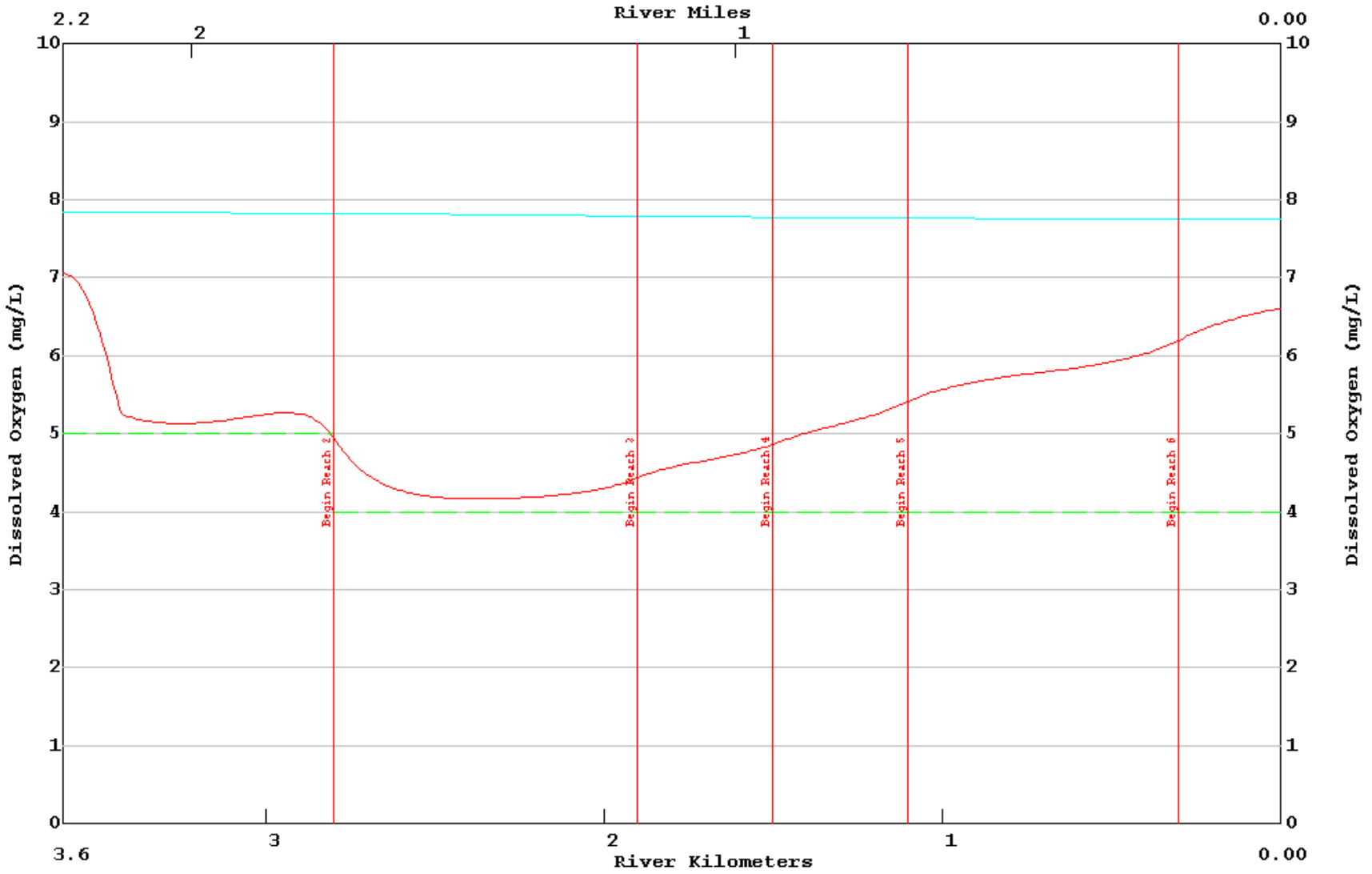
Shaded cells are input values for calculations. If modeling the nitrogen series, be sure that column "T" is clear of all values.

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length	Calibration Model Average Reach Width	Calibration Model UCBOD1 Nonpoint loading	Calibration Model UCBOD2 Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model UNBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model UCBOD1 Nonpoint loading	Calibration Model Total UCBOD Nonpoint loading	Calibration Model Total UNBOD Nonpoint loading	Calibration Model SOD	Calibration Model TOTAL Benthic Load
	km	meters	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]
Reach 2 - Site 3752-BC04 to 3753-BC05	0.90	15.850	24.00	0.00	24.00	4.00	4.00	1.682	1.682	0.280	3.50	**5.46**
Reach 3 - Site 3753-BC05 to 3754-BC06	0.40	27.737	26.00	0.00	26.00	7.30	7.30	2.343	2.343	0.658	3.00	**6.00**
Reach 4 - Site 3754-BC06 to 3755-BC07	0.40	28.346	28.00	0.00	28.00	8.00	8.00	2.469	2.469	0.706	2.40	**5.58**
Reach 5 - Site 3755-BC07 to 3666	0.80	21.488	55.00	0.00	55.00	16.50	16.50	3.199	3.199	0.960	1.90	**6.06**
Reach 6 - Site 3666 to Lake Pontchartrain	0.30	19.812	47.00	0.00	47.00	28.00	28.00	7.908	7.908	4.711	0.00	**12.62**

Appendix D – Projection Model Input, Output, and Input Sources

Appendix D1 –Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6 -- DO Graph, Input, and Output for Subsegments 040903 & 040904

LA-QUAL Version 8.11 Run at 13:28 on 04/20/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\pro
SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2 min= 4.16 max= 7.06
:MAIN STEM



BAYOU CANE, SUMMER, 90% OVERALL REDUCTION IN REACH 1, 60% OVERALL REDUCTION IN REACHES 2-6, INPUT DATA SET

```
TITLE01      BAYOU CANE WATERSHED MODEL
TITLE02      SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2
CONTROL  YES METRIC UNITS
ENDATA01
MODOPT01  NO TEMPERATURE
MODOPT02  NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06  NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10  NO PHOSPHORUS
MODOPT11  NO CHLOROPHYLL A
MODOPT12  NO MACROPHYTES
MODOPT13  NO COLIFORM
ENDATA02
PROGRAM  DISPERSION EQUATION               =   3.
PROGRAM  OCEAN EXCHANGE RATIO              =   1.0
PROGRAM  TIDE HEIGHT                       =   0.236
PROGRAM  TIDAL PERIOD                      =   24.58
PROGRAM  PERIOD OF TIDAL RISE              =   11.625
PROGRAM  KL MINIMUM                        =   0.7
PROGRAM  INHIBITION CONTROL VALUE          =   3.
PROGRAM  EFFECTIVE BOD DUE TO ALGAE        =   0.0
PROGRAM  ALGAE OXYGEN PROD                 =   0.05
PROGRAM  K2 MAXIMUM                        =   10.0
PROGRAM  HYDRAULIC CALCULATION METHOD      =   2.
PROGRAM  SETTLING RATE UNITS               =   2.
ENDATA03
!Temperature Correction Constants
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ******** ********
ENDATA04
ENDATA05
ENDATA06
```

```
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------**********----------
!          R#  ID   REACH NAME                          RKM       RKM    LENGTH
REACH ID    1  BC RKM 3.6 to 2.8                       3.6       2.8      0.01
REACH ID    2  BC RKM 2.8 to 1.9                       2.8       1.9      0.01
REACH ID    3  BC RKM 1.9 to 1.5                       1.9       1.5      0.01
REACH ID    4  BC RKM 1.5 to 1.1                       1.5       1.1      0.01
REACH ID    5  BC RKM 1.1 to 0.3                       1.1       0.3      0.01
REACH ID    6  BC RKM 0.3 to 0.0                       0.3       0.0      0.01
ENDATA08
!Advective Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******-------*******
!                 a       b       c     d       e        f
!               WIDTH   WIDTH    WIDTH DEPTH   DEPTH    DEPTH
!          R#   COEFF    EXP     CONST COEFF    EXP     CONST SLOPE MANNING
! Reach 1 - 3665
HYDR-1      1   0.00    0.00     4.877 0.00    0.00     1.113
!
! Reach 2 - BC04 (3752)
HYDR-1      2   0.00    0.00    15.85  0.00    0.00     1.085
!
! Reach 3 - BC05 (3753)
HYDR-1      3   0.00    0.00    27.737 0.00    0.00     1.189
!
! Reach 4 - BC06 (3754)
HYDR-1      4   0.00    0.00    28.346 0.00    0.00     1.021
!
! Reach 5 - BC07 (3755)
HYDR-1      5   0.00    0.00    21.488 0.00    0.00     1.21
!
! Reach 6 - 3666
HYDR-1      6   0.00    0.00    19.812 0.00    0.00     1.156
ENDATA09
!Dispersive Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
```

```
!To take into consideration all modes of transport, equation 3 (E=aD^bQ^cVm^d ) in Laqual was used.
!Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and
QUAL2E equations.
!The value for coefficient "a" was varied during calibration until the measured dispersion value was obtained.
!          R#  RANGE    a          b         c         d
!         ***  ---------------------------------------
HYDR-2      1  0.95     60.0     0.833     0.0       1.0
HYDR-2      2  0.95     60.0     0.833     0.0       1.0
HYDR-2      3  0.93     60.0     0.833     0.0       1.0
HYDR-2      4  0.93     60.0     0.833     0.0       1.0
HYDR-2      5  1.00     60.0     0.833     0.0       1.0
HYDR-2      6  1.00     60.0     0.833     0.0       1.0
ENDATA10
!Initial Conditions
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!          ***  --------********--------********--------********--------********
!           R#    TEMP  SALINITY   DO     NH3 N  NIT NIT  PHOS   CHL A   MACROPHYTES
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3665)
!DO - Criterion for subsegment 040903
!Chlorophyll A - Best professional judgement
INITIAL     1    27.91    0.10   5.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3752-BC04)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     2    27.91    0.23   4.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3753-BC05)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     3    27.91    1.15   4.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (BC05, BC07)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     4    27.91    1.45   4.00                              10.0
```

```
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3755-BC07)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     5    27.91    1.76   4.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3666)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     6    27.91    1.98   4.00                              10.0
ENDATA11
!Reaeration, Sediment Oxygen Demand and BOD Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8---------9
!23456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -----*****----- *****------******------******------******------******-------***
!               REA                           BOD 1  BOD 1   BOD 1       BOD 2    BOD 2
!          R#   EQ   "a"                 SOD  DECAY  SETT    CONV        DECAY    SETT
!Texas Equation used for reaches 1-4.
!Mattingly equation was used for reaches 5 & 6 to account for wind reaeration.
!Settling rates determined through calibration.  Decay rates from lab.
!CB0D1 DECAY (3665)
COEF-1      1   11.0                   0.438  0.0440 0.05
!
!CB0D1 DECAY (3752-BC04)
COEF-1      2   11.0                   1.750  0.0680 0.05
!
!CB0D1 DECAY (3753-BC05)
COEF-1      3   11.0                   1.500  0.0570 0.05
!
!CB0D1 DECAY - Avg (3753-BC05, 3755-BC07)
COEF-1      4   11.0                   1.200  0.0570 0.05
!
!CB0D1 DECAY (3755-BC07)
COEF-1      5   1.0  0.738             0.950  0.0570 0.05
!
!CB0D1 DECAY (3666)
COEF-1      6   1.0  0.773             0.000  0.0620 0.05
ENDATA12
!Nitrogen and Phosphorus Coefficients
```

```
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********-------********-------********-------
!              NBOD     NBOD
!           R#  DECAY    SETT
!Settling rates determined through calibration.  Began with decay rates from lab but adjusted
!them during calibration.
!NBOD Decay (3665)
COEF-2      1  0.200    0.05
!
!NBOD Decay (3752-BC04)
COEF-2      2  0.100    0.05
!
!NBOD Decay (3753-BC05)
COEF-2      3  0.100    0.05
!
!NBOD Decay - Avg (3753-BC05, 3755-BC07)
COEF-2      4  0.100    0.05
!
!NBOD Decay (3755-BC07)
COEF-2      5  0.100    0.05
!
!NBOD Decay (3666)
COEF-2      6  0.100    0.05
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********-------********
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
!           R#   OUTFLOW   INFLOW  TEMP     SALINITY CHLORIDE  COND
!
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
```

```
!         ***  ---------*********----------*********----------**********
!          R#       DO      BOD 1      NBOD     NH3 N    NIT NIT     BOD 2
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********----------*********
!          R#    PHOSPH     CHL A    COLIFORM NONCONSERVATIVE
!
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********----------*********----------**********
!          R#     BOD 1     NBOD    COLIFORM NONCONS     DO       BOD 2
NONPOINT    1     0.625     0.225
NONPOINT    2    12.000     2.000
NONPOINT    3    13.000     3.650
NONPOINT    4    14.000     4.000
NONPOINT    5    27.500     8.250
NONPOINT    6    23.500    14.000
ENDATA19
!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********---------
!         E#    NAME                        FLOW     TEMP   SALIN    CHLORIDE    COND
!Flow - Summer LTP default
!Salinity - Cont Mont (3665)
!Chloride - Lab Data (3665)
!Conductivity - Cont Mont (3665)
HDWTR-1     1  HEADWATER                  0.0028          0.10     21.5     215.38
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ----------*********----------*********----------**********
!          E#       DO      BOD 1     NBOD     NH3-N    NIT NIT   BOD 2
!DO - 90% saturation at water quality monitoring site 0302 at 90 percentile
!seasonal temperature
!BOD1 and NBOD - 90% overall reduction
```

```
HDWTR-2     1      7.06    1.69    0.29
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR   CHL A   COLIFORM  NONCONSERVATIVE
ENDATA22
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********---------*********
!          E#     NAME               FLOW      TEMP   SALINITY CHLORIDE  COND
!Southeast Louisiana State Hospital AI# 9371
!Flow - Design capacity/expected flow (0.28 MGD)from permit plus 20% MOS
!Salinity from insitu during survey. Chloride and conductivity from lab data
!during survey
WSTLD-1    18  SE LA State Hospital  0.0153               0.22    22.5    458
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********-----*********----------*****---------*********
!          E#       DO    BOD 1         NBOD    NH3-N          NIT NIT  BOD 2
!Southeast Louisiana State Hospital AI# 9371.  Facility has post-aeration.
!Limits of 5/2. UCBOD=CBOD5*2.3.  UNBOD=NH3-N*4.3
WSTLD-2    18      5.00   11.500        8.600
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR  CHL A    COLIFORM NONCONSERVATIVE
ENDATA26
!Lower Boundary Conditions
!
!90th percentile temp for water quality monitoring site 0302
LOWER BC TEMPERATURE                        =  27.91
!
!Site 3756-BC09 Cont Mont
```

```
LOWER BC SALINITY                           =   2.03
!
!Site 3756-BC09 Lab
LOWER BC CONSERVATIVE MATERIAL I (CHLORIDES)=  1097
!
!Site 3756-BC09 Cont Mont
LOWER BC CONSERVATIVE MATERIAL II (COND)    = 3724.94
!
!Site 3756-BC09 Cont Mont
LOWER BC DISSOLVED OXYGEN                   =   6.61
!
!Site 3756-BC09 Lab
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =  10.626
!
!Best professional judgement
LOWER BC CHLOROPHYLL A                      =   10.0
!
!Site 3756-BC09 Lab
LOWER BC NBOD                               =   2.91
ENDATA27
!Dam Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ****  ******************** ** ******** ******** ********
ENDATA28
SENSITIV BASEFLOW   30    -30
SENSITIV VELOCITY   30    -30
SENSITIV DEPTH      30    -30
SENSITIV DISPERSI   30    -30
SENSITIV REAERATI   30    -30
SENSITIV BOD DECA   30    -30
SENSITIV BOD SETT   30    -30
SENSITIV TRANGE     30    -30
SENSITIV NBOD DEC   30    -30
SENSITIV NBOD SET   30    -30
SENSITIV BENTHAL    30    -30
SENSITIV TEMPERAT    2     -2
SENSITIV SALINITY   30    -30
SENSITIV CHLOR A    30    -30
SENSITIV HDW FLOW   30    -30
SENSITIV HDW DO     30    -30
```

```
SENSITIV HDW BOD    30    -30
SENSITIV HDW NBOD   30    -30
SENSITIV WSL FLOW   30    -30
SENSITIV WSL DO     30    -30
SENSITIV WSL BOD    30    -30
SENSITIV WSL NBOD   30    -30
SENSITIV OXR        30    -30
SENSITIV LBC TEMP    2     -2
SENSITIV LBC DO     30    -30
SENSITIV LBC BOD    30    -30
SENSITIV LBC NBOD   30    -30
SENSITIV NPS BOD    30    -30
SENSITIV NPS NBOD   30    -30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =   6                          INCREMENT =  0.1
PLOT RCH  1  2  3  4  5  6
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
ENDATA30
OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31
```

BAYOU CANE, SUMMER, 90% OVERALL REDUCTION IN REACH 1, 60% OVERALL REDUCTION IN REACHES 2-6, OUTPUT

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\projections\current criteria\overall reduc cane summer 4, 5 DO, 90% reduc rch
1,60% others, hosp 5 2.txt
Output produced at 15:36 on 04/20/2010

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

CARD TYPE       CONTROL TITLES

TITLE01         BAYOU CANE WATERSHED MODEL
TITLE02         SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2
CONTROL   YES   METRIC UNITS
ENDATA01
```

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

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03  YES   CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04  YES   CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08  YES   NBOD OXYGEN DEMAND
MODOPT10   NO   PHOSPHORUS
MODOPT11   NO   CHLOROPHYLL A
MODOPT12   NO   MACROPHYTES
MODOPT13   NO   COLIFORM
ENDATA02

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

PROGRAM         DISPERSION EQUATION               =         3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM         OCEAN EXCHANGE RATIO              =         1.00000
PROGRAM         TIDE HEIGHT                       =         0.23600 meters
PROGRAM         TIDAL PERIOD                      =        24.58000 hours
PROGRAM         PERIOD OF TIDAL RISE              =        11.62500 hours
PROGRAM         KL MINIMUM                        =         0.70000 meters/day
PROGRAM         INHIBITION CONTROL VALUE          =         3.00000 (inhibit all rates but SOD)
PROGRAM         EFFECTIVE BOD DUE TO ALGAE        =         0.00000 mg/L BOD per ug/L chl a
PROGRAM         ALGAE OXYGEN PROD                 =         0.05000 mg O/ug chl a/day
PROGRAM         K2 MAXIMUM                        =        10.00000 per day
PROGRAM         HYDRAULIC CALCULATION METHOD      =         2.00000 (widths and depths)
PROGRAM         SETTLING RATE UNITS               =         2.00000 (values entered as per day)
ENDATA03

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE
```

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BC	RKM 3.6 to 2.8	3.60	TO	2.80	0.0100	0.80	80	1	80
REACH ID	2	BC	RKM 2.8 to 1.9	2.80	TO	1.90	0.0100	0.90	90	81	170
REACH ID	3	BC	RKM 1.9 to 1.5	1.90	TO	1.50	0.0100	0.40	40	171	210
REACH ID	4	BC	RKM 1.5 to 1.1	1.50	TO	1.10	0.0100	0.40	40	211	250
REACH ID	5	BC	RKM 1.1 to 0.3	1.10	TO	0.30	0.0100	0.80	80	251	330
REACH ID	6	BC	RKM 0.3 to 0.0	0.30	TO	0.00	0.0100	0.30	30	331	360

ENDATA08

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

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	BC	0.000	0.000	4.877	0.000	0.000	1.113	0.00000	0.000
HYDR-1	2	BC	0.000	0.000	15.850	0.000	0.000	1.085	0.00000	0.000
HYDR-1	3	BC	0.000	0.000	27.737	0.000	0.000	1.189	0.00000	0.000
HYDR-1	4	BC	0.000	0.000	28.346	0.000	0.000	1.021	0.00000	0.000
HYDR-1	5	BC	0.000	0.000	21.488	0.000	0.000	1.210	0.00000	0.000
HYDR-1	6	BC	0.000	0.000	19.812	0.000	0.000	1.156	0.00000	0.000

ENDATA09

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

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	BC	0.95	60.000	0.833	0.000	1.000
HYDR	2	BC	0.95	60.000	0.833	0.000	1.000
HYDR	3	BC	0.93	60.000	0.833	0.000	1.000
HYDR	4	BC	0.93	60.000	0.833	0.000	1.000
HYDR	5	BC	1.00	60.000	0.833	0.000	1.000
HYDR	6	BC	1.00	60.000	0.833	0.000	1.000

ENDATA10

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

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BC	27.91	0.10	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	2	BC	27.91	0.23	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	3	BC	27.91	1.15	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	4	BC	27.91	1.45	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	5	BC	27.91	1.76	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	6	BC	27.91	1.98	4.00	0.00	0.00	0.00	10.00	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day

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COEF-1     1   BC  11 TEXAS            0.000     0.000     0.000     0.438     0.044     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     2   BC  11 TEXAS            0.000     0.000     0.000     1.750     0.068     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     3   BC  11 TEXAS            0.000     0.000     0.000     1.500     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     4   BC  11 TEXAS            0.000     0.000     0.000     1.200     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     5   BC   1 K2=a             0.738     0.000     0.000     0.950     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     6   BC   1 K2=a             0.773     0.000     0.000     0.000     0.062     0.050     0.000     0.000     0.000     0.000     0.000     0.000
ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE      REACH  ID        NBOD      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      RATE

COEF-2           1   BC       0.200     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           2   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           3   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           4   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           5   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           6   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE      REACH  ID       SECCHI    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD      GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                            DIE-OFF     DECAY      SETT     TO SOD

ENDATA15

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

CARD TYPE      REACH  ID       OUTFLOW      INFLOW      TEMP     SALIN      CM-I     CM-II   IN/DIST  OUT/DIST

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                         BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT         1   BC        0.62     0.22      0.00      0.00      0.00      0.00
NONPOINT         2   BC       12.00     2.00      0.00      0.00      0.00      0.00
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NONPOINT          3   BC       13.00      3.65      0.00      0.00      0.00      0.00
NONPOINT          4   BC       14.00      4.00      0.00      0.00      0.00      0.00
NONPOINT          5   BC       27.50      8.25      0.00      0.00      0.00      0.00
NONPOINT          6   BC       23.50     14.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                  UNIT     FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                        m³/s      cfs   deg C      ppt      mg/L  umhos/cm

HDWTR-1           1     HEADWATER               0   0.00280    0.099    0.00     0.10    21.500   215.380   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                         DO     BOD#1     NBOD                          BOD#2
                                                    mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     HEADWATER                  7.06      1.69      0.29      0.00      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                       PHOS     CHL A      COLI       NCM
                                                    mg/L      mg/L      mg/L      mg/L

ENDATA22

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

CARD TYPE  ELEMENT    RKILO  NAME                     FLOW       FLOW      FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s       cfs       MGD   deg C      ppt      mg/L  umhos/cm

WSTLD-1       18       3.43  SE LA State Hospital   0.01530    0.54025    0.349    0.00     0.22    22.500   458.000
ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                 % BOD                          %
CARD TYPE     ELEMENT   NAME                       DO       BOD      RMVL     NBOD              NITRIF              BOD#2
                                                  mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2          18     SE LA State Hospital       5.00     11.50      0.00      8.60      0.00      0.00      0.00      0.00
ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                     PHOS     CHL A      COLI       NCM
                                                  mg/L      mg/L      mg/L      mg/L

ENDATA26
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$$$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) $$$

CARD TYPE    CONSTITUENT                     CONCENTRATION

LOWER BC     TEMPERATURE                        =     27.910     deg C
LOWER BC     SALINITY                           =      2.030     ppt
LOWER BC     CONSERVATIVE MATERIAL I (CHLORIDES)=   1097.000     mg/L
LOWER BC     CONSERVATIVE MATERIAL II (COND)    =   3724.940     umhos/cm
LOWER BC     DISSOLVED OXYGEN                   =      6.610     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND     =     10.626     mg/L
LOWER BC     CHLOROPHYLL A                      =     10.000     µg/L
LOWER BC     NBOD                               =      2.910     mg/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

SENSITIV         BASEFLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         VELOCITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DEPTH         30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DISPERSI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         REAERATI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD DECA      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD SETT      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TRANGE        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD DEC      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD SET      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BENTHAL       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TEMPERAT       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         SALINITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         CHLOR A       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         OXR           30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC TEMP       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
ENDATA29

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


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

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


OVERLAY 1 bayoucaneovl.txt                :MAIN STEM
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   5 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED


FINAL REPORT    HEADWATER                                   BAYOU CANE WATERSHED MODEL
REACH NO.  1    RKM 3.6 to 2.8                              SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2
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********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.00280	0.00	0.10	21.50	215.38	7.06	1.69	0.00	1.69	0.00	0.29	0.00	0.00	0.00	10.00	0.00	0.00
18	WSTLD	0.01530	0.00	0.22	22.50	458.00	5.00	11.50	0.00	11.50	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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	3.60	3.59	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	10.93	0.000	0.034	0.001
2	3.59	3.58	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	21.87	0.000	0.034	0.001
3	3.58	3.57	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	32.80	0.000	0.034	0.001
4	3.57	3.56	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	43.74	0.000	0.034	0.001
5	3.56	3.55	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	54.67	0.000	0.034	0.001
6	3.55	3.54	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	65.61	0.000	0.034	0.001
7	3.54	3.53	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	76.54	0.000	0.034	0.001
8	3.53	3.52	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	87.47	0.000	0.035	0.001
9	3.52	3.51	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	98.41	0.000	0.037	0.001
10	3.51	3.50	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	109.34	0.000	0.039	0.001
11	3.50	3.49	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	120.28	0.001	0.041	0.001
12	3.49	3.48	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	131.21	0.001	0.044	0.001
13	3.48	3.47	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	142.15	0.001	0.046	0.001
14	3.47	3.46	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	153.08	0.001	0.049	0.001
15	3.46	3.45	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	164.01	0.001	0.051	0.001
16	3.45	3.44	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	174.95	0.001	0.054	0.001
17	3.44	3.43	0.00280	0.0	0.00052	0.22	1.11	4.88	54.28	48.77	5.43	185.88	0.001	0.057	0.001
18	3.43	3.42	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	196.82	0.001	0.219	0.003
19	3.42	3.41	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	207.75	0.001	0.219	0.003
20	3.41	3.40	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	218.68	0.001	0.219	0.003
21	3.40	3.39	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	229.62	0.001	0.219	0.003

22	3.39	3.38	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	240.55	0.001	0.219	0.003
23	3.38	3.37	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	251.49	0.001	0.219	0.003
24	3.37	3.36	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	262.42	0.001	0.219	0.003
25	3.36	3.35	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	273.36	0.001	0.219	0.003
26	3.35	3.34	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	284.29	0.001	0.219	0.003
27	3.34	3.33	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	295.22	0.001	0.219	0.003
28	3.33	3.32	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	306.16	0.001	0.219	0.003
29	3.32	3.31	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	317.09	0.001	0.219	0.003
30	3.31	3.30	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	328.03	0.001	0.219	0.003
31	3.30	3.29	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	338.96	0.001	0.219	0.003
32	3.29	3.28	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	349.90	0.001	0.219	0.003
33	3.28	3.27	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	360.83	0.002	0.219	0.003
34	3.27	3.26	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	371.76	0.002	0.219	0.003
35	3.26	3.25	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	382.70	0.002	0.219	0.003
36	3.25	3.24	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	393.63	0.002	0.219	0.003
37	3.24	3.23	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	404.57	0.002	0.219	0.003
38	3.23	3.22	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	415.50	0.002	0.219	0.003
39	3.22	3.21	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	426.44	0.002	0.219	0.003
40	3.21	3.20	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	437.37	0.002	0.219	0.003
41	3.20	3.19	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	448.30	0.002	0.219	0.003
42	3.19	3.18	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	459.24	0.002	0.219	0.003
43	3.18	3.17	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	470.17	0.002	0.219	0.003
44	3.17	3.16	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	481.11	0.002	0.219	0.003
45	3.16	3.15	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	492.04	0.002	0.219	0.003
46	3.15	3.14	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	502.97	0.002	0.220	0.003
47	3.14	3.13	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	513.91	0.002	0.221	0.003
48	3.13	3.12	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	524.84	0.002	0.222	0.003
49	3.12	3.11	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	535.78	0.002	0.223	0.003
50	3.11	3.10	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	546.71	0.002	0.224	0.003
51	3.10	3.09	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	557.65	0.002	0.226	0.003
52	3.09	3.08	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	568.58	0.002	0.227	0.003
53	3.08	3.07	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	579.51	0.002	0.229	0.003
54	3.07	3.06	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	590.45	0.002	0.231	0.004
55	3.06	3.05	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	601.38	0.003	0.233	0.004
56	3.05	3.04	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	612.32	0.003	0.234	0.004
57	3.04	3.03	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	623.25	0.003	0.236	0.004
58	3.03	3.02	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	634.19	0.003	0.238	0.004
59	3.02	3.01	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	645.12	0.003	0.240	0.004
60	3.01	3.00	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	656.05	0.003	0.242	0.004
61	3.00	2.99	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	666.99	0.003	0.244	0.004
62	2.99	2.98	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	677.92	0.003	0.246	0.004
63	2.98	2.97	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	688.86	0.003	0.248	0.004
64	2.97	2.96	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	699.79	0.003	0.251	0.004
65	2.96	2.95	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	710.72	0.003	0.253	0.004
66	2.95	2.94	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	721.66	0.003	0.255	0.004
67	2.94	2.93	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	732.59	0.003	0.257	0.004
68	2.93	2.92	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	743.53	0.003	0.259	0.004
69	2.92	2.91	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	754.46	0.003	0.262	0.004
70	2.91	2.90	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	765.40	0.003	0.264	0.004
71	2.90	2.89	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	776.33	0.003	0.266	0.004
72	2.89	2.88	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	787.26	0.003	0.269	0.004
73	2.88	2.87	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	798.20	0.003	0.271	0.004
74	2.87	2.86	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	809.13	0.003	0.273	0.004
75	2.86	2.85	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	820.07	0.003	0.276	0.004
76	2.85	2.84	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	831.00	0.003	0.278	0.004
77	2.84	2.83	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	841.94	0.004	0.281	0.004
78	2.83	2.82	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	852.87	0.004	0.283	0.004
79	2.82	2.81	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	863.80	0.004	0.286	0.004
80	2.81	2.80	0.01810	84.5	0.00333	0.03	1.11	4.88	54.28	48.77	5.43	874.74	0.004	0.288	0.004

TOT							6.00						4342.48		3901.60								
AVG						0.0015			1.11		4.88								5.43				
CUM							6.00																

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	3.590	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
2	3.580	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
3	3.570	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
4	3.560	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
5	3.550	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
6	3.540	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
7	3.530	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
8	3.520	7.84	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
9	3.510	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
10	3.500	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
11	3.490	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.33	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
12	3.480	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
13	3.470	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
14	3.460	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
15	3.450	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
16	3.440	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
17	3.430	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.32	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
18	3.420	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
19	3.410	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
20	3.400	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
21	3.390	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
22	3.380	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
23	3.370	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
24	3.360	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
25	3.350	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
26	3.340	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
27	3.330	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
28	3.320	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
29	3.310	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
30	3.300	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
31	3.290	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
32	3.280	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
33	3.270	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
34	3.260	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
35	3.250	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
36	3.240	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
37	3.230	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
38	3.220	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
39	3.210	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
40	3.200	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
41	3.190	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
42	3.180	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
43	3.170	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
44	3.160	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
45	3.150	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
46	3.140	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
47	3.130	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

48	3.120	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
49	3.110	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
50	3.100	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
51	3.090	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
52	3.080	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
53	3.070	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
54	3.060	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
55	3.050	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
56	3.040	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
57	3.030	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
58	3.020	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
59	3.010	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
60	3.000	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
61	2.990	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
62	2.980	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
63	2.970	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
64	2.960	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
65	2.950	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
66	2.940	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
67	2.930	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
68	2.920	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
69	2.910	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
70	2.900	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
71	2.890	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
72	2.880	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
73	2.870	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
74	2.860	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
75	2.850	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
76	2.840	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
77	2.830	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
78	2.820	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
79	2.810	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
80	2.800	7.83	0.73	0.06	0.06	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.31	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.63	0.04	0.05	0.00	0.00	0.00	0.00	0.44			0.20	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	3.590	27.91	0.10	21.61	242.67	7.04	2.44	0.00	2.44	0.00	0.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
2	3.580	27.91	0.10	21.63	246.83	7.02	2.56	0.00	2.56	0.00	0.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	3.570	27.91	0.10	21.65	251.63	7.00	2.71	0.00	2.71	0.00	0.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	3.560	27.91	0.11	21.67	257.15	6.96	2.88	0.00	2.88	0.00	0.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	3.550	27.91	0.11	21.70	263.52	6.91	3.09	0.00	3.09	0.00	1.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	3.540	27.91	0.11	21.73	270.86	6.85	3.33	0.00	3.33	0.00	1.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
7	3.530	27.91	0.11	21.76	279.31	6.76	3.62	0.00	3.62	0.00	1.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	3.520	27.91	0.11	21.80	288.86	6.67	3.97	0.00	3.97	0.00	1.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
9	3.510	27.91	0.11	21.85	299.39	6.55	4.35	0.00	4.35	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	3.500	27.91	0.12	21.89	310.81	6.43	4.78	0.00	4.78	0.00	2.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
11	3.490	27.91	0.12	21.94	323.09	6.29	5.26	0.00	5.26	0.00	2.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	3.480	27.91	0.12	22.00	336.18	6.14	5.78	0.00	5.78	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	3.470	27.91	0.12	22.06	350.06	5.98	6.35	0.00	6.35	0.00	3.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	3.460	27.91	0.12	22.12	364.71	5.82	6.97	0.00	6.97	0.00	3.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	3.450	27.91	0.12	22.18	380.10	5.65	7.63	0.00	7.63	0.00	4.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

16	3.440	27.91	0.13	22.25	396.23	5.48	8.34	0.00	8.34	0.00	5.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
17	3.430	27.91	0.13	22.32	413.07	5.30	9.11	0.00	9.11	0.00	5.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
18	3.420	27.91	0.13	22.35	420.47	5.23	9.45	0.00	9.45	0.00	6.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	3.410	27.91	0.13	22.35	420.47	5.22	9.41	0.00	9.41	0.00	6.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	3.400	27.91	0.13	22.35	420.47	5.21	9.38	0.00	9.38	0.00	6.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	3.390	27.91	0.13	22.35	420.47	5.20	9.35	0.00	9.35	0.00	6.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
22	3.380	27.91	0.14	22.35	420.47	5.19	9.31	0.00	9.31	0.00	5.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
23	3.370	27.91	0.14	22.35	420.47	5.18	9.28	0.00	9.28	0.00	5.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	3.360	27.91	0.14	22.35	420.47	5.17	9.24	0.00	9.24	0.00	5.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	3.350	27.91	0.14	22.35	420.47	5.16	9.21	0.00	9.21	0.00	5.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
26	3.340	27.91	0.14	22.35	420.47	5.16	9.18	0.00	9.18	0.00	5.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	3.330	27.91	0.14	22.35	420.47	5.15	9.14	0.00	9.14	0.00	5.62	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	3.320	27.91	0.15	22.35	420.47	5.15	9.11	0.00	9.11	0.00	5.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	3.310	27.91	0.15	22.35	420.47	5.14	9.08	0.00	9.08	0.00	5.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	3.300	27.91	0.15	22.35	420.47	5.14	9.04	0.00	9.04	0.00	5.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	3.290	27.91	0.15	22.35	420.48	5.14	9.01	0.00	9.01	0.00	5.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
32	3.280	27.91	0.15	22.35	420.48	5.13	8.98	0.00	8.98	0.00	5.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
33	3.270	27.91	0.15	22.35	420.48	5.13	8.95	0.00	8.95	0.00	5.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	3.260	27.91	0.16	22.35	420.48	5.13	8.91	0.00	8.91	0.00	5.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	3.250	27.91	0.16	22.35	420.48	5.13	8.88	0.00	8.88	0.00	5.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	3.240	27.91	0.16	22.35	420.48	5.13	8.85	0.00	8.85	0.00	5.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	3.230	27.91	0.16	22.35	420.48	5.13	8.82	0.00	8.82	0.00	5.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	3.220	27.91	0.16	22.35	420.48	5.13	8.78	0.00	8.78	0.00	4.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	3.210	27.91	0.16	22.35	420.48	5.13	8.75	0.00	8.75	0.00	4.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	3.200	27.91	0.17	22.35	420.48	5.14	8.72	0.00	8.72	0.00	4.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
41	3.190	27.91	0.17	22.35	420.49	5.14	8.69	0.00	8.69	0.00	4.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	3.180	27.91	0.17	22.35	420.49	5.14	8.65	0.00	8.65	0.00	4.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	3.170	27.91	0.17	22.35	420.49	5.15	8.62	0.00	8.62	0.00	4.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	3.160	27.91	0.17	22.35	420.49	5.15	8.59	0.00	8.59	0.00	4.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	3.150	27.91	0.17	22.35	420.50	5.16	8.56	0.00	8.56	0.00	4.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	3.140	27.91	0.17	22.35	420.50	5.16	8.53	0.00	8.53	0.00	4.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	3.130	27.91	0.18	22.36	420.50	5.17	8.49	0.00	8.49	0.00	4.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	3.120	27.91	0.18	22.36	420.51	5.17	8.46	0.00	8.46	0.00	4.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	3.110	27.91	0.18	22.36	420.51	5.18	8.43	0.00	8.43	0.00	4.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
50	3.100	27.91	0.18	22.36	420.52	5.18	8.40	0.00	8.40	0.00	4.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
51	3.090	27.91	0.18	22.36	420.53	5.19	8.36	0.00	8.36	0.00	4.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	3.080	27.91	0.18	22.36	420.53	5.20	8.33	0.00	8.33	0.00	4.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	3.070	27.91	0.19	22.37	420.54	5.20	8.30	0.00	8.30	0.00	4.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	3.060	27.91	0.19	22.37	420.55	5.21	8.27	0.00	8.27	0.00	4.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	3.050	27.91	0.19	22.37	420.56	5.22	8.24	0.00	8.24	0.00	4.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	3.040	27.91	0.19	22.38	420.58	5.22	8.20	0.00	8.20	0.00	3.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	3.030	27.91	0.19	22.38	420.59	5.23	8.17	0.00	8.17	0.00	3.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	3.020	27.91	0.19	22.39	420.61	5.24	8.14	0.00	8.14	0.00	3.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	3.010	27.91	0.20	22.39	420.62	5.24	8.11	0.00	8.11	0.00	3.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	3.000	27.91	0.20	22.40	420.64	5.25	8.08	0.00	8.08	0.00	3.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
61	2.990	27.91	0.20	22.41	420.67	5.25	8.04	0.00	8.04	0.00	3.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	2.980	27.91	0.20	22.42	420.69	5.26	8.01	0.00	8.01	0.00	3.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	2.970	27.91	0.20	22.43	420.72	5.26	7.98	0.00	7.98	0.00	3.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	2.960	27.91	0.20	22.44	420.76	5.27	7.95	0.00	7.95	0.00	3.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	2.950	27.91	0.21	22.45	420.79	5.27	7.91	0.00	7.91	0.00	3.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	2.940	27.91	0.21	22.46	420.83	5.27	7.88	0.00	7.88	0.00	3.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	2.930	27.91	0.21	22.48	420.88	5.27	7.85	0.00	7.85	0.00	3.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	2.920	27.91	0.21	22.49	420.93	5.26	7.82	0.00	7.82	0.00	3.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	2.910	27.91	0.21	22.51	420.99	5.26	7.78	0.00	7.78	0.00	3.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
70	2.900	27.91	0.21	22.53	421.06	5.25	7.75	0.00	7.75	0.00	3.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
71	2.890	27.91	0.22	22.56	421.13	5.24	7.71	0.00	7.71	0.00	3.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
72	2.880	27.91	0.22	22.58	421.21	5.23	7.68	0.00	7.68	0.00	3.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
73	2.870	27.91	0.22	22.61	421.30	5.22	7.64	0.00	7.64	0.00	3.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
74	2.860	27.91	0.22	22.65	421.40	5.20	7.61	0.00	7.61	0.00	3.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

75	2.850	27.91	0.22	22.68	421.51	5.17	7.57	0.00	7.57	0.00	3.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
76	2.840	27.91	0.22	22.72	421.64	5.14	7.53	0.00	7.53	0.00	3.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
77	2.830	27.91	0.23	22.77	421.78	5.11	7.49	0.00	7.49	0.00	3.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
78	2.820	27.91	0.23	22.82	421.93	5.06	7.45	0.00	7.45	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
79	2.810	27.91	0.23	22.87	422.10	5.02	7.41	0.00	7.41	0.00	2.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
80	2.800	27.91	0.23	22.93	422.29	4.96	7.37	0.00	7.37	0.00	2.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 2 RKM 2.8 to 1.9 SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
81	UPR RCH	0.01810	27.91	0.23	22.93	422.29	4.96	7.37	0.00	7.37	0.00	2.87	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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
81	2.80	2.79	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	910.27	0.001	0.092	0.001
82	2.79	2.78	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	945.81	0.001	0.094	0.001
83	2.78	2.77	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	981.34	0.001	0.097	0.002
84	2.77	2.76	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1016.88	0.001	0.099	0.002
85	2.76	2.75	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1052.42	0.001	0.102	0.002
86	2.75	2.74	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1087.95	0.001	0.105	0.002
87	2.74	2.73	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1123.49	0.001	0.107	0.002
88	2.73	2.72	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1159.02	0.002	0.110	0.002
89	2.72	2.71	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1194.56	0.002	0.113	0.002
90	2.71	2.70	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1230.09	0.002	0.116	0.002
91	2.70	2.69	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1265.63	0.002	0.118	0.002
92	2.69	2.68	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1301.17	0.002	0.121	0.002
93	2.68	2.67	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1336.70	0.002	0.124	0.002
94	2.67	2.66	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1372.24	0.002	0.127	0.002
95	2.66	2.65	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1407.77	0.002	0.130	0.002
96	2.65	2.64	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1443.31	0.002	0.132	0.002
97	2.64	2.63	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1478.84	0.002	0.135	0.002
98	2.63	2.62	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1514.38	0.002	0.138	0.002
99	2.62	2.61	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1549.92	0.002	0.141	0.002
100	2.61	2.60	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1585.45	0.002	0.144	0.002
101	2.60	2.59	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1620.99	0.002	0.147	0.002
102	2.59	2.58	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1656.52	0.002	0.149	0.002
103	2.58	2.57	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1692.06	0.002	0.152	0.002
104	2.57	2.56	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1727.59	0.002	0.155	0.002
105	2.56	2.55	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1763.13	0.002	0.158	0.002
106	2.55	2.54	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1798.66	0.002	0.161	0.003
107	2.54	2.53	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1834.20	0.002	0.164	0.003
108	2.53	2.52	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1869.74	0.002	0.167	0.003
109	2.52	2.51	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1905.27	0.003	0.170	0.003
110	2.51	2.50	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1940.81	0.003	0.173	0.003
111	2.50	2.49	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	1976.34	0.003	0.175	0.003
112	2.49	2.48	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2011.88	0.003	0.178	0.003
113	2.48	2.47	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2047.41	0.003	0.181	0.003

114	2.47	2.46	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2082.95	0.003	0.184	0.003
115	2.46	2.45	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2118.49	0.003	0.187	0.003
116	2.45	2.44	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2154.02	0.003	0.190	0.003
117	2.44	2.43	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2189.56	0.003	0.193	0.003
118	2.43	2.42	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2225.09	0.003	0.196	0.003
119	2.42	2.41	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2260.63	0.003	0.199	0.003
120	2.41	2.40	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2296.16	0.003	0.202	0.003
121	2.40	2.39	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2331.70	0.003	0.205	0.003
122	2.39	2.38	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2367.24	0.003	0.208	0.003
123	2.38	2.37	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2402.77	0.003	0.211	0.003
124	2.37	2.36	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2438.31	0.003	0.214	0.003
125	2.36	2.35	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2473.84	0.003	0.216	0.003
126	2.35	2.34	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2509.38	0.003	0.219	0.003
127	2.34	2.33	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2544.91	0.003	0.222	0.003
128	2.33	2.32	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2580.45	0.003	0.225	0.004
129	2.32	2.31	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2615.98	0.003	0.228	0.004
130	2.31	2.30	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2651.52	0.003	0.231	0.004
131	2.30	2.29	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2687.06	0.004	0.234	0.004
132	2.29	2.28	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2722.59	0.004	0.237	0.004
133	2.28	2.27	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2758.13	0.004	0.240	0.004
134	2.27	2.26	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2793.66	0.004	0.243	0.004
135	2.26	2.25	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2829.20	0.004	0.246	0.004
136	2.25	2.24	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2864.73	0.004	0.249	0.004
137	2.24	2.23	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2900.27	0.004	0.252	0.004
138	2.23	2.22	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2935.81	0.004	0.255	0.004
139	2.22	2.21	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	2971.34	0.004	0.258	0.004
140	2.21	2.20	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3006.88	0.004	0.261	0.004
141	2.20	2.19	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3042.41	0.004	0.264	0.004
142	2.19	2.18	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3077.95	0.004	0.267	0.004
143	2.18	2.17	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3113.48	0.004	0.270	0.004
144	2.17	2.16	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3149.02	0.004	0.273	0.004
145	2.16	2.15	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3184.55	0.004	0.276	0.004
146	2.15	2.14	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3220.09	0.004	0.279	0.004
147	2.14	2.13	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3255.63	0.004	0.281	0.004
148	2.13	2.12	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3291.16	0.004	0.284	0.004
149	2.12	2.11	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3326.70	0.004	0.287	0.004
150	2.11	2.10	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3362.23	0.004	0.290	0.005
151	2.10	2.09	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3397.77	0.004	0.293	0.005
152	2.09	2.08	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3433.30	0.005	0.296	0.005
153	2.08	2.07	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3468.84	0.005	0.299	0.005
154	2.07	2.06	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3504.38	0.005	0.302	0.005
155	2.06	2.05	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3539.91	0.005	0.305	0.005
156	2.05	2.04	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3575.45	0.005	0.308	0.005
157	2.04	2.03	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3610.98	0.005	0.311	0.005
158	2.03	2.02	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3646.52	0.005	0.314	0.005
159	2.02	2.01	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3682.05	0.005	0.317	0.005
160	2.01	2.00	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3717.59	0.005	0.320	0.005
161	2.00	1.99	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3753.13	0.005	0.323	0.005
162	1.99	1.98	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3788.66	0.005	0.326	0.005
163	1.98	1.97	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3824.20	0.005	0.329	0.005
164	1.97	1.96	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3859.73	0.005	0.332	0.005
165	1.96	1.95	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3895.27	0.005	0.335	0.005
166	1.95	1.94	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3930.80	0.005	0.338	0.005
167	1.94	1.93	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	3966.34	0.005	0.341	0.005
168	1.93	1.92	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	4001.87	0.005	0.344	0.005
169	1.92	1.91	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	4037.41	0.005	0.347	0.005
170	1.91	1.90	0.01810	84.5	0.00105	0.11	1.09	15.85	171.97	158.50	17.20	4072.95	0.005	0.350	0.005
TOT						9.90			15477.53	14265.00					

AVG						0.0011			1.08	15.85				17.20								
CUM							15.90															

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
81	2.790	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
82	2.780	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
83	2.770	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
84	2.760	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
85	2.750	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
86	2.740	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
87	2.730	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
88	2.720	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
89	2.710	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
90	2.700	7.83	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
91	2.690	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
92	2.680	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
93	2.670	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
94	2.660	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
95	2.650	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
96	2.640	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
97	2.630	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
98	2.620	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
99	2.610	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
100	2.600	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
101	2.590	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
102	2.580	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
103	2.570	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
104	2.560	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
105	2.550	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
106	2.540	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
107	2.530	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
108	2.520	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
109	2.510	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
110	2.500	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
111	2.490	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
112	2.480	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
113	2.470	7.82	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
114	2.460	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
115	2.450	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
116	2.440	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
117	2.430	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
118	2.420	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
119	2.410	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
120	2.400	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
121	2.390	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
122	2.380	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
123	2.370	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
124	2.360	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
125	2.350	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
126	2.340	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
127	2.330	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
128	2.320	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
129	2.310	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

130	2.300	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
131	2.290	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
132	2.280	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
133	2.270	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
134	2.260	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
135	2.250	7.81	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
136	2.240	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
137	2.230	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
138	2.220	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
139	2.210	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
140	2.200	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
141	2.190	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
142	2.180	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
143	2.170	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
144	2.160	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
145	2.150	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
146	2.140	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
147	2.130	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
148	2.120	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
149	2.110	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
150	2.100	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
151	2.090	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
152	2.080	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
153	2.070	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
154	2.060	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
155	2.050	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
156	2.040	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
157	2.030	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
158	2.020	7.80	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
159	2.010	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
160	2.000	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
161	1.990	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
162	1.980	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
163	1.970	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
164	1.960	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
165	1.950	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
166	1.940	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
167	1.930	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
168	1.920	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
169	1.910	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
170	1.900	7.79	0.75	0.10	0.06	0.00	0.00	0.00	0.00	2.88	2.88	2.88	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.75			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
81	2.790	27.91	0.24	23.00	422.50	4.89	7.32	0.00	7.32	0.00	2.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
82	2.780	27.91	0.25	23.08	422.73	4.83	7.28	0.00	7.28	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
83	2.770	27.91	0.26	23.16	422.97	4.77	7.24	0.00	7.24	0.00	2.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
84	2.760	27.91	0.27	23.24	423.24	4.72	7.20	0.00	7.20	0.00	2.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
85	2.750	27.91	0.28	23.34	423.53	4.67	7.16	0.00	7.16	0.00	2.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
86	2.740	27.91	0.29	23.44	423.84	4.63	7.12	0.00	7.12	0.00	2.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
87	2.730	27.91	0.30	23.55	424.17	4.58	7.08	0.00	7.08	0.00	2.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

88	2.720	27.91	0.31	23.66	424.53	4.55	7.04	0.00	7.04	0.00	2.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
89	2.710	27.91	0.32	23.79	424.91	4.51	7.00	0.00	7.00	0.00	2.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
90	2.700	27.91	0.33	23.92	425.32	4.48	6.97	0.00	6.97	0.00	2.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
91	2.690	27.91	0.34	24.06	425.76	4.45	6.93	0.00	6.93	0.00	2.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
92	2.680	27.91	0.35	24.21	426.22	4.42	6.90	0.00	6.90	0.00	2.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
93	2.670	27.91	0.36	24.37	426.71	4.40	6.86	0.00	6.86	0.00	2.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
94	2.660	27.91	0.37	24.55	427.24	4.37	6.83	0.00	6.83	0.00	2.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
95	2.650	27.91	0.38	24.73	427.79	4.35	6.80	0.00	6.80	0.00	2.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
96	2.640	27.91	0.39	24.92	428.38	4.33	6.77	0.00	6.77	0.00	2.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
97	2.630	27.91	0.40	25.12	429.00	4.32	6.74	0.00	6.74	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
98	2.620	27.91	0.41	25.33	429.66	4.30	6.71	0.00	6.71	0.00	2.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
99	2.610	27.91	0.42	25.56	430.35	4.28	6.68	0.00	6.68	0.00	2.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
100	2.600	27.91	0.43	25.80	431.08	4.27	6.65	0.00	6.65	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
101	2.590	27.91	0.44	26.05	431.85	4.26	6.62	0.00	6.62	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
102	2.580	27.91	0.45	26.31	432.66	4.25	6.59	0.00	6.59	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
103	2.570	27.91	0.47	26.59	433.51	4.24	6.57	0.00	6.57	0.00	1.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
104	2.560	27.91	0.48	26.88	434.40	4.23	6.54	0.00	6.54	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
105	2.550	27.91	0.49	27.18	435.33	4.22	6.52	0.00	6.52	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
106	2.540	27.91	0.50	27.50	436.31	4.21	6.49	0.00	6.49	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
107	2.530	27.91	0.51	27.83	437.34	4.21	6.47	0.00	6.47	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
108	2.520	27.91	0.52	28.18	438.41	4.20	6.45	0.00	6.45	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
109	2.510	27.91	0.53	28.55	439.54	4.19	6.42	0.00	6.42	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
110	2.500	27.91	0.54	28.93	440.71	4.19	6.40	0.00	6.40	0.00	1.80	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
111	2.490	27.91	0.55	29.33	441.93	4.18	6.38	0.00	6.38	0.00	1.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
112	2.480	27.91	0.56	29.74	443.21	4.18	6.36	0.00	6.36	0.00	1.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
113	2.470	27.91	0.57	30.18	444.54	4.18	6.34	0.00	6.34	0.00	1.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
114	2.460	27.91	0.58	30.63	445.92	4.17	6.32	0.00	6.32	0.00	1.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
115	2.450	27.91	0.59	31.10	447.37	4.17	6.30	0.00	6.30	0.00	1.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
116	2.440	27.91	0.60	31.58	448.87	4.17	6.28	0.00	6.28	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
117	2.430	27.91	0.61	32.09	450.43	4.17	6.27	0.00	6.27	0.00	1.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
118	2.420	27.91	0.62	32.62	452.05	4.17	6.25	0.00	6.25	0.00	1.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
119	2.410	27.91	0.63	33.17	453.73	4.17	6.23	0.00	6.23	0.00	1.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
120	2.400	27.91	0.64	33.74	455.48	4.16	6.22	0.00	6.22	0.00	1.60	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
121	2.390	27.91	0.65	34.33	457.29	4.16	6.20	0.00	6.20	0.00	1.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
122	2.380	27.91	0.66	34.94	459.17	4.16	6.19	0.00	6.19	0.00	1.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
123	2.370	27.91	0.67	35.57	461.12	4.16	6.17	0.00	6.17	0.00	1.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
124	2.360	27.91	0.68	36.23	463.14	4.16	6.16	0.00	6.16	0.00	1.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
125	2.350	27.91	0.69	36.91	465.23	4.16	6.15	0.00	6.15	0.00	1.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
126	2.340	27.91	0.70	37.61	467.39	4.17	6.13	0.00	6.13	0.00	1.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
127	2.330	27.91	0.71	38.34	469.63	4.17	6.12	0.00	6.12	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
128	2.320	27.91	0.72	39.09	471.94	4.17	6.11	0.00	6.11	0.00	1.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
129	2.310	27.91	0.73	39.87	474.33	4.17	6.10	0.00	6.10	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
130	2.300	27.91	0.74	40.67	476.80	4.17	6.09	0.00	6.09	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
131	2.290	27.91	0.75	41.50	479.35	4.17	6.08	0.00	6.08	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
132	2.280	27.91	0.76	42.36	481.98	4.17	6.07	0.00	6.07	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
133	2.270	27.91	0.77	43.24	484.69	4.17	6.06	0.00	6.06	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
134	2.260	27.91	0.78	44.15	487.49	4.18	6.06	0.00	6.06	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
135	2.250	27.91	0.79	45.09	490.38	4.18	6.05	0.00	6.05	0.00	1.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
136	2.240	27.91	0.80	46.06	493.35	4.18	6.04	0.00	6.04	0.00	1.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
137	2.230	27.91	0.81	47.05	496.42	4.18	6.04	0.00	6.04	0.00	1.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
138	2.220	27.91	0.82	48.08	499.57	4.18	6.03	0.00	6.03	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
139	2.210	27.91	0.83	49.14	502.82	4.19	6.03	0.00	6.03	0.00	1.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
140	2.200	27.91	0.84	50.22	506.17	4.19	6.03	0.00	6.03	0.00	1.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
141	2.190	27.91	0.85	51.34	509.61	4.19	6.02	0.00	6.02	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
142	2.180	27.91	0.86	52.49	513.14	4.20	6.02	0.00	6.02	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
143	2.170	27.91	0.87	53.68	516.78	4.20	6.02	0.00	6.02	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
144	2.160	27.91	0.88	54.89	520.52	4.20	6.02	0.00	6.02	0.00	1.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
145	2.150	27.91	0.89	56.14	524.37	4.21	6.02	0.00	6.02	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
146	2.140	27.91	0.90	57.43	528.31	4.21	6.02	0.00	6.02	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

147	2.130	27.91	0.91	58.75	532.37	4.22	6.02	0.00	6.02	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
148	2.120	27.91	0.93	60.10	536.53	4.22	6.02	0.00	6.02	0.00	1.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
149	2.110	27.91	0.94	61.49	540.81	4.22	6.03	0.00	6.03	0.00	1.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
150	2.100	27.91	0.95	62.91	545.19	4.23	6.03	0.00	6.03	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
151	2.090	27.91	0.96	64.38	549.69	4.23	6.03	0.00	6.03	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
152	2.080	27.91	0.97	65.88	554.30	4.24	6.04	0.00	6.04	0.00	1.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
153	2.070	27.91	0.98	67.42	559.03	4.25	6.05	0.00	6.05	0.00	1.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
154	2.060	27.91	0.99	68.99	563.88	4.25	6.05	0.00	6.05	0.00	1.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
155	2.050	27.91	1.00	70.61	568.85	4.26	6.06	0.00	6.06	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
156	2.040	27.91	1.01	72.27	573.94	4.27	6.07	0.00	6.07	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
157	2.030	27.91	1.02	73.96	579.16	4.27	6.08	0.00	6.08	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
158	2.020	27.91	1.03	75.70	584.50	4.28	6.09	0.00	6.09	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
159	2.010	27.91	1.04	77.48	589.97	4.29	6.10	0.00	6.10	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
160	2.000	27.91	1.05	79.30	595.57	4.30	6.12	0.00	6.12	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
161	1.990	27.91	1.06	81.17	601.31	4.31	6.13	0.00	6.13	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
162	1.980	27.91	1.07	83.07	607.17	4.32	6.14	0.00	6.14	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
163	1.970	27.91	1.08	85.02	613.17	4.33	6.16	0.00	6.16	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
164	1.960	27.91	1.09	87.02	619.31	4.34	6.18	0.00	6.18	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
165	1.950	27.91	1.10	89.06	625.58	4.36	6.19	0.00	6.19	0.00	1.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
166	1.940	27.91	1.11	91.15	632.00	4.37	6.21	0.00	6.21	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
167	1.930	27.91	1.12	93.28	638.56	4.38	6.23	0.00	6.23	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
168	1.920	27.91	1.13	95.46	645.27	4.40	6.25	0.00	6.25	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
169	1.910	27.91	1.14	97.69	652.12	4.42	6.28	0.00	6.28	0.00	1.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
170	1.900	27.91	1.15	99.97	659.12	4.43	6.30	0.00	6.30	0.00	1.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 3 RKM 1.9 to 1.5 SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
171	UPR RCH	0.01810	27.91	1.15	99.97	659.12	4.43	6.30	0.00	6.30	0.00	1.25	0.00	0.00	0.00	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	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
171	1.90	1.89	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4133.82	0.003	0.200	0.003
172	1.89	1.88	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4194.70	0.003	0.203	0.003
173	1.88	1.87	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4255.58	0.003	0.206	0.003
174	1.87	1.86	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4316.45	0.003	0.208	0.003
175	1.86	1.85	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4377.33	0.003	0.211	0.003
176	1.85	1.84	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4438.21	0.003	0.214	0.003
177	1.84	1.83	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4499.08	0.003	0.217	0.003
178	1.83	1.82	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4559.96	0.003	0.220	0.003
179	1.82	1.81	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4620.84	0.003	0.223	0.003
180	1.81	1.80	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4681.72	0.003	0.226	0.003
181	1.80	1.79	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4742.59	0.003	0.229	0.003
182	1.79	1.78	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4803.47	0.003	0.231	0.003
183	1.78	1.77	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4864.35	0.003	0.234	0.003
184	1.77	1.76	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4925.22	0.003	0.237	0.003
185	1.76	1.75	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	4986.10	0.003	0.240	0.003

186	1.75	1.74	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5046.98	0.003	0.243	0.004
187	1.74	1.73	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5107.85	0.004	0.246	0.004
188	1.73	1.72	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5168.73	0.004	0.249	0.004
189	1.72	1.71	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5229.61	0.004	0.252	0.004
190	1.71	1.70	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5290.49	0.004	0.254	0.004
191	1.70	1.69	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5351.36	0.004	0.257	0.004
192	1.69	1.68	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5412.24	0.004	0.260	0.004
193	1.68	1.67	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5473.12	0.004	0.263	0.004
194	1.67	1.66	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5533.99	0.004	0.266	0.004
195	1.66	1.65	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5594.87	0.004	0.269	0.004
196	1.65	1.64	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5655.75	0.004	0.272	0.004
197	1.64	1.63	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5716.62	0.004	0.275	0.004
198	1.63	1.62	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5777.50	0.004	0.277	0.004
199	1.62	1.61	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5838.38	0.004	0.280	0.004
200	1.61	1.60	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5899.25	0.004	0.283	0.004
201	1.60	1.59	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	5960.13	0.004	0.286	0.004
202	1.59	1.58	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6021.01	0.004	0.289	0.004
203	1.58	1.57	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6081.89	0.004	0.292	0.004
204	1.57	1.56	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6142.76	0.004	0.295	0.004
205	1.56	1.55	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6203.64	0.004	0.298	0.004
206	1.55	1.54	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6264.52	0.004	0.301	0.004
207	1.54	1.53	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6325.39	0.004	0.303	0.004
208	1.53	1.52	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6386.27	0.004	0.306	0.004
209	1.52	1.51	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6447.15	0.004	0.309	0.004
210	1.51	1.50	0.01810	84.5	0.00055	0.21	1.19	27.74	329.79	277.37	32.98	6508.02	0.004	0.312	0.005
TOT						8.44			13191.72	11094.80					
AVG					0.0005		1.19	27.74			32.98				
CUM						24.33									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
171	1.890	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
172	1.880	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
173	1.870	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
174	1.860	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
175	1.850	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
176	1.840	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
177	1.830	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
178	1.820	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
179	1.810	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
180	1.800	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
181	1.790	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
182	1.780	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
183	1.770	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
184	1.760	7.79	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
185	1.750	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
186	1.740	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
187	1.730	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
188	1.720	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
189	1.710	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
190	1.700	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
191	1.690	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
192	1.680	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

193	1.670	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
194	1.660	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
195	1.650	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
196	1.640	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
197	1.630	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
198	1.620	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
199	1.610	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
200	1.600	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
201	1.590	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
202	1.580	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
203	1.570	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
204	1.560	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
205	1.550	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
206	1.540	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
207	1.530	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
208	1.520	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
209	1.510	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
210	1.500	7.78	0.68	0.08	0.06	0.00	0.00	0.00	0.00	2.47	2.47	2.47	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.59	0.06	0.05	0.00	0.00	0.00	0.00	1.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
171	1.890	27.91	1.16	102.20	665.97	4.45	6.32	0.00	6.32	0.00	1.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
172	1.880	27.91	1.16	104.37	672.67	4.47	6.35	0.00	6.35	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
173	1.870	27.91	1.17	106.58	679.45	4.48	6.37	0.00	6.37	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
174	1.860	27.91	1.18	108.81	686.32	4.50	6.39	0.00	6.39	0.00	1.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
175	1.850	27.91	1.19	111.08	693.28	4.51	6.41	0.00	6.41	0.00	1.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
176	1.840	27.91	1.19	113.37	700.32	4.52	6.44	0.00	6.44	0.00	1.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
177	1.830	27.91	1.20	115.68	707.44	4.53	6.46	0.00	6.46	0.00	1.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
178	1.820	27.91	1.21	118.03	714.65	4.55	6.48	0.00	6.48	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
179	1.810	27.91	1.22	120.40	721.95	4.56	6.50	0.00	6.50	0.00	1.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
180	1.800	27.91	1.23	122.80	729.33	4.57	6.52	0.00	6.52	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
181	1.790	27.91	1.23	125.23	736.80	4.58	6.55	0.00	6.55	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
182	1.780	27.91	1.24	127.69	744.35	4.59	6.57	0.00	6.57	0.00	1.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
183	1.770	27.91	1.25	130.17	751.98	4.60	6.59	0.00	6.59	0.00	1.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
184	1.760	27.91	1.25	132.68	759.70	4.61	6.61	0.00	6.61	0.00	1.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
185	1.750	27.91	1.26	135.22	767.51	4.61	6.63	0.00	6.63	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
186	1.740	27.91	1.27	137.78	775.40	4.62	6.65	0.00	6.65	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
187	1.730	27.91	1.28	140.38	783.37	4.63	6.68	0.00	6.68	0.00	1.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
188	1.720	27.91	1.28	143.00	791.43	4.64	6.70	0.00	6.70	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
189	1.710	27.91	1.29	145.64	799.57	4.65	6.72	0.00	6.72	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
190	1.700	27.91	1.30	148.32	807.79	4.66	6.74	0.00	6.74	0.00	1.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
191	1.690	27.91	1.31	151.02	816.10	4.66	6.76	0.00	6.76	0.00	1.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
192	1.680	27.91	1.32	153.75	824.50	4.67	6.79	0.00	6.79	0.00	1.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
193	1.670	27.91	1.32	156.51	832.97	4.68	6.81	0.00	6.81	0.00	1.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
194	1.660	27.91	1.33	159.29	841.53	4.69	6.83	0.00	6.83	0.00	1.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
195	1.650	27.91	1.34	162.10	850.18	4.70	6.85	0.00	6.85	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
196	1.640	27.91	1.35	164.94	858.90	4.70	6.88	0.00	6.88	0.00	1.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
197	1.630	27.91	1.35	167.81	867.71	4.71	6.90	0.00	6.90	0.00	1.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
198	1.620	27.91	1.36	170.70	876.61	4.72	6.92	0.00	6.92	0.00	1.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
199	1.610	27.91	1.37	173.62	885.58	4.73	6.95	0.00	6.95	0.00	1.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
200	1.600	27.91	1.38	176.56	894.64	4.74	6.97	0.00	6.97	0.00	1.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

201	1.590	27.91	1.38	179.54	903.79	4.75	7.00	0.00	7.00	0.00	1.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
202	1.580	27.91	1.39	182.54	913.01	4.76	7.02	0.00	7.02	0.00	1.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
203	1.570	27.91	1.40	185.56	922.32	4.77	7.04	0.00	7.04	0.00	1.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
204	1.560	27.91	1.41	188.62	931.71	4.78	7.07	0.00	7.07	0.00	1.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
205	1.550	27.91	1.41	191.70	941.18	4.79	7.09	0.00	7.09	0.00	1.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
206	1.540	27.91	1.42	194.81	950.74	4.81	7.12	0.00	7.12	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
207	1.530	27.91	1.43	197.94	960.38	4.82	7.15	0.00	7.15	0.00	1.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
208	1.520	27.91	1.44	201.10	970.10	4.83	7.17	0.00	7.17	0.00	1.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
209	1.510	27.91	1.44	204.29	979.90	4.85	7.20	0.00	7.20	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
210	1.500	27.91	1.45	207.51	989.79	4.86	7.23	0.00	7.23	0.00	1.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 4 RKM 1.5 to 1.1 SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
211	UPR RCH	0.01810	27.91	1.45	207.51	989.79	4.86	7.23	0.00	7.23	0.00	1.43	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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
211	1.50	1.49	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6570.24	0.005	0.316	0.005
212	1.49	1.48	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6632.45	0.005	0.319	0.005
213	1.48	1.47	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6694.67	0.005	0.322	0.005
214	1.47	1.46	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6756.88	0.005	0.325	0.005
215	1.46	1.45	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6819.09	0.005	0.328	0.005
216	1.45	1.44	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6881.31	0.005	0.331	0.005
217	1.44	1.43	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	6943.52	0.005	0.334	0.005
218	1.43	1.42	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7005.74	0.005	0.337	0.006
219	1.42	1.41	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7067.95	0.006	0.340	0.006
220	1.41	1.40	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7130.16	0.006	0.343	0.006
221	1.40	1.39	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7192.38	0.006	0.346	0.006
222	1.39	1.38	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7254.59	0.006	0.349	0.006
223	1.38	1.37	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7316.80	0.006	0.352	0.006
224	1.37	1.36	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7379.02	0.006	0.355	0.006
225	1.36	1.35	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7441.23	0.006	0.358	0.006
226	1.35	1.34	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7503.45	0.006	0.361	0.006
227	1.34	1.33	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7565.66	0.006	0.364	0.006
228	1.33	1.32	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7627.87	0.006	0.367	0.006
229	1.32	1.31	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7690.09	0.006	0.369	0.006
230	1.31	1.30	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7752.30	0.006	0.372	0.006
231	1.30	1.29	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7814.52	0.006	0.375	0.006
232	1.29	1.28	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7876.73	0.006	0.378	0.006
233	1.28	1.27	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	7938.94	0.006	0.381	0.006
234	1.27	1.26	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8001.16	0.006	0.384	0.006
235	1.26	1.25	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8063.37	0.006	0.387	0.006
236	1.25	1.24	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8125.58	0.006	0.390	0.006
237	1.24	1.23	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8187.80	0.006	0.393	0.006
238	1.23	1.22	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8250.01	0.006	0.396	0.006
239	1.22	1.21	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8312.23	0.006	0.399	0.007

240	1.21	1.20	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8374.44	0.007	0.402	0.007
241	1.20	1.19	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8436.65	0.007	0.405	0.007
242	1.19	1.18	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8498.87	0.007	0.408	0.007
243	1.18	1.17	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8561.08	0.007	0.411	0.007
244	1.17	1.16	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8623.30	0.007	0.414	0.007
245	1.16	1.15	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8685.51	0.007	0.417	0.007
246	1.15	1.14	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8747.72	0.007	0.420	0.007
247	1.14	1.13	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8809.94	0.007	0.423	0.007
248	1.13	1.12	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8872.15	0.007	0.426	0.007
249	1.12	1.11	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8934.37	0.007	0.429	0.007
250	1.11	1.10	0.01810	84.5	0.00063	0.19	1.02	28.35	289.41	283.46	28.94	8996.58	0.007	0.432	0.007
TOT						7.40			11576.51	11338.40					
AVG					0.0006		1.02	28.35			28.94				
CUM						31.74									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
211	1.490	7.78	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
212	1.480	7.78	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
213	1.470	7.78	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
214	1.460	7.78	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
215	1.450	7.78	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
216	1.440	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
217	1.430	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
218	1.420	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
219	1.410	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
220	1.400	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
221	1.390	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.15	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
222	1.380	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
223	1.370	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
224	1.360	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
225	1.350	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
226	1.340	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
227	1.330	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
228	1.320	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
229	1.310	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
230	1.300	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
231	1.290	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
232	1.280	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
233	1.270	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
234	1.260	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
235	1.250	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
236	1.240	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
237	1.230	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
238	1.220	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
239	1.210	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
240	1.200	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
241	1.190	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
242	1.180	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
243	1.170	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
244	1.160	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
245	1.150	7.77	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
246	1.140	7.76	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

247	1.130	7.76	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
248	1.120	7.76	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
249	1.110	7.76	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
250	1.100	7.76	0.79	0.08	0.06	0.00	0.00	0.00	0.00	1.97	1.97	1.97	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.69	0.06	0.05	0.00	0.00	0.00	0.00	1.20			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
211	1.490	27.91	1.46	210.95	1000.39	4.88	7.25	0.00	7.25	0.00	1.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
212	1.480	27.91	1.47	214.67	1011.81	4.89	7.28	0.00	7.28	0.00	1.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
213	1.470	27.91	1.47	218.42	1023.34	4.91	7.32	0.00	7.32	0.00	1.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
214	1.460	27.91	1.48	222.21	1034.99	4.93	7.35	0.00	7.35	0.00	1.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
215	1.450	27.91	1.49	226.04	1046.76	4.94	7.37	0.00	7.37	0.00	1.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
216	1.440	27.91	1.50	229.90	1058.65	4.96	7.40	0.00	7.40	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
217	1.430	27.91	1.50	233.81	1070.66	4.97	7.43	0.00	7.43	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
218	1.420	27.91	1.51	237.75	1082.78	4.98	7.46	0.00	7.46	0.00	1.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
219	1.410	27.91	1.52	241.73	1095.03	5.00	7.49	0.00	7.49	0.00	1.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
220	1.400	27.91	1.53	245.75	1107.39	5.01	7.52	0.00	7.52	0.00	1.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
221	1.390	27.91	1.54	249.81	1119.86	5.02	7.55	0.00	7.55	0.00	1.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
222	1.380	27.91	1.54	253.90	1132.46	5.03	7.58	0.00	7.58	0.00	1.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
223	1.370	27.91	1.55	258.04	1145.18	5.04	7.60	0.00	7.60	0.00	1.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
224	1.360	27.91	1.56	262.21	1158.01	5.05	7.63	0.00	7.63	0.00	1.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
225	1.350	27.91	1.57	266.43	1170.96	5.07	7.66	0.00	7.66	0.00	1.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
226	1.340	27.91	1.57	270.68	1184.04	5.08	7.69	0.00	7.69	0.00	1.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
227	1.330	27.91	1.58	274.97	1197.23	5.09	7.71	0.00	7.71	0.00	1.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
228	1.320	27.91	1.59	279.30	1210.54	5.10	7.74	0.00	7.74	0.00	1.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
229	1.310	27.91	1.60	283.66	1223.97	5.11	7.77	0.00	7.77	0.00	1.57	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
230	1.300	27.91	1.61	288.07	1237.51	5.12	7.80	0.00	7.80	0.00	1.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
231	1.290	27.91	1.61	292.51	1251.18	5.13	7.82	0.00	7.82	0.00	1.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
232	1.280	27.91	1.62	297.00	1264.97	5.14	7.85	0.00	7.85	0.00	1.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
233	1.270	27.91	1.63	301.52	1278.88	5.16	7.88	0.00	7.88	0.00	1.60	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
234	1.260	27.91	1.64	306.08	1292.90	5.17	7.90	0.00	7.90	0.00	1.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
235	1.250	27.91	1.64	310.68	1307.05	5.18	7.93	0.00	7.93	0.00	1.62	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
236	1.240	27.91	1.65	315.32	1321.32	5.19	7.96	0.00	7.96	0.00	1.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
237	1.230	27.91	1.66	320.00	1335.70	5.20	7.98	0.00	7.98	0.00	1.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
238	1.220	27.91	1.67	324.72	1350.21	5.22	8.01	0.00	8.01	0.00	1.64	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
239	1.210	27.91	1.67	329.47	1364.83	5.23	8.04	0.00	8.04	0.00	1.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
240	1.200	27.91	1.68	334.27	1379.58	5.24	8.06	0.00	8.06	0.00	1.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
241	1.190	27.91	1.69	339.10	1394.45	5.26	8.09	0.00	8.09	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
242	1.180	27.91	1.70	343.98	1409.44	5.27	8.12	0.00	8.12	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
243	1.170	27.91	1.71	348.89	1424.54	5.29	8.15	0.00	8.15	0.00	1.68	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
244	1.160	27.91	1.71	353.84	1439.77	5.30	8.17	0.00	8.17	0.00	1.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
245	1.150	27.91	1.72	358.84	1455.12	5.32	8.20	0.00	8.20	0.00	1.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
246	1.140	27.91	1.73	363.87	1470.59	5.34	8.23	0.00	8.23	0.00	1.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
247	1.130	27.91	1.74	368.94	1486.18	5.35	8.25	0.00	8.25	0.00	1.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
248	1.120	27.91	1.74	374.05	1501.89	5.37	8.28	0.00	8.28	0.00	1.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
249	1.110	27.91	1.75	379.19	1517.73	5.39	8.31	0.00	8.31	0.00	1.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
250	1.100	27.91	1.76	384.38	1533.68	5.41	8.34	0.00	8.34	0.00	1.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 5 RKM 1.1 to 0.3 SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
251	UPR RCH	0.01810	27.91	1.76	384.38	1533.68	5.41	8.34	0.00	8.34	0.00	1.75	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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
251	1.10	1.09	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9047.29	0.008	0.557	0.008
252	1.09	1.08	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9098.00	0.008	0.560	0.008
253	1.08	1.07	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9148.71	0.008	0.563	0.008
254	1.07	1.06	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9199.43	0.008	0.566	0.008
255	1.06	1.05	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9250.14	0.008	0.569	0.008
256	1.05	1.04	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9300.85	0.008	0.572	0.008
257	1.04	1.03	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9351.56	0.008	0.575	0.008
258	1.03	1.02	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9402.27	0.008	0.578	0.008
259	1.02	1.01	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9452.99	0.008	0.581	0.008
260	1.01	1.00	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9503.70	0.008	0.584	0.008
261	1.00	0.99	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9554.41	0.008	0.588	0.008
262	0.99	0.98	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9605.12	0.008	0.591	0.008
263	0.98	0.97	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9655.83	0.008	0.594	0.008
264	0.97	0.96	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9706.55	0.008	0.597	0.008
265	0.96	0.95	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9757.26	0.008	0.600	0.009
266	0.95	0.94	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9807.97	0.009	0.603	0.009
267	0.94	0.93	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9858.68	0.009	0.606	0.009
268	0.93	0.92	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9909.39	0.009	0.609	0.009
269	0.92	0.91	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	9960.11	0.009	0.612	0.009
270	0.91	0.90	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10010.82	0.009	0.615	0.009
271	0.90	0.89	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10061.53	0.009	0.619	0.009
272	0.89	0.88	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10112.24	0.009	0.622	0.009
273	0.88	0.87	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10162.95	0.009	0.625	0.009
274	0.87	0.86	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10213.67	0.009	0.628	0.009
275	0.86	0.85	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10264.38	0.009	0.631	0.009
276	0.85	0.84	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10315.09	0.009	0.634	0.009
277	0.84	0.83	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10365.80	0.009	0.637	0.009
278	0.83	0.82	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10416.51	0.009	0.640	0.009
279	0.82	0.81	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10467.22	0.009	0.643	0.009
280	0.81	0.80	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10517.94	0.009	0.646	0.009
281	0.80	0.79	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10568.65	0.009	0.649	0.009
282	0.79	0.78	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10619.36	0.009	0.653	0.009
283	0.78	0.77	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10670.07	0.009	0.656	0.009
284	0.77	0.76	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10720.78	0.009	0.659	0.009
285	0.76	0.75	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10771.50	0.009	0.662	0.009
286	0.75	0.74	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10822.21	0.009	0.665	0.009
287	0.74	0.73	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10872.92	0.009	0.668	0.009
288	0.73	0.72	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10923.63	0.009	0.671	0.010
289	0.72	0.71	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	10974.34	0.010	0.674	0.010
290	0.71	0.70	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11025.06	0.010	0.677	0.010
291	0.70	0.69	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11075.77	0.010	0.680	0.010
292	0.69	0.68	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11126.48	0.010	0.684	0.010
293	0.68	0.67	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11177.19	0.010	0.687	0.010

294	0.67	0.66	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11227.90	0.010	0.690	0.010
295	0.66	0.65	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11278.62	0.010	0.693	0.010
296	0.65	0.64	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11329.33	0.010	0.696	0.010
297	0.64	0.63	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11380.04	0.010	0.699	0.010
298	0.63	0.62	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11430.75	0.010	0.702	0.010
299	0.62	0.61	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11481.46	0.010	0.705	0.010
300	0.61	0.60	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11532.17	0.010	0.708	0.010
301	0.60	0.59	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11582.89	0.010	0.711	0.010
302	0.59	0.58	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11633.60	0.010	0.715	0.010
303	0.58	0.57	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11684.31	0.010	0.718	0.010
304	0.57	0.56	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11735.02	0.010	0.721	0.010
305	0.56	0.55	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11785.73	0.010	0.724	0.010
306	0.55	0.54	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11836.45	0.010	0.727	0.010
307	0.54	0.53	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11887.16	0.010	0.730	0.010
308	0.53	0.52	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11937.87	0.010	0.733	0.010
309	0.52	0.51	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	11988.58	0.010	0.736	0.010
310	0.51	0.50	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12039.29	0.010	0.739	0.011
311	0.50	0.49	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12090.01	0.011	0.742	0.011
312	0.49	0.48	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12140.72	0.011	0.746	0.011
313	0.48	0.47	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12191.43	0.011	0.749	0.011
314	0.47	0.46	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12242.14	0.011	0.752	0.011
315	0.46	0.45	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12292.85	0.011	0.755	0.011
316	0.45	0.44	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12343.57	0.011	0.758	0.011
317	0.44	0.43	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12394.28	0.011	0.761	0.011
318	0.43	0.42	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12444.99	0.011	0.764	0.011
319	0.42	0.41	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12495.70	0.011	0.767	0.011
320	0.41	0.40	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12546.41	0.011	0.770	0.011
321	0.40	0.39	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12597.12	0.011	0.773	0.011
322	0.39	0.38	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12647.84	0.011	0.777	0.011
323	0.38	0.37	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12698.55	0.011	0.780	0.011
324	0.37	0.36	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12749.26	0.011	0.783	0.011
325	0.36	0.35	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12799.97	0.011	0.786	0.011
326	0.35	0.34	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12850.68	0.011	0.789	0.011
327	0.34	0.33	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12901.40	0.011	0.792	0.011
328	0.33	0.32	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	12952.11	0.011	0.795	0.011
329	0.32	0.31	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	13002.82	0.011	0.798	0.011
330	0.31	0.30	0.01810	84.5	0.00070	0.17	1.21	21.49	260.00	214.88	26.00	13053.53	0.011	0.801	0.011
TOT						13.30			20800.37	17190.40					
AVG					0.0007		1.21	21.49			26.00				
CUM						45.04									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
251	1.090	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
252	1.080	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
253	1.070	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
254	1.060	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
255	1.050	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
256	1.040	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
257	1.030	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
258	1.020	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
259	1.010	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
260	1.000	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

261	0.990	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
262	0.980	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
263	0.970	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
264	0.960	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
265	0.950	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
266	0.940	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
267	0.930	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
268	0.920	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
269	0.910	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
270	0.900	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
271	0.890	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
272	0.880	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
273	0.870	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
274	0.860	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
275	0.850	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
276	0.840	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
277	0.830	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
278	0.820	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
279	0.810	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
280	0.800	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
281	0.790	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
282	0.780	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
283	0.770	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
284	0.760	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
285	0.750	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
286	0.740	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
287	0.730	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
288	0.720	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
289	0.710	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
290	0.700	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
291	0.690	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
292	0.680	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
293	0.670	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
294	0.660	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
295	0.650	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
296	0.640	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
297	0.630	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
298	0.620	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
299	0.610	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
300	0.600	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
301	0.590	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
302	0.580	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
303	0.570	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
304	0.560	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
305	0.550	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
306	0.540	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
307	0.530	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
308	0.520	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
309	0.510	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
310	0.500	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
311	0.490	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
312	0.480	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
313	0.470	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
314	0.460	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
315	0.450	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
316	0.440	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
317	0.430	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
318	0.420	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
319	0.410	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

320	0.400	7.76	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
321	0.390	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
322	0.380	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
323	0.370	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
324	0.360	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
325	0.350	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
326	0.340	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
327	0.330	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
328	0.320	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
329	0.310	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
330	0.300	7.75	0.86	0.08	0.06	0.00	0.00	0.00	0.00	1.56	1.56	1.56	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.06	0.05	0.00	0.00	0.00	0.00	0.95			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
251	1.090	27.91	1.76	389.24	1548.63	5.43	8.36	0.00	8.36	0.00	1.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
252	1.080	27.91	1.77	393.82	1562.70	5.45	8.39	0.00	8.39	0.00	1.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
253	1.070	27.91	1.77	398.43	1576.87	5.47	8.41	0.00	8.41	0.00	1.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
254	1.060	27.91	1.77	403.07	1591.13	5.48	8.44	0.00	8.44	0.00	1.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
255	1.050	27.91	1.77	407.74	1605.50	5.50	8.46	0.00	8.46	0.00	1.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
256	1.040	27.91	1.78	412.44	1619.96	5.51	8.48	0.00	8.48	0.00	1.80	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
257	1.030	27.91	1.78	417.18	1634.52	5.53	8.51	0.00	8.51	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
258	1.020	27.91	1.78	421.94	1649.17	5.54	8.53	0.00	8.53	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
259	1.010	27.91	1.78	426.74	1663.93	5.56	8.55	0.00	8.55	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
260	1.000	27.91	1.79	431.57	1678.78	5.57	8.58	0.00	8.58	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
261	0.990	27.91	1.79	436.43	1693.73	5.58	8.60	0.00	8.60	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
262	0.980	27.91	1.79	441.32	1708.77	5.59	8.63	0.00	8.63	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
263	0.970	27.91	1.80	446.25	1723.92	5.60	8.65	0.00	8.65	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
264	0.960	27.91	1.80	451.21	1739.16	5.61	8.67	0.00	8.67	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
265	0.950	27.91	1.80	456.20	1754.51	5.62	8.70	0.00	8.70	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
266	0.940	27.91	1.80	461.22	1769.95	5.63	8.72	0.00	8.72	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
267	0.930	27.91	1.81	466.27	1785.49	5.64	8.74	0.00	8.74	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
268	0.920	27.91	1.81	471.36	1801.12	5.65	8.77	0.00	8.77	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
269	0.910	27.91	1.81	476.47	1816.86	5.66	8.79	0.00	8.79	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
270	0.900	27.91	1.82	481.63	1832.70	5.67	8.81	0.00	8.81	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
271	0.890	27.91	1.82	486.81	1848.63	5.68	8.84	0.00	8.84	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
272	0.880	27.91	1.82	492.02	1864.67	5.68	8.86	0.00	8.86	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
273	0.870	27.91	1.82	497.27	1880.80	5.69	8.88	0.00	8.88	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
274	0.860	27.91	1.83	502.55	1897.04	5.70	8.91	0.00	8.91	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
275	0.850	27.91	1.83	507.86	1913.37	5.70	8.93	0.00	8.93	0.00	1.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
276	0.840	27.91	1.83	513.20	1929.81	5.71	8.95	0.00	8.95	0.00	1.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
277	0.830	27.91	1.83	518.58	1946.34	5.72	8.98	0.00	8.98	0.00	1.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
278	0.820	27.91	1.84	523.99	1962.97	5.72	9.00	0.00	9.00	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
279	0.810	27.91	1.84	529.43	1979.71	5.73	9.03	0.00	9.03	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
280	0.800	27.91	1.84	534.91	1996.54	5.74	9.05	0.00	9.05	0.00	2.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
281	0.790	27.91	1.85	540.41	2013.48	5.74	9.07	0.00	9.07	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
282	0.780	27.91	1.85	545.95	2030.51	5.75	9.10	0.00	9.10	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
283	0.770	27.91	1.85	551.53	2047.65	5.75	9.12	0.00	9.12	0.00	2.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
284	0.760	27.91	1.85	557.13	2064.88	5.76	9.15	0.00	9.15	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
285	0.750	27.91	1.86	562.77	2082.22	5.76	9.17	0.00	9.17	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
286	0.740	27.91	1.86	568.44	2099.66	5.77	9.20	0.00	9.20	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
287	0.730	27.91	1.86	574.14	2117.20	5.77	9.22	0.00	9.22	0.00	2.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

288	0.720	27.91	1.86	579.88	2134.84	5.78	9.24	0.00	9.24	0.00	2.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
289	0.710	27.91	1.87	585.65	2152.58	5.78	9.27	0.00	9.27	0.00	2.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
290	0.700	27.91	1.87	591.45	2170.42	5.79	9.29	0.00	9.29	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
291	0.690	27.91	1.87	597.29	2188.36	5.80	9.32	0.00	9.32	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
292	0.680	27.91	1.88	603.16	2206.41	5.80	9.34	0.00	9.34	0.00	2.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
293	0.670	27.91	1.88	609.06	2224.56	5.81	9.37	0.00	9.37	0.00	2.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
294	0.660	27.91	1.88	614.99	2242.81	5.81	9.40	0.00	9.40	0.00	2.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
295	0.650	27.91	1.88	620.96	2261.16	5.82	9.42	0.00	9.42	0.00	2.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
296	0.640	27.91	1.89	626.96	2279.61	5.82	9.45	0.00	9.45	0.00	2.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
297	0.630	27.91	1.89	633.00	2298.17	5.83	9.47	0.00	9.47	0.00	2.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
298	0.620	27.91	1.89	639.07	2316.83	5.83	9.50	0.00	9.50	0.00	2.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
299	0.610	27.91	1.89	645.17	2335.59	5.84	9.53	0.00	9.53	0.00	2.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
300	0.600	27.91	1.90	651.30	2354.45	5.85	9.55	0.00	9.55	0.00	2.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
301	0.590	27.91	1.90	657.47	2373.42	5.85	9.58	0.00	9.58	0.00	2.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
302	0.580	27.91	1.90	663.67	2392.49	5.86	9.61	0.00	9.61	0.00	2.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
303	0.570	27.91	1.91	669.90	2411.66	5.87	9.63	0.00	9.63	0.00	2.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
304	0.560	27.91	1.91	676.17	2430.93	5.87	9.66	0.00	9.66	0.00	2.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
305	0.550	27.91	1.91	682.47	2450.31	5.88	9.69	0.00	9.69	0.00	2.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
306	0.540	27.91	1.91	688.81	2469.79	5.89	9.72	0.00	9.72	0.00	2.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
307	0.530	27.91	1.92	695.18	2489.38	5.89	9.75	0.00	9.75	0.00	2.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
308	0.520	27.91	1.92	701.58	2509.06	5.90	9.77	0.00	9.77	0.00	2.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
309	0.510	27.91	1.92	708.02	2528.85	5.91	9.80	0.00	9.80	0.00	2.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
310	0.500	27.91	1.93	714.49	2548.75	5.92	9.83	0.00	9.83	0.00	2.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
311	0.490	27.91	1.93	720.99	2568.75	5.93	9.86	0.00	9.86	0.00	2.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
312	0.480	27.91	1.93	727.53	2588.85	5.94	9.89	0.00	9.89	0.00	2.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
313	0.470	27.91	1.93	734.10	2609.06	5.95	9.92	0.00	9.92	0.00	2.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
314	0.460	27.91	1.94	740.70	2629.37	5.96	9.95	0.00	9.95	0.00	2.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
315	0.450	27.91	1.94	747.34	2649.78	5.97	9.98	0.00	9.98	0.00	2.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
316	0.440	27.91	1.94	754.02	2670.30	5.98	10.01	0.00	10.01	0.00	2.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
317	0.430	27.91	1.94	760.72	2690.92	5.99	10.04	0.00	10.04	0.00	2.57	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
318	0.420	27.91	1.95	767.46	2711.65	6.00	10.08	0.00	10.08	0.00	2.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
319	0.410	27.91	1.95	774.24	2732.48	6.01	10.11	0.00	10.11	0.00	2.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
320	0.400	27.91	1.95	781.05	2753.42	6.03	10.14	0.00	10.14	0.00	2.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
321	0.390	27.91	1.96	787.89	2774.46	6.04	10.17	0.00	10.17	0.00	2.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
322	0.380	27.91	1.96	794.77	2795.61	6.05	10.20	0.00	10.20	0.00	2.68	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
323	0.370	27.91	1.96	801.68	2816.86	6.07	10.24	0.00	10.24	0.00	2.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
324	0.360	27.91	1.96	808.62	2838.22	6.09	10.27	0.00	10.27	0.00	2.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
325	0.350	27.91	1.97	815.60	2859.68	6.10	10.31	0.00	10.31	0.00	2.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
326	0.340	27.91	1.97	822.62	2881.24	6.12	10.34	0.00	10.34	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
327	0.330	27.91	1.97	829.66	2902.92	6.14	10.37	0.00	10.37	0.00	2.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
328	0.320	27.91	1.97	836.75	2924.69	6.15	10.41	0.00	10.41	0.00	2.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
329	0.310	27.91	1.98	843.86	2946.57	6.17	10.44	0.00	10.44	0.00	2.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
330	0.300	27.91	1.98	851.01	2968.56	6.19	10.48	0.00	10.48	0.00	2.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 6 RKM 0.3 to 0.0 SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
331	UPR RCH	0.01810	27.91	1.98	851.01	2968.56	6.19	10.48	0.00	10.48	0.00	2.86	0.00	0.00	0.00	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	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
331	0.30	0.29	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13100.29	0.013	0.879	0.013
332	0.29	0.28	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13147.04	0.013	0.882	0.013
333	0.28	0.27	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13193.80	0.013	0.885	0.013
334	0.27	0.26	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13240.56	0.013	0.888	0.013
335	0.26	0.25	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13287.31	0.013	0.891	0.013
336	0.25	0.24	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13334.07	0.013	0.894	0.013
337	0.24	0.23	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13380.82	0.013	0.898	0.013
338	0.23	0.22	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13427.58	0.013	0.901	0.013
339	0.22	0.21	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13474.33	0.013	0.904	0.013
340	0.21	0.20	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13521.09	0.013	0.907	0.013
341	0.20	0.19	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13567.85	0.013	0.910	0.013
342	0.19	0.18	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13614.60	0.013	0.913	0.013
343	0.18	0.17	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13661.36	0.013	0.916	0.014
344	0.17	0.16	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13708.11	0.014	0.919	0.014
345	0.16	0.15	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13754.87	0.014	0.923	0.014
346	0.15	0.14	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13801.63	0.014	0.926	0.014
347	0.14	0.13	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13848.38	0.014	0.929	0.014
348	0.13	0.12	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13895.14	0.014	0.932	0.014
349	0.12	0.11	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13941.89	0.014	0.935	0.014
350	0.11	0.10	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	13988.65	0.014	0.938	0.014
351	0.10	0.09	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14035.41	0.014	0.941	0.014
352	0.09	0.08	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14082.16	0.014	0.944	0.014
353	0.08	0.07	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14128.92	0.014	0.948	0.014
354	0.07	0.06	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14175.67	0.014	0.951	0.014
355	0.06	0.05	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14222.43	0.014	0.954	0.014
356	0.05	0.04	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14269.18	0.014	0.957	0.014
357	0.04	0.03	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14315.94	0.014	0.960	0.014
358	0.03	0.02	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14362.70	0.014	0.963	0.014
359	0.02	0.01	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14409.45	0.014	0.966	0.014
360	0.01	0.00	0.01810	84.5	0.00079	0.15	1.16	19.81	229.03	198.12	22.90	14456.21	0.014	0.969	0.014
TOT						4.39			6870.80	5943.60					
AVG					0.0008		1.16	19.81			22.90				
CUM						49.43									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
331	0.290	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
332	0.280	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
333	0.270	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
334	0.260	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
335	0.250	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
336	0.240	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
337	0.230	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
338	0.220	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
339	0.210	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
340	0.200	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
341	0.190	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
342	0.180	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
343	0.170	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00

344	0.160	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
345	0.150	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
346	0.140	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
347	0.130	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
348	0.120	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
349	0.110	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
350	0.100	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
351	0.090	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
352	0.080	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
353	0.070	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
354	0.060	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
355	0.050	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
356	0.040	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
357	0.030	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
358	0.020	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
359	0.010	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
360	0.000	7.75	0.90	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.06	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
331	0.290	27.91	1.98	858.33	2991.08	6.22	10.52	0.00	10.52	0.00	2.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
332	0.280	27.91	1.98	865.84	3014.15	6.24	10.55	0.00	10.55	0.00	2.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
333	0.270	27.91	1.99	873.38	3037.35	6.26	10.59	0.00	10.59	0.00	2.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
334	0.260	27.91	1.99	880.97	3060.67	6.28	10.62	0.00	10.62	0.00	2.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
335	0.250	27.91	1.99	888.59	3084.12	6.30	10.65	0.00	10.65	0.00	2.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
336	0.240	27.91	1.99	896.26	3107.69	6.31	10.67	0.00	10.67	0.00	3.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
337	0.230	27.91	1.99	903.96	3131.39	6.33	10.70	0.00	10.70	0.00	3.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
338	0.220	27.91	1.99	911.71	3155.21	6.35	10.72	0.00	10.72	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
339	0.210	27.91	2.00	919.50	3179.16	6.37	10.74	0.00	10.74	0.00	3.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
340	0.200	27.91	2.00	927.33	3203.24	6.38	10.76	0.00	10.76	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
341	0.190	27.91	2.00	935.20	3227.44	6.40	10.77	0.00	10.77	0.00	3.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
342	0.180	27.91	2.00	943.11	3251.76	6.41	10.79	0.00	10.79	0.00	3.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
343	0.170	27.91	2.00	951.07	3276.22	6.43	10.80	0.00	10.80	0.00	3.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
344	0.160	27.91	2.00	959.06	3300.80	6.44	10.81	0.00	10.81	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
345	0.150	27.91	2.01	967.10	3325.51	6.45	10.81	0.00	10.81	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
346	0.140	27.91	2.01	975.17	3350.34	6.47	10.82	0.00	10.82	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
347	0.130	27.91	2.01	983.29	3375.31	6.48	10.82	0.00	10.82	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
348	0.120	27.91	2.01	991.45	3400.40	6.49	10.82	0.00	10.82	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
349	0.110	27.91	2.01	999.65	3425.62	6.50	10.82	0.00	10.82	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
350	0.100	27.91	2.01	1007.90	3450.97	6.51	10.81	0.00	10.81	0.00	3.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
351	0.090	27.91	2.01	1016.18	3476.44	6.52	10.80	0.00	10.80	0.00	3.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
352	0.080	27.91	2.02	1024.51	3502.04	6.54	10.80	0.00	10.80	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
353	0.070	27.91	2.02	1032.88	3527.78	6.55	10.78	0.00	10.78	0.00	3.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
354	0.060	27.91	2.02	1041.29	3553.64	6.56	10.77	0.00	10.77	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
355	0.050	27.91	2.02	1049.74	3579.63	6.56	10.75	0.00	10.75	0.00	3.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
356	0.040	27.91	2.02	1058.24	3605.75	6.57	10.74	0.00	10.74	0.00	3.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
357	0.030	27.91	2.03	1066.77	3632.00	6.58	10.72	0.00	10.72	0.00	2.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
358	0.020	27.91	2.03	1075.35	3658.38	6.59	10.69	0.00	10.69	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
359	0.010	27.91	2.03	1083.98	3684.89	6.60	10.67	0.00	10.67	0.00	2.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
360	0.000	27.91	2.03	1092.64	3711.53	6.61	10.64	0.00	10.64	0.00	2.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

```
STREAM SUMMARY                                          BAYOU CANE WATERSHED MODEL
HEADWATER                                               SUMR,4,5 DO,OverallReduc,90%reduc rch 1,60%reduc rch 2-6,hosp5/2

 TRAVEL TIME       =          49.43 DAYS

 MAXIMUM EFFLUENT  =          84.53 PERCENT

 FLOW              =   0.00280 TO    0.01810   m³/s
 DISPERSION        =   0.0338  TO    0.9694    m²/s
 VELOCITY          =   0.00052 TO    0.00333   m/s
 DEPTH             =   1.02    TO    1.21      m
 WIDTH             =   4.88    TO   28.35      m

 BOD DECAY         =    0.06   TO    0.10      per day
 NH3 DECAY         =    0.00   TO    0.00      per day
 SOD               =    0.00   TO    2.88      g/m²/d
 NH3 SOURCE        =    0.00   TO    0.00      g/m²/d
 REAERATION        =    0.68   TO    0.90      per day
 BOD SETTLING      =    0.06   TO    0.06      per day
 NBOD DECAY        =    0.15   TO    0.33      per day
 NBOD SETTLING     =    0.06   TO    0.06      per day

 TEMPERATURE       =   27.91   TO   27.91      deg C
 DISSOLVED OXYGEN  =    4.16   TO    7.04      mg/L


     .....EXECUTION COMPLETED
```

Appendix D2 – Summer, 90% Overall Reduction in Reach 1, 60% Reduction in Reaches 2-6, Justifications

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	**VALUE**	**UNITS**	**DATA SOURCE**
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
INHIBITION CONTROL VALUE	3		The water column dissolved oxygen demand is assumed to come primarily from facultative bacteria under anoxic conditions and SOD is not influenced by modeled dissolved oxygen levels in the upper water column.
K2 MAXIMUM	10	1/day at 20 deg C	Model default
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		Used 1/day
DISPERSION EQUATION	3		Equation used to account for all modes of transport.
ALGAE OXYGEN PROD	0.05		Calibration
TIDE HEIGHT	0.236		Calculated from level monitor data
TIDAL PERIOD	24.58		Calculated from level monitor data
PERIOD OF TIDAL RISE	11.625		Calculated from level monitor data

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	**ID**	**Name**	**Upstream River Kilometer**	**Downstream River Kilometer**	**Element Length, meters**	**Data Source**
1	BC	RKM 3.6 to 2.8	3.60	2.80	10.0000	ARC MAP Calc.
2	BC	RKM 2.8 to 1.9	2.80	1.90	10.0000	Same as Reach 1
3	BC	RKM 1.9 to 1.5	1.90	1.50	10.0000	Same as Reach 1
4	BC	RKM 1.5 to 1.1	1.50	1.10	10.0000	Same as Reach 1
5	BC	RKM 1.1 to 0.3	1.10	0.30	10.0000	Same as Reach 1
6	BC	RKM 0.3 to 0.0	0.30	0.00	10.0000	Same as Reach 1

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria									
		Data Type 9 - Advective Hydraulic Coefficients							
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source
1	RKM 3.6 to 2.8	0	0	4.877	3665	0	0	1.113	3665
2	RKM 2.8 to 1.9	0	0	15.850	BC04 (3752)	0	0	1.085	BC04 (3752)
3	RKM 1.9 to 1.5	0	0	27.737	BC05 (3753)	0	0	1.189	BC05 (3753)
4	RKM 1.5 to 1.1	0	0	28.346	BC06 (3754)	0	0	1.021	BC06 (3754)
5	RKM 1.1 to 0.3	0	0	21.488	BC07 (3755)	0	0	1.210	BC07 (3755)
6	RKM 0.3 to 0.0	0	0	19.812	3666	0	0	1.156	3666

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria							
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS							
Reach	Tidal Range	Data Source	a	b	c	d	Data Source
1	0.95	Level monitor	60.00	0.833	0.0	1.0	"a" obtained from calibration. "b, c, and d" Tracor eqn.
2	0.95	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
3	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
4	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
5	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
6	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria								
DATA TYPE 11-INITIAL CONDITIONS								
Reach	**Name**	**Temp, deg C**	**Sal, ppt**	**Data Source**	**DO, mg/l**	**Data Source**	**Chlorophyll a**	**Data Source**
1	RKM 3.6 to 2.8	27.91	0.10	Temp: 90th percentile for WQN 0302, Salinity: Cont Mont	5.00	DO Crtierion for Subsegment 040903	10.00	Best Professional Judgement
2	RKM 2.8 to 1.9	27.91	0.23	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
3	RKM 1.9 to 1.5	27.91	1.15	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
4	RKM 1.5 to 1.1	27.91	1.45	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
5	RKM 1.1 to 0.3	27.91	1.76	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
6	RKM 0.3 to 0.0	27.91	1.98	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria								
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS								
REACH	**NAME**	**K2 OPT**	**Data Source**	**BKGRND SOD, gmO2/m2/day at 20 deg C**	**Data Source**	**Aerobic BOD1 Dec Rate (1/day)**	**BOD1 SETT RATE (1/day)**	**Data Source**
1	RKM 3.6 to 2.8	11	Texas Equation	0.438	90% Reduction	0.0440	0.05	Lab, Calibration
2	RKM 2.8 to 1.9	11	Texas Equation	1.750	60% Reduction	0.0680	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	11	Texas Equation	1.500	60% Reduction	0.0570	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	11	Texas Equation	1.200	60% Reduction	0.0570	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	1	Mattingly equation-wind influence	0.950	60% Reduction	0.0570	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	1	Mattingly equation-wind influence	0.000	60% Reduction	0.0620	0.05	Same as Reach 1

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria					
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS					
Reach	**Name**	**NBOD decay rate, 1/day**	**Data Source**	**NBOD settling rate, 1/day**	**Data Source**
1	RKM 3.6 to 2.8	0.20	Calibration	0.05	Calibration
2	RKM 2.8 to 1.9	0.10	Same as Reach 1	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	0.10	Same as Reach 1	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	0.10	Same as Reach 1	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	0.10	Same as Reach 1	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	0.10	Same as Reach 1	0.05	Same as Reach 1

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria					
DATA TYPE 19 - NONPOINT SOURCE DATA					
Reach	**Reach Name**	**Length of Reach, km**	**UCBOD1, kg/day**	**NBOD, kg/day**	**Data Source**
1	RKM 3.6 to 2.8	0.80	0.625	0.225	90% Reduction
2	RKM 2.8 to 1.9	0.90	12.000	2.000	60% Reduction
3	RKM 1.9 to 1.5	0.40	13.000	3.650	60% Reduction
4	RKM 1.5 to 1.1	0.40	14.000	4.000	60% Reduction
5	RKM 1.1 to 0.3	0.80	27.500	8.250	60% Reduction
6	RKM 0.3 to 0.0	0.30	23.500	14.000	60% Reduction

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria							
DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Headwater Name	**Element No.**	**Headwater Flow, cms**	**Data Source**	**Salinity**	**Conductivity**	**Chlorides**	**Data Source**
Headwater	1	0.0028	LTP Summer Default	0.1	215.38	21.50	SALINITY - CONT MONT (3665) CHLORIDE - LAB DATA (3665) CONDUCTIVITY - CONT MONT (3665)

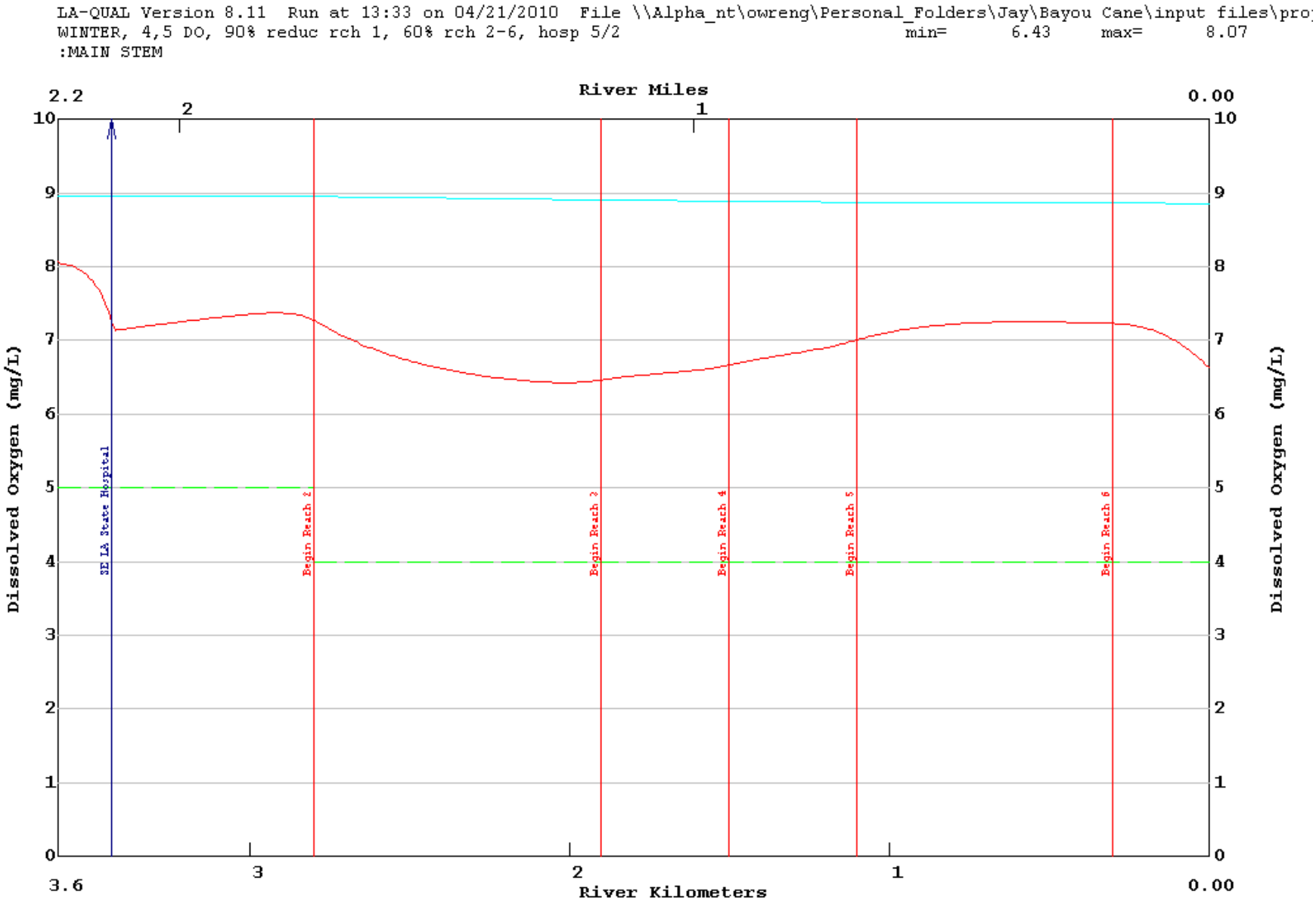
Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria				
DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	**Dissolved Oxygen, mg/L**	**UCBOD1, mg/l**	**NBOD, mg/l**	**Data Source**
Headwater	7.06	1.69	0.29	DO: 90% saturation at WQN 0302 at 90th percentile seasonal temperature BOD: 90% overall reduction

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria							
DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	**EL #**	**Flow, cms**	**Data Source**	**Salinity**	**Conductivity**	**Chlorides**	**Data Source**
Southeast Louisiana State Hospital, AI 9371	18	0.0153	Design capacity/expected flow from permit plus 20% margin of safety	0.22	458.0	22.5	Salinity from insitu during survey. Chloride and conductivity from lab data during survey.

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria						
DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	**EL #**	**DO, mg/l**	**Data Source**	**UCBOD1, mg/l**	**UNBOD, mg/l**	**Data Source**
Southeast Louisiana State Hospital, AI 9371	18	5.00	Facility currently has post-aeration	11.5000	8.6000	Required limits are $CBOD_5$=5 mg/L, NH_3-N=2 mg/L. UCBOD=$CBOD_5$*2.3, UNBOD=NH_3-N*4.3

Bayou Cane, Summer, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Current Criteria			
DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	**Value**	**Units**	**Data Source**
TEMPERATURE	27.9100	^{O}C	90th Percentile Temp for WQN 0302
SALINITY	2.0300	ppt	BC09 (3756) Continuous Monitor
CHLORIDES	1097.0000	mg/L	BC09 (3756) Lab
CONDUCTIVITY	3724.9400	umhos/cm	BC09 (3756) Continuous Monitor
DISSOLVED OXYGEN	6.6100	mg/L	BC09 (3756) Continuous Monitor
CBOD1	10.6260	mg/L	BC09 (3756) Lab
CHLOROPHYLL A	10.0000	ug/L	Best Professional Judgement
NBOD	2.9100	mg/L	BC09 (3756) Lab

Appendix D3 –Winter, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6--DO Graph, Input, and Output for Subsegments 040903 & 040904


LA-QUAL Version 8.11 Run at 13:33 on 04/21/2010 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\pro
WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2
min= 6.43 max= 8.07
:MAIN STEM
River Miles
2.2
2
1
0.00
Dissolved Oxygen (mg/L)
SE LA State Hospital
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers

BAYOU CANE, WINTER, 90% OVERALL REDUCTION IN REACH 1, 60% OVERALL REDUCTION IN REACHES 2-6, INPUT DATA SET

```
TITLE01      BAYOU CANE WATERSHED MODEL
TITLE02      WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2
CONTROL  YES METRIC UNITS
ENDATA01
MODOPT01  NO TEMPERATURE
MODOPT02  NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06  NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10  NO PHOSPHORUS
MODOPT11  NO CHLOROPHYLL A
MODOPT12  NO MACROPHYTES
MODOPT13  NO COLIFORM
ENDATA02
PROGRAM  DISPERSION EQUATION               =   3.
PROGRAM  OCEAN EXCHANGE RATIO              =   1.0
PROGRAM  TIDE HEIGHT                       =   0.236
PROGRAM  TIDAL PERIOD                      =   24.58
PROGRAM  PERIOD OF TIDAL RISE              =   11.625
PROGRAM  KL MINIMUM                        =   0.7
PROGRAM  INHIBITION CONTROL VALUE          =   3.
PROGRAM  EFFECTIVE BOD DUE TO ALGAE        =   0.0
PROGRAM  ALGAE OXYGEN PROD                 =   0.05
PROGRAM  K2 MAXIMUM                        =   10.0
PROGRAM  HYDRAULIC CALCULATION METHOD      =   2.
PROGRAM  SETTLING RATE UNITS               =   2.
ENDATA03
!Temperature Correction Constants
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ******** ********
ENDATA04
ENDATA05
ENDATA06
```

```
ENDATA07
!Reach Identification Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -- ********************************----------**********----------
!          R#  ID   REACH NAME                          RKM       RKM    LENGTH
REACH ID    1  BC RKM 3.6 to 2.8                       3.6       2.8      0.01
REACH ID    2  BC RKM 2.8 to 1.9                       2.8       1.9      0.01
REACH ID    3  BC RKM 1.9 to 1.5                       1.9       1.5      0.01
REACH ID    4  BC RKM 1.5 to 1.1                       1.5       1.1      0.01
REACH ID    5  BC RKM 1.1 to 0.3                       1.1       0.3      0.01
REACH ID    6  BC RKM 0.3 to 0.0                       0.3       0.0      0.01
ENDATA08
!Advective Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!         ***  -------*******-------*******-------*******-------*******
!                 a       b       c     d       e        f
!               WIDTH   WIDTH    WIDTH DEPTH   DEPTH    DEPTH
!          R#   COEFF    EXP     CONST COEFF    EXP     CONST SLOPE MANNING
! Reach 1 - 3665
HYDR-1      1   0.00    0.00     4.877 0.00    0.00     1.113
!
! Reach 2 - BC04 (3752)
HYDR-1      2   0.00    0.00    15.85  0.00    0.00     1.085
!
! Reach 3 - BC05 (3753)
HYDR-1      3   0.00    0.00    27.737 0.00    0.00     1.189
!
! Reach 4 - BC06 (3754)
HYDR-1      4   0.00    0.00    28.346 0.00    0.00     1.021
!
! Reach 5 - BC07 (3755)
HYDR-1      5   0.00    0.00    21.488 0.00    0.00     1.21
!
! Reach 6 - 3666
HYDR-1      6   0.00    0.00    19.812 0.00    0.00     1.156
ENDATA09
!Dispersive Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
```

```
!To take into consideration all modes of transport, equation 3 (E=aD^bQ^cVm^d ) in Laqual was used.
!Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and
QUAL2E equations.
!The value for coefficient "a" was varied during calibration until the measured dispersion value was obtained.
!          R#  RANGE    a          b         c         d
!         ***  ---------------------------------------
HYDR-2      1  0.95     60.0     0.833     0.0       1.0
HYDR-2      2  0.95     60.0     0.833     0.0       1.0
HYDR-2      3  0.93     60.0     0.833     0.0       1.0
HYDR-2      4  0.93     60.0     0.833     0.0       1.0
HYDR-2      5  1.00     60.0     0.833     0.0       1.0
HYDR-2      6  1.00     60.0     0.833     0.0       1.0
ENDATA10
!Initial Conditions
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!          ***  --------********--------********--------********--------********
!           R#    TEMP  SALINITY   DO     NH3 N  NIT NIT  PHOS   CHL A   MACROPHYTES
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3665)
!DO - Criterion for subsegment 040903
!Chlorophyll A - Best professional judgement
INITIAL     1    20.71    0.10   5.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3752-BC04)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     2    20.71    0.23   4.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3753-BC05)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     3    20.71    1.15   4.00                              10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (BC05, BC07)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     4    20.71    1.45   4.00                              10.0
```

```
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3755-BC07)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     5    20.71    1.76   4.00                            10.0
!
!Temp - 90th percentile temp for Water Quality Monitoring Site 0302
!Salinity - Cont Mont Avg (3666)
!DO - Criterion for subsegment 040904
!Chlorophyll A - Best professional judgement
INITIAL     6    20.71    1.98   4.00                            10.0
ENDATA11
!Reaeration, Sediment Oxygen Demand and BOD Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8---------9
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901
!         ***  -----*****----- *****------******------******------******-------***
!               REA                          BOD 1  BOD 1   BOD 1       BOD 2    BOD 2
!          R#   EQ   "a"                SOD  DECAY  SETT    CONV        DECAY    SETT
!Texas Equation used for reaches 1-4.
!Mattingly equation was used for reaches 5 & 6 to account for wind reaeration.
!Settling rates determined through calibration.  Decay rates from lab.
!CB0D1 DECAY (3665)
COEF-1      1   11.0                  0.438  0.0440 0.05
!
!CB0D1 DECAY (3752-BC04)
COEF-1      2   11.0                  1.750  0.0680 0.05
!
!CB0D1 DECAY (3753-BC05)
COEF-1      3   11.0                  1.500  0.0570 0.05
!
!CB0D1 DECAY - Avg (3753-BC05, 3755-BC07)
COEF-1      4   11.0                  1.200  0.0570 0.05
!
!CB0D1 DECAY (3755-BC07)
COEF-1      5   1.0  0.738            0.950  0.0570 0.05
!
!CB0D1 DECAY (3666)
COEF-1      6   1.0  0.773            0.000  0.0620 0.05
ENDATA12
!Nitrogen and Phosphorus Coefficients
```

```
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********-------********-------********-------
!              NBOD     NBOD
!           R#  DECAY    SETT
!Settling rates determined through calibration.  Began with decay rates from lab but adjusted
!them during calibration.
!NBOD Decay (3665)
COEF-2      1  0.200    0.05
!
!NBOD Decay (3752-BC04)
COEF-2      2  0.100    0.05
!
!NBOD Decay (3753-BC05)
COEF-2      3  0.100    0.05
!
!NBOD Decay - Avg (3753-BC05, 3755-BC07)
COEF-2      4  0.100    0.05
!
!NBOD Decay (3755-BC07)
COEF-2      5  0.100    0.05
!
!NBOD Decay (3666)
COEF-2      6  0.100    0.05
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********-------********
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
!           R#   OUTFLOW   INFLOW  TEMP     SALINITY CHLORIDE  COND
!
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
```

```
!         ***  ---------*********----------*********----------**********
!          R#       DO      BOD 1      NBOD     NH3 N    NIT NIT     BOD 2
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------**********
!          R#    PHOSPH     CHL A    COLIFORM NONCONSERVATIVE
!
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------**********
!          R#     BOD 1    NBOD   COLIFORM NONCONS    DO      BOD 2
NONPOINT    1     0.625    0.225
NONPOINT    2    12.000    2.000
NONPOINT    3    13.000    3.650
NONPOINT    4    14.000    4.000
NONPOINT    5    27.500    8.250
NONPOINT    6    23.500   14.000
ENDATA19
!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********--------
!         E#    NAME                       FLOW    TEMP  SALIN   CHLORIDE   COND
!Flow - Winter LTP default
!Salinity - Cont Mont (3665)
!Chloride - Lab Data (3665)
!Conductivity - Cont Mont (3665)
HDWTR-1     1  HEADWATER                 0.028           0.10     21.5    215.38
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------**********---------**********----------**********
!          E#      DO      BOD 1    NBOD    NH3-N    NIT NIT  BOD 2
!DO - 90% saturation at water quality monitoring site 0302 at 90 percentile
!seasonal temperature
!BOD1 and NBOD - 90% overall reduction
```

```
HDWTR-2     1      8.07    1.69    0.29
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR   CHL A   COLIFORM  NONCONSERVATIVE
ENDATA22
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********---------*********
!          E#     NAME               FLOW      TEMP   SALINITY CHLORIDE  COND
!Southeast Louisiana State Hospital AI# 9371
!Flow - Design capacity/expected flow (0.28 MGD)from permit plus 20% MOS
!Salinity from insitu during survey. Chloride and conductivity from lab data
!during survey
WSTLD-1    18  SE LA State Hospital  0.0153               0.22    22.5    458
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********-----*********----------*****---------*********
!          E#       DO    BOD 1         NBOD    NH3-N          NIT NIT  BOD 2
!Southeast Louisiana State Hospital AI# 9371.  Facility has post-aeration.
!Limits of 5/2. UCBOD=CBOD5*2.3.  UNBOD=NH3-N*4.3
WSTLD-2    18      5.00   11.500        8.600
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234578901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR  CHL A    COLIFORM NONCONSERVATIVE
ENDATA26
!Lower Boundary Conditions
!
!90th percentile temp for water quality monitoring site 0302
LOWER BC TEMPERATURE                        =  20.71
!
!Site 3756-BC09 Cont Mont
```

```
LOWER BC SALINITY                           =   2.03
!
!Site 3756-BC09 Lab
LOWER BC CONSERVATIVE MATERIAL I (CHLORIDES)=  1097
!
!Site 3756-BC09 Cont Mont
LOWER BC CONSERVATIVE MATERIAL II (COND)    = 3724.94
!
!Site 3756-BC09 Cont Mont
LOWER BC DISSOLVED OXYGEN                   =   6.61
!
!Site 3756-BC09 Lab
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =  10.626
!
!Best professional judgement
LOWER BC CHLOROPHYLL A                      =   10.0
!
!Site 3756-BC09 Lab
LOWER BC NBOD                               =   2.91
ENDATA27
!Dam Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ******************** ** ******** ******** ********
ENDATA28
SENSITIV BASEFLOW   30    -30
SENSITIV VELOCITY   30    -30
SENSITIV DEPTH      30    -30
SENSITIV DISPERSI   30    -30
SENSITIV REAERATI   30    -30
SENSITIV BOD DECA   30    -30
SENSITIV BOD SETT   30    -30
SENSITIV TRANGE     30    -30
SENSITIV NBOD DEC   30    -30
SENSITIV NBOD SET   30    -30
SENSITIV BENTHAL    30    -30
SENSITIV TEMPERAT    2     -2
SENSITIV SALINITY   30    -30
SENSITIV CHLOR A    30    -30
SENSITIV HDW FLOW   30    -30
SENSITIV HDW DO     30    -30
```

```
SENSITIV HDW BOD    30    -30
SENSITIV HDW NBOD   30    -30
SENSITIV WSL FLOW   30    -30
SENSITIV WSL DO     30    -30
SENSITIV WSL BOD    30    -30
SENSITIV WSL NBOD   30    -30
SENSITIV OXR        30    -30
SENSITIV LBC TEMP    2     -2
SENSITIV LBC DO     30    -30
SENSITIV LBC BOD    30    -30
SENSITIV LBC NBOD   30    -30
SENSITIV NPS BOD    30    -30
SENSITIV NPS NBOD   30    -30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =   6                          INCREMENT =  0.1
PLOT RCH  1  2  3  4  5  6
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
ENDATA30
OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31
```

BAYOU CANE, WINTER, 90% OVERALL REDUCTION IN REACH 1, 60% OVERALL REDUCTION IN REACHES 2-6, OUTPUT

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\projections\current criteria\overall reduc cane winter 4, 5 DO, 90% reduc rch 1,
60% others, hosp 5 2.txt
Output produced at 13:48 on 04/21/2010

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

CARD TYPE       CONTROL TITLES

TITLE01         BAYOU CANE WATERSHED MODEL
TITLE02         WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2
CONTROL   YES   METRIC UNITS
ENDATA01

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

```
CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03  YES   CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04  YES   CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08  YES   NBOD OXYGEN DEMAND
MODOPT10   NO   PHOSPHORUS
MODOPT11   NO   CHLOROPHYLL A
MODOPT12   NO   MACROPHYTES
MODOPT13   NO   COLIFORM
ENDATA02

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

PROGRAM         DISPERSION EQUATION               =         3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM         OCEAN EXCHANGE RATIO              =         1.00000
PROGRAM         TIDE HEIGHT                       =         0.23600 meters
PROGRAM         TIDAL PERIOD                      =        24.58000 hours
PROGRAM         PERIOD OF TIDAL RISE              =        11.62500 hours
PROGRAM         KL MINIMUM                        =         0.70000 meters/day
PROGRAM         INHIBITION CONTROL VALUE          =         3.00000 (inhibit all rates but SOD)
PROGRAM         EFFECTIVE BOD DUE TO ALGAE        =         0.00000 mg/L BOD per ug/L chl a
PROGRAM         ALGAE OXYGEN PROD                 =         0.05000 mg O/ug chl a/day
PROGRAM         K2 MAXIMUM                        =        10.00000 per day
PROGRAM         HYDRAULIC CALCULATION METHOD      =         2.00000 (widths and depths)
PROGRAM         SETTLING RATE UNITS               =         2.00000 (values entered as per day)
ENDATA03

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

 CARD TYPE     RATE CODE     THETA VALUE

ENDATA04

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

ENDATA07
```

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BC	RKM 3.6 to 2.8	3.60	TO	2.80	0.0100	0.80	80	1	80
REACH ID	2	BC	RKM 2.8 to 1.9	2.80	TO	1.90	0.0100	0.90	90	81	170
REACH ID	3	BC	RKM 1.9 to 1.5	1.90	TO	1.50	0.0100	0.40	40	171	210
REACH ID	4	BC	RKM 1.5 to 1.1	1.50	TO	1.10	0.0100	0.40	40	211	250
REACH ID	5	BC	RKM 1.1 to 0.3	1.10	TO	0.30	0.0100	0.80	80	251	330
REACH ID	6	BC	RKM 0.3 to 0.0	0.30	TO	0.00	0.0100	0.30	30	331	360

ENDATA08

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

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	BC	0.000	0.000	4.877	0.000	0.000	1.113	0.00000	0.000
HYDR-1	2	BC	0.000	0.000	15.850	0.000	0.000	1.085	0.00000	0.000
HYDR-1	3	BC	0.000	0.000	27.737	0.000	0.000	1.189	0.00000	0.000
HYDR-1	4	BC	0.000	0.000	28.346	0.000	0.000	1.021	0.00000	0.000
HYDR-1	5	BC	0.000	0.000	21.488	0.000	0.000	1.210	0.00000	0.000
HYDR-1	6	BC	0.000	0.000	19.812	0.000	0.000	1.156	0.00000	0.000

ENDATA09

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

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	BC	0.95	60.000	0.833	0.000	1.000
HYDR	2	BC	0.95	60.000	0.833	0.000	1.000
HYDR	3	BC	0.93	60.000	0.833	0.000	1.000
HYDR	4	BC	0.93	60.000	0.833	0.000	1.000
HYDR	5	BC	1.00	60.000	0.833	0.000	1.000
HYDR	6	BC	1.00	60.000	0.833	0.000	1.000

ENDATA10

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

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BC	20.71	0.10	5.00	0.00	0.00	0.00	10.00	0.00
INITIAL	2	BC	20.71	0.23	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	3	BC	20.71	1.15	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	4	BC	20.71	1.45	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	5	BC	20.71	1.76	4.00	0.00	0.00	0.00	10.00	0.00
INITIAL	6	BC	20.71	1.98	4.00	0.00	0.00	0.00	10.00	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEF-1	1	BC	11 TEXAS	0.000	0.000	0.000	0.438	0.044	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	2	BC	11 TEXAS	0.000	0.000	0.000	1.750	0.068	0.050	0.000	0.000	0.000	0.000	0.000	0.000

```
COEF-1     3   BC  11 TEXAS            0.000     0.000     0.000     1.500     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     4   BC  11 TEXAS            0.000     0.000     0.000     1.200     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     5   BC   1 K2=a             0.738     0.000     0.000     0.950     0.057     0.050     0.000     0.000     0.000     0.000     0.000     0.000
COEF-1     6   BC   1 K2=a             0.773     0.000     0.000     0.000     0.062     0.050     0.000     0.000     0.000     0.000     0.000     0.000
ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE      REACH  ID        NBOD      NBOD   ORGN CONV       NH3       NH3      PHOS     DENIT
                                DECA      SETT  TO NH3 SRCE     DECA      SRCE      SRCE      RATE

COEF-2           1   BC       0.200     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           2   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           3   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           4   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           5   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
COEF-2           6   BC       0.100     0.050     0.000       0.000     0.000     0.000     0.000
ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE      REACH  ID       SECCHI    ALGAE:     ALGAE    ALG CONV     ALGAE     ALGAE     MACRO     MACRO
                                DEPTH     CHL A      SETT     TO SOD      GROW      RESP      GROW      RESP   SHADING

ENDATA14

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

CARD TYPE      REACH  ID    COLIFORM       NCM       NCM    NCM CONV
                            DIE-OFF     DECAY      SETT     TO SOD

ENDATA15

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

CARD TYPE      REACH  ID       OUTFLOW      INFLOW      TEMP     SALIN      CM-I     CM-II   IN/DIST  OUT/DIST

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                          BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT         1   BC        0.62     0.22       0.00      0.00      0.00      0.00
NONPOINT         2   BC       12.00     2.00       0.00      0.00      0.00      0.00
NONPOINT         3   BC       13.00     3.65       0.00      0.00      0.00      0.00
NONPOINT         4   BC       14.00     4.00       0.00      0.00      0.00      0.00
```

```
NONPOINT          5   BC       27.50      8.25      0.00      0.00      0.00      0.00
NONPOINT          6   BC       23.50     14.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                  UNIT     FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                       m³/s      cfs   deg C      ppt      mg/L  umhos/cm

HDWTR-1           1     HEADWATER               0   0.02800    0.989    0.00     0.10    21.500   215.380   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                          BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     HEADWATER                 8.07      1.69      0.29      0.00      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                       PHOS     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

ENDATA22

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

CARD TYPE  ELEMENT    RKILO  NAME                     FLOW       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                      m³/s        cfs      MGD   deg C      ppt      mg/L  umhos/cm

WSTLD-1       18       3.43  SE LA State Hospital   0.01530    0.54025    0.349    0.00     0.22    22.500   458.000
ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$
                                                                 % BOD                          %
CARD TYPE     ELEMENT   NAME                       DO       BOD      RMVL     NBOD               NITRIF               BOD#2
                                                   mg/L      mg/L                mg/L      mg/L                mg/L      mg/L

WSTLD-2          18     SE LA State Hospital       5.00     11.50      0.00      8.60      0.00      0.00      0.00      0.00
ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                       PHOS     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

ENDATA26

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

```
CARD TYPE    CONSTITUENT                    CONCENTRATION

LOWER BC     TEMPERATURE                        =     20.710     deg C
LOWER BC     SALINITY                           =      2.030     ppt
LOWER BC     CONSERVATIVE MATERIAL I (CHLORIDES)=   1097.000     mg/L
LOWER BC     CONSERVATIVE MATERIAL II (COND)    =   3724.940     umhos/cm
LOWER BC     DISSOLVED OXYGEN                   =      6.610     mg/L
LOWER BC     BOD1 BIOCHEMICAL OXYGEN DEMAND     =     10.626     mg/L
LOWER BC     CHLOROPHYLL A                      =     10.000     µg/L
LOWER BC     NBOD                               =      2.910     mg/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

SENSITIV         BASEFLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         VELOCITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DEPTH         30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         DISPERSI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         REAERATI      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD DECA      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BOD SETT      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TRANGE        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD DEC      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NBOD SET      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         BENTHAL       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         TEMPERAT       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         SALINITY      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         CHLOR A       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         OXR           30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC TEMP       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
ENDATA29

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


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

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


OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN   6 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED


FINAL REPORT    HEADWATER                                    BAYOU CANE WATERSHED MODEL
REACH NO.  1    RKM 3.6 to 2.8                               WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2
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********** REACH INPUTS **********

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.02800	0.00	0.10	21.50	215.38	8.07	1.69	0.00	1.69	0.00	0.29	0.00	0.00	0.00	10.00	0.00	0.00
18	WSTLD	0.01530	0.00	0.22	22.50	458.00	5.00	11.50	0.00	11.50	0.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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	3.60	3.59	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	10.93	0.000	0.338	0.005
2	3.59	3.58	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	21.87	0.000	0.338	0.005
3	3.58	3.57	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	32.80	0.000	0.338	0.005
4	3.57	3.56	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	43.74	0.000	0.338	0.005
5	3.56	3.55	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	54.67	0.000	0.338	0.005
6	3.55	3.54	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	65.61	0.000	0.338	0.005
7	3.54	3.53	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	76.54	0.000	0.338	0.005
8	3.53	3.52	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	87.47	0.000	0.338	0.005
9	3.52	3.51	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	98.41	0.000	0.338	0.005
10	3.51	3.50	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	109.34	0.000	0.338	0.005
11	3.50	3.49	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	120.28	0.001	0.338	0.005
12	3.49	3.48	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	131.21	0.001	0.338	0.005
13	3.48	3.47	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	142.15	0.001	0.338	0.005
14	3.47	3.46	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	153.08	0.001	0.338	0.005
15	3.46	3.45	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	164.01	0.001	0.338	0.005
16	3.45	3.44	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	174.95	0.001	0.338	0.005
17	3.44	3.43	0.02800	0.0	0.00516	0.02	1.11	4.88	54.28	48.77	5.43	185.88	0.001	0.338	0.005
18	3.43	3.42	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	196.82	0.001	0.523	0.008
19	3.42	3.41	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	207.75	0.001	0.523	0.008
20	3.41	3.40	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	218.68	0.001	0.523	0.008
21	3.40	3.39	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	229.62	0.001	0.523	0.008
22	3.39	3.38	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	240.55	0.001	0.523	0.008
23	3.38	3.37	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	251.49	0.001	0.523	0.008

24	3.37	3.36	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	262.42	0.001	0.523	0.008
25	3.36	3.35	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	273.36	0.001	0.523	0.008
26	3.35	3.34	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	284.29	0.001	0.523	0.008
27	3.34	3.33	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	295.22	0.001	0.523	0.008
28	3.33	3.32	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	306.16	0.001	0.523	0.008
29	3.32	3.31	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	317.09	0.001	0.523	0.008
30	3.31	3.30	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	328.03	0.001	0.523	0.008
31	3.30	3.29	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	338.96	0.001	0.523	0.008
32	3.29	3.28	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	349.90	0.001	0.523	0.008
33	3.28	3.27	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	360.83	0.002	0.523	0.008
34	3.27	3.26	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	371.76	0.002	0.523	0.008
35	3.26	3.25	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	382.70	0.002	0.523	0.008
36	3.25	3.24	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	393.63	0.002	0.523	0.008
37	3.24	3.23	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	404.57	0.002	0.523	0.008
38	3.23	3.22	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	415.50	0.002	0.523	0.008
39	3.22	3.21	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	426.44	0.002	0.523	0.008
40	3.21	3.20	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	437.37	0.002	0.523	0.008
41	3.20	3.19	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	448.30	0.002	0.523	0.008
42	3.19	3.18	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	459.24	0.002	0.523	0.008
43	3.18	3.17	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	470.17	0.002	0.523	0.008
44	3.17	3.16	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	481.11	0.002	0.523	0.008
45	3.16	3.15	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	492.04	0.002	0.523	0.008
46	3.15	3.14	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	502.97	0.002	0.523	0.008
47	3.14	3.13	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	513.91	0.002	0.523	0.008
48	3.13	3.12	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	524.84	0.002	0.523	0.008
49	3.12	3.11	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	535.78	0.002	0.523	0.008
50	3.11	3.10	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	546.71	0.002	0.523	0.008
51	3.10	3.09	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	557.65	0.002	0.523	0.008
52	3.09	3.08	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	568.58	0.002	0.523	0.008
53	3.08	3.07	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	579.51	0.002	0.523	0.008
54	3.07	3.06	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	590.45	0.002	0.523	0.008
55	3.06	3.05	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	601.38	0.003	0.523	0.008
56	3.05	3.04	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	612.32	0.003	0.523	0.008
57	3.04	3.03	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	623.25	0.003	0.523	0.008
58	3.03	3.02	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	634.19	0.003	0.523	0.008
59	3.02	3.01	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	645.12	0.003	0.523	0.008
60	3.01	3.00	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	656.05	0.003	0.523	0.008
61	3.00	2.99	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	666.99	0.003	0.523	0.008
62	2.99	2.98	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	677.92	0.003	0.523	0.008
63	2.98	2.97	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	688.86	0.003	0.523	0.008
64	2.97	2.96	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	699.79	0.003	0.523	0.008
65	2.96	2.95	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	710.72	0.003	0.523	0.008
66	2.95	2.94	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	721.66	0.003	0.523	0.008
67	2.94	2.93	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	732.59	0.003	0.523	0.008
68	2.93	2.92	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	743.53	0.003	0.523	0.008
69	2.92	2.91	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	754.46	0.003	0.523	0.008
70	2.91	2.90	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	765.40	0.003	0.523	0.008
71	2.90	2.89	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	776.33	0.003	0.523	0.008
72	2.89	2.88	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	787.26	0.003	0.523	0.008
73	2.88	2.87	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	798.20	0.003	0.523	0.008
74	2.87	2.86	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	809.13	0.003	0.523	0.008
75	2.86	2.85	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	820.07	0.003	0.523	0.008
76	2.85	2.84	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	831.00	0.003	0.523	0.008
77	2.84	2.83	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	841.94	0.004	0.523	0.008
78	2.83	2.82	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	852.87	0.004	0.523	0.008
79	2.82	2.81	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	863.80	0.004	0.523	0.008
80	2.81	2.80	0.04330	35.3	0.00798	0.01	1.11	4.88	54.28	48.77	5.43	874.74	0.004	0.523	0.008
TOT						1.30			4342.48	3901.60					

AVG							0.0071			1.11	4.88						5.43					
CUM								1.30														

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	3.590	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
2	3.580	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
3	3.570	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
4	3.560	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
5	3.550	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
6	3.540	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
7	3.530	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
8	3.520	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
9	3.510	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
10	3.500	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
11	3.490	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
12	3.480	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
13	3.470	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
14	3.460	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
15	3.450	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
16	3.440	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
17	3.430	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.21	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
18	3.420	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
19	3.410	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
20	3.400	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
21	3.390	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
22	3.380	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
23	3.370	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
24	3.360	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
25	3.350	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
26	3.340	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
27	3.330	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
28	3.320	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
29	3.310	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
30	3.300	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
31	3.290	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
32	3.280	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
33	3.270	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
34	3.260	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
35	3.250	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
36	3.240	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
37	3.230	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
38	3.220	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
39	3.210	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
40	3.200	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
41	3.190	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
42	3.180	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
43	3.170	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
44	3.160	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
45	3.150	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
46	3.140	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
47	3.130	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
48	3.120	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
49	3.110	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

50	3.100	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
51	3.090	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
52	3.080	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
53	3.070	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
54	3.060	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
55	3.050	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
56	3.040	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
57	3.030	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
58	3.020	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
59	3.010	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
60	3.000	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
61	2.990	8.96	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
62	2.980	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
63	2.970	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
64	2.960	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
65	2.950	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
66	2.940	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
67	2.930	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
68	2.920	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
69	2.910	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
70	2.900	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
71	2.890	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
72	2.880	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
73	2.870	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
74	2.860	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
75	2.850	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
76	2.840	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
77	2.830	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
78	2.820	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
79	2.810	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
80	2.800	8.95	0.64	0.05	0.05	0.00	0.00	0.00	0.00	0.46	0.46	0.46	0.20	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.63	0.04	0.05	0.00	0.00	0.00	0.00	0.44			0.20	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	3.590	20.71	0.10	21.53	223.29	8.04	1.99	0.00	1.99	0.00	0.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
2	3.580	20.71	0.10	21.54	224.49	8.03	2.04	0.00	2.04	0.00	0.57	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
3	3.570	20.71	0.10	21.54	225.88	8.03	2.09	0.00	2.09	0.00	0.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
4	3.560	20.71	0.11	21.55	227.48	8.01	2.16	0.00	2.16	0.00	0.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
5	3.550	20.71	0.11	21.56	229.33	8.00	2.23	0.00	2.23	0.00	0.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
6	3.540	20.71	0.11	21.57	231.46	7.98	2.31	0.00	2.31	0.00	0.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
7	3.530	20.71	0.11	21.58	233.91	7.96	2.41	0.00	2.41	0.00	0.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
8	3.520	20.71	0.11	21.59	236.73	7.93	2.52	0.00	2.52	0.00	0.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
9	3.510	20.71	0.11	21.60	239.99	7.89	2.65	0.00	2.65	0.00	1.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
10	3.500	20.71	0.12	21.62	243.74	7.85	2.79	0.00	2.79	0.00	1.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
11	3.490	20.71	0.12	21.63	248.06	7.80	2.96	0.00	2.96	0.00	1.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
12	3.480	20.71	0.12	21.66	253.04	7.74	3.16	0.00	3.16	0.00	1.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
13	3.470	20.71	0.12	21.68	258.78	7.67	3.39	0.00	3.39	0.00	1.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
14	3.460	20.71	0.12	21.71	265.40	7.59	3.65	0.00	3.65	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
15	3.450	20.71	0.12	21.74	273.03	7.50	3.96	0.00	3.96	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
16	3.440	20.71	0.13	21.77	281.82	7.39	4.31	0.00	4.31	0.00	2.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
17	3.430	20.71	0.13	21.82	291.94	7.26	4.72	0.00	4.72	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

18	3.420	20.71	0.13	21.85	301.11	7.14	5.09	0.00	5.09	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
19	3.410	20.71	0.13	21.85	301.11	7.15	5.08	0.00	5.08	0.00	3.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
20	3.400	20.71	0.13	21.85	301.11	7.15	5.08	0.00	5.08	0.00	3.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
21	3.390	20.71	0.13	21.85	301.11	7.16	5.07	0.00	5.07	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
22	3.380	20.71	0.14	21.85	301.11	7.16	5.07	0.00	5.07	0.00	3.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
23	3.370	20.71	0.14	21.85	301.11	7.17	5.06	0.00	5.06	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
24	3.360	20.71	0.14	21.85	301.11	7.17	5.06	0.00	5.06	0.00	3.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
25	3.350	20.71	0.14	21.85	301.11	7.18	5.05	0.00	5.05	0.00	3.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
26	3.340	20.71	0.14	21.85	301.11	7.18	5.05	0.00	5.05	0.00	3.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
27	3.330	20.71	0.14	21.85	301.11	7.19	5.04	0.00	5.04	0.00	2.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
28	3.320	20.71	0.15	21.85	301.11	7.20	5.04	0.00	5.04	0.00	2.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
29	3.310	20.71	0.15	21.85	301.11	7.20	5.03	0.00	5.03	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
30	3.300	20.71	0.15	21.85	301.11	7.21	5.03	0.00	5.03	0.00	2.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
31	3.290	20.71	0.15	21.85	301.11	7.21	5.02	0.00	5.02	0.00	2.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
32	3.280	20.71	0.15	21.85	301.11	7.22	5.02	0.00	5.02	0.00	2.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
33	3.270	20.71	0.15	21.85	301.11	7.22	5.01	0.00	5.01	0.00	2.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
34	3.260	20.71	0.16	21.85	301.11	7.23	5.01	0.00	5.01	0.00	2.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
35	3.250	20.71	0.16	21.85	301.11	7.23	5.00	0.00	5.00	0.00	2.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
36	3.240	20.71	0.16	21.85	301.11	7.24	5.00	0.00	5.00	0.00	2.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
37	3.230	20.71	0.16	21.85	301.11	7.24	4.99	0.00	4.99	0.00	2.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
38	3.220	20.71	0.16	21.85	301.11	7.25	4.99	0.00	4.99	0.00	2.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
39	3.210	20.71	0.16	21.85	301.11	7.26	4.98	0.00	4.98	0.00	2.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
40	3.200	20.71	0.17	21.85	301.11	7.26	4.98	0.00	4.98	0.00	2.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
41	3.190	20.71	0.17	21.85	301.11	7.27	4.97	0.00	4.97	0.00	2.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
42	3.180	20.71	0.17	21.85	301.11	7.27	4.97	0.00	4.97	0.00	2.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
43	3.170	20.71	0.17	21.85	301.11	7.28	4.96	0.00	4.96	0.00	2.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
44	3.160	20.71	0.17	21.85	301.11	7.28	4.96	0.00	4.96	0.00	2.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
45	3.150	20.71	0.17	21.85	301.11	7.29	4.95	0.00	4.95	0.00	2.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
46	3.140	20.71	0.17	21.85	301.11	7.29	4.95	0.00	4.95	0.00	2.80	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
47	3.130	20.71	0.18	21.85	301.11	7.30	4.94	0.00	4.94	0.00	2.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
48	3.120	20.71	0.18	21.85	301.11	7.30	4.94	0.00	4.94	0.00	2.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
49	3.110	20.71	0.18	21.85	301.12	7.31	4.94	0.00	4.94	0.00	2.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
50	3.100	20.71	0.18	21.85	301.12	7.31	4.93	0.00	4.93	0.00	2.77	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
51	3.090	20.71	0.18	21.85	301.12	7.32	4.93	0.00	4.93	0.00	2.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
52	3.080	20.71	0.18	21.85	301.12	7.32	4.92	0.00	4.92	0.00	2.75	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
53	3.070	20.71	0.19	21.85	301.12	7.33	4.92	0.00	4.92	0.00	2.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
54	3.060	20.71	0.19	21.85	301.12	7.33	4.91	0.00	4.91	0.00	2.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
55	3.050	20.71	0.19	21.85	301.12	7.34	4.91	0.00	4.91	0.00	2.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
56	3.040	20.71	0.19	21.85	301.12	7.34	4.90	0.00	4.90	0.00	2.71	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
57	3.030	20.71	0.19	21.85	301.12	7.34	4.90	0.00	4.90	0.00	2.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
58	3.020	20.71	0.19	21.85	301.12	7.35	4.90	0.00	4.90	0.00	2.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
59	3.010	20.71	0.20	21.85	301.12	7.35	4.89	0.00	4.89	0.00	2.68	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
60	3.000	20.71	0.20	21.85	301.12	7.36	4.89	0.00	4.89	0.00	2.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
61	2.990	20.71	0.20	21.85	301.12	7.36	4.88	0.00	4.88	0.00	2.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
62	2.980	20.71	0.20	21.85	301.12	7.36	4.88	0.00	4.88	0.00	2.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
63	2.970	20.71	0.20	21.85	301.12	7.37	4.88	0.00	4.88	0.00	2.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
64	2.960	20.71	0.20	21.85	301.12	7.37	4.87	0.00	4.87	0.00	2.64	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
65	2.950	20.71	0.21	21.85	301.12	7.37	4.87	0.00	4.87	0.00	2.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
66	2.940	20.71	0.21	21.85	301.12	7.37	4.87	0.00	4.87	0.00	2.62	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
67	2.930	20.71	0.21	21.85	301.12	7.37	4.86	0.00	4.86	0.00	2.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
68	2.920	20.71	0.21	21.85	301.12	7.37	4.86	0.00	4.86	0.00	2.60	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
69	2.910	20.71	0.21	21.85	301.12	7.37	4.86	0.00	4.86	0.00	2.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
70	2.900	20.71	0.21	21.85	301.12	7.37	4.86	0.00	4.86	0.00	2.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
71	2.890	20.71	0.22	21.85	301.12	7.37	4.85	0.00	4.85	0.00	2.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
72	2.880	20.71	0.22	21.85	301.12	7.37	4.85	0.00	4.85	0.00	2.57	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
73	2.870	20.71	0.22	21.85	301.12	7.36	4.85	0.00	4.85	0.00	2.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
74	2.860	20.71	0.22	21.85	301.12	7.36	4.85	0.00	4.85	0.00	2.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
75	2.850	20.71	0.22	21.85	301.12	7.35	4.85	0.00	4.85	0.00	2.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
76	2.840	20.71	0.22	21.85	301.12	7.34	4.86	0.00	4.86	0.00	2.53	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

77	2.830	20.71	0.23	21.85	301.12	7.33	4.86	0.00	4.86	0.00	2.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
78	2.820	20.71	0.23	21.85	301.12	7.31	4.86	0.00	4.86	0.00	2.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
79	2.810	20.71	0.23	21.85	301.12	7.30	4.87	0.00	4.87	0.00	2.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
80	2.800	20.71	0.23	21.85	301.12	7.28	4.87	0.00	4.87	0.00	2.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 2 RKM 2.8 to 1.9 WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
81	UPR RCH	0.04330	20.71	0.23	21.85	301.12	7.28	4.87	0.00	4.87	0.00	2.49	0.00	0.00	0.00	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	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
81	2.80	2.79	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	910.27	0.001	0.162	0.003
82	2.79	2.78	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	945.81	0.001	0.162	0.003
83	2.78	2.77	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	981.34	0.001	0.162	0.003
84	2.77	2.76	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1016.88	0.001	0.162	0.003
85	2.76	2.75	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1052.42	0.001	0.162	0.003
86	2.75	2.74	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1087.95	0.001	0.162	0.003
87	2.74	2.73	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1123.49	0.001	0.162	0.003
88	2.73	2.72	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1159.02	0.002	0.162	0.003
89	2.72	2.71	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1194.56	0.002	0.162	0.003
90	2.71	2.70	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1230.09	0.002	0.163	0.003
91	2.70	2.69	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1265.63	0.002	0.164	0.003
92	2.69	2.68	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1301.17	0.002	0.166	0.003
93	2.68	2.67	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1336.70	0.002	0.167	0.003
94	2.67	2.66	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1372.24	0.002	0.169	0.003
95	2.66	2.65	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1407.77	0.002	0.170	0.003
96	2.65	2.64	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1443.31	0.002	0.172	0.003
97	2.64	2.63	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1478.84	0.002	0.174	0.003
98	2.63	2.62	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1514.38	0.002	0.176	0.003
99	2.62	2.61	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1549.92	0.002	0.178	0.003
100	2.61	2.60	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1585.45	0.002	0.180	0.003
101	2.60	2.59	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1620.99	0.002	0.182	0.003
102	2.59	2.58	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1656.52	0.002	0.184	0.003
103	2.58	2.57	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1692.06	0.002	0.186	0.003
104	2.57	2.56	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1727.59	0.002	0.188	0.003
105	2.56	2.55	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1763.13	0.002	0.191	0.003
106	2.55	2.54	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1798.66	0.002	0.193	0.003
107	2.54	2.53	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1834.20	0.002	0.195	0.003
108	2.53	2.52	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1869.74	0.002	0.198	0.003
109	2.52	2.51	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1905.27	0.003	0.200	0.003
110	2.51	2.50	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1940.81	0.003	0.202	0.003
111	2.50	2.49	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	1976.34	0.003	0.205	0.003
112	2.49	2.48	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2011.88	0.003	0.207	0.003
113	2.48	2.47	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2047.41	0.003	0.210	0.003
114	2.47	2.46	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2082.95	0.003	0.212	0.003
115	2.46	2.45	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2118.49	0.003	0.215	0.003

116	2.45	2.44	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2154.02	0.003	0.217	0.003
117	2.44	2.43	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2189.56	0.003	0.220	0.003
118	2.43	2.42	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2225.09	0.003	0.222	0.003
119	2.42	2.41	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2260.63	0.003	0.225	0.004
120	2.41	2.40	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2296.16	0.003	0.228	0.004
121	2.40	2.39	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2331.70	0.003	0.230	0.004
122	2.39	2.38	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2367.24	0.003	0.233	0.004
123	2.38	2.37	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2402.77	0.003	0.235	0.004
124	2.37	2.36	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2438.31	0.003	0.238	0.004
125	2.36	2.35	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2473.84	0.003	0.241	0.004
126	2.35	2.34	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2509.38	0.003	0.243	0.004
127	2.34	2.33	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2544.91	0.003	0.246	0.004
128	2.33	2.32	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2580.45	0.003	0.249	0.004
129	2.32	2.31	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2615.98	0.003	0.251	0.004
130	2.31	2.30	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2651.52	0.003	0.254	0.004
131	2.30	2.29	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2687.06	0.004	0.257	0.004
132	2.29	2.28	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2722.59	0.004	0.260	0.004
133	2.28	2.27	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2758.13	0.004	0.262	0.004
134	2.27	2.26	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2793.66	0.004	0.265	0.004
135	2.26	2.25	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2829.20	0.004	0.268	0.004
136	2.25	2.24	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2864.73	0.004	0.270	0.004
137	2.24	2.23	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2900.27	0.004	0.273	0.004
138	2.23	2.22	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2935.81	0.004	0.276	0.004
139	2.22	2.21	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	2971.34	0.004	0.279	0.004
140	2.21	2.20	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3006.88	0.004	0.281	0.004
141	2.20	2.19	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3042.41	0.004	0.284	0.004
142	2.19	2.18	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3077.95	0.004	0.287	0.004
143	2.18	2.17	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3113.48	0.004	0.290	0.005
144	2.17	2.16	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3149.02	0.004	0.293	0.005
145	2.16	2.15	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3184.55	0.004	0.295	0.005
146	2.15	2.14	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3220.09	0.004	0.298	0.005
147	2.14	2.13	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3255.63	0.004	0.301	0.005
148	2.13	2.12	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3291.16	0.004	0.304	0.005
149	2.12	2.11	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3326.70	0.004	0.307	0.005
150	2.11	2.10	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3362.23	0.004	0.309	0.005
151	2.10	2.09	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3397.77	0.004	0.312	0.005
152	2.09	2.08	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3433.30	0.005	0.315	0.005
153	2.08	2.07	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3468.84	0.005	0.318	0.005
154	2.07	2.06	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3504.38	0.005	0.321	0.005
155	2.06	2.05	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3539.91	0.005	0.324	0.005
156	2.05	2.04	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3575.45	0.005	0.326	0.005
157	2.04	2.03	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3610.98	0.005	0.329	0.005
158	2.03	2.02	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3646.52	0.005	0.332	0.005
159	2.02	2.01	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3682.05	0.005	0.335	0.005
160	2.01	2.00	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3717.59	0.005	0.338	0.005
161	2.00	1.99	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3753.13	0.005	0.341	0.005
162	1.99	1.98	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3788.66	0.005	0.343	0.005
163	1.98	1.97	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3824.20	0.005	0.346	0.005
164	1.97	1.96	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3859.73	0.005	0.349	0.005
165	1.96	1.95	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3895.27	0.005	0.352	0.005
166	1.95	1.94	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3930.80	0.005	0.355	0.006
167	1.94	1.93	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	3966.34	0.005	0.358	0.006
168	1.93	1.92	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	4001.87	0.005	0.361	0.006
169	1.92	1.91	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	4037.41	0.005	0.364	0.006
170	1.91	1.90	0.04330	35.3	0.00252	0.05	1.09	15.85	171.97	158.50	17.20	4072.95	0.005	0.366	0.006
TOT						4.14			15477.53	14265.00					
AVG					0.0025		1.08	15.85			17.20				
CUM						5.43									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
81	2.790	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
82	2.780	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
83	2.770	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
84	2.760	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
85	2.750	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
86	2.740	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
87	2.730	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
88	2.720	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
89	2.710	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
90	2.700	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
91	2.690	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
92	2.680	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
93	2.670	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
94	2.660	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
95	2.650	8.95	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
96	2.640	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
97	2.630	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
98	2.620	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
99	2.610	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
100	2.600	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
101	2.590	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
102	2.580	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
103	2.570	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
104	2.560	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
105	2.550	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
106	2.540	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
107	2.530	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
108	2.520	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
109	2.510	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
110	2.500	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
111	2.490	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
112	2.480	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
113	2.470	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
114	2.460	8.94	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
115	2.450	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
116	2.440	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
117	2.430	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
118	2.420	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
119	2.410	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
120	2.400	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
121	2.390	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
122	2.380	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
123	2.370	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
124	2.360	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
125	2.350	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
126	2.340	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
127	2.330	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
128	2.320	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
129	2.310	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
130	2.300	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
131	2.290	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

132	2.280	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
133	2.270	8.93	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
134	2.260	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
135	2.250	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
136	2.240	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
137	2.230	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
138	2.220	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
139	2.210	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
140	2.200	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
141	2.190	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
142	2.180	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
143	2.170	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
144	2.160	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
145	2.150	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
146	2.140	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
147	2.130	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
148	2.120	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
149	2.110	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
150	2.100	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
151	2.090	8.92	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
152	2.080	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
153	2.070	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
154	2.060	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
155	2.050	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
156	2.040	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
157	2.030	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
158	2.020	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
159	2.010	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
160	2.000	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
161	1.990	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
162	1.980	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
163	1.970	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
164	1.960	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
165	1.950	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
166	1.940	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
167	1.930	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
168	1.920	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
169	1.910	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
170	1.900	8.91	0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.83	1.83	1.83	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.07	0.05	0.00	0.00	0.00	0.00	1.75			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
81	2.790	20.71	0.24	21.85	301.12	7.25	4.88	0.00	4.88	0.00	2.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
82	2.780	20.71	0.25	21.85	301.12	7.23	4.89	0.00	4.89	0.00	2.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
83	2.770	20.71	0.26	21.85	301.12	7.20	4.90	0.00	4.90	0.00	2.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
84	2.760	20.71	0.27	21.85	301.12	7.18	4.91	0.00	4.91	0.00	2.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
85	2.750	20.71	0.28	21.85	301.12	7.15	4.91	0.00	4.91	0.00	2.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
86	2.740	20.71	0.29	21.85	301.12	7.13	4.92	0.00	4.92	0.00	2.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
87	2.730	20.71	0.30	21.85	301.12	7.11	4.93	0.00	4.93	0.00	2.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
88	2.720	20.71	0.31	21.85	301.12	7.09	4.94	0.00	4.94	0.00	2.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
89	2.710	20.71	0.32	21.85	301.12	7.06	4.95	0.00	4.95	0.00	2.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

90	2.700	20.71	0.33	21.85	301.12	7.04	4.96	0.00	4.96	0.00	2.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
91	2.690	20.71	0.34	21.85	301.12	7.02	4.96	0.00	4.96	0.00	2.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
92	2.680	20.71	0.35	21.86	301.12	7.00	4.97	0.00	4.97	0.00	2.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
93	2.670	20.71	0.36	21.86	301.12	6.98	4.98	0.00	4.98	0.00	2.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
94	2.660	20.71	0.37	21.86	301.12	6.96	4.99	0.00	4.99	0.00	2.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
95	2.650	20.71	0.38	21.86	301.12	6.95	5.00	0.00	5.00	0.00	2.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
96	2.640	20.71	0.39	21.86	301.12	6.93	5.01	0.00	5.01	0.00	2.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
97	2.630	20.71	0.40	21.86	301.12	6.91	5.01	0.00	5.01	0.00	2.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
98	2.620	20.71	0.41	21.86	301.13	6.89	5.02	0.00	5.02	0.00	2.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
99	2.610	20.71	0.42	21.86	301.13	6.88	5.03	0.00	5.03	0.00	2.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
100	2.600	20.71	0.43	21.86	301.13	6.86	5.04	0.00	5.04	0.00	2.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
101	2.590	20.71	0.44	21.86	301.13	6.84	5.05	0.00	5.05	0.00	2.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
102	2.580	20.71	0.45	21.86	301.13	6.83	5.05	0.00	5.05	0.00	2.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
103	2.570	20.71	0.47	21.86	301.13	6.81	5.06	0.00	5.06	0.00	2.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
104	2.560	20.71	0.48	21.86	301.14	6.80	5.07	0.00	5.07	0.00	2.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
105	2.550	20.71	0.49	21.86	301.14	6.79	5.08	0.00	5.08	0.00	2.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
106	2.540	20.71	0.50	21.86	301.14	6.77	5.08	0.00	5.08	0.00	2.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
107	2.530	20.71	0.51	21.86	301.14	6.76	5.09	0.00	5.09	0.00	2.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
108	2.520	20.71	0.52	21.86	301.15	6.75	5.10	0.00	5.10	0.00	2.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
109	2.510	20.71	0.53	21.86	301.15	6.73	5.11	0.00	5.11	0.00	2.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
110	2.500	20.71	0.54	21.87	301.16	6.72	5.12	0.00	5.12	0.00	2.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
111	2.490	20.71	0.55	21.87	301.16	6.71	5.12	0.00	5.12	0.00	2.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
112	2.480	20.71	0.56	21.87	301.17	6.70	5.13	0.00	5.13	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
113	2.470	20.71	0.57	21.87	301.17	6.69	5.14	0.00	5.14	0.00	2.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
114	2.460	20.71	0.58	21.87	301.18	6.68	5.15	0.00	5.15	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
115	2.450	20.71	0.59	21.88	301.19	6.67	5.15	0.00	5.15	0.00	2.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
116	2.440	20.71	0.60	21.88	301.20	6.66	5.16	0.00	5.16	0.00	2.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
117	2.430	20.71	0.61	21.88	301.20	6.65	5.17	0.00	5.17	0.00	2.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
118	2.420	20.71	0.62	21.88	301.21	6.64	5.18	0.00	5.18	0.00	2.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
119	2.410	20.71	0.63	21.89	301.23	6.63	5.18	0.00	5.18	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
120	2.400	20.71	0.64	21.89	301.24	6.62	5.19	0.00	5.19	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
121	2.390	20.71	0.65	21.90	301.25	6.61	5.20	0.00	5.20	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
122	2.380	20.71	0.66	21.90	301.27	6.60	5.21	0.00	5.21	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
123	2.370	20.71	0.67	21.91	301.28	6.59	5.22	0.00	5.22	0.00	2.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
124	2.360	20.71	0.68	21.91	301.30	6.58	5.22	0.00	5.22	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
125	2.350	20.71	0.69	21.92	301.32	6.58	5.23	0.00	5.23	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
126	2.340	20.71	0.70	21.92	301.34	6.57	5.24	0.00	5.24	0.00	2.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
127	2.330	20.71	0.71	21.93	301.36	6.56	5.25	0.00	5.25	0.00	2.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
128	2.320	20.71	0.72	21.94	301.39	6.55	5.25	0.00	5.25	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
129	2.310	20.71	0.73	21.95	301.41	6.55	5.26	0.00	5.26	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
130	2.300	20.71	0.74	21.96	301.44	6.54	5.27	0.00	5.27	0.00	2.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
131	2.290	20.71	0.75	21.97	301.47	6.53	5.28	0.00	5.28	0.00	1.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
132	2.280	20.71	0.76	21.98	301.51	6.53	5.29	0.00	5.29	0.00	1.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
133	2.270	20.71	0.77	21.99	301.55	6.52	5.29	0.00	5.29	0.00	1.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
134	2.260	20.71	0.78	22.00	301.59	6.51	5.30	0.00	5.30	0.00	1.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
135	2.250	20.71	0.79	22.02	301.63	6.51	5.31	0.00	5.31	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
136	2.240	20.71	0.80	22.03	301.68	6.50	5.32	0.00	5.32	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
137	2.230	20.71	0.81	22.05	301.73	6.50	5.33	0.00	5.33	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
138	2.220	20.71	0.82	22.06	301.79	6.49	5.34	0.00	5.34	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
139	2.210	20.71	0.83	22.08	301.85	6.49	5.35	0.00	5.35	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
140	2.200	20.71	0.84	22.10	301.91	6.48	5.36	0.00	5.36	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
141	2.190	20.71	0.85	22.13	301.98	6.48	5.37	0.00	5.37	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
142	2.180	20.71	0.86	22.15	302.06	6.47	5.38	0.00	5.38	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
143	2.170	20.71	0.87	22.18	302.14	6.47	5.39	0.00	5.39	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
144	2.160	20.71	0.88	22.20	302.23	6.46	5.40	0.00	5.40	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
145	2.150	20.71	0.89	22.23	302.33	6.46	5.41	0.00	5.41	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
146	2.140	20.71	0.90	22.27	302.43	6.45	5.42	0.00	5.42	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
147	2.130	20.71	0.91	22.30	302.54	6.45	5.43	0.00	5.43	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
148	2.120	20.71	0.93	22.34	302.66	6.45	5.44	0.00	5.44	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

149	2.110	20.71	0.94	22.38	302.79	6.44	5.46	0.00	5.46	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
150	2.100	20.71	0.95	22.42	302.92	6.44	5.47	0.00	5.47	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
151	2.090	20.71	0.96	22.47	303.07	6.44	5.48	0.00	5.48	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
152	2.080	20.71	0.97	22.52	303.23	6.44	5.50	0.00	5.50	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
153	2.070	20.71	0.98	22.57	303.39	6.43	5.51	0.00	5.51	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
154	2.060	20.71	0.99	22.63	303.57	6.43	5.52	0.00	5.52	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
155	2.050	20.71	1.00	22.69	303.77	6.43	5.54	0.00	5.54	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
156	2.040	20.71	1.01	22.75	303.97	6.43	5.56	0.00	5.56	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
157	2.030	20.71	1.02	22.82	304.19	6.43	5.57	0.00	5.57	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
158	2.020	20.71	1.03	22.89	304.42	6.43	5.59	0.00	5.59	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
159	2.010	20.71	1.04	22.97	304.67	6.43	5.61	0.00	5.61	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
160	2.000	20.71	1.05	23.06	304.94	6.43	5.63	0.00	5.63	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
161	1.990	20.71	1.06	23.15	305.22	6.43	5.65	0.00	5.65	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
162	1.980	20.71	1.07	23.24	305.53	6.43	5.67	0.00	5.67	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
163	1.970	20.71	1.08	23.34	305.85	6.43	5.70	0.00	5.70	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
164	1.960	20.71	1.09	23.45	306.19	6.43	5.72	0.00	5.72	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
165	1.950	20.71	1.10	23.56	306.56	6.44	5.75	0.00	5.75	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
166	1.940	20.71	1.11	23.69	306.95	6.44	5.77	0.00	5.77	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
167	1.930	20.71	1.12	23.82	307.36	6.44	5.80	0.00	5.80	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
168	1.920	20.71	1.13	23.95	307.80	6.45	5.83	0.00	5.83	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
169	1.910	20.71	1.14	24.10	308.26	6.45	5.86	0.00	5.86	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
170	1.900	20.71	1.15	24.25	308.75	6.46	5.89	0.00	5.89	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 3 RKM 1.9 to 1.5 WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
171	UPR RCH	0.04330	20.71	1.15	24.25	308.75	6.46	5.89	0.00	5.89	0.00	1.81	0.00	0.00	0.00	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	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
171	1.90	1.89	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4133.82	0.003	0.209	0.003
172	1.89	1.88	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4194.70	0.003	0.212	0.003
173	1.88	1.87	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4255.58	0.003	0.215	0.003
174	1.87	1.86	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4316.45	0.003	0.217	0.003
175	1.86	1.85	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4377.33	0.003	0.220	0.003
176	1.85	1.84	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4438.21	0.003	0.223	0.003
177	1.84	1.83	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4499.08	0.003	0.226	0.003
178	1.83	1.82	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4559.96	0.003	0.229	0.003
179	1.82	1.81	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4620.84	0.003	0.231	0.003
180	1.81	1.80	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4681.72	0.003	0.234	0.003
181	1.80	1.79	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4742.59	0.003	0.237	0.003
182	1.79	1.78	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4803.47	0.003	0.240	0.003
183	1.78	1.77	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4864.35	0.003	0.243	0.003
184	1.77	1.76	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4925.22	0.003	0.245	0.004
185	1.76	1.75	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	4986.10	0.003	0.248	0.004
186	1.75	1.74	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5046.98	0.003	0.251	0.004
187	1.74	1.73	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5107.85	0.004	0.254	0.004

188	1.73	1.72	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5168.73	0.004	0.257	0.004
189	1.72	1.71	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5229.61	0.004	0.259	0.004
190	1.71	1.70	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5290.49	0.004	0.262	0.004
191	1.70	1.69	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5351.36	0.004	0.265	0.004
192	1.69	1.68	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5412.24	0.004	0.268	0.004
193	1.68	1.67	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5473.12	0.004	0.271	0.004
194	1.67	1.66	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5533.99	0.004	0.274	0.004
195	1.66	1.65	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5594.87	0.004	0.276	0.004
196	1.65	1.64	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5655.75	0.004	0.279	0.004
197	1.64	1.63	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5716.62	0.004	0.282	0.004
198	1.63	1.62	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5777.50	0.004	0.285	0.004
199	1.62	1.61	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5838.38	0.004	0.288	0.004
200	1.61	1.60	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5899.25	0.004	0.291	0.004
201	1.60	1.59	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	5960.13	0.004	0.293	0.004
202	1.59	1.58	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6021.01	0.004	0.296	0.004
203	1.58	1.57	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6081.89	0.004	0.299	0.004
204	1.57	1.56	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6142.76	0.004	0.302	0.004
205	1.56	1.55	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6203.64	0.004	0.305	0.004
206	1.55	1.54	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6264.52	0.004	0.308	0.004
207	1.54	1.53	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6325.39	0.004	0.310	0.004
208	1.53	1.52	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6386.27	0.004	0.313	0.005
209	1.52	1.51	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6447.15	0.004	0.316	0.005
210	1.51	1.50	0.04330	35.3	0.00131	0.09	1.19	27.74	329.79	277.37	32.98	6508.02	0.004	0.319	0.005
TOT						3.53			13191.72	11094.80					
AVG					0.0013		1.19	27.74			32.98				
CUM						8.96									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
171	1.890	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
172	1.880	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
173	1.870	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
174	1.860	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
175	1.850	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
176	1.840	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
177	1.830	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
178	1.820	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
179	1.810	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
180	1.800	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
181	1.790	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
182	1.780	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
183	1.770	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
184	1.760	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
185	1.750	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
186	1.740	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
187	1.730	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
188	1.720	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
189	1.710	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
190	1.700	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
191	1.690	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
192	1.680	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
193	1.670	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
194	1.660	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

195	1.650	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
196	1.640	8.90	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
197	1.630	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
198	1.620	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
199	1.610	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
200	1.600	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
201	1.590	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
202	1.580	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
203	1.570	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
204	1.560	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
205	1.550	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
206	1.540	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
207	1.530	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
208	1.520	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
209	1.510	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
210	1.500	8.89	0.60	0.06	0.05	0.00	0.00	0.00	0.00	1.57	1.57	1.57	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.59	0.06	0.05	0.00	0.00	0.00	0.00	1.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
171	1.890	20.71	1.16	24.41	309.25	6.47	5.93	0.00	5.93	0.00	1.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
172	1.880	20.71	1.16	24.57	309.76	6.47	5.96	0.00	5.96	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
173	1.870	20.71	1.17	24.74	310.30	6.48	5.99	0.00	5.99	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
174	1.860	20.71	1.18	24.91	310.85	6.49	6.02	0.00	6.02	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
175	1.850	20.71	1.19	25.10	311.44	6.49	6.06	0.00	6.06	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
176	1.840	20.71	1.19	25.29	312.05	6.50	6.09	0.00	6.09	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
177	1.830	20.71	1.20	25.49	312.69	6.50	6.12	0.00	6.12	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
178	1.820	20.71	1.21	25.70	313.36	6.51	6.15	0.00	6.15	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
179	1.810	20.71	1.22	25.92	314.06	6.51	6.18	0.00	6.18	0.00	1.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
180	1.800	20.71	1.23	26.15	314.79	6.52	6.21	0.00	6.21	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
181	1.790	20.71	1.23	26.39	315.55	6.52	6.24	0.00	6.24	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
182	1.780	20.71	1.24	26.64	316.35	6.53	6.27	0.00	6.27	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
183	1.770	20.71	1.25	26.90	317.18	6.53	6.30	0.00	6.30	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
184	1.760	20.71	1.25	27.17	318.04	6.53	6.33	0.00	6.33	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
185	1.750	20.71	1.26	27.45	318.95	6.54	6.36	0.00	6.36	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
186	1.740	20.71	1.27	27.75	319.88	6.54	6.39	0.00	6.39	0.00	1.83	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
187	1.730	20.71	1.28	28.06	320.86	6.54	6.42	0.00	6.42	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
188	1.720	20.71	1.28	28.38	321.88	6.55	6.45	0.00	6.45	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
189	1.710	20.71	1.29	28.71	322.93	6.55	6.48	0.00	6.48	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
190	1.700	20.71	1.30	29.05	324.03	6.56	6.50	0.00	6.50	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
191	1.690	20.71	1.31	29.41	325.18	6.56	6.53	0.00	6.53	0.00	1.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
192	1.680	20.71	1.32	29.78	326.36	6.56	6.56	0.00	6.56	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
193	1.670	20.71	1.32	30.17	327.59	6.57	6.59	0.00	6.59	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
194	1.660	20.71	1.33	30.57	328.87	6.57	6.62	0.00	6.62	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
195	1.650	20.71	1.34	30.99	330.20	6.57	6.65	0.00	6.65	0.00	1.85	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
196	1.640	20.71	1.35	31.42	331.57	6.58	6.68	0.00	6.68	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
197	1.630	20.71	1.35	31.87	333.00	6.58	6.71	0.00	6.71	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
198	1.620	20.71	1.36	32.33	334.47	6.59	6.74	0.00	6.74	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
199	1.610	20.71	1.37	32.81	336.00	6.59	6.77	0.00	6.77	0.00	1.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
200	1.600	20.71	1.38	33.31	337.59	6.60	6.80	0.00	6.80	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
201	1.590	20.71	1.38	33.82	339.23	6.60	6.83	0.00	6.83	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
202	1.580	20.71	1.39	34.36	340.93	6.61	6.85	0.00	6.85	0.00	1.87	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

203	1.570	20.71	1.40	34.91	342.69	6.61	6.88	0.00	6.88	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
204	1.560	20.71	1.41	35.48	344.50	6.62	6.91	0.00	6.91	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
205	1.550	20.71	1.41	36.07	346.38	6.63	6.94	0.00	6.94	0.00	1.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
206	1.540	20.71	1.42	36.68	348.32	6.63	6.97	0.00	6.97	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
207	1.530	20.71	1.43	37.31	350.33	6.64	7.00	0.00	7.00	0.00	1.89	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
208	1.520	20.71	1.44	37.96	352.40	6.65	7.03	0.00	7.03	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
209	1.510	20.71	1.44	38.63	354.54	6.65	7.06	0.00	7.06	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
210	1.500	20.71	1.45	39.32	356.75	6.66	7.10	0.00	7.10	0.00	1.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 4 RKM 1.5 to 1.1 WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
211	UPR RCH	0.04330	20.71	1.45	39.32	356.75	6.66	7.10	0.00	7.10	0.00	1.90	0.00	0.00	0.00	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	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
211	1.50	1.49	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6570.24	0.005	0.323	0.005
212	1.49	1.48	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6632.45	0.005	0.326	0.005
213	1.48	1.47	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6694.67	0.005	0.329	0.005
214	1.47	1.46	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6756.88	0.005	0.332	0.005
215	1.46	1.45	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6819.09	0.005	0.335	0.005
216	1.45	1.44	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6881.31	0.005	0.338	0.006
217	1.44	1.43	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	6943.52	0.005	0.341	0.006
218	1.43	1.42	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7005.74	0.005	0.344	0.006
219	1.42	1.41	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7067.95	0.006	0.346	0.006
220	1.41	1.40	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7130.16	0.006	0.349	0.006
221	1.40	1.39	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7192.38	0.006	0.352	0.006
222	1.39	1.38	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7254.59	0.006	0.355	0.006
223	1.38	1.37	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7316.80	0.006	0.358	0.006
224	1.37	1.36	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7379.02	0.006	0.361	0.006
225	1.36	1.35	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7441.23	0.006	0.364	0.006
226	1.35	1.34	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7503.45	0.006	0.367	0.006
227	1.34	1.33	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7565.66	0.006	0.370	0.006
228	1.33	1.32	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7627.87	0.006	0.373	0.006
229	1.32	1.31	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7690.09	0.006	0.376	0.006
230	1.31	1.30	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7752.30	0.006	0.379	0.006
231	1.30	1.29	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7814.52	0.006	0.382	0.006
232	1.29	1.28	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7876.73	0.006	0.385	0.006
233	1.28	1.27	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	7938.94	0.006	0.387	0.006
234	1.27	1.26	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8001.16	0.006	0.390	0.006
235	1.26	1.25	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8063.37	0.006	0.393	0.006
236	1.25	1.24	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8125.58	0.006	0.396	0.006
237	1.24	1.23	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8187.80	0.006	0.399	0.007
238	1.23	1.22	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8250.01	0.006	0.402	0.007
239	1.22	1.21	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8312.23	0.006	0.405	0.007
240	1.21	1.20	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8374.44	0.007	0.408	0.007
241	1.20	1.19	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8436.65	0.007	0.411	0.007

242	1.19	1.18	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8498.87	0.007	0.414	0.007
243	1.18	1.17	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8561.08	0.007	0.417	0.007
244	1.17	1.16	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8623.30	0.007	0.420	0.007
245	1.16	1.15	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8685.51	0.007	0.423	0.007
246	1.15	1.14	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8747.72	0.007	0.426	0.007
247	1.14	1.13	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8809.94	0.007	0.429	0.007
248	1.13	1.12	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8872.15	0.007	0.432	0.007
249	1.12	1.11	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8934.37	0.007	0.435	0.007
250	1.11	1.10	0.04330	35.3	0.00150	0.08	1.02	28.35	289.41	283.46	28.94	8996.58	0.007	0.437	0.007
TOT						3.09			11576.51	11338.40					
AVG					0.0015		1.02	28.35			28.94				
CUM						12.05									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
211	1.490	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
212	1.480	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
213	1.470	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
214	1.460	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
215	1.450	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
216	1.440	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
217	1.430	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
218	1.420	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
219	1.410	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
220	1.400	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
221	1.390	8.89	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
222	1.380	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
223	1.370	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
224	1.360	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
225	1.350	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
226	1.340	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
227	1.330	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
228	1.320	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
229	1.310	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
230	1.300	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
231	1.290	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
232	1.280	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
233	1.270	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
234	1.260	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
235	1.250	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
236	1.240	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
237	1.230	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
238	1.220	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
239	1.210	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
240	1.200	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
241	1.190	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
242	1.180	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
243	1.170	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
244	1.160	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
245	1.150	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
246	1.140	8.88	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
247	1.130	8.87	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
248	1.120	8.87	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

249	1.110	8.87	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
250	1.100	8.87	0.70	0.06	0.05	0.00	0.00	0.00	0.00	1.25	1.25	1.25	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.69	0.06	0.05	0.00	0.00	0.00	0.00	1.20			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
211	1.490	20.71	1.46	40.09	359.18	6.67	7.13	0.00	7.13	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
212	1.480	20.71	1.47	40.93	361.85	6.68	7.16	0.00	7.16	0.00	1.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
213	1.470	20.71	1.47	41.80	364.63	6.69	7.20	0.00	7.20	0.00	1.92	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
214	1.460	20.71	1.48	42.70	367.51	6.70	7.23	0.00	7.23	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
215	1.450	20.71	1.49	43.64	370.49	6.71	7.27	0.00	7.27	0.00	1.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
216	1.440	20.71	1.50	44.61	373.57	6.72	7.30	0.00	7.30	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
217	1.430	20.71	1.50	45.61	376.77	6.73	7.33	0.00	7.33	0.00	1.94	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
218	1.420	20.71	1.51	46.65	380.08	6.74	7.37	0.00	7.37	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
219	1.410	20.71	1.52	47.72	383.51	6.74	7.40	0.00	7.40	0.00	1.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
220	1.400	20.71	1.53	48.84	387.05	6.75	7.43	0.00	7.43	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
221	1.390	20.71	1.54	49.99	390.71	6.76	7.47	0.00	7.47	0.00	1.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
222	1.380	20.71	1.54	51.18	394.50	6.77	7.50	0.00	7.50	0.00	1.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
223	1.370	20.71	1.55	52.41	398.42	6.77	7.53	0.00	7.53	0.00	1.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
224	1.360	20.71	1.56	53.68	402.47	6.78	7.57	0.00	7.57	0.00	1.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
225	1.350	20.71	1.57	54.99	406.65	6.79	7.60	0.00	7.60	0.00	1.98	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
226	1.340	20.71	1.57	56.35	410.97	6.80	7.63	0.00	7.63	0.00	1.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
227	1.330	20.71	1.58	57.75	415.43	6.80	7.66	0.00	7.66	0.00	2.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
228	1.320	20.71	1.59	59.20	420.04	6.81	7.70	0.00	7.70	0.00	2.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
229	1.310	20.71	1.60	60.69	424.79	6.82	7.73	0.00	7.73	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
230	1.300	20.71	1.61	62.23	429.70	6.82	7.76	0.00	7.76	0.00	2.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
231	1.290	20.71	1.61	63.82	434.76	6.83	7.79	0.00	7.79	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
232	1.280	20.71	1.62	65.46	439.98	6.84	7.83	0.00	7.83	0.00	2.02	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
233	1.270	20.71	1.63	67.15	445.36	6.85	7.86	0.00	7.86	0.00	2.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
234	1.260	20.71	1.64	68.89	450.91	6.85	7.89	0.00	7.89	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
235	1.250	20.71	1.64	70.68	456.63	6.86	7.92	0.00	7.92	0.00	2.04	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
236	1.240	20.71	1.65	72.53	462.52	6.87	7.95	0.00	7.95	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
237	1.230	20.71	1.66	74.44	468.59	6.88	7.98	0.00	7.98	0.00	2.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
238	1.220	20.71	1.67	76.40	474.85	6.88	8.02	0.00	8.02	0.00	2.06	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
239	1.210	20.71	1.67	78.43	481.28	6.89	8.05	0.00	8.05	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
240	1.200	20.71	1.68	80.51	487.91	6.90	8.08	0.00	8.08	0.00	2.07	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
241	1.190	20.71	1.69	82.65	494.74	6.91	8.11	0.00	8.11	0.00	2.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
242	1.180	20.71	1.70	84.86	501.76	6.92	8.14	0.00	8.14	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
243	1.170	20.71	1.71	87.12	508.99	6.93	8.18	0.00	8.18	0.00	2.09	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
244	1.160	20.71	1.71	89.46	516.42	6.94	8.21	0.00	8.21	0.00	2.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
245	1.150	20.71	1.72	91.86	524.07	6.95	8.24	0.00	8.24	0.00	2.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
246	1.140	20.71	1.73	94.33	531.93	6.96	8.27	0.00	8.27	0.00	2.11	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
247	1.130	20.71	1.74	96.87	540.01	6.97	8.30	0.00	8.30	0.00	2.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
248	1.120	20.71	1.74	99.48	548.32	6.98	8.34	0.00	8.34	0.00	2.13	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
249	1.110	20.71	1.75	102.16	556.87	7.00	8.37	0.00	8.37	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
250	1.100	20.71	1.76	104.91	565.64	7.01	8.40	0.00	8.40	0.00	2.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 5 RKM 1.1 to 0.3 WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
251	UPR RCH	0.04330	20.71	1.76	104.91	565.64	7.01	8.40	0.00	8.40	0.00	2.14	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m^3/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	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
251	1.10	1.09	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9047.29	0.008	0.564	0.008
252	1.09	1.08	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9098.00	0.008	0.567	0.008
253	1.08	1.07	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9148.71	0.008	0.570	0.008
254	1.07	1.06	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9199.43	0.008	0.573	0.008
255	1.06	1.05	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9250.14	0.008	0.576	0.008
256	1.05	1.04	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9300.85	0.008	0.579	0.008
257	1.04	1.03	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9351.56	0.008	0.582	0.008
258	1.03	1.02	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9402.27	0.008	0.586	0.008
259	1.02	1.01	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9452.99	0.008	0.589	0.008
260	1.01	1.00	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9503.70	0.008	0.592	0.008
261	1.00	0.99	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9554.41	0.008	0.595	0.008
262	0.99	0.98	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9605.12	0.008	0.598	0.009
263	0.98	0.97	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9655.83	0.008	0.601	0.009
264	0.97	0.96	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9706.55	0.008	0.604	0.009
265	0.96	0.95	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9757.26	0.008	0.607	0.009
266	0.95	0.94	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9807.97	0.009	0.610	0.009
267	0.94	0.93	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9858.68	0.009	0.613	0.009
268	0.93	0.92	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9909.39	0.009	0.616	0.009
269	0.92	0.91	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	9960.11	0.009	0.619	0.009
270	0.91	0.90	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10010.82	0.009	0.622	0.009
271	0.90	0.89	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10061.53	0.009	0.626	0.009
272	0.89	0.88	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10112.24	0.009	0.629	0.009
273	0.88	0.87	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10162.95	0.009	0.632	0.009
274	0.87	0.86	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10213.67	0.009	0.635	0.009
275	0.86	0.85	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10264.38	0.009	0.638	0.009
276	0.85	0.84	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10315.09	0.009	0.641	0.009
277	0.84	0.83	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10365.80	0.009	0.644	0.009
278	0.83	0.82	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10416.51	0.009	0.647	0.009
279	0.82	0.81	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10467.22	0.009	0.650	0.009
280	0.81	0.80	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10517.94	0.009	0.653	0.009
281	0.80	0.79	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10568.65	0.009	0.656	0.009
282	0.79	0.78	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10619.36	0.009	0.659	0.009
283	0.78	0.77	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10670.07	0.009	0.663	0.009
284	0.77	0.76	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10720.78	0.009	0.666	0.009
285	0.76	0.75	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10771.50	0.009	0.669	0.010
286	0.75	0.74	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10822.21	0.009	0.672	0.010
287	0.74	0.73	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10872.92	0.009	0.675	0.010
288	0.73	0.72	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10923.63	0.009	0.678	0.010
289	0.72	0.71	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	10974.34	0.010	0.681	0.010
290	0.71	0.70	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11025.06	0.010	0.684	0.010
291	0.70	0.69	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11075.77	0.010	0.687	0.010
292	0.69	0.68	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11126.48	0.010	0.690	0.010
293	0.68	0.67	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11177.19	0.010	0.693	0.010
294	0.67	0.66	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11227.90	0.010	0.696	0.010
295	0.66	0.65	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11278.62	0.010	0.700	0.010

296	0.65	0.64	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11329.33	0.010	0.703	0.010
297	0.64	0.63	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11380.04	0.010	0.706	0.010
298	0.63	0.62	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11430.75	0.010	0.709	0.010
299	0.62	0.61	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11481.46	0.010	0.712	0.010
300	0.61	0.60	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11532.17	0.010	0.715	0.010
301	0.60	0.59	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11582.89	0.010	0.718	0.010
302	0.59	0.58	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11633.60	0.010	0.721	0.010
303	0.58	0.57	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11684.31	0.010	0.724	0.010
304	0.57	0.56	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11735.02	0.010	0.727	0.010
305	0.56	0.55	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11785.73	0.010	0.730	0.010
306	0.55	0.54	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11836.45	0.010	0.733	0.010
307	0.54	0.53	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11887.16	0.010	0.737	0.010
308	0.53	0.52	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11937.87	0.010	0.740	0.011
309	0.52	0.51	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	11988.58	0.010	0.743	0.011
310	0.51	0.50	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12039.29	0.010	0.746	0.011
311	0.50	0.49	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12090.01	0.011	0.749	0.011
312	0.49	0.48	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12140.72	0.011	0.752	0.011
313	0.48	0.47	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12191.43	0.011	0.755	0.011
314	0.47	0.46	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12242.14	0.011	0.758	0.011
315	0.46	0.45	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12292.85	0.011	0.761	0.011
316	0.45	0.44	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12343.57	0.011	0.764	0.011
317	0.44	0.43	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12394.28	0.011	0.767	0.011
318	0.43	0.42	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12444.99	0.011	0.771	0.011
319	0.42	0.41	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12495.70	0.011	0.774	0.011
320	0.41	0.40	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12546.41	0.011	0.777	0.011
321	0.40	0.39	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12597.12	0.011	0.780	0.011
322	0.39	0.38	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12647.84	0.011	0.783	0.011
323	0.38	0.37	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12698.55	0.011	0.786	0.011
324	0.37	0.36	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12749.26	0.011	0.789	0.011
325	0.36	0.35	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12799.97	0.011	0.792	0.011
326	0.35	0.34	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12850.68	0.011	0.795	0.011
327	0.34	0.33	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12901.40	0.011	0.798	0.011
328	0.33	0.32	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	12952.11	0.011	0.801	0.011
329	0.32	0.31	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	13002.82	0.011	0.804	0.011
330	0.31	0.30	0.04330	35.3	0.00167	0.07	1.21	21.49	260.00	214.88	26.00	13053.53	0.011	0.808	0.011
TOT						5.56			20800.37	17190.40					
AVG					0.0017		1.21	21.49			26.00				
CUM						17.61									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
251	1.090	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
252	1.080	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
253	1.070	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
254	1.060	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
255	1.050	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
256	1.040	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
257	1.030	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
258	1.020	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
259	1.010	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
260	1.000	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
261	0.990	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
262	0.980	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

263	0.970	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
264	0.960	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
265	0.950	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
266	0.940	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
267	0.930	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
268	0.920	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
269	0.910	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
270	0.900	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
271	0.890	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
272	0.880	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
273	0.870	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
274	0.860	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
275	0.850	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
276	0.840	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
277	0.830	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
278	0.820	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
279	0.810	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
280	0.800	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
281	0.790	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
282	0.780	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
283	0.770	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
284	0.760	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
285	0.750	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
286	0.740	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
287	0.730	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
288	0.720	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
289	0.710	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
290	0.700	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
291	0.690	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
292	0.680	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
293	0.670	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
294	0.660	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
295	0.650	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
296	0.640	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
297	0.630	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
298	0.620	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
299	0.610	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
300	0.600	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
301	0.590	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
302	0.580	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
303	0.570	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
304	0.560	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
305	0.550	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
306	0.540	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
307	0.530	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
308	0.520	8.87	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
309	0.510	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
310	0.500	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
311	0.490	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
312	0.480	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
313	0.470	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
314	0.460	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
315	0.450	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
316	0.440	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
317	0.430	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
318	0.420	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
319	0.410	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
320	0.400	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
321	0.390	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

322	0.380	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
323	0.370	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
324	0.360	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
325	0.350	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
326	0.340	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
327	0.330	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
328	0.320	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
329	0.310	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
330	0.300	8.86	0.75	0.06	0.05	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.06	0.05	0.00	0.00	0.00	0.00	0.95			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
251	1.090	20.71	1.76	107.55	574.02	7.02	8.43	0.00	8.43	0.00	2.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
252	1.080	20.71	1.77	110.07	582.06	7.03	8.46	0.00	8.46	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
253	1.070	20.71	1.77	112.65	590.29	7.04	8.49	0.00	8.49	0.00	2.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
254	1.060	20.71	1.77	115.30	598.71	7.06	8.52	0.00	8.52	0.00	2.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
255	1.050	20.71	1.77	118.01	607.33	7.07	8.55	0.00	8.55	0.00	2.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
256	1.040	20.71	1.78	120.78	616.16	7.08	8.57	0.00	8.57	0.00	2.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
257	1.030	20.71	1.78	123.61	625.19	7.09	8.60	0.00	8.60	0.00	2.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
258	1.020	20.71	1.78	126.51	634.43	7.09	8.63	0.00	8.63	0.00	2.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
259	1.010	20.71	1.78	129.48	643.88	7.10	8.66	0.00	8.66	0.00	2.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
260	1.000	20.71	1.79	132.52	653.55	7.11	8.68	0.00	8.68	0.00	2.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
261	0.990	20.71	1.79	135.63	663.45	7.12	8.71	0.00	8.71	0.00	2.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
262	0.980	20.71	1.79	138.80	673.57	7.13	8.74	0.00	8.74	0.00	2.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
263	0.970	20.71	1.80	142.05	683.91	7.14	8.77	0.00	8.77	0.00	2.23	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
264	0.960	20.71	1.80	145.37	694.49	7.14	8.79	0.00	8.79	0.00	2.24	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
265	0.950	20.71	1.80	148.77	705.31	7.15	8.82	0.00	8.82	0.00	2.25	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
266	0.940	20.71	1.80	152.24	716.37	7.16	8.85	0.00	8.85	0.00	2.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
267	0.930	20.71	1.81	155.79	727.67	7.16	8.87	0.00	8.87	0.00	2.26	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
268	0.920	20.71	1.81	159.42	739.23	7.17	8.90	0.00	8.90	0.00	2.27	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
269	0.910	20.71	1.81	163.13	751.03	7.17	8.93	0.00	8.93	0.00	2.28	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
270	0.900	20.71	1.82	166.92	763.10	7.18	8.95	0.00	8.95	0.00	2.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
271	0.890	20.71	1.82	170.79	775.43	7.18	8.98	0.00	8.98	0.00	2.29	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
272	0.880	20.71	1.82	174.74	788.02	7.19	9.01	0.00	9.01	0.00	2.30	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
273	0.870	20.71	1.82	178.78	800.89	7.19	9.03	0.00	9.03	0.00	2.31	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
274	0.860	20.71	1.83	182.91	814.03	7.20	9.06	0.00	9.06	0.00	2.32	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
275	0.850	20.71	1.83	187.12	827.45	7.20	9.09	0.00	9.09	0.00	2.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
276	0.840	20.71	1.83	191.43	841.16	7.21	9.11	0.00	9.11	0.00	2.33	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
277	0.830	20.71	1.83	195.82	855.15	7.21	9.14	0.00	9.14	0.00	2.34	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
278	0.820	20.71	1.84	200.31	869.44	7.21	9.17	0.00	9.17	0.00	2.35	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
279	0.810	20.71	1.84	204.89	884.03	7.22	9.19	0.00	9.19	0.00	2.36	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
280	0.800	20.71	1.84	209.57	898.92	7.22	9.22	0.00	9.22	0.00	2.37	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
281	0.790	20.71	1.85	214.34	914.12	7.22	9.25	0.00	9.25	0.00	2.38	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
282	0.780	20.71	1.85	219.21	929.64	7.23	9.27	0.00	9.27	0.00	2.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
283	0.770	20.71	1.85	224.19	945.47	7.23	9.30	0.00	9.30	0.00	2.39	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
284	0.760	20.71	1.85	229.26	961.63	7.23	9.33	0.00	9.33	0.00	2.40	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
285	0.750	20.71	1.86	234.44	978.11	7.23	9.35	0.00	9.35	0.00	2.41	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
286	0.740	20.71	1.86	239.72	994.93	7.24	9.38	0.00	9.38	0.00	2.42	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
287	0.730	20.71	1.86	245.11	1012.09	7.24	9.40	0.00	9.40	0.00	2.43	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
288	0.720	20.71	1.86	250.60	1029.59	7.24	9.43	0.00	9.43	0.00	2.44	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
289	0.710	20.71	1.87	256.21	1047.45	7.24	9.46	0.00	9.46	0.00	2.45	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

290	0.700	20.71	1.87	261.93	1065.65	7.24	9.48	0.00	9.48	0.00	2.46	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
291	0.690	20.71	1.87	267.76	1084.22	7.25	9.51	0.00	9.51	0.00	2.47	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
292	0.680	20.71	1.88	273.70	1103.15	7.25	9.54	0.00	9.54	0.00	2.48	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
293	0.670	20.71	1.88	279.76	1122.46	7.25	9.56	0.00	9.56	0.00	2.49	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
294	0.660	20.71	1.88	285.94	1142.14	7.25	9.59	0.00	9.59	0.00	2.50	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
295	0.650	20.71	1.88	292.24	1162.20	7.25	9.62	0.00	9.62	0.00	2.51	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
296	0.640	20.71	1.89	298.67	1182.65	7.25	9.65	0.00	9.65	0.00	2.52	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
297	0.630	20.71	1.89	305.21	1203.50	7.25	9.67	0.00	9.67	0.00	2.54	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
298	0.620	20.71	1.89	311.88	1224.74	7.25	9.70	0.00	9.70	0.00	2.55	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
299	0.610	20.71	1.89	318.68	1246.39	7.25	9.73	0.00	9.73	0.00	2.56	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
300	0.600	20.71	1.90	325.61	1268.46	7.25	9.76	0.00	9.76	0.00	2.57	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
301	0.590	20.71	1.90	332.67	1290.94	7.25	9.78	0.00	9.78	0.00	2.58	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
302	0.580	20.71	1.90	339.86	1313.84	7.25	9.81	0.00	9.81	0.00	2.59	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
303	0.570	20.71	1.91	347.19	1337.18	7.25	9.84	0.00	9.84	0.00	2.61	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
304	0.560	20.71	1.91	354.66	1360.95	7.25	9.87	0.00	9.87	0.00	2.62	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
305	0.550	20.71	1.91	362.26	1385.16	7.25	9.89	0.00	9.89	0.00	2.63	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
306	0.540	20.71	1.91	370.00	1409.82	7.25	9.92	0.00	9.92	0.00	2.65	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
307	0.530	20.71	1.92	377.89	1434.94	7.25	9.95	0.00	9.95	0.00	2.66	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
308	0.520	20.71	1.92	385.92	1460.52	7.25	9.98	0.00	9.98	0.00	2.67	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
309	0.510	20.71	1.92	394.10	1486.57	7.25	10.01	0.00	10.01	0.00	2.69	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
310	0.500	20.71	1.93	402.43	1513.09	7.25	10.04	0.00	10.04	0.00	2.70	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
311	0.490	20.71	1.93	410.91	1540.09	7.25	10.07	0.00	10.07	0.00	2.72	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
312	0.480	20.71	1.93	419.54	1567.58	7.25	10.10	0.00	10.10	0.00	2.73	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
313	0.470	20.71	1.93	428.33	1595.57	7.25	10.13	0.00	10.13	0.00	2.74	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
314	0.460	20.71	1.94	437.28	1624.06	7.25	10.15	0.00	10.15	0.00	2.76	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
315	0.450	20.71	1.94	446.38	1653.05	7.25	10.18	0.00	10.18	0.00	2.78	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
316	0.440	20.71	1.94	455.65	1682.57	7.25	10.21	0.00	10.21	0.00	2.79	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
317	0.430	20.71	1.94	465.08	1712.60	7.25	10.25	0.00	10.25	0.00	2.81	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
318	0.420	20.71	1.95	474.68	1743.17	7.24	10.28	0.00	10.28	0.00	2.82	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
319	0.410	20.71	1.95	484.45	1774.27	7.24	10.31	0.00	10.31	0.00	2.84	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
320	0.400	20.71	1.95	494.39	1805.92	7.24	10.34	0.00	10.34	0.00	2.86	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
321	0.390	20.71	1.96	504.50	1838.12	7.24	10.37	0.00	10.37	0.00	2.88	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
322	0.380	20.71	1.96	514.79	1870.87	7.24	10.40	0.00	10.40	0.00	2.90	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
323	0.370	20.71	1.96	525.25	1904.20	7.24	10.43	0.00	10.43	0.00	2.91	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
324	0.360	20.71	1.96	535.90	1938.10	7.24	10.46	0.00	10.46	0.00	2.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
325	0.350	20.71	1.97	546.72	1972.58	7.24	10.50	0.00	10.50	0.00	2.95	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
326	0.340	20.71	1.97	557.74	2007.65	7.24	10.53	0.00	10.53	0.00	2.97	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
327	0.330	20.71	1.97	568.94	2043.32	7.23	10.56	0.00	10.56	0.00	2.99	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
328	0.320	20.71	1.97	580.33	2079.59	7.23	10.60	0.00	10.60	0.00	3.01	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
329	0.310	20.71	1.98	591.91	2116.48	7.23	10.63	0.00	10.63	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
330	0.300	20.71	1.98	603.69	2153.99	7.23	10.66	0.00	10.66	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 6 RKM 0.3 to 0.0 WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
331	UPR RCH	0.04330	20.71	1.98	603.69	2153.99	7.23	10.66	0.00	10.66	0.00	3.05	0.00	0.00	0.00	10.00	0.00	0.00

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

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO

	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
331	0.30	0.29	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13100.29	0.013	0.886	0.013
332	0.29	0.28	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13147.04	0.013	0.889	0.013
333	0.28	0.27	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13193.80	0.013	0.892	0.013
334	0.27	0.26	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13240.56	0.013	0.895	0.013
335	0.26	0.25	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13287.31	0.013	0.898	0.013
336	0.25	0.24	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13334.07	0.013	0.901	0.013
337	0.24	0.23	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13380.82	0.013	0.904	0.013
338	0.23	0.22	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13427.58	0.013	0.907	0.013
339	0.22	0.21	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13474.33	0.013	0.911	0.013
340	0.21	0.20	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13521.09	0.013	0.914	0.013
341	0.20	0.19	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13567.85	0.013	0.917	0.014
342	0.19	0.18	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13614.60	0.013	0.920	0.014
343	0.18	0.17	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13661.36	0.013	0.923	0.014
344	0.17	0.16	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13708.11	0.014	0.926	0.014
345	0.16	0.15	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13754.87	0.014	0.929	0.014
346	0.15	0.14	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13801.63	0.014	0.932	0.014
347	0.14	0.13	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13848.38	0.014	0.935	0.014
348	0.13	0.12	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13895.14	0.014	0.939	0.014
349	0.12	0.11	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13941.89	0.014	0.942	0.014
350	0.11	0.10	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	13988.65	0.014	0.945	0.014
351	0.10	0.09	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14035.41	0.014	0.948	0.014
352	0.09	0.08	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14082.16	0.014	0.951	0.014
353	0.08	0.07	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14128.92	0.014	0.954	0.014
354	0.07	0.06	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14175.67	0.014	0.957	0.014
355	0.06	0.05	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14222.43	0.014	0.960	0.014
356	0.05	0.04	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14269.18	0.014	0.964	0.014
357	0.04	0.03	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14315.94	0.014	0.967	0.014
358	0.03	0.02	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14362.70	0.014	0.970	0.014
359	0.02	0.01	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14409.45	0.014	0.973	0.014
360	0.01	0.00	0.04330	35.3	0.00189	0.06	1.16	19.81	229.03	198.12	22.90	14456.21	0.014	0.976	0.014
TOT						1.84			6870.80	5943.60					
AVG					0.0019		1.16	19.81			22.90				
CUM						19.45									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
331	0.290	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
332	0.280	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
333	0.270	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
334	0.260	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
335	0.250	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
336	0.240	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
337	0.230	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
338	0.220	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
339	0.210	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
340	0.200	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
341	0.190	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
342	0.180	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
343	0.170	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
344	0.160	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
345	0.150	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00

346	0.140	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
347	0.130	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
348	0.120	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
349	0.110	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
350	0.100	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
351	0.090	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
352	0.080	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
353	0.070	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
354	0.060	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
355	0.050	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
356	0.040	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
357	0.030	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
358	0.020	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
359	0.010	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
360	0.000	8.86	0.78	0.06	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
331	0.290	20.71	1.98	615.90	2192.86	7.23	10.70	0.00	10.70	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
332	0.280	20.71	1.98	628.55	2233.17	7.23	10.73	0.00	10.73	0.00	3.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
333	0.270	20.71	1.99	641.44	2274.19	7.22	10.76	0.00	10.76	0.00	3.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
334	0.260	20.71	1.99	654.55	2315.94	7.22	10.79	0.00	10.79	0.00	3.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
335	0.250	20.71	1.99	667.89	2358.43	7.21	10.82	0.00	10.82	0.00	3.15	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
336	0.240	20.71	1.99	681.47	2401.66	7.21	10.85	0.00	10.85	0.00	3.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
337	0.230	20.71	1.99	695.28	2445.65	7.20	10.87	0.00	10.87	0.00	3.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
338	0.220	20.71	1.99	709.34	2490.41	7.19	10.89	0.00	10.89	0.00	3.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
339	0.210	20.71	2.00	723.63	2535.95	7.18	10.90	0.00	10.90	0.00	3.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
340	0.200	20.71	2.00	738.18	2582.27	7.17	10.92	0.00	10.92	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
341	0.190	20.71	2.00	752.98	2629.40	7.16	10.93	0.00	10.93	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
342	0.180	20.71	2.00	768.03	2677.33	7.14	10.94	0.00	10.94	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
343	0.170	20.71	2.00	783.34	2726.09	7.13	10.95	0.00	10.95	0.00	3.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
344	0.160	20.71	2.00	798.92	2775.68	7.11	10.95	0.00	10.95	0.00	3.22	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
345	0.150	20.71	2.01	814.75	2826.12	7.09	10.96	0.00	10.96	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
346	0.140	20.71	2.01	830.86	2877.41	7.07	10.96	0.00	10.96	0.00	3.21	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
347	0.130	20.71	2.01	847.24	2929.56	7.05	10.95	0.00	10.95	0.00	3.20	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
348	0.120	20.71	2.01	863.89	2982.60	7.03	10.95	0.00	10.95	0.00	3.19	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
349	0.110	20.71	2.01	880.83	3036.53	7.01	10.94	0.00	10.94	0.00	3.18	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
350	0.100	20.71	2.01	898.05	3091.36	6.98	10.93	0.00	10.93	0.00	3.17	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
351	0.090	20.71	2.01	915.55	3147.11	6.95	10.91	0.00	10.91	0.00	3.16	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
352	0.080	20.71	2.02	933.35	3203.79	6.93	10.89	0.00	10.89	0.00	3.14	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
353	0.070	20.71	2.02	951.44	3261.40	6.90	10.87	0.00	10.87	0.00	3.12	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
354	0.060	20.71	2.02	969.83	3319.97	6.86	10.85	0.00	10.85	0.00	3.10	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
355	0.050	20.71	2.02	988.53	3379.50	6.83	10.83	0.00	10.83	0.00	3.08	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
356	0.040	20.71	2.02	1007.53	3440.01	6.80	10.80	0.00	10.80	0.00	3.05	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
357	0.030	20.71	2.03	1026.84	3501.52	6.76	10.76	0.00	10.76	0.00	3.03	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
358	0.020	20.71	2.03	1046.47	3564.02	6.72	10.73	0.00	10.73	0.00	3.00	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
359	0.010	20.71	2.03	1066.41	3627.54	6.68	10.69	0.00	10.69	0.00	2.96	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00
360	0.000	20.71	2.03	1086.68	3692.09	6.63	10.65	0.00	10.65	0.00	2.93	0.00	0.00	0.00	0.00	10.00	0.00	0.	0.00

HEADWATER WINTER, 4,5 DO, 90% reduc rch 1, 60% rch 2-6, hosp 5/2

TRAVEL TIME	=	19.45			DAYS
MAXIMUM EFFLUENT	=	35.33			PERCENT
FLOW	=	0.02800	TO	0.04330	m^3/s
DISPERSION	=	0.1617	TO	0.9760	m^2/s
VELOCITY	=	0.00131	TO	0.00798	m/s
DEPTH	=	1.02	TO	1.21	m
WIDTH	=	4.88	TO	28.35	m
BOD DECAY	=	0.05	TO	0.07	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	0.00	TO	1.83	$g/m^2/d$
NH3 SOURCE	=	0.00	TO	0.00	$g/m^2/d$
REAERATION	=	0.60	TO	0.78	per day
BOD SETTLING	=	0.05	TO	0.05	per day
NBOD DECAY	=	0.10	TO	0.21	per day
NBOD SETTLING	=	0.05	TO	0.05	per day
TEMPERATURE	=	20.71	TO	20.71	deg C
DISSOLVED OXYGEN	=	6.43	TO	8.04	mg/L

.....EXECUTION COMPLETED

Appendix D4 – Winter, 90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6, Justifications

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria			
DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	**VALUE**	**UNITS**	**DATA SOURCE**
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
INHIBITION CONTROL VALUE	3		The water column dissolved oxygen demand is assumed to come primarily from facultative bacteria under anoxic conditions and SOD is not influenced by modeled dissolved oxygen levels in the upper water column.
K2 MAXIMUM	10	1/day at 20 deg C	Model default
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		Used 1/day
DISPERSION EQUATION	3		Equation used to account for all modes of transport.
ALGAE OXYGEN PROD	0.05		Calibration
TIDE HEIGHT	0.236		Calculated from level monitor data
TIDAL PERIOD	24.58		Calculated from level monitor data
PERIOD OF TIDAL RISE	11.625		Calculated from level monitor data

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria						
DATA TYPE 8 - REACH IDENTIFICATION DATA						
Reach	**ID**	**Name**	**Upstream River Kilometer**	**Downstream River Kilometer**	**Element Length, meters**	**Data Source**
1	BC	RKM 3.6 to 2.8	3.60	2.80	10.0000	ARC MAP Calc.
2	BC	RKM 2.8 to 1.9	2.80	1.90	10.0000	Same as Reach 1
3	BC	RKM 1.9 to 1.5	1.90	1.50	10.0000	Same as Reach 1
4	BC	RKM 1.5 to 1.1	1.50	1.10	10.0000	Same as Reach 1
5	BC	RKM 1.1 to 0.3	1.10	0.30	10.0000	Same as Reach 1
6	BC	RKM 0.3 to 0.0	0.30	0.00	10.0000	Same as Reach 1

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria									
		Data Type 9 - Advective Hydraulic Coefficients							
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Width Const. "c"	Data Source	Depth Coeff. "d"	Depth Exp. "e"	Depth Const. "f"	Data Source
1	RKM 3.6 to 2.8	0	0	4.877	3665	0	0	1.113	3665
2	RKM 2.8 to 1.9	0	0	15.850	BC04 (3752)	0	0	1.085	BC04 (3752)
3	RKM 1.9 to 1.5	0	0	27.737	BC05 (3753)	0	0	1.189	BC05 (3753)
4	RKM 1.5 to 1.1	0	0	28.346	BC06 (3754)	0	0	1.021	BC06 (3754)
5	RKM 1.1 to 0.3	0	0	21.488	BC07 (3755)	0	0	1.210	BC07 (3755)
6	RKM 0.3 to 0.0	0	0	19.812	3666	0	0	1.156	3666

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria							
DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS							
Reach	Tidal Range	Data Source	a	b	c	d	Data Source
1	0.95	Level monitor	60.00	0.833	0.0	1.0	"a" obtained from calibration. "b, c, and d" Tracor eqn.
2	0.95	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
3	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
4	0.93	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
5	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1
6	1.00	Same as Reach 1	60.00	0.833	0.0	1.0	Same as Reach 1

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria								
DATA TYPE 11-INITIAL CONDITIONS								
Reach	**Name**	**Temp, deg C**	**Sal, ppt**	**Data Source**	**DO, mg/l**	**Data Source**	**Chlorophyll a**	**Data Source**
1	RKM 3.6 to 2.8	20.71	0.10	Temp: 90th percentile for WQN 0302, Salinity: Cont Mont	5.00	DO Crtierion for Subsegment 040903	10.00	Best Professional Judgement
2	RKM 2.8 to 1.9	20.71	0.23	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
3	RKM 1.9 to 1.5	20.71	1.15	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
4	RKM 1.5 to 1.1	20.71	1.45	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
5	RKM 1.1 to 0.3	20.71	1.76	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1
6	RKM 0.3 to 0.0	20.71	1.98	Same as Reach 1	4.00	DO Criterion for Subsegment 040904	10.00	Same as Reach 1

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria								
DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS								
REACH	**NAME**	**K2 OPT**	**Data Source**	**BKGRND SOD, gmO2/m2/day at 20 deg C**	**Data Source**	**Aerobic BOD1 Dec Rate (1/day)**	**BOD1 SETT RATE (1/day)**	**Data Source**
1	RKM 3.6 to 2.8	11	Texas Equation	0.438	90% Reduction	0.0440	0.05	Lab, Calibration
2	RKM 2.8 to 1.9	11	Texas Equation	1.750	60% Reduction	0.0680	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	11	Texas Equation	1.500	60% Reduction	0.0570	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	11	Texas Equation	1.200	60% Reduction	0.0570	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	1	Mattingly equation-wind influence	0.950	60% Reduction	0.0570	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	1	Mattingly equation-wind influence	0.000	60% Reduction	0.0620	0.05	Same as Reach 1

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria					
DATA TYPE 13 - NITROGEN AND PHOSPHORUS COEFFICIENTS					
Reach	**Name**	**NBOD decay rate, 1/day**	**Data Source**	**NBOD settling rate, 1/day**	**Data Source**
1	RKM 3.6 to 2.8	0.20	Calibration	0.05	Calibration
2	RKM 2.8 to 1.9	0.10	Same as Reach 1	0.05	Same as Reach 1
3	RKM 1.9 to 1.5	0.10	Same as Reach 1	0.05	Same as Reach 1
4	RKM 1.5 to 1.1	0.10	Same as Reach 1	0.05	Same as Reach 1
5	RKM 1.1 to 0.3	0.10	Same as Reach 1	0.05	Same as Reach 1
6	RKM 0.3 to 0.0	0.10	Same as Reach 1	0.05	Same as Reach 1

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria					
DATA TYPE 19 - NONPOINT SOURCE DATA					
Reach	**Reach Name**	**Length of Reach, km**	**UCBOD1, kg/day**	**NBOD, kg/day**	**Data Source**
1	RKM 3.6 to 2.8	0.80	0.625	0.225	90% Reduction
2	RKM 2.8 to 1.9	0.90	12.000	2.000	60% Reduction
3	RKM 1.9 to 1.5	0.40	13.000	3.650	60% Reduction
4	RKM 1.5 to 1.1	0.40	14.000	4.000	60% Reduction
5	RKM 1.1 to 0.3	0.80	27.500	8.250	60% Reduction
6	RKM 0.3 to 0.0	0.30	23.500	14.000	60% Reduction

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria							
DATA TYPE 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Headwater Name	**Element No.**	**Headwater Flow, cms**	**Data Source**	**Salinity**	**Conductivity**	**Chlorides**	**Data Source**
Headwater	1	0.0280	LTP Winter Default	0.1	215.38	21.50	SALINITY - CONT MONT (3665) CHLORIDE - LAB DATA (3665) CONDUCTIVITY - CONT MONT (3665)

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria				
DATA TYPE 21 - HEADWATER DATA FOR DO, BOD, AND NITROGEN				
Headwater Name	**Dissolved Oxygen, mg/L**	**UCBOD1, mg/l**	**NBOD, mg/l**	**Data Source**
Headwater	8.07	1.69	0.29	DO: 90% Saturation for WQN 0302 at 90th percentile seasonal temp. UCBOD and NBOD: 90% Overall Reduction

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria							
DATA TYPE 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES							
Wasteload / Withdrawal Name	**EL #**	**Flow, cms**	**Data Source**	**Salinity**	**Conductivity**	**Chlorides**	**Data Source**
Southeast Louisiana State Hospital, AI 9371	18	0.0153	Design capacity/expected flow from permit plus 20% margin of safety	0.22	458.0	22.5	Salinity from insitu during survey. Chloride and conductivity from lab data during survey.

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria						
DATA TYPE 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN						
Wasteload / Withdrawal Name	**EL #**	**DO, mg/l**	**Data Source**	**UCBOD1, mg/l**	**UNBOD, mg/l**	**Data Source**
Southeast Louisiana State Hospital, AI 9371	18	5.00	Facility currently has post-aeration	11.5000	8.6000	Required limits are $CBOD_5$=5 mg/L, NH_3-N=2 mg/L. UCBOD=$CBOD_5$*2.3, UNBOD=NH_3-N*4.3

Bayou Cane, Winter, 90% Reduction in Reach 1, 60% in Reaches 2-6, Current Criteria			
DATA TYPE 27 - LOWER BOUNDARY CONDITIONS			
Parameter	**Value**	**Units**	**Data Source**
TEMPERATURE	20.7100	^{O}C	90th Percentile Temp for WQN 0302
SALINITY	2.0300	ppt	BC09 (3756) Continuous Monitor
CHLORIDES	1097.0000	mg/L	BC09 (3756) Lab Data
CONDUCTIVITY	3724.9400	umhos/cm	BC09 (3756) Continuous Monitor
DISSOLVED OXYGEN	6.6100	mg/L	BC09 (3756) Continuous Monitor
CBOD1	10.6260	mg/L	BC09 (3756) Lab Data
CHLOROPHYLL A	10.0000	ug/L	Best Professional Judgement
NBOD	2.9100	mg/L	BC09 (3756) Lab Data

Appendix E - Projection Model Development

Appendix E1 – Summer Loading—90% Overall Reduction in Reach 1, 60% Overall Reduction in Reaches 2-6

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040903)**

Shaded cells are input values for calculations. GIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**

Values to be used in the projection models.

	Calibration Model Values													Reduced Man-Made Loads						Projected Model Loads								
Reach Number and Description	Non-Point UCBOD1	Total Non-Point UCBOD	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD1 LA**	**Non-Point UCBOD LA**	**Non-Point UNBOD LA**	**SOD LA at Projection Temp.**
	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	Kilo-meters	Meters	(deg Celsius)	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	%	%	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$g O_2/[(m^2)(day)]$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$g O_2/[(m^2)(day)]$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$	$kg O_2/day$
Reach 1 - Site 3665 to 3752-BC04	1.282	1.282	0.461	3.50	5.243	0.80	4.877	27.91	0.00	0.00	5.24	0%	90%	0.00	0.52	0.66	0.50	0.50	0.18	2.25	0.438	0.625	0.625	0.225	0.73	0.50	0.50	0.18	2.25
Sub-Total										0.00	5.24			0.00	0.52	0.66	0.50	0.50	0.18	2.25		0.63	0.63	0.23	0.73	**0.50**	**0.50**	**0.18**	**2.25**

Summer TMDL Calculations for Point Source loads:

BAYOU CANE (SUBSEGMENT 040903)

Input data into the shaded cells.

Point Source Loading Calculations

							Proposed Permit Limits			UCBOD				UNBOD				Sub-Total of Point Source BOD Loads		
Pt. Source / Facility Description	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (cms)	Flow with MOS (gpd)	$CBOD_5$ (mg/l)	NH_3N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	**Loads (kg/day)**	**WLA (kg/day)**	**Reserve/ MOS (kg/day)**
				A	**A1** = **A**/(1-**E**)		**B**	**C**	**E**	**F** = 2.3 x **B**	**G** = (86.4)(**A1**)(**F**)	**H** = (1-**E**) x **G**	**I** = (**E**)(**G**)	**J** = 4.3 x **C**	**K** = (86.4)(**A1**)(**J**)	**L** = (1-**E**) x **K**	**M** = (**D**)(**K**)	**G** + **K** + **N**	**H** + **L** +**O**	**I** + **M** + **P**
Southeast Louisiana State Hospital	Bayou Cane	Yes	280,000	0.01226736	0.01533420	350,000	5	2	20%	11.5	15	12	3	8.6	11	9	2	**27**	**21**	**5**
Lakeshore High School	LA Hwy. 1088 Ditch	No	26,000	0.00113911	0.00142389	32,500	10		20%	23.0	2.8296	2.2636	0.5659	0.0	0.0000	0.0000	0.0000	**2.8296**	**2.2636**	**0.5659**
SUB-TOTAL Loads											**18.07**	**14.45**	**3.61**		**11.39**	**9.12**	**2.28**	**29.46**	**23.57**	**5.89**

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:

BAYOU CANE (SUBSEGMENT 040903)

Shaded cells are input values for calculations. MARGIN OF SAFETY (MOS) (%) = **20%**
Values to be used in the projection models. If modeling the nitrogen series, be sure that columns '

Headwater / Tributary Load Determinations

	FROM CALIBRATION					BACKGROUND VALUES						Reduced Background Loads			Reduced Man-Made Loads			PROJECTION VALUES						
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg O_2/L)	Total UCBOD (mg O_2/L)	UNBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD1 conc. (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Reduced Background UCBOD1 load (kg O_2/day)	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD1 load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD1 input conc. (mg O_2/L)	Projection UCBOD input conc. (mg O_2/L)	Projection UNBOD input conc. (mg O_2/L)	**Total MOS (kg O_2/day)**	**Total CBOD1 LA (kg O_2/day)**	**Total CBOD LA (kg O_2/day)**	**Total NBOD LA (kg O_2/day)**
Headwater	0.0028	13.5280	13.53	2.3150	2.32	0.0000	0.00	0.0000	0.00	0%	90%	0.00	0.00	0.00	0.33	0.33	0.06	1.69	1.69	0.29	**0.10**	**0.33**	**0.33**	**0.06**
SUB-TOTAL TMDL LOADING												**0.00**	**0.00**	**0.00**	**0**	**0.33**	**0.06**				**0.10**	**0.33**	**0.33**	**0.06**

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040904)**

Shaded cells are input values for calculations. GIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection models.

	Calibration Model Values													Reduced Man-Made Loads					Projected Model Loads							
Reach Number and Description	Non-Point UCBOD1	Total Non-Point UCBOD	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD1 LA**	**Non-Point UCBOD LA**	**Non-Point UNBOD LA**	**SOD LA at Projection Temp.**
	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	Kilo-meters	Meters	(deg Celsius)	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	%	%	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day
Reach 2 - Site 3752-BC04 to 3753-BC05	1.682	1.682	0.280	3.50	5.463	0.90	15.850	27.91	0.00	0.00	5.46	0%	60%	0.00	2.19	2.73	9.60	9.60	1.60	32.87	1.750	12.000	12.000	2.000	11.02	9.60	9.60	1.60	32.87
Reach 3 - Site 3753-BC05 to 3754-BC06	2.343	2.343	0.658	3.00	6.001	0.40	27.737	27.91	0.00	0.00	6.00	0%	60%	0.00	2.40	3.00	10.40	10.40	2.92	21.91	1.500	13.000	13.000	3.650	8.81	10.40	10.40	2.92	21.91
Reach 4 - Site 3754-BC06 to 3755-BC07	2.469	2.469	0.706	2.40	5.575	0.40	28.346	27.91	0.00	0.00	5.58	0%	60%	0.00	2.23	2.79	11.20	11.20	3.20	17.91	1.200	14.000	14.000	4.000	8.08	11.20	11.20	3.20	17.91
Reach 5 - Site 3755-BC07 to 3666	3.199	3.199	0.960	1.90	6.059	0.80	21.488	27.91	0.00	0.00	6.06	0%	60%	0.00	2.42	3.03	22.00	22.00	6.60	21.50	0.950	27.500	27.500	8.250	12.52	22.00	22.00	6.60	21.50
Reach 6 - Site 3666 to Lake Pontchartrain	7.908	7.908	4.711	0.00	12.619	0.30	19.812	27.91	0.00	0.00	12.62	0%	60%	0.00	5.05	6.31	18.80	18.80	11.20	0.00	0.000	23.500	23.500	14.000	7.50	18.80	18.80	11.20	0.00
Sub-Total										0.00	35.72			0.00	14.29	17.86	72.00	72.00	25.52	94.19		90.00	90.00	31.90	47.93	**72.00**	**72.00**	**25.52**	**94.19**

Summer TMDL Calculations for Point Source loads:

BAYOU CANE (SUBSEGMENT 040904)

Input data into the shaded cells.

Point Source Loading Calculations

Pt. Source / Facility Description	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (cms)	Flow with MOS (gpd)	Proposed Permit Limits			UCBOD				UNBOD				Sub-Total of Point Source BOD Loads		
							$CBOD_5$ (mg/l)	NH_3N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	**Loads (kg/day)**	**WLA (kg/day)**	**Reserve/ MOS (kg/day)**
				A	**A1 = A/(1-E)**		**B**	**C**	**E**	**F = 2.3 x B**	**G = (86.4)(A1)(F)**	**H = (1-E) x G**	**I = (E)(G)**	**J = 4.3 x C**	**K = (86.4)(A1)(J)**	**L = (1-E) x K**	**M = (D)(K)**	**G + K + N**	**H + L +O**	**I + M + P**
St. Tammany Fire Protection District #4 Station #44	Bayou Cane	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Bayou Moon Antiques	Bayou Cane	No	20	0.000001	0.000001	25	45		20%	103.5	0.0098	0.0078	0.0020	0.0	0.0000	0.0000	0.0000	**0.0098**	**0.0078**	**0.0020**
Demmonlicious Catering LLC	Bayou Cane	No	60	0.000003	0.000003	75	30		20%	69.0	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Bayou Snowballs	Big Branch Marsh	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Big Branch Mobile Home Community LLC - Big Branch Mobile Home Community	Big Branch Marsh	No	7,800	0.000342	0.000427	9,750	30		20%	69.0	2.5466	2.0373	0.5093	0.0	0.0000	0.0000	0.0000	**2.5466**	**2.0373**	**0.5093**
Union Service & Maintenance Co Inc	Big Branch Marsh	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Ace Auto Source LLC - WWTP	Lake Pontchartrain	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
H2O Systems Inc - Autumn Haven STP	Big Branch	No	36,400	0.001595	0.001993	45,500	10		20%	23.0	3.9614	3.1691	0.7923	0.0	0.0000	0.0000	0.0000	**3.9614**	**3.1691**	**0.7923**
Northshore Duplicate Bridge Club	Big Branch	No	1,500	0.000066	0.000082	1,875	45		20%	103.5	0.7346	0.5877	0.1469	0.0	0.0000	0.0000	0.0000	**0.7346**	**0.5877**	**0.1469**
LADCRT - Fountainbleau State Park	Little Bayou Castine	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
St Tammany Parish Rec District #1	Bayou Castine	No	2,499	0.000109	0.000137	3,124	45		20%	103.5	1.2238	0.9791	0.2448	0.0	0.0000	0.0000	0.0000	**1.2238**	**0.9791**	**0.2448**
Transitions Law & Professional Center	Bayou Castine	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
St Tammany Parish - Municipal Separate Storm Sewer System	Various waterbodies	No		0.000000	0.000000	0			20%	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	**0.0000**	**0.0000**	**0.0000**
St Tammany Marine	Bayou Castine	No	4,999	0.000219	0.000274	6,249	45		20%	103.5	2.4482	1.9585	0.4896	0.0	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
Iqbal Properties LLC - Chahta Mobile Home Park	Bayou Castine	No	22,000	0.000964	0.001205	27,500	10		20%	23.0	2.3942	1.9154	0.4788	0.0	0.0000	0.0000	0.0000	**2.3942**	**1.9154**	**0.4788**
West Wind Sails LLC - West Wind Sails	Little Bayou Castine	No	120	0.000005	0.000007	150	30		20%	69.0	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Parent Teacher Child Services Inc	Bayou Castine	No	800	0.000035	0.000044	1,000	45		20%	103.5	0.3918	0.3134	0.0784	0.0	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
Bert Cortes - Rented Building	Little Bayou Castine	No	60	0.000003	0.000003	75	45		20%	103.5	0.0294	0.0235	0.0059	0.0	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
Daiquiri's & Cream of Mandeville LLC/Daiquiri's & Cream-Mandeville	Little Bayou Castine	No	500	0.000022	0.000027	625	45		20%	103.5	0.2449	0.1959	0.0490	0.0	0.0000	0.0000	0.0000	**0.2449**	**0.1959**	**0.0490**
H2O Systems Inc - Monterey Timbers Marigny Trace Subdivisions	Little Bayou Castine	No	182,400	0.007991	0.009989	228,000	10	5	20%	23.0	19.8504	15.8803	3.9701	21.5	18.5558	14.8447	3.7112	**38.4062**	**30.7250**	**7.6812**
Delta Fence Inc	Little Bayou Castine	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**

Ola's Place	Little Bayou Castine	No	2,275	0.000100	0.000125	2,844	30		20%	69.0	0.7428	0.5942	0.1486	0.0	0.0000	0.0000	0.0000	**0.7428**	**0.5942**	**0.1486**
Harry Mayeaux - CARQUEST Auto Parts	Little Bayou Castine	No	60	0.000003	0.000003	75	45		20%	103.5	0.0294	0.0235	0.0059	0.0	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
St Tammany Parish Government - Red Oak Subdivision	Little Bayou Castine	No	5,600	0.000245	0.000307	7,000	30		20%	69.0	1.8283	1.4627	0.3657	0.0	0.0000	0.0000	0.0000	**1.8283**	**1.4627**	**0.3657**
Country Kitchen Restaurant	Little Bayou Castine	No	1,960	0.000086	0.000107	2,450	30		20%	69.0	0.6399	0.5119	0.1280	0.0	0.0000	0.0000	0.0000	**0.6399**	**0.5119**	**0.1280**
Deliverance Tabernacle United Pentecost	Bayou Castine	No	630	0.000028	0.000035	788	45		20%	103.5	0.3085	0.2468	0.0617	0.0	0.0000	0.0000	0.0000	**0.3085**	**0.2468**	**0.0617**
Automotive Air Services	Bayou Castine	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
The Bounce House	Little Bayou Castine	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Thomas & Nancy Heidingsfelder - Property	Bayou Castine	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Patrick Brackley & William Brackley Trust Dollar General & Retail Spaces	Little Bayou Castine	No	320	0.000014	0.000018	400	45		20%	103.5	0.1567	0.1254	0.0313	0.0	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
Paul Gement - 915-975 Carroll Street	Little Bayou Castine	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Marquez's Auto Service Center	Bayou Castine	No	4,999	0.000219	0.000274	6,249	45		20%	103.5	2.4482	1.9585	0.4896	0.0	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
Northshore Animal Hospital Inc	Little Bayou Castine	No	80	0.000004	0.000004	100	45		20%	103.5	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Paul Gement - Orleans Building	Little Bayou Castine	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mamacita's Gerard Street LLC	Little Bayou Castine	No	2,120	0.000093	0.000116	2,650	30		20%	69.0	0.6922	0.5537	0.1384	0.0	0.0000	0.0000	0.0000	**0.6922**	**0.5537**	**0.1384**
St Tammany Parish Government - Castine Regional Sewage Treatment Plant	Bayou Castine	No	1,000,000	0.043812	0.054765	1,250,000	10	4	20%	23.0	108.8290	87.0632	21.7658	17.2	81.3852	65.1081	16.2770	**190.2142**	**152.1713**	**38.0428**
Square 188 Rural Mandeville POA Inc	Bayou Castine	No	4,000	0.000175	0.000219	5,000	30		20%	69.0	1.3059	1.0448	0.2612	0.0	0.0000	0.0000	0.0000	**1.3059**	**1.0448**	**0.2612**
Kinder Haus Mandeville Inc - Kinder Haus Montessori	Lake Pontchartrain	No	1,345	0.000059	0.000074	1,681	30		20%	69.0	0.4391	0.3513	0.0878	0.0	0.0000	0.0000	0.0000	**0.4391**	**0.3513**	**0.0878**
Mandeville City of - Municipal Separate Storm Sewer System	Various waterbodies	No		0.000000	0.000000	0			20%	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	**0.0000**	**0.0000**	**0.0000**
Mandeville Karate Training Center	Lake Pontchartrain	No	1,240	0.000054	0.000068	1,550	45		20%	103.5	0.6073	0.4858	0.1215	0.0	0.0000	0.0000	0.0000	**0.6073**	**0.4858**	**0.1215**
Service Master Absolute Cleaning Services LLC	Bayou Chinchuba	No	540	0.000024	0.000030	675	45		20%	103.5	0.2645	0.2116	0.0529	0.0	0.0000	0.0000	0.0000	**0.2645**	**0.2116**	**0.0529**
Knight's Wrecker Service	Bayou Chinchuba	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
KT Automotive Inc	Little Bayou Castine	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Lazaro's Heating & Air Conditioning Inc	Bayou Chinchuba	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Crossroads Shopping Center	Lake Pontchartrain	No	4,400	0.000193	0.000241	5,500	45		20%	103.5	2.1548	1.7239	0.4310	0.0	0.0000	0.0000	0.0000	**2.1548**	**1.7239**	**0.4310**
Richard J Vanek Properties LLC - HMIH	Lake Pontchartrain	No	80	0.000004	0.000004	100	45		20%	103.5	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Dave's Collision Shop	Lake Pontchartrain	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Governor Control Systems Inc	Lake Pontchartrain	No	300	0.000013	0.000016	375	45		20%	103.5	0.1469	0.1175	0.0294	0.0	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
JRM Bel LLC - Southern Pipe & Supply Inc	Bayou Chinchuba	No	150	0.000007	0.000008	188	45		20%	103.5	0.0735	0.0588	0.0147	0.0	0.0000	0.0000	0.0000	**0.0735**	**0.0588**	**0.0147**
WREDCO - Weyerhauser Real Estate & Development Co	Bayou Castine	No	300,000	0.013144	0.016430	375,000	10	5	20%	23.0	32.6487	26.1190	6.5297	21.5	30.5194	24.4156	6.1039	**63.1681**	**50.5345**	**12.6336**
Greenleaves Utility Co - Greenleaves Subdivision	Bayou Chinchuba	No	950,000	0.041621	0.052027	1,187,500	10	4	20%	23.0	103.3876	82.7100	20.6775	17.2	77.3159	61.8527	15.4632	**180.7035**	**144.5628**	**36.1407**
Brookside Office Complex - Northshore I Commercial Condo Association Inc	Bayou Chinchuba	No	2,100	0.000092	0.000115	2,625	45		20%	103.5	1.0284	0.8227	0.2057	0.0	0.0000	0.0000	0.0000	**1.0284**	**0.8227**	**0.2057**
Lanier Music	Bayou Chinchuba	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mandeville Christian Fellowship Church	Little Bayou Castine	No	1,000	0.000044	0.000055	1,250	30		20%	69.0	0.3265	0.2612	0.0653	0.0	0.0000	0.0000	0.0000	**0.3265**	**0.2612**	**0.0653**
Marbar LLC	Bayou Chinchuba	No	160	0.000007	0.000009	200	45		20%	103.5	0.0784	0.0627	0.0157	0.0	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Hosanna Lutheran Church Inc	Bayou Chinchuba	No	3,500	0.000153	0.000192	4,375	30		20%	69.0	1.1427	0.9142	0.2285	0.0	0.0000	0.0000	0.0000	**1.1427**	**0.9142**	**0.2285**

Chilly's Famous Sno-Balls	Little Bayou Castine	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Latter & Blum Inc	Bayou Chinchuba	No	560	0.000025	0.000031	700	45		20%	103.5	0.2742	0.2194	0.0548	0.0	0.0000	0.0000	0.0000	**0.2742**	**0.2194**	**0.0548**
OPS Turnkey LLC	Bayou Chinchuba	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
St Tammany Parish Government - Forest Park Apts STP	Bayou Chinchuba	No	5,400	0.000237	0.000296	6,750	30		20%	69.0	1.7630	1.4104	0.3526	0.0	0.0000	0.0000	0.0000	**1.7630**	**1.4104**	**0.3526**
St Tammany Parish of - Wadsworth Subdivision WWTP	Bayou Castine	No	180,000	0.007886	0.009858	225,000	10	5	20%	23.0	19.5892	15.6714	3.9178	21.5	18.3117	14.6493	3.6623	**37.9009**	**30.3207**	**7.5802**
The Soil & Garden Depot	Bayou Chinchuba	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
All Creatures Country Club - Shari K Karanas - WWTP	Bayou Castine	No	800	0.000035	0.000044	1,000	45		20%	103.5	0.3918	0.3134	0.0784	0.0	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
S&G Investments LLC	Bayou Chinchuba	No	160	0.000007	0.000009	200	45		20%	103.5	0.0784	0.0627	0.0157	0.0	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Dejaunay Hair Design	Bayou Chinchuba	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Gayle Betz - Century 21 Gaylaxey Office Building	Bayou Chinchuba	No	380	0.000017	0.000021	475	45		20%	103.5	0.1861	0.1489	0.0372	0.0	0.0000	0.0000	0.0000	**0.1861**	**0.1489**	**0.0372**
Liberty Self Storage #11	Bayou Chinchuba	No	320	0.000014	0.000018	400	45		20%	103.5	0.1567	0.1254	0.0313	0.0	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
B&N Investments	Bayou Chinchuba	No	2,480	0.000109	0.000136	3,100	45		20%	103.5	1.2145	0.9716	0.2429	0.0	0.0000	0.0000	0.0000	**1.2145**	**0.9716**	**0.2429**
H2O Systems Inc - Woodland Apartments STF	Bayou Chinchuba	No	45,000	0.001972	0.002464	56,250	10		20%	23.0	4.8973	3.9178	0.9795	0.0	0.0000	0.0000	0.0000	**4.8973**	**3.9178**	**0.9795**
Liberty Self Storage LLC #3	Bayou Chinchuba	No	320	0.000014	0.000018	400	45		20%	103.5	0.1567	0.1254	0.0313	0.0	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
C&C Drugs	Bayou Chinchuba	No	160	0.000007	0.000009	200	45		20%	103.5	0.0784	0.0627	0.0157	0.0	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
St Tammany Parish Government - Woodcrest Subdivision	Little Bayou Castine	No	5,600	0.000245	0.000307	7,000	30		20%	69.0	1.8283	1.4627	0.3657	0.0	0.0000	0.0000	0.0000	**1.8283**	**1.4627**	**0.3657**
St Tammany Parish Government - Twin Oaks	Bayou Chinchuba	No	8,000	0.000350	0.000438	10,000	10		20%	23.0	0.8706	0.6965	0.1741	0.0	0.0000	0.0000	0.0000	**0.8706**	**0.6965**	**0.1741**
Southern Fastening Systems	Bayou Chinchuba	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mandeville Christian Church	Bayou Chinchuba	No	150	0.000007	0.000008	188	45		20%	103.5	0.0735	0.0588	0.0147	0.0	0.0000	0.0000	0.0000	**0.0735**	**0.0588**	**0.0147**
Northlake Automotive	Bayou Chinchuba	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
B&N Investments - Southern Country Designs	Bayou Chinchuba	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Dr Robert Hurst - SWWT	Bayou Chinchuba	No	40	0.000002	0.000002	50	45		20%	103.5	0.0196	0.0157	0.0039	0.0	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Richard St Pe Co Inc	Bayou Chinchuba	No	60	0.000003	0.000003	75	45		20%	103.5	0.0294	0.0235	0.0059	0.0	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
Yeoh & Williams LLC - Little Tokyo	Bayou Chinchuba	No	1,620	0.000071	0.000089	2,025	30		20%	69.0	0.5289	0.4231	0.1058	0.0	0.0000	0.0000	0.0000	**0.5289**	**0.4231**	**0.1058**
B&N Investments - Onesource Professional Search	Bayou Chinchuba	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Tire Kingdom #180	Bayou Chinchuba	No	4,999	0.000219	0.000274	6,249	45		20%	103.5	2.4482	1.9585	0.4896	0.0	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
B&N Investments - Basic Elements Day Spa	Bayou Chinchuba	No	160	0.000007	0.000009	200	45		20%	103.5	0.0784	0.0627	0.0157	0.0	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Patrick Shannon Allison DDS	Bayou Chinchuba	No	220	0.000010	0.000012	275	45		20%	103.5	0.1077	0.0862	0.0215	0.0	0.0000	0.0000	0.0000	**0.1077**	**0.0862**	**0.0215**
Redi Med Clinic	Bayou Chinchuba	No	200	0.000009	0.000011	250	45		20%	103.5	0.0979	0.0784	0.0196	0.0	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Tiffany Lanes	Bayou Chinchuba	No	8,480	0.000372	0.000464	10,600	30		20%	69.0	2.7686	2.2149	0.5537	0.0	0.0000	0.0000	0.0000	**2.7686**	**2.2149**	**0.5537**
Quad Investments LLC	Bayou Chinchuba	No	500	0.000022	0.000027	625	45		20%	103.5	0.2449	0.1959	0.0490	0.0	0.0000	0.0000	0.0000	**0.2449**	**0.1959**	**0.0490**
Darby Holdings LLC - Asbury Square	Bayou Chinchuba	No	300	0.000013	0.000016	375	45		20%	103.5	0.1469	0.1175	0.0294	0.0	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
2156 3rd Street LLC - Creations Galore	Bayou Chinchuba	No	240	0.000011	0.000013	300	45		20%	103.5	0.1175	0.0940	0.0235	0.0	0.0000	0.0000	0.0000	**0.1175**	**0.0940**	**0.0235**
La Petite Maison Childcare LLC	Bayou Chinchuba	No	400	0.000018	0.000022	500	45		20%	103.5	0.1959	0.1567	0.0392	0.0	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
Asbury Drive Office Building	Bayou Chinchuba	No	240	0.000011	0.000013	300	45		20%	103.5	0.1175	0.0940	0.0235	0.0	0.0000	0.0000	0.0000	**0.1175**	**0.0940**	**0.0235**

Sun Cleaners LLC	Bayou Chinchuba	No	480	0.000021	0.000026	600	45		20%	103.5	0.2351	0.1881	0.0470	0.0	0.0000	0.0000	0.0000	**0.2351**	**0.1881**	**0.0470**
Thomas Danos - STP	Bayou Chinchuba	No	280	0.000012	0.000015	350	30		20%	69.0	0.0914	0.0731	0.0183	0.0	0.0000	0.0000	0.0000	**0.0914**	**0.0731**	**0.0183**
Safeway Industries	Bayou Chinchuba	No	120	0.000005	0.000007	150	45		20%	103.5	0.0588	0.0470	0.0118	0.0	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
St Tammany Parish Hospital - Hospice	Bayou Chinchuba	No	400	0.000018	0.000022	500	45		20%	103.5	0.1959	0.1567	0.0392	0.0	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
Marret LLC - 2180 3rd St Bldg	Bayou Chinchuba	No	80	0.000004	0.000004	100	45		20%	103.5	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Riverside Veterinary Hospital	Bayou Chinchuba	No	500	0.000022	0.000027	625	30		20%	69.0	0.1632	0.1306	0.0326	0.0	0.0000	0.0000	0.0000	**0.1632**	**0.1306**	**0.0326**
NU-Lite Electrical Supply	Bayou Chinchuba	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
DECS Investments LLC	Bayou Chinchuba	No	800	0.000035	0.000044	1,000	45		20%	103.5	0.3918	0.3134	0.0784	0.0	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
Tammany Oaks Church of Christ	Bayou Chinchuba	No	2,250	0.000099	0.000123	2,813	45		20%	103.5	1.1019	0.8815	0.2204	0.0	0.0000	0.0000	0.0000	**1.1019**	**0.8815**	**0.2204**
HJH Land Development	Bayou Chinchuba	No	260	0.000011	0.000014	325	45		20%	103.5	0.1273	0.1019	0.0255	0.0	0.0000	0.0000	0.0000	**0.1273**	**0.1019**	**0.0255**
WSA LLC - 3933 Hwy 59 Building	Bayou Chinchuba	No	300	0.000013	0.000016	375	45		20%	103.5	0.1469	0.1175	0.0294	0.0	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
Total Environmental Solutions Inc - Beau Pre Subdivision	Bayou Chinchuba	No	30,000	0.001314	0.001643	37,500	10		20%	23.0	3.2649	2.6119	0.6530	0.0	0.0000	0.0000	0.0000	**3.2649**	**2.6119**	**0.6530**
DeVun Veterinary Medical Hospital	Bayou Chinchuba	No	120	0.000005	0.000007	150	30		20%	69.0	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Fountainbleau Junior & Fountainbleau High Schools	Bayou Chinchuba	No	66,900	0.002931	0.003664	83,625	10		20%	23.0	7.2807	5.8245	1.4561	0.0	0.0000	0.0000	0.0000	**7.2807**	**5.8245**	**1.4561**
Campbell Cabinet Co Inc	Bayou Chinchuba	No	280	0.000012	0.000015	350	45		20%	103.5	0.1371	0.1097	0.0274	0.0	0.0000	0.0000	0.0000	**0.1371**	**0.1097**	**0.0274**
Hwy 59 Project - Construction	Bayou Chinchuba	No	140	0.000006	0.000008	175	45		20%	103.5	0.0686	0.0548	0.0137	0.0	0.0000	0.0000	0.0000	**0.0686**	**0.0548**	**0.0137**
Campbell Shelving	Bayou Chinchuba	No	160	0.000007	0.000009	200	45		20%	103.5	0.0784	0.0627	0.0157	0.0	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Campbell Ventures No 3 LLC	Bayou Chinchuba	No	280	0.000012	0.000015	350	45		20%	103.5	0.1371	0.1097	0.0274	0.0	0.0000	0.0000	0.0000	**0.1371**	**0.1097**	**0.0274**
Campbell Shelving Co Inc - Campbell Building	Bayou Chinchuba	No	100	0.000004	0.000005	125	45		20%	103.5	0.0490	0.0392	0.0098	0.0	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
OJALA Ltd - 5 Minute Oil Change	Bayou Chinchuba	No	80	0.000004	0.000004	100	45		20%	103.5	0.0392	0.0313	0.0078	0.0	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
BMC Investments LLC - Strip Mall	Bayou Chinchuba	No	400	0.000018	0.000022	500	45		20%	103.5	0.1959	0.1567	0.0392	0.0	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
SUB-TOTAL Loads											**346.94**	**277.56**	**69.39**		**226.09**	**180.87**	**45.22**	**573.03**	**458.43**	**114.61**

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
(2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Appendix E2 – Winter Loading—90% Reduction in Reach 1, 60% Reduction in Reaches 2-6

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040903)**

Shaded cells are input values for calculations. GIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**

Values to be used in the projection models.

	Calibration Model Values																Reduced Man-Made Loads					Projected Model Loads								
Reach Number and Description	Non-Point UCBOD1	Total Non-Point UCBOD	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD1 LA**	**Non-Point UCBOD LA**	**Non-Point UNBOD LA**	**SOD LA at Projection Temp.**
	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	Kilo-meters	Meters	(deg Celsius)	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	%	%	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day
Reach 1 - Site 3665 to 3752-BC04	1.282	1.282	0.461	3.50	5.243	0.80	4.877	20.71	0.00	0.00	5.24	0%	90%	0.00	0.52	0.66	0.50	0.50	0.18	1.43	0.438	0.625	0.625	0.225	0.53	0.50	0.50	0.18	1.43
Sub-Total										0.00	5.24			0.00	0.52	0.66	0.50	0.50	0.18	1.43		0.63	0.63	0.23	0.53	**0.50**	**0.50**	**0.18**	**1.43**

Winter TMDL Calculations for Point Source loads:

BAYOU CANE (SUBSEGMENT 040903)

Input data into the shaded cells.

Point Source Loading Calculations

Pt. Source / Facility Description	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits			UCBOD				UNBOD				Sub-Total of Point Source BOD Loads		
						$CBOD_5$ (mg/l)	NH_3N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	**Loads (kg/day)**	**WLA (kg/day)**	**Reserve/ MOS (kg/day)**
				A	**A1** = **A**/(1-**E**)	**B**	**C**	**E**	**F** = 2.3 x **B**	**G** = (86.4)(**A1**)(**F**)	**H** = (1-**E**) x **G**	**I** = (**E**)(**G**)	**J** = 4.3 x **C**	**K** = (86.4)(**A1**)(**J**)	**L** = (1-**E**) x **K**	**M** = (**D**)(**K**)	**G** + **K** + **N**	**H** + **L** +**O**	**I** + **M** + **P**
Southeast Louisiana State Hospital	Bayou Cane	Yes	280,000	0.01226736	0.01533420	5	2	20%	11.5	15.2361	12.1888	3.0472	8.6	11.3939	9.1151	2.2788	**26.6300**	**21.3040**	**5.3260**
Lakeshore High School	LA Hwy. 1088 Ditch	No	26,000	0.00113911	0.00142389	10		20%	23.0	2.8296	2.2636	0.5659	0.0	0.0000	0.0000	0.0000	**2.8296**	**2.2636**	**0.5659**
SUB-TOTAL Loads										**18.07**	**14.45**	**3.61**		**11.39**	**9.12**	**2.28**	**29.46**	**23.57**	**5.89**

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)

(2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:

BAYOU CANE (SUBSEGMENT 040903)

Shaded cells are input values for calculations. MARGIN OF SAFETY (MOS) (%) = **20%**
Values to be used in the projection models. If modeling the nitrogen series, be sure that columns "H

Headwater / Tributary Load Determinations

	FROM CALIBRATION					BACKGROUND VALUES						Reduced Background Loads			Reduced Man-Made Loads			PROJECTION VALUES						
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg O_2/L)	Total UCBOD (mg O_2/L)	UNBOD (mg O_2/L)	Total UNBOD (mg O_2/L)	Background UCBOD1 conc. (mg O_2/L)	Background UCBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background UNBOD conc. (mg O_2/L)	Background % Reduction	Percent reduction of Man-Made loads	Reduced Background UCBOD1 load (kg O_2/day)	Total reduced Background UCBOD load (kg O_2/day)	Reduced Background UNBOD load (kg O_2/day)	Reduced UCBOD1 load (kg O_2/day)	Reduced UCBOD load (kg O_2/day)	Reduced UNBOD load (kg O_2/day)	Projection UCBOD1 input conc. (mg O_2/L)	Projection UCBOD input conc. (mg O_2/L)	Projection UNBOD input conc. (mg O_2/L)	**Total MOS (kg O_2/day)**	**Total CBOD1 LA (kg O_2/day)**	**Total CBOD LA (kg O_2/day)**	**Total NBOD LA (kg O_2/day)**
Headwater	0.02800	13.528	13.528	2.315	2.32	0.0000	0.00	0.0000	0.00	0%	90%	0.00	0.00	0.00	3.27	3.27	0.56	1.69	1.69	0.29	**0.96**	**3.27**	**3.27**	**0.56**
SUB-TOTAL TMDL LOADING												**0.00**	**0.00**	**0.00**	**3**	**3.27**	**0.56**				**0.96**	**3.27**	**3.27**	**0.56**

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body: **BAYOU CANE (SUBSEGMENT 040904)**

Shaded cells are input values for calculations. GIN OF SAFETY (MOS) (%) = [MOG + MOU] = **20%**
Values to be used in the projection models.

	Calibration Model Values													Reduced Man-Made Loads					Projected Model Loads						
Reach Number and Description	Non-Point UCBOD1	Total Non-Point UCBOD	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Proj. Model Avg. Reach Width	Proj. Temp.	Background Benthic Load	Effective Background Benthic Load	Man-Made Benthic Load	Background percentage reduction	Percentage Reduction of man-made sources	Reduced Background Benthic Load	Reduced Man-Made Benthic Load	Reduced TCBL adjusted for MOS	Reduced UCBOD1 Load	Reduced Total UCBOD Load	Reduced UNBOD Load	Reduced SOD Load at Projection Temp.	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	**Total MOS at Projection Temp.**	**Non-Point UCBOD1 LA**	**Non-Point UCBOD LA**	**Non-Point UNBOD LA**	**SOD LA at Projection Temp.**
	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	Kilo-meters	Meters	(deg Celsius)	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	%	%	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	g O_2 / [(m^2)(day)]	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day	kg O_2/day
Reach 2 - Site 3752-BC04 to 3753-BC05	1.682	1.682	0.280	3.50	5.463	0.90	15.850	20.71	0.00	0.00	5.46	0%	60%	0.00	2.19	2.73	9.60	9.60	1.60	20.88	1.750	12.000	12.000	2.000	8.02	9.60	9.60	1.60	20.88
Reach 3 - Site 3753-BC05 to 3754-BC06	2.343	2.343	0.658	3.00	6.001	0.40	27.737	20.71	0.00	0.00	6.00	0%	60%	0.00	2.40	3.00	10.40	10.40	2.92	13.92	1.500	13.000	13.000	3.650	6.81	10.40	10.40	2.92	13.92
Reach 4 - Site 3754-BC06 to 3755-BC07	2.469	2.469	0.706	2.40	5.575	0.40	28.346	20.71	0.00	0.00	5.58	0%	60%	0.00	2.23	2.79	11.20	11.20	3.20	11.38	1.200	14.000	14.000	4.000	6.45	11.20	11.20	3.20	11.38
Reach 5 - Site 3755-BC07 to 3666	3.199	3.199	0.960	1.90	6.059	0.80	21.488	20.71	0.00	0.00	6.06	0%	60%	0.00	2.42	3.03	22.00	22.00	6.60	13.66	0.950	27.500	27.500	8.250	10.57	22.00	22.00	6.60	13.66
Reach 6 - Site 3666 to Lake Pontchartrain	7.908	7.908	4.711	0.00	12.619	0.30	19.812	20.71	0.00	0.00	12.62	0%	60%	0.00	5.05	6.31	18.80	18.80	11.20	0.00	0.000	23.500	23.500	14.000	7.50	18.80	18.80	11.20	0.00
Sub-Total										0.00	35.72			0.00	14.29	17.86	72.00	72.00	25.52	59.85		90.00	90.00	31.90	39.34	**72.00**	**72.00**	**25.52**	**59.85**

Winter TMDL Calculations for Point Source loads:

BAYOU CANE (SUBSEGMENT 040904)

Input data into the shaded cells.

Point Source Loading Calculations

Pt. Source / Facility Description	Receiving Stream	Included in the Projection Model (Yes/No)	Anticipated/design flow (gpd)	Anticipated/ design flow (cms)	Flow with MOS (cms)	Proposed Permit Limits			UCBOD				UNBOD				Sub-Total of Point Source BOD Loads		
						$CBOD_5$ (mg/l)	NH_3N (mg/l)	MOS (%)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	Ultimate Conc. (mg/l) (2)	Loads (kg/day) (1)	WLA (kg/day)	Reserve/ MOS Load (kg/day)	**Loads (kg/day)**	**WLA (kg/day)**	**Reserve/ MOS (kg/day)**
				A	**A1 = A/(1-E)**	**B**	**C**	**E**	**F = 2.3 x B**	**G = (86.4)(A1)(F)**	**H = (1-E) x G**	**I = (E)(G)**	**J = 4.3 x C**	**K = (86.4)(A1)(J)**	**L = (1-E) x K**	**M = (D)(K)**	**G + K + N**	**H + L +O**	**I + M + P**
St. Tammany Fire Protection District #4 Station #44	Bayou Cane	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Bayou Moon Antiques	Bayou Cane	No	20	0.000001	0.000001	45		20%	103.5	0.0098	0.0078	0.0020	0.0000	0.0000	0.0000	0.0000	**0.0098**	**0.0078**	**0.0020**
Demmonlicious Catering LLC	Bayou Cane	No	60	0.000003	0.000003	30		20%	69.0	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Bayou Snowballs	Big Branch Marsh	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Big Branch Mobile Home Community LLC - Big Branch Mobile Home Community	Big Branch Marsh	No	7,800	0.000342	0.000427	30		20%	69.0	2.5466	2.0373	0.5093	0.0000	0.0000	0.0000	0.0000	**2.5466**	**2.0373**	**0.5093**
Union Service & Maintenance Co Inc	Big Branch Marsh	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Ace Auto Source LLC - WWTP	Lake Pontchartrain	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
H2O Systems Inc - Autumn Haven STP	Big Branch	No	36,400	0.001595	0.001993	10		20%	23.0	3.9614	3.1691	0.7923	0.0000	0.0000	0.0000	0.0000	**3.9614**	**3.1691**	**0.7923**
Northshore Duplicate Bridge Club	Big Branch	No	1,500	0.000066	0.000082	45		20%	103.5	0.7346	0.5877	0.1469	0.0000	0.0000	0.0000	0.0000	**0.7346**	**0.5877**	**0.1469**
LADCRT - Fountainbleau State Park	Little Bayou Castine	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
St Tammany Parish Rec District #1	Bayou Castine	No	2,499	0.000109	0.000137	45		20%	103.5	1.2238	0.9791	0.2448	0.0000	0.0000	0.0000	0.0000	**1.2238**	**0.9791**	**0.2448**
Transitions Law & Professional Center	Bayou Castine	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
St Tammany Parish - Municipal Separate Storm Sewer System	Various waterbodies	No	0	0.000000	0.000000			20%	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	**0.0000**	**0.0000**	**0.0000**
St Tammany Marine	Bayou Castine	No	4,999	0.000219	0.000274	45		20%	103.5	2.4482	1.9585	0.4896	0.0000	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
Iqbal Properties LLC - Chahta Mobile Home Park	Bayou Castine	No	22,000	0.000964	0.001205	10		20%	23.0	2.3942	1.9154	0.4788	0.0000	0.0000	0.0000	0.0000	**2.3942**	**1.9154**	**0.4788**
West Wind Sails LLC - West Wind Sails	Little Bayou Castine	No	120	0.000005	0.000007	30		20%	69.0	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Parent Teacher Child Services Inc	Bayou Castine	No	800	0.000035	0.000044	45		20%	103.5	0.3918	0.3134	0.0784	0.0000	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
Bert Cortes - Rented Building	Little Bayou Castine	No	60	0.000003	0.000003	45		20%	103.5	0.0294	0.0235	0.0059	0.0000	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
Daiquiri's & Cream of Mandeville LLC/Daiquiri's & Cream-Mandeville	Little Bayou Castine	No	500	0.000022	0.000027	45		20%	103.5	0.2449	0.1959	0.0490	0.0000	0.0000	0.0000	0.0000	**0.2449**	**0.1959**	**0.0490**
H2O Systems Inc - Monterey Timbers Marigny Trace Subdivisions	Little Bayou Castine	No	182,400	0.007991	0.009989	10	5	20%	23.0	19.8504	15.8803	3.9701	21.5000	18.5558	14.8447	3.7112	**38.4062**	**30.7250**	**7.6812**
Delta Fence Inc	Little Bayou Castine	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Ola's Place	Little Bayou Castine	No	2,275	0.000100	0.000125	30		20%	69.0	0.7428	0.5942	0.1486	0.0000	0.0000	0.0000	0.0000	**0.7428**	**0.5942**	**0.1486**
Harry Mayeaux - CARQUEST Auto Parts	Little Bayou Castine	No	60	0.000003	0.000003	45		20%	103.5	0.0294	0.0235	0.0059	0.0000	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
St Tammany Parish Government - Red Oak Subdivision	Little Bayou Castine	No	5,600	0.000245	0.000307	30		20%	69.0	1.8283	1.4627	0.3657	0.0000	0.0000	0.0000	0.0000	**1.8283**	**1.4627**	**0.3657**
Country Kitchen Restaurant	Little Bayou Castine	No	1,960	0.000086	0.000107	30		20%	69.0	0.6399	0.5119	0.1280	0.0000	0.0000	0.0000	0.0000	**0.6399**	**0.5119**	**0.1280**
Deliverance Tabernacle United Pentecost	Bayou Castine	No	630	0.000028	0.000035	45		20%	103.5	0.3085	0.2468	0.0617	0.0000	0.0000	0.0000	0.0000	**0.3085**	**0.2468**	**0.0617**

Automotive Air Services	Bayou Castine	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
The Bounce House	Little Bayou Castine	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Thomas & Nancy Heidingsfelder - Property	Bayou Castine	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Patrick Brackley & William Brackley Trust Dollar General & Retail Spaces	Little Bayou Castine	No	320	0.000014	0.000018	45		20%	103.5	0.1567	0.1254	0.0313	0.0000	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
Paul Gement - 915-975 Carroll Street	Little Bayou Castine	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Marquez's Auto Service Center	Bayou Castine	No	4,999	0.000219	0.000274	45		20%	103.5	2.4482	1.9585	0.4896	0.0000	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
Northshore Animal Hospital Inc	Little Bayou Castine	No	80	0.000004	0.000004	45		20%	103.5	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Paul Gement - Orleans Building	Little Bayou Castine	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mamacita's Gerard Street LLC	Little Bayou Castine	No	2,120	0.000093	0.000116	30		20%	69.0	0.6922	0.5537	0.1384	0.0000	0.0000	0.0000	0.0000	**0.6922**	**0.5537**	**0.1384**
St Tammany Parish Government - Castine Regional Sewage Treatment Plant	Bayou Castine	No	1,000,000	0.043812	0.054765	10	4	20%	23.0	108.8290	87.0632	21.7658	17.2000	81.3852	65.1081	16.2770	**190.2142**	**152.1713**	**38.0428**
Square 188 Rural Mandeville POA Inc	Bayou Castine	No	4,000	0.000175	0.000219	30		20%	69.0	1.3059	1.0448	0.2612	0.0000	0.0000	0.0000	0.0000	**1.3059**	**1.0448**	**0.2612**
Kinder Haus Mandeville Inc - Kinder Haus Montessori	Lake Pontchartrain	No	1,345	0.000059	0.000074	30		20%	69.0	0.4391	0.3513	0.0878	0.0000	0.0000	0.0000	0.0000	**0.4391**	**0.3513**	**0.0878**
Mandeville City of - Municipal Separate Storm Sewer System	Various waterbodies	No	0	0.000000	0.000000			20%	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	**0.0000**	**0.0000**	**0.0000**
Mandeville Karate Training Center	Lake Pontchartrain	No	1,240	0.000054	0.000068	45		20%	103.5	0.6073	0.4858	0.1215	0.0000	0.0000	0.0000	0.0000	**0.6073**	**0.4858**	**0.1215**
Service Master Absolute Cleaning Services LLC	Bayou Chinchuba	No	540	0.000024	0.000030	45		20%	103.5	0.2645	0.2116	0.0529	0.0000	0.0000	0.0000	0.0000	**0.2645**	**0.2116**	**0.0529**
Knight's Wrecker Service	Bayou Chinchuba	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
KT Automotive Inc	Little Bayou Castine	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Lazaro's Heating & Air Conditioning Inc	Bayou Chinchuba	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Crossroads Shopping Center	Lake Pontchartrain	No	4,400	0.000193	0.000241	45		20%	103.5	2.1548	1.7239	0.4310	0.0000	0.0000	0.0000	0.0000	**2.1548**	**1.7239**	**0.4310**
Richard J Vanek Properties LLC - HMIH	Lake Pontchartrain	No	80	0.000004	0.000004	45		20%	103.5	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Dave's Collision Shop	Lake Pontchartrain	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Governor Control Systems Inc	Lake Pontchartrain	No	300	0.000013	0.000016	45		20%	103.5	0.1469	0.1175	0.0294	0.0000	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
JRM Bel LLC - Southern Pipe & Supply Inc	Bayou Chinchuba	No	150	0.000007	0.000008	45		20%	103.5	0.0735	0.0588	0.0147	0.0000	0.0000	0.0000	0.0000	**0.0735**	**0.0588**	**0.0147**
WREDCO - Weyerhauser Real Estate & Development Co	Bayou Castine	No	300,000	0.013144	0.016430	10	5	20%	23.0	32.6487	26.1190	6.5297	21.5000	30.5194	24.4156	6.1039	**63.1681**	**50.5345**	**12.6336**
Greenleaves Utility Co - Greenleaves Subdivision	Bayou Chinchuba	No	950,000	0.041621	0.052027	10	4	20%	23.0	103.3876	82.7100	20.6775	17.2000	77.3159	61.8527	15.4632	**180.7035**	**144.5628**	**36.1407**
Brookside Office Complex - Northshore I Commercial Condo Association Inc	Bayou Chinchuba	No	2,100	0.000092	0.000115	45		20%	103.5	1.0284	0.8227	0.2057	0.0000	0.0000	0.0000	0.0000	**1.0284**	**0.8227**	**0.2057**
Lanier Music	Bayou Chinchuba	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mandeville Christian Fellowship Church	Little Bayou Castine	No	1,000	0.000044	0.000055	30		20%	69.0	0.3265	0.2612	0.0653	0.0000	0.0000	0.0000	0.0000	**0.3265**	**0.2612**	**0.0653**
Marbar LLC	Bayou Chinchuba	No	160	0.000007	0.000009	45		20%	103.5	0.0784	0.0627	0.0157	0.0000	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Hosanna Lutheran Church Inc	Bayou Chinchuba	No	3,500	0.000153	0.000192	30		20%	69.0	1.1427	0.9142	0.2285	0.0000	0.0000	0.0000	0.0000	**1.1427**	**0.9142**	**0.2285**
Chilly's Famous Sno-Balls	Little Bayou Castine	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Latter & Blum Inc	Bayou Chinchuba	No	560	0.000025	0.000031	45		20%	103.5	0.2742	0.2194	0.0548	0.0000	0.0000	0.0000	0.0000	**0.2742**	**0.2194**	**0.0548**
OPS Turnkey LLC	Bayou Chinchuba	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**

St Tammany Parish Government - Forest Park Apts STP	Bayou Chinchuba	No	5,400	0.000237	0.000296	30		20%	69.0	1.7630	1.4104	0.3526	0.0000	0.0000	0.0000	0.0000	**1.7630**	**1.4104**	**0.3526**
St Tammany Parish of - Wadsworth Subdivision WWTP	Bayou Castine	No	180,000	0.007886	0.009858	10	5	20%	23.0	19.5892	15.6714	3.9178	21.5000	18.3117	14.6493	3.6623	**37.9009**	**30.3207**	**7.5802**
The Soil & Garden Depot	Bayou Chinchuba	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
All Creatures Country Club - Shari K Karanas - WWTP	Bayou Castine	No	800	0.000035	0.000044	45		20%	103.5	0.3918	0.3134	0.0784	0.0000	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
S&G Investments LLC	Bayou Chinchuba	No	160	0.000007	0.000009	45		20%	103.5	0.0784	0.0627	0.0157	0.0000	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Dejaunay Hair Design	Bayou Chinchuba	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Gayle Betz - Century 21 Gaylaxey Office Building	Bayou Chinchuba	No	380	0.000017	0.000021	45		20%	103.5	0.1861	0.1489	0.0372	0.0000	0.0000	0.0000	0.0000	**0.1861**	**0.1489**	**0.0372**
Liberty Self Storage #11	Bayou Chinchuba	No	320	0.000014	0.000018	45		20%	103.5	0.1567	0.1254	0.0313	0.0000	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
B&N Investments	Bayou Chinchuba	No	2,480	0.000109	0.000136	45		20%	103.5	1.2145	0.9716	0.2429	0.0000	0.0000	0.0000	0.0000	**1.2145**	**0.9716**	**0.2429**
H2O Systems Inc - Woodland Apartments STF	Bayou Chinchuba	No	45,000	0.001972	0.002464	10		20%	23.0	4.8973	3.9178	0.9795	0.0000	0.0000	0.0000	0.0000	**4.8973**	**3.9178**	**0.9795**
Liberty Self Storage LLC #3	Bayou Chinchuba	No	320	0.000014	0.000018	45		20%	103.5	0.1567	0.1254	0.0313	0.0000	0.0000	0.0000	0.0000	**0.1567**	**0.1254**	**0.0313**
C&C Drugs	Bayou Chinchuba	No	160	0.000007	0.000009	45		20%	103.5	0.0784	0.0627	0.0157	0.0000	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
St Tammany Parish Government - Woodcrest Subdivision	Little Bayou Castine	No	5,600	0.000245	0.000307	30		20%	69.0	1.8283	1.4627	0.3657	0.0000	0.0000	0.0000	0.0000	**1.8283**	**1.4627**	**0.3657**
St Tammany Parish Government - Twin Oaks	Bayou Chinchuba	No	8,000	0.000350	0.000438	10		20%	23.0	0.8706	0.6965	0.1741	0.0000	0.0000	0.0000	0.0000	**0.8706**	**0.6965**	**0.1741**
Southern Fastening Systems	Bayou Chinchuba	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
Mandeville Christian Church	Bayou Chinchuba	No	150	0.000007	0.000008	45		20%	103.5	0.0735	0.0588	0.0147	0.0000	0.0000	0.0000	0.0000	**0.0735**	**0.0588**	**0.0147**
Northlake Automotive	Bayou Chinchuba	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
B&N Investments - Southern Country Designs	Bayou Chinchuba	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Dr Robert Hurst - SWWT	Bayou Chinchuba	No	40	0.000002	0.000002	45		20%	103.5	0.0196	0.0157	0.0039	0.0000	0.0000	0.0000	0.0000	**0.0196**	**0.0157**	**0.0039**
Richard St Pe Co Inc	Bayou Chinchuba	No	60	0.000003	0.000003	45		20%	103.5	0.0294	0.0235	0.0059	0.0000	0.0000	0.0000	0.0000	**0.0294**	**0.0235**	**0.0059**
Yeoh & Williams LLC - Little Tokyo	Bayou Chinchuba	No	1,620	0.000071	0.000089	30		20%	69.0	0.5289	0.4231	0.1058	0.0000	0.0000	0.0000	0.0000	**0.5289**	**0.4231**	**0.1058**
B&N Investments - Onesource Professional Search	Bayou Chinchuba	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**
Tire Kingdom #180	Bayou Chinchuba	No	4,999	0.000219	0.000274	45		20%	103.5	2.4482	1.9585	0.4896	0.0000	0.0000	0.0000	0.0000	**2.4482**	**1.9585**	**0.4896**
B&N Investments - Basic Elements Day Spa	Bayou Chinchuba	No	160	0.000007	0.000009	45		20%	103.5	0.0784	0.0627	0.0157	0.0000	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Patrick Shannon Allison DDS	Bayou Chinchuba	No	220	0.000010	0.000012	45		20%	103.5	0.1077	0.0862	0.0215	0.0000	0.0000	0.0000	0.0000	**0.1077**	**0.0862**	**0.0215**
Redi Med Clinic	Bayou Chinchuba	No	200	0.000009	0.000011	45		20%	103.5	0.0979	0.0784	0.0196	0.0000	0.0000	0.0000	0.0000	**0.0979**	**0.0784**	**0.0196**
Tiffany Lanes	Bayou Chinchuba	No	8,480	0.000372	0.000464	30		20%	69.0	2.7686	2.2149	0.5537	0.0000	0.0000	0.0000	0.0000	**2.7686**	**2.2149**	**0.5537**
Quad Investments LLC	Bayou Chinchuba	No	500	0.000022	0.000027	45		20%	103.5	0.2449	0.1959	0.0490	0.0000	0.0000	0.0000	0.0000	**0.2449**	**0.1959**	**0.0490**
Darby Holdings LLC - Asbury Square	Bayou Chinchuba	No	300	0.000013	0.000016	45		20%	103.5	0.1469	0.1175	0.0294	0.0000	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
2156 3rd Street LLC - Creations Galore	Bayou Chinchuba	No	240	0.000011	0.000013	45		20%	103.5	0.1175	0.0940	0.0235	0.0000	0.0000	0.0000	0.0000	**0.1175**	**0.0940**	**0.0235**
La Petite Maison Childcare LLC	Bayou Chinchuba	No	400	0.000018	0.000022	45		20%	103.5	0.1959	0.1567	0.0392	0.0000	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
Asbury Drive Office Building	Bayou Chinchuba	No	240	0.000011	0.000013	45		20%	103.5	0.1175	0.0940	0.0235	0.0000	0.0000	0.0000	0.0000	**0.1175**	**0.0940**	**0.0235**
Sun Cleaners LLC	Bayou Chinchuba	No	480	0.000021	0.000026	45		20%	103.5	0.2351	0.1881	0.0470	0.0000	0.0000	0.0000	0.0000	**0.2351**	**0.1881**	**0.0470**
Thomas Danos - STP	Bayou Chinchuba	No	280	0.000012	0.000015	30		20%	69.0	0.0914	0.0731	0.0183	0.0000	0.0000	0.0000	0.0000	**0.0914**	**0.0731**	**0.0183**
Safeway Industries	Bayou Chinchuba	No	120	0.000005	0.000007	45		20%	103.5	0.0588	0.0470	0.0118	0.0000	0.0000	0.0000	0.0000	**0.0588**	**0.0470**	**0.0118**

St Tammany Parish Hospital - Hospice	Bayou Chinchuba	No	400	0.000018	0.000022	45		20%	103.5	0.1959	0.1567	0.0392	0.0000	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
Marret LLC - 2180 3rd St Bldg	Bayou Chinchuba	No	80	0.000004	0.000004	45		20%	103.5	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Riverside Veterinary Hospital	Bayou Chinchuba	No	500	0.000022	0.000027	30		20%	69.0	0.1632	0.1306	0.0326	0.0000	0.0000	0.0000	0.0000	**0.1632**	**0.1306**	**0.0326**
NU-Lite Electrical Supply	Bayou Chinchuba	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
DECS Investments LLC	Bayou Chinchuba	No	800	0.000035	0.000044	45		20%	103.5	0.3918	0.3134	0.0784	0.0000	0.0000	0.0000	0.0000	**0.3918**	**0.3134**	**0.0784**
Tammany Oaks Church of Christ	Bayou Chinchuba	No	2,250	0.000099	0.000123	45		20%	103.5	1.1019	0.8815	0.2204	0.0000	0.0000	0.0000	0.0000	**1.1019**	**0.8815**	**0.2204**
HJH Land Development	Bayou Chinchuba	No	260	0.000011	0.000014	45		20%	103.5	0.1273	0.1019	0.0255	0.0000	0.0000	0.0000	0.0000	**0.1273**	**0.1019**	**0.0255**
WSA LLC - 3933 Hwy 59 Building	Bayou Chinchuba	No	300	0.000013	0.000016	45		20%	103.5	0.1469	0.1175	0.0294	0.0000	0.0000	0.0000	0.0000	**0.1469**	**0.1175**	**0.0294**
Total Environmental Solutions Inc - Beau Pre Subdivision	Bayou Chinchuba	No	30,000	0.001314	0.001643	10		20%	23.0	3.2649	2.6119	0.6530	0.0000	0.0000	0.0000	0.0000	**3.2649**	**2.6119**	**0.6530**
DeVun Veterinary Medical Hospital	Bayou Chinchuba	No	120	0.000005	0.000007	30		20%	69.0	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
Fountainbleau Junior & Fountainbleau High Schools	Bayou Chinchuba	No	66,900	0.002931	0.003664	10		20%	23.0	7.2807	5.8245	1.4561	0.0000	0.0000	0.0000	0.0000	**7.2807**	**5.8245**	**1.4561**
Campbell Cabinet Co Inc	Bayou Chinchuba	No	280	0.000012	0.000015	45		20%	103.5	0.1371	0.1097	0.0274	0.0000	0.0000	0.0000	0.0000	**0.1371**	**0.1097**	**0.0274**
Hwy 59 Project - Construction	Bayou Chinchuba	No	140	0.000006	0.000008	45		20%	103.5	0.0686	0.0548	0.0137	0.0000	0.0000	0.0000	0.0000	**0.0686**	**0.0548**	**0.0137**
Campbell Shelving	Bayou Chinchuba	No	160	0.000007	0.000009	45		20%	103.5	0.0784	0.0627	0.0157	0.0000	0.0000	0.0000	0.0000	**0.0784**	**0.0627**	**0.0157**
Campbell Ventures No 3 LLC	Bayou Chinchuba	No	280	0.000012	0.000015	45		20%	103.5	0.1371	0.1097	0.0274	0.0000	0.0000	0.0000	0.0000	**0.1371**	**0.1097**	**0.0274**
Campbell Shelving Co Inc - Campbell Building	Bayou Chinchuba	No	100	0.000004	0.000005	45		20%	103.5	0.0490	0.0392	0.0098	0.0000	0.0000	0.0000	0.0000	**0.0490**	**0.0392**	**0.0098**
OJALA Ltd - 5 Minute Oil Change	Bayou Chinchuba	No	80	0.000004	0.000004	45		20%	103.5	0.0392	0.0313	0.0078	0.0000	0.0000	0.0000	0.0000	**0.0392**	**0.0313**	**0.0078**
BMC Investments LLC - Strip Mall	Bayou Chinchuba	No	400	0.000018	0.000022	45		20%	103.5	0.1959	0.1567	0.0392	0.0000	0.0000	0.0000	0.0000	**0.1959**	**0.1567**	**0.0392**
SUB-TOTAL Loads										**346.94**	**277.56**	**69.39**		**226.09**	**180.87**	**45.22**	**573.03**	**458.43**	**114.61**

(1) - Load(kg/day) = 86.4 x Ultimate Conc.(mg/l) x Modeled Flow(cms)
(2) - [UCBOD conc. = CBOD5(mg/l) x 2.3] and [UNBOD conc. = NH3N(mg/l) x 4.3]

Appendix E3 –Reference Stream Data

REFERENCE STREAM NONPOINT LOADING

REFERENCE STREAM	WIDTH (ft)	NONPOINT FLOW (cfs/mi)	NONPOINT $NBOD_U$ (lb/mi/day)	NONPOINT $NBOD_U$ (gm O_2/m2/day)	NONPOINT $CBOD_U$ (lb/mi/day)	NONPOINT $CBOD_U$ (gm O_2/m2/day)	TEMPERATURE (deg C)	DISSOLVED OXYGEN LEVEL (mg/L)	SOD @ 20 deg C (gm O_2\m^2-d)	TOTAL BENTHIC LOAD @ 20 deg C (gm O_2\m^2-day)	STREAM TEMP (deg C)	SOD @ STREAM TEMP (gm O_2\m^2-day)	BENTHIC LOAD @ STREAM TEMP (gm O_2\m^2-day)
Big Roaring	52		5.35	0.095	38.70	0.688	20.150	5.880	1.45	2.234	20.15	1.466	2.249
Chemin-a-haut	40		1.46	0.034	8.10	0.187	17.170	5.530	2.95	3.171	17.17	2.410	2.631
Indian Bayou	72		6.97	0.090	16.95	0.218	20.820	6.280	1.52	1.827	20.80	1.609	1.917
Leading Bayou	10		0.238	0.022	0.34	0.031	14.250	7.640	2.23	2.278	14.25	1.476	1.529
Middle fork d'Arbonne	42		15.26	0.336	13.55	0.298	28.820	4.510	1.22	1.850	28.82	2.281	2.915
Beaucoup	26		14	0.498	4.75	0.169	16.450	3.530	4.20	4.867	16.45	3.260	3.927
Salline Bayou	35	0.77	61.93	1.637	20.08	0.531	16.110	8.280	2.25	4.417	16.11	1.704	3.872
Sixmile Bayou	54	0.45	0	0.000	0.00	0.000	24.180	7.770	0.00	0.000	24.18	0.000	0.000
Kisatchie Bayou (1995, sites 2-3)	N/A		N/A	N/A	N/A	N/A	14.34	9.61	N/A	N/A	N/A	N/A	N/A
Kisatchie Bayou (1996, Sites 3-4)	56		Not Done	Not Done	Not Done	Not Done	28.77	7.38	Not Done	Not Done	28.77	Not Done	Not Done
Kisatchie Bayou (1996, Sites 4-5)	59		Not Done	Not Done	Not Done	Not Done	27.70	6.61	Not Done	Not Done	27.70	Not Done	Not Done
Meridian Creek (1995, Sites 2-3)	17.21		N/A	N/A	N/A	N/A	25.00	5.52	N/A	N/A	25.00	N/A	N/A
Meridian Creek (1996, Sites 2-3)	18.04		0	0.000	0.00	0.000	25.770	5.140	1.00	1.000	25.77	1.510	1.510
Pearl Creek (Sites 2-3)	17.9		0	0.000	0.00	0.000	15.870	9.220	0.00	0.000	15.87	0.000	0.000
Calcasieu River (Sites 2-3)	72		Not Done	Not Done	Not Done	Not Done	27.86	7.72	Not Done	Not Done	27.86	Not Done	Not Done
Average		0.61	10.5208	0.271	10.25	0.21	21.55	6.71	1.68	2.16	22.06	1.57	2.055

From Report by DeEtte "BOD STATISTICS for the REFERENCE STREAMS" dated July 18, 1997

Stream	Date	Time/ Sample	Site	BOD Dilution* NS, S (mg/l)	CBODu (mg/l)	kd (1/day)	NBODu (mg/l)	kn (1/day)	BODu (mg/l)	BOD60 (mg/l)
Beaucoup	10/10/1995	1315	1	100, 100	4.65	0.06	4.12	0.17	9.95	7.8
Creek		1330	1	100, 100	1.8	0.096	4.78	0.17	7.68	5.5
		1335	1	100, 100	1.7	0.172	8.5	0.18	9.49	6.9
Big Roaring	10/10/1995	1000	1	100, 100	3.57	0.194	4.51	0.017	6.23	6.5
Bayou		1010	1	100, 100	4.06	0.211	6.07	0.017	8.33	8
		1020	1	100, 100	2.82	0.141	5.66	0.015	6.43	6.3
Chemin-	10/10/1995	1845	1	100, 100	2.81	0.182	6.52	0.017	7.25	7.1
a-Haut		1900	1	100, 100	1.4	0.226	3.77	0.017	4.27	4.1
		1915	1	100, 100	2.48	0.126	3.58	0.018	4.7	4.9
Mid Fork B.	8/14/1995	1830	1	100, 100	1.35	0.081	13.09	0.021	11.44	9
D'Arbonne		1840	1	100, 100	0.65	0.226	13.46	0.023	15.75	9.5
		1850	1	100, 100	0.58	0.226	10.36	0.033	13.08	8.6
Indian	10/9/1995	1200	1	100, 100	3.27	0.106	7.66	0.018	8.61	8.1
Bayou		1215	1	100, 100	3.31	0.119	6.83	0.018	8.61	7.8
		1230	1	100, 100	2.25	0.111	7.3	0.017	8.5	6.8
Kisatchie	10/25/1995	805	1	200, 300	1.7	0.187	3.55	0.018	3.84	4.1
Bayou		0840-2	2	200, 300	1.2	0.187	3.85	0.021	3.83	4
		0840-3	3	200, 300	1.69	0.141	2.6	0.017	3.26	3.4
Leading	10/10/1995	1100	1	100, 100	1.04	0.182	7.7	0.018	7.24	6.1
Bayou		1105	1	100, 100	0.94	0.191	8.15	0.017	7.88	6.3
		1110	1	100, 100	1.02	0.221	7.62	0.021	6.93	6.4
Meridian	8/15/1995	740	1	200, 300	0.61	0.226	9.87	0.023	9.17	7.1
Creek		805	2	200, 300	0.81	0.226	9.03	0.038	9.43	7.8
		850	3	200, 300	0.81	0.226	9.85	0.023	9.45	7.2
Pearl	10/17/1995	730	1	200, 300	2.71	0.119	2.24	0.035	4.6	4.7
Creek		830	2	200, 300	2.06	0.035	2.23	0.02	4.06	3.3
		1135	3	200, 300	2.25	0.035	0.92	0.02	3.68	2.8
		1115-trib	Trib	200, 300	2.25	0.035	0.28	0.226	2.7	2.4
Saline	10/24/1995	800	1	200, 300	1.69	0.111	2.98	0.018	3.7	3.7
Bayou		830	2	200, 300	1.5	0.172	3.46	0.017	3.68	3.6
		2000	3	200, 300	1.7	0.187	3.94	0.018	4.22	4.4
Kisatchie	8/20/1996	800	1	300, 300	1.54	0.141	4.2	0.018	4.52	4.09
Bayou		1303	3	300, 300	1.51	0.096	4.23	0.018	5.65	4.11
		1935	4	300, 300	1.68	0.081	4.49	0.018	5.15	4.66
	8/22/1996	215	5	300, 300	2.59	0.05	2.73	0.02	5.44	4.23
Sixmile	9/17/1996	805	1	300, 300	0.9	0.202	4.01	0.018	4.21	3.61
Creek		958	2	300, 300	2.26	0.187	2.46	0.016	4	4.17
		1730	3	300, 300	1.78	0.187	4.58	0.018	4.7	4.6
Meridian	8/7/1996	755	1	300, 300	14.47	0.03	0.22	0.02	15.12	12.3
Creek		1000	2	300, 300	6.86	0.033	4.92	0.018	14.11	9.54
		1250	3	300, 300	4.06	0.048	7.73	0.018	12.89	9.1
Calcasieu	9/4/1996	830	1	300, 300	2.36	0.035	3.08	0.018	5.79	4.15
River		952	2	300, 300	2.24	0.035	3.56	0.018	6.06	4.34
		1533	2A	300, 300	9.58	0.035	10.92	0.017	23.25	15.5
		1612	3	300, 300	3.15	0.035	3.13	0.017	7.38	4.85
Average					2.57		5.44			

Site ID Number	Waterbody	Site Description	Subsegment	Collection Date	Collection Time	LAB ID NUMBER	Chloride, Ion Chromatograph (ppm)	Sulfate (ppm)	Specific Conductance (umhos/cm)	Sodium (ppm)	SALINITY (ppt)	Alkalinity (ppm)	Hardness (ppm)	pH, Ultimate BOD survey	TDS (ppm)	TSS (ppm)	Turbidity (NTU)	Color (PCU)	Ammonia-Nitrogen (ppm)	Nitrate+Nitrite Nitrogen (ppm)	TKN (ppm)	TOC (ppm)	TP (ppm)
0447	Anacoco Bayou	north of Rosepine, downstream of bridge on Hawkins Road	110506	1/29/2003	11:00:00 AM	AF01822	4.6	3.2	45.3	12.9		9.7	13.9	5.96	52.7	15.2	19		ND	0.09	0.41	6.1	0.09
				10/8/2003	11:30:00 AM	AF22918	9.2	4.4	120	10.7		36.4	32.3	6.6	75.3	6.5	7.6	35	ND	0.56	0.25	5.1	0.1
0450	Little Kisatchie Bayou	north of Leesville, downstream of bridge on LA Hwy 118 in Kisatchie National Forest	101103			AF04741	2.8	4.5	30.7	2.5		3.5	5.6	6.65	59.3	6.5	12		ND	ND	ND	3	0.08
				10/8/2003	10:05:00 AM	AF22923	3.9	5.9	50.5	5		7.6	8.8	6.92	67.3	ND	2.6	25	ND	ND	0.1	3.7	0.06
				3/11/2004	9:10:00 AM	AG06009	2.9	4.4	31.5			3.9	6.7	6.55	56	4	13		ND	ND	0.11	4	0.09
0457	Chemin-A-Haut Creek	north of Bastrop, upstream of bridge on Chem Cutoff Road	80401	11/20/2002	10:10:00 AM	AE25657	14.7	4.5	133	11.6		43.6	40.5	6.52	99.3	ND	8.1		ND	ND	0.7	9.9	0.07
				10/22/2003	9:50:00 AM	AF24138	18.1	ND	204	16.5		83.2	70.2	6.89	114	ND	2.8		ND	0.06	0.27	7.3	0.07
0458	Bayou Bartholemew	northeast of Bastrop, upstream of bridge on Knox Ferry Road	80401	11/20/2002	11:00:00 AM	AE25662	15.2	12.6	133	9.1		41.6	46.2	6.32	125	18	58		ND	0.18	0.89	8.1	0.23
				10/22/2003	10:25:00 AM	AF24143	19.9	6.4	231	15.7		89.7	92.7	7.07	150	23.3	22		ND	0.08	0.31	7.2	0.11
				1/28/2004	9:15:00 AM	AG02244	8.9	6.4	111	6.7		30.4	34.9	6.65	111	29	80		ND	ND	0.8	12	0.27
0466	Duck Slough	east of Pineville, upstream of bridge on Muddy Bayou Road in	101501	11/20/2002	11:50:00 AM	AE25667	2.4	ND	48.5	2.9		15.4	21.1	5.89	91.3	30.7	16		0.16	ND	1.93	30.7	0.11
				1/28/2004	11:15:00 AM	AG02249	2.1	ND	37.3	1.8		8.9	14.9	NR	62	9.5	17		ND	ND	1.01	27	0.05
0486				11/20/2002	11:10:00 AM	AE25672	2.2	ND	49.3	2.1		20.3	26.5	5.93	105	22.7	22		ND	ND	1.85	33.2	0.08
				1/28/2004	12:00:00 PM	AG02254	1.8	ND	47.1	1.5		14	21.7	NR	72.7	6	18		Nd	ND	1.69	34.8	0.06
0487	Little Bayou Pierre	north of Simpson, downstream of bridge on LA Hwy 118 in Kisatchie National Forest	101103			AF04746	3.2	5.3	35.7	2.9		4	6.9	5.93	53.3	4.5	11		ND	ND	ND	3.1	0.08
				10/8/2003	9:45:00 AM	AF22928	5.1	9.2	64.6	7.1		10.1	12.1	6.85	88	ND	4	25	ND	ND	ND	3.5	0.07
				3/11/2004	9:10:00 AM	AG06013	3.1	5.5	37.2			4.2	7.9	6.49	65.3	16.5	13		ND	ND	0.19	5.1	0.07
0488	Bear Head Creek	west/northwest of DeQuincy, downstream of bridge on LA Hwy	30807	1/29/2003	12:10:00 PM	AF01827	9.6	1.8	45.2	5.2		ND	9.1	6.07	70	9.5	25		ND	ND	0.83	9.1	ND
				10/8/2003	1:10:00 PM	AF22933	5.1	2	37.6	3.7		2.6	11.5	6.49	75.3	4.7	9.3	180	ND	ND	0.66	20.4	0.08
0489	Bechwith Creek	north of DeQuincy, downstream of bridge on Smokey Cove Pentecostal Church Road	30803	1/29/2003	1:34:00 PM	AF01842	8.2	2.4	49.5	5.2		6.3	12.7	5.53	64.7	14.3	23		ND	ND	0.31	7.4	0.11
				10/8/2003	1:50:00 PM	AF22938	5.2	2.4	50.9	3.2		9.5	16.6	6.44	80.7	9.3	13	110	ND	ND	1.11	14.1	0.1
				3/11/2004	9:10:00 AM	AG06017	6.9	1.6	52.8			8.5	14.7	6.51	74	7	20		ND	0.06	0.7	13.9	ND
0490	Castor Creek	east of Oberlin, downstream of bridge on Parish Road 146	50303	1/29/2003	10:45:00 AM	AF01847	5.4	2.7	49.2	4.3		12.7	14.4	6.3	87.3	14	44		0.15	0.14	0.58	7.2	0.13
				10/8/2003	10:45:00 AM	AF22943	6.6	2.4	77	4.2		22.5	22.7	6.83	77.3	8	13	110	ND	ND	1.04	12.9	0.17
0491	Bayou Nezpique	northwest of mamou, upstream of bridge on LA Hwy. 376	50301	1/29/2003	11:30:00 AM	AF01852	12.9	4.1	93.2	10.7		16.6	19.7	6.26	108	34.7	64		0.13	0.44	0.94	7.3	0.18
				10/8/2003	11:45:00 AM	AF22948	33.1	6.3	290	43.1		85.2	46.2	8.07	219	6	37	90	0.18	0.33	1.54	14.1	0.26
				3/11/2004	9:10:00 AM	AG06029	6.6	2.5	79			23.3	22.7	6.94	135	21.5	82		0.12	0.26	1.4	17.2	0.22
0494	Bogue Lusa Creek	near Sheridan, downstream of bridge on LA Hwy 439	90401	11/20/2002	10:53:00 AM	AE25687	4	ND	22.2	2		2.2	ND	5.08	26.7	4	3.7		ND	0.07	0.36	6.8	0.14
				10/22/2003	11:30:00 AM	AF24148	3.9	ND	22.3	2.2		2.9	ND	7.42	22.7	ND	2.9		ND	0.08	0.2	4.1	0.07
				1/28/2004	11:20:00 AM	AG02259	3.9	ND	24.1	2		2.5	5.4	6.66	ND	ND	4.3		ND	0.09	0.54	4.9	ND
0495	Tchefuncte River	west of Wilmer, downstream of bridge on LA Hwy 10	40801	11/20/2002	9:30:00 AM	AE25692	5.3	ND	45.2	3.1		9.2	11.5	5.49	30	9	9.2		ND	0.81	0.51	3	0.11
				10/22/2003	10:40:00 AM	AF24153	5	3.2	37.6			6.5	8.4		22	4	4.3		ND	0.84	0.19	ND	0.08
				1/28/2004	10:45:00 AM	AG02264	5.3	ND	48.6			8.2	10.8		23.3	ND	7.1		0.23	0.85	0.85	3.6	0.11
				3/11/2004	9:10:00 AM	AG06041	5.1	ND	47.4			8.3	11.9		37.3	9	9.2		0.14	0.84	0.35	2.7	0.07
0496	Crittenden Creek	north of Greensburg, upstream of bridge on LA Hwy 441	40501			AF04751	4	ND	34.1	2.4		7.1	8.3	6.38	34	6.3	7.8		ND	0.18	ND	ND	0.07
				10/8/2003	2:25:00 PM	AF22958	4.1	ND	32.7	3		6.9	7.2	7.36	30	5	4.2	25	ND	0.19	ND	ND	0.07
				3/11/2004	9:10:00 AM	AG06103	3.7	ND	34.9			7.8	9.5	6.78	ND	8	9.2		ND	0.19	0.2	3.3	0.07
0497						AF04756	3.7	ND	35.2	3.5		7.9	7.9		36.7	16.5	15		ND	0.07	ND	ND	0.07
				1/29/2003	9:35:00 AM	AF01857	4.1	ND	31.9	3.7		8	7.7	6.56	22	4.5	6		ND	0.07	ND	ND	0.07
				10/8/2003	3:35:00 PM	AF22968	3.9	ND	30.6	3.4		7.6	7.8	6.8	38.7	31	13	15	ND	0.08	0.21	ND	0.08
				3/11/2004	9:10:00 AM	AG06107	3.7	1.3	34.5			7.5	8.2	6.76	17.3	7	9.7		ND	0.08	0.18	3	0.11
0498	Middle Fork Thopmson Creek	north of Jackson, downstream of bridge on LA Hwy 421	70502			AF04766	5.9	5.6	60.5	5.4		12.3	12.9	6.6	46	6.5	7.1		ND	ND	ND	ND	ND
				11/20/2002	10:30:00 AM	AE25707	6.4	4.3	60.8	6.6		15.3	15		50.7	ND	3.9		ND	0.09	0.21	ND	0.05
				10/22/2003	10:30:00 AM	AF24158	7.6	2.6	66.4	7.5		17.7	13.9	6.61	52.7	4	2.5		ND	0.05	ND	ND	0.07
				1/28/2004	11:15:00 AM	AG02269	4.7	4.7	52.7	4.1		8.9	11.3	NR	42.7	7	26		ND	0.2	0.56	4.2	0.07
0525	West Fork Thompson Creek	north of Jackson, upstream of bridge on Laurel Hill Creek Rd./Harris Conner Rd.	70502			AF04771	6.7	9.6	90.7	7.7		23.5	22.2	6.8	132	11	10		ND	ND	0.16	2.2	0.09
				11/20/2002	11:45:00 AM	AE25712	8.7	7.3	107	12.6		32.8	24.7	6.26	76	4	6.5		ND	0.44	0.41	2.3	0.06
				10/22/2003	9:45:00 AM	AF24163	8.3	4.3	93.7	10.6		30.4	21.1		66.7	ND	2.9		ND	0.1	0.19	2.2	0.06
				1/28/2004	10:05:00 AM	AG02274	5.7	7.6	84.8	6.6		17.6	20.1	6.58	65.3	9.5	26		ND	0.5	0.32	5.6	0.13
				1/28/2004	10:05:00 AM	AG02279	5.6	7.8	85.3	6.6		17.5	20.4	6.61	58.7	8	27		ND	0.5	0.27	5.3	0.06
0526	Little Comite Creek	northeast of Norwood, downstream of bridge on Parish Rd, 1 mi east of LA Hwy 19	40101			AF04776	8.7	2.3	66	6.7		13.7	14.5	6.5	47.3	10.5	10.1		ND	0.24	0.27	2	0.09
				11/20/2002	9:05:00 AM	AE25717	8.9	1.8	67.2	7.3		14.6	15.2	6.02	55.3	ND	6.9		ND	0.45	0.51	2.3	0.1
				10/22/2003	11:30:00 AM	AF24173	9.1	1.7	60.1	7.8		12	11.9	6.25	46.7	5.5	6.3		ND	0.37	0.49	2.2	0.07
				1/28/2004	12:50:00 PM	AG02284	7.3	2.9	65.5	5.4		11.2	14.4	6.57	53.3	5	19		ND	0.42	0.85	5.7	0.08
0527	Bogue Falaya River	north of Folsum, downstream of bridge on Joseph Road	40804	10/22/2003	12:45:00 PM	AF24183	3.9	ND	25.7	2.4		4.6	5.9	6.39	24.7	5.5	3.3		ND	0.07	0.33	3.1	ND
				1/28/2004	10:00:00 AM	AG02289	4.5	ND	29.6	2.4		4	6.9	6.44	ND	ND	3.8		0.12	0.07	0.51	4.7	ND
				3/11/2004	9:10:00 AM	AG06111	3.9	ND	27.5			4.4	6.6	6.86	29.3	ND	4.5		ND	0.06	0.19	6.1	ND

Appendix F – Survey Data Measurements and Analysis Results

Appendix F1 – Water Quality Data

Bayou Cane Water Quality Data Summary

LEAU Site #	DEQ Site #	Chloride (mg/L)	Sulfate (mg/L)	Hardness (mg/L)	Alkalinity (mg/L)	pH	Specific Conductance (umhos/cm)	Sodium (mg/L)	TOC (mg/L)	TP (mg/L)	TDS (mg/L)	Nitrite/ Nitrate Nitrogen (mg/L)[1]	TKN (mg/L)	Ammonia-Nitrogen (mg/L)[1]	True Color (PCU)	Turbidity (NTU)	TSS (mg/L)[1]	Chl A (ug/L)[2]
3665	---	21.5	5.5	25.1	50.8	7.37	193.0	29.5	24.7	0.58	145	ND	1.41	0.23	210	9.5	ND	8.5
3752	BC04	63.7	11.2	28.1	121.0	7.58	444.0	85.3	18.2	0.61	268	0.05	0.97	0.21	110	5.2	ND	NM
3753	BC05	527.0	45.3	163.0	71.3	6.88	1722.0	292.0	23.8	0.19	1028	ND	1.44	ND	100	6.3	7.0	33.6
3755	BC07	912.0	87.3	290.0	69.9	7.03	2756.0	507.0	24.9	0.17	1710	ND	1.08	ND	100	6.1	6.5	NM
3666	---	1044.0	112.0	335.0	70.6	7.01	3058.0	574.0	22.6	0.23	1950	ND	1.55	0.25	100	8.7	10.0	28.5
3756	BC09	1097.0	136.0	358.0	66.1	6.94	3166.0	597.0	18.2	0.17	1960	ND	1.28	ND	60	5.9	8.5	NM
AI9371	SLSH	22.5	18.1	14.3	173.0	7.67	458.0	91.9	5.5	3.12	274	2.63	0.7	ND	22	3	4.0	NM

[1]ND=Non-Detect

[2]NM=Not Measured

Collection_Date	Site_ID	Lab_Sample_Type	Analysis_name	Result	Units
06/18/2008	3665	TRG	Alkalinity	50.8	mg/L
06/18/2008	3665	TRG	True Color	210	PCU
06/18/2008	3665	TRG	Specific Conductance	193	umhos/cm
06/18/2008	3665	TRG	Turbidity	9.5	NTU
06/18/2008	3665	TRG	TSS		mg/L
06/18/2008	3665	TRG	TDS	145	mg/L
06/18/2008	3665	TRG	Chloride by IC	21.5	mg/L
06/18/2008	3665	TRG	Sulfate	5.5	mg/L
06/18/2008	3665	TRG	Sodium	29.5	mg/L
06/18/2008	3665	TRG	TKN	1.41	mg/L
06/18/2008	3665	TRG	TP	0.58	mg/L
06/18/2008	3665	TRG	Nitrate+Nitrite Nitrogen		mg/L
06/18/2008	3665	TRG	Ammonia-Nitrogen	0.23	mg/L
06/18/2008	3665	TRG	Hardness	25.1	mg/L
06/18/2008	3665	TRG	TOC	24.7	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 2	3.1	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 3	4.2	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 4	5.5	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 5	7.2	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 6	9.3	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 7	11.2	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 8	13.0	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Reading 9	14.4	mg/L
06/18/2008	3665	TRG	Non-Filtered BOD 60 - Final	15.5	mg/L
06/18/2008	3665	TRG	NO2NO3 - Initial Reading		mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 1		mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 2		mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 3		mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 4		mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 5	0.13	mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 6	0.45	mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 7	0.51	mg/L
06/18/2008	3665	TRG	NO2NO3 - Reading 8	0.41	mg/L

06/18/2008	3665	TRG	NO2NO3 - Reading 9	0.58	mg/L
06/18/2008	3665	TRG	NO2NO3 - Final	0.52	mg/L
06/18/2008	3665	TRG	TKN (60 Day BOD)	0.77	mg/L
06/18/2008	3665	TRG	TOC (60 Day BOD)	18.4	mg/L
06/18/2008	3665	TRG	pH, Ultimate BOD survey	7.37	pH units
06/18/2008	3665	TRG	Chlorophyll A (calculated)	8.5	ug/L
06/18/2008	3666	TRG	Alkalinity	70.6	mg/L
06/18/2008	3666	TRG	True Color	100	PCU
06/18/2008	3666	TRG	Specific Conductance	3058	umhos/cm
06/18/2008	3666	TRG	Turbidity	8.7	NTU
06/18/2008	3666	TRG	TSS	10.0	mg/L
06/18/2008	3666	TRG	TDS	1950	mg/L
06/18/2008	3666	TRG	Chloride by IC	1044	mg/L
06/18/2008	3666	TRG	Sulfate	112	mg/L
06/18/2008	3666	TRG	Sodium	574	mg/L
06/18/2008	3666	TRG	TKN	1.55	mg/L
06/18/2008	3666	TRG	TP	0.23	mg/L
06/18/2008	3666	TRG	Nitrate+Nitrite Nitrogen		mg/L
06/18/2008	3666	TRG	Ammonia-Nitrogen	0.25	mg/L
06/18/2008	3666	TRG	Hardness	335	mg/L
06/18/2008	3666	TRG	TOC	22.6	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 2	3.9	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 3	5.7	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 4	7.4	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 5	9.5	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 6	11.7	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 7	14.4	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 8	16.1	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Reading 9	17.5	mg/L
06/18/2008	3666	TRG	Non-Filtered BOD 60 - Final	18.6	mg/L
06/18/2008	3666	TRG	NO2NO3 - Initial Reading		mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 1		mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 2		mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 3		mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 4	0.07	mg/L

06/18/2008	3666	TRG	NO2NO3 - Reading 5	0.23	mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 6	0.50	mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 7	0.77	mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 8	0.78	mg/L
06/18/2008	3666	TRG	NO2NO3 - Reading 9	0.89	mg/L
06/18/2008	3666	TRG	NO2NO3 - Final	0.87	mg/L
06/18/2008	3666	TRG	TKN (60 Day BOD)	0.84	mg/L
06/18/2008	3666	TRG	TOC (60 Day BOD)	15.2	mg/L
06/18/2008	3666	TRG	pH, Ultimate BOD survey	7.01	pH units
06/18/2008	3666	TRG	Chlorophyll A (calculated)	28.5	ug/L
06/18/2008	3752	TRG	Alkalinity	121	mg/L
06/18/2008	3752	TRG	True Color	110	PCU
06/18/2008	3752	TRG	Specific Conductance	444	umhos/cm
06/18/2008	3752	TRG	Turbidity	5.2	NTU
06/18/2008	3752	TRG	TSS		mg/L
06/18/2008	3752	TRG	TDS	268	mg/L
06/18/2008	3752	TRG	Chloride by IC	63.7	mg/L
06/18/2008	3752	TRG	Sulfate	11.2	mg/L
06/18/2008	3752	TRG	Sodium	85.3	mg/L
06/18/2008	3752	TRG	TKN	0.97	mg/L
06/18/2008	3752	TRG	TP	0.61	mg/L
06/18/2008	3752	TRG	Nitrate+Nitrite Nitrogen	0.05	mg/L
06/18/2008	3752	TRG	Ammonia-Nitrogen	0.21	mg/L
06/18/2008	3752	TRG	Hardness	28.1	mg/L
06/18/2008	3752	TRG	TOC	18.2	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 2	3.5	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 3	4.7	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 4	5.9	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 5	7.3	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 6	9.6	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 7	11.7	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 8	12.8	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Reading 9	13.7	mg/L
06/18/2008	3752	TRG	Non-Filtered BOD 60 - Final	15.1	mg/L
06/18/2008	3752	TRG	NO2NO3 - Initial Reading	0.06	mg/L

06/18/2008	3752	TRG	NO2NO3 - Reading 1	0.06	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 2	0.06	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 3	0.06	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 4	0.07	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 5	0.13	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 6	0.48	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 7	0.73	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 8	0.65	mg/L
06/18/2008	3752	TRG	NO2NO3 - Reading 9	0.78	mg/L
06/18/2008	3752	TRG	NO2NO3 - Final	0.73	mg/L
06/18/2008	3752	TRG	TKN (60 Day BOD)	0.63	mg/L
06/18/2008	3752	TRG	TOC (60 Day BOD)	12.2	mg/L
06/18/2008	3752	TRG	pH, Ultimate BOD survey	7.58	pH units
06/18/2008	3753	TRG	Alkalinity	71.3	mg/L
06/18/2008	3753	TRG	True Color	100	PCU
06/18/2008	3753	TRG	Specific Conductance	1722	umhos/cm
06/18/2008	3753	TRG	Turbidity	6.3	NTU
06/18/2008	3753	TRG	TSS	7.0	mg/L
06/18/2008	3753	TRG	TDS	1028	mg/L
06/18/2008	3753	TRG	Chloride by IC	527	mg/L
06/18/2008	3753	TRG	Sulfate	45.3	mg/L
06/18/2008	3753	TRG	Sodium	292	mg/L
06/18/2008	3753	TRG	TKN	1.44	mg/L
06/18/2008	3753	TRG	TP	0.19	mg/L
06/18/2008	3753	TRG	Nitrate+Nitrite Nitrogen		mg/L
06/18/2008	3753	TRG	Ammonia-Nitrogen		mg/L
06/18/2008	3753	TRG	Hardness	163	mg/L
06/18/2008	3753	TRG	TOC	23.8	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 2	3.5	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 3	4.8	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 4	6.0	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 5	6.9	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 6	8.1	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 7	10.9	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 8	12.9	mg/L

06/18/2008	3753	TRG	Non-Filtered BOD 60 - Reading 9	14.1	mg/L
06/18/2008	3753	TRG	Non-Filtered BOD 60 - Final	15.4	mg/L
06/18/2008	3753	TRG	NO2NO3 - Initial Reading		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 1		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 2		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 3		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 4		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 5		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 6		mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 7	0.27	mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 8	0.42	mg/L
06/18/2008	3753	TRG	NO2NO3 - Reading 9	0.52	mg/L
06/18/2008	3753	TRG	NO2NO3 - Final	0.55	mg/L
06/18/2008	3753	TRG	TKN (60 Day BOD)	0.92	mg/L
06/18/2008	3753	TRG	TOC (60 Day BOD)	16.9	mg/L
06/18/2008	3753	TRG	pH, Ultimate BOD survey	6.88	pH units
06/18/2008	3753	TRG	Chlorophyll A (calculated)	33.6	ug/L
06/18/2008	3755	TRG	Alkalinity	69.9	mg/L
06/18/2008	3755	TRG	True Color	100	PCU
06/18/2008	3755	TRG	Specific Conductance	2756	umhos/cm
06/18/2008	3755	TRG	Turbidity	6.1	NTU
06/18/2008	3755	TRG	TSS	6.5	mg/L
06/18/2008	3755	TRG	TDS	1710	mg/L
06/18/2008	3755	TRG	Chloride by IC	912	mg/L
06/18/2008	3755	TRG	Sulfate	87.3	mg/L
06/18/2008	3755	TRG	Sodium	507	mg/L
06/18/2008	3755	TRG	TKN	1.08	mg/L
06/18/2008	3755	TRG	TP	0.17	mg/L
06/18/2008	3755	TRG	Nitrate+Nitrite Nitrogen		mg/L
06/18/2008	3755	TRG	Ammonia-Nitrogen		mg/L
06/18/2008	3755	TRG	Hardness	290	mg/L
06/18/2008	3755	TRG	TOC	24.9	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 2	4.0	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 3	5.6	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 4	7.1	mg/L

06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 5	8.2	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 6	10.7	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 7	13.2	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 8	15.5	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Reading 9	17.0	mg/L
06/18/2008	3755	TRG	Non-Filtered BOD 60 - Final	18.1	mg/L
06/18/2008	3755	TRG	NO2NO3 - Initial Reading		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 1		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 2		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 3		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 4		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 5		mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 6	0.31	mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 7	0.56	mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 8	0.58	mg/L
06/18/2008	3755	TRG	NO2NO3 - Reading 9	0.73	mg/L
06/18/2008	3755	TRG	NO2NO3 - Final	0.67	mg/L
06/18/2008	3755	TRG	TKN (60 Day BOD)	0.89	mg/L
06/18/2008	3755	TRG	TOC (60 Day BOD)	17.4	mg/L
06/18/2008	3755	TRG	pH, Ultimate BOD survey	7.03	pH units
06/18/2008	3756	TRG	Alkalinity	66.1	mg/L
06/18/2008	3756	TRG	True Color	60	PCU
06/18/2008	3756	TRG	Specific Conductance	3166	umhos/cm
06/18/2008	3756	TRG	Turbidity	5.9	NTU
06/18/2008	3756	TRG	TSS	8.5	mg/L
06/18/2008	3756	TRG	TDS	1960	mg/L
06/18/2008	3756	TRG	Chloride by IC	1097	mg/L
06/18/2008	3756	TRG	Sulfate	136	mg/L
06/18/2008	3756	TRG	Sodium	597	mg/L
06/18/2008	3756	TRG	TKN	1.28	mg/L
06/18/2008	3756	TRG	TP	0.17	mg/L
06/18/2008	3756	TRG	Nitrate+Nitrite Nitrogen		mg/L
06/18/2008	3756	TRG	Ammonia-Nitrogen		mg/L
06/18/2008	3756	TRG	Hardness	358	mg/L
06/18/2008	3756	TRG	TOC	18.2	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 1		mg/L

06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 2	3.4	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 3	4.9	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 4	6.2	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 5	7.4	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 6	9.1	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 7	11.2	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 8	12.5	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Reading 9	13.3	mg/L
06/18/2008	3756	TRG	Non-Filtered BOD 60 - Final	14.2	mg/L
06/18/2008	3756	TRG	NO2NO3 - Initial Reading		mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 1		mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 2		mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 3		mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 4	0.05	mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 5	0.11	mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 6	0.34	mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 7	0.57	mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 8	0.56	mg/L
06/18/2008	3756	TRG	NO2NO3 - Reading 9	0.67	mg/L
06/18/2008	3756	TRG	NO2NO3 - Final	0.61	mg/L
06/18/2008	3756	TRG	TKN (60 Day BOD)	0.84	mg/L
06/18/2008	3756	TRG	TOC (60 Day BOD)	11.5	mg/L
06/18/2008	3756	TRG	pH, Ultimate BOD survey	6.94	pH units
06/18/2008	AI9371	TRG	Alkalinity	173	mg/L
06/18/2008	AI9371	TRG	True Color	22	PCU
06/18/2008	AI9371	TRG	Specific Conductance	458	umhos/cm
06/18/2008	AI9371	TRG	Turbidity	3.0	NTU
06/18/2008	AI9371	TRG	TSS	4.0	mg/L
06/18/2008	AI9371	TRG	TDS	274	mg/L
06/18/2008	AI9371	TRG	Chloride by IC	22.5	mg/L
06/18/2008	AI9371	TRG	Sulfate	18.1	mg/L
06/18/2008	AI9371	TRG	Sodium	91.9	mg/L
06/18/2008	AI9371	TRG	TKN	0.70	mg/L
06/18/2008	AI9371	TRG	TP	3.12	mg/L
06/18/2008	AI9371	TRG	Nitrate+Nitrite Nitrogen	2.63	mg/L
06/18/2008	AI9371	TRG	Ammonia-Nitrogen		mg/L

06/18/2008	AI9371	TRG	Hardness	14.3	mg/L
06/18/2008	AI9371	TRG	TOC	5.5	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 1		mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 2		mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 3		mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 4		mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 5	2.5	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 6	3.0	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 7	3.7	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 8	4.3	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Reading 9	4.6	mg/L
06/18/2008	AI9371	TRG	Non-Filtered BOD 60 - Final	4.9	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Initial Reading	2.58	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 1	2.58	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 2	2.50	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 3	2.49	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 4	2.50	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 5	2.67	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 6	2.82	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 7	2.86	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 8	2.64	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Reading 9	2.91	mg/L
06/18/2008	AI9371	TRG	NO2NO3 - Final	2.74	mg/L
06/18/2008	AI9371	TRG	TKN (60 Day BOD)	0.21	mg/L
06/18/2008	AI9371	TRG	TOC (60 Day BOD)	3.5	mg/L
06/18/2008	AI9371	TRG	pH, Ultimate BOD survey	7.67	pH units

Appendix F2 – Cross Sections and Discharge Measurements

Bayou Cane 040903, 040904

Field Data Summary -- Discharges and Cross Sections

Site #	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Flow (cfs)	Flow (cms)
3665	16.00	4.877	3.65	1.113	0.030	0.0008
SLSH		0.000		0.000		0.0000
BC04 - 3752	52.00	15.850	3.56	1.085		
BC05 - 3753	91.00	27.737	3.90	1.189	-6.590	-0.1866
BC06 - 3754 (dye dump)	93.00	28.346	3.35	1.021		0.0000
BC07 - 3755	70.50	21.488	3.97	1.210		0.0000
3666	65.00	19.812	3.79	1.156	-51.710	-1.4643

Bayou Cane Discharge (River Cat) Data

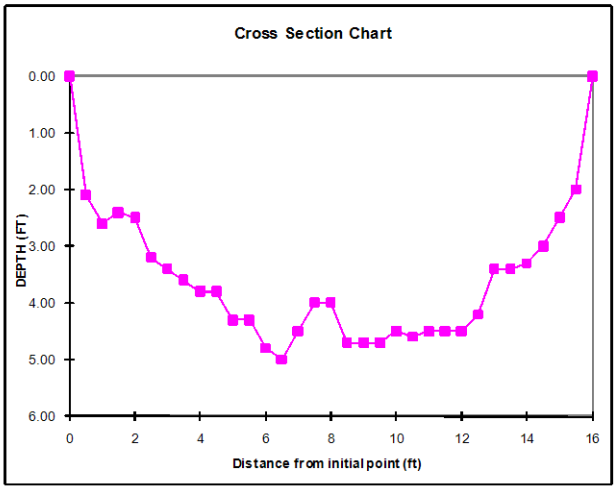
Site	Date	Time	Area(ft^2)	Width(ft)	Total Discharge(cfs)	Top Discharge(cfs)	Middle Discharge(cfs)	Bottom Discharge(cfs)
3666	6/18/2008	9:15	246.5	65	-51.71	-22.1	-19.3	-10.3
3753	6/18/2008	10:30	355.3	91	-6.59	0	-4.9	-1.7
3665	6/18/2008	11:45	90.6	23	0.03	0	-0.1	0.2

STREAM CROSS-SECTION SPREADSHEET

Site Number: 3665 **Subsegment:** 040903 **Waterbody:** Bayou Cane
Site Description: Top Boat Site
Type of Equipment: ☐ Fathometer ☐ Hydrotrac ☑ Manual
Initial Bank: ☑ RDB ☐ LDB
Tapedown:
Guage Height:
Date: 6/18/2008

WIDTH[1] (ft):	16.00
AREA[2] (ft²):	58.40
AVG. DEPTH[3](ft):	3.65

Subsection	Distance from initial point (ft)	Width[4] (ft)	Depth (ft)	Area[5] (sq.ft.)	Area of element as % of Total Area[6 & 7]
1	0.00	0.25	0.00	0.00	
2	0.50	0.50	2.10	1.05	1.80%
3	1.00	0.50	2.60	1.30	2.23%
4	1.50	0.50	2.40	1.20	2.05%
5	2.00	0.50	2.50	1.25	2.14%
6	2.50	0.50	3.20	1.60	2.74%
7	3.00	0.50	3.40	1.70	2.91%
8	3.50	0.50	3.60	1.80	3.08%
9	4.00	0.50	3.80	1.90	3.25%
10	4.50	0.50	3.80	1.90	3.25%
11	5.00	0.50	4.30	2.15	3.68%
12	5.50	0.50	4.30	2.15	3.68%
13	6.00	0.50	4.80	2.40	4.11%
14	6.50	0.50	5.00	2.50	4.28%
15	7.00	0.50	4.50	2.25	3.85%
16	7.50	0.50	4.00	2.00	3.42%
17	8.00	0.50	4.00	2.00	3.42%
18	8.50	0.50	4.70	2.35	4.02%
19	9.00	0.50	4.70	2.35	4.02%
20	9.50	0.50	4.70	2.35	4.02%
21	10.00	0.50	4.50	2.25	3.85%
22	10.50	0.50	4.60	2.30	3.94%
23	11.00	0.50	4.50	2.25	3.85%
24	11.50	0.50	4.50	2.25	3.85%
25	12.00	0.50	4.50	2.25	3.85%
26	12.50	0.50	4.20	2.10	3.60%
27	13.00	0.50	3.40	1.70	2.91%
28	13.50	0.50	3.40	1.70	2.91%
29	14.00	0.50	3.30	1.65	2.83%
30	14.50	0.50	3.00	1.50	2.57%
31	15.00	0.50	2.50	1.25	2.14%
32	15.50	0.50	2.00	1.00	1.71%
33	16.00	0.25	0.00	0.00	0.00%
34					
35					
36					
37					
38					
39					
40					
	Total	16.00		58.40	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Hicks	Data Inputed by / Date:	Jones 6/20/2008
Notetaker/Recorder:	Jones	Data Input Checked by / Date:	Keith 6/20/2008
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: 3752 **Subsegment:** 040903 **Waterbody:** Bayou Cane

Site Description: Just above Hwy. 190

Type of Equipment: ☑ Fathometer ☐ Hydrotrac ☐ Manual

Initial Bank: ☑ RDB ☐ LDB

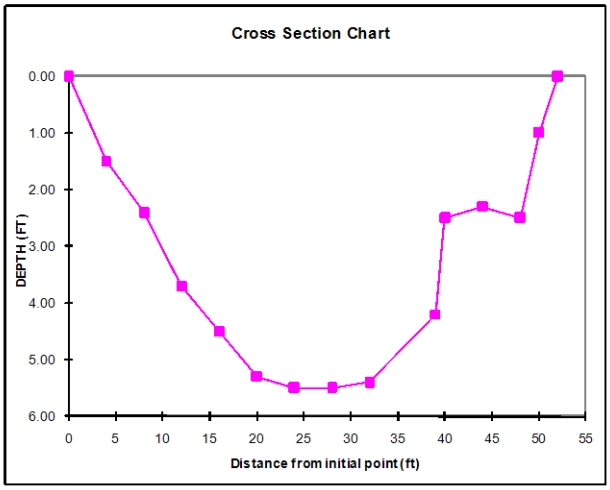
Tapedown:

Guage Height:

Date: 6/17/2008

WIDTH[1] (ft):	52.00
AREA[2] (ft²):	185.05
AVG. DEPTH[3](ft):	3.56

Subsection	Distance from initial point (ft)	Width[4] (ft)	Depth (ft)	Area[5] (sq.ft.)	Area of element as % of Total Area[6 & 7]
1	0.00	2.00	0.00	0.00	
2	4.00	4.00	1.50	6.00	3.24%
3	8.00	4.00	2.40	9.60	5.19%
4	12.00	4.00	3.70	14.80	8.00%
5	16.00	4.00	4.50	18.00	9.73%
6	20.00	4.00	5.30	21.20	11.46%
7	24.00	4.00	5.50	22.00	11.89%
8	28.00	4.00	5.50	22.00	11.89%
9	32.00	5.50	5.40	29.70	16.05%
10	39.00	4.00	4.20	16.80	9.08%
11	40.00	2.50	2.50	6.25	3.38%
12	44.00	4.00	2.30	9.20	4.97%
13	48.00	3.00	2.50	7.50	4.05%
14	50.00	2.00	1.00	2.00	1.08%
15	52.00	1.00	0.00	0.00	0.00%
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	52.00		185.05	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Keith	Data Inputed by / Date:	Jones 6/20/2008
Notetaker/Recorder:	Jones	Data Input Checked by / Date:	Keith 6/20/2008
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: 3753 **Subsegment:** 040904 **Waterbody:** Bayou Cane

Site Description: Just below Hwy. 190

Type of Equipment: ☐ Fathometer ☐ Hydrotrac ☑ Manual

Initial Bank: ☑ RDB ☐ LDB

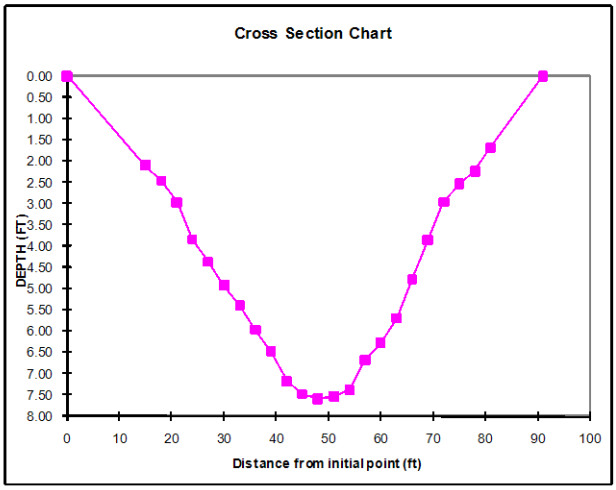
Tapedown:

Guage Height:

Date: 6/18/2008

WIDTH[1] (ft):	91.00
AREA[2] (ft²):	355.26
AVG. DEPTH[3](ft):	3.90

Subsection	Distance from initial point (ft)	Width[4] (ft)	Depth (ft)	Area[5] (sq.ft.)	Area of element as % of Total Area[6 & 7]
1	0.00	7.50	0.00	0.00	
2	15.00	9.00	2.09	18.81	5.29%
3	18.00	3.00	2.46	7.38	2.08%
4	21.00	3.00	2.97	8.91	2.51%
5	24.00	3.00	3.84	11.52	3.24%
6	27.00	3.00	4.37	13.11	3.69%
7	30.00	3.00	4.92	14.76	4.15%
8	33.00	3.00	5.39	16.17	4.55%
9	36.00	3.00	5.96	17.88	5.03%
10	39.00	3.00	6.48	19.44	5.47%
11	42.00	3.00	7.17	21.51	6.05%
12	45.00	3.00	7.49	22.47	6.33%
13	48.00	3.00	7.58	22.74	6.40%
14	51.00	3.00	7.53	22.59	6.36%
15	54.00	3.00	7.38	22.14	6.23%
16	57.00	3.00	6.68	20.04	5.64%
17	60.00	3.00	6.27	18.81	5.29%
18	63.00	3.00	5.69	17.07	4.80%
19	66.00	3.00	4.78	14.34	4.04%
20	69.00	3.00	3.85	11.55	3.25%
21	72.00	3.00	2.96	8.88	2.50%
22	75.00	3.00	2.53	7.59	2.14%
23	78.00	3.00	2.23	6.69	1.88%
24	81.00	6.50	1.67	10.86	3.06%
25	91.00	5.00	0.00	0.00	0.00%
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	91.00		355.26	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	Beard	Data Inputed by / Date:	Jones 6/24/2008
Notetaker/Recorder:		Data Input Checked by / Date:	Beard 6/24/2008
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: 3755 **Subsegment:** 040504 **Waterbody:** Bayou Cane

Site Description:

Type of Equipment: ☑ Fathometer ☐ Hydrotrac ☐ Manual

Initial Bank: ☑ RDB ☐ LDB

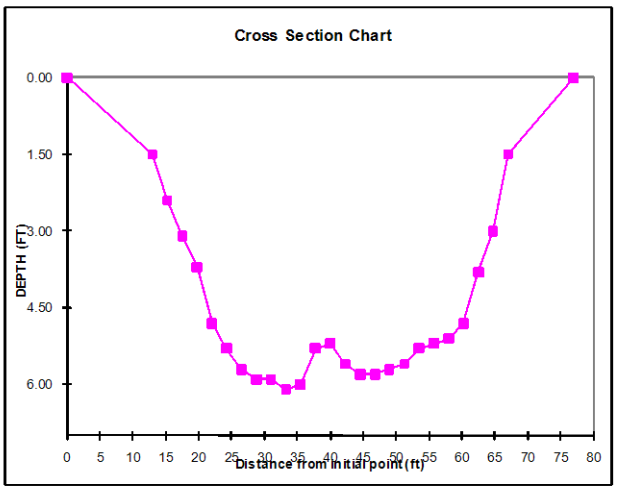
Tapedown: N/A

Guage Height: N/A

Date: 6/18/2008

WIDTH[1] (ft):	70.50
AREA[2] (ft²):	279.60
AVG. DEPTH[3](ft):	3.97

Subsection	Distance from initial point (ft)	Width[4] (ft)	Depth (ft)	Area[5] (sq.ft.)	Area of element as % of Total Area[6 & 7]
1	0.0		0.00		
2	13.0	7.63	1.50	11.44	4.09%
3	15.3	2.25	2.40	5.40	1.93%
4	17.5	2.25	3.10	6.98	2.49%
5	19.8	2.25	3.70	8.33	2.98%
6	22.0	2.25	4.80	10.80	3.86%
7	24.3	2.25	5.30	11.93	4.27%
8	26.5	2.25	5.70	12.83	4.59%
9	28.8	2.25	5.90	13.28	4.75%
10	31.0	2.25	5.90	13.28	4.75%
11	33.3	2.25	6.10	13.73	4.91%
12	35.5	2.25	6.00	13.50	4.83%
13	37.8	2.25	5.30	11.93	4.27%
14	40.0	2.25	5.20	11.70	4.18%
15	42.3	2.25	5.60	12.60	4.51%
16	44.5	2.25	5.80	13.05	4.67%
17	46.8	2.25	5.80	13.05	4.67%
18	49.0	2.25	5.70	12.83	4.59%
19	51.3	2.25	5.60	12.60	4.51%
20	53.5	2.25	5.30	11.93	4.27%
21	55.8	2.25	5.20	11.70	4.18%
22	58.0	2.25	5.10	11.48	4.10%
23	60.3	2.25	4.80	10.80	3.86%
24	62.5	2.25	3.80	8.55	3.06%
25	64.8	2.25	3.00	6.75	2.41%
26	67.0	6.13	1.50	9.19	3.29%
27	77.0	5.00	0.00	0.00	0.00%
28					
	Total	70.50		279.60	100.00%



Data Collection Crew	T. Yoes, D. Borne, J. Earles	Office Data Work	
Measurement made by:	T. Yoes, D. Borne, J. Earles	Data Inputed by / Date:	T. Yoes/ 6/26/2008
Notetaker/Recorder:	T. Yoes	Data Input Checked by / Date:	J. Earles / 6/27/08
Other:			

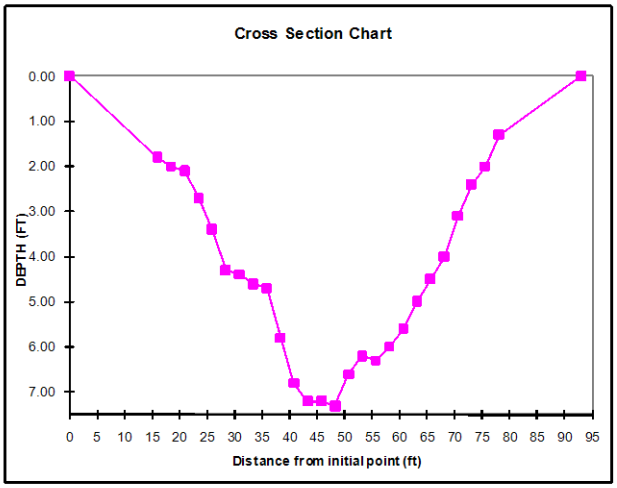
Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

STREAM CROSS-SECTION SPREADSHEET

Site Number: Dye XS Dump **Subsegment:** 040904 **Waterbody:** Bayou Cane
Site Description: *See GPS* (Survey Site 3754)
Type of Equipment: ☐ Fathometer ☑ Hydrotrac ☐ Manual
Initial Bank: ☑ RDB ☐ LDB
Tapedown: N/A
Guage Height: N/A
Date: 6/19/2008

WIDTH[1] (ft):	93.00
AREA[2] (ft²):	311.21
AVG. DEPTH[3](ft):	3.35

Subsection	Distance from initial point (ft)	Width[4] (ft)	Depth (ft)	Area[5] (sq.ft.)	Area of element as % of Total Area[6 & 7]
1	0.0	8.00	0.00	0.00	
2	16.0	9.24	1.80	16.63	5.34%
3	18.5	2.48	2.00	4.96	1.59%
4	21.0	2.48	2.10	5.21	1.67%
5	23.4	2.48	2.70	6.70	2.15%
6	25.9	2.48	3.40	8.43	2.71%
7	28.4	2.48	4.30	10.66	3.43%
8	30.9	2.48	4.40	10.91	3.51%
9	33.4	2.48	4.60	11.41	3.67%
10	35.8	2.48	4.70	11.66	3.75%
11	38.3	2.48	5.80	14.38	4.62%
12	40.8	2.48	6.80	16.86	5.42%
13	43.3	2.48	7.20	17.86	5.74%
14	45.8	2.48	7.20	17.86	5.74%
15	48.2	2.48	7.30	18.10	5.82%
16	50.7	2.48	6.60	16.37	5.26%
17	53.2	2.48	6.20	15.38	4.94%
18	55.7	2.48	6.30	15.62	5.02%
19	58.2	2.48	6.00	14.88	4.78%
20	60.6	2.48	5.60	13.89	4.46%
21	63.1	2.48	5.00	12.40	3.98%
22	65.6	2.48	4.50	11.16	3.59%
23	68.1	2.48	4.00	9.92	3.19%
24	70.6	2.48	3.10	7.69	2.47%
25	73.0	2.48	2.40	5.95	1.91%
26	75.5	2.48	2.00	4.96	1.59%
27	78.0	8.74	1.30	11.36	3.65%
28	93.0	7.50	0.00	0.00	0.00%
	Total	93.00		311.21	100.00%



Data Collection Crew		Office Data Work	
Measurement made by:	J. Earles, T. Yoes,	Data Inputed by / Date:	A. Tieben, 6/27/2008
Notetaker/Recorder:	J. Earles, T. Yoes,	Data Input Checked by / Date:	E. Garner
Other:			

Note 1: WIDTH (ft) = sum of the width column
Note 2: AREA (sq.ft.) = sum of the area column
Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)
Note 4: Width of element
Note 5: Area=Width*Depth for element
Note 6: Percent area = element area/total area x 100%
Note 7: Percent area should be less than 10% as per USGS standard.
Note 8: Blank fields are cleared from all calculations.
Note 9: The cross sections are taken at areas representative of the stream.

Appendix F3 – Field Notes

ENGINEERING INSITU REPORT

PROJECT NUMBER

PROJECT NAME Bayou Cane TMDL Survey (Subsegments 040903 and 040904)

SITE ID NUMBER	COLLECTION DATE	COLLECTION TIME	DEPTH, m	TEMP, deg C	DO CONC., mg/L	DO PERCENT SAT (100% = 1)	pH, Standard Units	SPECIFIC COND., umhos/cm	SECCHI DISK DEPTH, centimeters	SAL, ug/L	BAT, volts
BC04	6/18/2008	10:00:00 AM	1	28.44	1.91	24.7	7.45	466.3		0.23	
BC05	6/18/2008	10:20:00 AM	1	29.65	2.26	29.9	6.89	1745	18	0.93	
BC07	6/18/2008	10:10:00 AM	1	29.83	1.17	15.7	6.86	3057		1.66	
BC09	6/18/2008	9:15:00 AM	0.3	29.25	4.72	62.2	7.32	3616		1.97	
SLSH	6/18/2008	9:50:00 AM	-999	28.53	8.09	104.6	7.77	446		0.22	
3665	6/18/2008	9:15:00 AM	1	27.42	0.52	6.5	6.82	177.8	10	0.08	
3666	6/18/2008	9:45:00 AM	0.75	29.97	2.39	32	6.97	3464	24	1.88	

Bayou Cane
(040903 & 040904)
040903 - Bayou Cane - Headwaters to U.S. Hwy 190
040904 – Bayou Cane - U.S. Hwy. 190 to Lake Pontchartrain

Project # ES2008003
Survey Report
June 2008

Bayou Cane is located in the Pontchartrain Basin. The stream was surveyed from the upper most accessible part of the stream (just above Hwy. 190) to Lake Pontchartrain. The survey was conducted on June 16 through June 20, 2008. Land use along the bayou is primarily residential in 040903 and primarily wetland in 040904.

Water Quality samples were taken throughout the length of the bayou along with In-Situ field readings. Stream discharge measurements were taken at three locations (3666, 3753, and 3665.)

A Dye Study was performed in the lower portion of the stream. Dye was injected at site # 3754. Dye concentrations were recorded in two separate boat runs which covered approximately 48 hours. Also continuous dye monitors were deployed and collected data throughout the week of the survey. A more detailed explanation of the dye study can be found on the Watershed Shared Network (ws_ surveys) Bayou Cane file.

There was one (1) discharger (Louisiana State Hospital) sampled during this survey.

Six (6) Continuous Water Quality Monitors were set up to log during the course of the survey. Included with this report are all survey data including: field notes, discharge measurements, site GPS, stream cross-sections, continuous water quality monitor data, weather station data, and water quality sample records. Data from the dye study, which includes site GPS, dye concentration log, stream cross-sections and a field log, are also included. Electronic copies of this data are available on the Watershed Shared Network (ws_surveys).

Survey crews encountered no notable problems.

Bayou Cane Survey

Site Information

Site #: 3665 (BC 03) Subsegment: 040903 Date: 6/16/08 Time: 12:45 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location†: Toe Foot Site

Personnel: Gurrey, Alleman

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:	*Temperature* (°F):	*Wind* (mph):	*Wind Direction*:
Clear ☒	Hot >85° ☒	<1 ☐	NW ☐ N ☐ NE ☐
Overcast ☐	Warm > 75° ☐	1-5 ☒	SW ☐ S ☒ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☐	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☐
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☒
Flowing: ☒ Measurable Flow: ☐ ? Flow Direction Upstream ☒ Downstream ☐ Tidally Influenced: ☒
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☒ Instrument ID: Station 2

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

† All work is done within 100 yard radius of Site

Site 3665 Date: 6-16-08
12:45

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Site Information

Site #: 31665 Subsegment: 040903 Date: 6/17/08 Time: 1000 hrs

Waterbody: BAYOU CANE

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: At top Boat Site

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover:
0 –10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☑ Continuous Monitor ID: LDO 25

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): 1M

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☑ Type of Measurement Manual: ☑ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3665 Date: 6/17/08
10:00

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☑ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☑ Gravel ☐ Hard Clay ☐ Soft Silt ☑
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☑
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☑
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☑ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments:

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≡ 0.15 m	20 ≡ 68	25 ≡ 77
1.0 ft ≡ 0.30 m	21 ≡ 69.8	26 ≡ 78.8
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≡ 80.6
2.0 ft ≡ 0.60 m	23 ≡ 73.4	28 ≡ 82.4
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Site Information

Site #: 36665 Subsegment: 040903 Date: 6/18/08 Time: 0915hrs

Waterbody: BAYOU CANE

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Top Boat Site

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☐ Warm > 75° ☑ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☑ Water Quality Field Parameters: ☑ Profiling: ☐

Water Quality Field Parameters

Time: 0915 Temp.(°C): 27.42 pH: 6.82 SpCond(µhmos/cm): 177.8
D.O.: .052 D.O. %: 6.5 Salinity: .08 Depth (m): 1M Secchi (in): 10in
InSitu Probe ID: 43538

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____
Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____
Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐
Instrument ID: _____
Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☑ Type of Measurement Manual: ☑ Fathometer ☐
Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 31665 Date: 6/18/08
09:15

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Buoy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≡ 0.15 m	20 ≡ 68	25 ≡ 77
1.0 ft ≡ 0.30 m	21 ≡ 69.8	26 ≡ 78.8
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≡ 80.6
2.0 ft ≡ 0.60 m	23 ≡ 73.4	28 ≡ 82.4
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2

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Site Information

Site #: 3665 Subsegment: 040903 Date: 6/18/08 Time: 1145

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: _____

Personnel: Beard, Nieben

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☐ 1-5 ☑ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☑ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover:
0 – 10% ☐ 11 – 40% ☑ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☑
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☑ Type of Measurement: Wading ☐ Stationary ☑ Moving Boat ☐

Instrument ID: RC30B

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 3665 Date: 6/18/08
11:45

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Waterbody Dry/Intermittent: ☐
Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: Flow was taken in representative cross section

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 = 68	25 = 77
1.0 ft ≅ 0.30 m	21 = 69.8	26 = 78.8
1.5 ft ≅ 0.45 m	22 = 71.6	27 = 80.6
2.0 ft ≅ 0.60 m	23 = 73.4	28 = 82.4
2.5 ft ≅ 0.75 m	24 = 75.2	29 = 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Site Information

Site #: 3665 Subsegment: 040903 Date: 6/19/08 Time: 1005 hrs

Waterbody: BAYOU Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: ~~ABOV~~ Top Boat Site

Personnel: Jones, Hicks, Keith

Type of Work. Recon ☐ Data Collection ☑

Weather Conditions	*Temperature (°F)*	*Wind (mph)*	*Wind Direction*
Clear ☑	Hot >85° ☑	<1 ☐	NW ☐ N ☐ NE ☐
Overcast ☐	Warm > 75° ☐	1-5 ☐	SW ☐ S ☐ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☐	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☑
	Cold < 60° ☐	>16 ☐	

Cloud Cover
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☐ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: LDO 25
Continuous Monitor Retrieved: ☑ Continuous Monitor Depth (m): 1.0

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐
Instrument ID: _____
Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐
Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3665 Date: 6/19/08
10:05

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Bayou Cane Survey

Site Information

Site #: 3665(BC03) Subsegment: 040903 Date: 6/20/08 Time: 0945hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location†: Top Boat Site

Personnel: Garner Smith

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒
Overcast ☐
Drizzle/Light Rain ☐
Showers ☐

Temperature (°F):
Hot >85° ☒
Warm > 75° ☐
Mild > 65° ☐
Cool > 60° ☐
Cold < 60° ☐

Wind (mph):
<1 ☒
1-5 ☐
6-10 ☐
11-15 ☐
>16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐
SW ☐ S ☐ SE ☐
E ☐ W ☐
Variable ☐

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☒
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor ~~Deployed~~ Retrieved ☒ Instrument ID: Station 2

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

† All work is done within 100 yard radius of Site

Site 3665 Date: 6-20-08
09:45

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Site Information

Site #: 3752 Subsegment: 040903 Date: 6/17/08 Time: 1020 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Above Hwy 190

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☐ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☐ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☑ Continuous Monitor ID: 43550

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): 1 M

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☑ Type of Measurement Manual: ☐ Fathometer ☑

Fathometer ID: SN 080

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

[redacted]

Site 3752 Date: 6/17/08
10:20

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☑ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☑ Gravel ☐ Hard Clay ☐ Soft Silt ☑

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☑ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☑ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Buoy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≡ 0.15 m	20 ≡ 68	25 ≡ 77
1.0 ft ≡ 0.30 m	21 ≡ 69.8	26 ≡ 78.8
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≡ 80.6
2.0 ft ≡ 0.60 m	23 ≡ 73.4	28 ≡ 82.4
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Site Information

Site #: 3752 Subsegment: 040903 Date: 6/18/08 Time: 1000hrs

Waterbody: BAYOU CANE

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Just above Hwy 190

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☑ Water Quality Field Parameters: ☑ Profiling: ☐

Water Quality Field Parameters

Time: 1000hrs Temp.(°C): 28.44 pH: 7.45 SpCond(µhmos/cm): 466.3
D.O.: 1.91 D.O. %: 24.7 Salinity: .23 Depth (m): 1m Secchi (in): ____
InSitu Probe ID: 43538

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____
Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____
Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐
Instrument ID: _____
Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐
Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3752 Date: 6/18/08
10:00

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Sill ☐

Sand/Silt ☐ Rock/Gravel/Sill ☐ Concrete ☐

Control Structure Present: ☐ Location _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover: 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Buoy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

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Revised 06/21/2007

Site Information

Site #: 3752 Subsegment: 040903 Date: 6/19/08 Time: 1025 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Just above Hwy. 190

Personnel: Jones, Keith, Hicks

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☑ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: 43550

Continuous Monitor Retrieved: ☑ Continuous Monitor Depth (m): 1.0 m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3752 Date: 6/19/08
10:25

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments:

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≈ 0.15 m	20 = 68	25 = 77
1.0 ft ≈ 0.30 m	21 = 69.8	26 = 78.8
1.5 ft ≈ 0.45 m	22 = 71.6	27 = 80.6
2.0 ft ≈ 0.60 m	23 = 73.4	28 = 82.4
2.5 ft ≈ 0.75 m	24 = 75.2	29 = 84.2

Cane Bayou Survey

Site Information

Site #: 3755 (BC 01) Subsegment: 040904 Date: 6/16/08 Time: 1240hr

Waterbody: Cane Bayou

Tapedown 1: ____ Staff Gauge 1: ____ Gauge Height 1: ____

Site Location[1]: Below Hwy 190

Personnel: Gernier, Alleman

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions: Clear ☒ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F): Hot >85° ☒ Warm >75° ☐ Mild >65° ☐ Cool >60° ☐ Cold <60° ☐

Wind (mph): <1 ☐ 1-5 ☐ 6-10 ☒ 11-15 ☐ >16 ☐

Wind Direction: NW ☐ N ☐ NE ☐ SW ☐ S ☒ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover: 0 – 10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:

Waterbody Type: Stream ☒

Flowing: ☒ Measurable Flow: ☒ Flow Direction Upstream ☒ Downstream ☐ Tidally Influenced: ☒

Wind Influence: ☒ Wind Influence Direction: Upstream ☒ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐

Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: ____ Temp.(°C): ____ pH: ____ SpCond(μhmos/cm): ____

D.O.: ____ D.O. %: ____ Salinity: ____ Depth (m): ____ Secchi (in): ____

InSitu Probe ID: ____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: ____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): ____

Water Level Monitor Deployed: ☒ Instrument ID: Station 1

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: ____

Stream Velocity Monitor Deployed ☐ Instrument ID: ____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): ____ Time (s): ____

Mid Stream Distance (ft): ____ Time (s): ____

Left Descending Bank Distance (ft): ____ Time (s): ____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: ____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3753 Date: 6-16-08
13:40

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

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Revised 06/21/2007

Site Information

Site #: ~~3553~~ 3753 Subsegment: 040904 Date: 6/17/08 Time: 1105hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Below Hwy 90

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☑ Continuous Monitor ID: 43544

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): 1 M

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3753 Date: 6/17/08
11:05

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☑ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☑ Gravel ☐ Hard Clay ☐ Soft Silt ☑
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☑
Percent Tree Canopy Cover 0-25% ☑ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed ☐ Buoy ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments:

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

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Revision 4.1
Revised 06/21/2007

Site Information

Site #: 3753 Subsegment: 040904 Date: 6/12/08 Time: 1020 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Just Below Hwy 190

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions: Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F): Hot >85° ☐ Warm > 75° ☑ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph): <1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction: NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover: 0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:

Waterbody Type: Stream ☑

Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☐ Downstream ☑ Tidally Influenced: ☑

Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐

Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☑ Water Quality Field Parameters: ☑ Profiling: ☐

Water Quality Field Parameters

Time: 1020 Temp.(°C): 29.65 pH: 6.89 SpCond(µhmos/cm): 1745

D.O.: 2.26 D.O. %: 29.9 Salinity: .93 Depth (m): 1 m Secchi (in): 18 in.

InSitu Probe ID: 43551

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☑ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3753 Date: 6/18/08
10:20

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: Flow measurment taken @ site is a representative X-sect.

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

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Revised 06/21/2007

Site Information

Site #: 3753 Subsegment: 040904 Date: 6/18/08 Time: 1030 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: _____

Personnel: Beard, Tieben

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☐ 1-5 ☑ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction
NW ☐ N ☑ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover.
0 –10% ☐ 11 – 40% ☑ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☑
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☑ Type of Measurement: Wading ☐ Stationary ☑ Moving Boat ☐

Instrument ID: RC30B

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s). _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 3753 Date: 6/18/08
10:30

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Waterbody Dry/Intermittent: ☐
Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: Flow was taken in representative cross section

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Site Information

Site #: 3753 Subsegment: 040904 Date: 6/19/08 Time: 1105 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Just below Hwy 190

Personnel: Jones, Hicks, Keith

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions: Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F): Hot >85° ☐ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph): <1 ☑ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction: NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑

Cloud Cover: 0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics: Waterbody Type: Stream ☑

Flowing: ☑ Measurable Flow: ☐ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑

Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐

Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: 43544

Continuous Monitor Retrieved: ☑ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3753 Date: 6/19/08
11:05

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____
D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≡ 0.15 m	20 ≡ 68	25 ≡ 77
1.0 ft ≡ 0.30 m	21 ≡ 69.8	26 ≡ 78.8
1.5 ft ≡ 0.45 m	22 ≡ 71.6	27 ≡ 80.6
2.0 ft ≡ 0.60 m	23 ≡ 73.4	28 ≡ 82.4
2.5 ft ≡ 0.75 m	24 ≡ 75.2	29 ≡ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Bayou Cane Survey

Site Information

Site #: 3753(BC08) Subsegment: 040904 Date: 6/20/08 Time: 0920

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location†: Below Hwy 190

Personnel: Garner, Smith

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☒ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☒ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☒
Flowing: ☐? Measurable Flow: ☐? Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: Dye Monitor - Fix Dye 02

Continuous Monitor Retrieved: ☒

Continuous Monitor Depth (m): _____

Water Level Monitor ~~Deployed~~ Retrieved: ☒ Instrument ID: Station 1

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

† All work is done within 100 yard radius of Site

Site 3753 Date: 6-20-08
9:20

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments:

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Bayou C e Survey

Site Information

Site #: 3755 Subsegment: 040904 Date: 6-17-08 Time: 0930

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Bayou Cane North of Lake Pontchartrain

Personnel: Earles, Yoes, Berne

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:
Clear ☑	Hot >85° ☑	<1 ☑	NW ☐ N ☐ NE ☐
Overcast ☐	Warm > 75° ☐	1-5 ☐	SW ☐ S ☐ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☐	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☑
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): ____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☑ Continuous Monitor ID: 43532

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): .5 m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 37. 3755 Date: 6-17-08 09:30

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☒ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☒ Soft Silt ☒

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☒

Percent Tree Canopy Cover 0-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

P you Cane Survey

Site Information

Site #: 3755 Subsegment: 040904 Date: 6-18-08 Time: 1010hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: North of Lake

Personnel: J. Earles, D Borne, T Yoes

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:	Temperature (°F):	Wind (mph):	Wind Direction:
Clear ☑	Hot >85° ☑	<1 ☐	NW ☐ N ☐ NE ☑
Overcast ☐	Warm > 75° ☐	1-5 ☐	SW ☐ S ☐ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☑	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☐
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☑ Wind Influence Direction: Upstream ☐ Downstream ☑

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☑ Water Quality Field Parameters: ☑ Profiling: ☑

Water Quality Field Parameters

Time: ~~29.83~~ 1010hrs Temp.(°C): 29.83 pH: 6.86 SpCond(µhmos/cm): 3057

D.O.: 1.17 D.O. %: 15.7 Salinity: 1.66 Depth (m): 1m Secchi (in): N/A

InSitu Probe ID: 43549 IBA IBV 7.5

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☑ Type of Measurement Manual: ☐ Fathometer ☑

Fathometer ID: 080

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s. _____

[1] All work is done within 100 yard radius of Site

Site 37. 3755 Date: 6/18/08 10:10

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Ba, u Cane Survey

Site Information

Site # 375E Subsegment: 040904 Date 6-19-08 Time 1015

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: North of Lake

Personnel: T Yoes J Earles

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☒ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☒ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☒

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☒
Flowing: ☒ Measurable Flow: ☒ Flow Direction Upstream ☒ Downstream ☐ Tidally Influenced: ☒
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ **Water Quality Field Parameters:** ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: 43532

Continuous Monitor Retrieved: ☒ Continuous Monitor Depth (m): .5m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 373, 3755 Date: 6/19/08 10:15

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Cane Bayou Survey

Site Information

Site #: 3666 (BC 02) Subsegment: 040904 Date: 4/6/02 Time: 1415 hrs

Waterbody: Cane Bayou

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Bottom Site on Bayou Cane

Personnel: Gurney, Fillmon

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:	*Temperature* (°F):	*Wind* (mph):	*Wind Direction*:
Clear ☒	Hot >85° ☒	<1 ☐	NW ☐ N ☐ NE ☐
Overcast ☐	Warm > 75° ☐	1-5 ☐	SW ☐ S ☒ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☒	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☐
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 –10% ☐ 11 – 40% ☒ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☒
Flowing: ☒ Measurable Flow: ☒ Flow Direction Upstream ☒ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☒ Wind Influence Direction: Upstream ☒ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☒ Instrument ID: Station 4

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3666 Date: 6-16-08
14:15

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Stream Dry/Intermittent: ☐

Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Bayou Cane Survey

Site Information

Site # 3666 Subsegment: 040904 Date 6-17-08 Time 0905 hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location†: Bottom site on Bayou Cane (Just upstream of Lake Pontchartrain)

Personnel: J. Earls, Ty Yoes, D. Borne

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒
Overcast ☐
Drizzle/Light Rain ☐
Showers ☐

Temperature (°F):
Hot >85° ☒
Warm >75° ☐
Mild > 65° ☐
Cool > 60° ☐
Cold < 60° ☐

Wind (mph):
<1 ☒
1-5 ☐
6-10 ☐
11-15 ☐
>16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐
SW ☐ S ☐ SE ☐
E ☐ W ☐
Variable ☒

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☒
Flowing ☒ Measurable Flow: ☒ Flow Direction Upstream ☒ Downstream ☒ NA Tidally Influenced: ☒
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☒ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☒ Continuous Monitor ID: 43534

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): 1 m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

† All work is done within 100 yard radius of Site

Site 3666 Date: 6/17/08
09:05

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☑ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☑ Soft Silt ☑

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☑

Percent Tree Canopy Cover 0-25% ☑ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Site Information

Site #: 3666 Subsegment 040904 Date: 6/18/08 Time: 0915

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location†: _____

Personnel: Beard, Tieben

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☐ Warm > 75° ☑ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☐ 1-5 ☐ 6-10 ☑ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☑ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover:
0 –10% ☐ 11 – 40% ☑ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☑
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☑ Wind Influence Direction: Upstream ☐ Downstream ☑

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ **Water Quality Field Parameters:** ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ **Temp.(°C):** _____ **pH:** _____ **SpCond(µhmos/cm):** _____

D.O.: _____ **D.O. %:** _____ **Salinity:** _____ **Depth (m):** _____ **Secchi (in):** _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☑ Type of Measurement: Wading ☐ Stationary ☑ Moving Boat ☐

Instrument ID: RC3oB

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

† All work is done within 100 yard radius of Site

Site 3666 Date: 6/18/08
09:15

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Waterbody Dry/Intermittent: ☐
Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: Flow was taken in representative cross section.

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Bayou Cane Survey

Site Information

Site #: 3666 Subsegment: 040904 Date: 6-18-08 Time: 0945hrs

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Bottom Site on Bayou Cane (just upstream of Lake Pontchartrain)

Personnel: J. Eagles, T Yoes, D Borne

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒
Overcast ☐
Drizzle/Light Rain ☐
Showers ☐

Temperature (°F):
Hot >85° ☒
Warm > 75° ☐
Mild > 65° ☐
Cool > 60° ☐
Cold < 60° ☐

Wind (mph):
<1 ☐
1-5 ☐
6-10 ☒
11-15 ☐
>16 ☐

Wind Direction:
NW ☐ N ☐ NE ☒
SW ☐ S ☐ SE ☐
E ☐ W ☐
Variable ☐

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☒
Flowing: ☒ Measurable Flow: ☒ Flow Direction Upstream ☒ Downstream ☐ Tidally Influenced: ☒
Wind Influence: ☒ Wind Influence Direction: Upstream ☐ Downstream ☒

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☒ Water Quality Field Parameters: ☒ Profiling: ☐

Water Quality Field Parameters

Time: 0945hrs Temp.(°C): 29.97 pH: 6.97 SpCond(µhmos/cm): 3464
D.O.: 2.39 D.O. %: 32.0 Salinity: 1.88 Depth (m): .5m Secchi (in): 24in
InSitu Probe ID: 43549

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____
Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____
Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐
Instrument ID: _____
Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐
Right Descending Bank Distance (ft): _____ Time (s): _____
Mid Stream Distance (ft): _____ Time (s): _____
Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐
Fathometer ID: _____

GPS Measurement: ☐ Site GPS ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 3666 Date: 6/18/08
09:45

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Waterbody Dry/Intermittent: ☐
Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: River Cat Flow measurement was representative X-section

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Bayou Cane Survey

Site Information

Site # 3666 Subsegment: 040904 Date 6-19-05 Time 0955

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Bottom Site on Bayou Cane (just upstream of Lake Pontchartrain)

Personnel: T Yoes, J Earles

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions: Clear ☑ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F): Hot >85° ☑ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph): <1 ☑ NR 1-5 ☑ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction: NW ☐ N ☑ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☑ N

Cloud Cover: 0 –10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☐
Flowing: ☑ Measurable Flow: ☑ Flow Direction Upstream ☑ Downstream ☐ Tidally Influenced: ☑
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☑ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ **Water Quality Field Parameters:** ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ **Temp.(°C):** _____ **pH:** _____ **SpCond(µhmos/cm):** _____

D.O.: _____ **D.O. %:** _____ **Salinity:** _____ **Depth (m):** _____ **Secchi (in):** ____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: 43534

Continuous Monitor Retrieved: ☑ Continuous Monitor Depth (m): [redacted] 1.0

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 3666 Date: 6/19/08
09:55

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Bayou Cane Survey

Site Information

Site #: 3666(BC08) Subsegment: 040904 Date: 6/20/08 Time: 0850

Waterbody: Bayou Cane

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Bottom Site - ~~US~~ Upstream of Lake

Personnel: Garner, Smith

Type of Work: Recon ☐ Data Collection ☒

Weather Conditions:
Clear ☒ Overcast ☐ Drizzle/Light Rain ☐ Showers ☐

Temperature (°F):
Hot >85° ☒ Warm > 75° ☐ Mild > 65° ☐ Cool > 60° ☐ Cold < 60° ☐

Wind (mph):
<1 ☒ 1-5 ☐ 6-10 ☐ 11-15 ☐ >16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐ SW ☐ S ☐ SE ☐ E ☐ W ☐ Variable ☐

Cloud Cover:
0 –10% ☒ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Stream Characteristics:
Waterbody Type: Stream ☒
Flowing: ☐ ? Measurable Flow: ☐ ? Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☐ Wind Influence: ☐ Tidally Influenced: ☐

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: Dye monitor - Fix Dye ~~02~~ 01

Continuous Monitor Retrieved: ☒ Continuous Monitor Depth (m): 1m

Water Level Monitor ~~Deployed~~ Retrieved: ☒ Instrument ID: Station 4

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Stream Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

[1] All work is done within 100 yard radius of Site

Site 3666 Date: 6-20-01
08:50

Photos Taken: ☐ Picture File #s: _____

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Stream Dry/Intermittent: ☐
Stream Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	
Time:		Temp.(°C):		pH:		Spcond(µhmos/cm):	
D.O.:		D.O. %:		Salinity:		Depth (m):	

Comments:

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.1
Revised 06/21/2007

Bayou Cane Survey

Site Information

Site # 3756 Subsegment: 040904 Date 6-17-08 Time 0910

Waterbody: [redacted] Lake Pontchartrain

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Just out from mouth of B. Cane

Personnel: J Earls Ty Foes, D Borne

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:
Clear ☑
Overcast ☐
Drizzle/Light Rain ☐
Showers ☐

Temperature (°F):
Hot >85° ☑
Warm > 75° ☐
Mild > 65° ☐
Cool > 60° ☐
Cold < 60° ☐

Wind (mph):
<1 ☑
1-5 ☐
6-10 ☐
11-15 ☐
>16 ☐

Wind Direction:
NW ☐ N ☐ NE ☐
SW ☐ S ☐ SE ☐
E ☐ W ☐
Variable ☑

Cloud Cover:
0 –10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☐
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☑ Wind Influence: ☐ Tidally Influenced: ☑

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☑ 1-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☑ Continuous Monitor ID: 43535

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): 1m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 3.6 Date: 6/17/08
3756 09:10

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☒ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☒ Soft Silt ☒

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☒

Percent Tree Canopy Cover 0-25% ☒ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

Bayou Cane Survey

Site Information

Site #: 3756 Subsegment: 040904 Date: 6-18-08 Time: 0915hrs

Waterbody: Lake Pontchartrain

Tapedown †: _____ Staff Gauge †: _____ Gauge Height †: _____

Site Location†: Mouth of Bayou Cane

Personnel: J. Earles, T. Yoes, D. Borne

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:	*Temperature* (°F):	*Wind* (mph):	*Wind Direction*:
Clear ☑	Hot >85° ☑	<1 ☐	NW ☐ N ☐ NE ☑
Overcast ☐	Warm > 75° ☐	1-5 ☐	SW ☐ S ☐ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☑	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☐
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 – 10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☐
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☑ Wind Influence: ☑ Tidally Influenced: ☑

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ~~☐~~ NM 1-25% ☑ 26-50% ☐
51-75% ~~☐~~ N/A 76-100% ☐

Water Quality Samples Taken: ☑ Water Quality Field Parameters: ☑ Profiling: ☐

Water Quality Field Parameters

Time: 0915hrs Temp.(°C): 29.25 pH: 7.32 SpCond(µhmos/cm): 3616

D.O.: 4.72 D.O. %: 62.2 Salinity: 1.97 Depth (m): .30m Secchi (in): N/A

InSitu Probe ID: 43549 IBV 7.4 IBA 10.6

Continuous Monitor Deployed: ☐ Continuous Monitor ID: _____

Continuous Monitor Retrieved: ☐ Continuous Monitor Depth (m): _____

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement. ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

† All work is done within 100 yard radius of Site

Site 37_____ Date: 6/18/08
3756 09:15

Tapedown Established: ☐ Tapedown Location: _____
Benchmark Established: ☐ Benchmark Location: _____
Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐
Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐
Man-Made Waterbody: ☐
Waterbody Dry/Intermittent: ☐
Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐
Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐
Control Structure Present: ☐ Location: _____
Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐
Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐
Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:
Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____
Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐
Boat Accessible: ☐ Nearest Launch: _____
Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____	Temp.(°C): _____	pH: _____	Spcond(µhmos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp.(°C): _____	pH: _____	Spcond(µhmos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____
Time: _____	Temp.(°C): _____	pH: _____	Spcond(µhmos/cm): _____
D.O.: _____	D.O. %: _____	Salinity: _____	Depth (m): _____

Comments: _____

References

Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft ≅ 0.15 m	20 ≅ 68	25 ≅ 77
1.0 ft ≅ 0.30 m	21 ≅ 69.8	26 ≅ 78.8
1.5 ft ≅ 0.45 m	22 ≅ 71.6	27 ≅ 80.6
2.0 ft ≅ 0.60 m	23 ≅ 73.4	28 ≅ 82.4
2.5 ft ≅ 0.75 m	24 ≅ 75.2	29 ≅ 84.2

Field Site Survey.doc
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Revised 06/27/2007

Bayou Cane Survey

Site Information

Site #: 3755 Subsegment: 040904 Date: 6/19/08 Time: 0945

Waterbody: Lake Pontchartrain

Tapedown 1: _____ Staff Gauge 1: _____ Gauge Height 1: _____

Site Location[1]: Out from the mouth of B. Cane

Personnel: Eailes, Yoes

Type of Work: Recon ☐ Data Collection ☑

Weather Conditions:	*Temperature* (°F):	*Wind* (mph):	*Wind Direction*:
Clear ☑	Hot >85° ☑	<1 ☐	NW ☐ N ☑ NE ☐
Overcast ☐	Warm > 75° ☐	1-5 ☑	SW ☐ S ☐ SE ☐
Drizzle/Light Rain ☐	Mild > 65° ☐	6-10 ☐	E ☐ W ☐
Showers ☐	Cool > 60° ☐	11-15 ☐	Variable ☐
	Cold < 60° ☐	>16 ☐	

Cloud Cover:
0 –10% ☑ 11 – 40% ☐ 41 – 70% ☐ 71 – 100% ☐

Waterbody Characteristics:
Waterbody Type: Stream ☐
Flowing: ☐ Measurable Flow: ☐ Flow Direction Upstream ☐ Downstream ☐ Tidally Influenced: ☐
Wind Influence: ☐ Wind Influence Direction: Upstream ☐ Downstream ☐

Waterbody Type: Lake ☑ Wind Influence: ☐ Tidally Influenced: ☑

Algae Present ☐ Sedimentation/Turbidity Present in Water Column ☐
Floating/Aquatic Vegetation % Surface Coverage: <1 ☐ 1-25% ☑ 26-50% ☐
51-75% ☐ 76-100% ☐

Water Quality Samples Taken: ☐ Water Quality Field Parameters: ☐ Profiling: ☐

Water Quality Field Parameters

Time: _____ Temp.(°C): _____ pH: _____ SpCond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____ Secchi (in): _____

InSitu Probe ID: _____

Continuous Monitor Deployed: ☐ Continuous Monitor ID: 43535

Continuous Monitor Retrieved: ☒ Continuous Monitor Depth (m): [redacted] 1.0m

Water Level Monitor Deployed: ☐ Instrument ID: _____

Flow Measurement: ☐ Type of Measurement: Wading ☐ Stationary ☐ Moving Boat ☐

Instrument ID: _____

Velocity Monitor Deployed ☐ Instrument ID: _____

Velocity Estimated: ☐ Drogue Estimate: ☐ Dye Estimate: ☐

Right Descending Bank Distance (ft): _____ Time (s): _____

Mid Stream Distance (ft): _____ Time (s): _____

Left Descending Bank Distance (ft): _____ Time (s): _____

Cross Section Measurement: ☐ Type of Measurement Manual: ☐ Fathometer ☐

Fathometer ID: _____

GPS Measurement: ☐ Site GPS: ☐ Cross Section GPS: ☐

Photos Taken: ☐ Picture File #s: _____

[1] All work is done within 100 yard radius of Site

Site 37, 3756 Date: 6/19/05 09:45

Tapedown Established: ☐ Tapedown Location: _____

Benchmark Established: ☐ Benchmark Location: _____

Survey Equipment Used: ☐

Time of Travel Measurement: ☐ Type of Site: Injection ☐ Collection ☐

Amount of Dye Injected (ml): _____

Physical Site Characteristics: Natural Waterbody: ☐ Man Altered Waterbody: ☐

Man-Made Waterbody: ☐

Waterbody Dry/Intermittent: ☐

Waterbody Bottom: Sandy ☐ Clay ☐ Gravel ☐ Hard Clay ☐ Soft Silt ☐

Sand/Silt ☐ Rock/Gravel/Silt ☐ Concrete ☐

Control Structure Present: ☐ Location: _____

Type: Man Made Dam ☐ Flow Regulation Device ☐ Beaver Dam ☐ Log Jam ☐

Land Use: Agriculture ☐ Forestry ☐ Municipal ☐ Industrial ☐ Field/Pasture ☐ Wetland ☐

Percent Tree Canopy Cover 0-25% ☐ 26-50% ☐ 51-75% ☐ 76-100% ☐

Recon Information:

Discharge Measurement: Wading ☐ Boat ☐ Stream Depth (ft): _____

Continuous Monitor Deployment: Fixed: ☐ Bouy: ☐

Boat Accessible: ☐ Nearest Launch: _____

Bridge ☐ Bridge Safe: ☐ Bridge Height: _____

Profiling Measurements:

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Time: _____ Temp.(°C): _____ pH: _____ Spcond(µhmos/cm): _____

D.O.: _____ D.O. %: _____ Salinity: _____ Depth (m): _____

Comments: _____

References

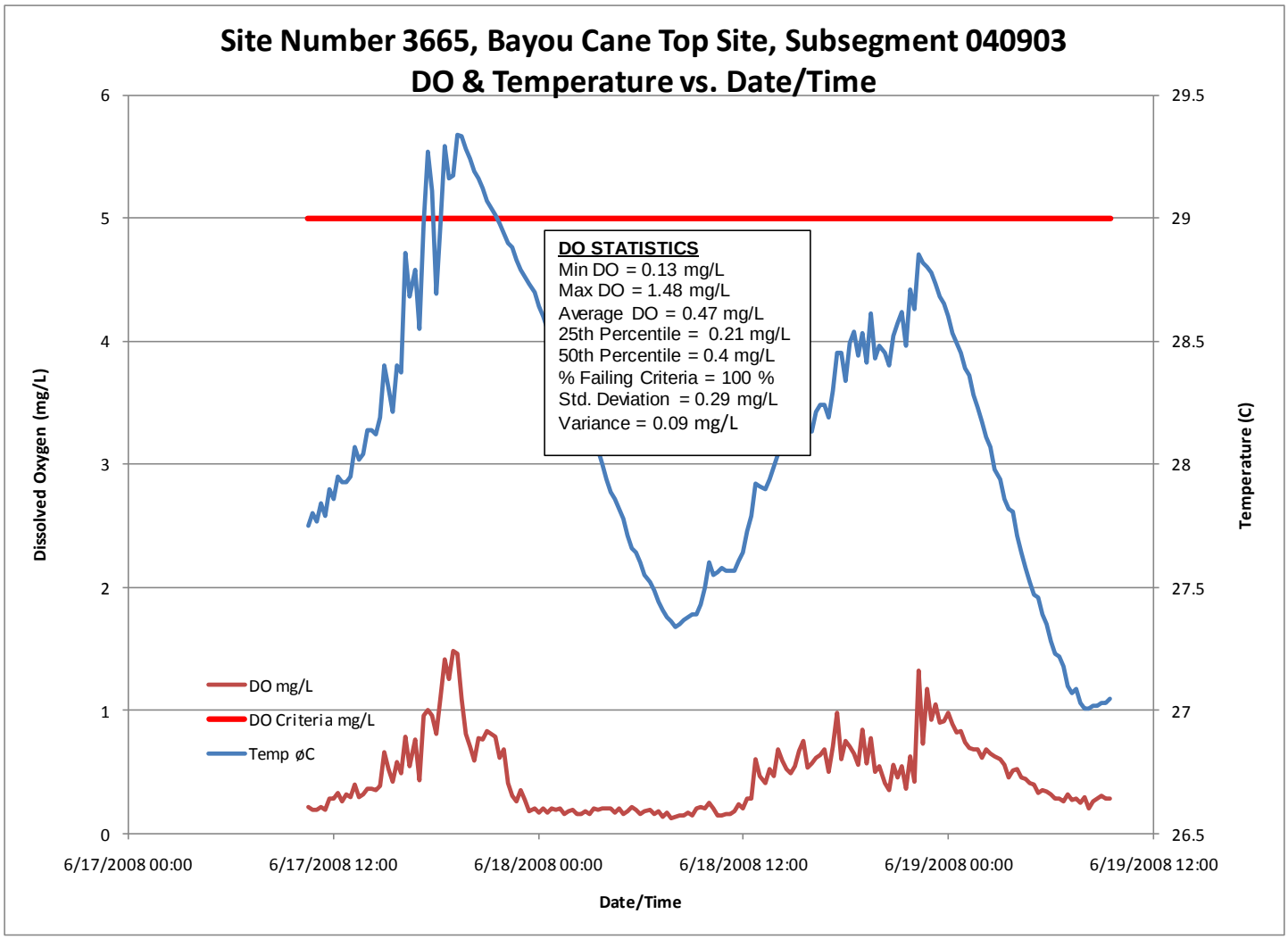
Convert Feet to Meters	Convert Celsius to Fahrenheit	
0.5 ft = 0.15 m	20 = 68	25 = 77
1.0 ft = 0.30 m	21 = 69.8	26 = 78.8
1.5 ft = 0.45 m	22 = 71.6	27 = 80.6
2.0 ft = 0.60 m	23 = 73.4	28 = 82.4
2.5 ft = 0.75 m	24 = 75.2	29 = 84.2

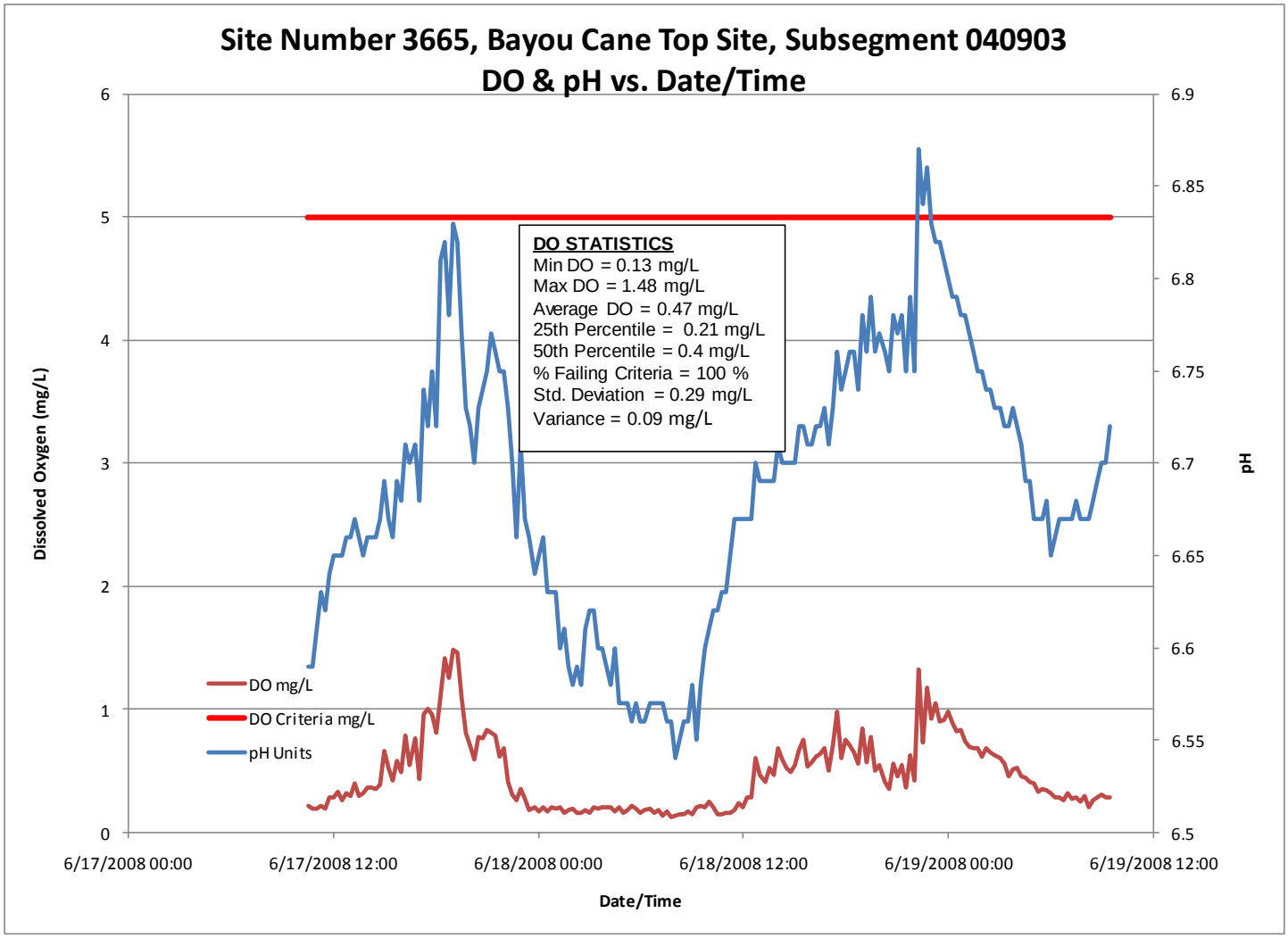
Field Site Survey.doc
Revision 4.2
Revised 06/27/2007

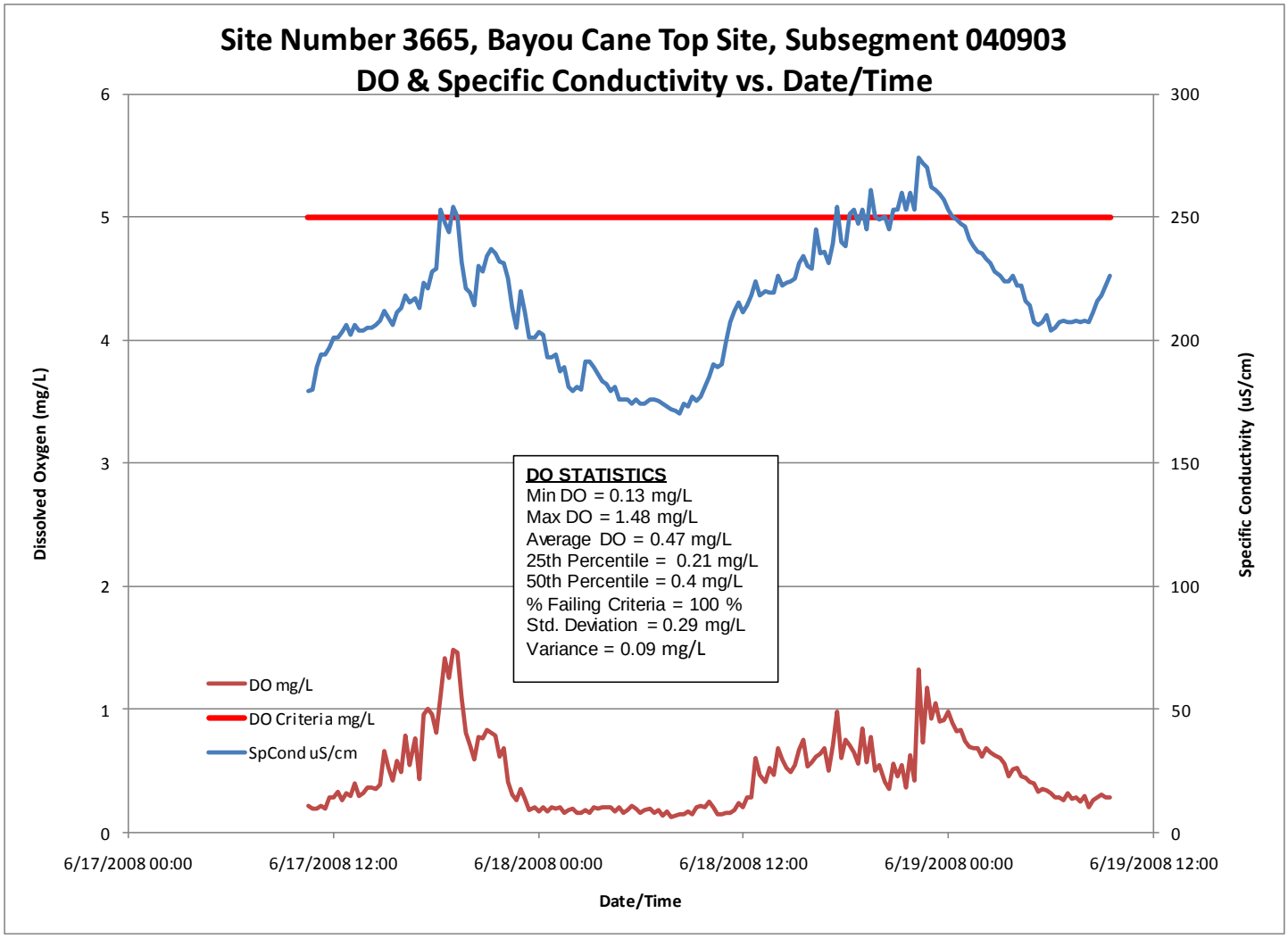
Appendix F4 – Continuous Monitor

Bayou Cane - Continuous Monitor Data Summary								
Site		**Temp (C)**	**pH (units)**	**SpCond (umhos/cm)**	**DO % Sat**	**DO (mg/L)**	**Salinity (ppt)**	**DO Min + 1**
3665	**Average**	28.13	6.69	215.380	6.03	0.47	0.10	
	Minimum	27.01	6.54	170.000	1.60	0.13	0.08	1.13
	Maximum	29.34	6.87	274.000	19.30	1.48	0.13	
3752-BC04	**Average**	28.57	7.12	463.470	11.06	0.86	0.23	
	Minimum	27.96	7.00	391.000	0.80	0.06	0.19	1.06
	Maximum	29.76	7.31	567.000	38.90	2.95	0.29	
3753-BC05	**Average**	29.98	6.88	2143.820	23.84	1.79	1.15	
	Minimum	28.89	6.81	1568.000	2.60	0.20	0.83	1.20
	Maximum	31.27	6.98	2750.000	54.00	3.98	1.48	
3754-BC06*	**Average**	30.51	6.97	2695.790	36.185	2.655	1.454	
	Minimum	29.01	6.79	2197.500	1.550	0.120	1.175	1.12
	Maximum	32.20	7.65	3206.500	97.250	7.030	1.735	
3755-BC07	**Average**	31.04	7.06	3247.760	48.53	3.52	1.76	
	Minimum	29.13	6.76	2827.000	0.50	0.04	1.52	1.04
	Maximum	33.13	8.31	3663.000	140.50	10.08	1.99	
3666	**Average**	31.59	7.67	3638.030	84.86	6.12	1.98	
	Minimum	29.33	6.79	3374.000	2.20	0.16	1.83	1.16
	Maximum	33.80	8.90	3831.000	180.30	12.73	2.08	
3756-BC09	**Average**	31.18	7.90	3724.940	90.77	6.61	2.03	
	Minimum	28.59	6.84	3459.000	11.20	0.84	1.88	1.84
	Maximum	33.55	8.85	3862.000	157.90	11.13	2.10	

*Average of BC05 and BC07


Site Number 3665, Bayou Cane Top Site, Subsegment 040903
DO & Temperature vs. Date/Time
DO STATISTICS
Min DO = 0.13 mg/L
Max DO = 1.48 mg/L
Average DO = 0.47 mg/L
25th Percentile = 0.21 mg/L
50th Percentile = 0.4 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.29 mg/L
Variance = 0.09 mg/L
DO mg/L
DO Criteria mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
0
1
2
3
4
5
6
26.5
27
27.5
28
28.5
29
29.5


Site Number 3665, Bayou Cane Top Site, Subsegment 040903
DO & pH vs. Date/Time
DO STATISTICS
Min DO = 0.13 mg/L
Max DO = 1.48 mg/L
Average DO = 0.47 mg/L
25th Percentile = 0.21 mg/L
50th Percentile = 0.4 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.29 mg/L
Variance = 0.09 mg/L
DO mg/L
DO Criteria mg/L
pH Units
Dissolved Oxygen (mg/L)
pH
Date/Time
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
0
1
2
3
4
5
6
6.5
6.55
6.6
6.65
6.7
6.75
6.8
6.85
6.9


Site Number 3665, Bayou Cane Top Site, Subsegment 040903
DO & Specific Conductivity vs. Date/Time
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
DO STATISTICS
Min DO = 0.13 mg/L
Max DO = 1.48 mg/L
Average DO = 0.47 mg/L
25th Percentile = 0.21 mg/L
50th Percentile = 0.4 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.29 mg/L
Variance = 0.09 mg/L
DO mg/L
DO Criteria mg/L
SpCond uS/cm

Site Number:	3665	Site Name:	Bayou Cane Top Site		
Subsegment #:	040903				
	Temp deg C	pH	SpCond uS/cm	DO % sat	DO mg/L
Minimum	27.01	6.54	170.00	1.60	0.13
Maximum	29.34	6.87	274.00	19.30	1.48
Average	28.13	6.69	215.38	6.03	0.47
Geometric Mean	28.12	6.69	#NUM!	4.96	0.39
25th Percentile	27.64	6.63	197.00	2.70	0.21
30th Percentile	27.79	6.65	203.40	3.10	0.25
40th Percentile	27.95	6.67	207.00	3.80	0.30
50th Percentile	28.13	6.69	214.00	5.10	0.40
Standard Deviation	0.59	0.07	25.86	3.85	0.29
Variance	0.35	0.01	668.51	14.82	0.09
Data Row Count		189			
Total Values Failing DO Criteria		189			
Percent failing DO Criteria		100.00	%		

Bayou Cane, Site 3665, Continuous Monitoring Data

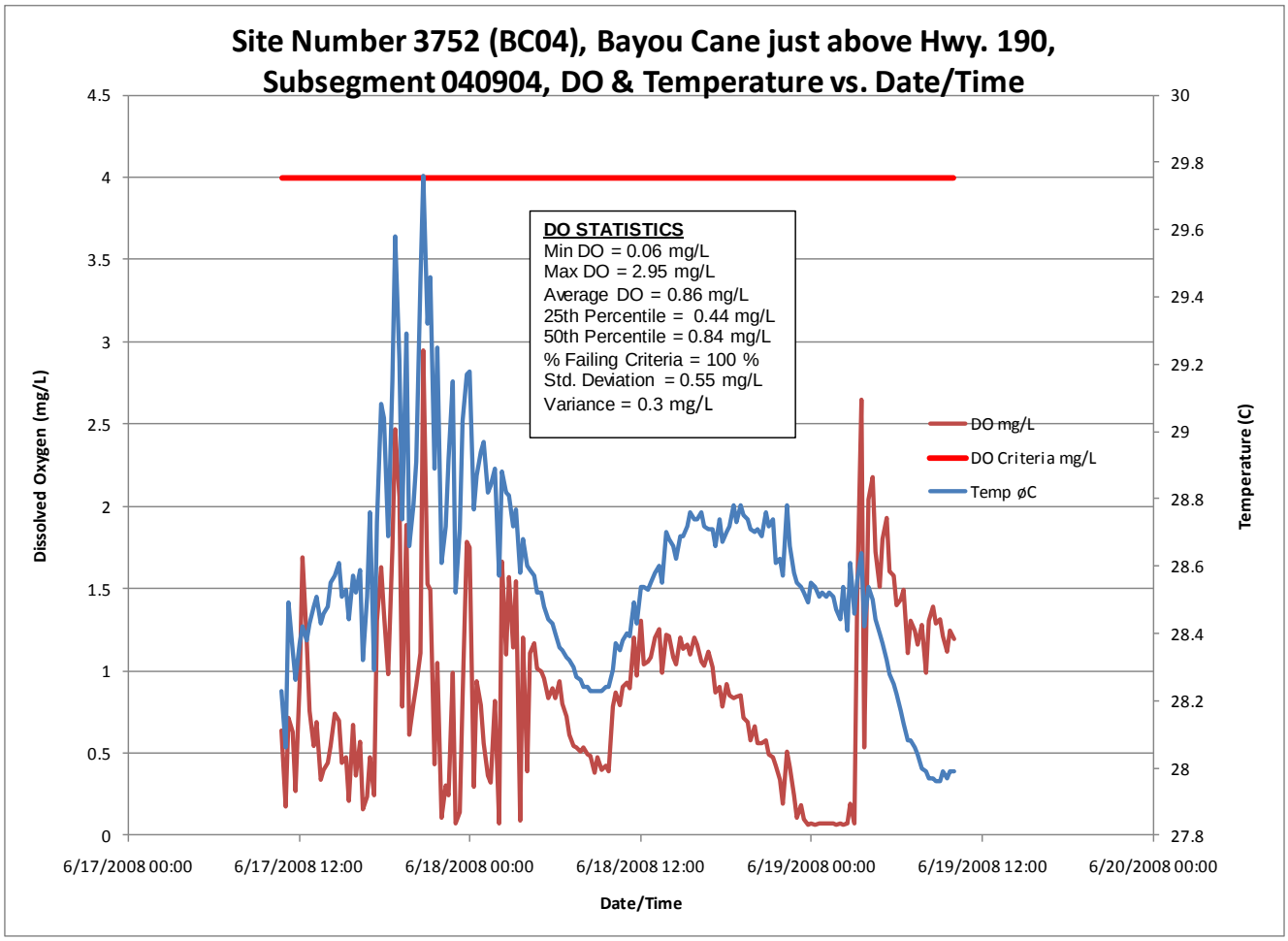
Date_ MMDDYY	Time HHMM	Temp øC	pH Units	SpCond uS/cm	DO PERCENT Sat	DO mg/L	SALINITY ppt	Is DO < Criteria 5	DO Criteria mg/L
6/17/2008	10:30	27.75	6.59	179	2.8	0.22	0.08	1	5
6/17/2008	10:45	27.8	6.59	180	2.4	0.19	0.08	1	5
6/17/2008	11:00	27.77	6.61	189	2.5	0.19	0.09	1	5
6/17/2008	11:15	27.84	6.63	194	2.8	0.22	0.09	1	5
6/17/2008	11:30	27.79	6.62	194	2.4	0.19	0.09	1	5
6/17/2008	11:45	27.9	6.64	197	3.6	0.29	0.09	1	5
6/17/2008	12:00	27.86	6.65	201	3.6	0.29	0.09	1	5
6/17/2008	12:15	27.95	6.65	201	4.2	0.33	0.09	1	5
6/17/2008	12:30	27.93	6.65	203	3.4	0.26	0.09	1	5
6/17/2008	12:45	27.93	6.66	206	4.1	0.32	0.09	1	5
6/17/2008	13:00	27.95	6.66	202	3.8	0.3	0.09	1	5
6/17/2008	13:15	28.07	6.67	206	5.1	0.4	0.1	1	5
6/17/2008	13:30	28.02	6.66	204	3.9	0.3	0.09	1	5
6/17/2008	13:45	28.04	6.65	204	4.1	0.32	0.09	1	5
6/17/2008	14:00	28.14	6.66	205	4.6	0.36	0.09	1	5
6/17/2008	14:15	28.14	6.66	205	4.8	0.37	0.09	1	5
6/17/2008	14:30	28.12	6.66	206	4.4	0.35	0.09	1	5
6/17/2008	14:45	28.19	6.67	208	5.1	0.39	0.1	1	5
6/17/2008	15:00	28.4	6.69	212	8.5	0.66	0.1	1	5
6/17/2008	15:15	28.31	6.67	209	6.7	0.52	0.1	1	5
6/17/2008	15:30	28.21	6.66	206	5.4	0.42	0.1	1	5
6/17/2008	15:45	28.4	6.69	211	7.5	0.58	0.1	1	5
6/17/2008	16:00	28.37	6.68	213	6.3	0.49	0.1	1	5
6/17/2008	16:15	28.86	6.71	218	10.2	0.79	0.1	1	5
6/17/2008	16:30	28.68	6.7	215	7.1	0.55	0.1	1	5
6/17/2008	16:45	28.79	6.71	217	9.8	0.76	0.1	1	5
6/17/2008	17:00	28.55	6.68	213	5.6	0.43	0.1	1	5
6/17/2008	17:15	28.98	6.74	223	12.4	0.96	0.1	1	5
6/17/2008	17:30	29.27	6.72	221	13	1	0.1	1	5
6/17/2008	17:45	29.11	6.75	228	12.5	0.96	0.11	1	5
6/17/2008	18:00	28.69	6.72	229	10.5	0.81	0.11	1	5
6/17/2008	18:15	28.98	6.81	253	14.4	1.11	0.12	1	5
6/17/2008	18:30	29.29	6.82	248	18.5	1.41	0.12	1	5
6/17/2008	18:45	29.16	6.78	244	16.5	1.26	0.12	1	5
6/17/2008	19:00	29.17	6.83	254	19.3	1.48	0.12	1	5
6/17/2008	19:15	29.34	6.82	250	19.2	1.46	0.12	1	5
6/17/2008	19:30	29.33	6.77	232	14.3	1.09	0.11	1	5
6/17/2008	19:45	29.28	6.73	221	10.6	0.81	0.1	1	5
6/17/2008	20:00	29.24	6.72	219	9.3	0.71	0.1	1	5
6/17/2008	20:15	29.19	6.7	214	7.7	0.59	0.1	1	5
6/17/2008	20:30	29.16	6.73	230	10.2	0.78	0.11	1	5
6/17/2008	20:45	29.12	6.74	228	9.9	0.76	0.11	1	5
6/17/2008	21:00	29.07	6.75	234	10.8	0.83	0.11	1	5
6/17/2008	21:15	29.04	6.77	237	10.6	0.81	0.11	1	5

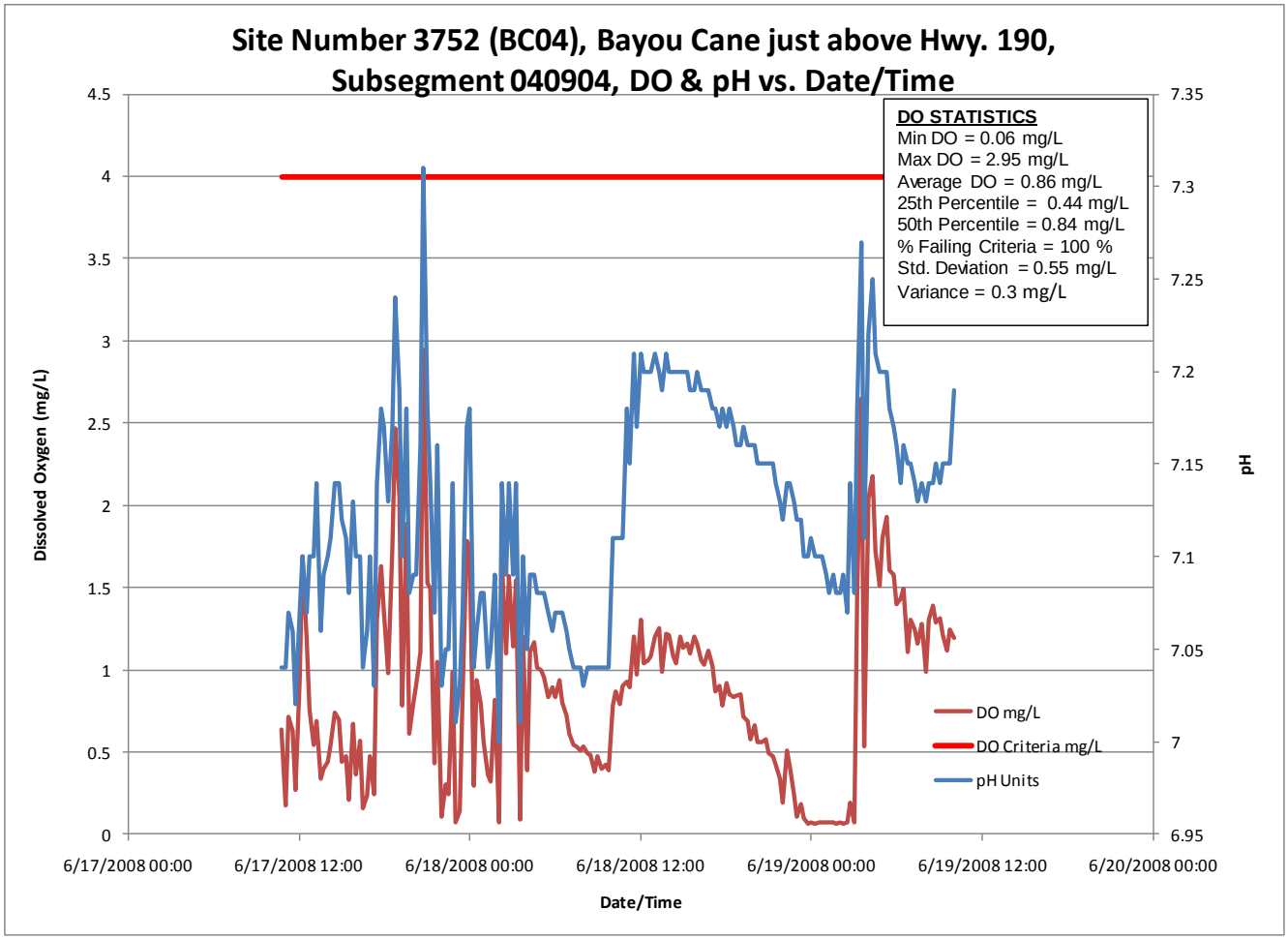
6/17/2008	21:30	29.01	6.76	235	10.2	0.79	0.11	1	5
6/17/2008	21:45	28.98	6.75	232	8	0.62	0.11	1	5
6/17/2008	22:00	28.94	6.75	231	8.8	0.68	0.11	1	5
6/17/2008	22:15	28.9	6.73	225	5.3	0.41	0.1	1	5
6/17/2008	22:30	28.88	6.7	213	4.1	0.31	0.1	1	5
6/17/2008	22:45	28.83	6.66	205	3.4	0.26	0.09	1	5
6/17/2008	23:00	28.79	6.71	220	4.6	0.35	0.1	1	5
6/17/2008	23:15	28.76	6.67	211	3.5	0.27	0.1	1	5
6/17/2008	23:30	28.73	6.66	201	2.3	0.18	0.09	1	5
6/17/2008	23:45	28.7	6.64	201	2.7	0.21	0.09	1	5
6/18/2008	0:00	28.64	6.65	203	2.2	0.17	0.09	1	5
6/18/2008	0:15	28.6	6.66	202	2.8	0.21	0.09	1	5
6/18/2008	0:30	28.55	6.63	193	2.2	0.17	0.09	1	5
6/18/2008	0:45	28.5	6.63	193	2.7	0.21	0.09	1	5
6/18/2008	1:00	28.44	6.63	194	2.5	0.19	0.09	1	5
6/18/2008	1:15	28.42	6.6	187	2.8	0.21	0.08	1	5
6/18/2008	1:30	28.37	6.61	189	2	0.16	0.09	1	5
6/18/2008	1:45	28.33	6.59	181	2.3	0.18	0.08	1	5
6/18/2008	2:00	28.31	6.58	179	2.4	0.19	0.08	1	5
6/18/2008	2:15	28.27	6.59	181	2.1	0.16	0.08	1	5
6/18/2008	2:30	28.25	6.58	180	2	0.16	0.08	1	5
6/18/2008	2:45	28.22	6.61	191	2.3	0.18	0.09	1	5
6/18/2008	3:00	28.18	6.62	191	2	0.16	0.09	1	5
6/18/2008	3:15	28.12	6.62	189	2.5	0.2	0.09	1	5
6/18/2008	3:30	28.06	6.6	186	2.4	0.19	0.08	1	5
6/18/2008	3:45	28	6.6	183	2.6	0.2	0.08	1	5
6/18/2008	4:00	27.94	6.59	182	2.7	0.21	0.08	1	5
6/18/2008	4:15	27.89	6.58	179	2.5	0.2	0.08	1	5
6/18/2008	4:30	27.86	6.6	181	2.1	0.17	0.08	1	5
6/18/2008	4:45	27.82	6.57	176	2.6	0.2	0.08	1	5
6/18/2008	5:00	27.78	6.57	176	2.1	0.16	0.08	1	5
6/18/2008	5:15	27.71	6.57	176	2.3	0.18	0.08	1	5
6/18/2008	5:30	27.66	6.56	174	2.8	0.22	0.08	1	5
6/18/2008	5:45	27.64	6.57	176	2.4	0.19	0.08	1	5
6/18/2008	6:00	27.6	6.56	174	2.1	0.16	0.08	1	5
6/18/2008	6:15	27.55	6.56	174	2.3	0.18	0.08	1	5
6/18/2008	6:30	27.52	6.57	176	2.4	0.19	0.08	1	5
6/18/2008	6:45	27.49	6.57	176	2	0.16	0.08	1	5
6/18/2008	7:00	27.44	6.57	175	2.3	0.18	0.08	1	5
6/18/2008	7:15	27.41	6.57	174	1.8	0.14	0.08	1	5
6/18/2008	7:30	27.38	6.56	173	2.2	0.17	0.08	1	5
6/18/2008	7:45	27.36	6.56	172	1.6	0.13	0.08	1	5
6/18/2008	8:00	27.34	6.54	171	1.8	0.14	0.08	1	5
6/18/2008	8:15	27.35	6.55	170	1.8	0.15	0.08	1	5
6/18/2008	8:30	27.37	6.56	174	1.9	0.15	0.08	1	5
6/18/2008	8:45	27.38	6.56	173	2.2	0.17	0.08	1	5
6/18/2008	9:00	27.39	6.58	177	1.9	0.15	0.08	1	5
6/18/2008	9:15	27.39	6.55	175	2.5	0.2	0.08	1	5
6/18/2008	9:30	27.43	6.58	177	2.7	0.22	0.08	1	5
6/18/2008	9:45	27.5	6.6	181	2.6	0.21	0.08	1	5

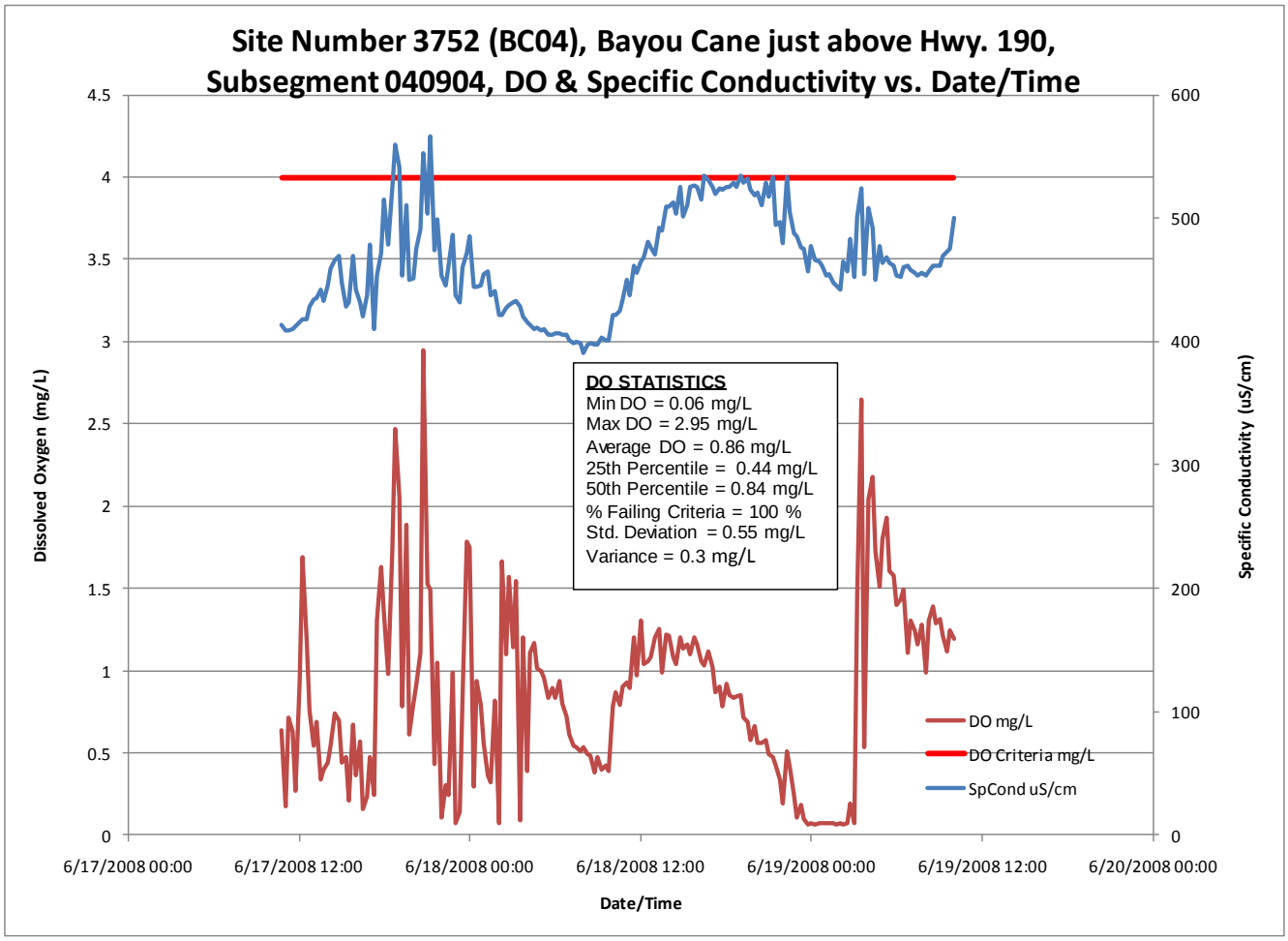
6/18/2008	10:00	27.6	6.61	185	3.1	0.25	0.08	1	5
6/18/2008	10:15	27.55	6.62	190	2.6	0.21	0.09	1	5
6/18/2008	10:30	27.56	6.62	189	2	0.15	0.09	1	5
6/18/2008	10:45	27.58	6.63	190	1.9	0.15	0.09	1	5
6/18/2008	11:00	27.57	6.63	199	2.1	0.16	0.09	1	5
6/18/2008	11:15	27.57	6.65	207	2.1	0.16	0.1	1	5
6/18/2008	11:30	27.57	6.67	212	2.3	0.18	0.1	1	5
6/18/2008	11:45	27.61	6.67	215	3	0.24	0.1	1	5
6/18/2008	12:00	27.64	6.67	211	2.7	0.21	0.1	1	5
6/18/2008	12:15	27.73	6.67	214	3.5	0.28	0.1	1	5
6/18/2008	12:30	27.79	6.67	218	3.7	0.29	0.1	1	5
6/18/2008	12:45	27.92	6.7	224	7.7	0.6	0.1	1	5
6/18/2008	13:00	27.91	6.69	218	6	0.47	0.1	1	5
6/18/2008	13:15	27.9	6.69	220	5.2	0.41	0.1	1	5
6/18/2008	13:30	27.94	6.69	219	6.8	0.53	0.1	1	5
6/18/2008	13:45	27.99	6.69	219	6	0.47	0.1	1	5
6/18/2008	14:00	28.04	6.71	226	8.7	0.68	0.11	1	5
6/18/2008	14:15	28.08	6.7	222	7.5	0.59	0.1	1	5
6/18/2008	14:30	28.06	6.7	223	6.7	0.53	0.1	1	5
6/18/2008	14:45	28.06	6.7	224	6.3	0.49	0.1	1	5
6/18/2008	15:00	28.07	6.7	225	7.1	0.55	0.11	1	5
6/18/2008	15:15	28.09	6.72	231	8.6	0.67	0.11	1	5
6/18/2008	15:30	28.16	6.72	234	9.6	0.75	0.11	1	5
6/18/2008	15:45	28.14	6.71	230	7	0.54	0.11	1	5
6/18/2008	16:00	28.13	6.71	229	7.3	0.57	0.11	1	5
6/18/2008	16:15	28.21	6.72	245	8	0.62	0.12	1	5
6/18/2008	16:30	28.24	6.72	235	8.2	0.64	0.11	1	5
6/18/2008	16:45	28.24	6.73	236	8.8	0.68	0.11	1	5
6/18/2008	17:00	28.19	6.71	231	6.4	0.5	0.11	1	5
6/18/2008	17:15	28.3	6.73	239	9.2	0.71	0.11	1	5
6/18/2008	17:30	28.45	6.76	254	12.7	0.98	0.12	1	5
6/18/2008	17:45	28.45	6.74	240	7.9	0.61	0.11	1	5
6/18/2008	18:00	28.34	6.75	238	9.6	0.75	0.11	1	5
6/18/2008	18:15	28.49	6.76	251	9.1	0.71	0.12	1	5
6/18/2008	18:30	28.54	6.76	253	8.4	0.65	0.12	1	5
6/18/2008	18:45	28.44	6.74	247	7.2	0.56	0.12	1	5
6/18/2008	19:00	28.53	6.78	253	10.9	0.84	0.12	1	5
6/18/2008	19:15	28.41	6.76	245	7.3	0.57	0.12	1	5
6/18/2008	19:30	28.61	6.79	261	10.1	0.78	0.12	1	5
6/18/2008	19:45	28.43	6.76	250	6.5	0.5	0.12	1	5
6/18/2008	20:00	28.48	6.77	249	7.1	0.55	0.12	1	5
6/18/2008	20:15	28.45	6.76	250	5.3	0.41	0.12	1	5
6/18/2008	20:30	28.4	6.75	245	4.6	0.35	0.12	1	5
6/18/2008	20:45	28.52	6.78	253	7.2	0.56	0.12	1	5
6/18/2008	21:00	28.57	6.77	253	5.9	0.46	0.12	1	5
6/18/2008	21:15	28.62	6.78	260	7.1	0.55	0.12	1	5
6/18/2008	21:30	28.48	6.75	253	4.6	0.36	0.12	1	5
6/18/2008	21:45	28.71	6.79	260	8.2	0.63	0.12	1	5
6/18/2008	22:00	28.63	6.75	253	5.4	0.42	0.12	1	5
6/18/2008	22:15	28.85	6.87	274	17.1	1.32	0.13	1	5

6/18/2008	22:30	28.82	6.84	272	9.4	0.73	0.13	1	5
6/18/2008	22:45	28.8	6.86	270	15.1	1.17	0.13	1	5
6/18/2008	23:00	28.78	6.83	262	12	0.92	0.12	1	5
6/18/2008	23:15	28.73	6.82	261	13.6	1.05	0.12	1	5
6/18/2008	23:30	28.68	6.82	259	11.7	0.9	0.12	1	5
6/18/2008	23:45	28.65	6.81	257	11.7	0.91	0.12	1	5
6/19/2008	0:00	28.6	6.8	253	12.6	0.98	0.12	1	5
6/19/2008	0:15	28.53	6.79	250	11.5	0.89	0.12	1	5
6/19/2008	0:30	28.49	6.79	249	10.6	0.82	0.12	1	5
6/19/2008	0:45	28.45	6.78	247	10.6	0.83	0.12	1	5
6/19/2008	1:00	28.39	6.78	246	9.5	0.74	0.12	1	5
6/19/2008	1:15	28.36	6.77	241	9	0.7	0.11	1	5
6/19/2008	1:30	28.28	6.76	238	8.9	0.69	0.11	1	5
6/19/2008	1:45	28.23	6.75	236	8.8	0.68	0.11	1	5
6/19/2008	2:00	28.17	6.75	235	7.9	0.62	0.11	1	5
6/19/2008	2:15	28.11	6.74	233	8.7	0.68	0.11	1	5
6/19/2008	2:30	28.07	6.74	231	8.3	0.65	0.11	1	5
6/19/2008	2:45	27.98	6.73	228	8.1	0.63	0.11	1	5
6/19/2008	3:00	27.94	6.73	226	7.8	0.61	0.11	1	5
6/19/2008	3:15	27.86	6.72	224	7.1	0.56	0.1	1	5
6/19/2008	3:30	27.82	6.72	224	5.8	0.46	0.1	1	5
6/19/2008	3:45	27.81	6.73	226	6.5	0.51	0.11	1	5
6/19/2008	4:00	27.71	6.72	222	6.8	0.53	0.1	1	5
6/19/2008	4:15	27.64	6.71	222	5.8	0.46	0.1	1	5
6/19/2008	4:30	27.58	6.69	216	5.6	0.44	0.1	1	5
6/19/2008	4:45	27.52	6.69	214	5.3	0.41	0.1	1	5
6/19/2008	5:00	27.47	6.67	207	5.1	0.4	0.1	1	5
6/19/2008	5:15	27.46	6.67	206	4.1	0.33	0.1	1	5
6/19/2008	5:30	27.39	6.67	207	4.5	0.35	0.1	1	5
6/19/2008	5:45	27.35	6.68	210	4.3	0.34	0.1	1	5
6/19/2008	6:00	27.28	6.65	204	4	0.32	0.09	1	5
6/19/2008	6:15	27.23	6.66	205	3.6	0.29	0.09	1	5
6/19/2008	6:30	27.22	6.67	207	3.5	0.28	0.1	1	5
6/19/2008	6:45	27.18	6.67	208	3.3	0.26	0.1	1	5
6/19/2008	7:00	27.1	6.67	207	4.1	0.32	0.1	1	5
6/19/2008	7:15	27.07	6.67	207	3.4	0.27	0.1	1	5
6/19/2008	7:30	27.09	6.68	208	3.7	0.29	0.1	1	5
6/19/2008	7:45	27.03	6.67	207	3.1	0.25	0.1	1	5
6/19/2008	8:00	27.01	6.67	208	3.8	0.3	0.1	1	5
6/19/2008	8:15	27.01	6.67	207	2.6	0.21	0.1	1	5
6/19/2008	8:30	27.02	6.68	211	3.3	0.26	0.1	1	5
6/19/2008	8:45	27.02	6.69	216	3.6	0.29	0.1	1	5
6/19/2008	9:00	27.03	6.7	218	3.8	0.31	0.1	1	5
6/19/2008	9:15	27.03	6.7	222	3.5	0.28	0.1	1	5
6/19/2008	9:30	27.05	6.72	226	3.5	0.28	0.11	1	5

avg=	0.100265
min=	0.08
max=	0.13


Site Number 3752 (BC04), Bayou Cane just above Hwy. 190, Subsegment 040904, DO & Temperature vs. Date/Time
DO STATISTICS
Min DO = 0.06 mg/L
Max DO = 2.95 mg/L
Average DO = 0.86 mg/L
25th Percentile = 0.44 mg/L
50th Percentile = 0.84 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.55 mg/L
Variance = 0.3 mg/L
DO mg/L
DO Criteria mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
30
29.8
29.6
29.4
29.2
29
28.8
28.6
28.4
28.2
28
27.8
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3752 (BC04), Bayou Cane just above Hwy. 190, Subsegment 040904, DO & pH vs. Date/Time
DO STATISTICS
Min DO = 0.06 mg/L
Max DO = 2.95 mg/L
Average DO = 0.86 mg/L
25th Percentile = 0.44 mg/L
50th Percentile = 0.84 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.55 mg/L
Variance = 0.3 mg/L
Dissolved Oxygen (mg/L)
pH
Date/Time
DO mg/L
DO Criteria mg/L
pH Units
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
7.35
7.3
7.25
7.2
7.15
7.1
7.05
7
6.95
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3752 (BC04), Bayou Cane just above Hwy. 190,
Subsegment 040904, DO & Specific Conductivity vs. Date/Time
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
600
500
400
300
200
100
0
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00
DO STATISTICS
Min DO = 0.06 mg/L
Max DO = 2.95 mg/L
Average DO = 0.86 mg/L
25th Percentile = 0.44 mg/L
50th Percentile = 0.84 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.55 mg/L
Variance = 0.3 mg/L
DO mg/L
DO Criteria mg/L
SpCond uS/cm

Site Number:	3752 (BC04)	Site Name:	Bayou Cane just above Hwy. 190		
Subsegment #:	040904				
	Temp deg C	pH	SpCond uS/cm	DO %	DO mg/L
Minimum	27.96	7.00	391.00	0.80	0.06
Maximum	29.76	7.31	567.00	38.90	2.95
Average	28.57	7.12	463.47	11.06	0.86
Geometric Mean	28.56	7.12	#NUM!	8.13	0.63
25th Percentile	28.38	7.08	432.00	5.63	0.44
30th Percentile	28.43	7.09	437.70	6.60	0.51
40th Percentile	28.51	7.10	452.60	8.78	0.68
50th Percentile	28.55	7.13	459.50	10.80	0.84
Standard Deviation	0.31	0.06	41.41	7.11	0.55
Variance	0.10	0.00	1714.80	50.50	0.30
Data Row Count		190			
Total Values Failing DO Criteria		190			
Percent failing DO Criteria		100.00	%		

Bayou Cane, Site 3752, Continuous Monitoring Data

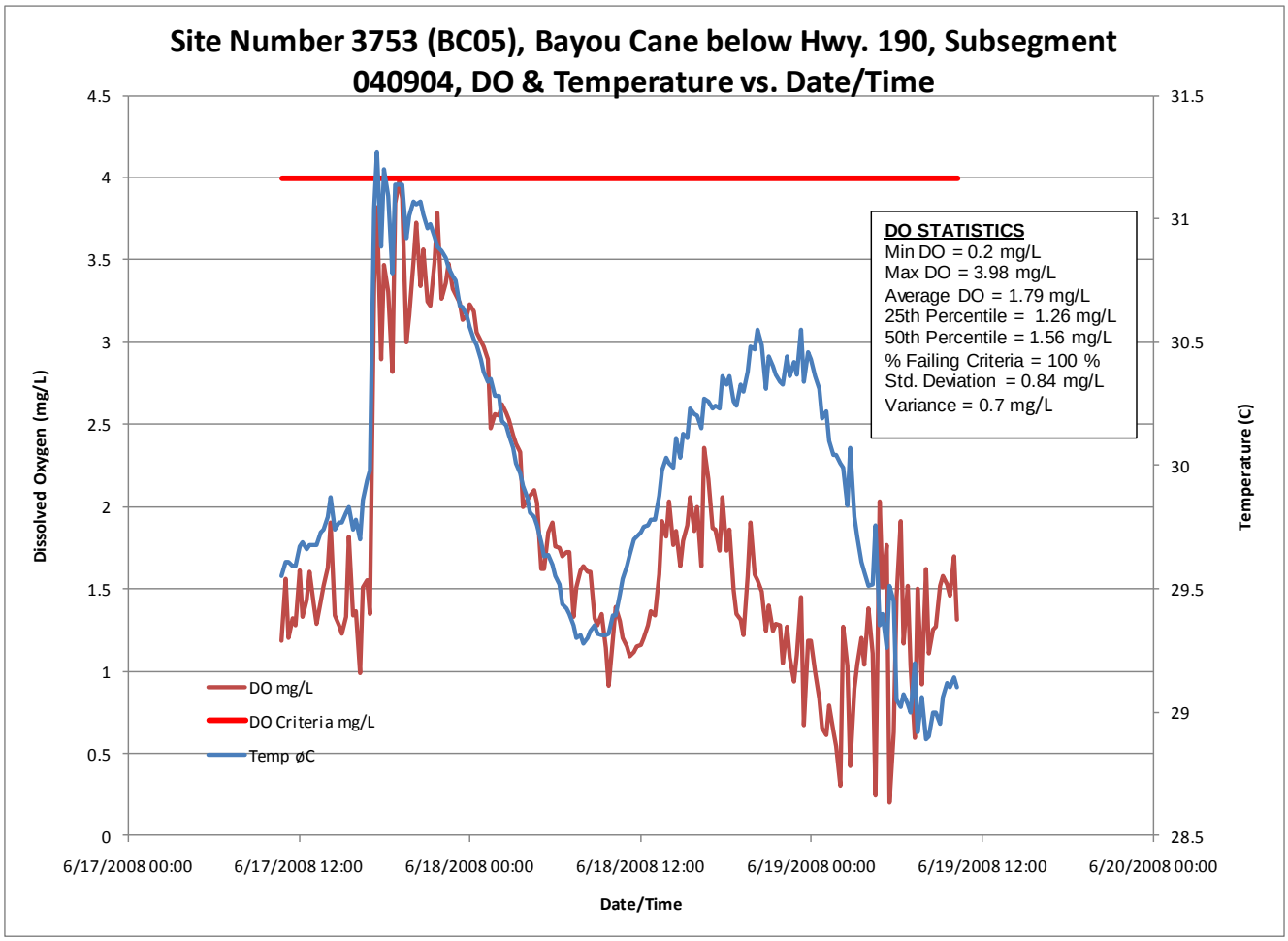
Date_ MMDDYY	Time HHMM	Temp øC	pH Units	SpCond uS/cm	DO PERCENT Sat	DO mg/L	SALINITY ppt	Is DO < Criteria 4	DO Criteria mg/L
6/17/2008	10:45	28.23	7.04	414	8.2	0.64	0.21	1	4
6/17/2008	11:00	28.06	7.04	409	2.2	0.17	0.2	1	4
6/17/2008	11:15	28.49	7.07	409	9.2	0.71	0.2	1	4
6/17/2008	11:30	28.35	7.06	410	8.1	0.63	0.2	1	4
6/17/2008	11:45	28.26	7.02	412	3.5	0.27	0.21	1	4
6/17/2008	12:00	28.37	7.07	416	12.1	0.94	0.21	1	4
6/17/2008	12:15	28.42	7.1	418	21.8	1.69	0.21	1	4
6/17/2008	12:30	28.38	7.07	418	15.3	1.18	0.21	1	4
6/17/2008	12:45	28.43	7.1	428	9.8	0.76	0.21	1	4
6/17/2008	13:00	28.48	7.1	434	7	0.54	0.22	1	4
6/17/2008	13:15	28.51	7.14	435	8.9	0.69	0.22	1	4
6/17/2008	13:30	28.43	7.06	442	4.4	0.34	0.22	1	4
6/17/2008	13:45	28.46	7.09	433	5.2	0.4	0.22	1	4
6/17/2008	14:00	28.48	7.1	445	5.6	0.44	0.22	1	4
6/17/2008	14:15	28.55	7.11	459	7	0.54	0.23	1	4
6/17/2008	14:30	28.57	7.14	466	9.6	0.74	0.23	1	4
6/17/2008	14:45	28.61	7.14	469	9.1	0.7	0.24	1	4
6/17/2008	15:00	28.51	7.12	448	5.7	0.44	0.23	1	4
6/17/2008	15:15	28.53	7.11	428	6	0.47	0.21	1	4
6/17/2008	15:30	28.44	7.08	432	2.7	0.21	0.22	1	4
6/17/2008	15:45	28.57	7.13	470	8.6	0.67	0.24	1	4
6/17/2008	16:00	28.52	7.1	442	4.6	0.36	0.22	1	4
6/17/2008	16:15	28.59	7.1	432	7.3	0.57	0.22	1	4
6/17/2008	16:30	28.32	7.04	420	2	0.16	0.21	1	4
6/17/2008	16:45	28.51	7.06	438	3	0.23	0.22	1	4
6/17/2008	17:00	28.76	7.1	479	6	0.47	0.24	1	4
6/17/2008	17:15	28.29	7.03	410	3.1	0.24	0.2	1	4
6/17/2008	17:30	28.73	7.14	453	16.8	1.3	0.23	1	4
6/17/2008	17:45	29.08	7.18	472	21.3	1.63	0.24	1	4
6/17/2008	18:00	29.04	7.17	515	17.6	1.35	0.26	1	4
6/17/2008	18:15	28.69	7.13	479	12.7	0.98	0.24	1	4
6/17/2008	18:30	29.15	7.17	525	22.8	1.74	0.27	1	4
6/17/2008	18:45	29.58	7.24	560	32.5	2.47	0.29	1	4
6/17/2008	19:00	29.21	7.19	541	26.9	2.06	0.28	1	4
6/17/2008	19:15	28.74	7.1	454	10.1	0.78	0.23	1	4
6/17/2008	19:30	29.29	7.18	510	24.8	1.89	0.26	1	4
6/17/2008	19:45	28.66	7.08	450	7.9	0.61	0.23	1	4
6/17/2008	20:00	28.78	7.09	451	10.4	0.8	0.23	1	4
6/17/2008	20:15	28.91	7.09	475	11.9	0.91	0.24	1	4
6/17/2008	20:30	29.45	7.16	491	14.6	1.11	0.25	1	4
6/17/2008	20:45	29.76	7.31	553	38.9	2.95	0.28	1	4
6/17/2008	21:00	29.32	7.18	504	20.1	1.53	0.26	1	4
6/17/2008	21:15	29.46	7.14	567	19.5	1.49	0.29	1	4
6/17/2008	21:30	28.89	7.07	474	5.5	0.43	0.24	1	4

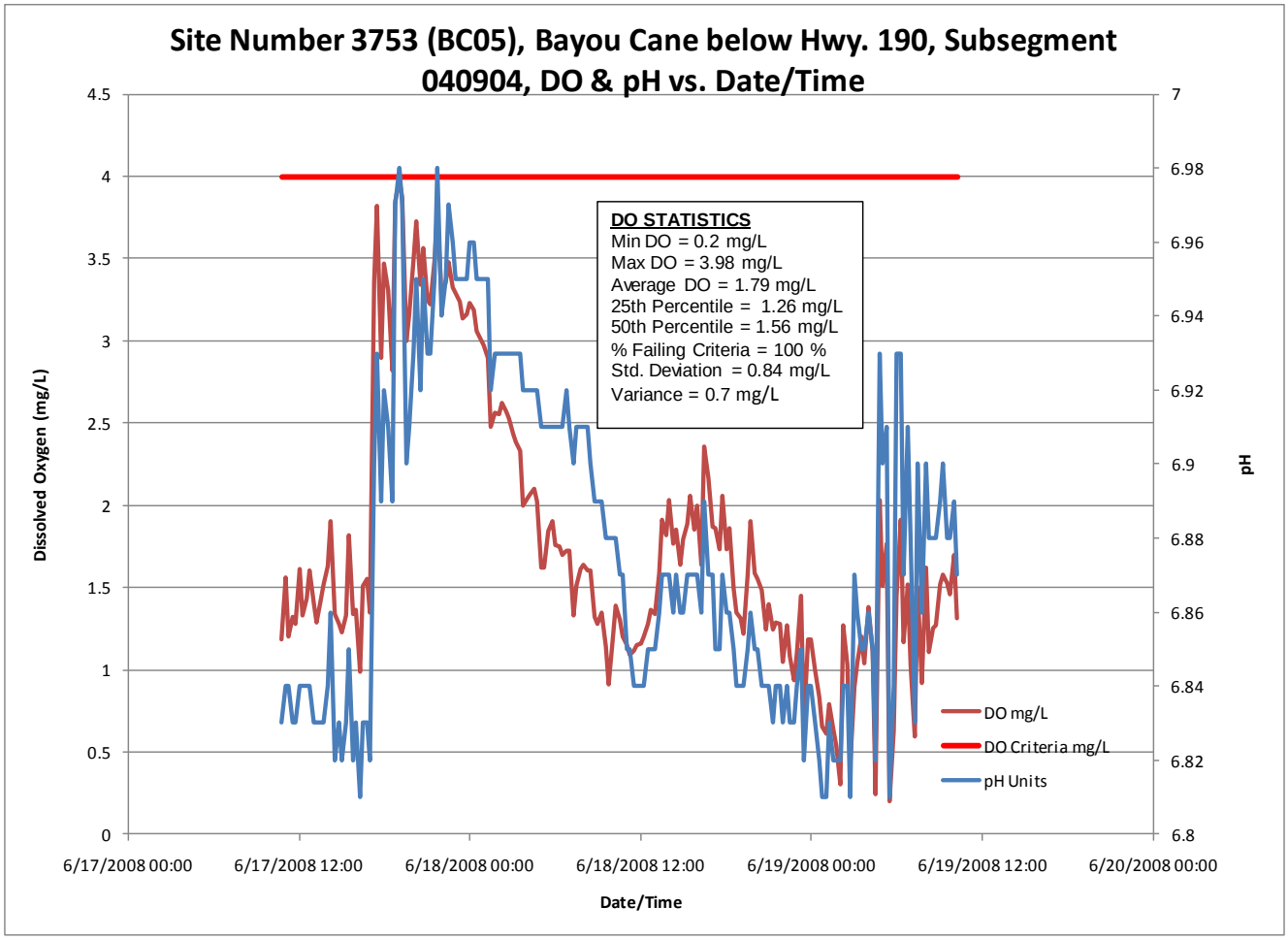
6/17/2008	21:45	29.25	7.16	499	13.7	1.05	0.25	1	4
6/17/2008	22:00	28.61	7.03	453	1.4	0.11	0.23	1	4
6/17/2008	22:15	28.72	7.05	445	3.8	0.3	0.22	1	4
6/17/2008	22:30	28.92	7.05	461	3.1	0.24	0.23	1	4
6/17/2008	22:45	29.15	7.14	487	12.9	0.99	0.25	1	4
6/17/2008	23:00	28.52	7.01	437	0.9	0.07	0.22	1	4
6/17/2008	23:15	28.71	7.03	432	1.8	0.14	0.22	1	4
6/17/2008	23:30	29.03	7.07	460	11	0.84	0.23	1	4
6/17/2008	23:45	29.17	7.17	472	23.2	1.78	0.24	1	4
6/18/2008	0:00	29.18	7.18	485	22.9	1.75	0.24	1	4
6/18/2008	0:15	28.77	7.04	444	3.8	0.29	0.22	1	4
6/18/2008	0:30	28.87	7.06	444	12.2	0.94	0.22	1	4
6/18/2008	0:45	28.94	7.08	445	10.2	0.79	0.22	1	4
6/18/2008	1:00	28.97	7.08	455	7.2	0.56	0.23	1	4
6/18/2008	1:15	28.82	7.04	457	4.6	0.36	0.23	1	4
6/18/2008	1:30	28.84	7.05	437	4.2	0.32	0.22	1	4
6/18/2008	1:45	28.89	7.09	441	10.7	0.82	0.22	1	4
6/18/2008	2:00	28.57	7	421	0.9	0.07	0.21	1	4
6/18/2008	2:15	28.88	7.14	422	21.5	1.66	0.21	1	4
6/18/2008	2:30	28.82	7.09	427	14.3	1.1	0.21	1	4
6/18/2008	2:45	28.81	7.14	429	20.3	1.57	0.21	1	4
6/18/2008	3:00	28.72	7.09	432	14.7	1.14	0.22	1	4
6/18/2008	3:15	28.77	7.14	433	20	1.54	0.22	1	4
6/18/2008	3:30	28.58	7.01	428	1.2	0.09	0.21	1	4
6/18/2008	3:45	28.68	7.1	420	15.6	1.2	0.21	1	4
6/18/2008	4:00	28.6	7.05	416	5	0.39	0.21	1	4
6/18/2008	4:15	28.59	7.09	414	14.3	1.11	0.21	1	4
6/18/2008	4:30	28.57	7.09	410	15.1	1.17	0.2	1	4
6/18/2008	4:45	28.52	7.08	411	13	1.01	0.2	1	4
6/18/2008	5:00	28.52	7.08	409	12.9	1	0.2	1	4
6/18/2008	5:15	28.48	7.08	410	12.3	0.95	0.2	1	4
6/18/2008	5:30	28.44	7.07	405	10.6	0.83	0.2	1	4
6/18/2008	5:45	28.43	7.06	405	11.5	0.89	0.2	1	4
6/18/2008	6:00	28.4	7.07	407	10.6	0.83	0.2	1	4
6/18/2008	6:15	28.36	7.07	407	12	0.94	0.2	1	4
6/18/2008	6:30	28.35	7.07	406	10.2	0.8	0.2	1	4
6/18/2008	6:45	28.33	7.06	406	9.3	0.72	0.2	1	4
6/18/2008	7:00	28.32	7.05	401	7.9	0.61	0.2	1	4
6/18/2008	7:15	28.3	7.04	399	7	0.54	0.2	1	4
6/18/2008	7:30	28.27	7.04	400	6.9	0.53	0.2	1	4
6/18/2008	7:45	28.26	7.04	399	6.6	0.51	0.2	1	4
6/18/2008	8:00	28.24	7.03	391	6.8	0.53	0.19	1	4
6/18/2008	8:15	28.24	7.04	398	6.3	0.49	0.2	1	4
6/18/2008	8:30	28.23	7.04	399	6.2	0.48	0.2	1	4
6/18/2008	8:45	28.23	7.04	398	4.9	0.38	0.2	1	4
6/18/2008	9:00	28.23	7.04	398	6	0.47	0.2	1	4
6/18/2008	9:15	28.23	7.04	403	5.1	0.4	0.2	1	4
6/18/2008	9:30	28.24	7.04	401	5.4	0.42	0.2	1	4
6/18/2008	9:45	28.24	7.04	401	5	0.39	0.2	1	4
6/18/2008	10:00	28.29	7.11	422	10	0.78	0.21	1	4

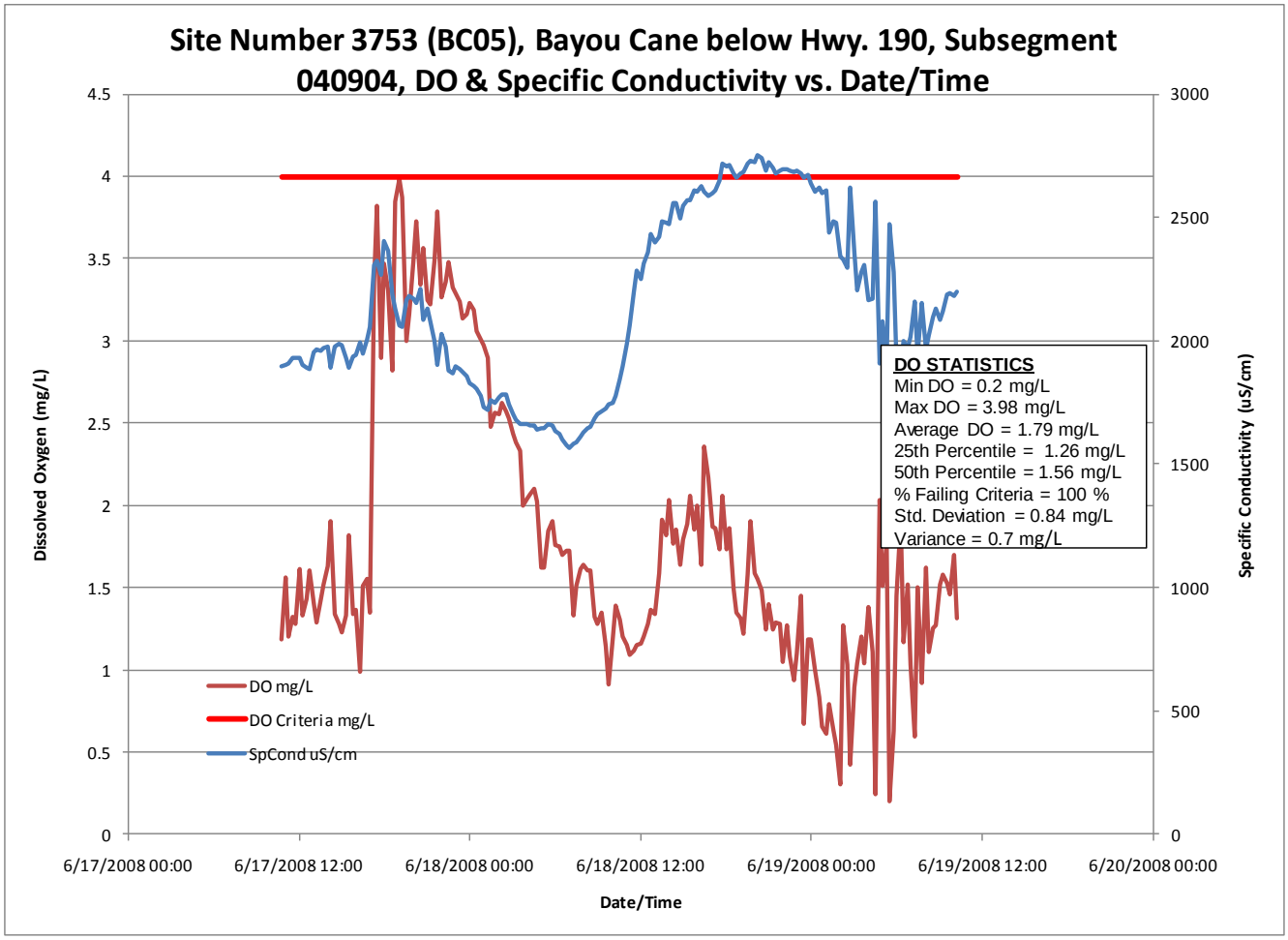
6/18/2008	10:15	28.37	7.11	421	11.3	0.87	0.21	1	4
6/18/2008	10:30	28.35	7.11	425	10.2	0.79	0.21	1	4
6/18/2008	10:45	28.38	7.11	434	11.6	0.9	0.22	1	4
6/18/2008	11:00	28.4	7.18	450	11.9	0.93	0.23	1	4
6/18/2008	11:15	28.39	7.15	437	11.4	0.89	0.22	1	4
6/18/2008	11:30	28.49	7.21	462	15.4	1.2	0.23	1	4
6/18/2008	11:45	28.43	7.17	456	12.5	0.97	0.23	1	4
6/18/2008	12:00	28.54	7.21	465	16.8	1.3	0.23	1	4
6/18/2008	12:15	28.54	7.2	468	13.4	1.04	0.24	1	4
6/18/2008	12:30	28.53	7.2	481	13.7	1.06	0.24	1	4
6/18/2008	12:45	28.55	7.2	476	14	1.08	0.24	1	4
6/18/2008	13:00	28.58	7.21	471	15.5	1.2	0.24	1	4
6/18/2008	13:15	28.6	7.2	492	16.1	1.25	0.25	1	4
6/18/2008	13:30	28.55	7.19	490	12.8	0.99	0.25	1	4
6/18/2008	13:45	28.7	7.21	509	15.8	1.22	0.26	1	4
6/18/2008	14:00	28.68	7.2	509	15.7	1.21	0.26	1	4
6/18/2008	14:15	28.66	7.2	513	14	1.08	0.26	1	4
6/18/2008	14:30	28.62	7.2	504	13.5	1.04	0.26	1	4
6/18/2008	14:45	28.69	7.2	525	15.5	1.2	0.27	1	4
6/18/2008	15:00	28.69	7.2	501	14.7	1.13	0.25	1	4
6/18/2008	15:15	28.72	7.2	511	15	1.16	0.26	1	4
6/18/2008	15:30	28.76	7.19	525	14.3	1.1	0.27	1	4
6/18/2008	15:45	28.74	7.19	527	15.5	1.2	0.27	1	4
6/18/2008	16:00	28.74	7.2	525	15	1.16	0.27	1	4
6/18/2008	16:15	28.76	7.19	515	13.7	1.06	0.26	1	4
6/18/2008	16:30	28.72	7.19	535	13.4	1.03	0.27	1	4
6/18/2008	16:45	28.71	7.19	531	14.6	1.12	0.27	1	4
6/18/2008	17:00	28.71	7.18	525	13.3	1.02	0.27	1	4
6/18/2008	17:15	28.66	7.18	520	11.3	0.87	0.26	1	4
6/18/2008	17:30	28.74	7.17	524	11.7	0.9	0.27	1	4
6/18/2008	17:45	28.67	7.18	523	10.1	0.78	0.27	1	4
6/18/2008	18:00	28.7	7.17	525	11.9	0.92	0.27	1	4
6/18/2008	18:15	28.72	7.18	525	11.1	0.85	0.27	1	4
6/18/2008	18:30	28.78	7.17	529	10.7	0.83	0.27	1	4
6/18/2008	18:45	28.73	7.16	525	10.9	0.84	0.27	1	4
6/18/2008	19:00	28.78	7.16	534	11	0.85	0.27	1	4
6/18/2008	19:15	28.75	7.17	529	9.2	0.71	0.27	1	4
6/18/2008	19:30	28.74	7.16	532	9	0.69	0.27	1	4
6/18/2008	19:45	28.71	7.16	523	7.5	0.58	0.27	1	4
6/18/2008	20:00	28.7	7.16	519	8.6	0.66	0.26	1	4
6/18/2008	20:15	28.71	7.15	521	7.2	0.56	0.26	1	4
6/18/2008	20:30	28.69	7.15	511	7.2	0.56	0.26	1	4
6/18/2008	20:45	28.76	7.15	529	7.5	0.58	0.27	1	4
6/18/2008	21:00	28.72	7.15	517	6.4	0.49	0.26	1	4
6/18/2008	21:15	28.74	7.15	533	6.1	0.47	0.27	1	4
6/18/2008	21:30	28.61	7.14	494	5.5	0.42	0.25	1	4
6/18/2008	21:45	28.62	7.13	497	4.4	0.34	0.25	1	4
6/18/2008	22:00	28.57	7.12	480	2.4	0.19	0.24	1	4
6/18/2008	22:15	28.78	7.14	533	6.6	0.51	0.27	1	4
6/18/2008	22:30	28.66	7.14	505	5.3	0.41	0.26	1	4

6/18/2008	22:45	28.58	7.13	488	3.1	0.24	0.25	1	4
6/18/2008	23:00	28.55	7.12	485	1.5	0.11	0.24	1	4
6/18/2008	23:15	28.54	7.12	476	2.4	0.18	0.24	1	4
6/18/2008	23:30	28.52	7.1	475	1.3	0.1	0.24	1	4
6/18/2008	23:45	28.49	7.1	457	0.8	0.06	0.23	1	4
6/19/2008	0:00	28.55	7.11	477	0.9	0.07	0.24	1	4
6/19/2008	0:15	28.54	7.1	466	0.8	0.06	0.23	1	4
6/19/2008	0:30	28.51	7.1	465	0.9	0.07	0.23	1	4
6/19/2008	0:45	28.52	7.1	461	0.9	0.07	0.23	1	4
6/19/2008	1:00	28.51	7.09	454	0.8	0.07	0.23	1	4
6/19/2008	1:15	28.52	7.08	455	0.8	0.07	0.23	1	4
6/19/2008	1:30	28.51	7.09	448	0.8	0.07	0.22	1	4
6/19/2008	1:45	28.47	7.08	445	0.8	0.06	0.22	1	4
6/19/2008	2:00	28.44	7.08	442	0.9	0.07	0.22	1	4
6/19/2008	2:15	28.54	7.09	465	0.8	0.06	0.23	1	4
6/19/2008	2:30	28.41	7.07	457	0.8	0.07	0.23	1	4
6/19/2008	2:45	28.61	7.14	483	2.4	0.19	0.24	1	4
6/19/2008	3:00	28.46	7.08	452	0.9	0.07	0.23	1	4
6/19/2008	3:15	28.56	7.18	501	18.9	1.46	0.25	1	4
6/19/2008	3:30	28.64	7.27	524	34.3	2.65	0.27	1	4
6/19/2008	3:45	28.42	7.11	455	6.9	0.53	0.23	1	4
6/19/2008	4:00	28.54	7.22	508	26.4	2.04	0.26	1	4
6/19/2008	4:15	28.5	7.25	492	28.1	2.18	0.25	1	4
6/19/2008	4:30	28.44	7.21	450	22.2	1.72	0.23	1	4
6/19/2008	4:45	28.4	7.2	477	19.4	1.51	0.24	1	4
6/19/2008	5:00	28.37	7.2	464	23.2	1.8	0.23	1	4
6/19/2008	5:15	28.32	7.2	468	24.9	1.93	0.24	1	4
6/19/2008	5:30	28.28	7.18	464	20.6	1.6	0.23	1	4
6/19/2008	5:45	28.25	7.17	462	20.3	1.58	0.23	1	4
6/19/2008	6:00	28.22	7.16	453	18	1.4	0.23	1	4
6/19/2008	6:15	28.17	7.14	452	18.4	1.43	0.23	1	4
6/19/2008	6:30	28.13	7.16	460	19.1	1.49	0.23	1	4
6/19/2008	6:45	28.08	7.15	461	14.3	1.11	0.23	1	4
6/19/2008	7:00	28.08	7.15	458	16.7	1.3	0.23	1	4
6/19/2008	7:15	28.06	7.14	456	15.9	1.24	0.23	1	4
6/19/2008	7:30	28.04	7.13	453	14.9	1.16	0.23	1	4
6/19/2008	7:45	28	7.14	456	16.4	1.28	0.23	1	4
6/19/2008	8:00	27.99	7.13	454	12.7	0.99	0.23	1	4
6/19/2008	8:15	27.97	7.14	457	16.6	1.3	0.23	1	4
6/19/2008	8:30	27.97	7.14	461	17.8	1.39	0.23	1	4
6/19/2008	8:45	27.96	7.15	461	16.4	1.29	0.23	1	4
6/19/2008	9:00	27.96	7.14	461	16.7	1.31	0.23	1	4
6/19/2008	9:15	27.99	7.15	470	15.5	1.21	0.24	1	4
6/19/2008	9:30	27.97	7.15	473	14.4	1.12	0.24	1	4
6/19/2008	9:45	27.99	7.15	475	15.8	1.24	0.24	1	4
6/19/2008	10:00	27.99	7.19	500	15.3	1.19	0.25	1	4

avg=	0.233421
min=	0.19
max=	0.29


Site Number 3753 (BC05), Bayou Cane below Hwy. 190, Subsegment 040904, DO & Temperature vs. Date/Time
DO STATISTICS
Min DO = 0.2 mg/L
Max DO = 3.98 mg/L
Average DO = 1.79 mg/L
25th Percentile = 1.26 mg/L
50th Percentile = 1.56 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.84 mg/L
Variance = 0.7 mg/L
DO mg/L
DO Criteria mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
31.5
31
30.5
30
29.5
29
28.5
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3753 (BC05), Bayou Cane below Hwy. 190, Subsegment 040904, DO & pH vs. Date/Time
DO STATISTICS
Min DO = 0.2 mg/L
Max DO = 3.98 mg/L
Average DO = 1.79 mg/L
25th Percentile = 1.26 mg/L
50th Percentile = 1.56 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.84 mg/L
Variance = 0.7 mg/L
Dissolved Oxygen (mg/L)
pH
Date/Time
DO mg/L
DO Criteria mg/L
pH Units
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
7
6.98
6.96
6.94
6.92
6.9
6.88
6.86
6.84
6.82
6.8
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3753 (BC05), Bayou Cane below Hwy. 190, Subsegment 040904, DO & Specific Conductivity vs. Date/Time
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
3000
2500
2000
1500
1000
500
0
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00
DO mg/L
DO Criteria mg/L
SpCond uS/cm
DO STATISTICS
Min DO = 0.2 mg/L
Max DO = 3.98 mg/L
Average DO = 1.79 mg/L
25th Percentile = 1.26 mg/L
50th Percentile = 1.56 mg/L
% Failing Criteria = 100 %
Std. Deviation = 0.84 mg/L
Variance = 0.7 mg/L

Site Number:	3753 (BC05)	Site Name:	Bayou Cane below Hwy. 190		
Subsegment #:	040904				
	Temp deg C	pH	SpCond uS/cm	DO % sat	DO mg/L
Minimum	28.89	6.81	1568.00	2.60	0.20
Maximum	31.27	6.98	2750.00	54.00	3.98
Average	29.98	6.88	2143.82	23.84	1.79
Geometric Mean	29.97	6.88	#NUM!	21.25	1.60
25th Percentile	29.59	6.84	1881.00	16.65	1.26
30th Percentile	29.66	6.84	1905.00	17.20	1.29
40th Percentile	29.76	6.86	1970.00	18.70	1.40
50th Percentile	29.97	6.87	2081.00	20.70	1.56
Standard Deviatic	0.57	0.04	359.46	11.39	0.84
Variance	0.33	0.00	129209.37	129.77	0.70
Data Row Count		191			
Total Values Failing DO Criteria		191			
Percent failing DO Criteria		100.00	%		

Bayou Cane, Site 3753, Continuous Monitoring Data

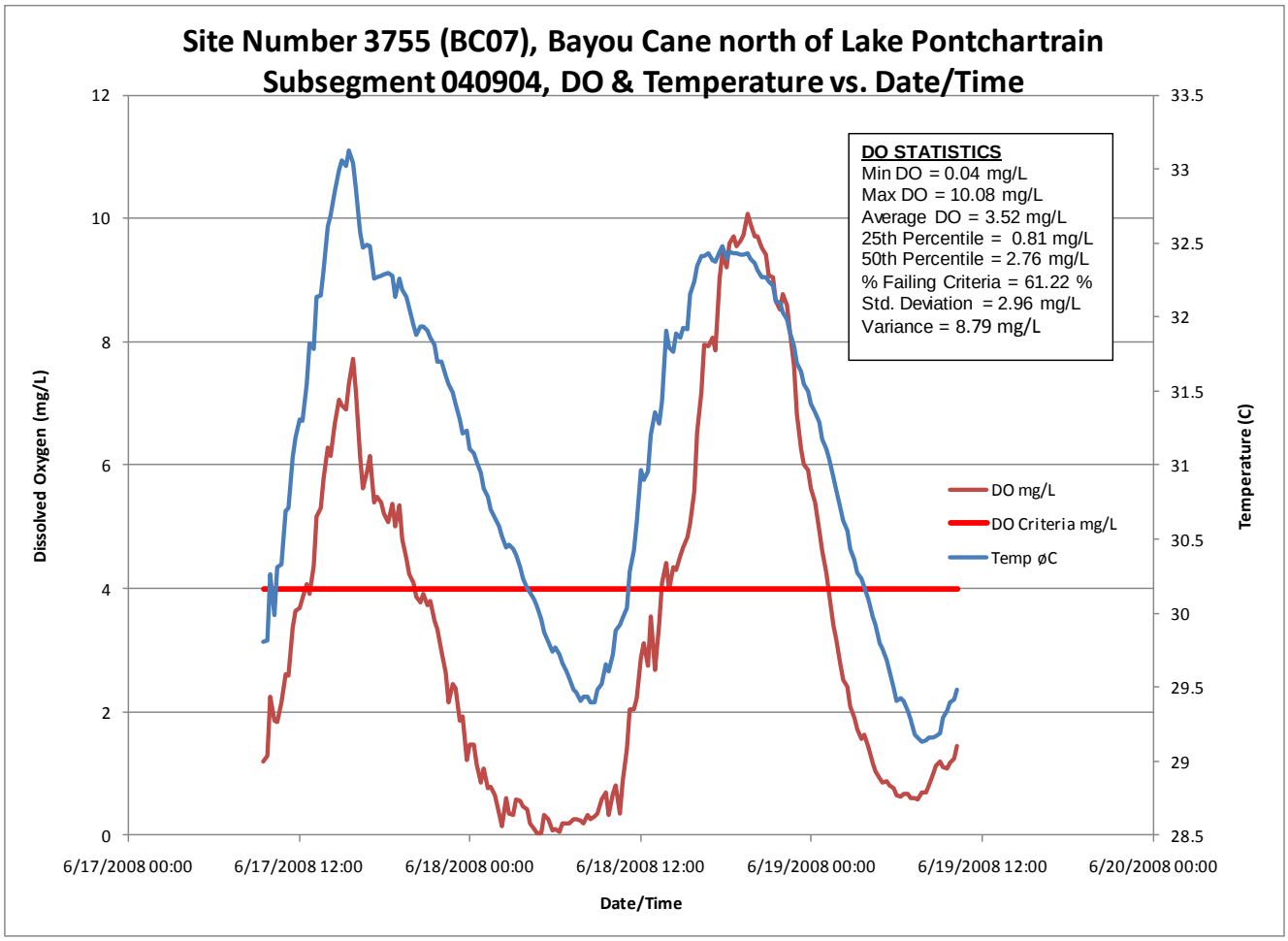
Date_	Time	Temp	pH	SpCond	DO PERCENT	DO	SALINITY	Is DO < Criteria	DO Criteria
MMDDYY	HHMM	øC	Units	uS/cm	Sat	mg/L	ppt	4	mg/L
6/17/2008	10:45	29.55	6.83	1897	15.6	1.18	1.01	1	4
6/17/2008	11:00	29.61	6.84	1902	20.6	1.56	1.02	1	4
6/17/2008	11:15	29.61	6.84	1908	15.9	1.2	1.02	1	4
6/17/2008	11:30	29.59	6.83	1932	17.4	1.32	1.03	1	4
6/17/2008	11:45	29.59	6.83	1932	16.9	1.28	1.03	1	4
6/17/2008	12:00	29.67	6.84	1933	21.4	1.61	1.03	1	4
6/17/2008	12:15	29.69	6.84	1905	17.6	1.33	1.02	1	4
6/17/2008	12:30	29.66	6.84	1888	18.9	1.43	1.01	1	4
6/17/2008	12:45	29.68	6.84	1884	21.2	1.6	1.01	1	4
6/17/2008	13:00	29.68	6.83	1952	18.7	1.41	1.04	1	4
6/17/2008	13:15	29.68	6.83	1966	17	1.29	1.05	1	4
6/17/2008	13:30	29.73	6.83	1961	18.8	1.42	1.05	1	4
6/17/2008	13:45	29.74	6.83	1970	20.1	1.52	1.05	1	4
6/17/2008	14:00	29.79	6.84	1976	21.5	1.63	1.06	1	4
6/17/2008	14:15	29.87	6.86	1889	25.2	1.9	1.01	1	4
6/17/2008	14:30	29.74	6.82	1978	17.8	1.34	1.06	1	4
6/17/2008	14:45	29.77	6.83	1985	17	1.28	1.06	1	4
6/17/2008	15:00	29.77	6.82	1984	16.3	1.23	1.06	1	4
6/17/2008	15:15	29.81	6.83	1930	17.6	1.33	1.03	1	4
6/17/2008	15:30	29.83	6.85	1888	24.2	1.82	1.01	1	4
6/17/2008	15:45	29.74	6.82	1938	17.8	1.34	1.03	1	4
6/17/2008	16:00	29.78	6.83	1943	18	1.36	1.04	1	4
6/17/2008	16:15	29.7	6.81	1996	13.1	0.99	1.07	1	4
6/17/2008	16:30	29.86	6.83	1946	20	1.51	1.04	1	4
6/17/2008	16:45	29.94	6.83	2005	20.6	1.55	1.07	1	4
6/17/2008	17:00	29.98	6.82	2057	18	1.35	1.1	1	4
6/17/2008	17:15	31.04	6.9	2308	45.6	3.36	1.24	1	4
6/17/2008	17:30	31.27	6.93	2325	52	3.82	1.25	1	4
6/17/2008	17:45	30.89	6.89	2268	39.2	2.9	1.22	1	4
6/17/2008	18:00	31.2	6.92	2405	47.2	3.47	1.29	1	4
6/17/2008	18:15	31.09	6.91	2367	44.9	3.31	1.27	1	4
6/17/2008	18:30	30.78	6.89	2185	38	2.82	1.17	1	4
6/17/2008	18:45	31.14	6.97	2128	52.2	3.85	1.14	1	4
6/17/2008	19:00	31.14	6.98	2060	54	3.98	1.1	1	4
6/17/2008	19:15	31.14	6.97	2057	52.5	3.87	1.1	1	4
6/17/2008	19:30	30.92	6.9	2163	40.6	3	1.16	1	4
6/17/2008	19:45	31.01	6.91	2182	42.9	3.16	1.17	1	4
6/17/2008	20:00	31.07	6.93	2170	47.4	3.49	1.16	1	4
6/17/2008	20:15	31.06	6.95	2151	50.6	3.73	1.15	1	4
6/17/2008	20:30	31.07	6.92	2211	45.3	3.34	1.18	1	4
6/17/2008	20:45	31.02	6.95	2082	48.2	3.56	1.11	1	4
6/17/2008	21:00	30.96	6.93	2128	44	3.25	1.14	1	4
6/17/2008	21:15	30.98	6.93	2081	43.6	3.22	1.11	1	4
6/17/2008	21:30	30.93	6.95	1997	47.1	3.49	1.07	1	4
6/17/2008	21:45	30.89	6.98	1905	51.2	3.79	1.02	1	4

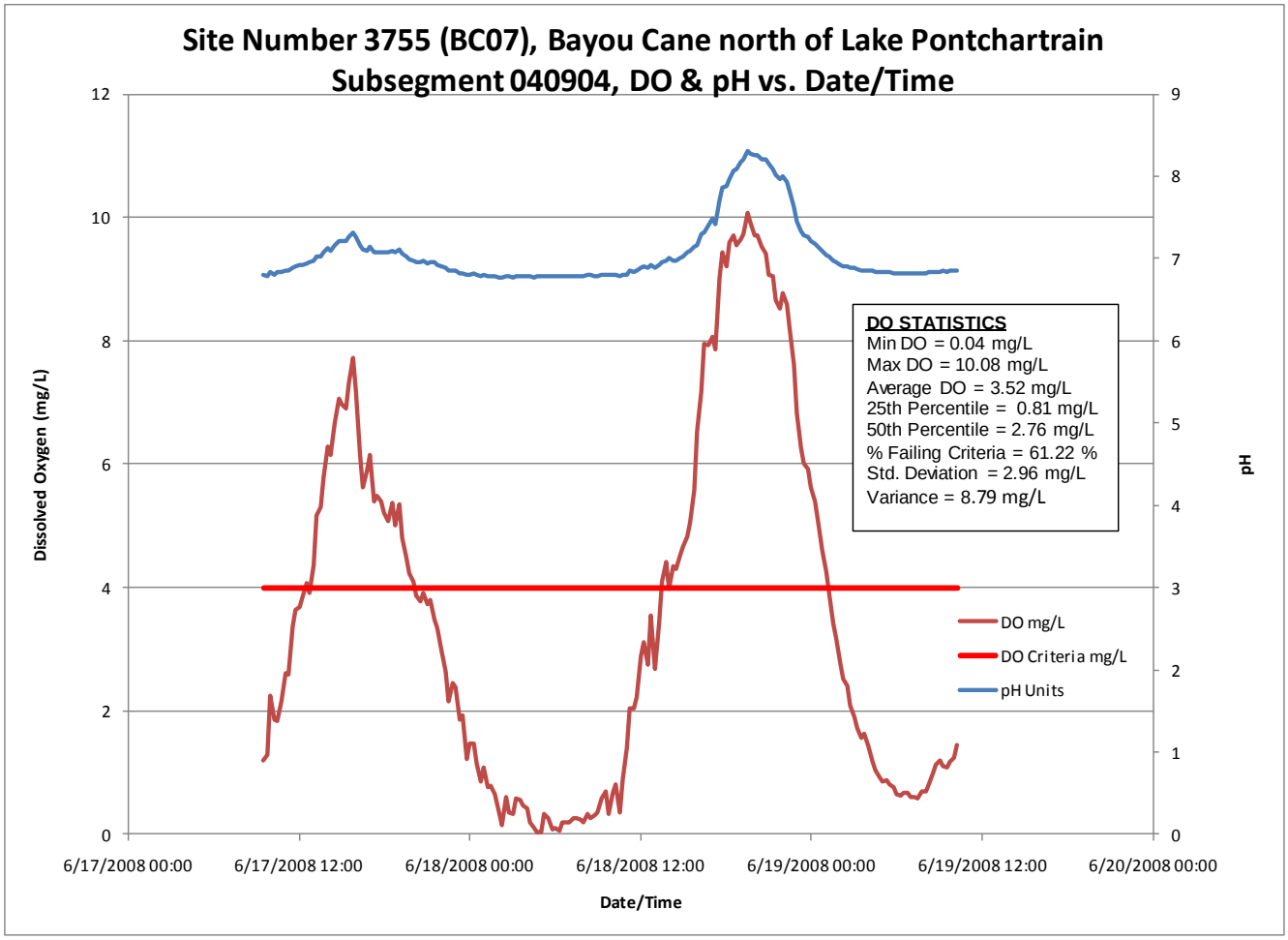
6/17/2008	22:00	30.87	6.94	2026	44.1	3.26	1.08	1	4
6/17/2008	22:15	30.84	6.95	1976	45.3	3.36	1.06	1	4
6/17/2008	22:30	30.8	6.97	1878	46.9	3.48	1	1	4
6/17/2008	22:45	30.77	6.96	1867	44.7	3.32	1	1	4
6/17/2008	23:00	30.75	6.95	1899	44.3	3.29	1.01	1	4
6/17/2008	23:15	30.65	6.95	1886	43.6	3.24	1.01	1	4
6/17/2008	23:30	30.64	6.95	1876	42.3	3.14	1	1	4
6/17/2008	23:45	30.61	6.95	1858	42.4	3.16	0.99	1	4
6/18/2008	0:00	30.56	6.96	1828	43.4	3.23	0.97	1	4
6/18/2008	0:15	30.51	6.96	1814	42.8	3.19	0.97	1	4
6/18/2008	0:30	30.49	6.95	1804	41.1	3.06	0.96	1	4
6/18/2008	0:45	30.43	6.95	1774	40.3	3.01	0.94	1	4
6/18/2008	1:00	30.38	6.95	1731	39.8	2.97	0.92	1	4
6/18/2008	1:15	30.34	6.95	1718	38.8	2.9	0.91	1	4
6/18/2008	1:30	30.35	6.92	1762	33.1	2.48	0.94	1	4
6/18/2008	1:45	30.28	6.93	1750	34.3	2.56	0.93	1	4
6/18/2008	2:00	30.28	6.93	1770	34.1	2.55	0.94	1	4
6/18/2008	2:15	30.18	6.93	1784	34.9	2.62	0.95	1	4
6/18/2008	2:30	30.16	6.93	1785	34.3	2.57	0.95	1	4
6/18/2008	2:45	30.12	6.93	1742	33.7	2.53	0.93	1	4
6/18/2008	3:00	30.07	6.93	1704	32.3	2.43	0.91	1	4
6/18/2008	3:15	30.01	6.93	1679	31.6	2.38	0.89	1	4
6/18/2008	3:30	29.97	6.93	1661	30.9	2.33	0.88	1	4
6/18/2008	3:45	29.92	6.92	1663	26.5	2	0.88	1	4
6/18/2008	4:00	29.87	6.92	1662	27.1	2.04	0.88	1	4
6/18/2008	4:15	29.81	6.92	1654	27.5	2.07	0.88	1	4
6/18/2008	4:30	29.79	6.92	1654	27.8	2.1	0.88	1	4
6/18/2008	4:45	29.76	6.92	1642	26.7	2.02	0.87	1	4
6/18/2008	5:00	29.69	6.91	1645	21.4	1.62	0.87	1	4
6/18/2008	5:15	29.63	6.91	1645	21.4	1.62	0.87	1	4
6/18/2008	5:30	29.64	6.91	1660	24.3	1.84	0.88	1	4
6/18/2008	5:45	29.6	6.91	1654	25	1.9	0.88	1	4
6/18/2008	6:00	29.55	6.91	1635	23.2	1.76	0.87	1	4
6/18/2008	6:15	29.52	6.91	1621	23.1	1.75	0.86	1	4
6/18/2008	6:30	29.44	6.91	1597	22.4	1.7	0.85	1	4
6/18/2008	6:45	29.42	6.92	1579	22.6	1.72	0.84	1	4
6/18/2008	7:00	29.4	6.91	1568	22.6	1.72	0.83	1	4
6/18/2008	7:15	29.35	6.9	1585	17.5	1.33	0.84	1	4
6/18/2008	7:30	29.3	6.91	1589	19.8	1.51	0.84	1	4
6/18/2008	7:45	29.31	6.91	1609	21.1	1.61	0.85	1	4
6/18/2008	8:00	29.28	6.91	1627	21.6	1.64	0.86	1	4
6/18/2008	8:15	29.3	6.91	1647	21	1.6	0.88	1	4
6/18/2008	8:30	29.33	6.9	1652	21	1.6	0.88	1	4
6/18/2008	8:45	29.35	6.89	1684	17.3	1.32	0.9	1	4
6/18/2008	9:00	29.32	6.89	1704	16.8	1.28	0.91	1	4
6/18/2008	9:15	29.31	6.89	1713	17.8	1.35	0.91	1	4
6/18/2008	9:30	29.31	6.88	1727	14.9	1.14	0.92	1	4
6/18/2008	9:45	29.32	6.88	1740	11.9	0.91	0.93	1	4
6/18/2008	10:00	29.39	6.88	1747	15.6	1.19	0.93	1	4
6/18/2008	10:15	29.39	6.88	1777	18.3	1.39	0.95	1	4

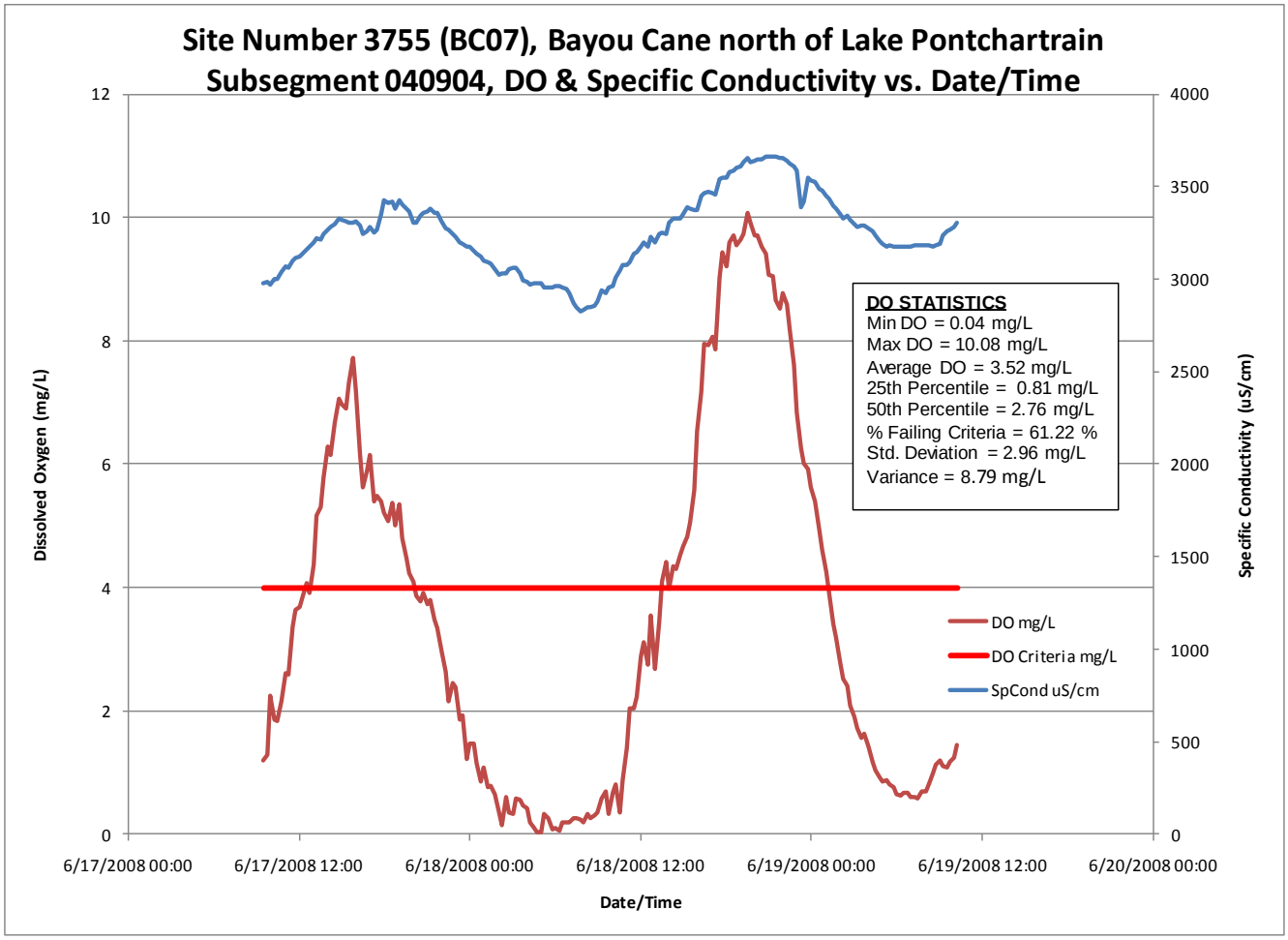
6/18/2008	10:30	29.48	6.87	1845	17.2	1.3	0.98	1	4
6/18/2008	10:45	29.54	6.87	1896	15.8	1.2	1.01	1	4
6/18/2008	11:00	29.59	6.85	1990	15.1	1.15	1.06	1	4
6/18/2008	11:15	29.64	6.85	2063	14.4	1.09	1.1	1	4
6/18/2008	11:30	29.7	6.84	2201	14.8	1.12	1.18	1	4
6/18/2008	11:45	29.71	6.84	2287	15.2	1.15	1.23	1	4
6/18/2008	12:00	29.73	6.84	2250	15.4	1.16	1.21	1	4
6/18/2008	12:15	29.75	6.84	2314	15.9	1.2	1.24	1	4
6/18/2008	12:30	29.76	6.85	2356	16.9	1.28	1.26	1	4
6/18/2008	12:45	29.78	6.85	2431	18	1.36	1.31	1	4
6/18/2008	13:00	29.78	6.85	2400	17.8	1.34	1.29	1	4
6/18/2008	13:15	29.88	6.86	2421	21.1	1.59	1.3	1	4
6/18/2008	13:30	29.98	6.87	2485	25.5	1.91	1.34	1	4
6/18/2008	13:45	30.03	6.87	2479	24.2	1.82	1.33	1	4
6/18/2008	14:00	30.01	6.87	2472	27	2.03	1.33	1	4
6/18/2008	14:15	29.99	6.86	2560	23.6	1.77	1.38	1	4
6/18/2008	14:30	30.11	6.87	2560	24.7	1.85	1.38	1	4
6/18/2008	14:45	30.03	6.86	2494	21.8	1.64	1.34	1	4
6/18/2008	15:00	30.13	6.86	2546	24	1.79	1.37	1	4
6/18/2008	15:15	30.11	6.87	2572	25.3	1.89	1.38	1	4
6/18/2008	15:30	30.23	6.87	2568	27.5	2.06	1.38	1	4
6/18/2008	15:45	30.21	6.87	2607	24.7	1.85	1.4	1	4
6/18/2008	16:00	30.2	6.87	2606	26.8	2	1.4	1	4
6/18/2008	16:15	30.15	6.86	2627	21.9	1.64	1.41	1	4
6/18/2008	16:30	30.27	6.89	2606	31.7	2.36	1.4	1	4
6/18/2008	16:45	30.26	6.87	2585	29.1	2.17	1.39	1	4
6/18/2008	17:00	30.23	6.87	2596	25	1.87	1.4	1	4
6/18/2008	17:15	30.24	6.85	2612	24.9	1.86	1.41	1	4
6/18/2008	17:30	30.23	6.85	2649	23.2	1.73	1.43	1	4
6/18/2008	17:45	30.36	6.87	2716	27.6	2.06	1.46	1	4
6/18/2008	18:00	30.33	6.86	2704	23.2	1.73	1.46	1	4
6/18/2008	18:15	30.36	6.86	2715	24.9	1.86	1.46	1	4
6/18/2008	18:30	30.26	6.85	2681	20	1.49	1.44	1	4
6/18/2008	18:45	30.24	6.84	2661	18.1	1.35	1.43	1	4
6/18/2008	19:00	30.33	6.84	2677	17.6	1.31	1.44	1	4
6/18/2008	19:15	30.3	6.84	2686	16.3	1.22	1.45	1	4
6/18/2008	19:30	30.38	6.85	2721	21.2	1.58	1.47	1	4
6/18/2008	19:45	30.48	6.86	2727	25.6	1.9	1.47	1	4
6/18/2008	20:00	30.47	6.85	2722	21.4	1.59	1.47	1	4
6/18/2008	20:15	30.55	6.85	2750	20.9	1.55	1.48	1	4
6/18/2008	20:30	30.49	6.84	2741	19.8	1.48	1.48	1	4
6/18/2008	20:45	30.31	6.84	2689	16.7	1.24	1.45	1	4
6/18/2008	21:00	30.44	6.84	2725	18.8	1.4	1.47	1	4
6/18/2008	21:15	30.4	6.83	2701	16.6	1.24	1.45	1	4
6/18/2008	21:30	30.37	6.84	2678	17.3	1.29	1.44	1	4
6/18/2008	21:45	30.34	6.84	2691	17.2	1.28	1.45	1	4
6/18/2008	22:00	30.33	6.83	2695	14.1	1.05	1.45	1	4
6/18/2008	22:15	30.44	6.84	2693	17.1	1.27	1.45	1	4
6/18/2008	22:30	30.36	6.83	2689	14.5	1.08	1.45	1	4
6/18/2008	22:45	30.42	6.83	2685	12.6	0.94	1.45	1	4

6/18/2008	23:00	30.37	6.84	2689	14.7	1.1	1.45	1	4
6/18/2008	23:15	30.55	6.85	2679	19.5	1.45	1.44	1	4
6/18/2008	23:30	30.34	6.82	2660	9	0.67	1.43	1	4
6/18/2008	23:45	30.46	6.84	2672	15.9	1.18	1.44	1	4
6/19/2008	0:00	30.43	6.84	2636	15.9	1.18	1.42	1	4
6/19/2008	0:15	30.36	6.83	2604	13.4	1	1.4	1	4
6/19/2008	0:30	30.31	6.82	2622	11.1	0.83	1.41	1	4
6/19/2008	0:45	30.19	6.81	2596	8.7	0.65	1.4	1	4
6/19/2008	1:00	30.22	6.81	2612	8.2	0.61	1.41	1	4
6/19/2008	1:15	30.1	6.83	2441	10.5	0.79	1.31	1	4
6/19/2008	1:30	30.04	6.82	2487	8.5	0.64	1.34	1	4
6/19/2008	1:45	30.04	6.82	2481	7.2	0.54	1.33	1	4
6/19/2008	2:00	30.01	6.82	2344	4	0.3	1.26	1	4
6/19/2008	2:15	29.99	6.84	2331	17	1.27	1.25	1	4
6/19/2008	2:30	29.84	6.84	2294	13.7	1.03	1.23	1	4
6/19/2008	2:45	30.07	6.81	2619	5.6	0.42	1.41	1	4
6/19/2008	3:00	29.79	6.87	2358	11.8	0.89	1.27	1	4
6/19/2008	3:15	29.71	6.86	2206	13.7	1.04	1.18	1	4
6/19/2008	3:30	29.61	6.85	2281	15.8	1.2	1.22	1	4
6/19/2008	3:45	29.57	6.85	2310	13.7	1.04	1.24	1	4
6/19/2008	4:00	29.51	6.86	2163	18.3	1.38	1.16	1	4
6/19/2008	4:15	29.52	6.85	2171	14.6	1.11	1.16	1	4
6/19/2008	4:30	29.76	6.82	2566	3.2	0.24	1.38	1	4
6/19/2008	4:45	29.35	6.93	1906	26.7	2.03	1.02	1	4
6/19/2008	5:00	29.4	6.9	2079	19.9	1.51	1.11	1	4
6/19/2008	5:15	29.26	6.91	1917	23.3	1.77	1.02	1	4
6/19/2008	5:30	29.51	6.81	2475	2.6	0.2	1.33	1	4
6/19/2008	5:45	29.45	6.84	2278	8.3	0.63	1.22	1	4
6/19/2008	6:00	29.05	6.93	1912	19	1.45	1.02	1	4
6/19/2008	6:15	29.02	6.93	1871	25	1.91	1	1	4
6/19/2008	6:30	29.07	6.87	2000	15.4	1.17	1.07	1	4
6/19/2008	6:45	29.03	6.91	1970	19.9	1.52	1.05	1	4
6/19/2008	7:00	29	6.88	2015	13.5	1.03	1.08	1	4
6/19/2008	7:15	29.2	6.83	2158	7.7	0.59	1.16	1	4
6/19/2008	7:30	28.92	6.9	1940	19.6	1.5	1.04	1	4
6/19/2008	7:45	29.06	6.86	2155	12.1	0.92	1.15	1	4
6/19/2008	8:00	28.89	6.9	1963	21.1	1.62	1.05	1	4
6/19/2008	8:15	28.9	6.88	2020	14.5	1.11	1.08	1	4
6/19/2008	8:30	29	6.88	2098	16.4	1.25	1.12	1	4
6/19/2008	8:45	29	6.88	2131	16.6	1.27	1.14	1	4
6/19/2008	9:00	28.95	6.89	2086	19.9	1.52	1.12	1	4
6/19/2008	9:15	29.06	6.9	2117	20.7	1.58	1.13	1	4
6/19/2008	9:30	29.12	6.88	2190	20.1	1.53	1.17	1	4
6/19/2008	9:45	29.1	6.88	2193	19.1	1.46	1.17	1	4
6/19/2008	10:00	29.14	6.89	2181	22.2	1.7	1.17	1	4
6/19/2008	10:15	29.1	6.87	2197	17.2	1.31	1.18	1	4

avg=	1.148115
min=	0.83
max=	1.48


Site Number 3755 (BC07), Bayou Cane north of Lake Pontchartrain
Subsegment 040904, DO & Temperature vs. Date/Time
DO STATISTICS
Min DO = 0.04 mg/L
Max DO = 10.08 mg/L
Average DO = 3.52 mg/L
25th Percentile = 0.81 mg/L
50th Percentile = 2.76 mg/L
% Failing Criteria = 61.22 %
Std. Deviation = 2.96 mg/L
Variance = 8.79 mg/L
DO mg/L
DO Criteria mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
12
10
8
6
4
2
0
33.5
33
32.5
32
31.5
31
30.5
30
29.5
29
28.5
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3755 (BC07), Bayou Cane north of Lake Pontchartrain
Subsegment 040904, DO & pH vs. Date/Time
Dissolved Oxygen (mg/L)
pH
Date/Time
12
10
8
6
4
2
0
9
8
7
6
5
4
3
2
1
0
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00
DO STATISTICS
Min DO = 0.04 mg/L
Max DO = 10.08 mg/L
Average DO = 3.52 mg/L
25th Percentile = 0.81 mg/L
50th Percentile = 2.76 mg/L
% Failing Criteria = 61.22 %
Std. Deviation = 2.96 mg/L
Variance = 8.79 mg/L
DO mg/L
DO Criteria mg/L
pH Units


Site Number 3755 (BC07), Bayou Cane north of Lake Pontchartrain
Subsegment 040904, DO & Specific Conductivity vs. Date/Time
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
12
10
8
6
4
2
0
4000
3500
3000
2500
2000
1500
1000
500
0
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00
DO STATISTICS
Min DO = 0.04 mg/L
Max DO = 10.08 mg/L
Average DO = 3.52 mg/L
25th Percentile = 0.81 mg/L
50th Percentile = 2.76 mg/L
% Failing Criteria = 61.22 %
Std. Deviation = 2.96 mg/L
Variance = 8.79 mg/L
DO mg/L
DO Criteria mg/L
SpCond uS/cm

Site Number:	3755 (BC07)	Site Name:	Bayou Cane north of Lake Pontchartrain		
Subsegment #:	040904				
	Temp deg C	pH	SpCond uS/cm	DO % sat	DO mg/L
Minimum	29.13	6.76	2827.00	0.50	0.04
Maximum	33.13	8.31	3663.00	140.50	10.08
Average	31.04	7.06	3247.76	48.53	3.52
Geometric Mean	31.02	7.05	#NUM!	27.23	2.00
25th Percentile	29.97	6.82	3098.50	10.78	0.81
30th Percentile	30.21	6.82	3157.00	14.55	1.10
40th Percentile	30.62	6.85	3182.00	24.90	1.86
50th Percentile	31.15	6.90	3245.50	37.35	2.76
Standard Deviat	1.15	0.39	209.10	41.40	2.96
Variance	1.32	0.15	43721.50	1713.79	8.79
Data Row Count		196			
Total Values Failing DO Criteria		120			
Percent failing DO Criteria		61.22	%		

Bayou Cane, Site 3755, Continuous Monitoring Data

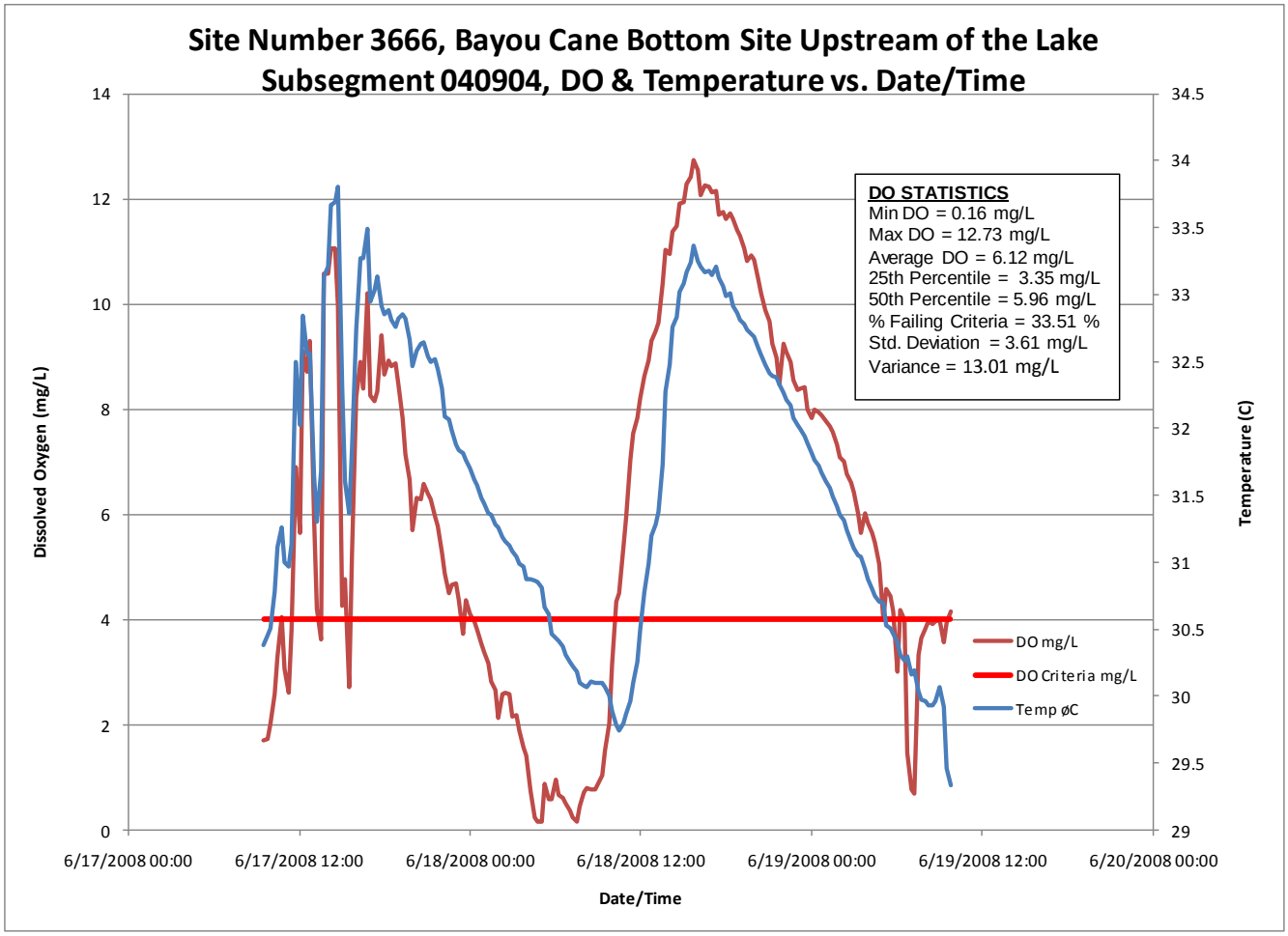
Date_	Time	Temp	pH	SpCond	DO PERCENT	DO	SALINITY	Is DO < Criteria	DO Criteria
MMDDYY	HHMM	øC	Units	uS/cm	Sat	mg/L	ppt	4	mg/L
6/17/2008	9:30	29.81	6.8	2979	16	1.2	1.61	1	4
6/17/2008	9:45	29.82	6.79	2985	17	1.28	1.61	1	4
6/17/2008	10:00	30.26	6.83	2972	30.1	2.24	1.61	1	4
6/17/2008	10:15	29.99	6.8	2998	24.9	1.86	1.62	1	4
6/17/2008	10:30	30.31	6.83	2998	24.7	1.84	1.62	1	4
6/17/2008	10:45	30.33	6.83	3042	29	2.16	1.64	1	4
6/17/2008	11:00	30.69	6.85	3067	35.1	2.6	1.66	1	4
6/17/2008	11:15	30.71	6.85	3065	34.8	2.58	1.66	1	4
6/17/2008	11:30	31.05	6.89	3103	45.8	3.37	1.68	1	4
6/17/2008	11:45	31.19	6.91	3114	49.6	3.64	1.68	1	4
6/17/2008	12:00	31.31	6.92	3125	50.2	3.68	1.69	1	4
6/17/2008	12:15	31.3	6.92	3134	52.4	3.84	1.69	1	4
6/17/2008	12:30	31.55	6.94	3162	55.7	4.06	1.71	0	4
6/17/2008	12:45	31.82	6.95	3176	53.8	3.91	1.72	1	4
6/17/2008	13:00	31.78	6.97	3195	60	4.36	1.73	0	4
6/17/2008	13:15	32.14	7.02	3222	71.6	5.17	1.75	0	4
6/17/2008	13:30	32.15	7.02	3211	73.5	5.31	1.74	0	4
6/17/2008	13:45	32.32	7.07	3242	80.5	5.79	1.75	0	4
6/17/2008	14:00	32.61	7.12	3267	87.9	6.29	1.77	0	4
6/17/2008	14:15	32.69	7.1	3282	85.9	6.15	1.78	0	4
6/17/2008	14:30	32.85	7.17	3294	93.6	6.68	1.78	0	4
6/17/2008	14:45	32.99	7.22	3331	99.2	7.06	1.8	0	4
6/17/2008	15:00	33.06	7.22	3321	97.9	6.96	1.8	0	4
6/17/2008	15:15	33.02	7.21	3312	97.1	6.9	1.8	0	4
6/17/2008	15:30	33.13	7.26	3308	102.9	7.31	1.79	0	4
6/17/2008	15:45	33.04	7.32	3301	108.7	7.72	1.79	0	4
6/17/2008	16:00	32.87	7.27	3310	101	7.2	1.79	0	4
6/17/2008	16:15	32.57	7.17	3286	85.7	6.14	1.78	0	4
6/17/2008	16:30	32.47	7.11	3245	78.3	5.62	1.76	0	4
6/17/2008	16:45	32.49	7.09	3259	82.1	5.89	1.76	0	4
6/17/2008	17:00	32.48	7.15	3281	85.5	6.14	1.78	0	4
6/17/2008	17:15	32.26	7.07	3254	75	5.4	1.76	0	4
6/17/2008	17:30	32.27	7.07	3263	76.1	5.48	1.77	0	4
6/17/2008	17:45	32.28	7.07	3352	74.8	5.39	1.82	0	4
6/17/2008	18:00	32.29	7.08	3425	72.5	5.22	1.86	0	4
6/17/2008	18:15	32.3	7.07	3413	70.5	5.07	1.85	0	4
6/17/2008	18:30	32.28	7.09	3420	74.7	5.37	1.85	0	4
6/17/2008	18:45	32.14	7.08	3380	69.3	5	1.83	0	4
6/17/2008	19:00	32.26	7.11	3429	74.3	5.35	1.86	0	4
6/17/2008	19:15	32.18	7.06	3407	66.7	4.81	1.85	0	4
6/17/2008	19:30	32.14	7.02	3382	62.3	4.49	1.83	0	4
6/17/2008	19:45	32.06	6.99	3366	58.5	4.22	1.82	0	4
6/17/2008	20:00	31.95	6.97	3301	56.5	4.09	1.79	0	4
6/17/2008	20:15	31.88	6.96	3304	53.2	3.86	1.79	1	4
6/17/2008	20:30	31.94	6.95	3346	52.1	3.77	1.81	1	4

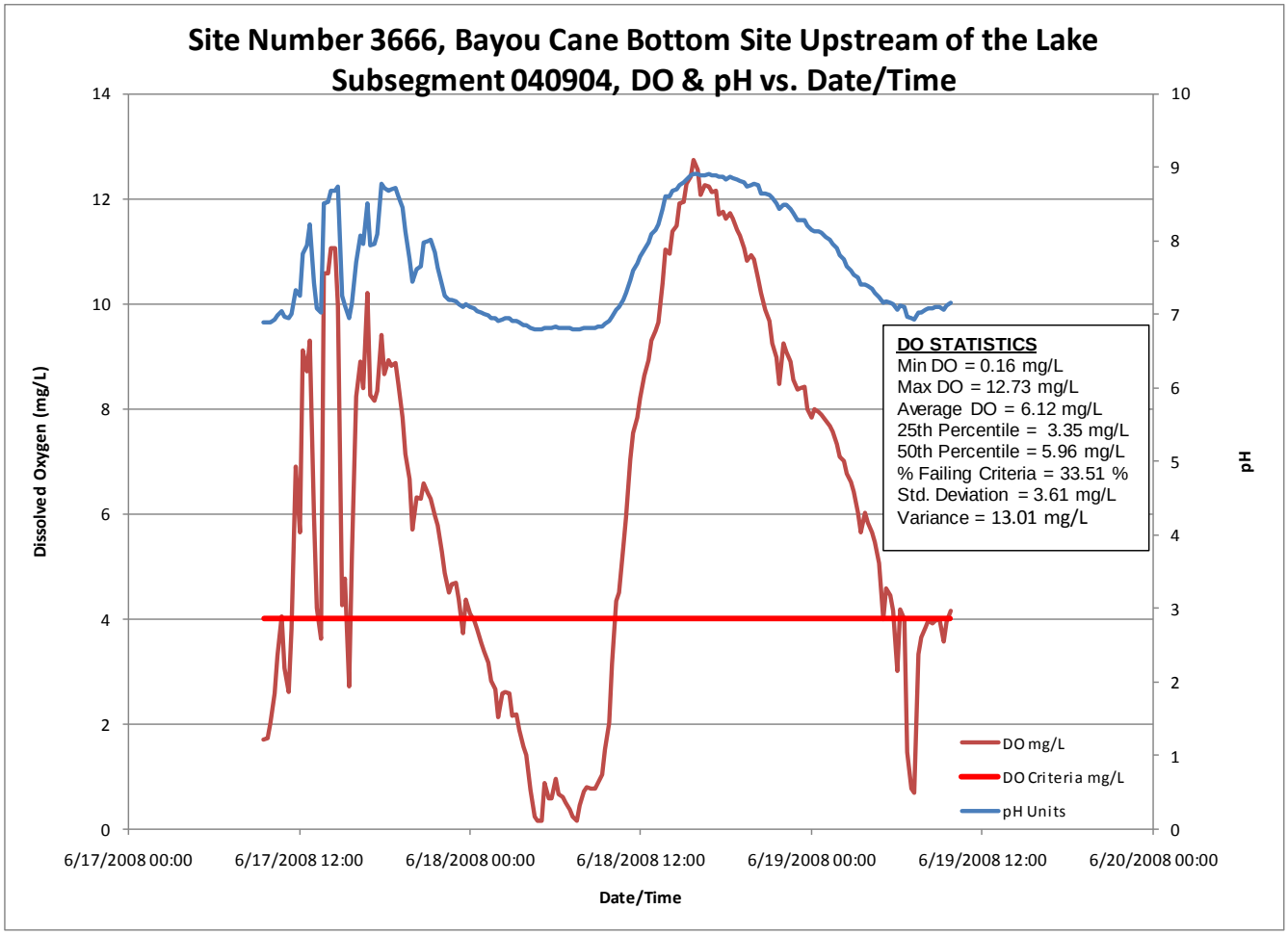
6/17/2008	20:45	31.94	6.97	3358	54.1	3.92	1.82	1	4
6/17/2008	21:00	31.91	6.94	3362	51.5	3.73	1.82	1	4
6/17/2008	21:15	31.86	6.95	3378	52.4	3.8	1.83	1	4
6/17/2008	21:30	31.81	6.95	3359	48	3.48	1.82	1	4
6/17/2008	21:45	31.7	6.93	3356	45.8	3.33	1.82	1	4
6/17/2008	22:00	31.7	6.9	3314	41	2.98	1.8	1	4
6/17/2008	22:15	31.6	6.88	3274	36.2	2.63	1.77	1	4
6/17/2008	22:30	31.55	6.85	3267	29.7	2.16	1.77	1	4
6/17/2008	22:45	31.49	6.85	3242	33.5	2.45	1.76	1	4
6/17/2008	23:00	31.41	6.85	3228	32.5	2.38	1.75	1	4
6/17/2008	23:15	31.31	6.82	3200	25.4	1.86	1.73	1	4
6/17/2008	23:30	31.21	6.82	3188	26.2	1.92	1.73	1	4
6/17/2008	23:45	31.23	6.81	3176	16.5	1.21	1.72	1	4
6/18/2008	0:00	31.11	6.81	3178	20.1	1.48	1.72	1	4
6/18/2008	0:15	31.08	6.82	3152	20	1.47	1.71	1	4
6/18/2008	0:30	31.02	6.8	3138	15.6	1.15	1.7	1	4
6/18/2008	0:45	30.95	6.79	3124	11.6	0.85	1.69	1	4
6/18/2008	1:00	30.84	6.8	3100	14.5	1.07	1.68	1	4
6/18/2008	1:15	30.79	6.79	3093	10.5	0.77	1.67	1	4
6/18/2008	1:30	30.7	6.79	3084	10.7	0.79	1.67	1	4
6/18/2008	1:45	30.64	6.78	3055	8.7	0.64	1.65	1	4
6/18/2008	2:00	30.59	6.77	3027	4.6	0.34	1.64	1	4
6/18/2008	2:15	30.52	6.76	3028	1.8	0.14	1.64	1	4
6/18/2008	2:30	30.44	6.79	3029	8.1	0.61	1.64	1	4
6/18/2008	2:45	30.46	6.78	3055	4.6	0.34	1.65	1	4
6/18/2008	3:00	30.43	6.77	3063	4.4	0.32	1.66	1	4
6/18/2008	3:15	30.4	6.79	3059	7.7	0.57	1.65	1	4
6/18/2008	3:30	30.31	6.79	3031	7.5	0.56	1.64	1	4
6/18/2008	3:45	30.23	6.79	2995	6.2	0.46	1.62	1	4
6/18/2008	4:00	30.17	6.79	2986	5.5	0.41	1.61	1	4
6/18/2008	4:15	30.14	6.78	2970	2.5	0.18	1.6	1	4
6/18/2008	4:30	30.09	6.77	2974	1.4	0.1	1.61	1	4
6/18/2008	4:45	30.04	6.78	2976	0.5	0.04	1.61	1	4
6/18/2008	5:00	29.96	6.78	2975	0.5	0.04	1.61	1	4
6/18/2008	5:15	29.87	6.79	2954	4.3	0.32	1.6	1	4
6/18/2008	5:30	29.81	6.79	2956	3.3	0.25	1.6	1	4
6/18/2008	5:45	29.74	6.78	2956	1	0.07	1.6	1	4
6/18/2008	6:00	29.77	6.79	2959	1.2	0.09	1.6	1	4
6/18/2008	6:15	29.72	6.79	2959	0.7	0.05	1.6	1	4
6/18/2008	6:30	29.66	6.79	2958	2.4	0.18	1.6	1	4
6/18/2008	6:45	29.61	6.79	2945	2.7	0.2	1.59	1	4
6/18/2008	7:00	29.56	6.79	2923	2.5	0.19	1.58	1	4
6/18/2008	7:15	29.48	6.79	2868	3.3	0.25	1.55	1	4
6/18/2008	7:30	29.46	6.79	2846	3.3	0.25	1.54	1	4
6/18/2008	7:45	29.41	6.79	2827	3.2	0.24	1.52	1	4
6/18/2008	8:00	29.44	6.79	2831	2.4	0.18	1.53	1	4
6/18/2008	8:15	29.44	6.8	2852	4.3	0.33	1.54	1	4
6/18/2008	8:30	29.4	6.8	2851	3.3	0.25	1.54	1	4
6/18/2008	8:45	29.4	6.79	2854	4	0.3	1.54	1	4
6/18/2008	9:00	29.48	6.79	2876	4.5	0.34	1.55	1	4

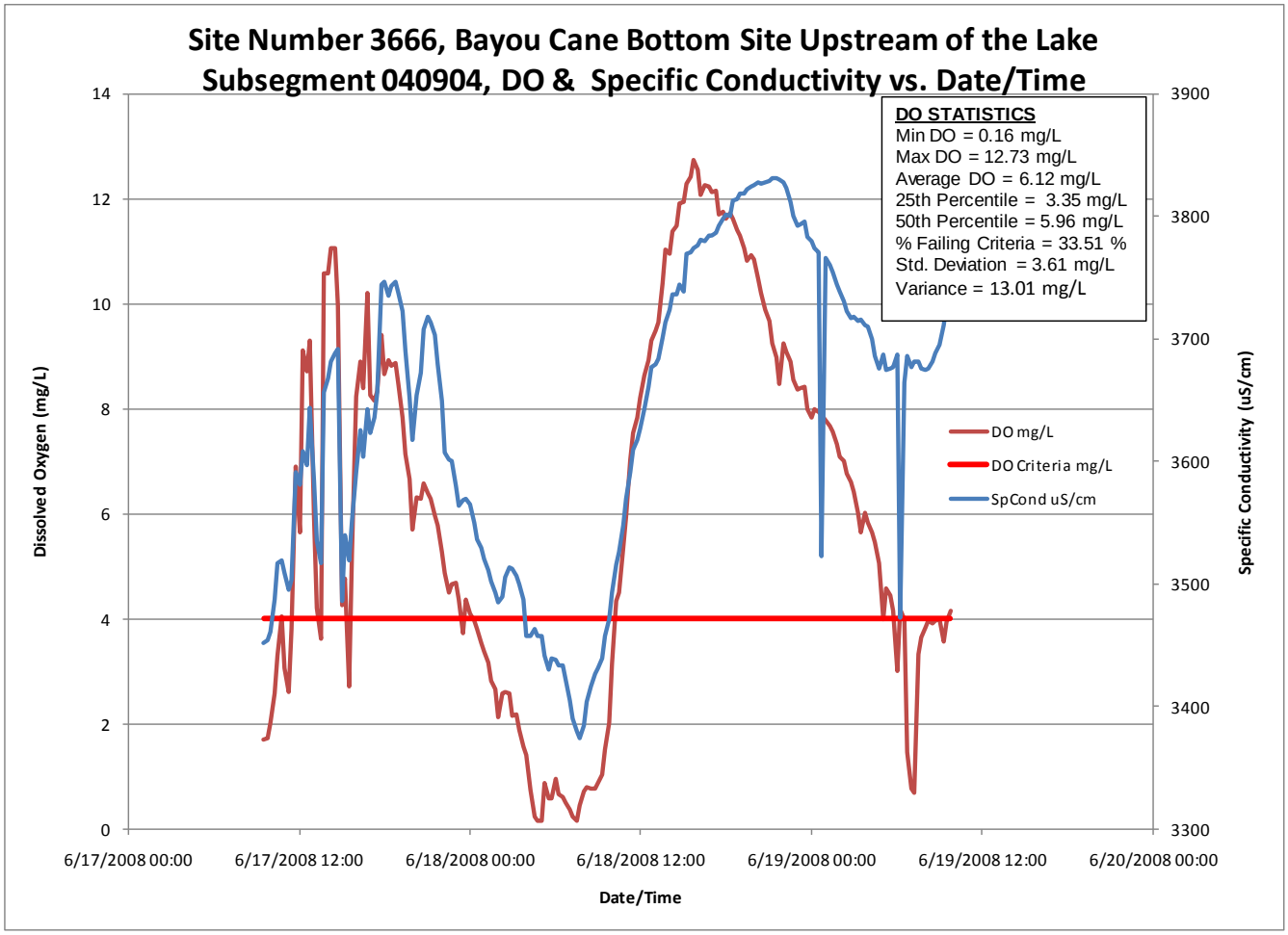
6/18/2008	9:15	29.52	6.81	2936	7.5	0.57	1.59	1	4
6/18/2008	9:30	29.65	6.81	2928	9.2	0.69	1.58	1	4
6/18/2008	9:45	29.61	6.8	2954	4.3	0.32	1.59	1	4
6/18/2008	10:00	29.72	6.8	2962	8.9	0.67	1.6	1	4
6/18/2008	10:15	29.88	6.8	3007	10.6	0.8	1.62	1	4
6/18/2008	10:30	29.92	6.79	3047	4.5	0.34	1.65	1	4
6/18/2008	10:45	29.97	6.8	3076	11.7	0.88	1.66	1	4
6/18/2008	11:00	30.03	6.81	3073	18.6	1.39	1.66	1	4
6/18/2008	11:15	30.28	6.85	3094	27.3	2.03	1.67	1	4
6/18/2008	11:30	30.42	6.84	3135	27.5	2.05	1.7	1	4
6/18/2008	11:45	30.61	6.86	3142	30.1	2.23	1.7	1	4
6/18/2008	12:00	30.97	6.88	3174	39.3	2.89	1.72	1	4
6/18/2008	12:15	30.9	6.91	3195	42.2	3.11	1.73	1	4
6/18/2008	12:30	30.96	6.89	3175	37.3	2.75	1.72	1	4
6/18/2008	12:45	31.2	6.92	3226	48.3	3.54	1.75	1	4
6/18/2008	13:00	31.36	6.88	3202	36.7	2.69	1.73	1	4
6/18/2008	13:15	31.28	6.93	3244	47	3.44	1.76	1	4
6/18/2008	13:30	31.43	6.96	3251	56.2	4.1	1.76	0	4
6/18/2008	13:45	31.91	6.98	3246	60.9	4.41	1.76	0	4
6/18/2008	14:00	31.79	7.01	3306	54.9	3.99	1.79	1	4
6/18/2008	14:15	31.77	6.97	3329	59.8	4.35	1.8	0	4
6/18/2008	14:30	31.89	6.98	3324	59.3	4.3	1.8	0	4
6/18/2008	14:45	31.86	7	3329	62.5	4.53	1.8	0	4
6/18/2008	15:00	31.93	7.02	3347	64.4	4.66	1.81	0	4
6/18/2008	15:15	31.92	7.08	3388	66.6	4.82	1.84	0	4
6/18/2008	15:30	32.16	7.1	3378	70.1	5.05	1.83	0	4
6/18/2008	15:45	32.24	7.14	3377	77.5	5.58	1.83	0	4
6/18/2008	16:00	32.35	7.17	3375	90.9	6.54	1.83	0	4
6/18/2008	16:15	32.41	7.3	3450	100	7.18	1.87	0	4
6/18/2008	16:30	32.41	7.32	3466	110.7	7.95	1.88	0	4
6/18/2008	16:45	32.43	7.4	3475	110.3	7.92	1.89	0	4
6/18/2008	17:00	32.38	7.48	3468	112.4	8.07	1.88	0	4
6/18/2008	17:15	32.37	7.42	3459	109.3	7.85	1.88	0	4
6/18/2008	17:30	32.44	7.71	3537	125.9	9.03	1.92	0	4
6/18/2008	17:45	32.48	7.86	3545	131.6	9.44	1.92	0	4
6/18/2008	18:00	32.39	7.88	3549	128.3	9.21	1.93	0	4
6/18/2008	18:15	32.44	7.97	3577	133.8	9.6	1.94	0	4
6/18/2008	18:30	32.43	8.07	3588	135.1	9.7	1.95	0	4
6/18/2008	18:45	32.43	8.09	3603	133	9.54	1.96	0	4
6/18/2008	19:00	32.42	8.18	3608	134.2	9.64	1.96	0	4
6/18/2008	19:15	32.42	8.2	3629	135.5	9.73	1.97	0	4
6/18/2008	19:30	32.43	8.31	3655	140.5	10.08	1.99	0	4
6/18/2008	19:45	32.39	8.28	3635	138.1	9.91	1.97	0	4
6/18/2008	20:00	32.36	8.25	3641	135.1	9.7	1.98	0	4
6/18/2008	20:15	32.32	8.26	3645	135	9.71	1.98	0	4
6/18/2008	20:30	32.27	8.2	3644	132.3	9.52	1.98	0	4
6/18/2008	20:45	32.27	8.2	3659	130.8	9.41	1.99	0	4
6/18/2008	21:00	32.24	8.15	3663	126.1	9.07	1.99	0	4
6/18/2008	21:15	32.21	8.09	3661	125.5	9.04	1.99	0	4
6/18/2008	21:30	32.11	8.01	3663	120.1	8.66	1.99	0	4

6/18/2008	21:45	32.1	7.97	3657	118	8.52	1.99	0	4
6/18/2008	22:00	32.03	8	3653	121.5	8.78	1.98	0	4
6/18/2008	22:15	31.98	7.94	3637	118.7	8.58	1.98	0	4
6/18/2008	22:30	31.9	7.82	3626	113.2	8.19	1.97	0	4
6/18/2008	22:45	31.8	7.62	3608	104.9	7.61	1.96	0	4
6/18/2008	23:00	31.69	7.46	3586	94.1	6.84	1.95	0	4
6/18/2008	23:15	31.63	7.33	3388	86	6.26	1.83	0	4
6/18/2008	23:30	31.55	7.28	3417	82.5	6.01	1.86	0	4
6/18/2008	23:45	31.5	7.26	3548	81.1	5.91	1.93	0	4
6/19/2008	0:00	31.41	7.22	3533	77	5.63	1.92	0	4
6/19/2008	0:15	31.36	7.18	3525	74	5.4	1.91	0	4
6/19/2008	0:30	31.29	7.13	3487	67.5	4.94	1.89	0	4
6/19/2008	0:45	31.18	7.09	3480	63.2	4.63	1.89	0	4
6/19/2008	1:00	31.11	7.05	3451	58.1	4.26	1.87	0	4
6/19/2008	1:15	31.04	7.02	3435	53.1	3.9	1.86	1	4
6/19/2008	1:30	30.92	6.98	3399	46.4	3.42	1.84	1	4
6/19/2008	1:45	30.83	6.96	3382	43.1	3.18	1.83	1	4
6/19/2008	2:00	30.71	6.93	3352	37.4	2.76	1.82	1	4
6/19/2008	2:15	30.62	6.91	3330	33.9	2.51	1.8	1	4
6/19/2008	2:30	30.56	6.91	3340	32.4	2.4	1.81	1	4
6/19/2008	2:45	30.43	6.89	3317	28.2	2.09	1.8	1	4
6/19/2008	3:00	30.36	6.88	3299	25.7	1.91	1.79	1	4
6/19/2008	3:15	30.27	6.87	3282	23	1.71	1.78	1	4
6/19/2008	3:30	30.23	6.86	3287	20.9	1.56	1.78	1	4
6/19/2008	3:45	30.18	6.86	3289	21.8	1.63	1.78	1	4
6/19/2008	4:00	30.09	6.85	3272	19	1.42	1.77	1	4
6/19/2008	4:15	29.98	6.85	3258	15.7	1.18	1.76	1	4
6/19/2008	4:30	29.92	6.84	3235	13.9	1.04	1.75	1	4
6/19/2008	4:45	29.8	6.83	3205	12.3	0.92	1.73	1	4
6/19/2008	5:00	29.76	6.83	3187	11.4	0.86	1.72	1	4
6/19/2008	5:15	29.68	6.83	3178	11.5	0.87	1.72	1	4
6/19/2008	5:30	29.61	6.83	3181	10.8	0.81	1.72	1	4
6/19/2008	5:45	29.49	6.82	3175	10	0.75	1.72	1	4
6/19/2008	6:00	29.41	6.82	3177	8.6	0.65	1.72	1	4
6/19/2008	6:15	29.43	6.82	3176	8.3	0.63	1.72	1	4
6/19/2008	6:30	29.41	6.82	3176	8.9	0.67	1.72	1	4
6/19/2008	6:45	29.34	6.82	3176	8.7	0.66	1.72	1	4
6/19/2008	7:00	29.28	6.82	3179	7.9	0.6	1.72	1	4
6/19/2008	7:15	29.18	6.82	3180	8.1	0.61	1.72	1	4
6/19/2008	7:30	29.16	6.82	3182	7.7	0.58	1.72	1	4
6/19/2008	7:45	29.13	6.82	3183	9.1	0.69	1.72	1	4
6/19/2008	8:00	29.14	6.82	3182	9.1	0.69	1.72	1	4
6/19/2008	8:15	29.16	6.83	3181	10.6	0.8	1.72	1	4
6/19/2008	8:30	29.16	6.84	3179	13	0.99	1.72	1	4
6/19/2008	8:45	29.17	6.84	3182	14.8	1.12	1.72	1	4
6/19/2008	9:00	29.19	6.84	3190	15.7	1.19	1.73	1	4
6/19/2008	9:15	29.29	6.85	3235	14.6	1.11	1.75	1	4
6/19/2008	9:30	29.34	6.84	3256	14.2	1.08	1.76	1	4
6/19/2008	9:45	29.4	6.85	3269	15.5	1.17	1.77	1	4
6/19/2008	10:00	29.42	6.85	3279	16.4	1.24	1.78	1	4

6/19/2008	10:15	29.48	6.86	3301	19.1	1.44	1.79	1	4
						avg=	1.758929		
						min=	1.52		
						max=	1.99		


Site Number 3666, Bayou Cane Bottom Site Upstream of the Lake
Subsegment 040904, DO & Temperature vs. Date/Time
DO STATISTICS
Min DO = 0.16 mg/L
Max DO = 12.73 mg/L
Average DO = 6.12 mg/L
25th Percentile = 3.35 mg/L
50th Percentile = 5.96 mg/L
% Failing Criteria = 33.51 %
Std. Deviation = 3.61 mg/L
Variance = 13.01 mg/L
DO mg/L
DO Criteria mg/L
Temp øC
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
0
2
4
6
8
10
12
14
29
29.5
30
30.5
31
31.5
32
32.5
33
33.5
34
34.5
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00


Site Number 3666, Bayou Cane Bottom Site Upstream of the Lake
Subsegment 040904, DO & pH vs. Date/Time
Dissolved Oxygen (mg/L)
pH
Date/Time
14
12
10
8
6
4
2
0
10
9
8
7
6
5
4
3
2
1
0
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00
DO STATISTICS
Min DO = 0.16 mg/L
Max DO = 12.73 mg/L
Average DO = 6.12 mg/L
25th Percentile = 3.35 mg/L
50th Percentile = 5.96 mg/L
% Failing Criteria = 33.51 %
Std. Deviation = 3.61 mg/L
Variance = 13.01 mg/L
DO mg/L
DO Criteria mg/L
pH Units


Site Number 3666, Bayou Cane Bottom Site Upstream of the Lake
Subsegment 040904, DO & Specific Conductivity vs. Date/Time
DO STATISTICS
Min DO = 0.16 mg/L
Max DO = 12.73 mg/L
Average DO = 6.12 mg/L
25th Percentile = 3.35 mg/L
50th Percentile = 5.96 mg/L
% Failing Criteria = 33.51 %
Std. Deviation = 3.61 mg/L
Variance = 13.01 mg/L
DO mg/L
DO Criteria mg/L
SpCond uS/cm
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
0
2
4
6
8
10
12
14
3300
3400
3500
3600
3700
3800
3900
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
6/20/2008 00:00

Site Number:	3666	Site Name:	Bayou Cane Bottom Site Upstream of Lake Pontchartrain		
Subsegment #:	040904				
	Temp deg C	pH	SpCond uS/cm	DO % sat	DO mg/L
Minimum	29.33	6.79	3374.00	2.20	0.16
Maximum	33.80	8.90	3831.00	180.30	12.73
Average	31.59	7.67	3638.03	84.86	6.12
Geometric Mean	31.57	7.64	#NUM!	#NUM!	4.50
25th Percentile	30.62	7.01	3519.00	45.23	3.35
30th Percentile	30.86	7.07	3549.80	52.19	3.90
40th Percentile	31.17	7.16	3610.60	60.54	4.49
50th Percentile	31.56	7.44	3674.50	81.80	5.96
Standard Deviation	1.12	0.74	127.53	50.97	3.61
Variance	1.25	0.54	16263.63	2597.61	13.01
Data Row Count		194			
Total Values Failing DO Criteria		65			
Percent failing DO Criteria		33.51	%		

Bayou Cane, Site 3666, Continuous Monitoring Data

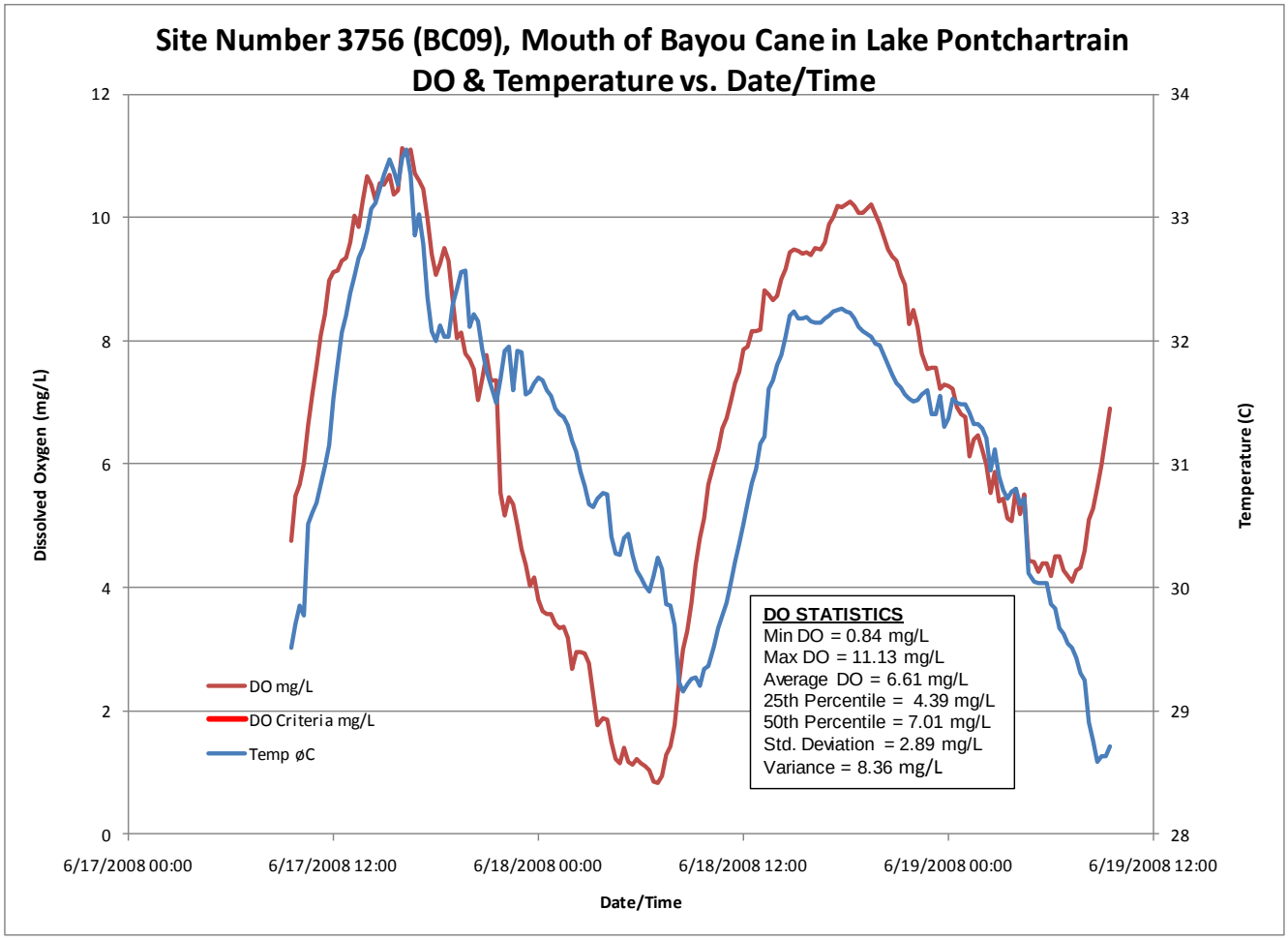
Date_	Time	Temp	pH	SpCond	DO PERCENT	DO	SALINITY	Is DO < Criteria	DO Criteria
MMDDYY	HHMM	øC	Units	uS/cm	Sat	mg/L	ppt	4	mg/L
6/17/2008	9:30	30.38	6.89	3452	23	1.71	1.87	1	4
6/17/2008	9:45	30.45	6.89	3454	23.2	1.73	1.87	1	4
6/17/2008	10:00	30.51	6.89	3461	27.4	2.03	1.88	1	4
6/17/2008	10:15	30.78	6.93	3487	34.8	2.57	1.89	1	4
6/17/2008	10:30	31.11	6.98	3517	44.9	3.29	1.91	1	4
6/17/2008	10:45	31.26	7.05	3519	55.3	4.05	1.91	0	4
6/17/2008	11:00	31	6.96	3509	41.6	3.06	1.9	1	4
6/17/2008	11:15	30.97	6.94	3495	35.6	2.62	1.9	1	4
6/17/2008	11:30	31.14	7.01	3503	51.8	3.8	1.9	1	4
6/17/2008	11:45	32.5	7.33	3591	96.2	6.9	1.95	0	4
6/17/2008	12:00	32.03	7.25	3581	78	5.64	1.94	0	4
6/17/2008	12:15	32.84	7.82	3608	127.9	9.12	1.96	0	4
6/17/2008	12:30	32.56	7.93	3597	121.8	8.72	1.95	0	4
6/17/2008	12:45	32.56	8.22	3644	130	9.31	1.98	0	4
6/17/2008	13:00	31.65	7.43	3584	81.8	5.95	1.95	0	4
6/17/2008	13:15	31.3	7.08	3535	57.4	4.2	1.92	0	4
6/17/2008	13:30	31.68	7.02	3517	49.7	3.61	1.91	1	4
6/17/2008	13:45	33.13	8.51	3656	149	10.57	1.99	0	4
6/17/2008	14:00	33.21	8.52	3668	149.4	10.58	1.99	0	4
6/17/2008	14:15	33.67	8.67	3681	157.3	11.05	2	0	4
6/17/2008	14:30	33.69	8.68	3688	157.4	11.06	2	0	4
6/17/2008	14:45	33.8	8.73	3692	142.2	9.97	2.01	0	4
6/17/2008	15:00	32.32	7.25	3486	59	4.25	1.89	0	4
6/17/2008	15:15	31.61	7.11	3540	65.5	4.77	1.92	0	4
6/17/2008	15:30	31.37	6.94	3519	37.1	2.71	1.91	1	4
6/17/2008	15:45	31.85	7.16	3551	72.3	5.24	1.93	0	4
6/17/2008	16:00	32.74	7.7	3591	115.1	8.22	1.95	0	4
6/17/2008	16:15	33.27	8.07	3625	125.8	8.9	1.97	0	4
6/17/2008	16:30	33.27	7.95	3604	118.5	8.39	1.96	0	4
6/17/2008	16:45	33.49	8.5	3643	144.9	10.21	1.98	0	4
6/17/2008	17:00	32.95	7.93	3623	116.1	8.26	1.97	0	4
6/17/2008	17:15	33.03	7.95	3636	114.9	8.16	1.98	0	4
6/17/2008	17:30	33.13	8.08	3656	117.4	8.33	1.99	0	4
6/17/2008	17:45	32.91	8.77	3744	132.3	9.41	2.04	0	4
6/17/2008	18:00	32.85	8.71	3747	121.5	8.66	2.04	0	4
6/17/2008	18:15	32.88	8.68	3735	125.5	8.93	2.03	0	4
6/17/2008	18:30	32.81	8.69	3743	123.5	8.81	2.04	0	4
6/17/2008	18:45	32.76	8.72	3747	124.3	8.87	2.04	0	4
6/17/2008	19:00	32.82	8.61	3737	118.7	8.46	2.03	0	4
6/17/2008	19:15	32.85	8.45	3722	109.9	7.83	2.02	0	4
6/17/2008	19:30	32.82	8.13	3690	100.4	7.15	2.01	0	4
6/17/2008	19:45	32.66	7.74	3652	93.1	6.65	1.98	0	4
6/17/2008	20:00	32.46	7.45	3617	79.6	5.71	1.96	0	4
6/17/2008	20:15	32.58	7.61	3654	88.3	6.32	1.99	0	4
6/17/2008	20:30	32.63	7.65	3672	88.2	6.3	2	0	4

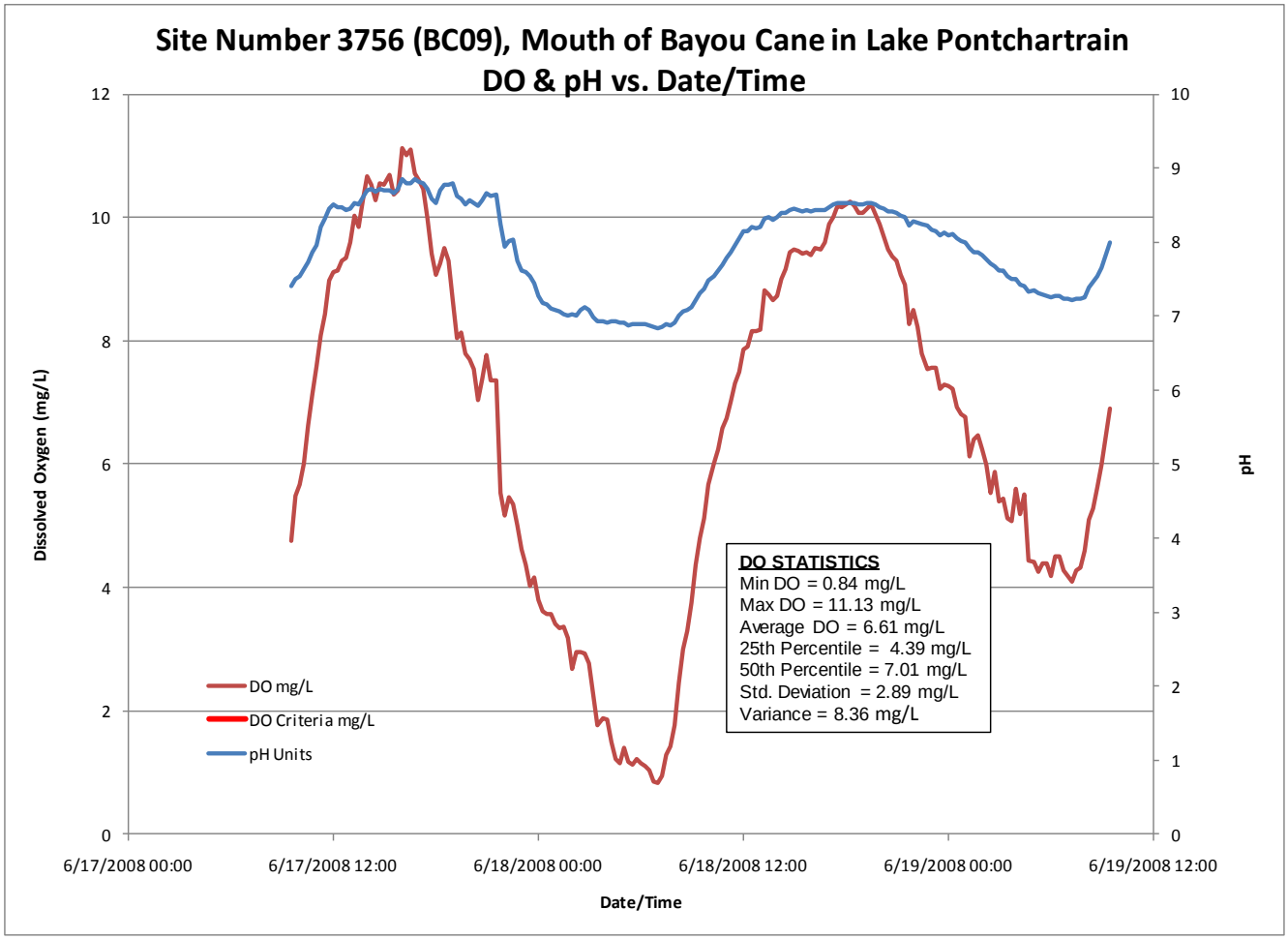
6/17/2008	20:45	32.64	7.98	3708	92.2	6.59	2.02	0	4
6/17/2008	21:00	32.54	8	3718	89.4	6.4	2.02	0	4
6/17/2008	21:15	32.5	8.01	3713	87.8	6.29	2.02	0	4
6/17/2008	21:30	32.52	7.84	3703	83.2	5.96	2.01	0	4
6/17/2008	21:45	32.44	7.64	3679	80.5	5.77	2	0	4
6/17/2008	22:00	32.3	7.41	3649	73.3	5.27	1.98	0	4
6/17/2008	22:15	32.09	7.25	3607	67.4	4.87	1.96	0	4
6/17/2008	22:30	32.07	7.2	3601	62.3	4.5	1.96	0	4
6/17/2008	22:45	31.98	7.2	3600	64.6	4.67	1.95	0	4
6/17/2008	23:00	31.88	7.18	3580	64.6	4.68	1.94	0	4
6/17/2008	23:15	31.84	7.14	3564	60.2	4.36	1.94	0	4
6/17/2008	23:30	31.82	7.1	3568	51.5	3.74	1.94	1	4
6/17/2008	23:45	31.76	7.13	3569	60.2	4.37	1.94	0	4
6/18/2008	0:00	31.7	7.1	3565	56.3	4.09	1.94	0	4
6/18/2008	0:15	31.62	7.08	3550	54.8	3.98	1.93	1	4
6/18/2008	0:30	31.57	7.05	3536	52.3	3.81	1.92	1	4
6/18/2008	0:45	31.48	7.02	3529	48.5	3.54	1.92	1	4
6/18/2008	1:00	31.44	7.01	3520	46.2	3.38	1.91	1	4
6/18/2008	1:15	31.37	6.99	3511	43.6	3.18	1.91	1	4
6/18/2008	1:30	31.36	6.95	3502	38.4	2.81	1.9	1	4
6/18/2008	1:45	31.28	6.94	3493	36.4	2.67	1.9	1	4
6/18/2008	2:00	31.26	6.9	3485	29.1	2.13	1.89	1	4
6/18/2008	2:15	31.19	6.92	3490	35.3	2.59	1.89	1	4
6/18/2008	2:30	31.16	6.94	3506	35.7	2.62	1.9	1	4
6/18/2008	2:45	31.12	6.94	3513	35	2.57	1.91	1	4
6/18/2008	3:00	31.08	6.9	3512	29.3	2.15	1.91	1	4
6/18/2008	3:15	31.04	6.91	3507	29.8	2.19	1.9	1	4
6/18/2008	3:30	30.99	6.88	3500	25.6	1.88	1.9	1	4
6/18/2008	3:45	30.97	6.86	3487	21.4	1.57	1.89	1	4
6/18/2008	4:00	30.87	6.85	3457	18.9	1.4	1.88	1	4
6/18/2008	4:15	30.87	6.82	3458	10	0.74	1.88	1	4
6/18/2008	4:30	30.86	6.8	3463	3.3	0.24	1.88	1	4
6/18/2008	4:45	30.85	6.79	3457	2.2	0.16	1.88	1	4
6/18/2008	5:00	30.81	6.8	3457	2.2	0.16	1.88	1	4
6/18/2008	5:15	30.66	6.81	3441	11.7	0.87	1.87	1	4
6/18/2008	5:30	30.61	6.81	3430	8	0.59	1.86	1	4
6/18/2008	5:45	30.46	6.81	3439	7.8	0.58	1.87	1	4
6/18/2008	6:00	30.43	6.83	3438	13	0.96	1.86	1	4
6/18/2008	6:15	30.41	6.82	3433	8.9	0.66	1.86	1	4
6/18/2008	6:30	30.37	6.81	3434	8.1	0.6	1.86	1	4
6/18/2008	6:45	30.31	6.81	3422	6.8	0.5	1.86	1	4
6/18/2008	7:00	30.26	6.81	3405	5	0.37	1.85	1	4
6/18/2008	7:15	30.22	6.8	3390	3.3	0.25	1.84	1	4
6/18/2008	7:30	30.18	6.79	3380	2.3	0.17	1.83	1	4
6/18/2008	7:45	30.1	6.8	3374	6	0.45	1.83	1	4
6/18/2008	8:00	30.08	6.81	3384	9.4	0.71	1.83	1	4
6/18/2008	8:15	30.07	6.82	3404	10.5	0.79	1.85	1	4
6/18/2008	8:30	30.11	6.82	3416	10.3	0.77	1.85	1	4
6/18/2008	8:45	30.1	6.82	3427	10.2	0.76	1.86	1	4
6/18/2008	9:00	30.1	6.83	3431	11.7	0.87	1.86	1	4

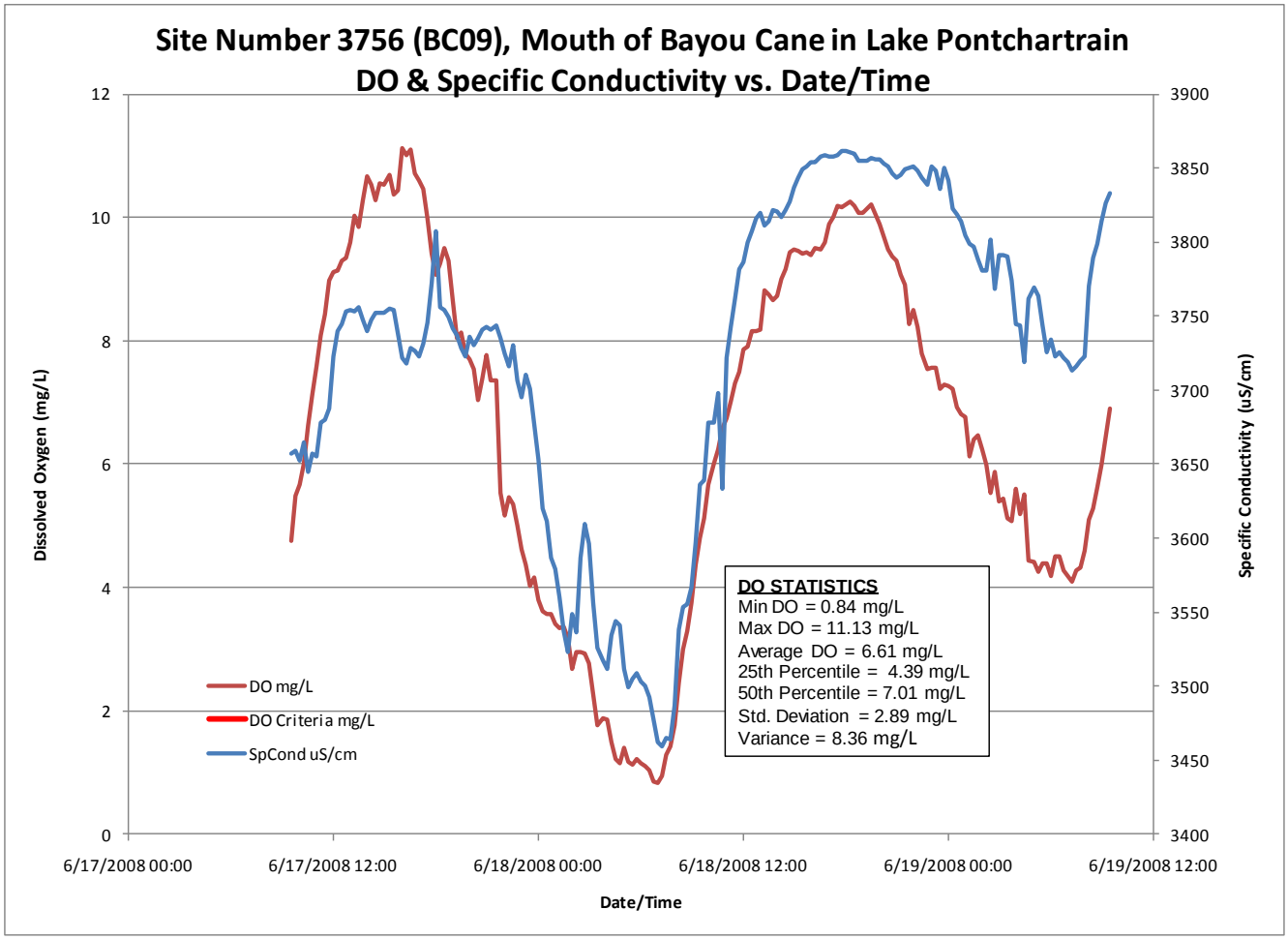
6/18/2008	9:15	30.1	6.84	3439	14.1	1.05	1.87	1	4
6/18/2008	9:30	30.07	6.87	3457	20.2	1.51	1.88	1	4
6/18/2008	9:45	30	6.9	3471	27.1	2.02	1.88	1	4
6/18/2008	10:00	29.89	6.97	3493	41.8	3.13	1.9	1	4
6/18/2008	10:15	29.78	7.07	3516	57.8	4.34	1.91	0	4
6/18/2008	10:30	29.74	7.09	3526	59.7	4.49	1.91	0	4
6/18/2008	10:45	29.79	7.2	3548	71.5	5.36	1.93	0	4
6/18/2008	11:00	29.87	7.28	3570	79.4	5.95	1.94	0	4
6/18/2008	11:15	29.96	7.46	3591	94	7.03	1.95	0	4
6/18/2008	11:30	30.1	7.59	3609	100.9	7.53	1.96	0	4
6/18/2008	11:45	30.26	7.69	3617	105.3	7.84	1.96	0	4
6/18/2008	12:00	30.5	7.78	3627	110.8	8.21	1.97	0	4
6/18/2008	12:15	30.78	7.88	3643	117	8.64	1.98	0	4
6/18/2008	12:30	30.99	7.98	3661	121.5	8.93	1.99	0	4
6/18/2008	12:45	31.2	8.09	3677	127	9.3	2	0	4
6/18/2008	13:00	31.28	8.15	3679	129.7	9.49	2	0	4
6/18/2008	13:15	31.38	8.22	3684	132.1	9.64	2	0	4
6/18/2008	13:30	31.73	8.44	3701	143.1	10.38	2.01	0	4
6/18/2008	13:45	32.28	8.61	3713	153.3	11.02	2.02	0	4
6/18/2008	14:00	32.48	8.61	3724	152.9	10.96	2.02	0	4
6/18/2008	14:15	32.76	8.68	3736	159.5	11.38	2.03	0	4
6/18/2008	14:30	32.83	8.7	3736	161.3	11.49	2.03	0	4
6/18/2008	14:45	33.02	8.76	3744	167.8	11.92	2.04	0	4
6/18/2008	15:00	33.08	8.8	3738	168.5	11.95	2.03	0	4
6/18/2008	15:15	33.17	8.84	3769	173.3	12.28	2.05	0	4
6/18/2008	15:30	33.24	8.88	3771	175.5	12.42	2.05	0	4
6/18/2008	15:45	33.36	8.9	3774	180.3	12.73	2.05	0	4
6/18/2008	16:00	33.25	8.9	3776	177.6	12.56	2.05	0	4
6/18/2008	16:15	33.21	8.88	3781	170.6	12.07	2.06	0	4
6/18/2008	16:30	33.17	8.89	3780	173.2	12.27	2.06	0	4
6/18/2008	16:45	33.18	8.9	3784	172.9	12.24	2.06	0	4
6/18/2008	17:00	33.14	8.88	3784	171	12.12	2.06	0	4
6/18/2008	17:15	33.21	8.88	3787	171.4	12.14	2.06	0	4
6/18/2008	17:30	33.12	8.87	3792	165.1	11.7	2.06	0	4
6/18/2008	17:45	33.06	8.86	3798	165.6	11.75	2.07	0	4
6/18/2008	18:00	32.99	8.84	3801	163.5	11.62	2.07	0	4
6/18/2008	18:15	33.01	8.87	3800	165	11.72	2.07	0	4
6/18/2008	18:30	32.91	8.85	3813	163.2	11.61	2.07	0	4
6/18/2008	18:45	32.86	8.84	3814	160.1	11.4	2.08	0	4
6/18/2008	19:00	32.81	8.81	3819	158.6	11.3	2.08	0	4
6/18/2008	19:15	32.78	8.79	3818	155.2	11.06	2.08	0	4
6/18/2008	19:30	32.74	8.73	3822	151.7	10.82	2.08	0	4
6/18/2008	19:45	32.71	8.76	3824	153	10.92	2.08	0	4
6/18/2008	20:00	32.68	8.78	3825	151.9	10.85	2.08	0	4
6/18/2008	20:15	32.6	8.75	3827	146.4	10.47	2.08	0	4
6/18/2008	20:30	32.55	8.64	3826	142.7	10.21	2.08	0	4
6/18/2008	20:45	32.47	8.65	3827	137.9	9.88	2.08	0	4
6/18/2008	21:00	32.41	8.62	3829	134.8	9.67	2.08	0	4
6/18/2008	21:15	32.39	8.58	3831	128.9	9.25	2.08	0	4
6/18/2008	21:30	32.38	8.51	3831	125.2	8.98	2.08	0	4

6/18/2008	21:45	32.33	8.43	3830	117.9	8.47	2.08	0	4
6/18/2008	22:00	32.27	8.49	3828	128.6	9.24	2.08	0	4
6/18/2008	22:15	32.21	8.48	3823	126.2	9.08	2.08	0	4
6/18/2008	22:30	32.17	8.43	3812	123.7	8.91	2.07	0	4
6/18/2008	22:45	32.08	8.37	3800	118.5	8.55	2.07	0	4
6/18/2008	23:00	32.03	8.27	3792	115.9	8.37	2.06	0	4
6/18/2008	23:15	31.99	8.27	3793	116	8.38	2.06	0	4
6/18/2008	23:30	31.94	8.28	3796	116.3	8.41	2.06	0	4
6/18/2008	23:45	31.89	8.2	3783	110.4	7.99	2.06	0	4
6/19/2008	0:00	31.82	8.14	3780	108.2	7.84	2.06	0	4
6/19/2008	0:15	31.76	8.13	3774	110	7.98	2.05	0	4
6/19/2008	0:30	31.72	8.13	3770	109.5	7.95	2.05	0	4
6/19/2008	0:45	31.67	8.1	3523	108.3	7.88	1.91	0	4
6/19/2008	1:00	31.61	8.05	3766	107	7.78	2.05	0	4
6/19/2008	1:15	31.55	8.02	3760	105.3	7.67	2.04	0	4
6/19/2008	1:30	31.49	7.95	3755	103.8	7.56	2.04	0	4
6/19/2008	1:45	31.42	7.89	3744	100.3	7.32	2.04	0	4
6/19/2008	2:00	31.35	7.81	3739	97	7.09	2.03	0	4
6/19/2008	2:15	31.31	7.75	3731	95.8	7	2.03	0	4
6/19/2008	2:30	31.24	7.66	3723	92.5	6.77	2.02	0	4
6/19/2008	2:45	31.16	7.6	3717	90.4	6.62	2.02	0	4
6/19/2008	3:00	31.1	7.53	3718	87.3	6.41	2.02	0	4
6/19/2008	3:15	31.05	7.49	3714	81.8	6.01	2.02	0	4
6/19/2008	3:30	31.04	7.41	3716	77.1	5.66	2.02	0	4
6/19/2008	3:45	30.95	7.41	3711	81.9	6.03	2.02	0	4
6/19/2008	4:00	30.87	7.39	3710	79.1	5.83	2.02	0	4
6/19/2008	4:15	30.8	7.35	3700	76.8	5.66	2.01	0	4
6/19/2008	4:30	30.75	7.29	3686	73.8	5.45	2	0	4
6/19/2008	4:45	30.71	7.24	3676	68.3	5.05	2	0	4
6/19/2008	5:00	30.7	7.16	3687	54	3.99	2	1	4
6/19/2008	5:15	30.53	7.17	3675	61.9	4.59	2	0	4
6/19/2008	5:30	30.51	7.16	3676	60.1	4.45	2	0	4
6/19/2008	5:45	30.46	7.13	3677	55.9	4.15	2	0	4
6/19/2008	6:00	30.4	7.06	3687	40.4	3	2	1	4
6/19/2008	6:15	30.31	7.11	3472	56	4.17	1.88	0	4
6/19/2008	6:30	30.27	7.09	3664	53.8	4	1.99	0	4
6/19/2008	6:45	30.3	6.97	3686	19.8	1.47	2	1	4
6/19/2008	7:00	30.16	6.94	3677	10.4	0.77	2	1	4
6/19/2008	7:15	30.19	6.93	3681	9.3	0.69	2	1	4
6/19/2008	7:30	30.04	7.03	3681	44.7	3.34	2	1	4
6/19/2008	7:45	29.97	7.03	3676	48.8	3.65	2	1	4
6/19/2008	8:00	29.96	7.06	3674	51.2	3.83	2	1	4
6/19/2008	8:15	29.93	7.08	3676	53.2	3.98	2	1	4
6/19/2008	8:30	29.93	7.08	3681	52.2	3.91	2	1	4
6/19/2008	8:45	29.96	7.09	3688	53.2	3.98	2	1	4
6/19/2008	9:00	30.07	7.1	3695	53.4	3.99	2.01	1	4
6/19/2008	9:15	29.92	7.07	3711	47.5	3.56	2.02	1	4
6/19/2008	9:30	29.46	7.12	3728	52.1	3.93	2.03	1	4
6/19/2008	9:45	29.33	7.15	3734	54.8	4.15	2.03	0	4

avg=	1.976753
min=	1.83
max=	2.08


Site Number 3756 (BC09), Mouth of Bayou Cane in Lake Pontchartrain
DO & Temperature vs. Date/Time
Dissolved Oxygen (mg/L)
Temperature (C)
Date/Time
12
10
8
6
4
2
0
34
33
32
31
30
29
28
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
DO mg/L
DO Criteria mg/L
Temp øC
DO STATISTICS
Min DO = 0.84 mg/L
Max DO = 11.13 mg/L
Average DO = 6.61 mg/L
25th Percentile = 4.39 mg/L
50th Percentile = 7.01 mg/L
Std. Deviation = 2.89 mg/L
Variance = 8.36 mg/L


Site Number 3756 (BC09), Mouth of Bayou Cane in Lake Pontchartrain
DO & pH vs. Date/Time
Dissolved Oxygen (mg/L)
pH
Date/Time
DO mg/L
DO Criteria mg/L
pH Units
DO STATISTICS
Min DO = 0.84 mg/L
Max DO = 11.13 mg/L
Average DO = 6.61 mg/L
25th Percentile = 4.39 mg/L
50th Percentile = 7.01 mg/L
Std. Deviation = 2.89 mg/L
Variance = 8.36 mg/L
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00


Site Number 3756 (BC09), Mouth of Bayou Cane in Lake Pontchartrain
DO & Specific Conductivity vs. Date/Time
Dissolved Oxygen (mg/L)
Specific Conductivity (uS/cm)
Date/Time
12
10
8
6
4
2
0
3900
3850
3800
3750
3700
3650
3600
3550
3500
3450
3400
6/17/2008 00:00
6/17/2008 12:00
6/18/2008 00:00
6/18/2008 12:00
6/19/2008 00:00
6/19/2008 12:00
DO mg/L
DO Criteria mg/L
SpCond uS/cm
DO STATISTICS
Min DO = 0.84 mg/L
Max DO = 11.13 mg/L
Average DO = 6.61 mg/L
25th Percentile = 4.39 mg/L
50th Percentile = 7.01 mg/L
Std. Deviation = 2.89 mg/L
Variance = 8.36 mg/L

Site Number:	3756 (BC09)	Site Name:	Lake Pontchartrain--south of mouth of Bayou Cane		
	Temp deg C	pH	SpCond uS/cm	DO % sat	DO mg/L
Minimum	28.59	6.84	3459.00	11.20	0.84
Maximum	33.55	8.85	3862.00	157.90	11.13
Average	31.18	7.90	3724.94	90.77	6.61
Geometric Mean	31.16	7.88	#NUM!	#NUM!	5.70
25th Percentile	30.26	7.30	3677.00	58.90	4.39
30th Percentile	30.63	7.44	3708.80	65.56	4.92
40th Percentile	30.96	7.69	3726.80	76.20	5.68
50th Percentile	31.42	8.01	3744.00	95.00	7.01
Standard Deviation	1.15	0.63	110.34	40.80	2.89
Variance	1.33	0.39	12174.33	1664.52	8.36

Bayou Cane, Site 3756, Continuous Monitoring Data

Date_	Time	Temp	pH	SpCond	DO PERCENT	DO	SALINITY
MMDDYY	HHMM	øC	Units	uS/cm	Sat	mg/L	ppt
6/17/2008	9:30	29.51	7.4	3657	63.2	4.76	1.99
6/17/2008	9:45	29.71	7.51	3659	73.1	5.49	1.99
6/17/2008	10:00	29.85	7.54	3652	75.6	5.66	1.98
6/17/2008	10:15	29.77	7.64	3665	80.2	6.02	1.99
6/17/2008	10:30	30.51	7.72	3645	89.3	6.62	1.98
6/17/2008	10:45	30.61	7.87	3657	96.5	7.14	1.99
6/17/2008	11:00	30.69	7.96	3655	102.7	7.59	1.99
6/17/2008	11:15	30.83	8.21	3678	109.6	8.08	2
6/17/2008	11:30	30.98	8.32	3680	114.9	8.44	2
6/17/2008	11:45	31.15	8.45	3688	122.4	8.97	2
6/17/2008	12:00	31.53	8.51	3723	125.3	9.12	2.02
6/17/2008	12:15	31.8	8.47	3740	126	9.14	2.03
6/17/2008	12:30	32.07	8.47	3745	128.8	9.3	2.04
6/17/2008	12:45	32.2	8.43	3753	129.8	9.35	2.04
6/17/2008	13:00	32.39	8.46	3754	133.8	9.6	2.04
6/17/2008	13:15	32.52	8.52	3753	139.9	10.02	2.04
6/17/2008	13:30	32.67	8.5	3756	137.8	9.84	2.04
6/17/2008	13:45	32.75	8.6	3747	144.2	10.28	2.04
6/17/2008	14:00	32.89	8.7	3740	150	10.67	2.03
6/17/2008	14:15	33.07	8.71	3747	148.2	10.52	2.04
6/17/2008	14:30	33.12	8.68	3752	145	10.28	2.04
6/17/2008	14:45	33.23	8.71	3752	149.1	10.56	2.04
6/17/2008	15:00	33.35	8.7	3752	149.2	10.54	2.04
6/17/2008	15:15	33.47	8.7	3755	151.6	10.68	2.04
6/17/2008	15:30	33.38	8.67	3754	146.9	10.37	2.04
6/17/2008	15:45	33.27	8.72	3738	147.7	10.45	2.03
6/17/2008	16:00	33.48	8.85	3722	157.9	11.13	2.02
6/17/2008	16:15	33.55	8.8	3718	156.4	11.01	2.02
6/17/2008	16:30	33.34	8.8	3728	157	11.09	2.03
6/17/2008	16:45	32.85	8.85	3727	150.5	10.72	2.03
6/17/2008	17:00	33.02	8.81	3723	149.3	10.6	2.02
6/17/2008	17:15	32.79	8.8	3731	146.7	10.46	2.03
6/17/2008	17:30	32.35	8.72	3746	139	9.98	2.04
6/17/2008	17:45	32.08	8.58	3772	130.4	9.41	2.05
6/17/2008	18:00	32	8.53	3807	125.4	9.06	2.07
6/17/2008	18:15	32.12	8.7	3756	128.5	9.26	2.04
6/17/2008	18:30	32.03	8.77	3754	131.6	9.5	2.04
6/17/2008	18:45	32.03	8.77	3749	128.8	9.3	2.04
6/17/2008	19:00	32.29	8.79	3742	120.5	8.66	2.03
6/17/2008	19:15	32.42	8.62	3737	112.2	8.05	2.03
6/17/2008	19:30	32.56	8.58	3728	113.6	8.13	2.03
6/17/2008	19:45	32.57	8.5	3723	108.8	7.79	2.02
6/17/2008	20:00	32.11	8.57	3736	106.9	7.71	2.03
6/17/2008	20:15	32.22	8.53	3730	104.6	7.53	2.03
6/17/2008	20:30	32.16	8.49	3735	97.7	7.04	2.03

6/17/2008	20:45	31.93	8.56	3741	102	7.38	2.03
6/17/2008	21:00	31.76	8.66	3743	107.2	7.78	2.04
6/17/2008	21:15	31.64	8.63	3741	101.3	7.36	2.03
6/17/2008	21:30	31.5	8.64	3744	101.1	7.36	2.04
6/17/2008	21:45	31.69	8.24	3735	76.3	5.54	2.03
6/17/2008	22:00	31.92	7.94	3725	71.5	5.17	2.02
6/17/2008	22:15	31.95	8.01	3716	75.5	5.46	2.02
6/17/2008	22:30	31.6	8.04	3730	73.4	5.34	2.03
6/17/2008	22:45	31.92	7.74	3707	69	5	2.02
6/17/2008	23:00	31.91	7.61	3695	63.7	4.61	2.01
6/17/2008	23:15	31.57	7.6	3710	59.9	4.36	2.02
6/17/2008	23:30	31.59	7.53	3701	55.3	4.02	2.01
6/17/2008	23:45	31.66	7.45	3677	57.3	4.17	2
6/18/2008	0:00	31.7	7.28	3653	52.2	3.79	1.98
6/18/2008	0:15	31.68	7.18	3620	49.7	3.61	1.97
6/18/2008	0:30	31.6	7.15	3611	49.1	3.57	1.96
6/18/2008	0:45	31.55	7.11	3587	48.8	3.56	1.95
6/18/2008	1:00	31.45	7.09	3579	46.9	3.42	1.94
6/18/2008	1:15	31.4	7.06	3560	45.8	3.34	1.93
6/18/2008	1:30	31.38	7.03	3537	46.1	3.37	1.92
6/18/2008	1:45	31.31	7	3523	43.6	3.19	1.91
6/18/2008	2:00	31.19	7.02	3549	36.7	2.69	1.93
6/18/2008	2:15	31.1	7	3536	40.3	2.96	1.92
6/18/2008	2:30	30.94	7.08	3587	40.1	2.95	1.95
6/18/2008	2:45	30.82	7.12	3610	39.9	2.94	1.96
6/18/2008	3:00	30.68	7.09	3596	37.6	2.78	1.95
6/18/2008	3:15	30.65	6.99	3556	30.6	2.26	1.93
6/18/2008	3:30	30.72	6.93	3526	23.8	1.76	1.91
6/18/2008	3:45	30.77	6.93	3517	25.5	1.88	1.91
6/18/2008	4:00	30.76	6.92	3512	25.1	1.86	1.91
6/18/2008	4:15	30.41	6.93	3534	20	1.49	1.92
6/18/2008	4:30	30.28	6.93	3544	16.2	1.21	1.92
6/18/2008	4:45	30.26	6.92	3541	15.6	1.16	1.92
6/18/2008	5:00	30.4	6.91	3512	18.7	1.39	1.91
6/18/2008	5:15	30.43	6.88	3499	15.9	1.18	1.9
6/18/2008	5:30	30.26	6.89	3505	15.1	1.13	1.9
6/18/2008	5:45	30.14	6.9	3509	16.3	1.21	1.9
6/18/2008	6:00	30.08	6.9	3503	15.6	1.16	1.9
6/18/2008	6:15	30.01	6.89	3500	14.8	1.11	1.9
6/18/2008	6:30	29.97	6.88	3493	13.8	1.03	1.9
6/18/2008	6:45	30.09	6.85	3477	11.6	0.86	1.89
6/18/2008	7:00	30.24	6.84	3462	11.2	0.84	1.88
6/18/2008	7:15	30.15	6.86	3459	12.6	0.94	1.88
6/18/2008	7:30	29.87	6.9	3465	17.1	1.28	1.88
6/18/2008	7:45	29.85	6.88	3464	19.1	1.43	1.88
6/18/2008	8:00	29.69	6.92	3487	23.5	1.76	1.89
6/18/2008	8:15	29.24	7	3538	32.4	2.46	1.92
6/18/2008	8:30	29.16	7.06	3553	39.4	2.99	1.93
6/18/2008	8:45	29.21	7.09	3555	43.4	3.29	1.93
6/18/2008	9:00	29.26	7.13	3567	49.5	3.75	1.94

6/18/2008	9:15	29.27	7.22	3597	57.6	4.36	1.95
6/18/2008	9:30	29.2	7.31	3636	63.2	4.79	1.98
6/18/2008	9:45	29.34	7.36	3639	67.8	5.13	1.98
6/18/2008	10:00	29.36	7.49	3678	75.1	5.68	2
6/18/2008	10:15	29.52	7.54	3678	79.8	6.01	2
6/18/2008	10:30	29.67	7.61	3698	83	6.24	2.01
6/18/2008	10:45	29.77	7.7	3633	87.6	6.58	1.97
6/18/2008	11:00	29.88	7.78	3722	90.1	6.75	2.02
6/18/2008	11:15	30.03	7.87	3743	93.8	7.01	2.03
6/18/2008	11:30	30.21	7.96	3762	98.3	7.32	2.05
6/18/2008	11:45	30.35	8.05	3782	101	7.5	2.06
6/18/2008	12:00	30.51	8.15	3786	106.2	7.87	2.06
6/18/2008	12:15	30.69	8.14	3800	107	7.9	2.07
6/18/2008	12:30	30.85	8.2	3807	110.7	8.15	2.07
6/18/2008	12:45	30.96	8.19	3816	110.9	8.15	2.08
6/18/2008	13:00	31.16	8.2	3820	111.8	8.19	2.08
6/18/2008	13:15	31.22	8.32	3811	120.6	8.83	2.07
6/18/2008	13:30	31.61	8.33	3814	120.4	8.75	2.07
6/18/2008	13:45	31.68	8.3	3822	119.3	8.66	2.08
6/18/2008	14:00	31.8	8.34	3821	120.5	8.73	2.08
6/18/2008	14:15	31.88	8.39	3817	124.3	9	2.08
6/18/2008	14:30	32.03	8.4	3822	127	9.17	2.08
6/18/2008	14:45	32.2	8.44	3827	131.2	9.44	2.08
6/18/2008	15:00	32.24	8.45	3837	131.6	9.47	2.09
6/18/2008	15:15	32.18	8.43	3844	131.4	9.46	2.09
6/18/2008	15:30	32.18	8.42	3849	130.8	9.42	2.09
6/18/2008	15:45	32.19	8.43	3851	131.2	9.44	2.1
6/18/2008	16:00	32.16	8.42	3854	130.4	9.39	2.1
6/18/2008	16:15	32.15	8.43	3854	132	9.51	2.1
6/18/2008	16:30	32.15	8.44	3858	131.6	9.48	2.1
6/18/2008	16:45	32.18	8.44	3859	133.3	9.6	2.1
6/18/2008	17:00	32.2	8.48	3858	137.5	9.9	2.1
6/18/2008	17:15	32.24	8.5	3858	139.2	10.01	2.1
6/18/2008	17:30	32.25	8.52	3859	141.6	10.19	2.1
6/18/2008	17:45	32.26	8.52	3862	141.3	10.16	2.1
6/18/2008	18:00	32.24	8.52	3862	141.8	10.2	2.1
6/18/2008	18:15	32.23	8.53	3861	142.7	10.26	2.1
6/18/2008	18:30	32.18	8.52	3860	141.4	10.18	2.1
6/18/2008	18:45	32.11	8.51	3855	139.7	10.07	2.1
6/18/2008	19:00	32.08	8.51	3855	139.8	10.08	2.1
6/18/2008	19:15	32.05	8.52	3855	140.7	10.15	2.1
6/18/2008	19:30	32.03	8.52	3857	141.3	10.2	2.1
6/18/2008	19:45	31.98	8.51	3856	139.1	10.05	2.1
6/18/2008	20:00	31.96	8.48	3856	136.8	9.89	2.1
6/18/2008	20:15	31.88	8.45	3853	133.7	9.68	2.1
6/18/2008	20:30	31.8	8.42	3851	131	9.49	2.1
6/18/2008	20:45	31.73	8.41	3846	129	9.36	2.09
6/18/2008	21:00	31.66	8.4	3844	127.8	9.29	2.09
6/18/2008	21:15	31.62	8.36	3845	124.9	9.08	2.09
6/18/2008	21:30	31.57	8.33	3849	122.4	8.9	2.09

6/18/2008	21:45	31.53	8.23	3850	113.8	8.28	2.1
6/18/2008	22:00	31.51	8.28	3851	116.8	8.51	2.1
6/18/2008	22:15	31.52	8.27	3848	112.9	8.22	2.09
6/18/2008	22:30	31.56	8.24	3844	107.2	7.8	2.09
6/18/2008	22:45	31.6	8.22	3839	103.8	7.55	2.09
6/18/2008	23:00	31.4	8.16	3851	103.7	7.56	2.1
6/18/2008	23:15	31.41	8.15	3848	103.8	7.57	2.09
6/18/2008	23:30	31.55	8.09	3836	99.4	7.23	2.09
6/18/2008	23:45	31.3	8.12	3850	99.9	7.3	2.09
6/19/2008	0:00	31.37	8.1	3842	99.5	7.26	2.09
6/19/2008	0:15	31.53	8.11	3823	99.1	7.21	2.08
6/19/2008	0:30	31.5	8.05	3819	95	6.92	2.08
6/19/2008	0:45	31.48	8.01	3814	93.6	6.82	2.08
6/19/2008	1:00	31.48	7.99	3805	93	6.77	2.07
6/19/2008	1:15	31.42	7.92	3799	83.9	6.12	2.07
6/19/2008	1:30	31.33	7.87	3797	87.7	6.41	2.07
6/19/2008	1:45	31.32	7.86	3788	88.5	6.47	2.06
6/19/2008	2:00	31.29	7.82	3781	85.4	6.24	2.06
6/19/2008	2:15	31.21	7.76	3781	81.7	5.98	2.06
6/19/2008	2:30	30.95	7.71	3802	75.2	5.53	2.07
6/19/2008	2:45	31.12	7.67	3768	80.1	5.87	2.05
6/19/2008	3:00	30.9	7.62	3791	73.3	5.4	2.06
6/19/2008	3:15	30.79	7.62	3791	73.9	5.45	2.06
6/19/2008	3:30	30.72	7.54	3790	69.5	5.13	2.06
6/19/2008	3:45	30.78	7.5	3774	68.9	5.08	2.05
6/19/2008	4:00	30.8	7.5	3745	75.8	5.59	2.04
6/19/2008	4:15	30.68	7.43	3744	70.4	5.2	2.04
6/19/2008	4:30	30.72	7.41	3719	74.5	5.5	2.02
6/19/2008	4:45	30.12	7.33	3762	59.4	4.43	2.05
6/19/2008	5:00	30.05	7.34	3769	59	4.41	2.05
6/19/2008	5:15	30.04	7.31	3764	57	4.26	2.05
6/19/2008	5:30	30.04	7.3	3744	58.7	4.39	2.04
6/19/2008	5:45	30.03	7.27	3726	58.9	4.4	2.03
6/19/2008	6:00	29.86	7.25	3734	55.9	4.19	2.03
6/19/2008	6:15	29.83	7.27	3723	60.2	4.51	2.02
6/19/2008	6:30	29.67	7.27	3726	60	4.51	2.03
6/19/2008	6:45	29.62	7.24	3722	56.8	4.27	2.02
6/19/2008	7:00	29.55	7.23	3719	55.5	4.18	2.02
6/19/2008	7:15	29.51	7.21	3713	54.4	4.1	2.02
6/19/2008	7:30	29.43	7.23	3716	56.7	4.28	2.02
6/19/2008	7:45	29.31	7.23	3720	57.2	4.33	2.02
6/19/2008	8:00	29.25	7.26	3723	60.6	4.59	2.02
6/19/2008	8:15	28.91	7.39	3770	66.8	5.09	2.05
6/19/2008	8:30	28.76	7.46	3789	69.3	5.29	2.06
6/19/2008	8:45	28.59	7.54	3799	73.5	5.63	2.07
6/19/2008	9:00	28.63	7.65	3814	78.3	5.99	2.08
6/19/2008	9:15	28.63	7.83	3826	84.2	6.44	2.08
6/19/2008	9:30	28.71	7.99	3833	90.1	6.89	2.09

avg= 2.025337

min=	1.88
max=	2.1

Bayou Cane Initial Conditions

Reach	Temp	Source	Salinity	Source	DO	Source	Chl A	Source
Reach 1	28.13	Cont Mont Avg (3665)	0.10	Cont Mont Avg (3665)	0.47	Cont Mont Avg (3665)	8.5	3665
Reach 2	28.57	Cont Mont Avg (3752-BC04)	0.23	Cont Mont Avg (3752-BC04)	0.86	Cont Mont Avg (3752-BC04)	8.5	3665
Reach 3	29.98	Cont Mont Avg (3753-BC05)	1.15	Cont Mont Avg (3753-BC05)	1.79	Cont Mont Avg (3753-BC05)	33.6	3753-BC05
Reach 4	30.51	Cont Mont Avg (BC05, BC07)	1.45	Cont Mont Avg (BC05, BC07)	2.66	Cont Mont Avg (BC05, BC07)	33.6	3753-BC05
Reach 5	31.04	Cont Mont Avg (3755-BC07)	1.76	Cont Mont Avg (3755-BC07)	3.52	Cont Mont Avg (3755-BC07)	28.5	3666
Reach 6	31.59	Cont Mont Avg (3666)	1.98	Cont Mont Avg (3666)	6.12	Cont Mont Avg (3666)	28.5	3666

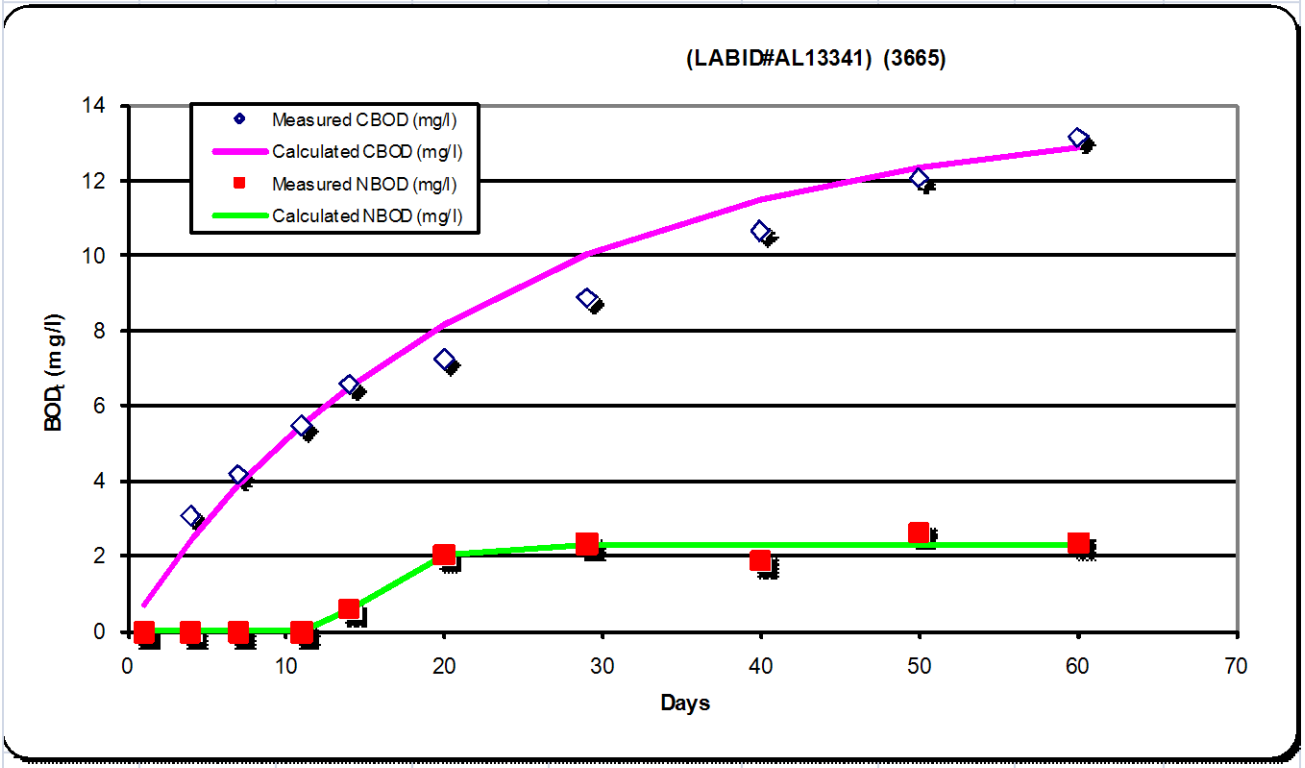
Appendix F5 – BOD Calculations

1 Component		NBOD			CBOD	
Site ID	UBOD (mg/l)	k rate (1/day)	Lag time (days)	UBOD (mg/l)	k rate (1/day)	Lag time (days)
(LAB ID#AL13341) (3665)	2.315	0.307	13.052	13.528	0.044	0.000
(LAB ID#AL13347) (3666)	4.059	0.089	10.306	14.091	0.062	0.000
(LAB ID#AL13353) Bayou Cane just above Highway 190 4.1 miles southeast of Mandeville, 3.9 miles northwest of Lacombe (3752)	3.037	0.462	17.840	11.104	0.068	0.000
(LAB ID#AL13363) Bayou Cane below Highway 190 3.8 miles southeast of Mandeville, 4.3 miles northwest of Lacombe, 1.0 miles southwest of Big Branch (3753)	2.828	0.059	19.886	12.550	0.057	0.000
(LAB ID#AL13374) Bayou Cane north of Lake Pontchartrain 4.3 miles northwest of Lacombe, 1.3 miles southwest of Big Branch, 3.7 miles southeast of Mandeville (3755)	3.161	0.101	14.049	14.602	0.057	0.000
(LAB ID#AL13379) Lake Pontchartrain about 150 yards south of the mouth of Bayou Cane 3.9 miles southeast of Mandeville, 4.6 miles west of Lacombe, 1.9 miles southwest of Big Branch (3756)	2.910	0.108	12.347	10.626	0.074	0.000
(LAB ID#AL13384) Southeast Louisiana State Hospital 4.0 miles southeast of Mandeville, 4.0 miles northwest of Lacombe, 13.6 miles southwest of Audubon (3758)	0.984	0.431	12.719	3.725	0.084	9.285

Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

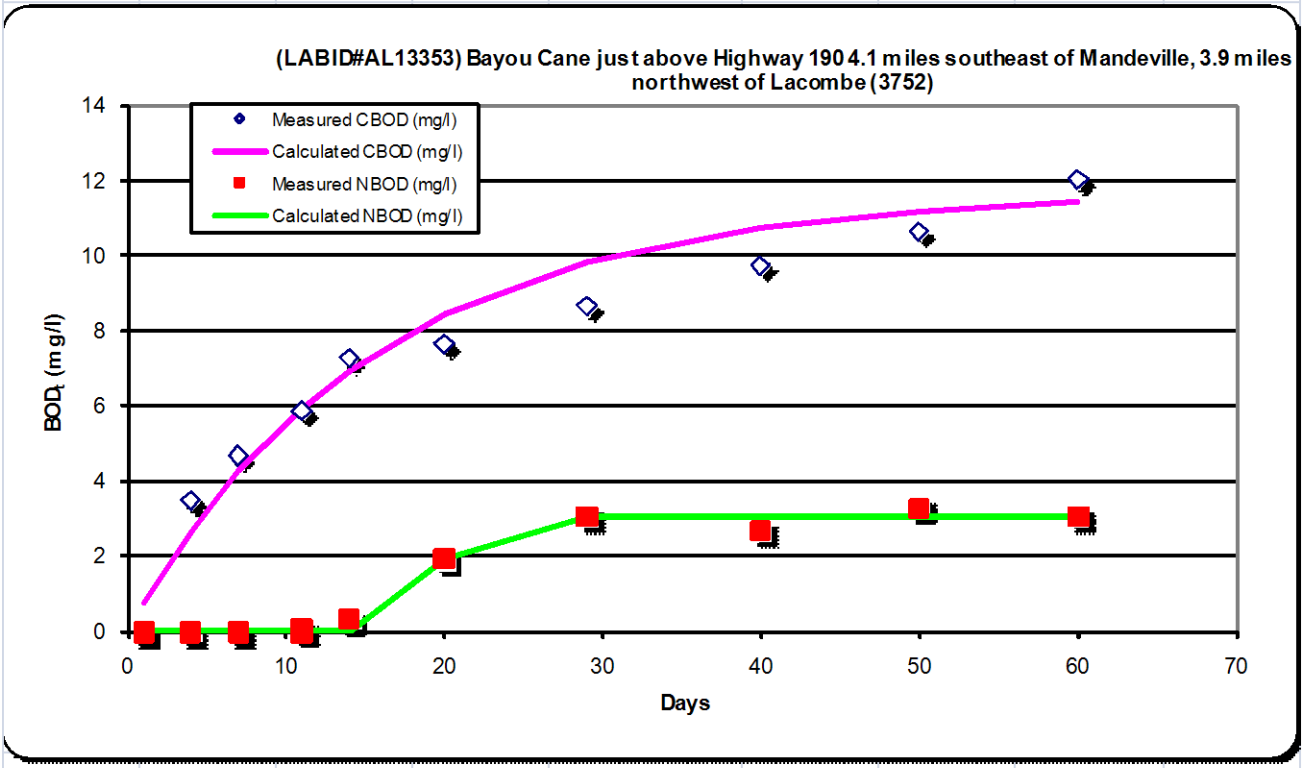
	NBOD	CBOD
UBOD (mg/l)	2.3151257	13.528443
k rate (1/day)	0.3069748	0.0435127
Lag time (days)	13.052084	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

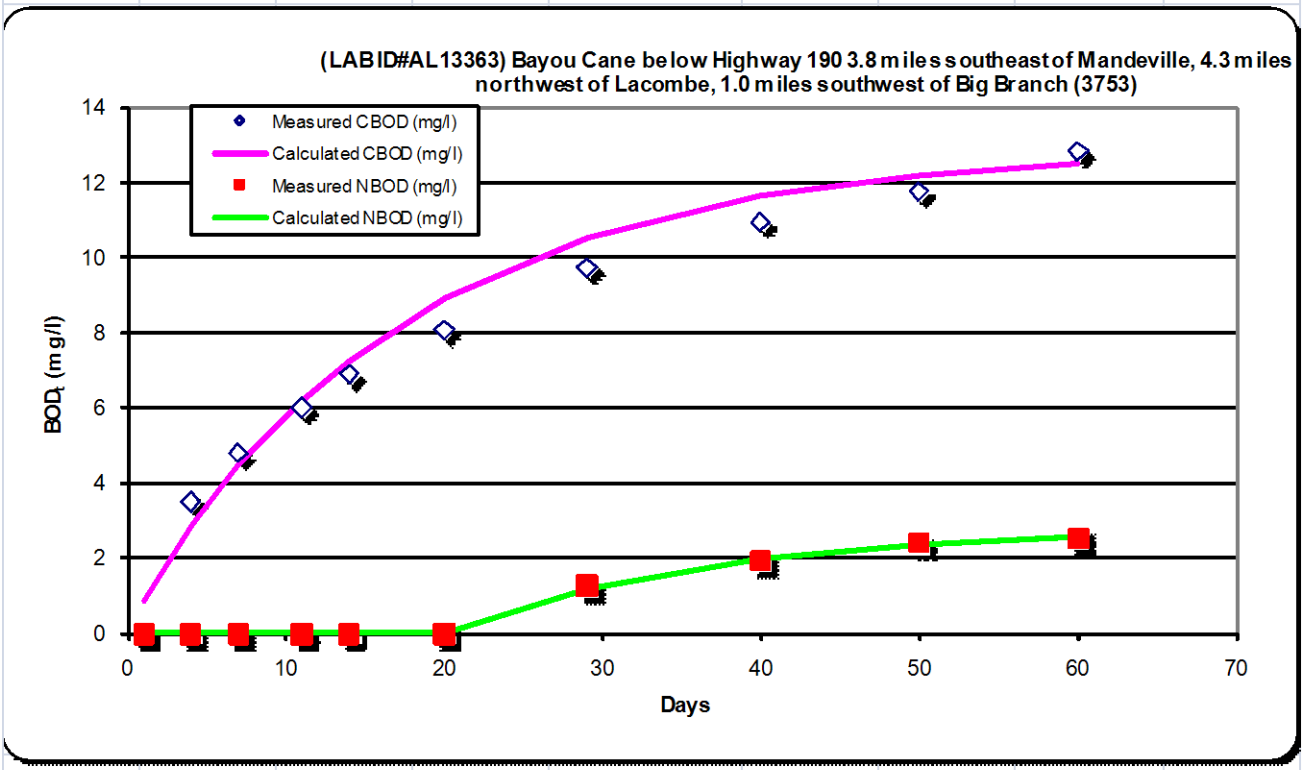
	NBOD	CBOD
UBOD (mg/l)	3.0370929	11.104204
k rate (1/day)	0.4621875	0.0678299
Lag time (days)	17.840277	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

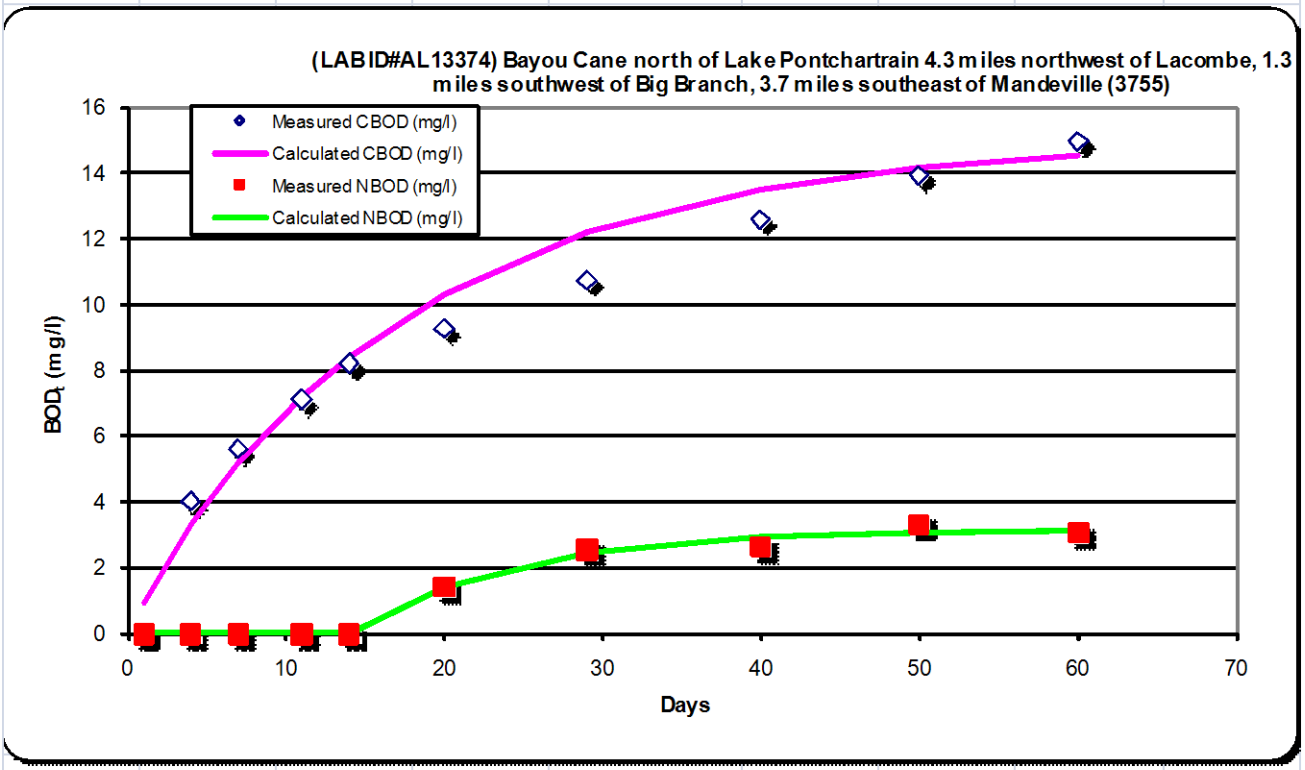
	NBOD	CBOD
UBOD (mg/l)	2.8276875	12.549555
k rate (1/day)	0.0588542	0.0573264
Lag time (days)	19.885996	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

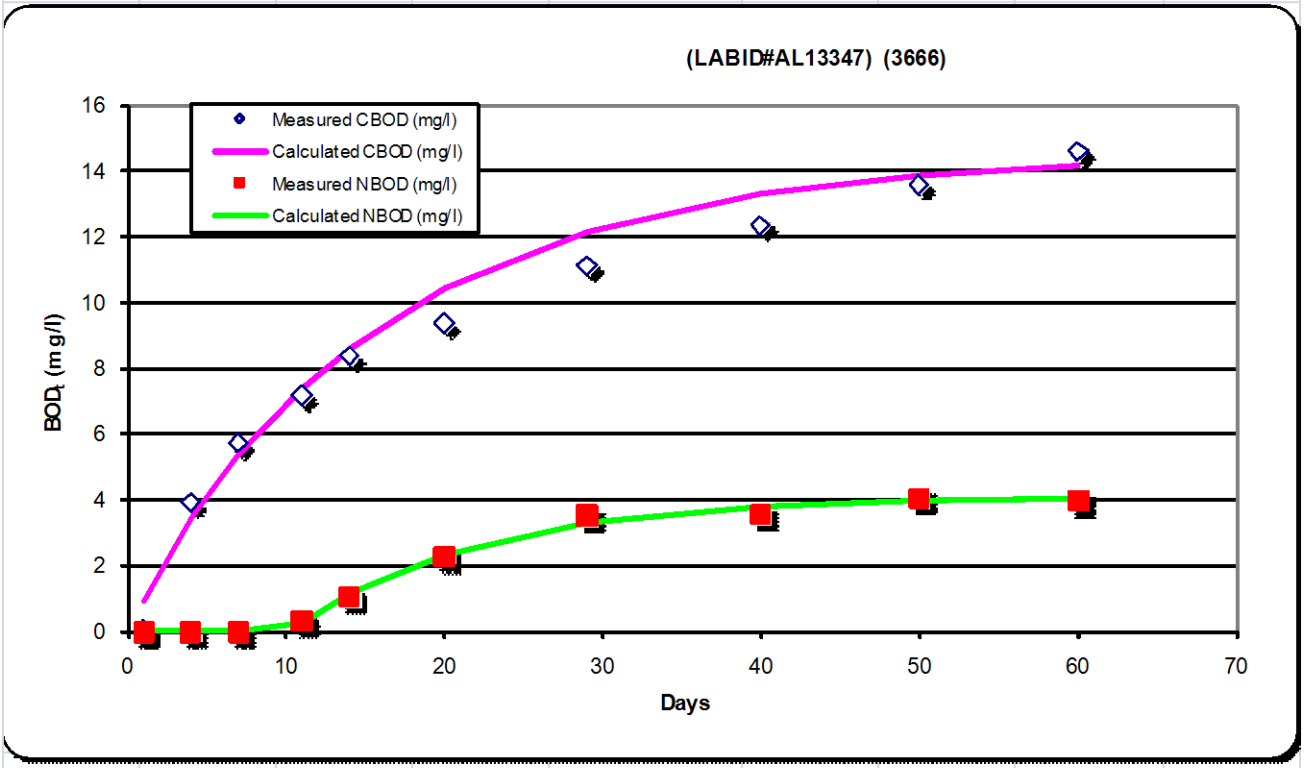
	NBOD	CBOD
UBOD (mg/l)	3.1611283	14.60235
k rate (1/day)	0.10125	0.0565625
Lag time (days)	14.048611	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

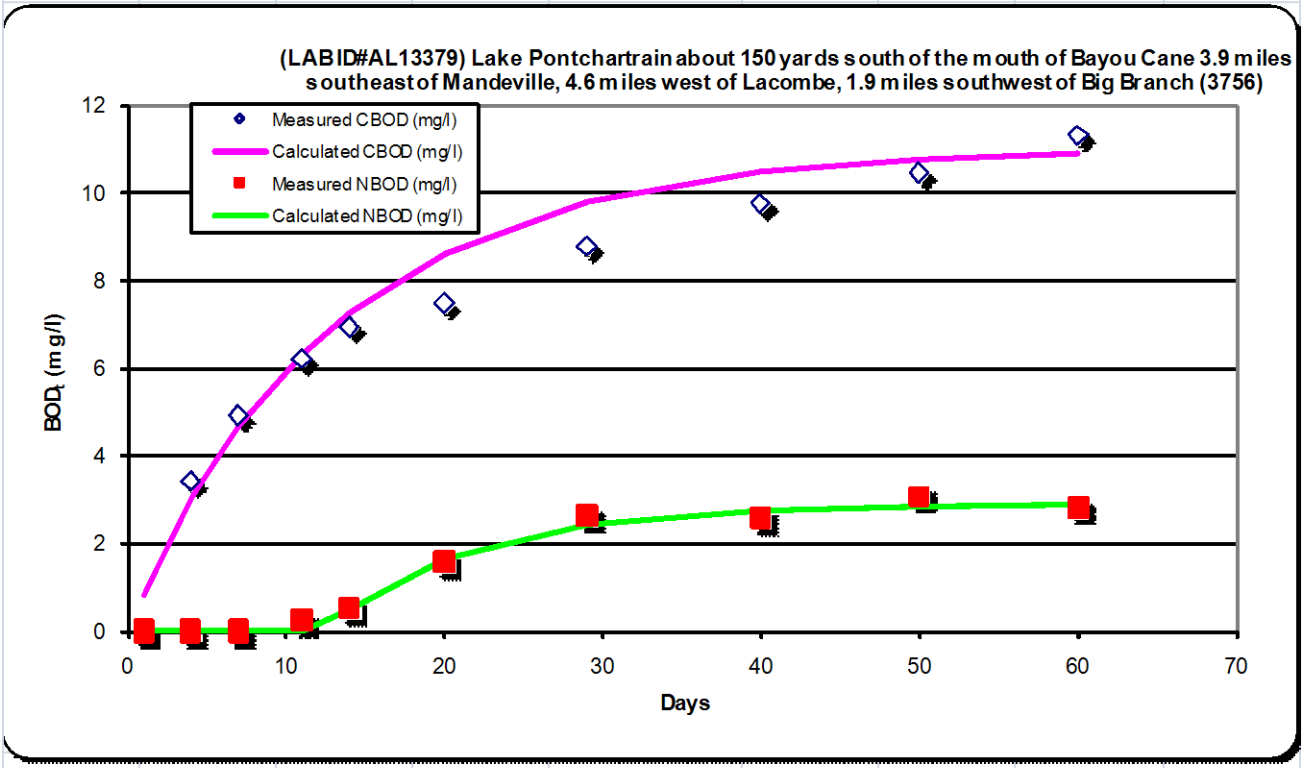
	NBOD	CBOD
UBOD (mg/l)	4.0587311	14.091383
k rate (1/day)	0.0892188	0.0617187
Lag time (days)	10.305555	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

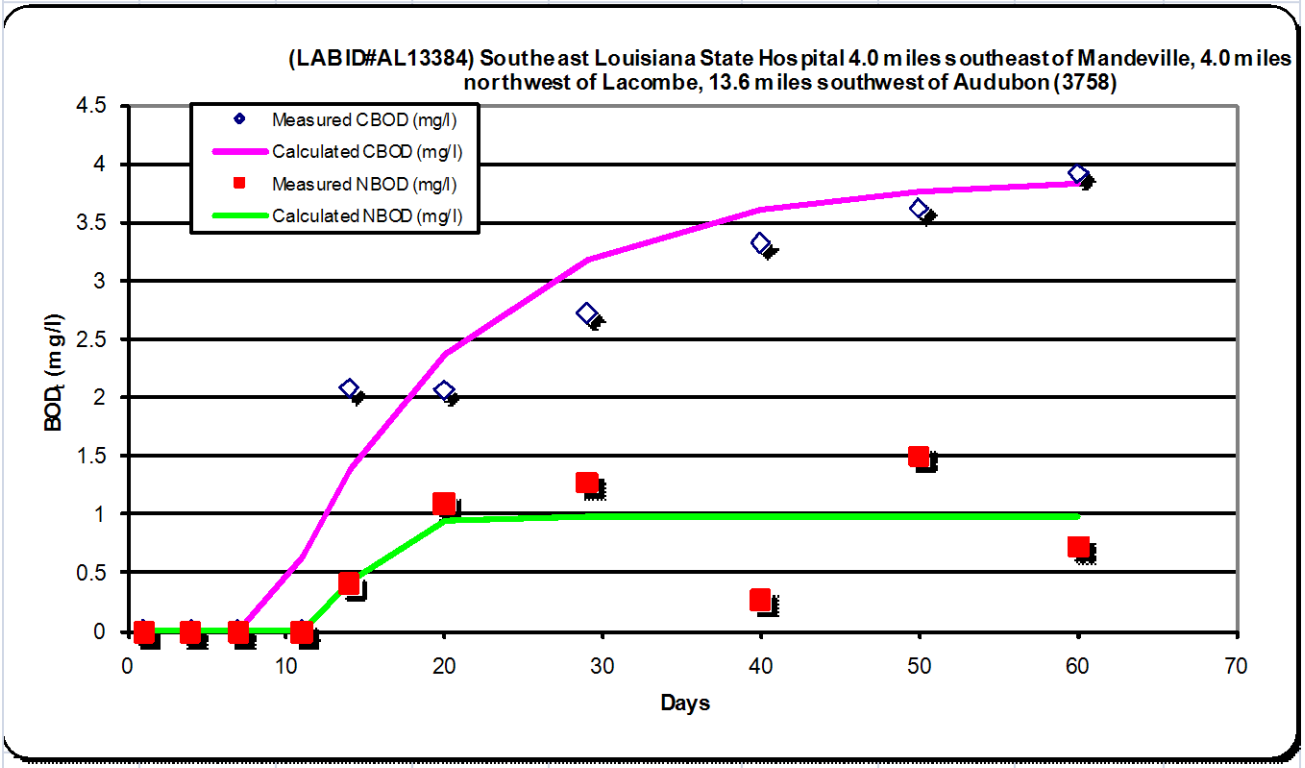
	NBOD	CBOD
UBOD (mg/l)	2.9103072	10.626072
k rate (1/day)	0.108125	0.073941
Lag time (days)	12.347222	0



Refresh Data for Current Site (1 Component)

Calculate for all Sites (1 Component)

	NBOD	CBOD
UBOD (mg/l)	0.9842191	3.7254305
k rate (1/day)	0.4307248	0.0840625
Lag time (days)	12.718556	9.2847214



Appendix F6 – Dye Study Calculations

Bayou Cane Subsegment 040904 Dispersion Summary		
Run Number	**Dispersion Coefficient (Kd)**	**Elapsed Time (hrs)**
Dye Run 1	0.540	29.6
Dye Run 2	0.288	54.2

For the purposes of this TMDL the Dispersion coefficient for Dye Run 2 will be used.

This is because the data was gathered over the longest time period allowing for a better dispersion of the dye into the water body.

Bayou Cane Dye Study Cross Section Summary				
SITE	**WIDTH (feet)**	**WIDTH (meters)**	**DEPTH (feet)**	**DEPTH (meters)**
Bayou Cane XS 0	69.000	21.031	3.853	1.174
Bayou Cane XS 1	79.000	24.079	3.220	0.981
Bayou Cane XS 2	100.000	30.480	3.610	1.100
Bayou Cane XS 3	86.000	26.213	2.660	0.811
Bayou Cane XS 4	63.000	19.202	1.910	0.582
Bayou Cane XS Dump	93.000	28.346	3.350	1.021
Dye Run 1 (avg of XS0, XS1, XS2, XS3, XS4, XSDump)	81.667	24.892	3.101	0.945
Dye Run 2 (avg of XS0, XS1, XS2, XS3, XS4, XSDump)	81.667	24.892	3.101	0.945

Bayou Cane Dye Arc Table Calculations Page 1 of 2

X	Y	RUN	Concen	RKM	Distance from Dye Dump (Kilometers)	Distance from Dye Dump (Meters)	TEMP	Date + Time	Run minus Dump (Days)	PROJECTION	ZONE
-90.01043	30.33052	dump		1.55				6/17/08 9:30 AM		GCS_WGS_1984	Zone 15 North
-90.01663	30.32429	RUN 1 BG1	0.00	0.54	1.01	1006.20	30.14	6/18/08 2:45:16 PM	1.218935	GCS_WGS_1984	Zone 15 North
-90.01610	30.32493	RUN 1 01	0.08	0.63	0.92	918.07	30.09	6/18/08 2:47:45 PM	1.220660	GCS_WGS_1984	Zone 15 North
-90.01523	30.32516	RUN 1 02	2.31	0.72	0.83	830.09	30.00	6/18/08 2:49:28 PM	1.221852	GCS_WGS_1984	Zone 15 North
-90.01475	30.32543	RUN 1 03	5.02	0.78	0.77	774.59	29.90	6/18/08 2:50:44 PM	1.222731	GCS_WGS_1984	Zone 15 North
-90.01506	30.32617	RUN 1 04	7.80	0.86	0.69	690.23	29.92	6/18/08 2:53:03 PM	1.224340	GCS_WGS_1984	Zone 15 North
-90.01488	30.32654	RUN 1 05	10.04	0.90	0.65	647.81	29.89	6/18/08 2:53:59 PM	1.224988	GCS_WGS_1984	Zone 15 North
-90.01460	30.32689	RUN 1 06	12.07	0.95	0.60	600.53	29.94	6/18/08 2:54:59 PM	1.225683	GCS_WGS_1984	Zone 15 North
-90.01428	30.32719	RUN 1 07	14.82	1.00	0.55	554.26	29.93	6/18/08 2:56:03 PM	1.226424	GCS_WGS_1984	Zone 15 North
-90.01399	30.32750	RUN 1 08	16.10	1.04	0.51	510.35	29.94	6/18/08 2:57:27 PM	1.227396	GCS_WGS_1984	Zone 15 North
-90.01352	30.32796	RUN 1 09	18.98	1.11	0.44	441.94	29.89	6/18/08 2:58:59 PM	1.228461	GCS_WGS_1984	Zone 15 North
-90.01329	30.32827	RUN 1 10	21.63	1.15	0.40	401.48	29.75	6/18/08 2:59:57 PM	1.229132	GCS_WGS_1984	Zone 15 North
-90.01305	30.32878	RUN 1 11	23.44	1.21	0.34	340.92	29.70	6/18/08 3:01:27 PM	1.230174	GCS_WGS_1984	Zone 15 North
-90.01259	30.32915	RUN 1 12	26.58	1.27	0.28	280.59	29.66	6/18/08 3:02:39 PM	1.231007	GCS_WGS_1984	Zone 15 North
-90.01195	30.32923	RUN 1 13	30.35	1.33	0.22	219.47	29.66	6/18/08 3:03:54 PM	1.231875	GCS_WGS_1984	Zone 15 North
-90.01135	30.32956	RUN 1 14	33.26	1.40	0.15	148.09	29.86	6/18/08 3:05:25 PM	1.232928	GCS_WGS_1984	Zone 15 North
-90.01120	30.33006	RUN 1 15	31.96	1.46	0.09	90.08	29.65	6/18/08 3:06:28 PM	1.233657	GCS_WGS_1984	Zone 15 North
-90.01092	30.33027	RUN 1 16	31.24	1.50	0.05	54.55	29.69	6/18/08 3:07:20 PM	1.234259	GCS_WGS_1984	Zone 15 North
-90.01070	30.33036	RUN 1 17	30.61	1.52	0.03	31.42	29.54	6/18/08 3:07:59 PM	1.234711	GCS_WGS_1984	Zone 15 North
-90.01018	30.33060	RUN 1 18	32.06	1.58	-0.03	-25.15	29.81	6/18/08 3:09:15 PM	1.235590	GCS_WGS_1984	Zone 15 North
-90.00970	30.33088	RUN 1 19	30.70	1.63	-0.08	-80.82	29.92	6/18/08 3:10:20 PM	1.236343	GCS_WGS_1984	Zone 15 North
-90.00924	30.33102	RUN 1 20	30.00	1.68	-0.13	-127.79	29.77	6/18/08 3:11:31 PM	1.237164	GCS_WGS_1984	Zone 15 North
-90.00899	30.33113	RUN 1 21	27.43	1.70	-0.15	-154.02	29.89	6/18/08 3:12:12 PM	1.237639	GCS_WGS_1984	Zone 15 North
-90.00853	30.33153	RUN 1 22	24.18	1.77	-0.22	-216.88	29.78	6/18/08 3:13:35 PM	1.238600	GCS_WGS_1984	Zone 15 North
-90.00842	30.33186	RUN 1 23	18.43	1.81	-0.26	-255.88	29.89	6/18/08 3:14:38 PM	1.239329	GCS_WGS_1984	Zone 15 North
-90.00823	30.33219	RUN 1 24	15.95	1.85	-0.30	-297.82	29.75	6/18/08 3:15:38 PM	1.240023	GCS_WGS_1984	Zone 15 North
-90.00803	30.33251	RUN 1 25	17.10	1.89	-0.34	-338.22	29.69	6/18/08 3:16:38 PM	1.240718	GCS_WGS_1984	Zone 15 North
-90.00780	30.33289	RUN 1 26	13.88	1.94	-0.39	-386.46	29.67	6/18/08 3:17:46 PM	1.241505	GCS_WGS_1984	Zone 15 North
-90.00768	30.33312	RUN 1 27	9.72	1.96	-0.41	-414.46	29.84	6/18/08 3:18:29 PM	1.242002	GCS_WGS_1984	Zone 15 North
-90.00716	30.33349	RUN 1 28	7.03	2.03	-0.48	-482.86	29.66	6/18/08 3:19:59 PM	1.243044	GCS_WGS_1984	Zone 15 North
-90.00670	30.33367	RUN 1 29	2.91	2.08	-0.53	-530.46	29.79	6/18/08 3:21:22 PM	1.244005	GCS_WGS_1984	Zone 15 North
-90.00640	30.33435	RUN 1 30	1.49	2.16	-0.61	-611.53	29.51	6/18/08 3:23:05 PM	1.245197	GCS_WGS_1984	Zone 15 North
-90.00606	30.33491	RUN 1 31	0.05	2.23	-0.68	-683.98	29.39	6/18/08 3:24:37 PM	1.246262	GCS_WGS_1984	Zone 15 North
-90.00589	30.33499	RUN 1 BG2	0.00	2.25	-0.70	-702.75	29.19	6/18/08 3:25:11 PM	1.246655	GCS_WGS_1984	Zone 15 North
								Dye Run 1			
								Average Time (days)	1.233736		
								Average Time (hours)	29.609663		
								Average Time (seconds)	**106594.787882**		

Bayou Cane Dye Arc Table Calculations Page 2 of 2

X	Y	RUN	Concen	RKM	Distance from Dye Dump (Kilometers)	Distance from Dye Dump (Meters)	TEMP	Date + Time	Run minus Dump (Days)	PROJECTION	ZONE
-90.01488	30.32579	RUN 02 BG1	0.00	0.816	0.73	734.1419	30.00	6/19/08 3:22:15 PM	2.244618	GCS_WGS_1984	Zone 15 North
-90.01505	30.32628	RUN 02 01	0.03	0.871	0.68	679.4261	30.02	6/19/08 3:24:10 PM	2.245949	GCS_WGS_1984	Zone 15 North
-90.01442	30.32709	RUN 02 02	1.94	0.978	0.57	571.6677	29.98	6/19/08 3:26:10 PM	2.247338	GCS_WGS_1984	Zone 15 North
-90.01376	30.32775	RUN 02 03	4.04	1.075	0.47	474.8015	29.83	6/19/08 3:28:06 PM	2.248681	GCS_WGS_1984	Zone 15 North
-90.01319	30.32858	RUN 02 04	7.18	1.184	0.37	366.1284	29.72	6/19/08 3:30:01 PM	2.250012	GCS_WGS_1984	Zone 15 North
-90.01293	30.32894	RUN 02 05	7.80	1.23	0.32	320.0995	29.84	6/19/08 3:31:05 PM	2.250752	GCS_WGS_1984	Zone 15 North
-90.01256	30.32921	RUN 02 06	8.85	1.28	0.27	274.5159	29.68	6/19/08 3:32:00 PM	2.251389	GCS_WGS_1984	Zone 15 North
-90.01207	30.32926	RUN 02 07	9.70	1.32	0.23	230.3705	29.58	6/19/08 3:33:03 PM	2.252118	GCS_WGS_1984	Zone 15 North
-90.01148	30.32940	RUN 02 08	10.99	1.379	0.17	170.8075	29.64	6/19/08 3:34:05 PM	2.252836	GCS_WGS_1984	Zone 15 North
-90.01130	30.32969	RUN 02 09	11.28	1.417	0.13	132.9681	29.44	6/19/08 3:35:02 PM	2.253495	GCS_WGS_1984	Zone 15 North
-90.01119	30.33012	RUN 02 10	12.37	1.465	0.09	85.06867	29.62	6/19/08 3:36:10 PM	2.254282	GCS_WGS_1984	Zone 15 North
-90.01079	30.33036	RUN 02 11	13.64	1.511	0.04	38.81242	29.55	6/19/08 3:37:01 PM	2.254873	GCS_WGS_1984	Zone 15 North
-90.01030	30.33057	RUN 02 12	15.64	1.564	-0.01	-13.5655	29.66	6/19/08 3:38:03 PM	2.255590	GCS_WGS_1984	Zone 15 North
-90.00993	30.33081	RUN 02 13	18.00	1.608	-0.06	-57.6263	29.91	6/19/08 3:39:04 PM	2.256296	GCS_WGS_1984	Zone 15 North
-90.00947	30.33099	RUN 02 14	18.42	1.656	-0.11	-106.023	29.73	6/19/08 3:40:02 PM	2.256968	GCS_WGS_1984	Zone 15 North
-90.00899	30.33116	RUN 02 15	19.10	1.706	-0.16	-155.959	30.16	6/19/08 3:41:13 PM	2.257789	GCS_WGS_1984	Zone 15 North
-90.00873	30.33132	RUN 02 16	19.11	1.737	-0.19	-186.479	29.66	6/19/08 3:42:00 PM	2.258333	GCS_WGS_1984	Zone 15 North
-90.00853	30.33157	RUN 02 17	19.45	1.771	-0.22	-220.795	29.83	6/19/08 3:43:13 PM	2.259178	GCS_WGS_1984	Zone 15 North
-90.00842	30.33193	RUN 02 18	19.86	1.814	-0.26	-263.626	29.72	6/19/08 3:44:06 PM	2.259792	GCS_WGS_1984	Zone 15 North
-90.00806	30.33251	RUN 02 19	19.39	1.887	-0.34	-336.602	29.47	6/19/08 3:45:13 PM	2.260567	GCS_WGS_1984	Zone 15 North
-90.00757	30.33330	RUN 02 20	16.48	1.987	-0.44	-436.814	29.55	6/19/08 3:47:02 PM	2.261829	GCS_WGS_1984	Zone 15 North
-90.00669	30.33373	RUN 02 21	11.15	2.086	-0.54	-535.379	29.77	6/19/08 3:48:56 PM	2.263148	GCS_WGS_1984	Zone 15 North
-90.00625	30.33472	RUN 02 22	7.30	2.206	-0.66	-655.963	29.42	6/19/08 3:51:03 PM	2.264618	GCS_WGS_1984	Zone 15 North
-90.00535	30.33516	RUN 02 23	4.55	2.308	-0.76	-757.995	29.17	6/19/08 3:53:01 PM	2.265984	GCS_WGS_1984	Zone 15 North
-90.00480	30.33558	RUN 02 24	0.77	2.378	-0.83	-827.886	28.92	6/19/08 3:54:30 PM	2.267014	GCS_WGS_1984	Zone 15 North
-90.00462	30.33589	RUN 02 25	0.17	2.418	-0.87	-867.385	28.75	6/19/08 3:55:31 PM	2.267720	GCS_WGS_1984	Zone 15 North
-90.00457	30.33606	RUN 02 BG 2	0.00	2.439	-0.89	-888.669	28.80	6/19/08 3:56:08 PM	2.268148	GCS_WGS_1984	Zone 15 North
								Dye Run 2			
								Average Time (days)	2.256641		
								Average Time (hours)	54.159393		
								Average Time (seconds)	**194973.814818**		

Dye Run 1

User Inputs	Depth of Stream (meters)	0.945
	Width of Stream (meters)	24.892
	Time Elapsed Since Dye Injection (sec)	106595
	[1]Mass of Solution Injected (kg)	35.000
	Number of Iterations	20
[2]Initial Guess	K_d : Diffusion (m^2/s)	0.1000

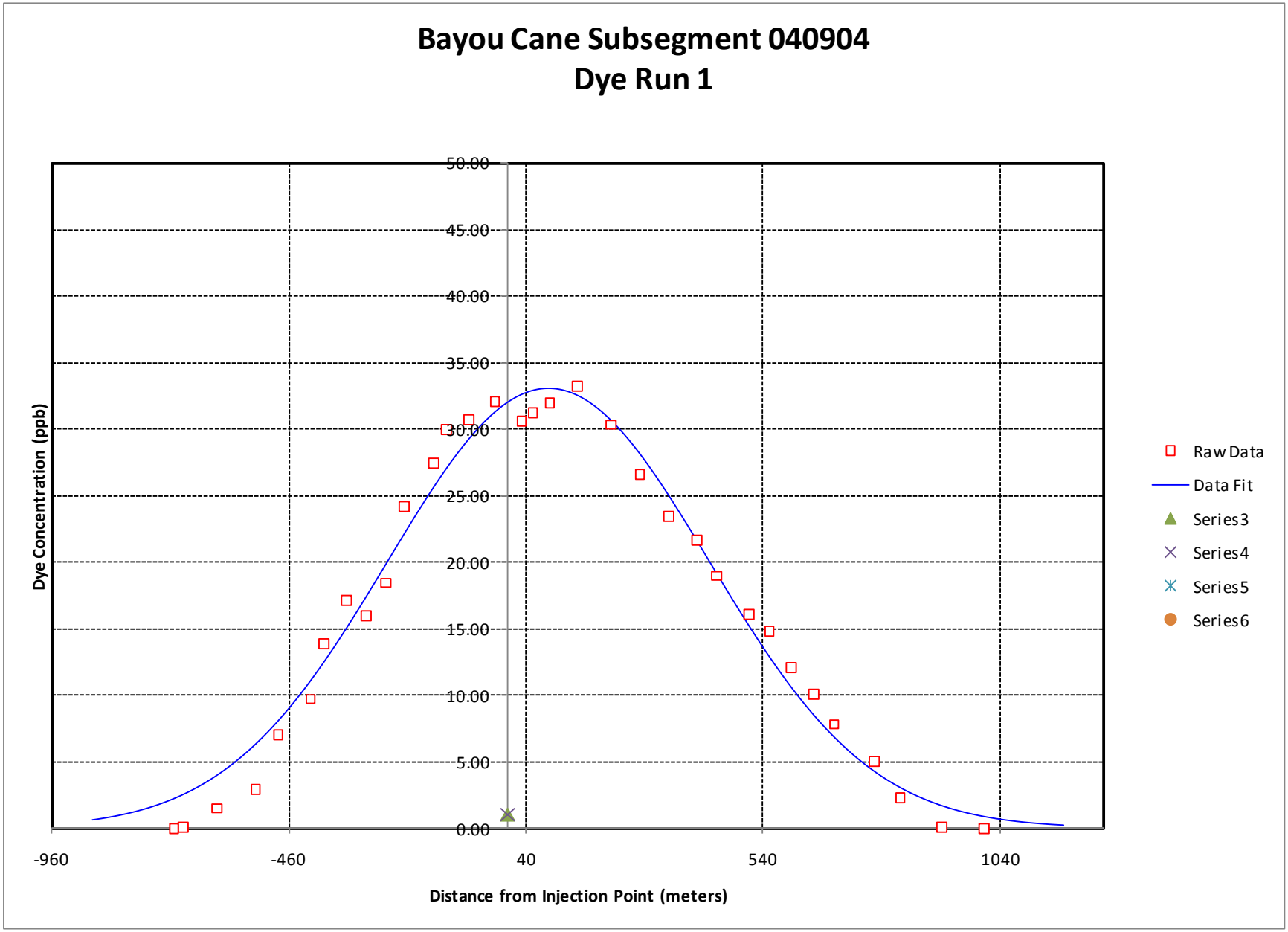
Run Dispersion Routine

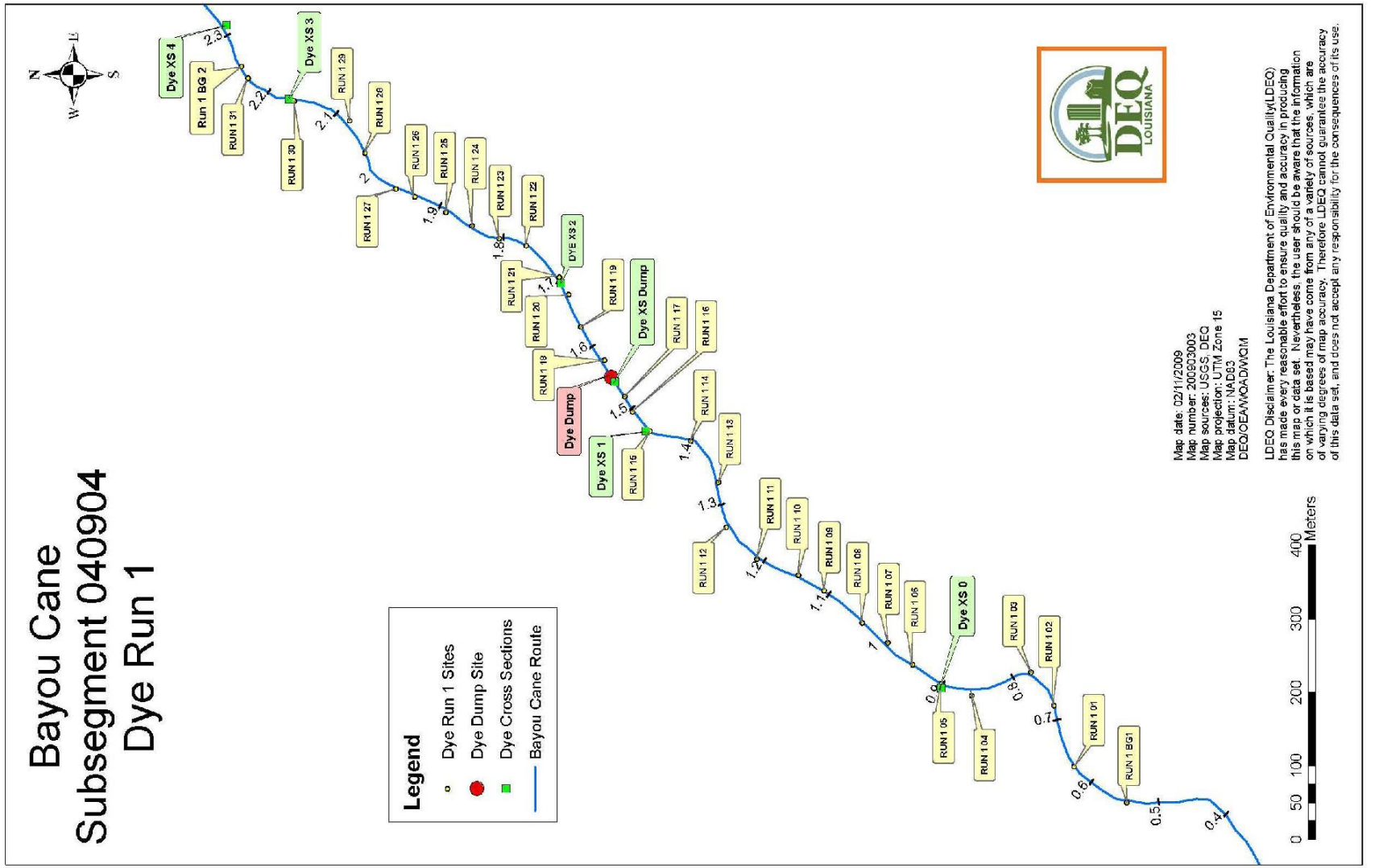
[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss–Newton algorithm

Observed Dye Data for Dye Run 1	
f(X): Concentration (ppb)	**X: Distance From Injection Point (meters)**
0.00	1006.204634
0.08	918.0669194
2.31	830.0913326
5.02	774.5930253
7.80	690.2263908
10.04	647.8137841
12.07	600.5256449
14.82	554.2598255
16.10	510.3473921
18.98	441.9373247
21.63	401.4799889
23.44	340.9229792
26.58	280.5914159
30.35	219.4733799
33.26	148.0851611
31.96	90.07762884

31.24	54.54562079
30.61	31.42408912
32.06	-25.15267922
30.7	-80.8221038
30	-127.7912582
27.43	-154.0180624
24.18	-216.8802902
18.43	-255.8765086
15.95	-297.8232189
17.1	-338.2168053
13.88	-386.4592633
9.72	-414.4588101
7.03	-482.861369
2.91	-530.4643347
1.49	-611.5294888
0.05	-683.9754105
0	-702.7452799


Bayou Cane Subsegment 040904
Dye Run 1
Dye Concentration (ppb)
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-960
-460
40
540
1040
Distance from Injection Point (meters)
Raw Data
Data Fit
Series3
Series4
Series5
Series6


Bayou Cane
Subsegment 040904
Dye Run 1
Legend
Dye Run 1 Sites
Dye Dump Site
Dye Cross Sections
Bayou Cane Route
Dye XS 4
Run 1 BG 2
RUN 1 31
RUN 1 30
Dye XS 3
RUN 1 29
RUN 1 28
RUN 1 27
RUN 1 26
RUN 1 25
RUN 1 24
RUN 1 23
RUN 1 22
DYE XS 2
RUN 1 21
RUN 1 20
RUN 1 19
Dye Dump
RUN 1 19
Dye XS Dump
RUN 1 17
RUN 1 16
Dye XS 1
RUN 1 15
RUN 1 14
RUN 1 13
RUN 1 12
RUN 1 11
RUN 1 10
RUN 1 09
RUN 1 08
RUN 1 07
RUN 1 06
Dye XS 0
RUN 1 05
RUN 1 04
RUN 1 03
RUN 1 02
RUN 1 01
RUN 1 BG1
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0
50
100
200
300
400
Meters
Map date: 02/11/2009
Map number: 20090303
Map sources: USGS, DEQ
Map projection: UTM Zone 15
Map datum: NAD83
DEQ/OEA/WQA/DWCIM
LDEQ Disclaimer: The Louisiana Department of Environmental Quality(LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.
DEQ
LOUISIANA

Dye Run 2

User Inputs	Depth of Stream (meters)	0.945
	Width of Stream (meters)	24.892
	Time Elapsed Since Dye Injection (sec)	194974
	[1]Mass of Solution Injected (kg)	35.000
	Number of Iterations	20
[2]Initial Guess	K_d : Diffusion (m^2/s)	0.1000

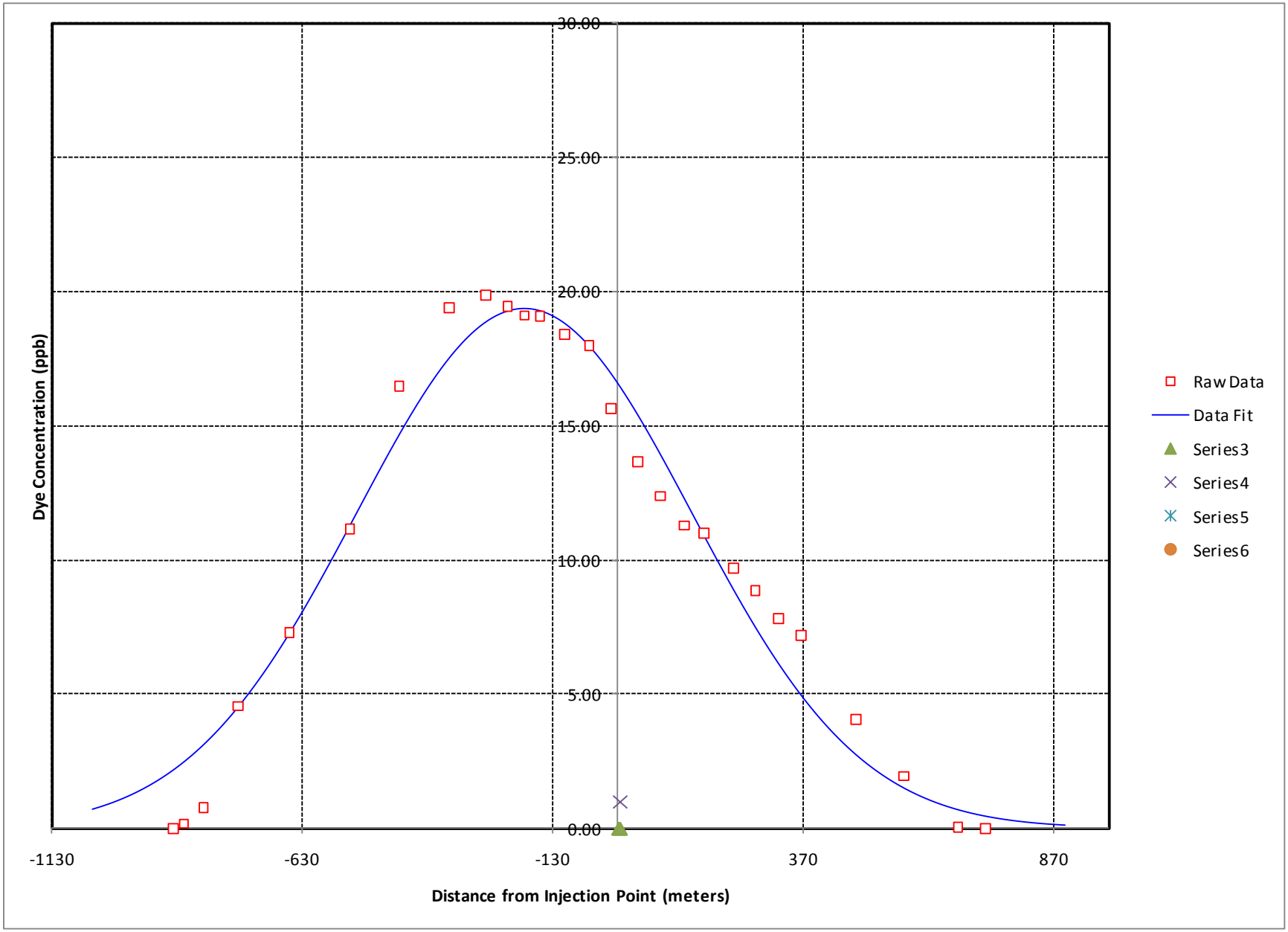
Run Dispersion Routine

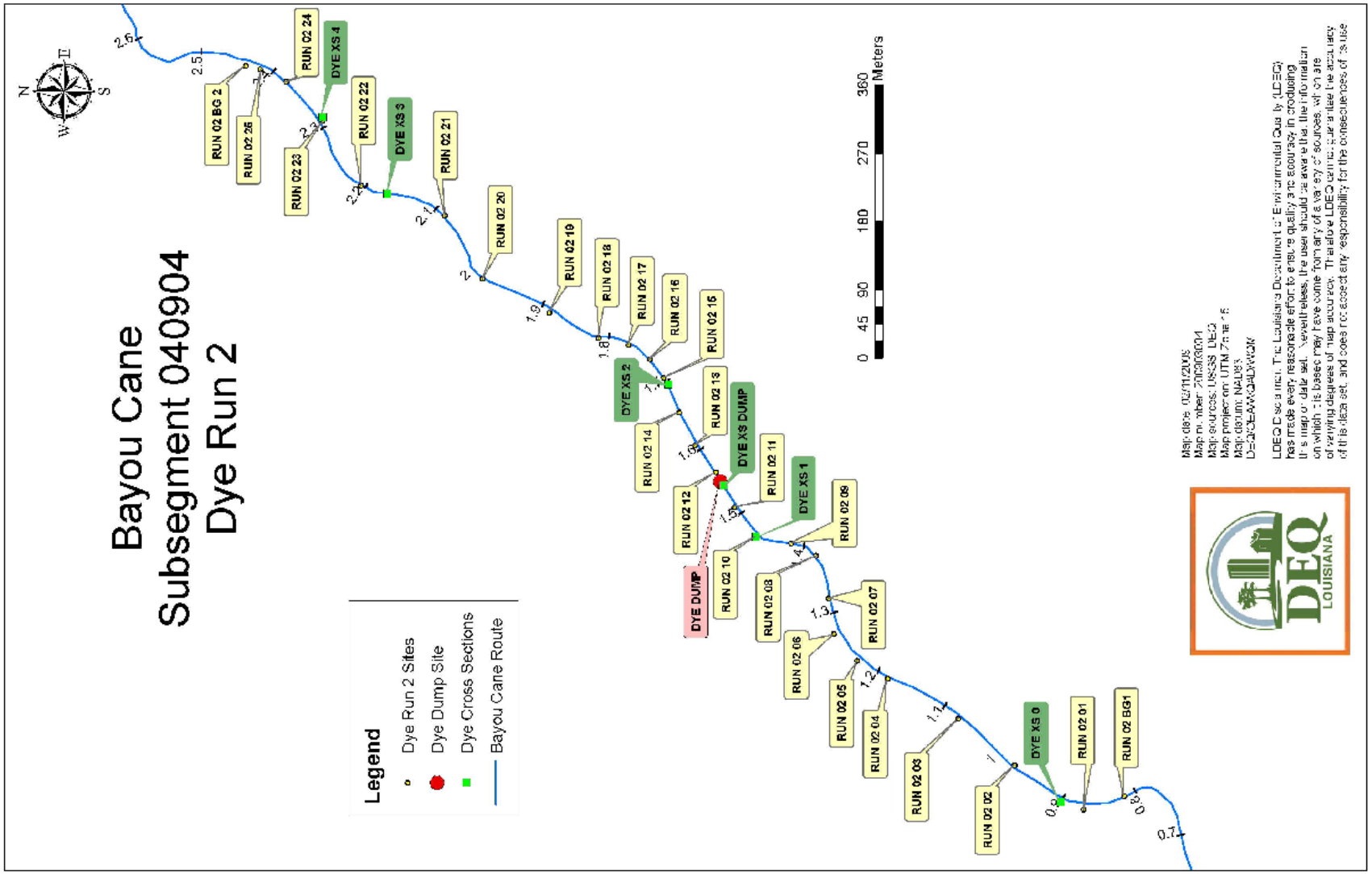
[1]Mass of solution injected is multiplied by 0.2 since the solution is 20% dye

[2]Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss–Newton algorithm

Observed Dye Data for Dye Run 2	
f(X): Concentration (ppb)	**X: Distance From Injection Point (meters)**
0.00	734.1418831
0.03	679.4261453
1.94	571.6677139
4.04	474.8014551
7.18	366.1283813
7.80	320.099547
8.85	274.5158657
9.70	230.3705161
10.99	170.807504
11.28	132.9680566
12.37	85.06867184
13.64	38.8124163
15.64	-13.56549426
18.00	-57.62630318
18.42	-106.0231942
19.10	-155.958952

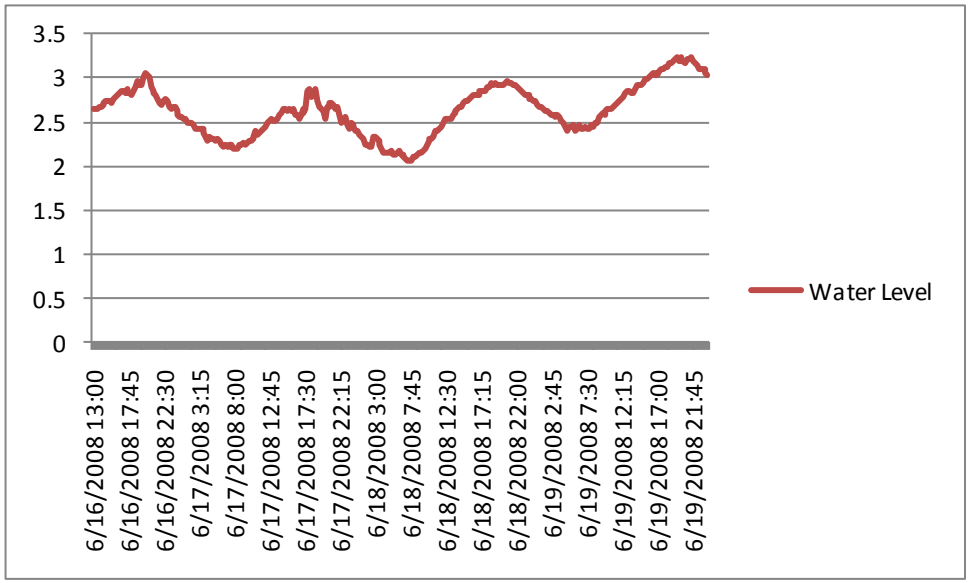
19.11	-186.4793016
19.45	-220.7952116
19.86	-263.6258245
19.39	-336.602322
16.48	-436.8140573
11.15	-535.3791198
7.3	-655.9628143
4.55	-757.9953902
0.77	-827.8857733
0.17	-867.3853992
0	-888.6685157


30.00
25.00
20.00
15.00
10.00
5.00
0.00
Dye Concentration (ppb)
-1130
-630
-130
370
870
Distance from Injection Point (meters)
Raw Data
Data Fit
Series3
Series4
Series5
Series6


Bayou Cane
Subsegment 040904
Dye Run 2
Legend
Dye Run 2 Sites
Dye Dump Site
Dye Cross Sections
Bayou Cane Route
RUN 02 BG 2
RUN 02 26
RUN 02 23
RUN 02 24
DYE XS 4
RUN 02 22
DYE XS 3
RUN 02 21
RUN 02 20
RUN 02 19
RUN 02 18
RUN 02 17
RUN 02 16
RUN 02 15
DYE XS 2
RUN 02 14
RUN 02 13
DYE XS DUMP
RUN 02 12
DYE DUMP
RUN 02 10
RUN 02 11
DYE XS 1
RUN 02 09
RUN 02 08
RUN 02 07
RUN 02 06
RUN 02 05
RUN 02 04
RUN 02 03
RUN 02 02
DYE XS 0
RUN 02 01
RUN 02 BG1
0 45 90 180 270 360
Meters
DEQ
LOUISIANA

Appendix F7 – Water Level Monitor Data & Tide Calculations

Bayou Cane, Site 3665, Calculation of Tide Height								
			water level		tidal range=tidal amplitude=tide height			
			(feet)		(feet)			
valley	6/17/2008 8:15		2.19		0.68	(=2.87-2.19)		
peak	6/17/2008 18:37		2.87		0.82	(=2.87-2.05)		
valley	6/18/2008 7:45		2.05		0.91	(=2.96-2.05)		
peak	6/18/2008 21:00		2.96		0.55	(=2.96-2.41)		
valley	6/19/2008 5:30		2.41					
				avg=	0.74	------->	0.225552	meters



Bayou Cane, Site 3665, Water Level Monitor Data

	Water Level (ft)
6/16/2008 13:00	2.64
6/16/2008 13:15	2.65
6/16/2008 13:30	2.65
6/16/2008 13:45	2.67
6/16/2008 14:00	2.66
6/16/2008 14:15	2.69
6/16/2008 14:30	2.71
6/16/2008 14:45	2.75
6/16/2008 15:00	2.74
6/16/2008 15:15	2.73
6/16/2008 15:30	2.72
6/16/2008 15:45	2.76
6/16/2008 16:00	2.79
6/16/2008 16:15	2.8
6/16/2008 16:30	2.83
6/16/2008 16:45	2.85
6/16/2008 17:00	2.85
6/16/2008 17:15	2.84
6/16/2008 17:30	2.87
6/16/2008 17:45	2.84
6/16/2008 18:00	2.82
6/16/2008 18:15	2.81
6/16/2008 18:30	2.85
6/16/2008 18:45	2.89
6/16/2008 19:00	2.96
6/16/2008 19:15	2.92
6/16/2008 19:30	2.92
6/16/2008 19:45	3
6/16/2008 20:00	3.05
6/16/2008 20:15	3.03
6/16/2008 20:30	3.02
6/16/2008 20:45	2.9
6/16/2008 21:00	2.86

6/16/2008 21:15	2.83
6/16/2008 21:30	2.8
6/16/2008 21:45	2.76
6/16/2008 22:00	2.71
6/16/2008 22:15	2.69
6/16/2008 22:30	2.74
6/16/2008 22:45	2.77
6/16/2008 23:00	2.75
6/16/2008 23:15	2.68
6/16/2008 23:30	2.65
6/16/2008 23:45	2.67
6/17/2008	2.67
6/17/2008 0:15	2.62
6/17/2008 0:30	2.58
6/17/2008 0:45	2.56
6/17/2008 1:00	2.56
6/17/2008 1:15	2.54
6/17/2008 1:30	2.53
6/17/2008 1:45	2.49
6/17/2008 2:00	2.5
6/17/2008 2:15	2.48
6/17/2008 2:30	2.46
6/17/2008 2:45	2.43
6/17/2008 3:00	2.43
6/17/2008 3:15	2.42
6/17/2008 3:30	2.43
6/17/2008 3:45	2.43
6/17/2008 4:00	2.38
6/17/2008 4:15	2.33
6/17/2008 4:30	2.28
6/17/2008 4:45	2.33
6/17/2008 5:00	2.31
6/17/2008 5:15	2.32
6/17/2008 5:30	2.29
6/17/2008 5:45	2.31
6/17/2008 6:00	2.28

6/17/2008 6:15	2.25
6/17/2008 6:30	2.22
6/17/2008 6:45	2.24
6/17/2008 7:00	2.23
6/17/2008 7:15	2.23
6/17/2008 7:30	2.25
6/17/2008 7:45	2.24
6/17/2008 8:00	2.19
6/17/2008 8:15	2.19
6/17/2008 8:30	2.19
6/17/2008 8:45	2.24
6/17/2008 9:00	2.25
6/17/2008 9:15	2.26
6/17/2008 9:30	2.24
6/17/2008 9:45	2.26
6/17/2008 10:00	2.28
6/17/2008 10:15	2.29
6/17/2008 10:30	2.32
6/17/2008 10:45	2.34
6/17/2008 11:00	2.39
6/17/2008 11:15	2.36
6/17/2008 11:30	2.38
6/17/2008 11:45	2.39
6/17/2008 12:00	2.43
6/17/2008 12:15	2.44
6/17/2008 12:30	2.48
6/17/2008 12:45	2.51
6/17/2008 13:00	2.54
6/17/2008 13:15	2.52
6/17/2008 13:30	2.52
6/17/2008 13:45	2.54
6/17/2008 14:00	2.57
6/17/2008 14:15	2.59
6/17/2008 14:30	2.61
6/17/2008 14:45	2.64
6/17/2008 15:00	2.65

6/17/2008 15:15	2.62
6/17/2008 15:30	2.65
6/17/2008 15:45	2.63
6/17/2008 16:00	2.64
6/17/2008 16:15	2.57
6/17/2008 16:30	2.57
6/17/2008 16:45	2.54
6/17/2008 17:00	2.59
6/17/2008 17:15	2.65
6/17/2008 17:30	2.61
6/17/2008 17:45	2.65
6/17/2008 18:00	2.86
6/17/2008 18:15	2.87
6/17/2008 18:30	2.79
6/17/2008 18:45	2.8
6/17/2008 19:00	2.87
6/17/2008 19:15	2.73
6/17/2008 19:30	2.66
6/17/2008 19:45	2.64
6/17/2008 20:00	2.62
6/17/2008 20:15	2.54
6/17/2008 20:30	2.67
6/17/2008 20:45	2.66
6/17/2008 21:00	2.72
6/17/2008 21:15	2.71
6/17/2008 21:30	2.69
6/17/2008 21:45	2.65
6/17/2008 22:00	2.66
6/17/2008 22:15	2.57
6/17/2008 22:30	2.49
6/17/2008 22:45	2.52
6/17/2008 23:00	2.56
6/17/2008 23:15	2.46
6/17/2008 23:30	2.43
6/17/2008 23:45	2.49
6/18/2008	2.47

6/18/2008 0:15	2.45
6/18/2008 0:30	2.41
6/18/2008 0:45	2.39
6/18/2008 1:00	2.36
6/18/2008 1:15	2.33
6/18/2008 1:30	2.3
6/18/2008 1:45	2.24
6/18/2008 2:00	2.24
6/18/2008 2:15	2.22
6/18/2008 2:30	2.23
6/18/2008 2:45	2.33
6/18/2008 3:00	2.34
6/18/2008 3:15	2.32
6/18/2008 3:30	2.28
6/18/2008 3:45	2.24
6/18/2008 4:00	2.2
6/18/2008 4:15	2.15
6/18/2008 4:30	2.15
6/18/2008 4:45	2.16
6/18/2008 5:00	2.16
6/18/2008 5:15	2.17
6/18/2008 5:30	2.13
6/18/2008 5:45	2.13
6/18/2008 6:00	2.15
6/18/2008 6:15	2.17
6/18/2008 6:30	2.14
6/18/2008 6:45	2.14
6/18/2008 7:00	2.11
6/18/2008 7:15	2.08
6/18/2008 7:30	2.05
6/18/2008 7:45	2.05
6/18/2008 8:00	2.05
6/18/2008 8:15	2.1
6/18/2008 8:30	2.11
6/18/2008 8:45	2.14
6/18/2008 9:00	2.16

6/18/2008 9:15	2.15
6/18/2008 9:30	2.18
6/18/2008 9:45	2.2
6/18/2008 10:00	2.25
6/18/2008 10:15	2.28
6/18/2008 10:30	2.3
6/18/2008 10:45	2.31
6/18/2008 11:00	2.34
6/18/2008 11:15	2.39
6/18/2008 11:30	2.41
6/18/2008 11:45	2.42
6/18/2008 12:00	2.45
6/18/2008 12:15	2.49
6/18/2008 12:30	2.53
6/18/2008 12:45	2.53
6/18/2008 13:00	2.54
6/18/2008 13:15	2.54
6/18/2008 13:30	2.57
6/18/2008 13:45	2.61
6/18/2008 14:00	2.63
6/18/2008 14:15	2.65
6/18/2008 14:30	2.66
6/18/2008 14:45	2.68
6/18/2008 15:00	2.72
6/18/2008 15:15	2.74
6/18/2008 15:30	2.75
6/18/2008 15:45	2.77
6/18/2008 16:00	2.79
6/18/2008 16:15	2.8
6/18/2008 16:30	2.81
6/18/2008 16:45	2.8
6/18/2008 17:00	2.81
6/18/2008 17:15	2.85
6/18/2008 17:30	2.85
6/18/2008 17:45	2.86
6/18/2008 18:00	2.86

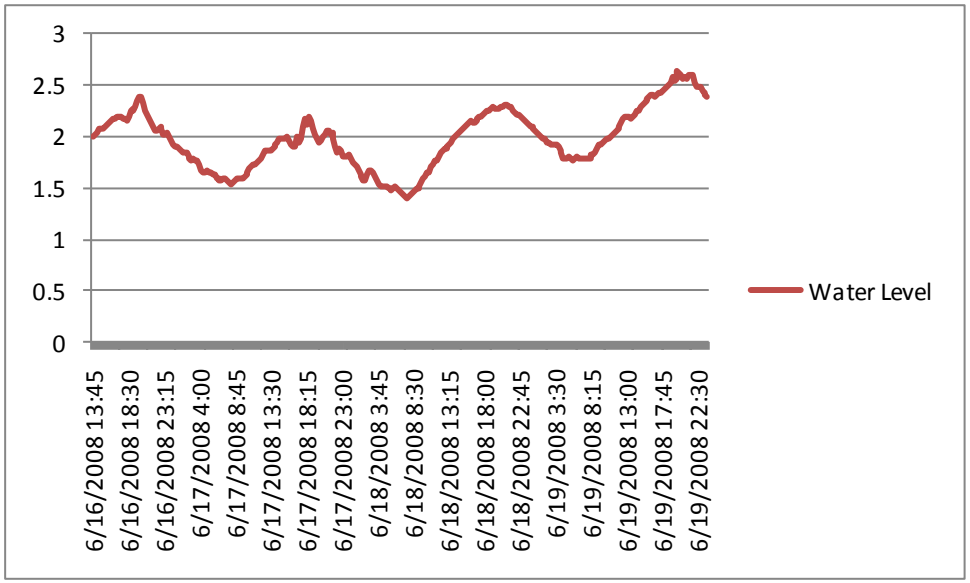
6/18/2008 18:15	2.89
6/18/2008 18:30	2.9
6/18/2008 18:45	2.94
6/18/2008 19:00	2.93
6/18/2008 19:15	2.94
6/18/2008 19:30	2.93
6/18/2008 19:45	2.93
6/18/2008 20:00	2.93
6/18/2008 20:15	2.92
6/18/2008 20:30	2.94
6/18/2008 20:45	2.94
6/18/2008 21:00	2.96
6/18/2008 21:15	2.94
6/18/2008 21:30	2.94
6/18/2008 21:45	2.92
6/18/2008 22:00	2.93
6/18/2008 22:15	2.89
6/18/2008 22:30	2.87
6/18/2008 22:45	2.85
6/18/2008 23:00	2.84
6/18/2008 23:15	2.81
6/18/2008 23:30	2.81
6/18/2008 23:45	2.8
6/19/2008	2.76
6/19/2008 0:15	2.76
6/19/2008 0:30	2.74
6/19/2008 0:45	2.73
6/19/2008 1:00	2.7
6/19/2008 1:15	2.68
6/19/2008 1:30	2.67
6/19/2008 1:45	2.65
6/19/2008 2:00	2.63
6/19/2008 2:15	2.62
6/19/2008 2:30	2.6
6/19/2008 2:45	2.59
6/19/2008 3:00	2.58

6/19/2008 3:15	2.56
6/19/2008 3:30	2.58
6/19/2008 3:45	2.58
6/19/2008 4:00	2.55
6/19/2008 4:15	2.52
6/19/2008 4:30	2.49
6/19/2008 4:45	2.45
6/19/2008 5:00	2.41
6/19/2008 5:15	2.45
6/19/2008 5:30	2.45
6/19/2008 5:45	2.46
6/19/2008 6:00	2.41
6/19/2008 6:15	2.43
6/19/2008 6:30	2.45
6/19/2008 6:45	2.46
6/19/2008 7:00	2.43
6/19/2008 7:15	2.43
6/19/2008 7:30	2.44
6/19/2008 7:45	2.43
6/19/2008 8:00	2.42
6/19/2008 8:15	2.46
6/19/2008 8:30	2.45
6/19/2008 8:45	2.48
6/19/2008 9:00	2.49
6/19/2008 9:15	2.55
6/19/2008 9:30	2.57
6/19/2008 9:45	2.61
6/19/2008 10:00	2.59
6/19/2008 10:15	2.62
6/19/2008 10:30	2.64
6/19/2008 10:45	2.64
6/19/2008 11:00	2.64
6/19/2008 11:15	2.66
6/19/2008 11:30	2.7
6/19/2008 11:45	2.72
6/19/2008 12:00	2.73

6/19/2008 12:15	2.76
6/19/2008 12:30	2.78
6/19/2008 12:45	2.83
6/19/2008 13:00	2.85
6/19/2008 13:15	2.86
6/19/2008 13:30	2.84
6/19/2008 13:45	2.84
6/19/2008 14:00	2.83
6/19/2008 14:15	2.87
6/19/2008 14:30	2.91
6/19/2008 14:45	2.92
6/19/2008 15:00	2.93
6/19/2008 15:15	2.95
6/19/2008 15:30	2.98
6/19/2008 15:45	2.99
6/19/2008 16:00	3.01
6/19/2008 16:15	3.03
6/19/2008 16:30	3.05
6/19/2008 16:45	3.06
6/19/2008 17:00	3.04
6/19/2008 17:15	3.04
6/19/2008 17:30	3.07
6/19/2008 17:45	3.09
6/19/2008 18:00	3.11
6/19/2008 18:15	3.13
6/19/2008 18:30	3.13
6/19/2008 18:45	3.16
6/19/2008 19:00	3.16
6/19/2008 19:15	3.18
6/19/2008 19:30	3.22
6/19/2008 19:45	3.23
6/19/2008 20:00	3.19
6/19/2008 20:15	3.23
6/19/2008 20:30	3.2
6/19/2008 20:45	3.19
6/19/2008 21:00	3.17

6/19/2008 21:15	3.22
6/19/2008 21:30	3.21
6/19/2008 21:45	3.23
6/19/2008 22:00	3.2
6/19/2008 22:15	3.17
6/19/2008 22:30	3.15
6/19/2008 22:45	3.11
6/19/2008 23:00	3.1
6/19/2008 23:15	3.1
6/19/2008 23:30	3.09
6/19/2008 23:45	3.06
6/20/2008	3.04

Bayou Cane, Site 3753, Calculation of Tide Height								
			water level		tidal range=tidal amplitude=tide height			
			(feet)		(feet)			
valley	6/17/2008 8:15		1.54		0.66	(=2.2-1.54)		
peak	6/17/2008 18:45		2.2		0.8	(=2.2-1.4)		
valley	6/18/2008 7:45		1.4		0.9	(=2.3-1.4)		
peak	6/18/2008 21:00		2.3		0.53	(=2.3-1.77)		
valley	6/19/2008 6:00		1.77					
				avg=	0.7225	------->	0.220218	meters



Bayou Cane, Site 3753, Water Level Monitor Data

	Water Level (ft)
6/16/2008 13:45	2
6/16/2008 14:00	2.01
6/16/2008 14:15	2.03
6/16/2008 14:30	2.07
6/16/2008 14:45	2.08
6/16/2008 15:00	2.08
6/16/2008 15:15	2.07
6/16/2008 15:30	2.09
6/16/2008 15:45	2.11
6/16/2008 16:00	2.13
6/16/2008 16:15	2.15
6/16/2008 16:30	2.17
6/16/2008 16:45	2.18
6/16/2008 17:00	2.19
6/16/2008 17:15	2.19
6/16/2008 17:30	2.19
6/16/2008 17:45	2.18
6/16/2008 18:00	2.17
6/16/2008 18:15	2.16
6/16/2008 18:30	2.19
6/16/2008 18:45	2.26
6/16/2008 19:00	2.27
6/16/2008 19:15	2.25
6/16/2008 19:30	2.29
6/16/2008 19:45	2.35
6/16/2008 20:00	2.38
6/16/2008 20:15	2.38
6/16/2008 20:30	2.32
6/16/2008 20:45	2.25
6/16/2008 21:00	2.21
6/16/2008 21:15	2.17
6/16/2008 21:30	2.14
6/16/2008 21:45	2.09

6/16/2008 22:00	2.05
6/16/2008 22:15	2.05
6/16/2008 22:30	2.08
6/16/2008 22:45	2.1
6/16/2008 23:00	2.07
6/16/2008 23:15	2.02
6/16/2008 23:30	2.02
6/16/2008 23:45	2.03
6/17/2008	2
6/17/2008 0:15	1.96
6/17/2008 0:30	1.93
6/17/2008 0:45	1.91
6/17/2008 1:00	1.9
6/17/2008 1:15	1.89
6/17/2008 1:30	1.86
6/17/2008 1:45	1.85
6/17/2008 2:00	1.84
6/17/2008 2:15	1.84
6/17/2008 2:30	1.81
6/17/2008 2:45	1.79
6/17/2008 3:00	1.77
6/17/2008 3:15	1.78
6/17/2008 3:30	1.77
6/17/2008 3:45	1.76
6/17/2008 4:00	1.72
6/17/2008 4:15	1.67
6/17/2008 4:30	1.65
6/17/2008 4:45	1.66
6/17/2008 5:00	1.67
6/17/2008 5:15	1.66
6/17/2008 5:30	1.65
6/17/2008 5:45	1.64
6/17/2008 6:00	1.63
6/17/2008 6:15	1.59
6/17/2008 6:30	1.59
6/17/2008 6:45	1.58

6/17/2008 7:00	1.57
6/17/2008 7:15	1.59
6/17/2008 7:30	1.6
6/17/2008 7:45	1.57
6/17/2008 8:00	1.55
6/17/2008 8:15	1.54
6/17/2008 8:30	1.56
6/17/2008 8:45	1.57
6/17/2008 9:00	1.59
6/17/2008 9:15	1.59
6/17/2008 9:30	1.59
6/17/2008 9:45	1.59
6/17/2008 10:00	1.61
6/17/2008 10:15	1.63
6/17/2008 10:30	1.66
6/17/2008 10:45	1.69
6/17/2008 11:00	1.71
6/17/2008 11:15	1.72
6/17/2008 11:30	1.72
6/17/2008 11:45	1.74
6/17/2008 12:00	1.76
6/17/2008 12:15	1.79
6/17/2008 12:30	1.83
6/17/2008 12:45	1.86
6/17/2008 13:00	1.86
6/17/2008 13:15	1.86
6/17/2008 13:30	1.87
6/17/2008 13:45	1.89
6/17/2008 14:00	1.91
6/17/2008 14:15	1.92
6/17/2008 14:30	1.95
6/17/2008 14:45	1.98
6/17/2008 15:00	1.98
6/17/2008 15:15	1.98
6/17/2008 15:30	1.98
6/17/2008 15:45	1.99

6/17/2008 16:00	1.96
6/17/2008 16:15	1.93
6/17/2008 16:30	1.9
6/17/2008 16:45	1.91
6/17/2008 17:00	1.99
6/17/2008 17:15	1.94
6/17/2008 17:30	1.98
6/17/2008 17:45	2.09
6/17/2008 18:00	2.18
6/17/2008 18:15	2.18
6/17/2008 18:30	2.12
6/17/2008 18:45	2.2
6/17/2008 19:00	2.16
6/17/2008 19:15	2.07
6/17/2008 19:30	2.02
6/17/2008 19:45	1.98
6/17/2008 20:00	1.94
6/17/2008 20:15	1.96
6/17/2008 20:30	1.99
6/17/2008 20:45	2.02
6/17/2008 21:00	2.05
6/17/2008 21:15	2.06
6/17/2008 21:30	2.02
6/17/2008 21:45	2.03
6/17/2008 22:00	1.97
6/17/2008 22:15	1.9
6/17/2008 22:30	1.85
6/17/2008 22:45	1.89
6/17/2008 23:00	1.86
6/17/2008 23:15	1.81
6/17/2008 23:30	1.81
6/17/2008 23:45	1.81
6/18/2008	1.83
6/18/2008 0:15	1.78
6/18/2008 0:30	1.75
6/18/2008 0:45	1.72

6/18/2008 1:00	1.7
6/18/2008 1:15	1.67
6/18/2008 1:30	1.63
6/18/2008 1:45	1.61
6/18/2008 2:00	1.58
6/18/2008 2:15	1.58
6/18/2008 2:30	1.63
6/18/2008 2:45	1.67
6/18/2008 3:00	1.67
6/18/2008 3:15	1.65
6/18/2008 3:30	1.62
6/18/2008 3:45	1.58
6/18/2008 4:00	1.54
6/18/2008 4:15	1.52
6/18/2008 4:30	1.51
6/18/2008 4:45	1.52
6/18/2008 5:00	1.51
6/18/2008 5:15	1.5
6/18/2008 5:30	1.49
6/18/2008 5:45	1.48
6/18/2008 6:00	1.5
6/18/2008 6:15	1.51
6/18/2008 6:30	1.49
6/18/2008 6:45	1.47
6/18/2008 7:00	1.45
6/18/2008 7:15	1.43
6/18/2008 7:30	1.41
6/18/2008 7:45	1.4
6/18/2008 8:00	1.42
6/18/2008 8:15	1.44
6/18/2008 8:30	1.46
6/18/2008 8:45	1.48
6/18/2008 9:00	1.5
6/18/2008 9:15	1.5
6/18/2008 9:30	1.52
6/18/2008 9:45	1.56

6/18/2008 10:00	1.6
6/18/2008 10:15	1.62
6/18/2008 10:30	1.65
6/18/2008 10:45	1.66
6/18/2008 11:00	1.7
6/18/2008 11:15	1.73
6/18/2008 11:30	1.76
6/18/2008 11:45	1.77
6/18/2008 12:00	1.8
6/18/2008 12:15	1.84
6/18/2008 12:30	1.86
6/18/2008 12:45	1.88
6/18/2008 13:00	1.88
6/18/2008 13:15	1.9
6/18/2008 13:30	1.92
6/18/2008 13:45	1.95
6/18/2008 14:00	1.97
6/18/2008 14:15	1.99
6/18/2008 14:30	2.01
6/18/2008 14:45	2.03
6/18/2008 15:00	2.06
6/18/2008 15:15	2.08
6/18/2008 15:30	2.1
6/18/2008 15:45	2.12
6/18/2008 16:00	2.13
6/18/2008 16:15	2.15
6/18/2008 16:30	2.14
6/18/2008 16:45	2.14
6/18/2008 17:00	2.16
6/18/2008 17:15	2.18
6/18/2008 17:30	2.2
6/18/2008 17:45	2.2
6/18/2008 18:00	2.22
6/18/2008 18:15	2.24
6/18/2008 18:30	2.26
6/18/2008 18:45	2.26

6/18/2008 19:00	2.27
6/18/2008 19:15	2.28
6/18/2008 19:30	2.27
6/18/2008 19:45	2.27
6/18/2008 20:00	2.27
6/18/2008 20:15	2.28
6/18/2008 20:30	2.28
6/18/2008 20:45	2.3
6/18/2008 21:00	2.3
6/18/2008 21:15	2.3
6/18/2008 21:30	2.28
6/18/2008 21:45	2.28
6/18/2008 22:00	2.26
6/18/2008 22:15	2.24
6/18/2008 22:30	2.22
6/18/2008 22:45	2.21
6/18/2008 23:00	2.19
6/18/2008 23:15	2.17
6/18/2008 23:30	2.16
6/18/2008 23:45	2.14
6/19/2008	2.12
6/19/2008 0:15	2.1
6/19/2008 0:30	2.09
6/19/2008 0:45	2.07
6/19/2008 1:00	2.05
6/19/2008 1:15	2.03
6/19/2008 1:30	2.01
6/19/2008 1:45	2
6/19/2008 2:00	1.97
6/19/2008 2:15	1.97
6/19/2008 2:30	1.95
6/19/2008 2:45	1.95
6/19/2008 3:00	1.92
6/19/2008 3:15	1.92
6/19/2008 3:30	1.93
6/19/2008 3:45	1.92

6/19/2008 4:00	1.9
6/19/2008 4:15	1.86
6/19/2008 4:30	1.84
6/19/2008 4:45	1.79
6/19/2008 5:00	1.78
6/19/2008 5:15	1.78
6/19/2008 5:30	1.8
6/19/2008 5:45	1.78
6/19/2008 6:00	1.77
6/19/2008 6:15	1.78
6/19/2008 6:30	1.8
6/19/2008 6:45	1.79
6/19/2008 7:00	1.78
6/19/2008 7:15	1.79
6/19/2008 7:30	1.78
6/19/2008 7:45	1.78
6/19/2008 8:00	1.79
6/19/2008 8:15	1.79
6/19/2008 8:30	1.82
6/19/2008 8:45	1.83
6/19/2008 9:00	1.85
6/19/2008 9:15	1.88
6/19/2008 9:30	1.93
6/19/2008 9:45	1.92
6/19/2008 10:00	1.94
6/19/2008 10:15	1.96
6/19/2008 10:30	1.97
6/19/2008 10:45	1.97
6/19/2008 11:00	1.99
6/19/2008 11:15	2.01
6/19/2008 11:30	2.04
6/19/2008 11:45	2.06
6/19/2008 12:00	2.08
6/19/2008 12:15	2.1
6/19/2008 12:30	2.13
6/19/2008 12:45	2.17

6/19/2008 13:00	2.19
6/19/2008 13:15	2.19
6/19/2008 13:30	2.2
6/19/2008 13:45	2.18
6/19/2008 14:00	2.2
6/19/2008 14:15	2.22
6/19/2008 14:30	2.25
6/19/2008 14:45	2.26
6/19/2008 15:00	2.28
6/19/2008 15:15	2.3
6/19/2008 15:30	2.32
6/19/2008 15:45	2.34
6/19/2008 16:00	2.36
6/19/2008 16:15	2.38
6/19/2008 16:30	2.4
6/19/2008 16:45	2.4
6/19/2008 17:00	2.39
6/19/2008 17:15	2.4
6/19/2008 17:30	2.42
6/19/2008 17:45	2.43
6/19/2008 18:00	2.45
6/19/2008 18:15	2.47
6/19/2008 18:30	2.48
6/19/2008 18:45	2.5
6/19/2008 19:00	2.52
6/19/2008 19:15	2.58
6/19/2008 19:30	2.55
6/19/2008 19:45	2.56
6/19/2008 20:00	2.63
6/19/2008 20:15	2.61
6/19/2008 20:30	2.59
6/19/2008 20:45	2.56
6/19/2008 21:00	2.58
6/19/2008 21:15	2.57
6/19/2008 21:30	2.6
6/19/2008 21:45	2.6

6/19/2008 22:00	2.59
6/19/2008 22:15	2.53
6/19/2008 22:30	2.49
6/19/2008 22:45	2.49
6/19/2008 23:00	2.48
6/19/2008 23:15	2.45
6/19/2008 23:30	2.43
6/19/2008 23:45	2.41
6/20/2008	2.39

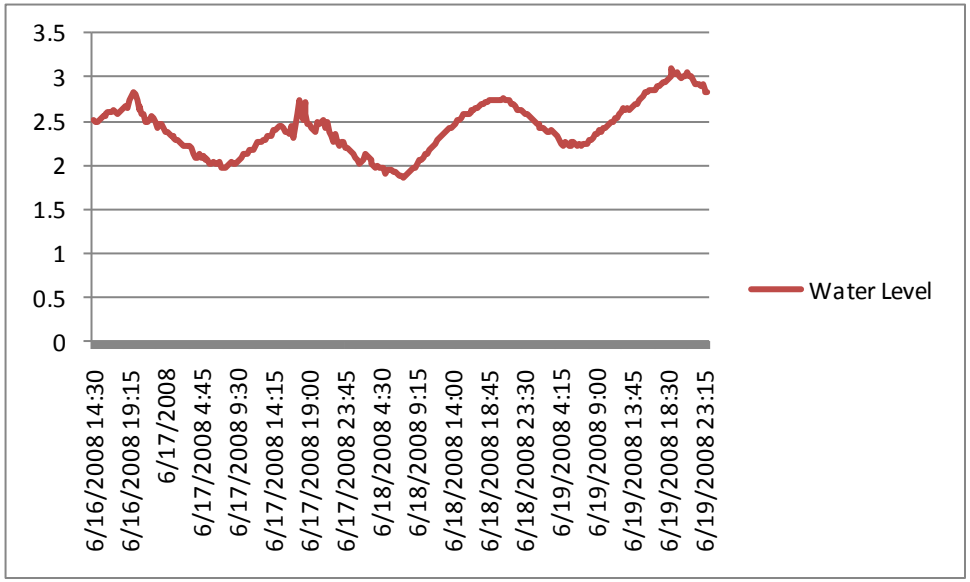
Bayou Cane, Site 3666

Calculation of Tide Height, Tidal Period, and Period of Tidal Rise

			water level (feet)		tidal range=tidal amplitude=tide height (feet)				
valley	6/17/2008 7:45		1.98		0.77	(=2.75-1.98)			
peak	6/17/2008 17:45		2.75						
valley	6/18/2008 7:30		1.86		0.89	(=2.75-1.86)			
peak	6/18/2008 20:45		2.76						
valley	6/19/2008 6:30		2.22		0.9	(=2.76-1.86)			
					0.54	(=2.76-2.22)			
				avg=	0.775	------->	0.23622	meters	

tidal periods:		hours		period of tidal rise:				hours
valley 6/17 to valley 6/18=		23.75		valley on 6/17 to peak on 6/17=				10
valley 6/18 to valley 6/19=		23		valley on 6/18 to peak on 6/18=				13.25
peak 6/17 to peak 6/18=		27						
							avg=	11.625
	avg=	24.58333333						

Data Type 10, Tidal Range, fraction of boundary tide:			model input:	
Top--Site 3665, amplitude=	0.74	ft	0.954839	=(0.74/0.775)
Middle--Site 3753, amplitude=	0.7225	ft	0.932258	=(0.7225/0.775)
Bottom--Site 3666, amplitude=	0.775	ft	1.0	



Bayou Cane, Site 3666, Water Level Monitor Data

	Water Level (ft)
6/16/2008 14:30	2.51
6/16/2008 14:45	2.49
6/16/2008 15:00	2.5
6/16/2008 15:15	2.52
6/16/2008 15:30	2.54
6/16/2008 15:45	2.56
6/16/2008 16:00	2.56
6/16/2008 16:15	2.58
6/16/2008 16:30	2.6
6/16/2008 16:45	2.61
6/16/2008 17:00	2.61
6/16/2008 17:15	2.63
6/16/2008 17:30	2.61

6/16/2008 17:45	2.59
6/16/2008 18:00	2.6
6/16/2008 18:15	2.63
6/16/2008 18:30	2.65
6/16/2008 18:45	2.68
6/16/2008 19:00	2.65
6/16/2008 19:15	2.73
6/16/2008 19:30	2.79
6/16/2008 19:45	2.84
6/16/2008 20:00	2.81
6/16/2008 20:15	2.75
6/16/2008 20:30	2.62
6/16/2008 20:45	2.66
6/16/2008 21:00	2.58
6/16/2008 21:15	2.57
6/16/2008 21:30	2.5
6/16/2008 21:45	2.49
6/16/2008 22:00	2.51
6/16/2008 22:15	2.55
6/16/2008 22:30	2.53
6/16/2008 22:45	2.48
6/16/2008 23:00	2.43
6/16/2008 23:15	2.46
6/16/2008 23:30	2.46
6/16/2008 23:45	2.42
6/17/2008	2.37
6/17/2008 0:15	2.38
6/17/2008 0:30	2.36
6/17/2008 0:45	2.34
6/17/2008 1:00	2.33
6/17/2008 1:15	2.3
6/17/2008 1:30	2.28
6/17/2008 1:45	2.29
6/17/2008 2:00	2.27
6/17/2008 2:15	2.25
6/17/2008 2:30	2.23

6/17/2008 2:45	2.22
6/17/2008 3:00	2.22
6/17/2008 3:15	2.21
6/17/2008 3:30	2.19
6/17/2008 3:45	2.12
6/17/2008 4:00	2.09
6/17/2008 4:15	2.09
6/17/2008 4:30	2.12
6/17/2008 4:45	2.09
6/17/2008 5:00	2.1
6/17/2008 5:15	2.07
6/17/2008 5:30	2.09
6/17/2008 5:45	2.05
6/17/2008 6:00	2.02
6/17/2008 6:15	2.02
6/17/2008 6:30	2.03
6/17/2008 6:45	2.01
6/17/2008 7:00	2.02
6/17/2008 7:15	2.03
6/17/2008 7:30	1.98
6/17/2008 7:45	1.98
6/17/2008 8:00	1.98
6/17/2008 8:15	2
6/17/2008 8:30	2.01
6/17/2008 8:45	2.03
6/17/2008 9:00	2.01
6/17/2008 9:15	2.02
6/17/2008 9:30	2.03
6/17/2008 9:45	2.06
6/17/2008 10:00	2.06
6/17/2008 10:15	2.08
6/17/2008 10:30	2.12
6/17/2008 10:45	2.13
6/17/2008 11:00	2.12
6/17/2008 11:15	2.17
6/17/2008 11:30	2.18

6/17/2008 11:45	2.18
6/17/2008 12:00	2.21
6/17/2008 12:15	2.26
6/17/2008 12:30	2.27
6/17/2008 12:45	2.27
6/17/2008 13:00	2.28
6/17/2008 13:15	2.29
6/17/2008 13:30	2.33
6/17/2008 13:45	2.34
6/17/2008 14:00	2.34
6/17/2008 14:15	2.39
6/17/2008 14:30	2.41
6/17/2008 14:45	2.39
6/17/2008 15:00	2.42
6/17/2008 15:15	2.44
6/17/2008 15:30	2.45
6/17/2008 15:45	2.42
6/17/2008 16:00	2.37
6/17/2008 16:15	2.37
6/17/2008 16:30	2.35
6/17/2008 16:45	2.45
6/17/2008 17:00	2.3
6/17/2008 17:15	2.45
6/17/2008 17:30	2.57
6/17/2008 17:45	2.75
6/17/2008 18:00	2.57
6/17/2008 18:15	2.51
6/17/2008 18:30	2.72
6/17/2008 18:45	2.58
6/17/2008 19:00	2.46
6/17/2008 19:15	2.47
6/17/2008 19:30	2.42
6/17/2008 19:45	2.4
6/17/2008 20:00	2.37
6/17/2008 20:15	2.49
6/17/2008 20:30	2.46

6/17/2008 20:45	2.5
6/17/2008 21:00	2.51
6/17/2008 21:15	2.43
6/17/2008 21:30	2.5
6/17/2008 21:45	2.38
6/17/2008 22:00	2.33
6/17/2008 22:15	2.27
6/17/2008 22:30	2.36
6/17/2008 22:45	2.27
6/17/2008 23:00	2.22
6/17/2008 23:15	2.25
6/17/2008 23:30	2.27
6/17/2008 23:45	2.27
6/18/2008	2.19
6/18/2008 0:15	2.19
6/18/2008 0:30	2.17
6/18/2008 0:45	2.16
6/18/2008 1:00	2.12
6/18/2008 1:15	2.08
6/18/2008 1:30	2.05
6/18/2008 1:45	2.01
6/18/2008 2:00	2.04
6/18/2008 2:15	2.07
6/18/2008 2:30	2.14
6/18/2008 2:45	2.1
6/18/2008 3:00	2.09
6/18/2008 3:15	2.06
6/18/2008 3:30	2.01
6/18/2008 3:45	1.99
6/18/2008 4:00	1.97
6/18/2008 4:15	1.99
6/18/2008 4:30	1.97
6/18/2008 4:45	1.97
6/18/2008 5:00	1.97
6/18/2008 5:15	1.91
6/18/2008 5:30	1.94

6/18/2008 5:45	1.94
6/18/2008 6:00	1.95
6/18/2008 6:15	1.92
6/18/2008 6:30	1.93
6/18/2008 6:45	1.9
6/18/2008 7:00	1.87
6/18/2008 7:15	1.87
6/18/2008 7:30	1.86
6/18/2008 7:45	1.89
6/18/2008 8:00	1.89
6/18/2008 8:15	1.91
6/18/2008 8:30	1.93
6/18/2008 8:45	1.94
6/18/2008 9:00	1.96
6/18/2008 9:15	1.98
6/18/2008 9:30	2.01
6/18/2008 9:45	2.06
6/18/2008 10:00	2.07
6/18/2008 10:15	2.09
6/18/2008 10:30	2.12
6/18/2008 10:45	2.14
6/18/2008 11:00	2.18
6/18/2008 11:15	2.2
6/18/2008 11:30	2.21
6/18/2008 11:45	2.24
6/18/2008 12:00	2.29
6/18/2008 12:15	2.32
6/18/2008 12:30	2.32
6/18/2008 12:45	2.33
6/18/2008 13:00	2.36
6/18/2008 13:15	2.37
6/18/2008 13:30	2.4
6/18/2008 13:45	2.42
6/18/2008 14:00	2.43
6/18/2008 14:15	2.44
6/18/2008 14:30	2.47

6/18/2008 14:45	2.51
6/18/2008 15:00	2.52
6/18/2008 15:15	2.54
6/18/2008 15:30	2.57
6/18/2008 15:45	2.59
6/18/2008 16:00	2.59
6/18/2008 16:15	2.59
6/18/2008 16:30	2.6
6/18/2008 16:45	2.62
6/18/2008 17:00	2.63
6/18/2008 17:15	2.64
6/18/2008 17:30	2.64
6/18/2008 17:45	2.67
6/18/2008 18:00	2.69
6/18/2008 18:15	2.7
6/18/2008 18:30	2.71
6/18/2008 18:45	2.72
6/18/2008 19:00	2.74
6/18/2008 19:15	2.73
6/18/2008 19:30	2.73
6/18/2008 19:45	2.73
6/18/2008 20:00	2.73
6/18/2008 20:15	2.74
6/18/2008 20:30	2.75
6/18/2008 20:45	2.76
6/18/2008 21:00	2.75
6/18/2008 21:15	2.74
6/18/2008 21:30	2.74
6/18/2008 21:45	2.73
6/18/2008 22:00	2.7
6/18/2008 22:15	2.69
6/18/2008 22:30	2.67
6/18/2008 22:45	2.63
6/18/2008 23:00	2.63
6/18/2008 23:15	2.62
6/18/2008 23:30	2.6

6/18/2008 23:45	2.58
6/19/2008	2.57
6/19/2008 0:15	2.56
6/19/2008 0:30	2.53
6/19/2008 0:45	2.52
6/19/2008 1:00	2.49
6/19/2008 1:15	2.47
6/19/2008 1:30	2.46
6/19/2008 1:45	2.43
6/19/2008 2:00	2.43
6/19/2008 2:15	2.42
6/19/2008 2:30	2.41
6/19/2008 2:45	2.38
6/19/2008 3:00	2.38
6/19/2008 3:15	2.41
6/19/2008 3:30	2.37
6/19/2008 3:45	2.35
6/19/2008 4:00	2.33
6/19/2008 4:15	2.29
6/19/2008 4:30	2.25
6/19/2008 4:45	2.23
6/19/2008 5:00	2.26
6/19/2008 5:15	2.25
6/19/2008 5:30	2.23
6/19/2008 5:45	2.22
6/19/2008 6:00	2.26
6/19/2008 6:15	2.26
6/19/2008 6:30	2.24
6/19/2008 6:45	2.23
6/19/2008 7:00	2.24
6/19/2008 7:15	2.22
6/19/2008 7:30	2.25
6/19/2008 7:45	2.25
6/19/2008 8:00	2.24
6/19/2008 8:15	2.29
6/19/2008 8:30	2.29

6/19/2008 8:45	2.31
6/19/2008 9:00	2.35
6/19/2008 9:15	2.36
6/19/2008 9:30	2.4
6/19/2008 9:45	2.38
6/19/2008 10:00	2.43
6/19/2008 10:15	2.42
6/19/2008 10:30	2.43
6/19/2008 10:45	2.45
6/19/2008 11:00	2.46
6/19/2008 11:15	2.5
6/19/2008 11:30	2.5
6/19/2008 11:45	2.54
6/19/2008 12:00	2.54
6/19/2008 12:15	2.58
6/19/2008 12:30	2.61
6/19/2008 12:45	2.64
6/19/2008 13:00	2.63
6/19/2008 13:15	2.64
6/19/2008 13:30	2.63
6/19/2008 13:45	2.65
6/19/2008 14:00	2.68
6/19/2008 14:15	2.7
6/19/2008 14:30	2.7
6/19/2008 14:45	2.73
6/19/2008 15:00	2.75
6/19/2008 15:15	2.77
6/19/2008 15:30	2.79
6/19/2008 15:45	2.82
6/19/2008 16:00	2.83
6/19/2008 16:15	2.86
6/19/2008 16:30	2.85
6/19/2008 16:45	2.85
6/19/2008 17:00	2.86
6/19/2008 17:15	2.89
6/19/2008 17:30	2.89

6/19/2008 17:45	2.92
6/19/2008 18:00	2.94
6/19/2008 18:15	2.94
6/19/2008 18:30	2.97
6/19/2008 18:45	2.99
6/19/2008 19:00	3
6/19/2008 19:15	3.09
6/19/2008 19:30	3.06
6/19/2008 19:45	3.04
6/19/2008 20:00	3.05
6/19/2008 20:15	3
6/19/2008 20:30	2.98
6/19/2008 20:45	3.02
6/19/2008 21:00	3.02
6/19/2008 21:15	3.05
6/19/2008 21:30	3.01
6/19/2008 21:45	3.02
6/19/2008 22:00	2.96
6/19/2008 22:15	2.93
6/19/2008 22:30	2.91
6/19/2008 22:45	2.92
6/19/2008 23:00	2.9
6/19/2008 23:15	2.91
6/19/2008 23:30	2.86
6/19/2008 23:45	2.84
6/20/2008	2.83

Appendix G- Historical and Ambient Data

Appendix G1 – Ambient temperature & DO Calculations for current criteria

Critical Temperature and DO Determinations:

SITE 0302

SITE Cane Bayou east of Mandeville, Louisiana

	Summer Season	***Winter Season***
90th Percentile	27.91	20.71
90 % DO Sat (mg/L):	7.06	8.07
Months:	May To Oct	Nov To Apr

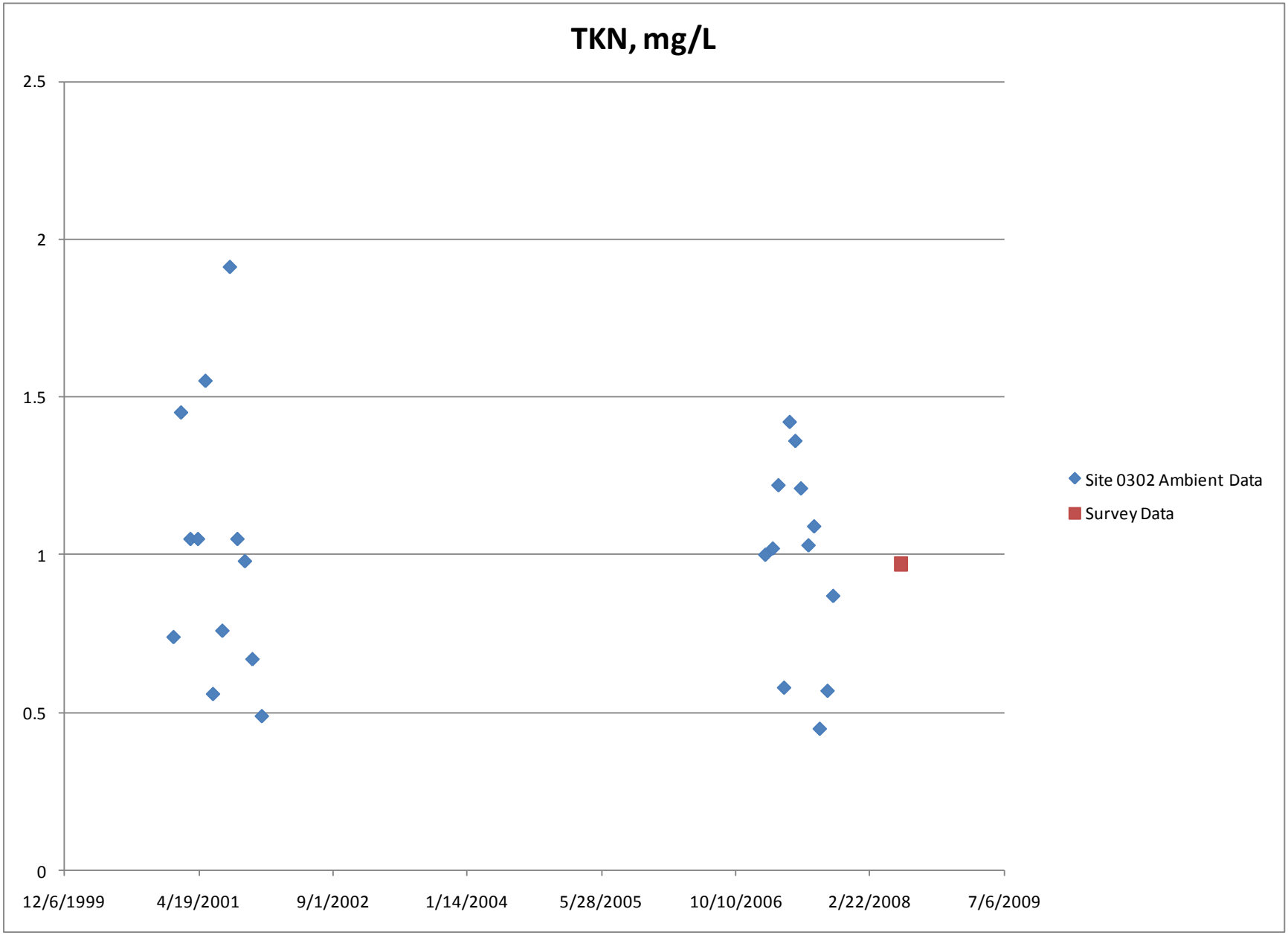
Date	***Water Temp. (°C)***	***DO (mg/L)***
3/21/2006 10:55:00 AM	18.69	3.44
1/18/2006 9:00:00 AM	12.25	2.40
12/13/2005	9.80	11.40
11/29/2005	15.78	3.96
11/15/2005	21.00	1.48
11/8/2005	20.04	2.36
11/1/2005	16.54	2.10
10/25/2005	16.59	2.75
10/18/2005	18.00	6.10
10/7/2005	27.57	0.25
10/3/2005	28.70	0.29
9/29/2005	27.77	1.70
9/27/2005	27.68	1.40

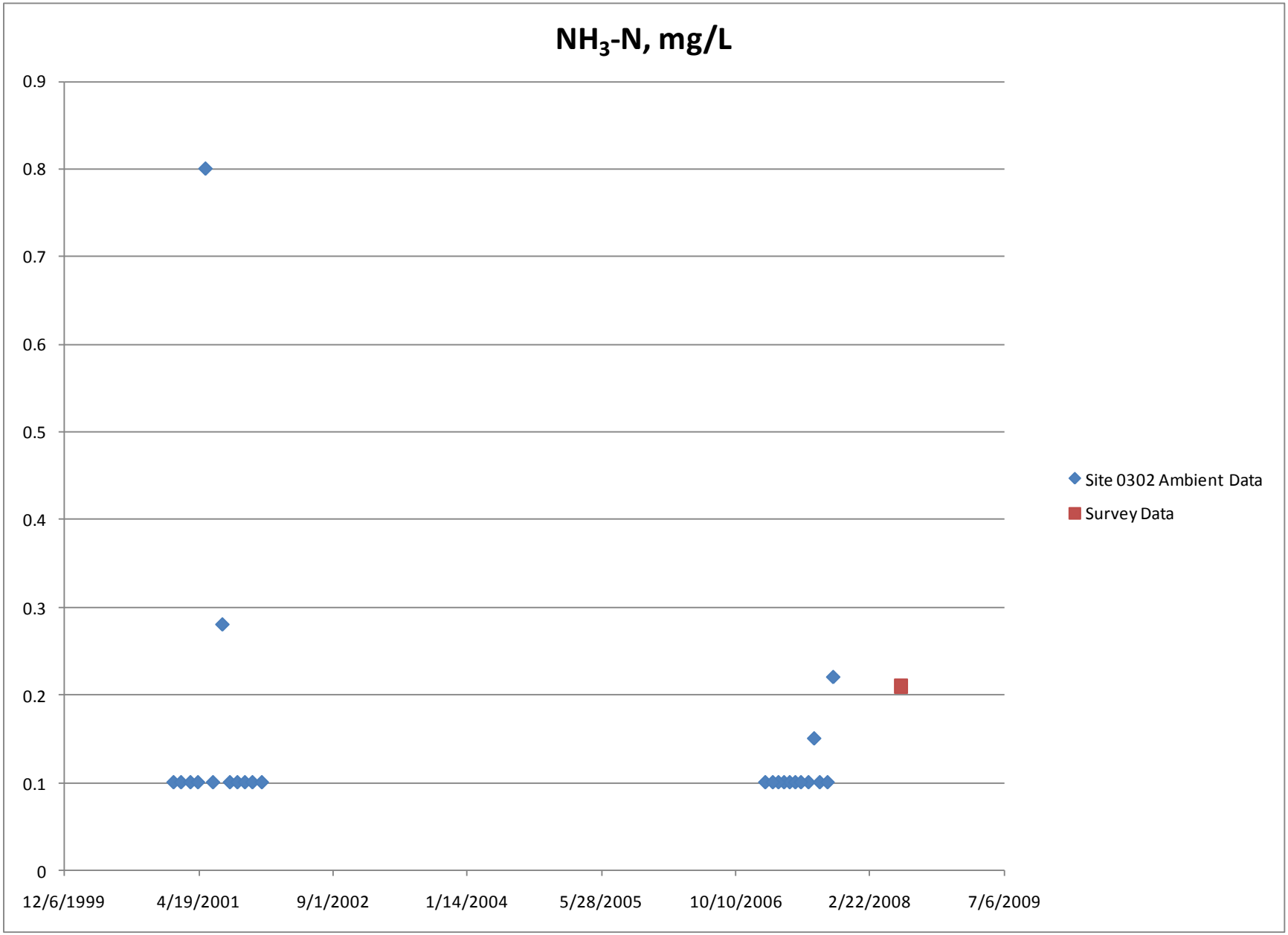
9/20/2005	26.97	0.11
9/17/2005	26.12	0.17
9/14/2005	25.55	0.17
9/12/2005	25.21	0.25
9/7/2005	26.39	0.16
12/11/2001	16.00	4.02
11/6/2001	17.95	4.26
10/9/2001	20.53	4.76
9/11/2001	24.91	4.31
7/17/2001	28.41	0.92
6/12/2001	24.91	4.69
5/15/2001	24.90	2.49
4/17/2001	23.31	4.15
3/20/2001	14.90	7.04
2/13/2001	14.92	3.57
1/16/2001	12.29	7.88
5/11/1998	24.58	1.04
3/9/1998	13.57	6.80
1/13/1998	14.51	6.12
11/17/1997	11.61	4.60
9/9/1997	26.53	0.78

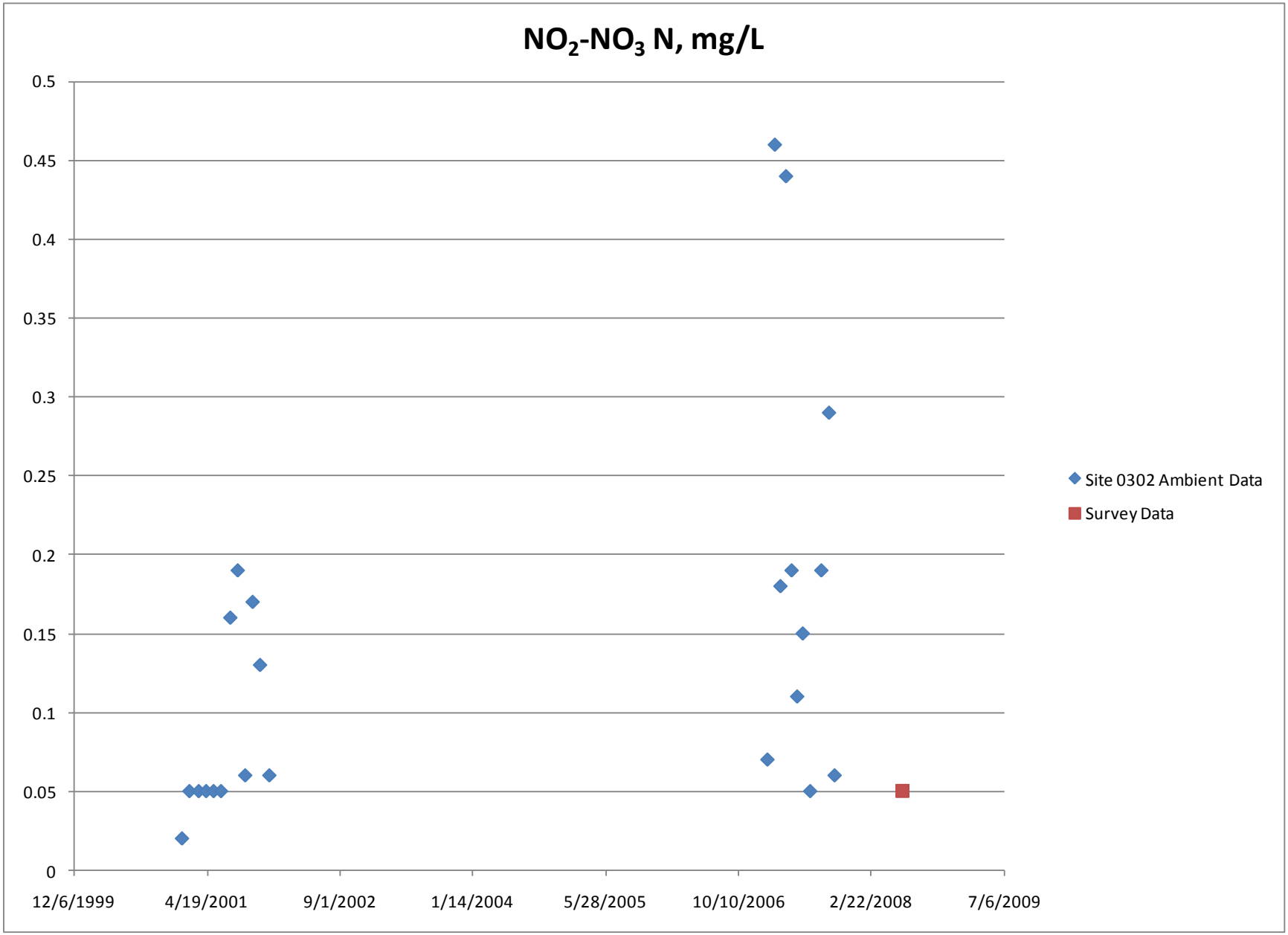
7/15/1997	26.00	4.58
5/13/1997	21.22	2.15
3/11/1997	17.71	2.42
1/7/1997	17.55	0.97
11/18/1996	17.07	4.75
9/10/1996	26.73	3.05
7/8/1996	28.99	0.78
5/14/1996	23.95	0.89
3/11/1996	8.17	7.66
1/8/1996	6.55	8.42
11/14/1995	14.25	3.47
9/12/1995	25.85	4.45
7/11/1995	28.19	1.28
3/14/1995	16.08	8.13
1/10/1995	10.92	8.58
11/15/1994	19.32	0.28
9/13/1994	25.70	0.62
7/12/1994	25.83	0.83
5/10/1994	24.02	2.90
3/14/1994	13.58	6.76
1/10/1994	9.48	4.90

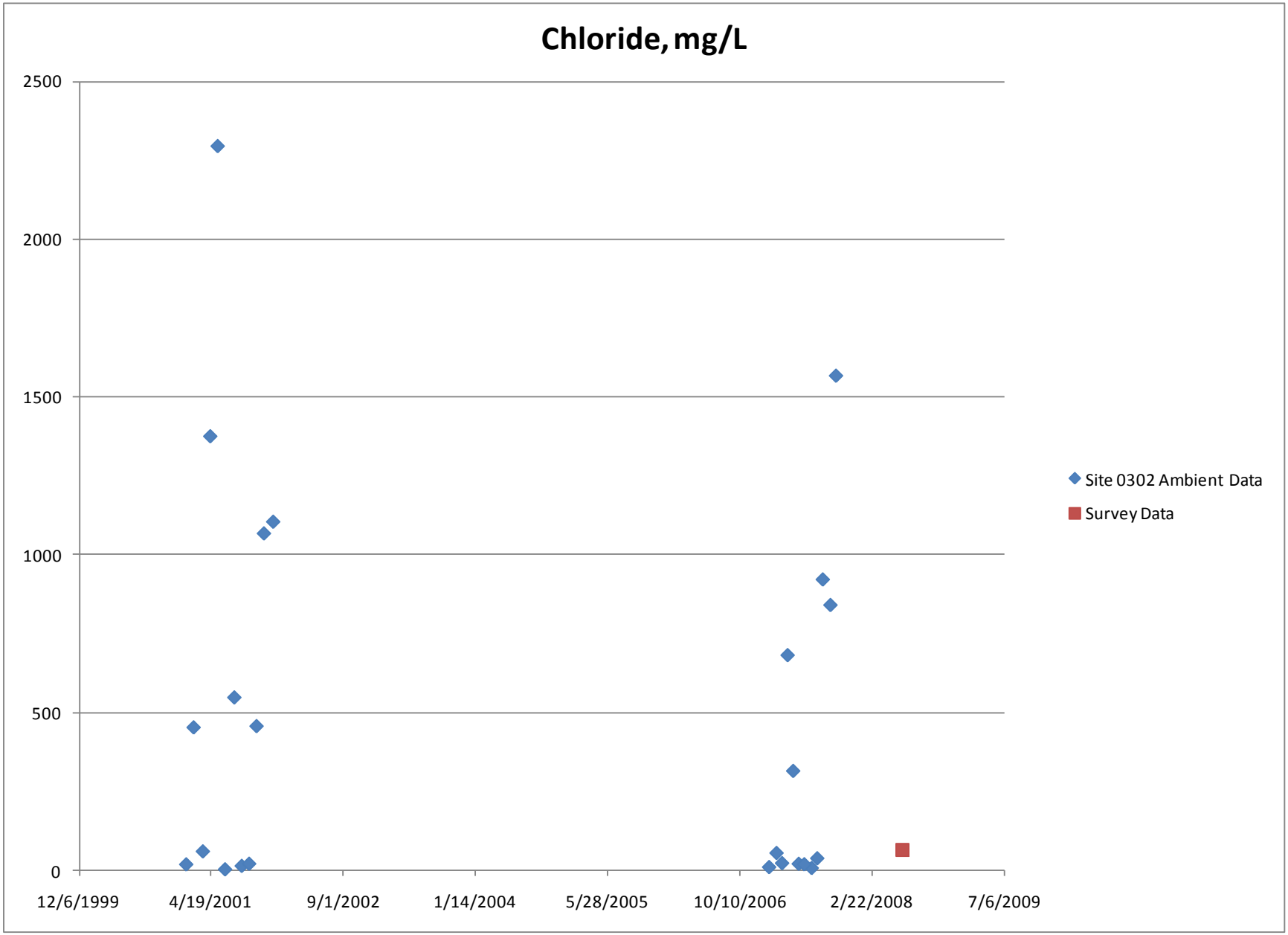
11/15/1993	16.77	4.18
9/14/1993	25.68	0.90
7/13/1993	24.57	5.06
5/11/1993	22.70	2.28
3/9/1993	14.06	5.90
1/12/1993	16.77	5.60
11/17/1992	12.80	5.60
9/15/1992	25.99	1.20
7/14/1992	29.35	0.60
5/12/1992	21.92	3.40
3/10/1992	18.31	6.00
1/7/1992	12.70	3.90
11/19/1991	17.68	8.40
9/10/1991	26.30	1.50
7/16/1991	29.90	2.00
5/14/1991	24.57	4.50
3/12/1991	16.90	3.80
1/15/1991	8.70	8.20

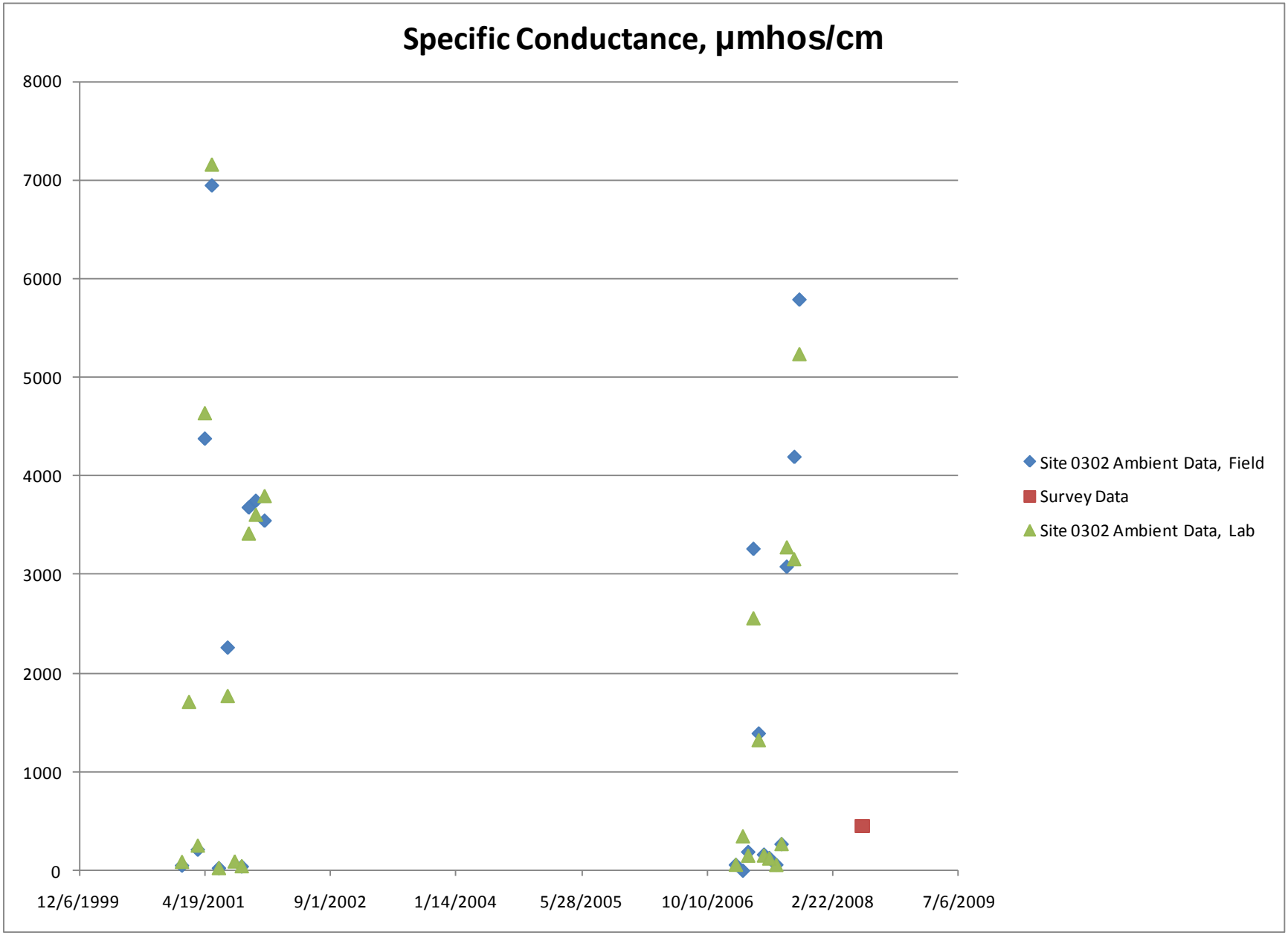
Appendix G2 – Water Quality Data for Ambient Monitoring Site 0302

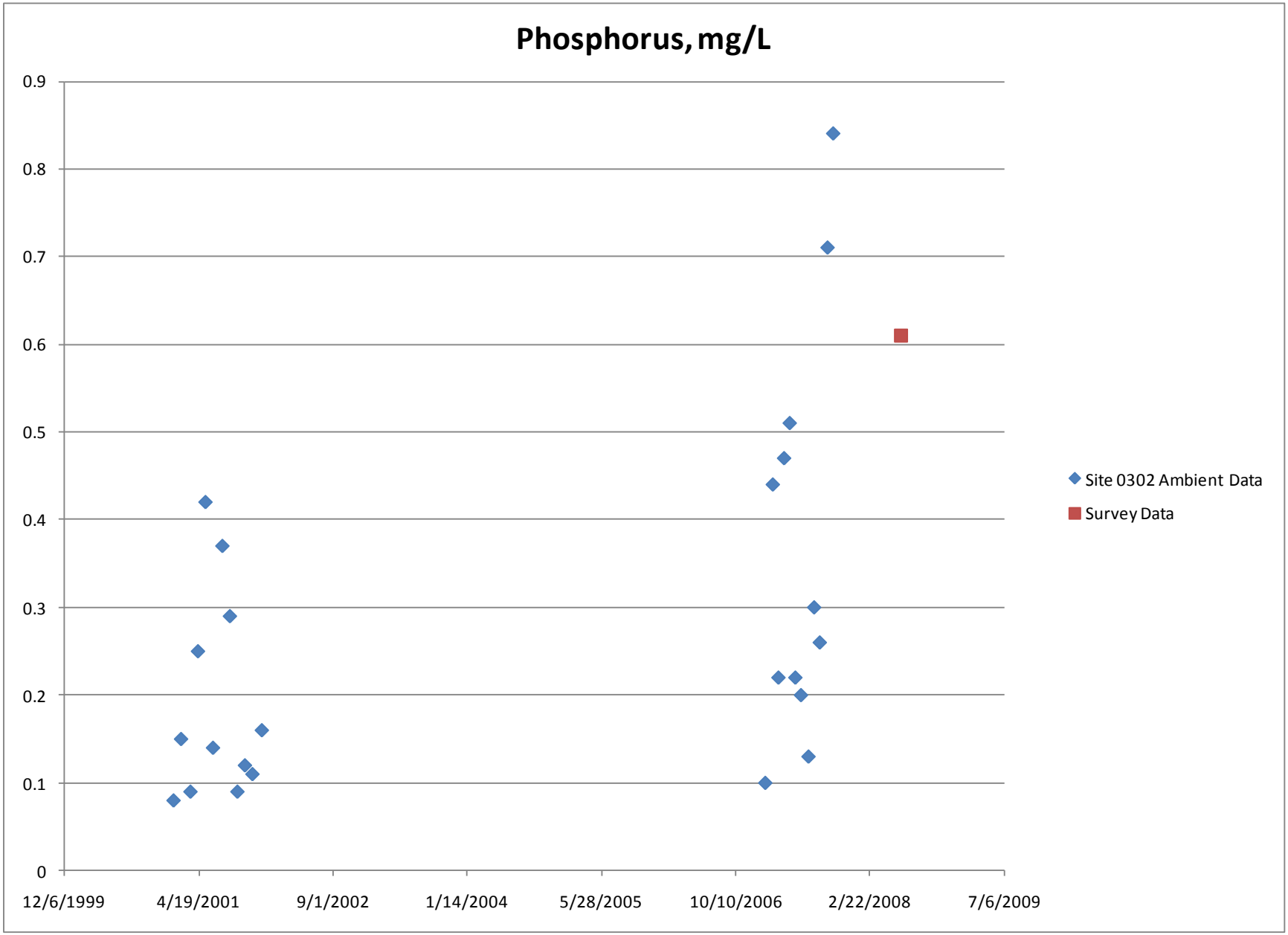

TKN, mg/L
2.5
2
1.5
1
0.5
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

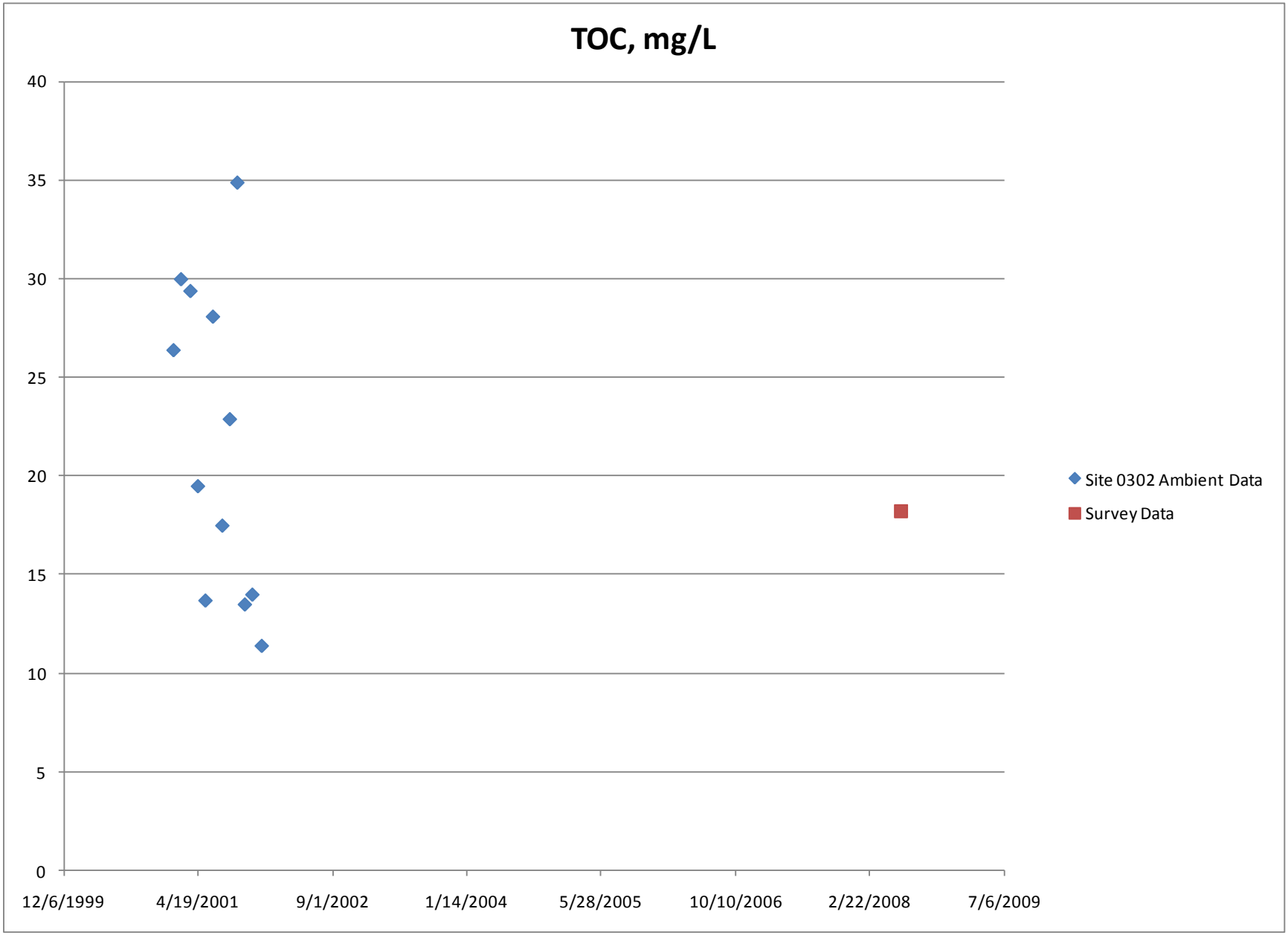

NH3-N, mg/L
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

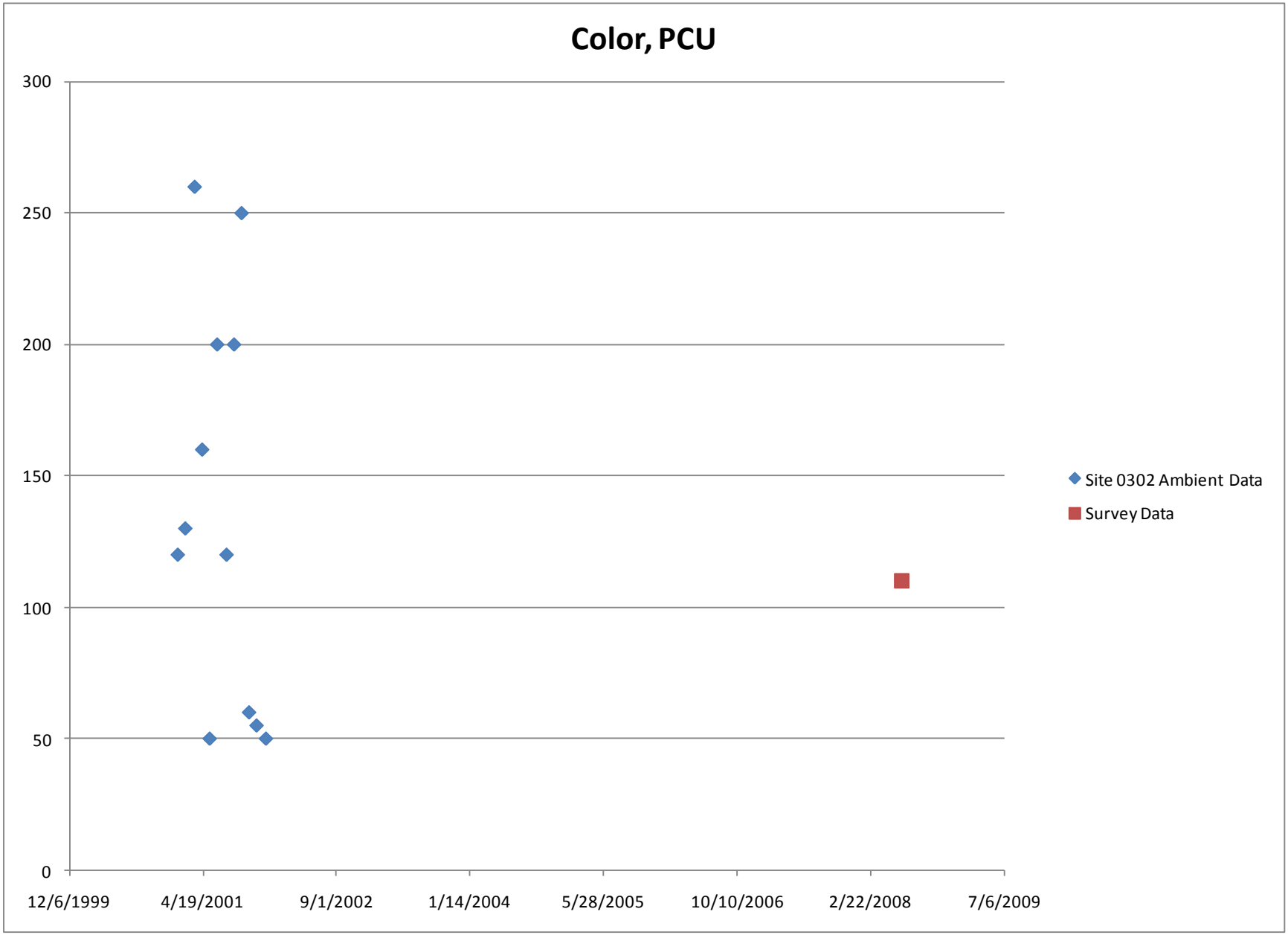

NO2-NO3 N, mg/L
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

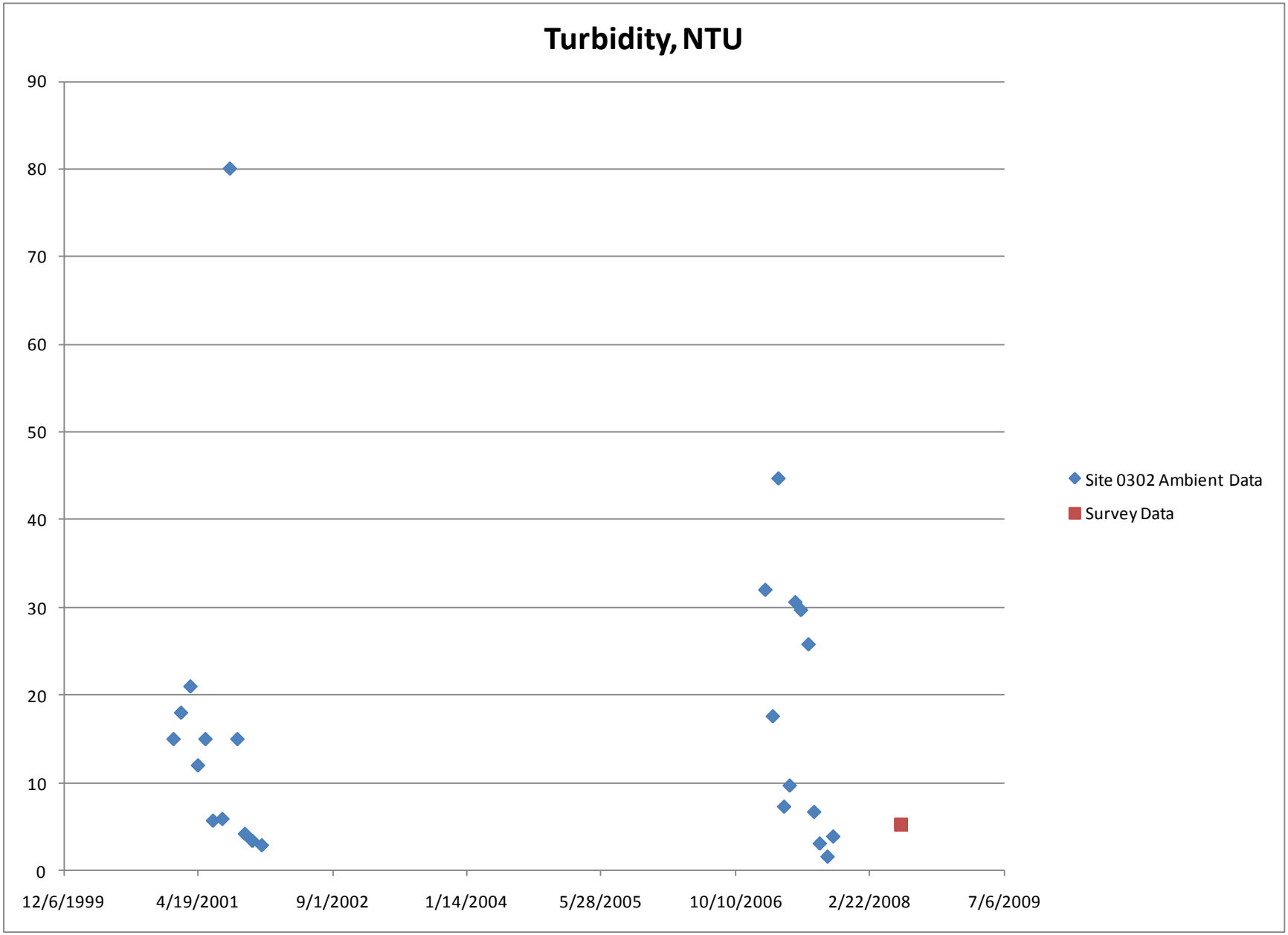

Chloride, mg/L
2500
2000
1500
1000
500
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data


Specific Conductance, µmhos/cm
8000
7000
6000
5000
4000
3000
2000
1000
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data, Field
Survey Data
Site 0302 Ambient Data, Lab


Phosphorus, mg/L
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

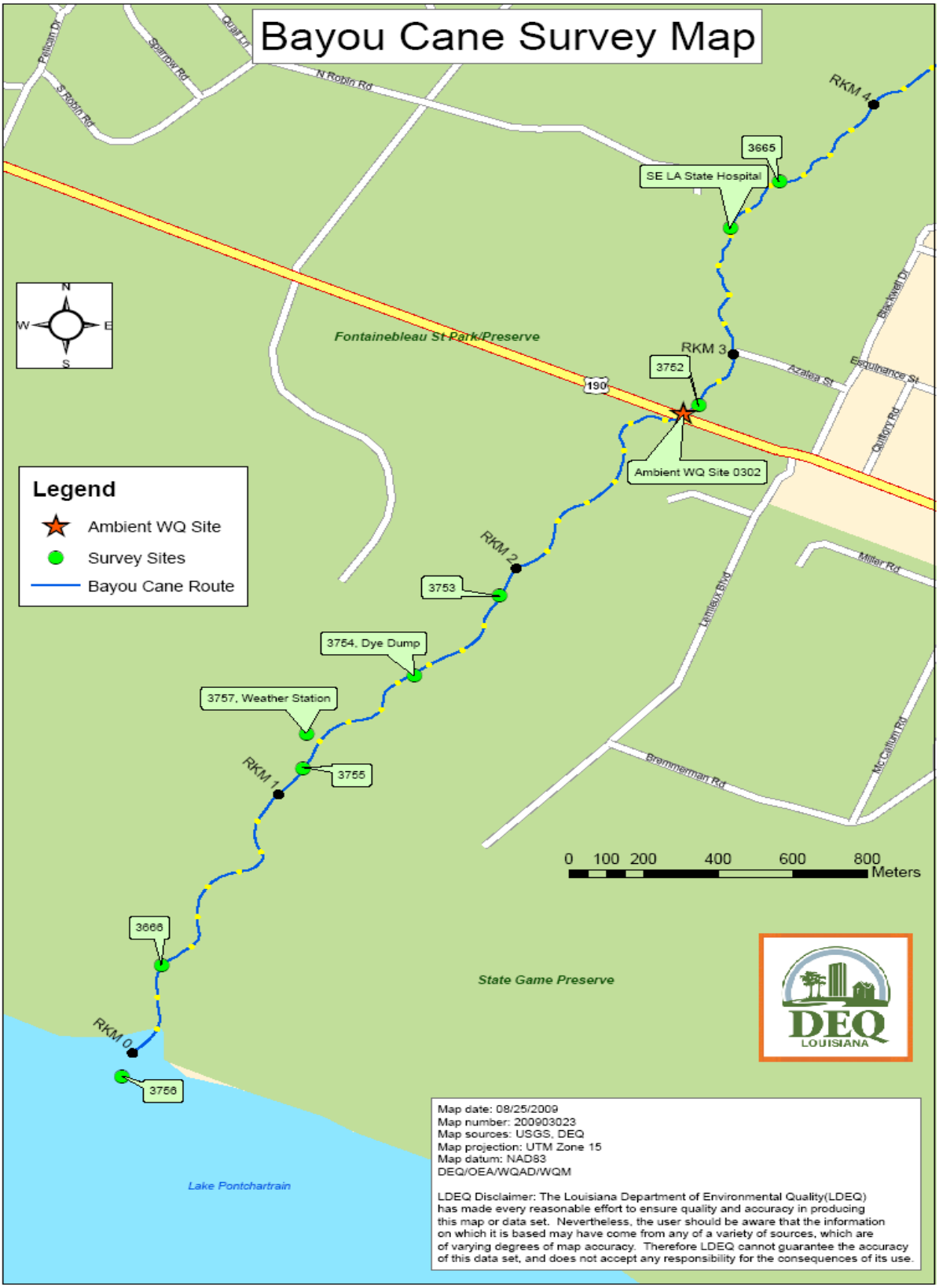

TOC, mg/L
40
35
30
25
20
15
10
5
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data


Color, PCU
300
250
200
150
100
50
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

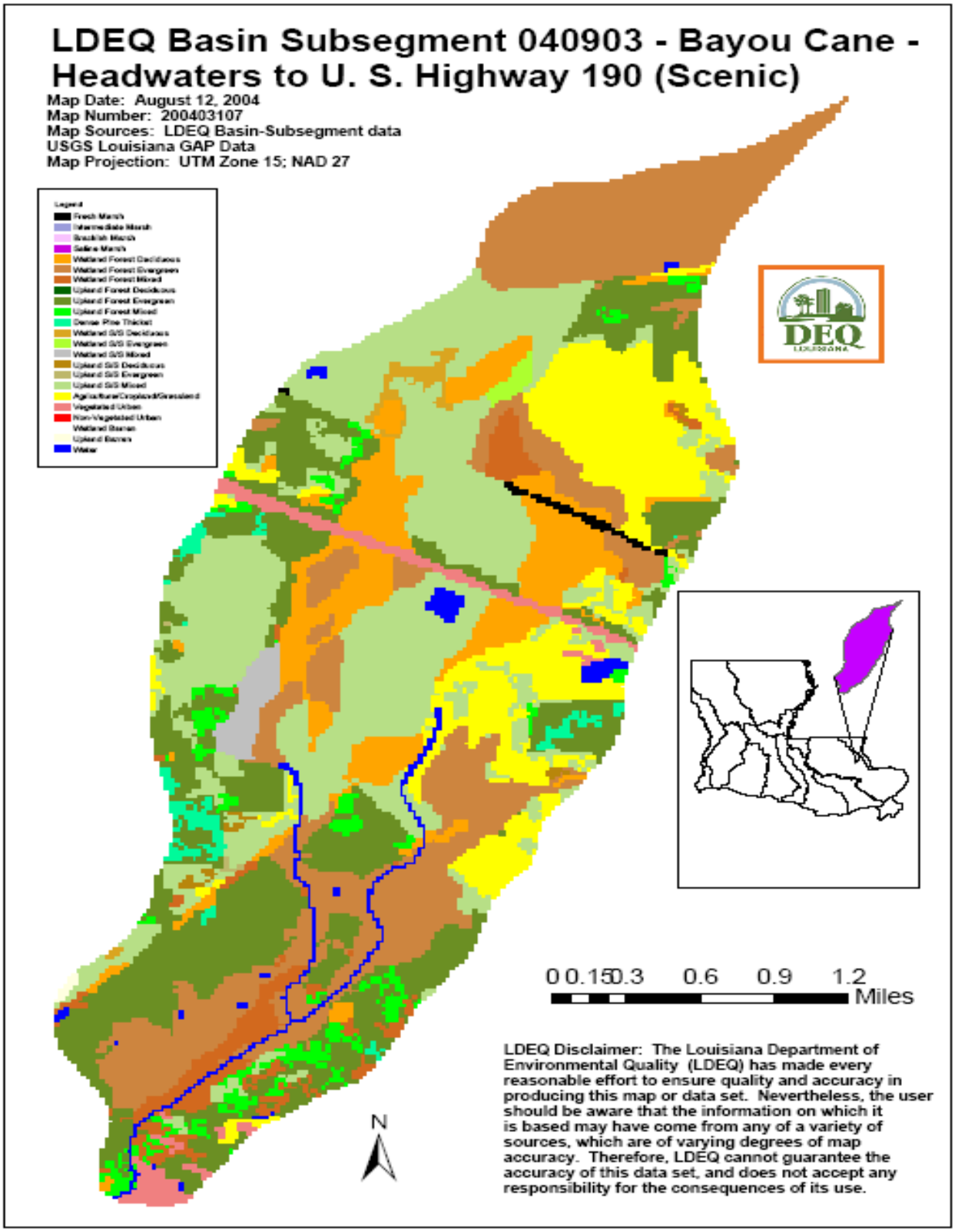

Turbidity, NTU
90
80
70
60
50
40
30
20
10
0
12/6/1999
4/19/2001
9/1/2002
1/14/2004
5/28/2005
10/10/2006
2/22/2008
7/6/2009
Site 0302 Ambient Data
Survey Data

Appendix H – Maps and Diagrams

Appendix H1- Overview map


Bayou Cane Survey Map
RKM 4
3665
SE LA State Hospital
Fontainebleau St Park/Preserve
RKM 3
3752
190
Ambient WQ Site 0302
Legend
Ambient WQ Site
Survey Sites
Bayou Cane Route
RKM 2
3753
3754, Dye Dump
3757, Weather Station
RKM 1
3755
3666
RKM 0
3756
State Game Preserve
Lake Pontchartrain
0 100 200 400 600 800
Meters
DEQ
LOUISIANA
Map date: 08/25/2009
Map number: 200903023
Map sources: USGS, DEQ
Map projection: UTM Zone 15
Map datum: NAD83
DEQ/OEA/WQAD/WQM
LDEQ Disclaimer: The Louisiana Department of Environmental Quality(LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.

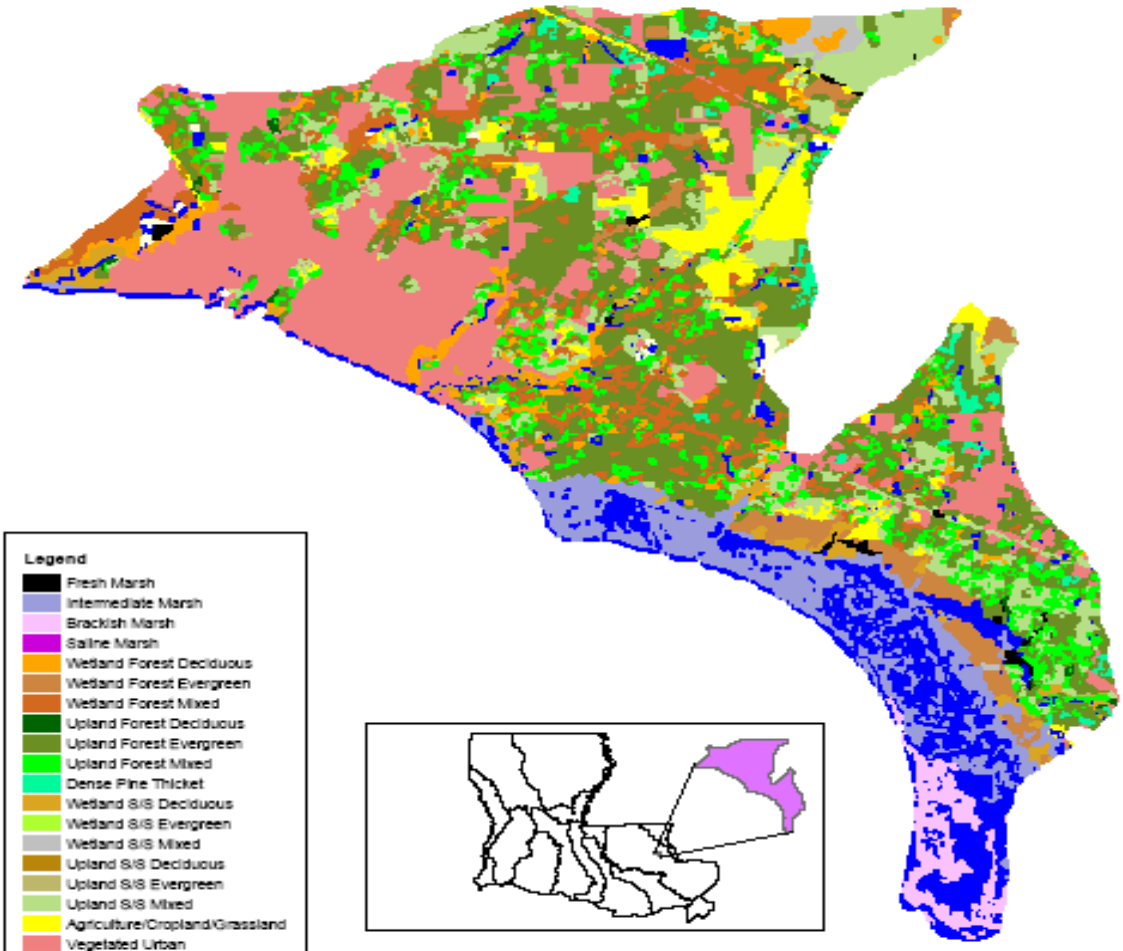
Appendix H2 – Land Use Maps


LDEQ Basin Subsegment 040903 - Bayou Cane - Headwaters to U. S. Highway 190 (Scenic)
Map Date: August 12, 2004
Map Number: 200403107
Map Sources: LDEQ Basin-Subsegment data
USGS Louisiana GAP Data
Map Projection: UTM Zone 15; NAD 27
Legend
Fresh Marsh
Intermediate Marsh
Brackish Marsh
Saline Marsh
Wetland Forest Deciduous
Wetland Forest Evergreen
Wetland Forest Mixed
Upland Forest Deciduous
Upland Forest Evergreen
Upland Forest Mixed
Dense Pine Thicket
Wetland S/S Deciduous
Wetland S/S Evergreen
Wetland S/S Mixed
Upland S/S Deciduous
Upland S/S Evergreen
Upland S/S Mixed
Agriculture/Cropland/Grassland
Vegetated Urban
Non-Vegetated Urban
Wetland Barren
Upland Barren
Water
DEQ
LOUISIANA
0 0.15 0.3 0.6 0.9 1.2
Miles
N
LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.

LDEQ Basin Subsegment 040904 - Bayou Cane - U. S. Highway 190 to Lake Pontchartrain (Scenic)(Estuarine)

0 0.5 1 2 3 4 Miles

Map Date: August 12, 2004
Map Number: 200403108
Map Sources: LDEQ Basin-Subsegment data
USGS Louisiana GAP Data
Map Projection: UTM Zone 15; NAD 27



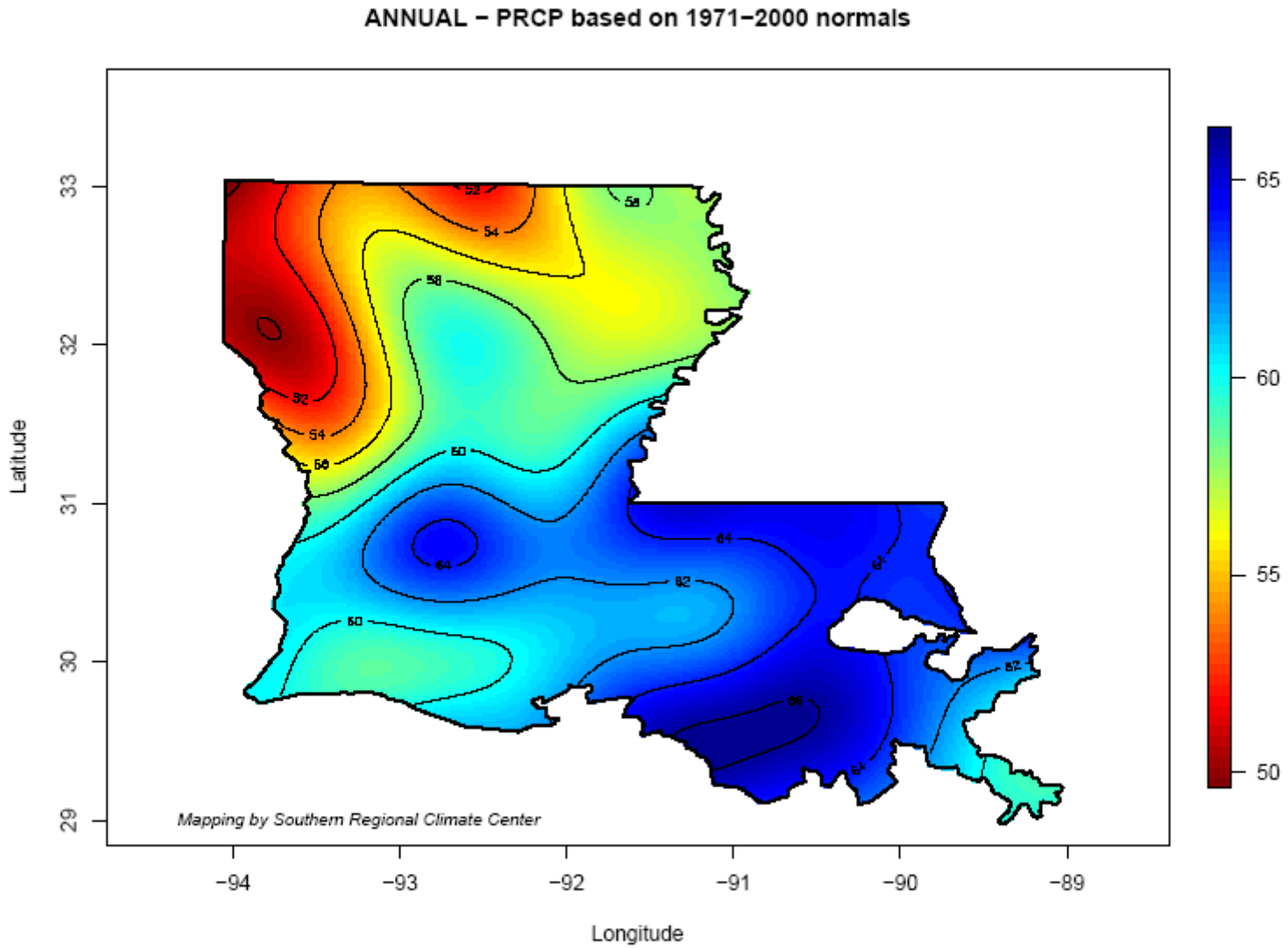
Legend
- Fresh Marsh
- Intermediate Marsh
- Brackish Marsh
- Saline Marsh
- Wetland Forest Deciduous
- Wetland Forest Evergreen
- Wetland Forest Mixed
- Upland Forest Deciduous
- Upland Forest Evergreen
- Upland Forest Mixed
- Dense Pine Thicket
- Wetland S/S Deciduous
- Wetland S/S Evergreen
- Wetland S/S Mixed
- Upland S/S Deciduous
- Upland S/S Evergreen
- Upland S/S Mixed
- Agriculture/Cropland/Grassland
- Vegetated Urban
- Non-Vegetated Urban
- Wetland Barren
- Upland Barren
- Water

DEQ LOUISIANA

N

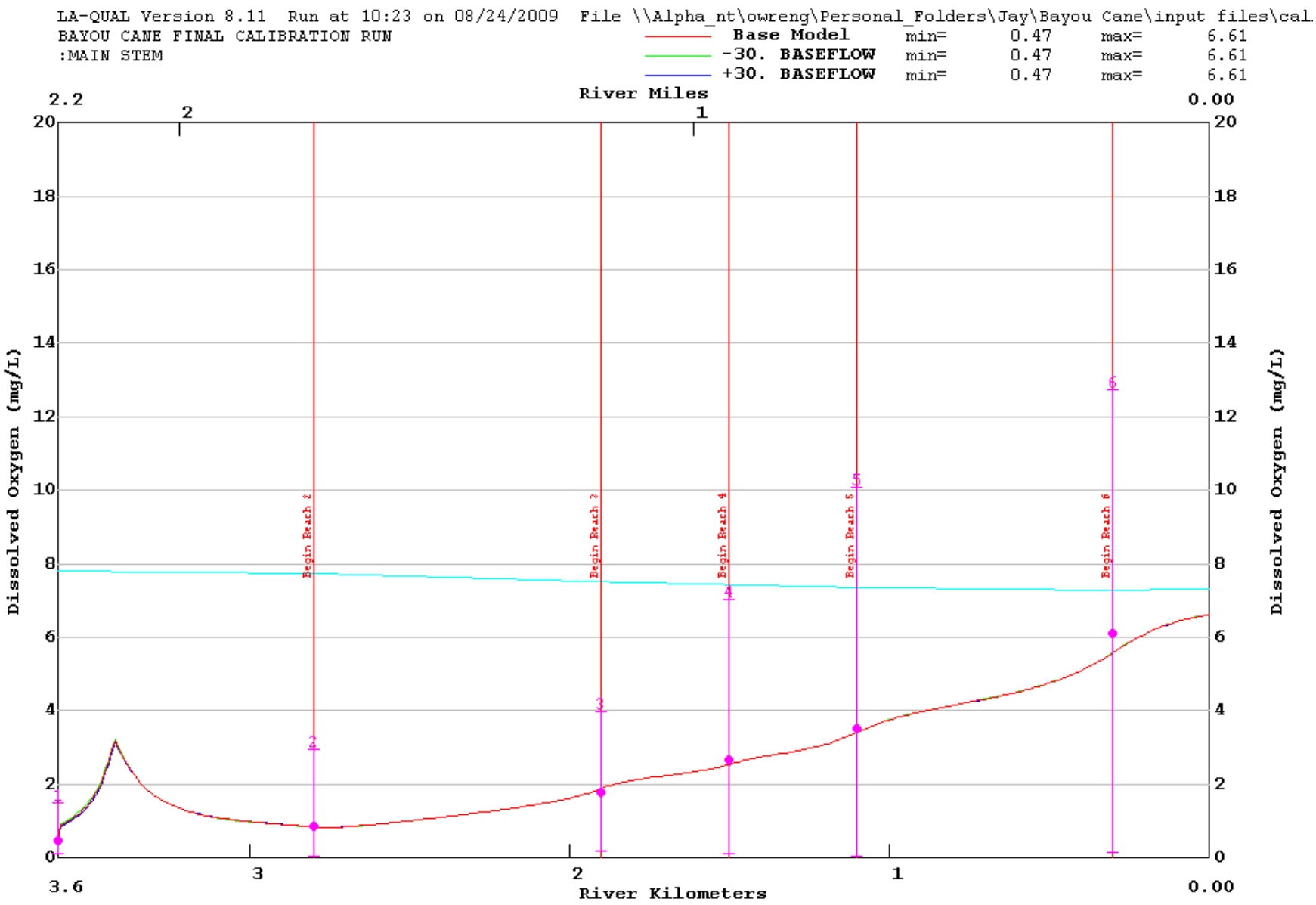
LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.

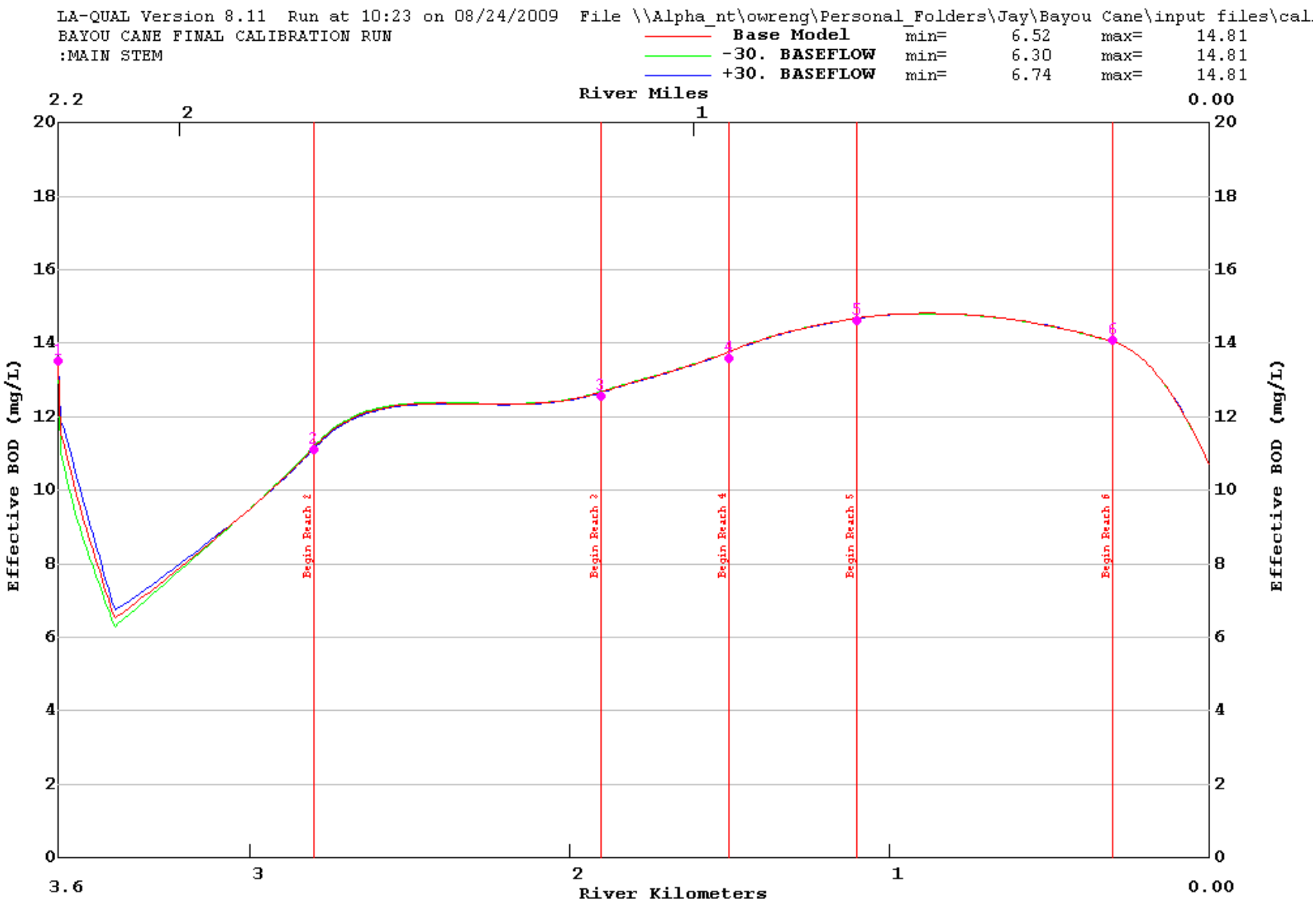
Appendix H3 – Louisiana Precipitation Map

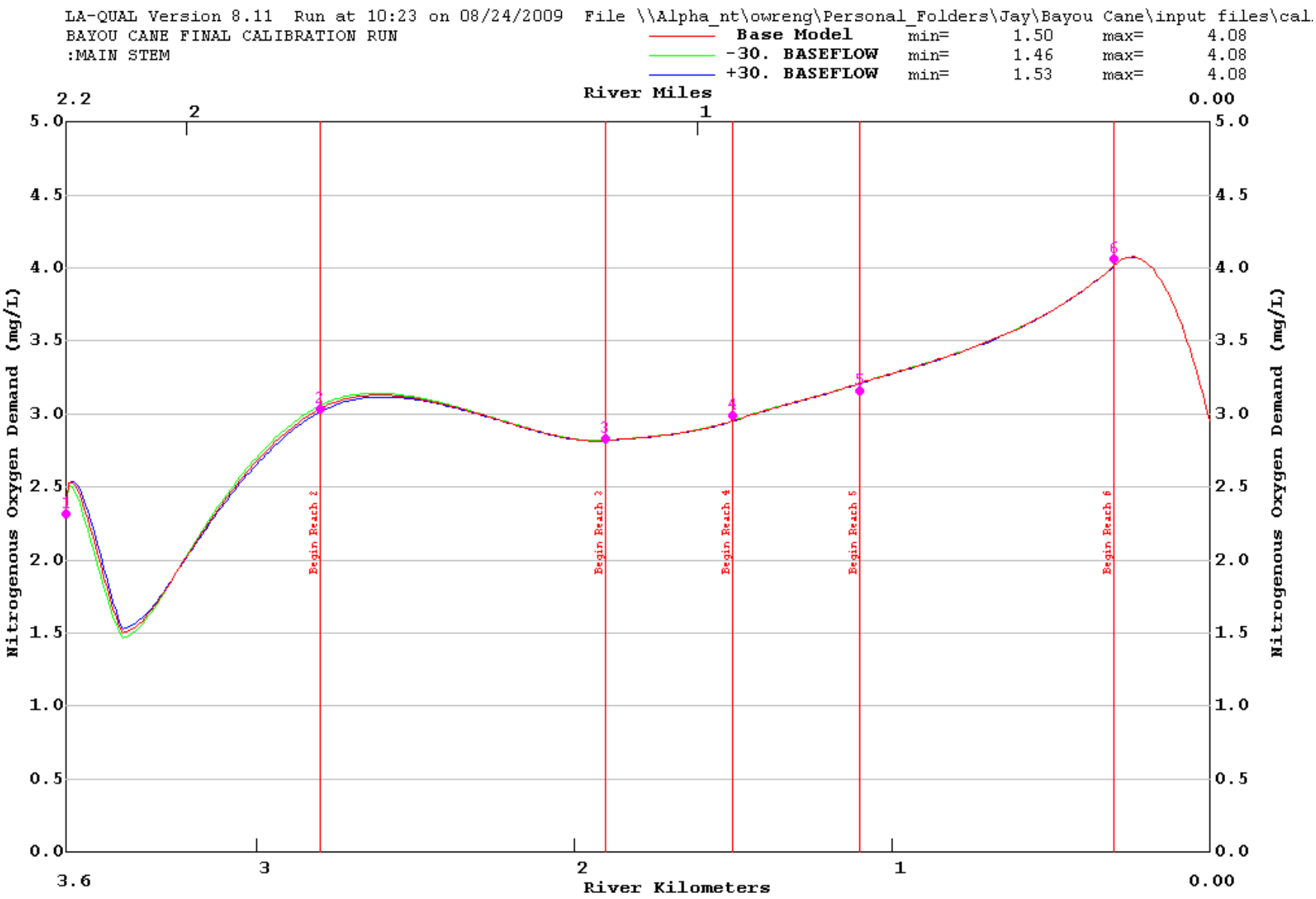

ANNUAL − PRCP based on 1971−2000 normals
Latitude
Longitude
33
32
31
30
29
−94
−93
−92
−91
−90
−89
65
60
55
50
Mapping by Southern Regional Climate Center

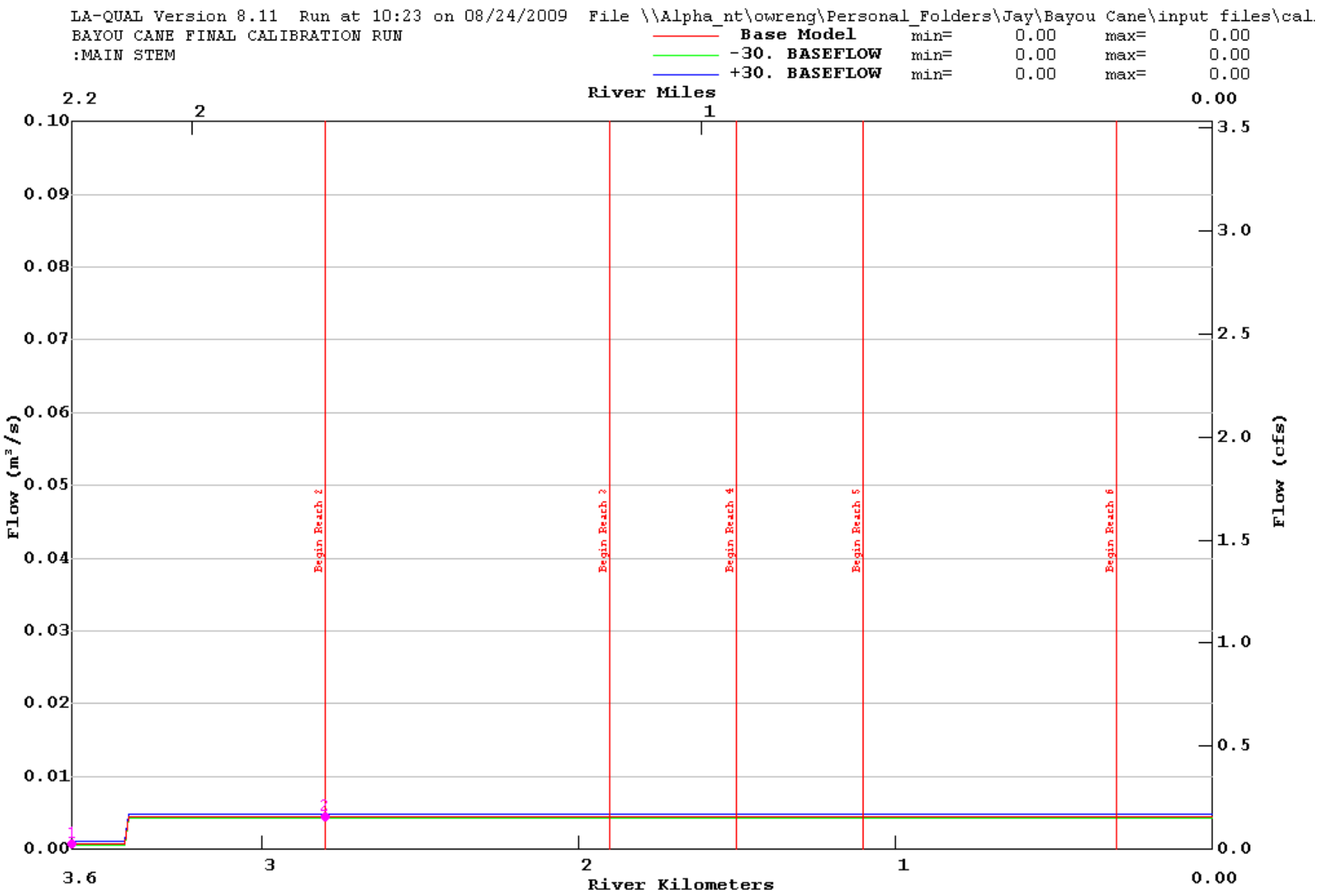
Appendix I – Sensitivity Analysis

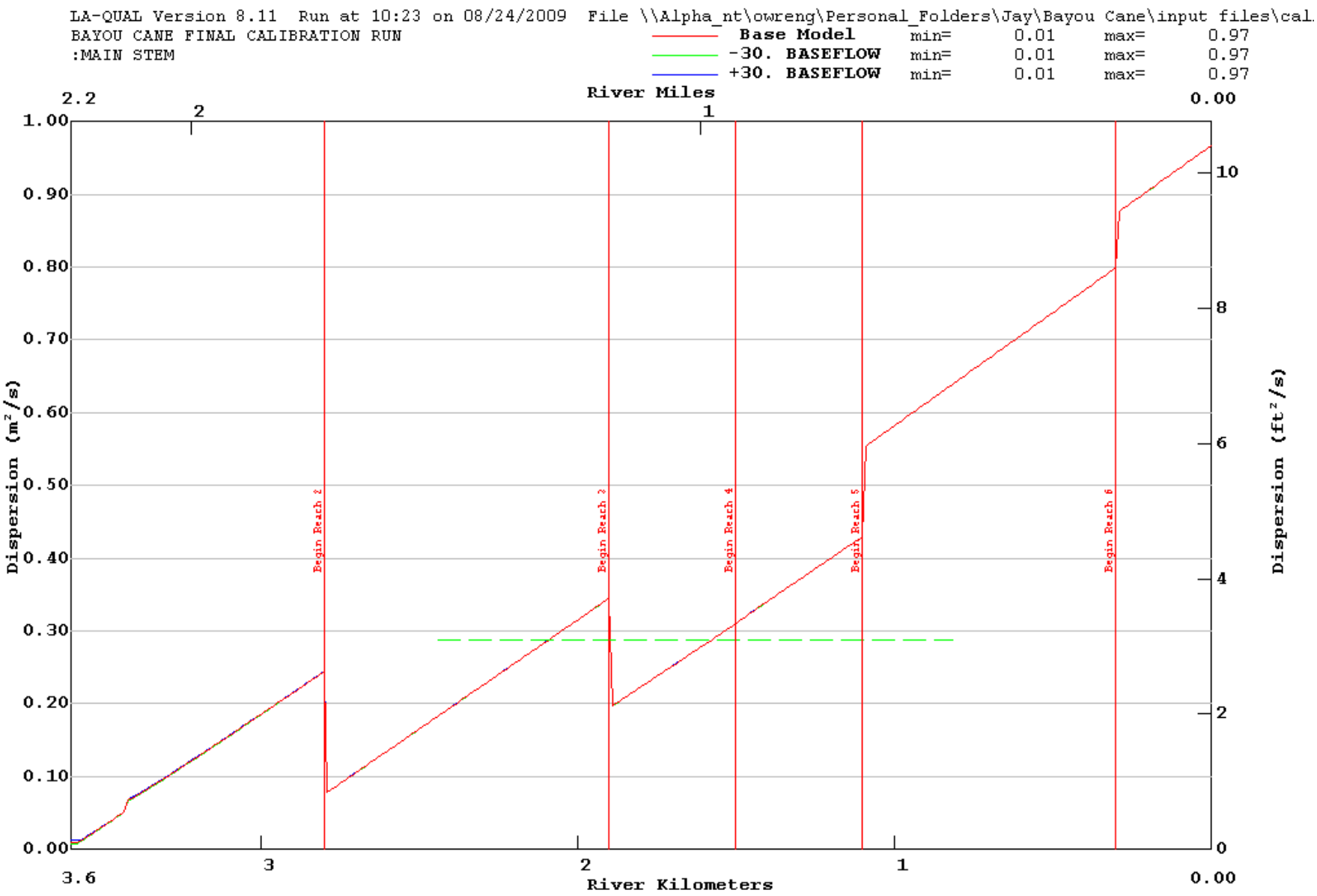
Appendix I1 – Sensitivity Output Graphs for Subsegments 040903 & 040904

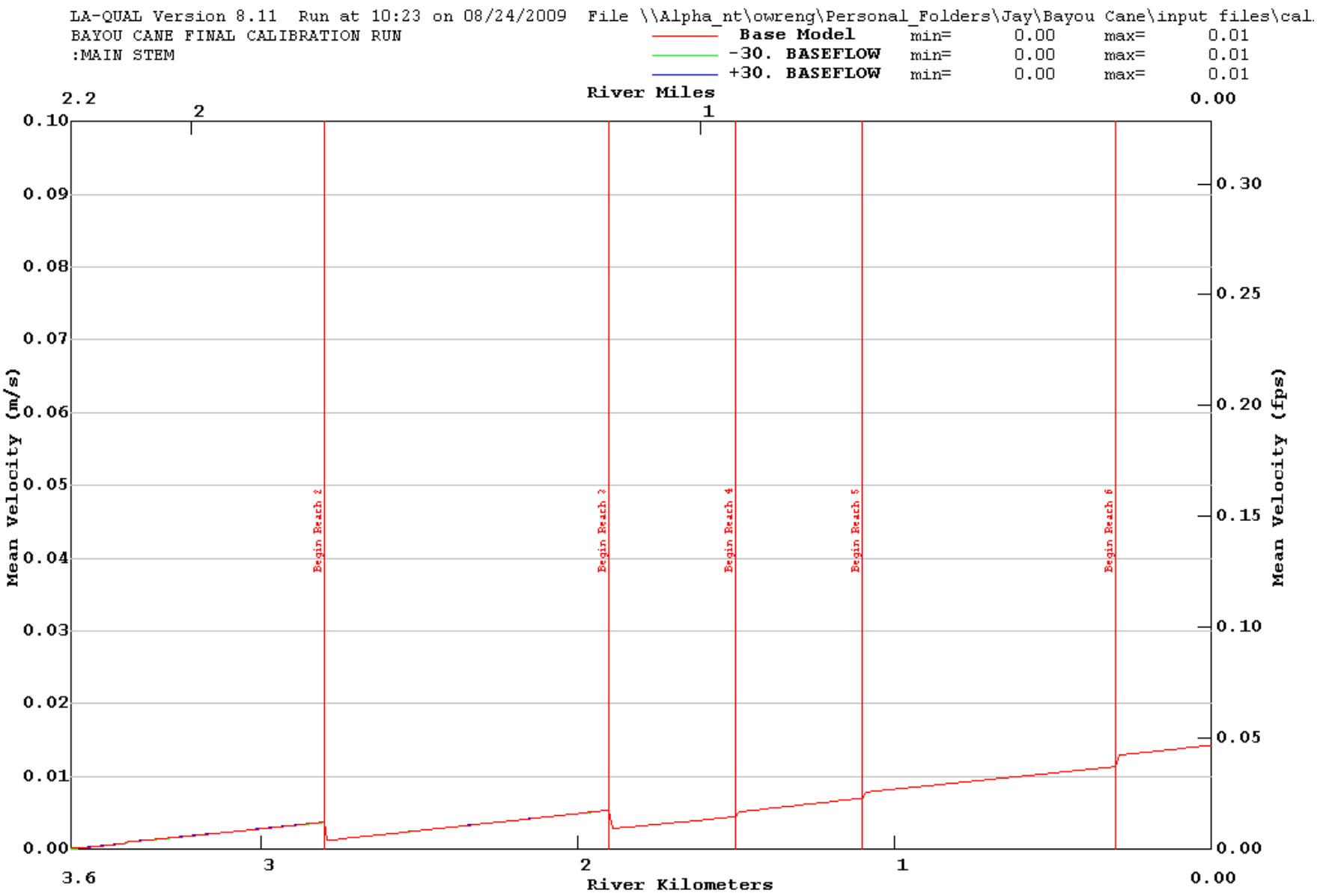

LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 0.47 max= 6.61
-30. BASEFLOW min= 0.47 max= 6.61
+30. BASEFLOW min= 0.47 max= 6.61
River Miles
2.2
2
1
0.00
River Kilometers
3.6
3
2
1
0.00
Dissolved Oxygen (mg/L)
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
18
20
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6

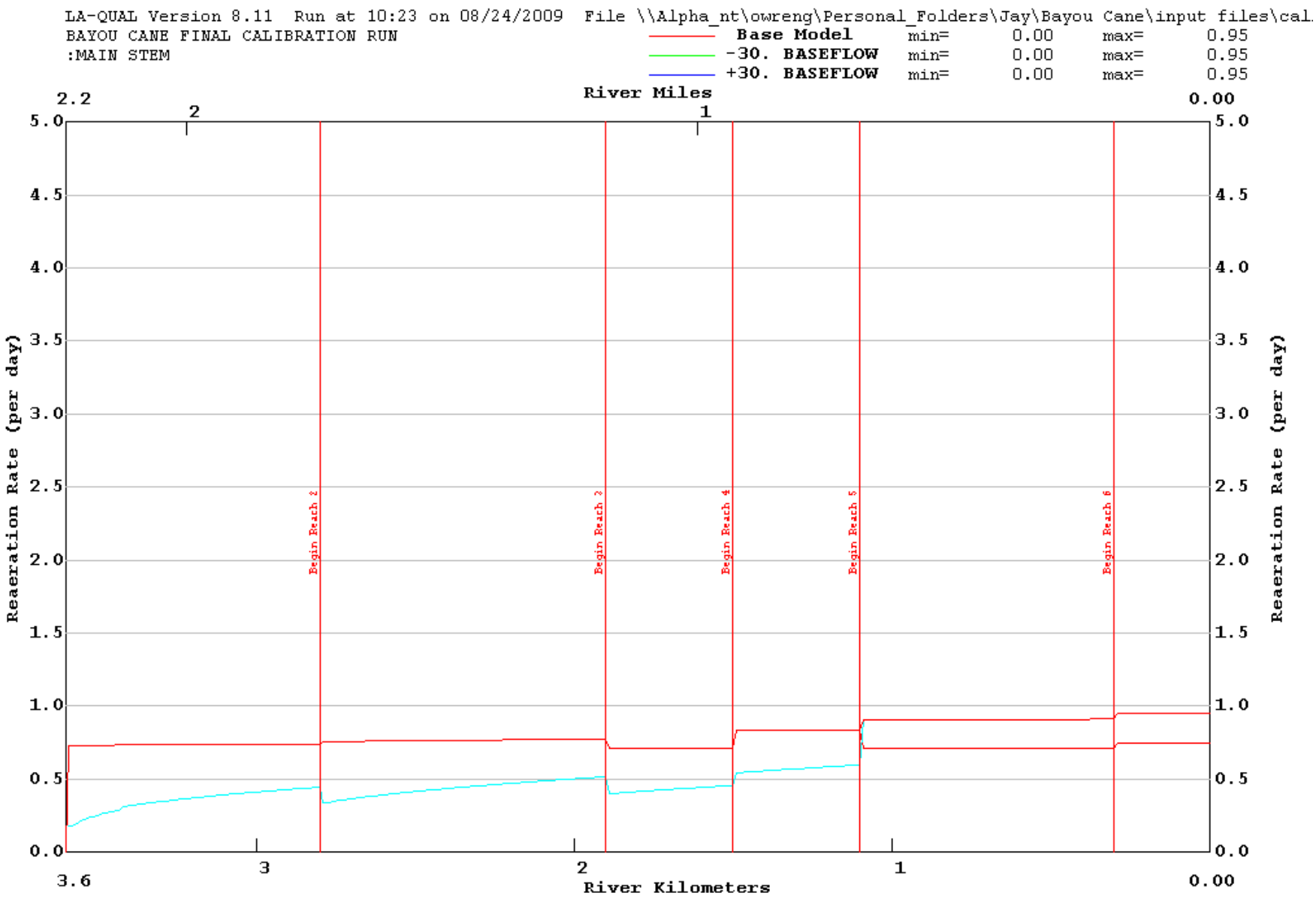

LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 6.52 max= 14.81
-30. BASEFLOW min= 6.30 max= 14.81
+30. BASEFLOW min= 6.74 max= 14.81
River Miles
2.2
2
1
0.00
Effective BOD (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 1.50 max= 4.08
-30. BASEFLOW min= 1.46 max= 4.08
+30. BASEFLOW min= 1.53 max= 4.08
River Miles
2.2
2
1
0.00
Nitrogenous Oxygen Demand (mg/L)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 0.00 max= 0.00
-30. BASEFLOW min= 0.00 max= 0.00
+30. BASEFLOW min= 0.00 max= 0.00
River Miles
2.2
2
1
0.00
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Flow (m³/s)
Flow (cfs)
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 0.01 max= 0.97
-30. BASEFLOW min= 0.01 max= 0.97
+30. BASEFLOW min= 0.01 max= 0.97
River Miles
2.2
2
1
0.00
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Dispersion (m²/s)
10
8
6
4
2
0
Dispersion (ft²/s)
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 0.00 max= 0.01
-30. BASEFLOW min= 0.00 max= 0.01
+30. BASEFLOW min= 0.00 max= 0.01
River Miles
2.2
2
1
0.00
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Mean Velocity (m/s)
Mean Velocity (fps)
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers


LA-QUAL Version 8.11 Run at 10:23 on 08/24/2009 File \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\cal
BAYOU CANE FINAL CALIBRATION RUN
:MAIN STEM
Base Model min= 0.00 max= 0.95
-30. BASEFLOW min= 0.00 max= 0.95
+30. BASEFLOW min= 0.00 max= 0.95
River Miles
2.2
2
1
0.00
Reaeration Rate (per day)
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Begin Reach 2
Begin Reach 3
Begin Reach 4
Begin Reach 5
Begin Reach 6
3.6
3
2
1
0.00
River Kilometers

Appendix I2 – Sensitivity Input and Output Data Set

BAYOU CANE Sensitivity Analysis Input Data Set

```
TITLE01      BAYOU CANE WATERSHED MODEL
TITLE02      BAYOU CANE FINAL CALIBRATION RUN
CONTROL  YES METRIC UNITS
ENDATA01
MODOPT01  NO TEMPERATURE
MODOPT02  NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06  NO BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10  NO PHOSPHORUS
MODOPT11  NO CHLOROPHYLL A
MODOPT12  NO MACROPHYTES
MODOPT13  NO COLIFORM
ENDATA02
PROGRAM  DISPERSION EQUATION               =   3.
PROGRAM  OCEAN EXCHANGE RATIO              =   1.0
PROGRAM  TIDE HEIGHT                       =   0.236
PROGRAM  TIDAL PERIOD                      =   24.58
PROGRAM  PERIOD OF TIDAL RISE              =   11.625
PROGRAM  KL MINIMUM                        =   0.7
PROGRAM  INHIBITION CONTROL VALUE          =   3.
PROGRAM  EFFECTIVE BOD DUE TO ALGAE        =   0.0
PROGRAM  ALGAE OXYGEN PROD                 =   0.05
PROGRAM  K2 MAXIMUM                        =   10.0
PROGRAM  HYDRAULIC CALCULATION METHOD      =   2.
PROGRAM  SETTLING RATE UNITS               =   2.
ENDATA03
!Temperature Correction Constants
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ******** ********
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
```

```
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -- ********************************----------**********----------
!          R#  ID   REACH NAME                          RKM       RKM    LENGTH
REACH ID    1  BC RKM 3.6 to 2.8                       3.6       2.8      0.01
REACH ID    2  BC RKM 2.8 to 1.9                       2.8       1.9      0.01
REACH ID    3  BC RKM 1.9 to 1.5                       1.9       1.5      0.01
REACH ID    4  BC RKM 1.5 to 1.1                       1.5       1.1      0.01
REACH ID    5  BC RKM 1.1 to 0.3                       1.1       0.3      0.01
REACH ID    6  BC RKM 0.3 to 0.0                       0.3       0.0      0.01
ENDATA08
!Advective Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------*******-------*******-------*******-------*******
!               a      b       c     d      e        f
!             WIDTH  WIDTH   WIDTH DEPTH  DEPTH   DEPTH
!          R#  COEFF   EXP    CONST COEFF   EXP    CONST SLOPE MANNING
! Reach 1 - 3665
HYDR-1      1   0.00   0.00    4.877 0.00   0.00    1.113
!
! Reach 2 - BC04 (3752)
HYDR-1      2   0.00   0.00   15.85  0.00   0.00    1.085
!
! Reach 3 - BC05 (3753)
HYDR-1      3   0.00   0.00   27.737 0.00   0.00    1.189
!
! Reach 4 - BC06 (3754)
HYDR-1      4   0.00   0.00   28.346 0.00   0.00    1.021
!
! Reach 5 - BC07 (3755)
HYDR-1      5   0.00   0.00   21.488 0.00   0.00    1.21
!
! Reach 6 - 3666
HYDR-1      6   0.00   0.00   19.812 0.00   0.00    1.156
ENDATA09
!Dispersive Hydraulic Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!The dispersion calculated from the dye study was entered into the overlay file under code 32.
!To take into consideration all modes of transport, equation 3 (E=aD^bQ^cVm^d ) in Laqual was used.
```

```
!Using b=5/6, c=0, and d=1 will take into account all modes of transport in the manner of the Tracor and
QUAL2E equations.
!The value for coefficient "a" was varied during calibration until the measured dispersion value was obtained.
!The measured dispersion value was applied to the stretch of water that encompassed Dye Run 2.
!          R#  RANGE    a          b         c         d
!         ***  ---------------------------------------
HYDR-2      1  0.95     60.0     0.833     0.0       1.0
HYDR-2      2  0.95     60.0     0.833     0.0       1.0
HYDR-2      3  0.93     60.0     0.833     0.0       1.0
HYDR-2      4  0.93     60.0     0.833     0.0       1.0
HYDR-2      5  1.00     60.0     0.833     0.0       1.0
HYDR-2      6  1.00     60.0     0.833     0.0       1.0
ENDATA10
!Initial Conditions
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!          ***  --------********--------********--------********--------********
!           R#    TEMP  SALINITY   DO     NH3 N  NIT NIT  PHOS   CHL A   MACROPHYTES
!Temp - Cont Mont Avg (3665)
!Salinity - Cont Mont Avg (3665)
!DO - Cont Mont Avg (3665)
!Chlorophyll A (3665)
INITIAL     1    28.13    0.10   0.47                              8.5
!
!Temp - Cont Mont Avg (3752-BC04)
!Salinity - Cont Mont Avg (3752-BC04)
!DO - Cont Mont Avg (3752-BC04)
!Chlorophyll A (3665)
INITIAL     2    28.57    0.23   0.86                              8.5
!
!Temp - Cont Mont Avg (3753-BC05)
!Salinity - Cont Mont Avg (3753-BC05)
!DO - Cont Mont Avg (3753-BC05)
!Chlorophyll A (3753-BC05)
INITIAL     3    29.98    1.15   1.79                             33.6
!
!Temp - Cont Mont Avg (BC05, BC07)
!Salinity - Cont Mont Avg (BC05, BC07)
!DO - Cont Mont Avg (BC05, BC07)
!Chlorophyll A (3753-BC05)
INITIAL     4    30.51    1.45   2.66                             33.6
```

```
!
!Temp - Cont Mont Avg (3755-BC07)
!Salinity - Cont Mont Avg (3755-BC07)
!DO - Cont Mont Avg (3755-BC07)
!Chlorophyll A (3666)
INITIAL     5    31.04    1.76   3.52                           28.5
!
!Temp - Cont Mont Avg (3666)
!Salinity - Cont Mont Avg (3666)
!DO - Cont Mont Avg (3666)
!Chlorophyll A (3666)
INITIAL     6    31.59    1.98   6.12                           28.5
ENDATA11
!Reaeration, Sediment Oxygen Demand and BOD Coefficients
!--------1---------2---------3---------4---------5---------6---------7---------8---------9
!234567890123456789012345678901234567890123456789012345678901234567890123456789012345678890
!         ***  -----*****----- *****------******------******------******-------***
!               REA                         BOD 1  BOD 1   BOD 1       BOD 2    BOD 2
!          R#   EQ   "a"               SOD  DECAY  SETT    CONV        DECAY    SETT
!Texas Equation used for reaches 1-4.
!Mattingly equation was used for reaches 5 & 6 to account for wind reaeration.
!Settling rates determined through calibration.  Decay rates from lab.
!CB0D1 DECAY (3665)
COEF-1      1   11.0                  3.50  0.0440 0.05
!
!CB0D1 DECAY (3752-BC04)
COEF-1      2   11.0                  3.50  0.0680 0.05
!
!CB0D1 DECAY (3753-BC05)
COEF-1      3   11.0                  3.00  0.0570 0.05
!
!CB0D1 DECAY - Avg (3753-BC05, 3755-BC07)
COEF-1      4   11.0                  2.40  0.0570 0.05
!
!CB0D1 DECAY (3755-BC07)
COEF-1      5   1.0  0.738            1.90  0.0570 0.05
!
!CB0D1 DECAY (3666)
COEF-1      6   1.0  0.773            0.00  0.0620 0.05
ENDATA12
!Nitrogen and Phosphorus Coefficients
```

```
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********------********-------********-------
!              NBOD     NBOD
!           R#  DECAY    SETT
!Settling rates determined through calibration.  Began with decay rates from lab but adjusted
!them during calibration.
!NBOD Decay (3665)
COEF-2      1  0.200    0.05
!
!NBOD Decay (3752-BC04)
COEF-2      2  0.100    0.05
!
!NBOD Decay (3753-BC05)
COEF-2      3  0.100    0.05
!
!NBOD Decay - Avg (3753-BC05, 3755-BC07)
COEF-2      4  0.100    0.05
!
!NBOD Decay (3755-BC07)
COEF-2      5  0.100    0.05
!
!NBOD Decay (3666)
COEF-2      6  0.100    0.05
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  -------********-------********
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------*********
!           R#   OUTFLOW   INFLOW  TEMP     SALINITY CHLORIDE  COND
!
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
```

```
!         ***  ---------*********----------*********----------**********
!          R#       DO     BOD 1     NBOD    NH3 N   NIT NIT    BOD 2
ENDATA17
!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------**********
!          R#   PHOSPH    CHL A   COLIFORM NONCONSERVATIVE
!
ENDATA18
!Nonpoint Source Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!         ***  ---------*********---------*********---------**********
!          R#     BOD 1    NBOD   COLIFORM NONCONS    DO      BOD 2
NONPOINT    1     5.00     1.80
NONPOINT    2    24.00     4.00
NONPOINT    3    26.00     7.30
NONPOINT    4    28.00     8.00
NONPOINT    5    55.00    16.50
NONPOINT    6    47.00    28.00
ENDATA19
!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  -------------------- *** --------********--------********--------
!         E#    NAME                      FLOW    TEMP  SALIN   CHLORIDE   COND
!Flow (3665)
!Salinity - Cont Mont (3665)
!Chloride - Lab Data (3665)
!Conductivity - Cont Mont (3665)
HDWTR-1     1  HEADWATER                0.0008          0.10     21.5    215.38
ENDATA20
!Headwater Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------**********---------**********----------**********
!          E#      DO      BOD 1    NBOD    NH3-N    NIT NIT  BOD 2
!DO - Cont Mont Avg (3665)
!BOD1 and NBOD (3665)
HDWTR-2     1      0.47    13.528  2.315
```

```
ENDATA21
!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********---------*********
!          E#  PHOSPHOR   CHL A   COLIFORM  NONCONSERVATIVE
ENDATA22
ENDATA23
!Wasteload Data for Flow, Temperature, Salinity, and Conservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  --------------------*********---------*********--------*********
!          E#     NAME               FLOW      TEMP   SALINITY CHLORIDE  COND
!Southeast Louisiana State Hospital AI# 9371
!Flow obtained from facility personnel during survey
!Salinity from insitu. Chloride and conductivity from lab data
WSTLD-1    18  SE LA State Hospital  0.0037               0.22    22.5    458
ENDATA24
!Wasteload Data for DO, BOD, and Nitrogen
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ---------*********-----*********---------*****---------*********
!          E#       DO    BOD 1         NBOD    NH3-N          NIT NIT  BOD 2
!Southeast Louisiana State Hospital AI# 9371
WSTLD-2    18      8.09    3.725        0.984
ENDATA25
!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234578901234567890123456789012345678901
!        ****  ---------*********---------*********
!          E#  PHOSPHOR  CHL A    COLIFORM NONCONSERVATIVE
ENDATA26
!Lower Boundary Conditions
!
!Site 3756-BC09 Cont Mont
LOWER BC TEMPERATURE                        =  31.18
!
!Site 3756-BC09 Cont Mont
LOWER BC SALINITY                           =   2.03
!
!Site 3756-BC09 Lab
```

```
LOWER BC CONSERVATIVE MATERIAL I (CHLORIDES)=  1097
!
!Site 3756-BC09 Cont Mont
LOWER BC CONSERVATIVE MATERIAL II (COND)    = 3724.94
!
!Site 3756-BC09 Cont Mont
LOWER BC DISSOLVED OXYGEN                   =   6.61
!
!Site 3756-BC09 Lab
LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND     =  10.626
!
!Site 3666 Lab
LOWER BC CHLOROPHYLL A                      =   28.5
!
!Site 3756-BC09 Lab
LOWER BC NBOD                               =   2.91
ENDATA27
!Dam Data
!--------1---------2---------3---------4---------5---------6---------7---------8
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!        ****  ******************** ** ******** ******** ********
ENDATA28
SENSITIV BASEFLOW   30    -30
SENSITIV VELOCITY   30    -30
SENSITIV DEPTH      30    -30
SENSITIV DISPERSI   30    -30
SENSITIV REAERATI   30    -30
SENSITIV BOD DECA   30    -30
SENSITIV BOD SETT   30    -30
SENSITIV TRANGE     30    -30
SENSITIV NBOD DEC   30    -30
SENSITIV NBOD SET   30    -30
SENSITIV BENTHAL    30    -30
SENSITIV TEMPERAT    2     -2
SENSITIV SALINITY   30    -30
SENSITIV CHLOR A    30    -30
SENSITIV HDW FLOW   30    -30
SENSITIV HDW DO     30    -30
SENSITIV HDW BOD    30    -30
SENSITIV HDW NBOD   30    -30
SENSITIV WSL FLOW   30    -30
```

```
SENSITIV WSL DO     30    -30
SENSITIV WSL BOD    30    -30
SENSITIV WSL NBOD   30    -30
SENSITIV OXR        30    -30
SENSITIV LBC TEMP    2     -2
SENSITIV LBC DO     30    -30
SENSITIV LBC BOD    30    -30
SENSITIV LBC NBOD   30    -30
SENSITIV NPS BOD    30    -30
SENSITIV NPS NBOD   30    -30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =   6                          INCREMENT =  0.1
PLOT RCH  1  2  3  4  5  6
!--------1---------2---------3---------4---------5---------6---------7---------8
!234567890123456789012345678901234567890123456789012345678901234567890123456789
!        ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
ENDATA30
OVERLAY 1 bayoucaneovl.txt                 :MAIN STEM
ENDATA31
```

BAYOU CANE Sensitivity Analysis Output Dataset

```
LA-QUAL Version 8.11
Louisiana Department of Environmental Quality

Input file is \\Alpha_nt\owreng\Personal_Folders\Jay\Bayou Cane\input files\calibration\canecalib.txt
Output produced at 10:40 on 08/24/2009

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

CARD TYPE       CONTROL TITLES

TITLE01         BAYOU CANE WATERSHED MODEL
TITLE02         BAYOU CANE FINAL CALIBRATION RUN
CONTROL   YES   METRIC UNITS
ENDATA01

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

CARD TYPE       MODEL OPTION

MODOPT01   NO   TEMPERATURE
MODOPT02   NO   SALINITY
MODOPT03  YES   CONSERVATIVE MATERIAL  I = CHLORIDES                    mg/L     Chloride
MODOPT04  YES   CONSERVATIVE MATERIAL II = CONDUCTIVITY                 umhos/cm Conduct
MODOPT05  YES   DISSOLVED OXYGEN
MODOPT06  YES   BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT06   NO   BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08  YES   NBOD OXYGEN DEMAND
MODOPT10   NO   PHOSPHORUS
MODOPT11   NO   CHLOROPHYLL A
MODOPT12   NO   MACROPHYTES
MODOPT13   NO   COLIFORM
ENDATA02

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

CARD TYPE       DESCRIPTION OF CONSTANT                       VALUE

PROGRAM         DISPERSION EQUATION               =         3.00000 (values entered as a function of D,Q,Vmean)
PROGRAM         OCEAN EXCHANGE RATIO              =         1.00000
PROGRAM         TIDE HEIGHT                       =         0.23600 meters
PROGRAM         TIDAL PERIOD                      =        24.58000 hours
PROGRAM         PERIOD OF TIDAL RISE              =        11.62500 hours
PROGRAM         KL MINIMUM                        =         0.70000 meters/day
PROGRAM         INHIBITION CONTROL VALUE          =         3.00000 (inhibit all rates but SOD)
PROGRAM         EFFECTIVE BOD DUE TO ALGAE        =         0.00000 mg/L BOD per ug/L chl a
PROGRAM         ALGAE OXYGEN PROD                 =         0.05000 mg O/ug chl a/day
PROGRAM         K2 MAXIMUM                        =        10.00000 per day
PROGRAM         HYDRAULIC CALCULATION METHOD      =         2.00000 (widths and depths)
PROGRAM         SETTLING RATE UNITS               =         2.00000 (values entered as per day)
ENDATA03

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

 CARD TYPE     RATE CODE     THETA VALUE
```

ENDATA04

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

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE

ENDATA05

$$$ DATA TYPE 6 (ALGAE CONSTANTS) $$$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE

ENDATA06

$$$ DATA TYPE 7 (MACROPHYTE CONSTANTS) $$$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE

ENDATA07

$$$ DATA TYPE 8 (REACH IDENTIFICATION DATA) $$$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km		END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	BC	RKM 3.6 to 2.8	3.60	TO	2.80	0.0100	0.80	80	1	80
REACH ID	2	BC	RKM 2.8 to 1.9	2.80	TO	1.90	0.0100	0.90	90	81	170
REACH ID	3	BC	RKM 1.9 to 1.5	1.90	TO	1.50	0.0100	0.40	40	171	210
REACH ID	4	BC	RKM 1.5 to 1.1	1.50	TO	1.10	0.0100	0.40	40	211	250
REACH ID	5	BC	RKM 1.1 to 0.3	1.10	TO	0.30	0.0100	0.80	80	251	330
REACH ID	6	BC	RKM 0.3 to 0.0	0.30	TO	0.00	0.0100	0.30	30	331	360

ENDATA08

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

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	BC	0.000	0.000	4.877	0.000	0.000	1.113	0.00000	0.000
HYDR-1	2	BC	0.000	0.000	15.850	0.000	0.000	1.085	0.00000	0.000
HYDR-1	3	BC	0.000	0.000	27.737	0.000	0.000	1.189	0.00000	0.000
HYDR-1	4	BC	0.000	0.000	28.346	0.000	0.000	1.021	0.00000	0.000
HYDR-1	5	BC	0.000	0.000	21.488	0.000	0.000	1.210	0.00000	0.000
HYDR-1	6	BC	0.000	0.000	19.812	0.000	0.000	1.156	0.00000	0.000

ENDATA09

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

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	BC	0.95	60.000	0.833	0.000	1.000
HYDR	2	BC	0.95	60.000	0.833	0.000	1.000
HYDR	3	BC	0.93	60.000	0.833	0.000	1.000
HYDR	4	BC	0.93	60.000	0.833	0.000	1.000
HYDR	5	BC	1.00	60.000	0.833	0.000	1.000
HYDR	6	BC	1.00	60.000	0.833	0.000	1.000

ENDATA10

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

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	BC	28.13	0.10	0.47	0.00	0.00	0.00	8.50	0.00
INITIAL	2	BC	28.57	0.23	0.86	0.00	0.00	0.00	8.50	0.00
INITIAL	3	BC	29.98	1.15	1.79	0.00	0.00	0.00	33.60	0.00
INITIAL	4	BC	30.51	1.45	2.66	0.00	0.00	0.00	33.60	0.00
INITIAL	5	BC	31.04	1.76	3.52	0.00	0.00	0.00	28.50	0.00
INITIAL	6	BC	31.59	1.98	6.12	0.00	0.00	0.00	28.50	0.00

ENDATA11

$$$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) $$$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m²/d	BOD DECAY per day	BOD SETT m/d	BOD CONV TO SOD	ANAER BOD2 DECAY per day	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
COEF-1	1	BC	11 TEXAS	0.000	0.000	0.000	3.500	0.044	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	2	BC	11 TEXAS	0.000	0.000	0.000	3.500	0.068	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	3	BC	11 TEXAS	0.000	0.000	0.000	3.000	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	4	BC	11 TEXAS	0.000	0.000	0.000	2.400	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	5	BC	1 K2=a	0.738	0.000	0.000	1.900	0.057	0.050	0.000	0.000	0.000	0.000	0.000	0.000
COEF-1	6	BC	1 K2=a	0.773	0.000	0.000	0.000	0.062	0.050	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA12

$$$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) $$$

CARD TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN CONV TO NH3 SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2	1	BC	0.200	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	2	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	3	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	4	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	5	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000
COEF-2	6	BC	0.100	0.050	0.000	0.000	0.000	0.000	0.000

ENDATA13

$$$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) $$$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP	SHADING

ENDATA14

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

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD

ENDATA15

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

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST

ENDATA16

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

CARD TYPE      REACH  ID          DO       BOD      NBOD                         BOD#2

ENDATA17

$$$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

 CARD TYPE      REACH  ID        PHOS     CHL A      COLI       NCM

ENDATA18

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

CARD TYPE      REACH  ID       BOD#1     NBOD       COLI       NCM        DO     BOD#2

NONPOINT          1   BC        5.00     1.80      0.00      0.00      0.00      0.00
NONPOINT          2   BC       24.00     4.00      0.00      0.00      0.00      0.00
NONPOINT          3   BC       26.00     7.30      0.00      0.00      0.00      0.00
NONPOINT          4   BC       28.00     8.00      0.00      0.00      0.00      0.00
NONPOINT          5   BC       55.00    16.50      0.00      0.00      0.00      0.00
NONPOINT          6   BC       47.00    28.00      0.00      0.00      0.00      0.00
ENDATA19

$$$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                 UNIT     FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                       m³/s      cfs   deg C      ppt      mg/L  umhos/cm

HDWTR-1           1     HEADWATER               0   0.00080    0.028    0.00     0.10    21.500   215.380   0.00
ENDATA20

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

CARD TYPE     ELEMENT   NAME                        DO     BOD#1     NBOD                         BOD#2
                                                   mg/L      mg/L      mg/L      mg/L      mg/L      mg/L

HDWTR-2           1     HEADWATER                 0.47     13.53      2.32      0.00      0.00      0.00
ENDATA21

$$$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE     ELEMENT   NAME                       PHOS     CHL A      COLI       NCM
                                                   mg/L      mg/L      mg/L      mg/L

ENDATA22

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

CARD TYPE   JUNCTION   UPSTRM     RIVER     NAME
             ELEMENT  ELEMENT     KILOM

ENDATA23

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

CARD TYPE  ELEMENT    RKILO  NAME                    FLOW       FLOW     FLOW    TEMP    SALIN      CM-I     CM-II
                                                     m³/s        cfs      MGD   deg C      ppt      mg/L  umhos/cm
```

WSTLD-1	18	3.43	SE LA State Hospital	0.00370	0.13065	0.084	0.00	0.22	22.500	458.000

ENDATA24

$$$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) $$$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	18	SE LA State Hospital	8.09	3.72	0.00	0.98	0.00	0.00	0.00	0.00

ENDATA25

$$$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) $$$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L

ENDATA26

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

CARD TYPE	CONSTITUENT		CONCENTRATION	
LOWER BC	TEMPERATURE	=	31.180	deg C
LOWER BC	SALINITY	=	2.030	ppt
LOWER BC	CONSERVATIVE MATERIAL I (CHLORIDES)	=	1097.000	mg/L
LOWER BC	CONSERVATIVE MATERIAL II (COND)	=	3724.940	umhos/cm
LOWER BC	DISSOLVED OXYGEN	=	6.610	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	=	10.626	mg/L
LOWER BC	CHLOROPHYLL A	=	28.500	µg/L
LOWER BC	NBOD	=	2.910	mg/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
SENSITIV	BASEFLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	VELOCITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DEPTH	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DISPERSI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	REAERATI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD DECA	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD SETT	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TRANGE	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BENTHAL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TEMPERAT	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	SALINITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	CHLOR A	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

```
SENSITIV         HDW BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         HDW NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL FLOW      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         WSL NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         OXR           30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC TEMP       2.0      -2.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC DO        30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         LBC NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS BOD       30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
SENSITIV         NPS NBOD      30.0     -30.0       0.0       0.0       0.0       0.0       0.0       0.0
ENDATA29

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


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

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


OVERLAY 1 bayoucaneovl.txt                :MAIN STEM
ENDATA31



     .....NO ERRORS DETECTED IN INPUT DATA
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
     .....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 21


FINAL REPORT    HEADWATER                                    BAYOU CANE WATERSHED MODEL
REACH NO.  1    RKM 3.6 to 2.8                               BAYOU CANE FINAL CALIBRATION RUN


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

 ELEM  TYPE        FLOW     TEMP     SALN Chloride  Conduct     DO  BOD#1  BOD#2 EBOD#1 EBOD#2   ORGN    NH3  NO3+2   PHOS  CHL A      COLI     NCM
 NO.                       deg C      ppt     mg/L umhos/cm   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   mg/L   µg/L  #/100mL

    1  HDWTR     0.00080    0.00     0.10    21.50   215.38   0.47  13.53   0.00  13.53   0.00   2.32   0.00   0.00   0.00   8.50      0.00    0.00
   18  WSTLD     0.00370    0.00     0.22    22.50   458.00   8.09   3.72   0.00   3.72   0.00   0.98   0.00   0.00   0.00   0.00      0.00    0.00


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

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

    1    3.60    3.59    0.00080   0.0   0.00015     0.79    1.11    4.88     54.28      48.77    5.43     10.93   0.000     0.010   0.000
```

2	3.59	3.58	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	21.87	0.000	0.010	0.000
3	3.58	3.57	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	32.80	0.000	0.011	0.000
4	3.57	3.56	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	43.74	0.000	0.014	0.000
5	3.56	3.55	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	54.67	0.000	0.017	0.000
6	3.55	3.54	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	65.61	0.000	0.019	0.000
7	3.54	3.53	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	76.54	0.000	0.022	0.000
8	3.53	3.52	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	87.47	0.000	0.025	0.000
9	3.52	3.51	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	98.41	0.000	0.028	0.000
10	3.51	3.50	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	109.34	0.000	0.031	0.000
11	3.50	3.49	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	120.28	0.001	0.034	0.001
12	3.49	3.48	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	131.21	0.001	0.037	0.001
13	3.48	3.47	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	142.15	0.001	0.040	0.001
14	3.47	3.46	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	153.08	0.001	0.043	0.001
15	3.46	3.45	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	164.01	0.001	0.046	0.001
16	3.45	3.44	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	174.95	0.001	0.049	0.001
17	3.44	3.43	0.00080	0.0	0.00015	0.79	1.11	4.88	54.28	48.77	5.43	185.88	0.001	0.052	0.001
18	3.43	3.42	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	196.82	0.001	0.067	0.001
19	3.42	3.41	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	207.75	0.001	0.069	0.001
20	3.41	3.40	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	218.68	0.001	0.072	0.001
21	3.40	3.39	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	229.62	0.001	0.074	0.001
22	3.39	3.38	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	240.55	0.001	0.077	0.001
23	3.38	3.37	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	251.49	0.001	0.080	0.001
24	3.37	3.36	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	262.42	0.001	0.082	0.001
25	3.36	3.35	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	273.36	0.001	0.085	0.001
26	3.35	3.34	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	284.29	0.001	0.088	0.001
27	3.34	3.33	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	295.22	0.001	0.090	0.001
28	3.33	3.32	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	306.16	0.001	0.093	0.001
29	3.32	3.31	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	317.09	0.001	0.096	0.001
30	3.31	3.30	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	328.03	0.001	0.099	0.002
31	3.30	3.29	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	338.96	0.001	0.101	0.002
32	3.29	3.28	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	349.90	0.001	0.104	0.002
33	3.28	3.27	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	360.83	0.002	0.107	0.002
34	3.27	3.26	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	371.76	0.002	0.110	0.002
35	3.26	3.25	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	382.70	0.002	0.113	0.002
36	3.25	3.24	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	393.63	0.002	0.115	0.002
37	3.24	3.23	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	404.57	0.002	0.118	0.002
38	3.23	3.22	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	415.50	0.002	0.121	0.002
39	3.22	3.21	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	426.44	0.002	0.124	0.002
40	3.21	3.20	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	437.37	0.002	0.127	0.002
41	3.20	3.19	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	448.30	0.002	0.130	0.002
42	3.19	3.18	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	459.24	0.002	0.133	0.002
43	3.18	3.17	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	470.17	0.002	0.136	0.002
44	3.17	3.16	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	481.11	0.002	0.138	0.002
45	3.16	3.15	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	492.04	0.002	0.141	0.002
46	3.15	3.14	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	502.97	0.002	0.144	0.002
47	3.14	3.13	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	513.91	0.002	0.147	0.002
48	3.13	3.12	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	524.84	0.002	0.150	0.002
49	3.12	3.11	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	535.78	0.002	0.153	0.002
50	3.11	3.10	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	546.71	0.002	0.156	0.002
51	3.10	3.09	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	557.65	0.002	0.159	0.002
52	3.09	3.08	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	568.58	0.002	0.162	0.002
53	3.08	3.07	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	579.51	0.002	0.165	0.003
54	3.07	3.06	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	590.45	0.002	0.168	0.003
55	3.06	3.05	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	601.38	0.003	0.170	0.003
56	3.05	3.04	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	612.32	0.003	0.173	0.003
57	3.04	3.03	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	623.25	0.003	0.176	0.003
58	3.03	3.02	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	634.19	0.003	0.179	0.003
59	3.02	3.01	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	645.12	0.003	0.182	0.003
60	3.01	3.00	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	656.05	0.003	0.185	0.003

61	3.00	2.99	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	666.99	0.003	0.188	0.003
62	2.99	2.98	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	677.92	0.003	0.191	0.003
63	2.98	2.97	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	688.86	0.003	0.194	0.003
64	2.97	2.96	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	699.79	0.003	0.197	0.003
65	2.96	2.95	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	710.72	0.003	0.200	0.003
66	2.95	2.94	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	721.66	0.003	0.203	0.003
67	2.94	2.93	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	732.59	0.003	0.206	0.003
68	2.93	2.92	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	743.53	0.003	0.209	0.003
69	2.92	2.91	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	754.46	0.003	0.212	0.003
70	2.91	2.90	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	765.40	0.003	0.215	0.003
71	2.90	2.89	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	776.33	0.003	0.218	0.003
72	2.89	2.88	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	787.26	0.003	0.220	0.003
73	2.88	2.87	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	798.20	0.003	0.223	0.003
74	2.87	2.86	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	809.13	0.003	0.226	0.003
75	2.86	2.85	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	820.07	0.003	0.229	0.003
76	2.85	2.84	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	831.00	0.003	0.232	0.004
77	2.84	2.83	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	841.94	0.004	0.235	0.004
78	2.83	2.82	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	852.87	0.004	0.238	0.004
79	2.82	2.81	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	863.80	0.004	0.241	0.004
80	2.81	2.80	0.00450	82.2	0.00083	0.14	1.11	4.88	54.28	48.77	5.43	874.74	0.004	0.244	0.004
TOT						22.15			4342.48	3901.60					
AVG					0.0004		1.11	4.88			5.43				
CUM						22.15									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
1	3.590	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.84	5.84	5.84	0.01	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
2	3.580	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.84	5.84	5.84	0.01	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
3	3.570	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
4	3.560	7.80	0.73	0.03	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
5	3.550	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.02	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
6	3.540	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
7	3.530	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.85	5.85	5.85	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
8	3.520	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
9	3.510	7.80	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.06	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
10	3.500	7.80	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.08	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
11	3.490	7.80	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.11	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
12	3.480	7.80	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.86	5.86	5.86	0.15	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
13	3.470	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.22	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
14	3.460	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
15	3.450	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
16	3.440	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
17	3.430	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.87	5.87	5.87	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
18	3.420	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.28	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
19	3.410	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
20	3.400	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.27	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
21	3.390	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
22	3.380	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.88	5.88	5.88	0.26	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
23	3.370	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
24	3.360	7.79	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.25	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
25	3.350	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
26	3.340	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.24	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
27	3.330	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.89	5.89	5.89	0.22	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00

28	3.320	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.18	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
29	3.310	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.16	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
30	3.300	7.78	0.73	0.06	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.14	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
31	3.290	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.90	5.90	5.90	0.12	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
32	3.280	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.10	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
33	3.270	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.09	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
34	3.260	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.08	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
35	3.250	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.07	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
36	3.240	7.78	0.73	0.05	0.06	0.00	0.00	0.00	0.00	5.91	5.91	5.91	0.07	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
37	3.230	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.06	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
38	3.220	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
39	3.210	7.77	0.73	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
40	3.200	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.05	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
41	3.190	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.92	5.92	5.92	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
42	3.180	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
43	3.170	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.04	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
44	3.160	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
45	3.150	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
46	3.140	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.93	5.93	5.93	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
47	3.130	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
48	3.120	7.77	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
49	3.110	7.76	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.03	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
50	3.100	7.76	0.74	0.04	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
51	3.090	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.94	5.94	5.94	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
52	3.080	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
53	3.070	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
54	3.060	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
55	3.050	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
56	3.040	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.95	5.95	5.95	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
57	3.030	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
58	3.020	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
59	3.010	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
60	3.000	7.76	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
61	2.990	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.96	5.96	5.96	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
62	2.980	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
63	2.970	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.02	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
64	2.960	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
65	2.950	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.97	5.97	5.97	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
66	2.940	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
67	2.930	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
68	2.920	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
69	2.910	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
70	2.900	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.98	5.98	5.98	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
71	2.890	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
72	2.880	7.75	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
73	2.870	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
74	2.860	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
75	2.850	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	5.99	5.99	5.99	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
76	2.840	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
77	2.830	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
78	2.820	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
79	2.810	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
80	2.800	7.74	0.74	0.03	0.06	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.01	0.06	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.63	0.04	0.05	0.00	0.00	0.00	0.00	3.50			0.20	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
1	3.590	28.14	0.10	23.08	288.49	0.88	11.53	0.00	11.53	0.00	2.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
2	3.580	28.14	0.10	23.32	299.63	0.94	11.21	0.00	11.21	0.00	2.53	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
3	3.570	28.15	0.10	23.57	311.37	0.99	10.86	0.00	10.86	0.00	2.51	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
4	3.560	28.15	0.11	23.81	322.53	1.04	10.51	0.00	10.51	0.00	2.47	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
5	3.550	28.16	0.11	24.03	332.87	1.10	10.18	0.00	10.18	0.00	2.41	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
6	3.540	28.16	0.11	24.24	342.49	1.16	9.86	0.00	9.86	0.00	2.35	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
7	3.530	28.17	0.11	24.43	351.49	1.23	9.55	0.00	9.55	0.00	2.28	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
8	3.520	28.17	0.11	24.62	359.95	1.31	9.24	0.00	9.24	0.00	2.21	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
9	3.510	28.18	0.11	24.79	367.97	1.40	8.95	0.00	8.95	0.00	2.13	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
10	3.500	28.18	0.12	24.95	375.59	1.50	8.66	0.00	8.66	0.00	2.05	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
11	3.490	28.19	0.12	25.11	382.87	1.63	8.37	0.00	8.37	0.00	1.97	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
12	3.480	28.20	0.12	25.26	389.85	1.77	8.09	0.00	8.09	0.00	1.89	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
13	3.470	28.20	0.12	25.40	396.56	1.94	7.82	0.00	7.82	0.00	1.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
14	3.460	28.21	0.12	25.54	403.04	2.13	7.55	0.00	7.55	0.00	1.74	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
15	3.450	28.21	0.12	25.68	409.29	2.36	7.28	0.00	7.28	0.00	1.67	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
16	3.440	28.22	0.13	25.81	415.35	2.62	7.02	0.00	7.02	0.00	1.61	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
17	3.430	28.22	0.13	25.94	421.22	2.91	6.76	0.00	6.76	0.00	1.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
18	3.420	28.23	0.13	26.05	426.33	3.19	6.52	0.00	6.52	0.00	1.50	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
19	3.410	28.23	0.13	26.50	427.73	3.00	6.59	0.00	6.59	0.00	1.51	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
20	3.400	28.24	0.13	26.99	429.24	2.82	6.65	0.00	6.65	0.00	1.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
21	3.390	28.25	0.13	27.52	430.86	2.66	6.72	0.00	6.72	0.00	1.53	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
22	3.380	28.25	0.14	28.08	432.62	2.51	6.79	0.00	6.79	0.00	1.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
23	3.370	28.26	0.14	28.69	434.49	2.37	6.85	0.00	6.85	0.00	1.56	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
24	3.360	28.26	0.14	29.35	436.51	2.24	6.92	0.00	6.92	0.00	1.58	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
25	3.350	28.27	0.14	30.04	438.65	2.13	6.98	0.00	6.98	0.00	1.60	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
26	3.340	28.27	0.14	30.79	440.94	2.03	7.05	0.00	7.05	0.00	1.63	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
27	3.330	28.28	0.14	31.58	443.37	1.94	7.12	0.00	7.12	0.00	1.66	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
28	3.320	28.28	0.15	32.41	445.94	1.85	7.19	0.00	7.19	0.00	1.68	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
29	3.310	28.29	0.15	33.30	448.67	1.78	7.26	0.00	7.26	0.00	1.72	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
30	3.300	28.30	0.15	34.23	451.55	1.71	7.33	0.00	7.33	0.00	1.75	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
31	3.290	28.30	0.15	35.22	454.60	1.65	7.40	0.00	7.40	0.00	1.78	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
32	3.280	28.31	0.15	36.26	457.80	1.59	7.47	0.00	7.47	0.00	1.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
33	3.270	28.31	0.15	37.36	461.17	1.54	7.54	0.00	7.54	0.00	1.85	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
34	3.260	28.32	0.16	38.51	464.71	1.50	7.61	0.00	7.61	0.00	1.88	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
35	3.250	28.32	0.16	39.71	468.43	1.45	7.68	0.00	7.68	0.00	1.92	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
36	3.240	28.33	0.16	40.97	472.32	1.42	7.75	0.00	7.75	0.00	1.95	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
37	3.230	28.33	0.16	42.30	476.39	1.38	7.82	0.00	7.82	0.00	1.99	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
38	3.220	28.34	0.16	43.68	480.65	1.35	7.89	0.00	7.89	0.00	2.02	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
39	3.210	28.34	0.16	45.12	485.10	1.32	7.96	0.00	7.96	0.00	2.05	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
40	3.200	28.35	0.17	46.63	489.74	1.29	8.03	0.00	8.03	0.00	2.09	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
41	3.190	28.36	0.17	48.20	494.57	1.26	8.10	0.00	8.10	0.00	2.12	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
42	3.180	28.36	0.17	49.83	499.61	1.24	8.18	0.00	8.18	0.00	2.15	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
43	3.170	28.37	0.17	51.53	504.85	1.21	8.25	0.00	8.25	0.00	2.19	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
44	3.160	28.37	0.17	53.30	510.29	1.19	8.32	0.00	8.32	0.00	2.22	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
45	3.150	28.38	0.17	55.14	515.94	1.17	8.39	0.00	8.39	0.00	2.25	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
46	3.140	28.38	0.17	57.04	521.81	1.16	8.46	0.00	8.46	0.00	2.28	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
47	3.130	28.39	0.18	59.02	527.90	1.14	8.53	0.00	8.53	0.00	2.32	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
48	3.120	28.39	0.18	61.07	534.20	1.12	8.61	0.00	8.61	0.00	2.35	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
49	3.110	28.40	0.18	63.18	540.73	1.11	8.68	0.00	8.68	0.00	2.38	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
50	3.100	28.40	0.18	65.38	547.49	1.09	8.75	0.00	8.75	0.00	2.41	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
51	3.090	28.41	0.18	67.65	554.47	1.08	8.82	0.00	8.82	0.00	2.44	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
52	3.080	28.42	0.18	69.99	561.70	1.07	8.89	0.00	8.89	0.00	2.46	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
53	3.070	28.42	0.19	72.41	569.15	1.05	8.97	0.00	8.97	0.00	2.49	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
54	3.060	28.43	0.19	74.91	576.86	1.04	9.04	0.00	9.04	0.00	2.52	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00

55	3.050	28.43	0.19	77.49	584.80	1.03	9.11	0.00	9.11	0.00	2.55	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
56	3.040	28.44	0.19	80.15	592.99	1.02	9.19	0.00	9.19	0.00	2.57	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
57	3.030	28.44	0.19	82.89	601.44	1.01	9.26	0.00	9.26	0.00	2.60	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
58	3.020	28.45	0.19	85.72	610.13	1.00	9.34	0.00	9.34	0.00	2.63	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
59	3.010	28.45	0.20	88.62	619.09	0.99	9.41	0.00	9.41	0.00	2.65	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
60	3.000	28.46	0.20	91.62	628.31	0.98	9.49	0.00	9.49	0.00	2.68	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
61	2.990	28.47	0.20	94.70	637.79	0.98	9.56	0.00	9.56	0.00	2.70	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
62	2.980	28.47	0.20	97.86	647.54	0.97	9.64	0.00	9.64	0.00	2.72	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
63	2.970	28.48	0.20	101.11	657.56	0.96	9.72	0.00	9.72	0.00	2.75	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
64	2.960	28.48	0.20	104.46	667.85	0.95	9.79	0.00	9.79	0.00	2.77	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
65	2.950	28.49	0.21	107.89	678.43	0.94	9.87	0.00	9.87	0.00	2.79	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
66	2.940	28.49	0.21	111.41	689.28	0.94	9.95	0.00	9.95	0.00	2.81	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
67	2.930	28.50	0.21	115.03	700.41	0.93	10.03	0.00	10.03	0.00	2.83	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
68	2.920	28.50	0.21	118.74	711.84	0.92	10.11	0.00	10.11	0.00	2.85	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
69	2.910	28.51	0.21	122.54	723.55	0.92	10.19	0.00	10.19	0.00	2.87	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
70	2.900	28.51	0.21	126.44	735.56	0.91	10.28	0.00	10.28	0.00	2.89	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
71	2.890	28.52	0.22	130.43	747.86	0.90	10.36	0.00	10.36	0.00	2.90	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
72	2.880	28.53	0.22	134.52	760.47	0.90	10.44	0.00	10.44	0.00	2.92	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
73	2.870	28.53	0.22	138.71	773.38	0.89	10.53	0.00	10.53	0.00	2.94	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
74	2.860	28.54	0.22	143.00	786.59	0.88	10.61	0.00	10.61	0.00	2.95	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
75	2.850	28.54	0.22	147.39	800.11	0.88	10.70	0.00	10.70	0.00	2.97	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
76	2.840	28.55	0.22	151.89	813.95	0.87	10.79	0.00	10.79	0.00	2.98	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
77	2.830	28.55	0.23	156.48	828.10	0.86	10.88	0.00	10.88	0.00	3.00	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
78	2.820	28.56	0.23	161.18	842.57	0.86	10.97	0.00	10.97	0.00	3.01	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
79	2.810	28.56	0.23	165.98	857.36	0.85	11.06	0.00	11.06	0.00	3.02	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00
80	2.800	28.57	0.23	170.89	872.48	0.84	11.15	0.00	11.15	0.00	3.03	0.00	0.00	0.00	0.00	8.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 2 RKM 2.8 to 1.9 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
81	UPR RCH	0.00450	28.57	0.23	170.89	872.48	0.84	11.15	0.00	11.15	0.00	3.03	0.00	0.00	0.00	8.50	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	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
81	2.80	2.79	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	910.27	0.001	0.078	0.001
82	2.79	2.78	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	945.81	0.001	0.081	0.001
83	2.78	2.77	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	981.34	0.001	0.084	0.001
84	2.77	2.76	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1016.88	0.001	0.087	0.001
85	2.76	2.75	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1052.42	0.001	0.090	0.001
86	2.75	2.74	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1087.95	0.001	0.093	0.001
87	2.74	2.73	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1123.49	0.001	0.096	0.001
88	2.73	2.72	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1159.02	0.002	0.099	0.002
89	2.72	2.71	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1194.56	0.002	0.102	0.002
90	2.71	2.70	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1230.09	0.002	0.105	0.002
91	2.70	2.69	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1265.63	0.002	0.108	0.002
92	2.69	2.68	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1301.17	0.002	0.111	0.002
93	2.68	2.67	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1336.70	0.002	0.114	0.002

94	2.67	2.66	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1372.24	0.002	0.117	0.002
95	2.66	2.65	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1407.77	0.002	0.120	0.002
96	2.65	2.64	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1443.31	0.002	0.123	0.002
97	2.64	2.63	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1478.84	0.002	0.126	0.002
98	2.63	2.62	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1514.38	0.002	0.129	0.002
99	2.62	2.61	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1549.92	0.002	0.132	0.002
100	2.61	2.60	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1585.45	0.002	0.135	0.002
101	2.60	2.59	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1620.99	0.002	0.138	0.002
102	2.59	2.58	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1656.52	0.002	0.141	0.002
103	2.58	2.57	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1692.06	0.002	0.144	0.002
104	2.57	2.56	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1727.59	0.002	0.147	0.002
105	2.56	2.55	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1763.13	0.002	0.150	0.002
106	2.55	2.54	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1798.66	0.002	0.153	0.002
107	2.54	2.53	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1834.20	0.002	0.156	0.002
108	2.53	2.52	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1869.74	0.002	0.159	0.002
109	2.52	2.51	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1905.27	0.003	0.162	0.003
110	2.51	2.50	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1940.81	0.003	0.165	0.003
111	2.50	2.49	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	1976.34	0.003	0.168	0.003
112	2.49	2.48	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2011.88	0.003	0.171	0.003
113	2.48	2.47	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2047.41	0.003	0.174	0.003
114	2.47	2.46	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2082.95	0.003	0.177	0.003
115	2.46	2.45	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2118.49	0.003	0.180	0.003
116	2.45	2.44	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2154.02	0.003	0.183	0.003
117	2.44	2.43	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2189.56	0.003	0.186	0.003
118	2.43	2.42	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2225.09	0.003	0.189	0.003
119	2.42	2.41	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2260.63	0.003	0.192	0.003
120	2.41	2.40	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2296.16	0.003	0.195	0.003
121	2.40	2.39	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2331.70	0.003	0.198	0.003
122	2.39	2.38	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2367.24	0.003	0.201	0.003
123	2.38	2.37	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2402.77	0.003	0.204	0.003
124	2.37	2.36	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2438.31	0.003	0.207	0.003
125	2.36	2.35	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2473.84	0.003	0.210	0.003
126	2.35	2.34	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2509.38	0.003	0.213	0.003
127	2.34	2.33	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2544.91	0.003	0.216	0.003
128	2.33	2.32	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2580.45	0.003	0.219	0.003
129	2.32	2.31	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2615.98	0.003	0.222	0.003
130	2.31	2.30	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2651.52	0.003	0.225	0.004
131	2.30	2.29	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2687.06	0.004	0.228	0.004
132	2.29	2.28	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2722.59	0.004	0.231	0.004
133	2.28	2.27	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2758.13	0.004	0.234	0.004
134	2.27	2.26	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2793.66	0.004	0.237	0.004
135	2.26	2.25	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2829.20	0.004	0.240	0.004
136	2.25	2.24	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2864.73	0.004	0.243	0.004
137	2.24	2.23	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2900.27	0.004	0.246	0.004
138	2.23	2.22	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2935.81	0.004	0.249	0.004
139	2.22	2.21	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	2971.34	0.004	0.252	0.004
140	2.21	2.20	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3006.88	0.004	0.255	0.004
141	2.20	2.19	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3042.41	0.004	0.258	0.004
142	2.19	2.18	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3077.95	0.004	0.261	0.004
143	2.18	2.17	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3113.48	0.004	0.264	0.004
144	2.17	2.16	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3149.02	0.004	0.267	0.004
145	2.16	2.15	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3184.55	0.004	0.270	0.004
146	2.15	2.14	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3220.09	0.004	0.273	0.004
147	2.14	2.13	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3255.63	0.004	0.276	0.004
148	2.13	2.12	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3291.16	0.004	0.279	0.004
149	2.12	2.11	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3326.70	0.004	0.282	0.004
150	2.11	2.10	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3362.23	0.004	0.285	0.004
151	2.10	2.09	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3397.77	0.004	0.288	0.004
152	2.09	2.08	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3433.30	0.005	0.291	0.005

153	2.08	2.07	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3468.84	0.005	0.294	0.005
154	2.07	2.06	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3504.38	0.005	0.297	0.005
155	2.06	2.05	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3539.91	0.005	0.300	0.005
156	2.05	2.04	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3575.45	0.005	0.303	0.005
157	2.04	2.03	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3610.98	0.005	0.306	0.005
158	2.03	2.02	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3646.52	0.005	0.309	0.005
159	2.02	2.01	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3682.05	0.005	0.312	0.005
160	2.01	2.00	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3717.59	0.005	0.315	0.005
161	2.00	1.99	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3753.13	0.005	0.318	0.005
162	1.99	1.98	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3788.66	0.005	0.321	0.005
163	1.98	1.97	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3824.20	0.005	0.324	0.005
164	1.97	1.96	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3859.73	0.005	0.327	0.005
165	1.96	1.95	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3895.27	0.005	0.330	0.005
166	1.95	1.94	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3930.80	0.005	0.333	0.005
167	1.94	1.93	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	3966.34	0.005	0.336	0.005
168	1.93	1.92	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4001.87	0.005	0.339	0.005
169	1.92	1.91	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4037.41	0.005	0.342	0.005
170	1.91	1.90	0.00450	82.2	0.00026	0.44	1.09	15.85	171.97	158.50	17.20	4072.95	0.005	0.345	0.005
TOT						39.81			15477.53	14265.00					
AVG					0.0003		1.08	15.85			17.20				
CUM						61.95									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
81	2.790	7.74	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.01	6.01	6.01	0.00	0.06	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00
82	2.780	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.00	0.06	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00
83	2.770	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.02	6.02	6.02	0.00	0.06	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00
84	2.760	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.00	0.06	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00
85	2.750	7.73	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.03	6.03	6.03	0.00	0.06	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
86	2.740	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.04	6.04	6.04	0.00	0.06	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
87	2.730	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.05	6.05	6.05	0.00	0.06	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
88	2.720	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.05	6.05	6.05	0.00	0.06	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00
89	2.710	7.72	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.06	6.06	6.06	0.00	0.06	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00
90	2.700	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.06	6.06	6.06	0.00	0.06	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00
91	2.690	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.07	6.07	6.07	0.00	0.06	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00
92	2.680	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.08	6.08	6.08	0.01	0.06	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00
93	2.670	7.71	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.08	6.08	6.08	0.01	0.06	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00
94	2.660	7.70	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.09	6.09	6.09	0.01	0.06	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
95	2.650	7.70	0.76	0.04	0.06	0.00	0.00	0.00	0.00	6.09	6.09	6.09	0.01	0.06	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00
96	2.640	7.70	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.10	6.10	6.10	0.01	0.06	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00
97	2.630	7.70	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.11	6.11	6.11	0.01	0.06	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00
98	2.620	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.11	6.11	6.11	0.01	0.06	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00
99	2.610	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.12	6.12	6.12	0.01	0.06	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00
100	2.600	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.12	6.12	6.12	0.01	0.06	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00
101	2.590	7.69	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.13	6.13	6.13	0.01	0.06	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00
102	2.580	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.14	6.14	6.14	0.01	0.06	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00
103	2.570	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.14	6.14	6.14	0.01	0.06	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00
104	2.560	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.15	6.15	6.15	0.01	0.06	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00
105	2.550	7.68	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.15	6.15	6.15	0.01	0.06	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00
106	2.540	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.16	6.16	6.16	0.01	0.06	0.00	0.00	0.00	0.00	1.19	0.00	0.00	0.00	0.00
107	2.530	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.17	6.17	6.17	0.01	0.06	0.00	0.00	0.00	0.00	1.21	0.00	0.00	0.00	0.00
108	2.520	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.17	6.17	6.17	0.01	0.06	0.00	0.00	0.00	0.00	1.23	0.00	0.00	0.00	0.00
109	2.510	7.67	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.18	6.18	6.18	0.01	0.06	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00

110	2.500	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.18	6.18	6.18	0.01	0.06	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00
111	2.490	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.19	6.19	6.19	0.01	0.06	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00
112	2.480	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.20	6.20	6.20	0.01	0.06	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00
113	2.470	7.66	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.20	6.20	6.20	0.01	0.06	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
114	2.460	7.65	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.21	6.21	6.21	0.01	0.06	0.00	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.00
115	2.450	7.65	0.76	0.05	0.06	0.00	0.00	0.00	0.00	6.22	6.22	6.22	0.01	0.06	0.00	0.00	0.00	0.00	1.39	0.00	0.00	0.00	0.00
116	2.440	7.65	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.22	6.22	6.22	0.01	0.06	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00
117	2.430	7.65	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.23	6.23	6.23	0.01	0.06	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00
118	2.420	7.64	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.23	6.23	6.23	0.01	0.06	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00
119	2.410	7.64	0.76	0.06	0.06	0.00	0.00	0.00	0.00	6.24	6.24	6.24	0.01	0.06	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
120	2.400	7.64	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.25	6.25	6.25	0.01	0.06	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
121	2.390	7.64	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.25	6.25	6.25	0.01	0.06	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00
122	2.380	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.26	6.26	6.26	0.01	0.06	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00
123	2.370	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.26	6.26	6.26	0.02	0.06	0.00	0.00	0.00	0.00	1.57	0.00	0.00	0.00	0.00
124	2.360	7.63	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.27	6.27	6.27	0.02	0.06	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00	0.00
125	2.350	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.28	6.28	6.28	0.02	0.06	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
126	2.340	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.28	6.28	6.28	0.02	0.06	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00	0.00
127	2.330	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.29	6.29	6.29	0.02	0.06	0.00	0.00	0.00	0.00	1.66	0.00	0.00	0.00	0.00
128	2.320	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.02	0.06	0.00	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.00
129	2.310	7.62	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.30	6.30	6.30	0.02	0.06	0.00	0.00	0.00	0.00	1.70	0.00	0.00	0.00	0.00
130	2.300	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.02	0.06	0.00	0.00	0.00	0.00	1.72	0.00	0.00	0.00	0.00
131	2.290	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.31	6.31	6.31	0.02	0.06	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	0.00
132	2.280	7.61	0.77	0.06	0.06	0.00	0.00	0.00	0.00	6.32	6.32	6.32	0.02	0.06	0.00	0.00	0.00	0.00	1.77	0.00	0.00	0.00	0.00
133	2.270	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.02	0.06	0.00	0.00	0.00	0.00	1.79	0.00	0.00	0.00	0.00
134	2.260	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.33	6.33	6.33	0.02	0.06	0.00	0.00	0.00	0.00	1.82	0.00	0.00	0.00	0.00
135	2.250	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.34	6.34	6.34	0.02	0.06	0.00	0.00	0.00	0.00	1.84	0.00	0.00	0.00	0.00
136	2.240	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.02	0.06	0.00	0.00	0.00	0.00	1.86	0.00	0.00	0.00	0.00
137	2.230	7.60	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.35	6.35	6.35	0.02	0.06	0.00	0.00	0.00	0.00	1.88	0.00	0.00	0.00	0.00
138	2.220	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.03	0.06	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00	0.00
139	2.210	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.36	6.36	6.36	0.03	0.06	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.00
140	2.200	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.37	6.37	6.37	0.03	0.06	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00	0.00
141	2.190	7.59	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.03	0.06	0.00	0.00	0.00	0.00	1.98	0.00	0.00	0.00	0.00
142	2.180	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.38	6.38	6.38	0.03	0.06	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00
143	2.170	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.39	6.39	6.39	0.03	0.06	0.00	0.00	0.00	0.00	2.02	0.00	0.00	0.00	0.00
144	2.160	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.03	0.06	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00
145	2.150	7.58	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.40	6.40	6.40	0.03	0.06	0.00	0.00	0.00	0.00	2.07	0.00	0.00	0.00	0.00
146	2.140	7.57	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.03	0.06	0.00	0.00	0.00	0.00	2.09	0.00	0.00	0.00	0.00
147	2.130	7.57	0.77	0.07	0.06	0.00	0.00	0.00	0.00	6.41	6.41	6.41	0.04	0.06	0.00	0.00	0.00	0.00	2.11	0.00	0.00	0.00	0.00
148	2.120	7.57	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.42	6.42	6.42	0.04	0.06	0.00	0.00	0.00	0.00	2.14	0.00	0.00	0.00	0.00
149	2.110	7.57	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.43	6.43	6.43	0.04	0.06	0.00	0.00	0.00	0.00	2.16	0.00	0.00	0.00	0.00
150	2.100	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.43	6.43	6.43	0.04	0.06	0.00	0.00	0.00	0.00	2.18	0.00	0.00	0.00	0.00
151	2.090	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.44	6.44	6.44	0.04	0.06	0.00	0.00	0.00	0.00	2.21	0.00	0.00	0.00	0.00
152	2.080	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.45	6.45	6.45	0.04	0.06	0.00	0.00	0.00	0.00	2.23	0.00	0.00	0.00	0.00
153	2.070	7.56	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.45	6.45	6.45	0.04	0.06	0.00	0.00	0.00	0.00	2.25	0.00	0.00	0.00	0.00
154	2.060	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.46	6.46	6.46	0.05	0.06	0.00	0.00	0.00	0.00	2.28	0.00	0.00	0.00	0.00
155	2.050	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.47	6.47	6.47	0.05	0.06	0.00	0.00	0.00	0.00	2.30	0.00	0.00	0.00	0.00
156	2.040	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.47	6.47	6.47	0.05	0.06	0.00	0.00	0.00	0.00	2.32	0.00	0.00	0.00	0.00
157	2.030	7.55	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.48	6.48	6.48	0.05	0.06	0.00	0.00	0.00	0.00	2.35	0.00	0.00	0.00	0.00
158	2.020	7.54	0.77	0.08	0.06	0.00	0.00	0.00	0.00	6.48	6.48	6.48	0.06	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
159	2.010	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.49	6.49	6.49	0.06	0.06	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
160	2.000	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.06	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
161	1.990	7.54	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.50	6.50	6.50	0.06	0.06	0.00	0.00	0.00	0.00	2.44	0.00	0.00	0.00	0.00
162	1.980	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.51	6.51	6.51	0.07	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
163	1.970	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.52	6.52	6.52	0.07	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
164	1.960	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.52	6.52	6.52	0.08	0.06	0.00	0.00	0.00	0.00	2.51	0.00	0.00	0.00	0.00
165	1.950	7.53	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.53	6.53	6.53	0.08	0.06	0.00	0.00	0.00	0.00	2.54	0.00	0.00	0.00	0.00
166	1.940	7.52	0.77	0.09	0.06	0.00	0.00	0.00	0.00	6.54	6.54	6.54	0.08	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
167	1.930	7.52	0.77	0.10	0.06	0.00	0.00	0.00	0.00	6.54	6.54	6.54	0.09	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
168	1.920	7.52	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.55	6.55	6.55	0.10	0.06	0.00	0.00	0.00	0.00	2.61	0.00	0.00	0.00	0.00

169	1.910	7.52	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.56	6.56	6.56	0.10	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
170	1.900	7.51	0.78	0.10	0.06	0.00	0.00	0.00	0.00	6.56	6.56	6.56	0.11	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.65	0.07	0.05	0.00	0.00	0.00	0.00	3.50			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
81	2.790	28.59	0.24	175.89	887.88	0.84	11.24	0.00	11.24	0.00	3.05	0.00	0.00	0.00	0.00	8.78	0.00	0.	0.00
82	2.780	28.60	0.25	180.92	903.37	0.83	11.33	0.00	11.33	0.00	3.06	0.00	0.00	0.00	0.00	9.06	0.00	0.	0.00
83	2.770	28.62	0.26	185.92	918.80	0.83	11.41	0.00	11.41	0.00	3.07	0.00	0.00	0.00	0.00	9.34	0.00	0.	0.00
84	2.760	28.63	0.27	190.91	934.16	0.83	11.49	0.00	11.49	0.00	3.07	0.00	0.00	0.00	0.00	9.62	0.00	0.	0.00
85	2.750	28.65	0.28	195.88	949.45	0.83	11.56	0.00	11.56	0.00	3.08	0.00	0.00	0.00	0.00	9.89	0.00	0.	0.00
86	2.740	28.66	0.29	200.82	964.69	0.83	11.63	0.00	11.63	0.00	3.09	0.00	0.00	0.00	0.00	10.17	0.00	0.	0.00
87	2.730	28.68	0.30	205.75	979.87	0.83	11.69	0.00	11.69	0.00	3.10	0.00	0.00	0.00	0.00	10.45	0.00	0.	0.00
88	2.720	28.70	0.31	210.66	994.99	0.84	11.75	0.00	11.75	0.00	3.10	0.00	0.00	0.00	0.00	10.73	0.00	0.	0.00
89	2.710	28.71	0.32	215.55	1010.05	0.84	11.81	0.00	11.81	0.00	3.11	0.00	0.00	0.00	0.00	11.01	0.00	0.	0.00
90	2.700	28.73	0.33	220.42	1025.07	0.84	11.86	0.00	11.86	0.00	3.11	0.00	0.00	0.00	0.00	11.29	0.00	0.	0.00
91	2.690	28.74	0.34	225.28	1040.03	0.85	11.90	0.00	11.90	0.00	3.12	0.00	0.00	0.00	0.00	11.57	0.00	0.	0.00
92	2.680	28.76	0.35	230.12	1054.94	0.86	11.95	0.00	11.95	0.00	3.12	0.00	0.00	0.00	0.00	11.85	0.00	0.	0.00
93	2.670	28.77	0.36	234.95	1069.80	0.86	11.99	0.00	11.99	0.00	3.12	0.00	0.00	0.00	0.00	12.13	0.00	0.	0.00
94	2.660	28.79	0.37	239.76	1084.61	0.87	12.03	0.00	12.03	0.00	3.12	0.00	0.00	0.00	0.00	12.40	0.00	0.	0.00
95	2.650	28.81	0.38	244.55	1099.38	0.88	12.06	0.00	12.06	0.00	3.13	0.00	0.00	0.00	0.00	12.68	0.00	0.	0.00
96	2.640	28.82	0.39	249.33	1114.10	0.88	12.09	0.00	12.09	0.00	3.13	0.00	0.00	0.00	0.00	12.96	0.00	0.	0.00
97	2.630	28.84	0.40	254.09	1128.78	0.89	12.12	0.00	12.12	0.00	3.13	0.00	0.00	0.00	0.00	13.24	0.00	0.	0.00
98	2.620	28.85	0.41	258.85	1143.41	0.90	12.15	0.00	12.15	0.00	3.13	0.00	0.00	0.00	0.00	13.52	0.00	0.	0.00
99	2.610	28.87	0.42	263.58	1158.01	0.91	12.17	0.00	12.17	0.00	3.13	0.00	0.00	0.00	0.00	13.80	0.00	0.	0.00
100	2.600	28.88	0.43	268.31	1172.56	0.92	12.20	0.00	12.20	0.00	3.13	0.00	0.00	0.00	0.00	14.08	0.00	0.	0.00
101	2.590	28.90	0.44	273.02	1187.07	0.92	12.22	0.00	12.22	0.00	3.13	0.00	0.00	0.00	0.00	14.36	0.00	0.	0.00
102	2.580	28.91	0.45	277.72	1201.54	0.93	12.24	0.00	12.24	0.00	3.13	0.00	0.00	0.00	0.00	14.64	0.00	0.	0.00
103	2.570	28.93	0.47	282.40	1215.98	0.94	12.25	0.00	12.25	0.00	3.13	0.00	0.00	0.00	0.00	14.91	0.00	0.	0.00
104	2.560	28.95	0.48	287.08	1230.38	0.95	12.27	0.00	12.27	0.00	3.12	0.00	0.00	0.00	0.00	15.19	0.00	0.	0.00
105	2.550	28.96	0.49	291.74	1244.74	0.96	12.28	0.00	12.28	0.00	3.12	0.00	0.00	0.00	0.00	15.47	0.00	0.	0.00
106	2.540	28.98	0.50	296.39	1259.06	0.97	12.30	0.00	12.30	0.00	3.12	0.00	0.00	0.00	0.00	15.75	0.00	0.	0.00
107	2.530	28.99	0.51	301.03	1273.36	0.98	12.31	0.00	12.31	0.00	3.12	0.00	0.00	0.00	0.00	16.03	0.00	0.	0.00
108	2.520	29.01	0.52	305.66	1287.61	0.99	12.32	0.00	12.32	0.00	3.11	0.00	0.00	0.00	0.00	16.31	0.00	0.	0.00
109	2.510	29.02	0.53	310.28	1301.83	1.00	12.33	0.00	12.33	0.00	3.11	0.00	0.00	0.00	0.00	16.59	0.00	0.	0.00
110	2.500	29.04	0.54	314.88	1316.03	1.01	12.34	0.00	12.34	0.00	3.11	0.00	0.00	0.00	0.00	16.87	0.00	0.	0.00
111	2.490	29.06	0.55	319.48	1330.18	1.02	12.34	0.00	12.34	0.00	3.10	0.00	0.00	0.00	0.00	17.15	0.00	0.	0.00
112	2.480	29.07	0.56	324.07	1344.31	1.03	12.35	0.00	12.35	0.00	3.10	0.00	0.00	0.00	0.00	17.42	0.00	0.	0.00
113	2.470	29.09	0.57	328.64	1358.41	1.04	12.35	0.00	12.35	0.00	3.10	0.00	0.00	0.00	0.00	17.70	0.00	0.	0.00
114	2.460	29.10	0.58	333.21	1372.47	1.05	12.36	0.00	12.36	0.00	3.09	0.00	0.00	0.00	0.00	17.98	0.00	0.	0.00
115	2.450	29.12	0.59	337.77	1386.50	1.06	12.36	0.00	12.36	0.00	3.09	0.00	0.00	0.00	0.00	18.26	0.00	0.	0.00
116	2.440	29.13	0.60	342.31	1400.51	1.07	12.36	0.00	12.36	0.00	3.08	0.00	0.00	0.00	0.00	18.54	0.00	0.	0.00
117	2.430	29.15	0.61	346.85	1414.49	1.08	12.36	0.00	12.36	0.00	3.08	0.00	0.00	0.00	0.00	18.82	0.00	0.	0.00
118	2.420	29.17	0.62	351.38	1428.44	1.09	12.37	0.00	12.37	0.00	3.07	0.00	0.00	0.00	0.00	19.10	0.00	0.	0.00
119	2.410	29.18	0.63	355.90	1442.36	1.10	12.37	0.00	12.37	0.00	3.07	0.00	0.00	0.00	0.00	19.38	0.00	0.	0.00
120	2.400	29.20	0.64	360.41	1456.25	1.11	12.37	0.00	12.37	0.00	3.06	0.00	0.00	0.00	0.00	19.66	0.00	0.	0.00
121	2.390	29.21	0.65	364.91	1470.12	1.12	12.37	0.00	12.37	0.00	3.06	0.00	0.00	0.00	0.00	19.93	0.00	0.	0.00
122	2.380	29.23	0.66	369.40	1483.96	1.13	12.37	0.00	12.37	0.00	3.05	0.00	0.00	0.00	0.00	20.21	0.00	0.	0.00
123	2.370	29.24	0.67	373.89	1497.77	1.14	12.37	0.00	12.37	0.00	3.04	0.00	0.00	0.00	0.00	20.49	0.00	0.	0.00
124	2.360	29.26	0.68	378.37	1511.56	1.15	12.36	0.00	12.36	0.00	3.04	0.00	0.00	0.00	0.00	20.77	0.00	0.	0.00
125	2.350	29.27	0.69	382.83	1525.32	1.16	12.36	0.00	12.36	0.00	3.03	0.00	0.00	0.00	0.00	21.05	0.00	0.	0.00
126	2.340	29.29	0.70	387.29	1539.06	1.17	12.36	0.00	12.36	0.00	3.03	0.00	0.00	0.00	0.00	21.33	0.00	0.	0.00

127	2.330	29.31	0.71	391.75	1552.77	1.18	12.36	0.00	12.36	0.00	3.02	0.00	0.00	0.00	0.00	21.61	0.00	0.	0.00
128	2.320	29.32	0.72	396.19	1566.46	1.19	12.36	0.00	12.36	0.00	3.01	0.00	0.00	0.00	0.00	21.89	0.00	0.	0.00
129	2.310	29.34	0.73	400.63	1580.13	1.20	12.36	0.00	12.36	0.00	3.01	0.00	0.00	0.00	0.00	22.17	0.00	0.	0.00
130	2.300	29.35	0.74	405.06	1593.77	1.21	12.35	0.00	12.35	0.00	3.00	0.00	0.00	0.00	0.00	22.44	0.00	0.	0.00
131	2.290	29.37	0.75	409.48	1607.39	1.22	12.35	0.00	12.35	0.00	2.99	0.00	0.00	0.00	0.00	22.72	0.00	0.	0.00
132	2.280	29.38	0.76	413.89	1620.99	1.23	12.35	0.00	12.35	0.00	2.99	0.00	0.00	0.00	0.00	23.00	0.00	0.	0.00
133	2.270	29.40	0.77	418.30	1634.56	1.24	12.35	0.00	12.35	0.00	2.98	0.00	0.00	0.00	0.00	23.28	0.00	0.	0.00
134	2.260	29.42	0.78	422.70	1648.11	1.25	12.35	0.00	12.35	0.00	2.97	0.00	0.00	0.00	0.00	23.56	0.00	0.	0.00
135	2.250	29.43	0.79	427.09	1661.65	1.27	12.35	0.00	12.35	0.00	2.97	0.00	0.00	0.00	0.00	23.84	0.00	0.	0.00
136	2.240	29.45	0.80	431.48	1675.16	1.28	12.34	0.00	12.34	0.00	2.96	0.00	0.00	0.00	0.00	24.12	0.00	0.	0.00
137	2.230	29.46	0.81	435.86	1688.64	1.29	12.34	0.00	12.34	0.00	2.95	0.00	0.00	0.00	0.00	24.40	0.00	0.	0.00
138	2.220	29.48	0.82	440.23	1702.11	1.30	12.34	0.00	12.34	0.00	2.95	0.00	0.00	0.00	0.00	24.68	0.00	0.	0.00
139	2.210	29.49	0.83	444.60	1715.56	1.31	12.34	0.00	12.34	0.00	2.94	0.00	0.00	0.00	0.00	24.95	0.00	0.	0.00
140	2.200	29.51	0.84	448.96	1728.98	1.32	12.34	0.00	12.34	0.00	2.94	0.00	0.00	0.00	0.00	25.23	0.00	0.	0.00
141	2.190	29.53	0.85	453.31	1742.39	1.33	12.34	0.00	12.34	0.00	2.93	0.00	0.00	0.00	0.00	25.51	0.00	0.	0.00
142	2.180	29.54	0.86	457.66	1755.78	1.35	12.34	0.00	12.34	0.00	2.92	0.00	0.00	0.00	0.00	25.79	0.00	0.	0.00
143	2.170	29.56	0.87	462.00	1769.14	1.36	12.34	0.00	12.34	0.00	2.92	0.00	0.00	0.00	0.00	26.07	0.00	0.	0.00
144	2.160	29.57	0.88	466.33	1782.49	1.37	12.35	0.00	12.35	0.00	2.91	0.00	0.00	0.00	0.00	26.35	0.00	0.	0.00
145	2.150	29.59	0.89	470.66	1795.82	1.38	12.35	0.00	12.35	0.00	2.90	0.00	0.00	0.00	0.00	26.63	0.00	0.	0.00
146	2.140	29.60	0.90	474.98	1809.13	1.40	12.35	0.00	12.35	0.00	2.90	0.00	0.00	0.00	0.00	26.91	0.00	0.	0.00
147	2.130	29.62	0.91	479.29	1822.42	1.41	12.35	0.00	12.35	0.00	2.89	0.00	0.00	0.00	0.00	27.19	0.00	0.	0.00
148	2.120	29.64	0.93	483.60	1835.69	1.42	12.36	0.00	12.36	0.00	2.88	0.00	0.00	0.00	0.00	27.46	0.00	0.	0.00
149	2.110	29.65	0.94	487.91	1848.95	1.44	12.36	0.00	12.36	0.00	2.88	0.00	0.00	0.00	0.00	27.74	0.00	0.	0.00
150	2.100	29.67	0.95	492.20	1862.18	1.45	12.37	0.00	12.37	0.00	2.87	0.00	0.00	0.00	0.00	28.02	0.00	0.	0.00
151	2.090	29.68	0.96	496.50	1875.40	1.47	12.37	0.00	12.37	0.00	2.87	0.00	0.00	0.00	0.00	28.30	0.00	0.	0.00
152	2.080	29.70	0.97	500.78	1888.61	1.48	12.38	0.00	12.38	0.00	2.86	0.00	0.00	0.00	0.00	28.58	0.00	0.	0.00
153	2.070	29.71	0.98	505.06	1901.79	1.50	12.39	0.00	12.39	0.00	2.86	0.00	0.00	0.00	0.00	28.86	0.00	0.	0.00
154	2.060	29.73	0.99	509.34	1914.96	1.51	12.39	0.00	12.39	0.00	2.85	0.00	0.00	0.00	0.00	29.14	0.00	0.	0.00
155	2.050	29.74	1.00	513.61	1928.11	1.53	12.40	0.00	12.40	0.00	2.85	0.00	0.00	0.00	0.00	29.42	0.00	0.	0.00
156	2.040	29.76	1.01	517.87	1941.24	1.55	12.41	0.00	12.41	0.00	2.84	0.00	0.00	0.00	0.00	29.70	0.00	0.	0.00
157	2.030	29.78	1.02	522.13	1954.36	1.56	12.42	0.00	12.42	0.00	2.84	0.00	0.00	0.00	0.00	29.97	0.00	0.	0.00
158	2.020	29.79	1.03	526.39	1967.46	1.58	12.44	0.00	12.44	0.00	2.83	0.00	0.00	0.00	0.00	30.25	0.00	0.	0.00
159	2.010	29.81	1.04	530.63	1980.55	1.60	12.45	0.00	12.45	0.00	2.83	0.00	0.00	0.00	0.00	30.53	0.00	0.	0.00
160	2.000	29.82	1.05	534.88	1993.62	1.62	12.46	0.00	12.46	0.00	2.83	0.00	0.00	0.00	0.00	30.81	0.00	0.	0.00
161	1.990	29.84	1.06	539.12	2006.68	1.64	12.48	0.00	12.48	0.00	2.82	0.00	0.00	0.00	0.00	31.09	0.00	0.	0.00
162	1.980	29.85	1.07	543.35	2019.72	1.66	12.49	0.00	12.49	0.00	2.82	0.00	0.00	0.00	0.00	31.37	0.00	0.	0.00
163	1.970	29.87	1.08	547.58	2032.74	1.68	12.51	0.00	12.51	0.00	2.82	0.00	0.00	0.00	0.00	31.65	0.00	0.	0.00
164	1.960	29.89	1.09	551.80	2045.75	1.71	12.53	0.00	12.53	0.00	2.82	0.00	0.00	0.00	0.00	31.93	0.00	0.	0.00
165	1.950	29.90	1.10	556.02	2058.75	1.73	12.55	0.00	12.55	0.00	2.82	0.00	0.00	0.00	0.00	32.21	0.00	0.	0.00
166	1.940	29.92	1.11	560.24	2071.73	1.76	12.57	0.00	12.57	0.00	2.82	0.00	0.00	0.00	0.00	32.48	0.00	0.	0.00
167	1.930	29.93	1.12	564.45	2084.69	1.79	12.60	0.00	12.60	0.00	2.82	0.00	0.00	0.00	0.00	32.76	0.00	0.	0.00
168	1.920	29.95	1.13	568.65	2097.64	1.82	12.62	0.00	12.62	0.00	2.82	0.00	0.00	0.00	0.00	33.04	0.00	0.	0.00
169	1.910	29.96	1.14	572.85	2110.58	1.85	12.65	0.00	12.65	0.00	2.82	0.00	0.00	0.00	0.00	33.32	0.00	0.	0.00
170	1.900	29.98	1.15	577.05	2123.50	1.88	12.67	0.00	12.67	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 3 RKM 1.9 to 1.5 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
171	UPR RCH	0.00450	29.98	1.15	577.05	2123.50	1.88	12.67	0.00	12.67	0.00	2.82	0.00	0.00	0.00	33.60	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	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
171	1.90	1.89	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4133.82	0.003	0.197	0.003
172	1.89	1.88	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4194.70	0.003	0.200	0.003
173	1.88	1.87	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4255.58	0.003	0.203	0.003
174	1.87	1.86	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4316.45	0.003	0.206	0.003
175	1.86	1.85	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4377.33	0.003	0.209	0.003
176	1.85	1.84	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4438.21	0.003	0.211	0.003
177	1.84	1.83	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4499.08	0.003	0.214	0.003
178	1.83	1.82	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4559.96	0.003	0.217	0.003
179	1.82	1.81	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4620.84	0.003	0.220	0.003
180	1.81	1.80	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4681.72	0.003	0.223	0.003
181	1.80	1.79	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4742.59	0.003	0.226	0.003
182	1.79	1.78	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4803.47	0.003	0.229	0.003
183	1.78	1.77	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4864.35	0.003	0.232	0.003
184	1.77	1.76	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4925.22	0.003	0.235	0.003
185	1.76	1.75	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	4986.10	0.003	0.237	0.003
186	1.75	1.74	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5046.98	0.003	0.240	0.003
187	1.74	1.73	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5107.85	0.004	0.243	0.004
188	1.73	1.72	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5168.73	0.004	0.246	0.004
189	1.72	1.71	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5229.61	0.004	0.249	0.004
190	1.71	1.70	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5290.49	0.004	0.252	0.004
191	1.70	1.69	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5351.36	0.004	0.255	0.004
192	1.69	1.68	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5412.24	0.004	0.258	0.004
193	1.68	1.67	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5473.12	0.004	0.261	0.004
194	1.67	1.66	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5533.99	0.004	0.263	0.004
195	1.66	1.65	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5594.87	0.004	0.266	0.004
196	1.65	1.64	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5655.75	0.004	0.269	0.004
197	1.64	1.63	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5716.62	0.004	0.272	0.004
198	1.63	1.62	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5777.50	0.004	0.275	0.004
199	1.62	1.61	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5838.38	0.004	0.278	0.004
200	1.61	1.60	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5899.25	0.004	0.281	0.004
201	1.60	1.59	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	5960.13	0.004	0.284	0.004
202	1.59	1.58	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6021.01	0.004	0.287	0.004
203	1.58	1.57	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6081.89	0.004	0.289	0.004
204	1.57	1.56	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6142.76	0.004	0.292	0.004
205	1.56	1.55	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6203.64	0.004	0.295	0.004
206	1.55	1.54	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6264.52	0.004	0.298	0.004
207	1.54	1.53	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6325.39	0.004	0.301	0.004
208	1.53	1.52	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6386.27	0.004	0.304	0.004
209	1.52	1.51	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6447.15	0.004	0.307	0.004
210	1.51	1.50	0.00450	82.2	0.00014	0.85	1.19	27.74	329.79	277.37	32.98	6508.02	0.004	0.310	0.004
TOT						33.93			13191.72	11094.80					
AVG					0.0001		1.19	27.74			32.98				
CUM						95.88									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
171	1.890	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.63	5.63	5.63	0.12	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
172	1.880	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.63	5.63	5.63	0.12	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00

173	1.870	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.64	5.64	5.64	0.13	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
174	1.860	7.51	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.64	5.64	5.64	0.13	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
175	1.850	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.65	5.65	5.65	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
176	1.840	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.65	5.65	5.65	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
177	1.830	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.66	5.66	5.66	0.13	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
178	1.820	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.66	5.66	5.66	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
179	1.810	7.50	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.67	5.67	5.67	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
180	1.800	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.67	5.67	5.67	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
181	1.790	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.68	5.68	5.68	0.14	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
182	1.780	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.68	5.68	5.68	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
183	1.770	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.69	5.69	5.69	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
184	1.760	7.49	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.69	5.69	5.69	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
185	1.750	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
186	1.740	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
187	1.730	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.70	5.70	5.70	0.14	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
188	1.720	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.71	5.71	5.71	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
189	1.710	7.48	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.71	5.71	5.71	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
190	1.700	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.72	5.72	5.72	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
191	1.690	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.72	5.72	5.72	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
192	1.680	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.73	5.73	5.73	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
193	1.670	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.73	5.73	5.73	0.14	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
194	1.660	7.47	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.74	5.74	5.74	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
195	1.650	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.74	5.74	5.74	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
196	1.640	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.75	5.75	5.75	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
197	1.630	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.75	5.75	5.75	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
198	1.620	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.76	5.76	5.76	0.14	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
199	1.610	7.46	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.76	5.76	5.76	0.15	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
200	1.600	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.77	5.77	5.77	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
201	1.590	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.77	5.77	5.77	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
202	1.580	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.78	5.78	5.78	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
203	1.570	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.78	5.78	5.78	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
204	1.560	7.45	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.79	5.79	5.79	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
205	1.550	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.79	5.79	5.79	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
206	1.540	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.80	5.80	5.80	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
207	1.530	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.80	5.80	5.80	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
208	1.520	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.81	5.81	5.81	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
209	1.510	7.44	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.81	5.81	5.81	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
210	1.500	7.43	0.71	0.09	0.06	0.00	0.00	0.00	0.00	5.82	5.82	5.82	0.15	0.06	0.00	0.00	0.00	0.00	2.72	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.59	0.06	0.05	0.00	0.00	0.00	0.00	3.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
171	1.890	29.99	1.16	581.06	2135.88	1.91	12.70	0.00	12.70	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
172	1.880	30.01	1.16	584.91	2147.71	1.94	12.73	0.00	12.73	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
173	1.870	30.02	1.17	588.72	2159.46	1.97	12.76	0.00	12.76	0.00	2.82	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
174	1.860	30.03	1.18	592.51	2171.12	1.99	12.78	0.00	12.78	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
175	1.850	30.05	1.19	596.26	2182.69	2.02	12.81	0.00	12.81	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
176	1.840	30.06	1.19	599.99	2194.18	2.04	12.83	0.00	12.83	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
177	1.830	30.07	1.20	603.70	2205.58	2.06	12.86	0.00	12.86	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
178	1.820	30.09	1.21	607.37	2216.91	2.08	12.88	0.00	12.88	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
179	1.810	30.10	1.22	611.02	2228.16	2.09	12.91	0.00	12.91	0.00	2.83	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
180	1.800	30.11	1.23	614.65	2239.33	2.11	12.93	0.00	12.93	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

181	1.790	30.13	1.23	618.25	2250.42	2.12	12.96	0.00	12.96	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
182	1.780	30.14	1.24	621.83	2261.44	2.14	12.98	0.00	12.98	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
183	1.770	30.15	1.25	625.38	2272.39	2.15	13.01	0.00	13.01	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
184	1.760	30.17	1.25	628.91	2283.26	2.16	13.03	0.00	13.03	0.00	2.84	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
185	1.750	30.18	1.26	632.42	2294.07	2.18	13.06	0.00	13.06	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
186	1.740	30.19	1.27	635.91	2304.80	2.19	13.08	0.00	13.08	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
187	1.730	30.21	1.28	639.37	2315.47	2.20	13.11	0.00	13.11	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
188	1.720	30.22	1.28	642.81	2326.07	2.21	13.13	0.00	13.13	0.00	2.85	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
189	1.710	30.23	1.29	646.23	2336.61	2.22	13.16	0.00	13.16	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
190	1.700	30.25	1.30	649.63	2347.08	2.23	13.19	0.00	13.19	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
191	1.690	30.26	1.31	653.01	2357.49	2.25	13.21	0.00	13.21	0.00	2.86	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
192	1.680	30.27	1.32	656.37	2367.84	2.26	13.24	0.00	13.24	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
193	1.670	30.28	1.32	659.71	2378.13	2.27	13.26	0.00	13.26	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
194	1.660	30.30	1.33	663.03	2388.36	2.28	13.29	0.00	13.29	0.00	2.87	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
195	1.650	30.31	1.34	666.33	2398.53	2.29	13.32	0.00	13.32	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
196	1.640	30.32	1.35	669.62	2408.64	2.30	13.34	0.00	13.34	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
197	1.630	30.34	1.35	672.88	2418.69	2.31	13.37	0.00	13.37	0.00	2.88	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
198	1.620	30.35	1.36	676.13	2428.69	2.33	13.40	0.00	13.40	0.00	2.89	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
199	1.610	30.36	1.37	679.35	2438.63	2.34	13.43	0.00	13.43	0.00	2.89	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
200	1.600	30.38	1.38	682.57	2448.52	2.35	13.46	0.00	13.46	0.00	2.90	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
201	1.590	30.39	1.38	685.76	2458.36	2.37	13.48	0.00	13.48	0.00	2.90	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
202	1.580	30.40	1.39	688.93	2468.14	2.38	13.51	0.00	13.51	0.00	2.91	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
203	1.570	30.42	1.40	692.09	2477.87	2.40	13.54	0.00	13.54	0.00	2.91	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
204	1.560	30.43	1.41	695.24	2487.56	2.41	13.57	0.00	13.57	0.00	2.92	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
205	1.550	30.44	1.41	698.36	2497.19	2.43	13.60	0.00	13.60	0.00	2.92	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
206	1.540	30.46	1.42	701.47	2506.77	2.45	13.63	0.00	13.63	0.00	2.93	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
207	1.530	30.47	1.43	704.57	2516.30	2.47	13.67	0.00	13.67	0.00	2.93	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
208	1.520	30.48	1.44	707.65	2525.79	2.49	13.70	0.00	13.70	0.00	2.94	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
209	1.510	30.50	1.44	710.71	2535.23	2.51	13.73	0.00	13.73	0.00	2.94	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00
210	1.500	30.51	1.45	713.76	2544.62	2.53	13.76	0.00	13.76	0.00	2.95	0.00	0.00	0.00	0.00	33.60	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 4 RKM 1.5 to 1.1 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
211	UPR RCH	0.00450	30.51	1.45	713.76	2544.62	2.53	13.76	0.00	13.76	0.00	2.95	0.00	0.00	0.00	33.60	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	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
211	1.50	1.49	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6570.24	0.005	0.314	0.005
212	1.49	1.48	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6632.45	0.005	0.317	0.005
213	1.48	1.47	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6694.67	0.005	0.320	0.005
214	1.47	1.46	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6756.88	0.005	0.323	0.005
215	1.46	1.45	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6819.09	0.005	0.326	0.005
216	1.45	1.44	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6881.31	0.005	0.329	0.005
217	1.44	1.43	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	6943.52	0.005	0.332	0.005
218	1.43	1.42	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7005.74	0.005	0.335	0.005
219	1.42	1.41	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7067.95	0.006	0.338	0.006

220	1.41	1.40	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7130.16	0.006	0.341	0.006
221	1.40	1.39	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7192.38	0.006	0.344	0.006
222	1.39	1.38	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7254.59	0.006	0.346	0.006
223	1.38	1.37	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7316.80	0.006	0.349	0.006
224	1.37	1.36	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7379.02	0.006	0.352	0.006
225	1.36	1.35	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7441.23	0.006	0.355	0.006
226	1.35	1.34	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7503.45	0.006	0.358	0.006
227	1.34	1.33	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7565.66	0.006	0.361	0.006
228	1.33	1.32	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7627.87	0.006	0.364	0.006
229	1.32	1.31	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7690.09	0.006	0.367	0.006
230	1.31	1.30	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7752.30	0.006	0.370	0.006
231	1.30	1.29	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7814.52	0.006	0.373	0.006
232	1.29	1.28	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7876.73	0.006	0.376	0.006
233	1.28	1.27	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	7938.94	0.006	0.379	0.006
234	1.27	1.26	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8001.16	0.006	0.382	0.006
235	1.26	1.25	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8063.37	0.006	0.385	0.006
236	1.25	1.24	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8125.58	0.006	0.388	0.006
237	1.24	1.23	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8187.80	0.006	0.391	0.006
238	1.23	1.22	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8250.01	0.006	0.394	0.006
239	1.22	1.21	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8312.23	0.006	0.397	0.007
240	1.21	1.20	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8374.44	0.007	0.400	0.007
241	1.20	1.19	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8436.65	0.007	0.403	0.007
242	1.19	1.18	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8498.87	0.007	0.406	0.007
243	1.18	1.17	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8561.08	0.007	0.409	0.007
244	1.17	1.16	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8623.30	0.007	0.412	0.007
245	1.16	1.15	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8685.51	0.007	0.415	0.007
246	1.15	1.14	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8747.72	0.007	0.418	0.007
247	1.14	1.13	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8809.94	0.007	0.421	0.007
248	1.13	1.12	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8872.15	0.007	0.424	0.007
249	1.12	1.11	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8934.37	0.007	0.427	0.007
250	1.11	1.10	0.00450	82.2	0.00016	0.74	1.02	28.35	289.41	283.46	28.94	8996.58	0.007	0.430	0.007
TOT						29.77			11576.51	11338.40					
AVG					0.0002		1.02	28.35			28.94				
CUM						125.66									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
211	1.490	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
212	1.480	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.71	0.00	0.00	0.00	0.00
213	1.470	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.66	4.66	4.66	0.15	0.06	0.00	0.00	0.00	0.00	2.70	0.00	0.00	0.00	0.00
214	1.460	7.43	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.67	4.67	4.67	0.15	0.06	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00
215	1.450	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.67	4.67	4.67	0.15	0.06	0.00	0.00	0.00	0.00	2.68	0.00	0.00	0.00	0.00
216	1.440	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.67	0.00	0.00	0.00	0.00
217	1.430	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.66	0.00	0.00	0.00	0.00
218	1.420	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.68	4.68	4.68	0.16	0.06	0.00	0.00	0.00	0.00	2.65	0.00	0.00	0.00	0.00
219	1.410	7.42	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.69	4.69	4.69	0.16	0.06	0.00	0.00	0.00	0.00	2.64	0.00	0.00	0.00	0.00
220	1.400	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.69	4.69	4.69	0.16	0.06	0.00	0.00	0.00	0.00	2.64	0.00	0.00	0.00	0.00
221	1.390	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00
222	1.380	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.62	0.00	0.00	0.00	0.00
223	1.370	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.70	4.70	4.70	0.16	0.06	0.00	0.00	0.00	0.00	2.61	0.00	0.00	0.00	0.00
224	1.360	7.41	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.60	0.00	0.00	0.00	0.00
225	1.350	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.59	0.00	0.00	0.00	0.00
226	1.340	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.71	4.71	4.71	0.16	0.06	0.00	0.00	0.00	0.00	2.58	0.00	0.00	0.00	0.00

227	1.330	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.72	4.72	4.72	0.16	0.06	0.00	0.00	0.00	0.00	2.57	0.00	0.00	0.00	0.00
228	1.320	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.72	4.72	4.72	0.16	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
229	1.310	7.40	0.83	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00
230	1.300	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00
231	1.290	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.73	4.73	4.73	0.16	0.06	0.00	0.00	0.00	0.00	2.54	0.00	0.00	0.00	0.00
232	1.280	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.74	4.74	4.74	0.16	0.06	0.00	0.00	0.00	0.00	2.53	0.00	0.00	0.00	0.00
233	1.270	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.74	4.74	4.74	0.16	0.06	0.00	0.00	0.00	0.00	2.52	0.00	0.00	0.00	0.00
234	1.260	7.39	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.51	0.00	0.00	0.00	0.00
235	1.250	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00
236	1.240	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.75	4.75	4.75	0.16	0.06	0.00	0.00	0.00	0.00	2.49	0.00	0.00	0.00	0.00
237	1.230	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.76	4.76	4.76	0.16	0.06	0.00	0.00	0.00	0.00	2.48	0.00	0.00	0.00	0.00
238	1.220	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.76	4.76	4.76	0.17	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
239	1.210	7.38	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.47	0.00	0.00	0.00	0.00
240	1.200	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00
241	1.190	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.77	4.77	4.77	0.17	0.06	0.00	0.00	0.00	0.00	2.45	0.00	0.00	0.00	0.00
242	1.180	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.78	4.78	4.78	0.17	0.06	0.00	0.00	0.00	0.00	2.44	0.00	0.00	0.00	0.00
243	1.170	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.78	4.78	4.78	0.17	0.06	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
244	1.160	7.37	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
245	1.150	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
246	1.140	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.79	4.79	4.79	0.17	0.06	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
247	1.130	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.80	4.80	4.80	0.17	0.06	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
248	1.120	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.80	4.80	4.80	0.17	0.06	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
249	1.110	7.36	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.81	4.81	4.81	0.17	0.06	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
250	1.100	7.35	0.84	0.09	0.06	0.00	0.00	0.00	0.00	4.81	4.81	4.81	0.17	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.69	0.06	0.05	0.00	0.00	0.00	0.00	2.40			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
211	1.490	30.52	1.46	716.99	2554.56	2.56	13.80	0.00	13.80	0.00	2.96	0.00	0.00	0.00	0.00	33.47	0.00	0.	0.00
212	1.480	30.54	1.47	720.41	2565.11	2.59	13.83	0.00	13.83	0.00	2.97	0.00	0.00	0.00	0.00	33.34	0.00	0.	0.00
213	1.470	30.55	1.47	723.83	2575.62	2.61	13.87	0.00	13.87	0.00	2.97	0.00	0.00	0.00	0.00	33.22	0.00	0.	0.00
214	1.460	30.56	1.48	727.22	2586.09	2.63	13.90	0.00	13.90	0.00	2.98	0.00	0.00	0.00	0.00	33.09	0.00	0.	0.00
215	1.450	30.58	1.49	730.61	2596.51	2.65	13.94	0.00	13.94	0.00	2.99	0.00	0.00	0.00	0.00	32.96	0.00	0.	0.00
216	1.440	30.59	1.50	733.97	2606.88	2.67	13.97	0.00	13.97	0.00	3.00	0.00	0.00	0.00	0.00	32.83	0.00	0.	0.00
217	1.430	30.60	1.50	737.33	2617.21	2.69	14.00	0.00	14.00	0.00	3.00	0.00	0.00	0.00	0.00	32.71	0.00	0.	0.00
218	1.420	30.62	1.51	740.67	2627.50	2.71	14.03	0.00	14.03	0.00	3.01	0.00	0.00	0.00	0.00	32.58	0.00	0.	0.00
219	1.410	30.63	1.52	743.99	2637.74	2.73	14.06	0.00	14.06	0.00	3.02	0.00	0.00	0.00	0.00	32.45	0.00	0.	0.00
220	1.400	30.64	1.53	747.30	2647.94	2.74	14.09	0.00	14.09	0.00	3.02	0.00	0.00	0.00	0.00	32.32	0.00	0.	0.00
221	1.390	30.66	1.54	750.60	2658.10	2.76	14.12	0.00	14.12	0.00	3.03	0.00	0.00	0.00	0.00	32.20	0.00	0.	0.00
222	1.380	30.67	1.54	753.88	2668.22	2.77	14.15	0.00	14.15	0.00	3.03	0.00	0.00	0.00	0.00	32.07	0.00	0.	0.00
223	1.370	30.68	1.55	757.16	2678.30	2.79	14.17	0.00	14.17	0.00	3.04	0.00	0.00	0.00	0.00	31.94	0.00	0.	0.00
224	1.360	30.70	1.56	760.41	2688.33	2.80	14.20	0.00	14.20	0.00	3.05	0.00	0.00	0.00	0.00	31.81	0.00	0.	0.00
225	1.350	30.71	1.57	763.66	2698.33	2.82	14.22	0.00	14.22	0.00	3.05	0.00	0.00	0.00	0.00	31.69	0.00	0.	0.00
226	1.340	30.72	1.57	766.89	2708.28	2.83	14.25	0.00	14.25	0.00	3.06	0.00	0.00	0.00	0.00	31.56	0.00	0.	0.00
227	1.330	30.74	1.58	770.11	2718.20	2.85	14.27	0.00	14.27	0.00	3.07	0.00	0.00	0.00	0.00	31.43	0.00	0.	0.00
228	1.320	30.75	1.59	773.32	2728.07	2.86	14.29	0.00	14.29	0.00	3.07	0.00	0.00	0.00	0.00	31.30	0.00	0.	0.00
229	1.310	30.76	1.60	776.51	2737.91	2.87	14.32	0.00	14.32	0.00	3.08	0.00	0.00	0.00	0.00	31.18	0.00	0.	0.00
230	1.300	30.78	1.61	779.69	2747.71	2.89	14.34	0.00	14.34	0.00	3.08	0.00	0.00	0.00	0.00	31.05	0.00	0.	0.00
231	1.290	30.79	1.61	782.86	2757.48	2.91	14.36	0.00	14.36	0.00	3.09	0.00	0.00	0.00	0.00	30.92	0.00	0.	0.00
232	1.280	30.80	1.62	786.02	2767.20	2.92	14.38	0.00	14.38	0.00	3.09	0.00	0.00	0.00	0.00	30.80	0.00	0.	0.00
233	1.270	30.81	1.63	789.16	2776.89	2.94	14.40	0.00	14.40	0.00	3.10	0.00	0.00	0.00	0.00	30.67	0.00	0.	0.00
234	1.260	30.83	1.64	792.30	2786.55	2.96	14.42	0.00	14.42	0.00	3.11	0.00	0.00	0.00	0.00	30.54	0.00	0.	0.00

235	1.250	30.84	1.64	795.42	2796.16	2.98	14.44	0.00	14.44	0.00	3.11	0.00	0.00	0.00	0.00	30.41	0.00	0.	0.00
236	1.240	30.85	1.65	798.53	2805.74	2.99	14.46	0.00	14.46	0.00	3.12	0.00	0.00	0.00	0.00	30.28	0.00	0.	0.00
237	1.230	30.87	1.66	801.63	2815.29	3.01	14.48	0.00	14.48	0.00	3.12	0.00	0.00	0.00	0.00	30.16	0.00	0.	0.00
238	1.220	30.88	1.67	804.72	2824.80	3.04	14.50	0.00	14.50	0.00	3.13	0.00	0.00	0.00	0.00	30.03	0.00	0.	0.00
239	1.210	30.89	1.67	807.79	2834.28	3.06	14.51	0.00	14.51	0.00	3.14	0.00	0.00	0.00	0.00	29.90	0.00	0.	0.00
240	1.200	30.91	1.68	810.86	2843.72	3.08	14.53	0.00	14.53	0.00	3.14	0.00	0.00	0.00	0.00	29.77	0.00	0.	0.00
241	1.190	30.92	1.69	813.92	2853.13	3.11	14.55	0.00	14.55	0.00	3.15	0.00	0.00	0.00	0.00	29.65	0.00	0.	0.00
242	1.180	30.93	1.70	816.96	2862.51	3.14	14.57	0.00	14.57	0.00	3.16	0.00	0.00	0.00	0.00	29.52	0.00	0.	0.00
243	1.170	30.95	1.71	819.99	2871.86	3.16	14.58	0.00	14.58	0.00	3.16	0.00	0.00	0.00	0.00	29.39	0.00	0.	0.00
244	1.160	30.96	1.71	823.02	2881.17	3.19	14.60	0.00	14.60	0.00	3.17	0.00	0.00	0.00	0.00	29.26	0.00	0.	0.00
245	1.150	30.97	1.72	826.03	2890.45	3.23	14.61	0.00	14.61	0.00	3.18	0.00	0.00	0.00	0.00	29.14	0.00	0.	0.00
246	1.140	30.99	1.73	829.03	2899.70	3.26	14.63	0.00	14.63	0.00	3.18	0.00	0.00	0.00	0.00	29.01	0.00	0.	0.00
247	1.130	31.00	1.74	832.02	2908.91	3.30	14.64	0.00	14.64	0.00	3.19	0.00	0.00	0.00	0.00	28.88	0.00	0.	0.00
248	1.120	31.01	1.74	835.01	2918.10	3.33	14.66	0.00	14.66	0.00	3.20	0.00	0.00	0.00	0.00	28.75	0.00	0.	0.00
249	1.110	31.03	1.75	837.98	2927.25	3.37	14.67	0.00	14.67	0.00	3.20	0.00	0.00	0.00	0.00	28.63	0.00	0.	0.00
250	1.100	31.04	1.76	840.94	2936.38	3.42	14.69	0.00	14.69	0.00	3.21	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 5 RKM 1.1 to 0.3 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
251	UPR RCH	0.00450	31.04	1.76	840.94	2936.38	3.42	14.69	0.00	14.69	0.00	3.21	0.00	0.00	0.00	28.50	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	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
251	1.10	1.09	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9047.29	0.008	0.554	0.008
252	1.09	1.08	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9098.00	0.008	0.557	0.008
253	1.08	1.07	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9148.71	0.008	0.560	0.008
254	1.07	1.06	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9199.43	0.008	0.563	0.008
255	1.06	1.05	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9250.14	0.008	0.566	0.008
256	1.05	1.04	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9300.85	0.008	0.569	0.008
257	1.04	1.03	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9351.56	0.008	0.572	0.008
258	1.03	1.02	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9402.27	0.008	0.576	0.008
259	1.02	1.01	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9452.99	0.008	0.579	0.008
260	1.01	1.00	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9503.70	0.008	0.582	0.008
261	1.00	0.99	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9554.41	0.008	0.585	0.008
262	0.99	0.98	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9605.12	0.008	0.588	0.008
263	0.98	0.97	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9655.83	0.008	0.591	0.008
264	0.97	0.96	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9706.55	0.008	0.594	0.008
265	0.96	0.95	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9757.26	0.008	0.597	0.008
266	0.95	0.94	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9807.97	0.009	0.600	0.009
267	0.94	0.93	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9858.68	0.009	0.603	0.009
268	0.93	0.92	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9909.39	0.009	0.607	0.009
269	0.92	0.91	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	9960.11	0.009	0.610	0.009
270	0.91	0.90	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10010.82	0.009	0.613	0.009
271	0.90	0.89	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10061.53	0.009	0.616	0.009
272	0.89	0.88	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10112.24	0.009	0.619	0.009
273	0.88	0.87	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10162.95	0.009	0.622	0.009

274	0.87	0.86	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10213.67	0.009	0.625	0.009
275	0.86	0.85	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10264.38	0.009	0.628	0.009
276	0.85	0.84	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10315.09	0.009	0.631	0.009
277	0.84	0.83	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10365.80	0.009	0.634	0.009
278	0.83	0.82	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10416.51	0.009	0.638	0.009
279	0.82	0.81	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10467.22	0.009	0.641	0.009
280	0.81	0.80	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10517.94	0.009	0.644	0.009
281	0.80	0.79	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10568.65	0.009	0.647	0.009
282	0.79	0.78	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10619.36	0.009	0.650	0.009
283	0.78	0.77	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10670.07	0.009	0.653	0.009
284	0.77	0.76	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10720.78	0.009	0.656	0.009
285	0.76	0.75	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10771.50	0.009	0.659	0.009
286	0.75	0.74	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10822.21	0.009	0.662	0.009
287	0.74	0.73	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10872.92	0.009	0.665	0.009
288	0.73	0.72	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10923.63	0.009	0.669	0.010
289	0.72	0.71	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	10974.34	0.010	0.672	0.010
290	0.71	0.70	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11025.06	0.010	0.675	0.010
291	0.70	0.69	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11075.77	0.010	0.678	0.010
292	0.69	0.68	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11126.48	0.010	0.681	0.010
293	0.68	0.67	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11177.19	0.010	0.684	0.010
294	0.67	0.66	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11227.90	0.010	0.687	0.010
295	0.66	0.65	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11278.62	0.010	0.690	0.010
296	0.65	0.64	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11329.33	0.010	0.693	0.010
297	0.64	0.63	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11380.04	0.010	0.696	0.010
298	0.63	0.62	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11430.75	0.010	0.700	0.010
299	0.62	0.61	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11481.46	0.010	0.703	0.010
300	0.61	0.60	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11532.17	0.010	0.706	0.010
301	0.60	0.59	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11582.89	0.010	0.709	0.010
302	0.59	0.58	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11633.60	0.010	0.712	0.010
303	0.58	0.57	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11684.31	0.010	0.715	0.010
304	0.57	0.56	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11735.02	0.010	0.718	0.010
305	0.56	0.55	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11785.73	0.010	0.721	0.010
306	0.55	0.54	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11836.45	0.010	0.724	0.010
307	0.54	0.53	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11887.16	0.010	0.727	0.010
308	0.53	0.52	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11937.87	0.010	0.731	0.010
309	0.52	0.51	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	11988.58	0.010	0.734	0.010
310	0.51	0.50	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12039.29	0.010	0.737	0.010
311	0.50	0.49	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12090.01	0.011	0.740	0.011
312	0.49	0.48	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12140.72	0.011	0.743	0.011
313	0.48	0.47	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12191.43	0.011	0.746	0.011
314	0.47	0.46	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12242.14	0.011	0.749	0.011
315	0.46	0.45	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12292.85	0.011	0.752	0.011
316	0.45	0.44	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12343.57	0.011	0.755	0.011
317	0.44	0.43	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12394.28	0.011	0.758	0.011
318	0.43	0.42	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12444.99	0.011	0.762	0.011
319	0.42	0.41	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12495.70	0.011	0.765	0.011
320	0.41	0.40	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12546.41	0.011	0.768	0.011
321	0.40	0.39	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12597.12	0.011	0.771	0.011
322	0.39	0.38	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12647.84	0.011	0.774	0.011
323	0.38	0.37	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12698.55	0.011	0.777	0.011
324	0.37	0.36	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12749.26	0.011	0.780	0.011
325	0.36	0.35	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12799.97	0.011	0.783	0.011
326	0.35	0.34	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12850.68	0.011	0.786	0.011
327	0.34	0.33	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12901.40	0.011	0.789	0.011
328	0.33	0.32	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	12952.11	0.011	0.793	0.011
329	0.32	0.31	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	13002.82	0.011	0.796	0.011
330	0.31	0.30	0.00450	82.2	0.00017	0.67	1.21	21.49	260.00	214.88	26.00	13053.53	0.011	0.799	0.011
TOT						53.50			20800.37	17190.40					

AVG							0.0002			1.21	21.49						26.00					
CUM								179.16														

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
251	1.090	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.17	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
252	1.080	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
253	1.070	7.35	0.90	0.09	0.06	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.06	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
254	1.060	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.81	3.81	3.81	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
255	1.050	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
256	1.040	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
257	1.030	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
258	1.020	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
259	1.010	7.35	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
260	1.000	7.34	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.82	3.82	3.82	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
261	0.990	7.34	0.90	0.09	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.37	0.00	0.00	0.00	0.00
262	0.980	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
263	0.970	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
264	0.960	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
265	0.950	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
266	0.940	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.83	3.83	3.83	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
267	0.930	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
268	0.920	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
269	0.910	7.34	0.90	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
270	0.900	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
271	0.890	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
272	0.880	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.84	3.84	3.84	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
273	0.870	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
274	0.860	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.18	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
275	0.850	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
276	0.840	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
277	0.830	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
278	0.820	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.85	3.85	3.85	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
279	0.810	7.33	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
280	0.800	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
281	0.790	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
282	0.780	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
283	0.770	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
284	0.760	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.86	3.86	3.86	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
285	0.750	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
286	0.740	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
287	0.730	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
288	0.720	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
289	0.710	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
290	0.700	7.32	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.87	3.87	3.87	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
291	0.690	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
292	0.680	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
293	0.670	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
294	0.660	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
295	0.650	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
296	0.640	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.88	3.88	3.88	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
297	0.630	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
298	0.620	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
299	0.610	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00

300	0.600	7.31	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
301	0.590	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
302	0.580	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.89	3.89	3.89	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
303	0.570	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
304	0.560	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
305	0.550	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
306	0.540	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
307	0.530	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.19	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
308	0.520	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.90	3.90	3.90	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
309	0.510	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
310	0.500	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
311	0.490	7.30	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
312	0.480	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
313	0.470	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
314	0.460	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.91	3.91	3.91	0.20	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
315	0.450	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
316	0.440	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
317	0.430	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
318	0.420	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
319	0.410	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.92	3.92	3.92	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
320	0.400	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
321	0.390	7.29	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
322	0.380	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
323	0.370	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
324	0.360	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
325	0.350	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.93	3.93	3.93	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
326	0.340	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
327	0.330	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
328	0.320	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
329	0.310	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.20	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
330	0.300	7.28	0.91	0.10	0.07	0.00	0.00	0.00	0.00	3.94	3.94	3.94	0.21	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.74	0.06	0.05	0.00	0.00	0.00	0.00	1.90			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
251	1.090	31.05	1.76	843.69	2944.83	3.46	14.70	0.00	14.70	0.00	3.22	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
252	1.080	31.05	1.77	846.25	2952.72	3.50	14.71	0.00	14.71	0.00	3.23	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
253	1.070	31.06	1.77	848.80	2960.58	3.53	14.72	0.00	14.72	0.00	3.23	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
254	1.060	31.07	1.77	851.34	2968.42	3.57	14.73	0.00	14.73	0.00	3.24	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
255	1.050	31.07	1.77	853.88	2976.24	3.60	14.74	0.00	14.74	0.00	3.24	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
256	1.040	31.08	1.78	856.42	2984.05	3.63	14.75	0.00	14.75	0.00	3.25	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
257	1.030	31.09	1.78	858.95	2991.84	3.66	14.76	0.00	14.76	0.00	3.26	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
258	1.020	31.10	1.78	861.47	2999.60	3.69	14.77	0.00	14.77	0.00	3.26	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
259	1.010	31.10	1.78	863.98	3007.35	3.72	14.77	0.00	14.77	0.00	3.27	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
260	1.000	31.11	1.79	866.49	3015.08	3.75	14.78	0.00	14.78	0.00	3.28	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
261	0.990	31.12	1.79	869.00	3022.79	3.77	14.78	0.00	14.78	0.00	3.28	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
262	0.980	31.12	1.79	871.49	3030.48	3.80	14.79	0.00	14.79	0.00	3.29	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
263	0.970	31.13	1.80	873.98	3038.16	3.82	14.80	0.00	14.80	0.00	3.30	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
264	0.960	31.14	1.80	876.47	3045.81	3.85	14.80	0.00	14.80	0.00	3.30	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
265	0.950	31.14	1.80	878.95	3053.45	3.87	14.80	0.00	14.80	0.00	3.31	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
266	0.940	31.15	1.80	881.42	3061.07	3.89	14.81	0.00	14.81	0.00	3.31	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
267	0.930	31.16	1.81	883.89	3068.67	3.91	14.81	0.00	14.81	0.00	3.32	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

268	0.920	31.16	1.81	886.36	3076.26	3.93	14.81	0.00	14.81	0.00	3.33	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
269	0.910	31.17	1.81	888.81	3083.83	3.95	14.81	0.00	14.81	0.00	3.33	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
270	0.900	31.18	1.82	891.26	3091.38	3.97	14.81	0.00	14.81	0.00	3.34	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
271	0.890	31.18	1.82	893.71	3098.91	3.99	14.81	0.00	14.81	0.00	3.35	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
272	0.880	31.19	1.82	896.15	3106.43	4.01	14.81	0.00	14.81	0.00	3.35	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
273	0.870	31.20	1.82	898.59	3113.93	4.03	14.81	0.00	14.81	0.00	3.36	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
274	0.860	31.20	1.83	901.02	3121.41	4.05	14.81	0.00	14.81	0.00	3.37	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
275	0.850	31.21	1.83	903.44	3128.88	4.06	14.81	0.00	14.81	0.00	3.38	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
276	0.840	31.22	1.83	905.86	3136.33	4.08	14.81	0.00	14.81	0.00	3.38	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
277	0.830	31.23	1.83	908.27	3143.76	4.10	14.81	0.00	14.81	0.00	3.39	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
278	0.820	31.23	1.84	910.68	3151.18	4.11	14.80	0.00	14.80	0.00	3.40	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
279	0.810	31.24	1.84	913.09	3158.58	4.13	14.80	0.00	14.80	0.00	3.40	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
280	0.800	31.25	1.84	915.48	3165.97	4.15	14.80	0.00	14.80	0.00	3.41	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
281	0.790	31.25	1.85	917.88	3173.34	4.16	14.79	0.00	14.79	0.00	3.42	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
282	0.780	31.26	1.85	920.26	3180.69	4.18	14.79	0.00	14.79	0.00	3.43	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
283	0.770	31.27	1.85	922.65	3188.03	4.20	14.78	0.00	14.78	0.00	3.43	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
284	0.760	31.27	1.85	925.02	3195.35	4.21	14.78	0.00	14.78	0.00	3.44	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
285	0.750	31.28	1.86	927.40	3202.66	4.23	14.77	0.00	14.77	0.00	3.45	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
286	0.740	31.29	1.86	929.76	3209.95	4.25	14.77	0.00	14.77	0.00	3.46	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
287	0.730	31.29	1.86	932.13	3217.22	4.26	14.76	0.00	14.76	0.00	3.47	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
288	0.720	31.30	1.86	934.48	3224.48	4.28	14.75	0.00	14.75	0.00	3.47	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
289	0.710	31.31	1.87	936.84	3231.73	4.30	14.74	0.00	14.74	0.00	3.48	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
290	0.700	31.32	1.87	939.19	3238.96	4.31	14.73	0.00	14.73	0.00	3.49	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
291	0.690	31.32	1.87	941.53	3246.18	4.33	14.73	0.00	14.73	0.00	3.50	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
292	0.680	31.33	1.88	943.87	3253.38	4.35	14.72	0.00	14.72	0.00	3.51	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
293	0.670	31.34	1.88	946.20	3260.56	4.37	14.71	0.00	14.71	0.00	3.52	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
294	0.660	31.34	1.88	948.53	3267.74	4.39	14.70	0.00	14.70	0.00	3.53	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
295	0.650	31.35	1.88	950.85	3274.89	4.41	14.69	0.00	14.69	0.00	3.54	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
296	0.640	31.36	1.89	953.17	3282.04	4.42	14.68	0.00	14.68	0.00	3.55	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
297	0.630	31.36	1.89	955.49	3289.16	4.44	14.66	0.00	14.66	0.00	3.56	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
298	0.620	31.37	1.89	957.80	3296.28	4.46	14.65	0.00	14.65	0.00	3.57	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
299	0.610	31.38	1.89	960.10	3303.38	4.48	14.64	0.00	14.64	0.00	3.58	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
300	0.600	31.38	1.90	962.40	3310.46	4.51	14.63	0.00	14.63	0.00	3.59	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
301	0.590	31.39	1.90	964.70	3317.54	4.53	14.61	0.00	14.61	0.00	3.60	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
302	0.580	31.40	1.90	966.99	3324.59	4.55	14.60	0.00	14.60	0.00	3.61	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
303	0.570	31.40	1.91	969.28	3331.64	4.57	14.59	0.00	14.59	0.00	3.62	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
304	0.560	31.41	1.91	971.56	3338.67	4.60	14.57	0.00	14.57	0.00	3.63	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
305	0.550	31.42	1.91	973.84	3345.69	4.62	14.56	0.00	14.56	0.00	3.64	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
306	0.540	31.43	1.91	976.12	3352.69	4.64	14.54	0.00	14.54	0.00	3.65	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
307	0.530	31.43	1.92	978.39	3359.68	4.67	14.53	0.00	14.53	0.00	3.67	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
308	0.520	31.44	1.92	980.65	3366.66	4.70	14.51	0.00	14.51	0.00	3.68	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
309	0.510	31.45	1.92	982.91	3373.62	4.72	14.49	0.00	14.49	0.00	3.69	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
310	0.500	31.45	1.93	985.17	3380.57	4.75	14.48	0.00	14.48	0.00	3.70	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
311	0.490	31.46	1.93	987.42	3387.51	4.78	14.46	0.00	14.46	0.00	3.72	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
312	0.480	31.47	1.93	989.67	3394.43	4.81	14.44	0.00	14.44	0.00	3.73	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
313	0.470	31.47	1.93	991.91	3401.34	4.84	14.42	0.00	14.42	0.00	3.74	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
314	0.460	31.48	1.94	994.15	3408.24	4.88	14.40	0.00	14.40	0.00	3.76	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
315	0.450	31.49	1.94	996.39	3415.12	4.91	14.38	0.00	14.38	0.00	3.77	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
316	0.440	31.49	1.94	998.62	3422.00	4.94	14.36	0.00	14.36	0.00	3.78	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
317	0.430	31.50	1.94	1000.85	3428.86	4.98	14.34	0.00	14.34	0.00	3.80	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
318	0.420	31.51	1.95	1003.07	3435.70	5.02	14.32	0.00	14.32	0.00	3.81	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
319	0.410	31.51	1.95	1005.29	3442.54	5.05	14.30	0.00	14.30	0.00	3.83	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
320	0.400	31.52	1.95	1007.51	3449.36	5.09	14.28	0.00	14.28	0.00	3.84	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
321	0.390	31.53	1.96	1009.72	3456.17	5.13	14.26	0.00	14.26	0.00	3.86	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
322	0.380	31.53	1.96	1011.93	3462.97	5.18	14.24	0.00	14.24	0.00	3.87	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
323	0.370	31.54	1.96	1014.13	3469.76	5.22	14.21	0.00	14.21	0.00	3.89	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
324	0.360	31.55	1.96	1016.33	3476.53	5.27	14.19	0.00	14.19	0.00	3.91	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
325	0.350	31.56	1.97	1018.53	3483.30	5.31	14.17	0.00	14.17	0.00	3.92	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
326	0.340	31.56	1.97	1020.72	3490.05	5.36	14.14	0.00	14.14	0.00	3.94	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

327	0.330	31.57	1.97	1022.91	3496.79	5.41	14.12	0.00	14.12	0.00	3.96	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
328	0.320	31.58	1.97	1025.09	3503.51	5.47	14.09	0.00	14.09	0.00	3.98	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
329	0.310	31.58	1.98	1027.27	3510.23	5.52	14.07	0.00	14.07	0.00	4.00	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
330	0.300	31.59	1.98	1029.45	3516.93	5.58	14.04	0.00	14.04	0.00	4.01	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

FINAL REPORT HEADWATER BAYOU CANE WATERSHED MODEL
REACH NO. 6 RKM 0.3 to 0.0 BAYOU CANE FINAL CALIBRATION RUN

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

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
331	UPR RCH	0.00450	31.59	1.98	1029.45	3516.93	5.58	14.04	0.00	14.04	0.00	4.01	0.00	0.00	0.00	28.50	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	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
331	0.30	0.29	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13100.29	0.013	0.876	0.013
332	0.29	0.28	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13147.04	0.013	0.879	0.013
333	0.28	0.27	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13193.80	0.013	0.882	0.013
334	0.27	0.26	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13240.56	0.013	0.885	0.013
335	0.26	0.25	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13287.31	0.013	0.889	0.013
336	0.25	0.24	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13334.07	0.013	0.892	0.013
337	0.24	0.23	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13380.82	0.013	0.895	0.013
338	0.23	0.22	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13427.58	0.013	0.898	0.013
339	0.22	0.21	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13474.33	0.013	0.901	0.013
340	0.21	0.20	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13521.09	0.013	0.904	0.013
341	0.20	0.19	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13567.85	0.013	0.907	0.013
342	0.19	0.18	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13614.60	0.013	0.910	0.013
343	0.18	0.17	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13661.36	0.013	0.914	0.013
344	0.17	0.16	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13708.11	0.014	0.917	0.014
345	0.16	0.15	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13754.87	0.014	0.920	0.014
346	0.15	0.14	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13801.63	0.014	0.923	0.014
347	0.14	0.13	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13848.38	0.014	0.926	0.014
348	0.13	0.12	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13895.14	0.014	0.929	0.014
349	0.12	0.11	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13941.89	0.014	0.932	0.014
350	0.11	0.10	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	13988.65	0.014	0.935	0.014
351	0.10	0.09	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14035.41	0.014	0.939	0.014
352	0.09	0.08	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14082.16	0.014	0.942	0.014
353	0.08	0.07	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14128.92	0.014	0.945	0.014
354	0.07	0.06	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14175.67	0.014	0.948	0.014
355	0.06	0.05	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14222.43	0.014	0.951	0.014
356	0.05	0.04	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14269.18	0.014	0.954	0.014
357	0.04	0.03	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14315.94	0.014	0.957	0.014
358	0.03	0.02	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14362.70	0.014	0.960	0.014
359	0.02	0.01	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14409.45	0.014	0.964	0.014
360	0.01	0.00	0.00450	82.2	0.00020	0.59	1.16	19.81	229.03	198.12	22.90	14456.21	0.014	0.967	0.014
TOT						17.67			6870.80	5943.60					
AVG					0.0002		1.16	19.81			22.90				
CUM						196.83									

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

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
331	0.290	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.43	0.00	0.00	0.00	0.00
332	0.280	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
333	0.270	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
334	0.260	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
335	0.250	7.28	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
336	0.240	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
337	0.230	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00
338	0.220	7.29	0.95	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
339	0.210	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
340	0.200	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
341	0.190	7.29	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
342	0.180	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
343	0.170	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
344	0.160	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.41	0.00	0.00	0.00	0.00
345	0.150	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
346	0.140	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
347	0.130	7.30	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
348	0.120	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
349	0.110	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
350	0.100	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00
351	0.090	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
352	0.080	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
353	0.070	7.31	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
354	0.060	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
355	0.050	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
356	0.040	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
357	0.030	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.39	0.00	0.00	0.00	0.00
358	0.020	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
359	0.010	7.32	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
360	0.000	7.33	0.95	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.07	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.00
AVG 20 DEG C RATE			0.77	0.06	0.05	0.00	0.00	0.00	0.00	0.00			0.10	0.05	0.00	0.00	0.00	0.00			0.00	0.00	0.00

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

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

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	Chloride mg/L	Conduct umhos/cm	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m^3	COLI #/100mL	NCM
331	0.290	31.58	1.98	1031.67	3523.75	5.64	14.01	0.00	14.01	0.00	4.03	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
332	0.280	31.56	1.98	1033.92	3530.70	5.69	13.98	0.00	13.98	0.00	4.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
333	0.270	31.55	1.99	1036.17	3537.63	5.75	13.94	0.00	13.94	0.00	4.06	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
334	0.260	31.54	1.99	1038.42	3544.56	5.80	13.90	0.00	13.90	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
335	0.250	31.52	1.99	1040.67	3551.48	5.86	13.85	0.00	13.85	0.00	4.08	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
336	0.240	31.51	1.99	1042.91	3558.38	5.91	13.79	0.00	13.79	0.00	4.08	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
337	0.230	31.49	1.99	1045.15	3565.28	5.95	13.73	0.00	13.73	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
338	0.220	31.48	1.99	1047.39	3572.17	6.00	13.66	0.00	13.66	0.00	4.07	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
339	0.210	31.47	2.00	1049.63	3579.06	6.04	13.59	0.00	13.59	0.00	4.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
340	0.200	31.45	2.00	1051.86	3585.93	6.09	13.51	0.00	13.51	0.00	4.04	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
341	0.190	31.44	2.00	1054.09	3592.79	6.13	13.42	0.00	13.42	0.00	4.02	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

342	0.180	31.43	2.00	1056.31	3599.65	6.17	13.33	0.00	13.33	0.00	4.00	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
343	0.170	31.41	2.00	1058.54	3606.50	6.20	13.23	0.00	13.23	0.00	3.97	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
344	0.160	31.40	2.00	1060.76	3613.33	6.24	13.13	0.00	13.13	0.00	3.94	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
345	0.150	31.39	2.01	1062.97	3620.16	6.27	13.02	0.00	13.02	0.00	3.91	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
346	0.140	31.37	2.01	1065.19	3626.98	6.31	12.91	0.00	12.91	0.00	3.87	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
347	0.130	31.36	2.01	1067.40	3633.80	6.34	12.79	0.00	12.79	0.00	3.83	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
348	0.120	31.34	2.01	1069.61	3640.60	6.37	12.67	0.00	12.67	0.00	3.79	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
349	0.110	31.33	2.01	1071.82	3647.40	6.40	12.54	0.00	12.54	0.00	3.74	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
350	0.100	31.32	2.01	1074.02	3654.18	6.42	12.40	0.00	12.40	0.00	3.68	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
351	0.090	31.30	2.01	1076.22	3660.96	6.45	12.26	0.00	12.26	0.00	3.63	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
352	0.080	31.29	2.02	1078.42	3667.73	6.47	12.11	0.00	12.11	0.00	3.57	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
353	0.070	31.28	2.02	1080.62	3674.49	6.49	11.96	0.00	11.96	0.00	3.51	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
354	0.060	31.26	2.02	1082.81	3681.24	6.51	11.80	0.00	11.80	0.00	3.44	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
355	0.050	31.25	2.02	1085.00	3687.99	6.53	11.63	0.00	11.63	0.00	3.37	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
356	0.040	31.23	2.02	1087.19	3694.72	6.55	11.46	0.00	11.46	0.00	3.29	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
357	0.030	31.22	2.03	1089.37	3701.45	6.57	11.29	0.00	11.29	0.00	3.21	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
358	0.020	31.21	2.03	1091.55	3708.17	6.58	11.11	0.00	11.11	0.00	3.13	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
359	0.010	31.19	2.03	1093.73	3714.88	6.59	10.92	0.00	10.92	0.00	3.05	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00
360	0.000	31.18	2.03	1095.91	3721.59	6.61	10.73	0.00	10.73	0.00	2.96	0.00	0.00	0.00	0.00	28.50	0.00	0.	0.00

STREAM SUMMARY
HEADWATER

BAYOU CANE WATERSHED MODEL
BAYOU CANE FINAL CALIBRATION RUN

TRAVEL TIME	=	196.83 DAYS		
MAXIMUM EFFLUENT	=	82.22 PERCENT		
FLOW	=	0.00080 TO	0.00450	m^3/s
DISPERSION	=	0.0097 TO	0.9667	m^2/s
VELOCITY	=	0.00014 TO	0.00083	m/s
DEPTH	=	1.02 TO	1.21	m
WIDTH	=	4.88 TO	28.35	m
BOD DECAY	=	0.03 TO	0.11	per day
NH3 DECAY	=	0.00 TO	0.00	per day
SOD	=	0.00 TO	6.56	$g/m^2/d$
NH3 SOURCE	=	0.00 TO	0.00	$g/m^2/d$
REAERATION	=	0.71 TO	0.95	per day
BOD SETTLING	=	0.06 TO	0.07	per day
NBOD DECAY	=	0.00 TO	0.28	per day
NBOD SETTLING	=	0.06 TO	0.07	per day
TEMPERATURE	=	28.14 TO	31.59	deg C
DISSOLVED OXYGEN	=	0.83 TO	6.61	mg/L

.....BEGIN SENSITIVITY RUN 1 ON PARAMETER SET 1 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 2 ON PARAMETER SET 1 AND COLUMN 2

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.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  3 ON PARAMETER SET  2 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  44 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  4 ON PARAMETER SET  2 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  5 ON PARAMETER SET  3 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  6 ON PARAMETER SET  3 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  7 ON PARAMETER SET  4 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN  8 ON PARAMETER SET  4 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
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     .....BEGIN SENSITIVITY RUN  9 ON PARAMETER SET  5 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 10 ON PARAMETER SET  5 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  19 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen



     .....BEGIN SENSITIVITY RUN 11 ON PARAMETER SET  6 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 12 ON PARAMETER SET  6 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 13 ON PARAMETER SET  7 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 14 ON PARAMETER SET  7 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 15 ON PARAMETER SET  8 AND COLUMN  1
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     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 16 ON PARAMETER SET  8 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 17 ON PARAMETER SET  9 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  37 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 18 ON PARAMETER SET  9 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  18 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 19 ON PARAMETER SET 10 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 20 ON PARAMETER SET 10 AND COLUMN  2
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED



     .....BEGIN SENSITIVITY RUN 21 ON PARAMETER SET 11 AND COLUMN  1
     .....HYDRAULIC CALCULATIONS COMPLETED
     .....TRIDIAGONAL MATRIX TERMS INITIALIZED
     .....OXYGEN DEPENDENT RATES CONVERGENT IN  19 ITERATIONS
     .....CONSTITUENT CALCULATIONS COMPLETED
***** WARNING:  NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen
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.....BEGIN SENSITIVITY RUN 22 ON PARAMETER SET 11 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 23 ON PARAMETER SET 12 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  32 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 24 ON PARAMETER SET 12 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 25 ON PARAMETER SET 13 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 26 ON PARAMETER SET 13 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 27 ON PARAMETER SET 14 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 28 ON PARAMETER SET 14 AND COLUMN  2
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.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 29 ON PARAMETER SET 15 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 30 ON PARAMETER SET 15 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 31 ON PARAMETER SET 16 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 32 ON PARAMETER SET 16 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 33 ON PARAMETER SET 17 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 34 ON PARAMETER SET 17 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
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.....BEGIN SENSITIVITY RUN 35 ON PARAMETER SET 18 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 36 ON PARAMETER SET 18 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 37 ON PARAMETER SET 19 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 38 ON PARAMETER SET 19 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 39 ON PARAMETER SET 20 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 40 ON PARAMETER SET 20 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 41 ON PARAMETER SET 21 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
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.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 42 ON PARAMETER SET 21 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 43 ON PARAMETER SET 22 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 44 ON PARAMETER SET 22 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 45 ON PARAMETER SET 23 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 46 ON PARAMETER SET 23 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 47 ON PARAMETER SET 24 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
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.....BEGIN SENSITIVITY RUN 48 ON PARAMETER SET 24 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 49 ON PARAMETER SET 25 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 50 ON PARAMETER SET 25 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 51 ON PARAMETER SET 26 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 52 ON PARAMETER SET 26 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 53 ON PARAMETER SET 27 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 54 ON PARAMETER SET 27 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
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.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 55 ON PARAMETER SET 28 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  20 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 56 ON PARAMETER SET 28 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 57 ON PARAMETER SET 29 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  32 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED



.....BEGIN SENSITIVITY RUN 58 ON PARAMETER SET 29 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN  21 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED


.....EXECUTION COMPLETED
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