APPENDIX A:
Point Source Discharge Information

Table A-1. Active point source discharge permit information

AI	Permit #	Outfall	Outfall Type	Facility name	Facility type	Expir. Date	Receiving waterbody
1036	LA0122530	001	wastewater associated with the operation of a construction/demolition debris landfil	New Orleans City of Sanitation Dept - Gentilly Landfill	electric, gas, and sanitary services	06/30/12	unnamed ditch along Almonaster Blvd to Intracoastal Waterway
1036	LA0122530	002	wastewater associated with the operation of a construction/demolition debris landfil	New Orleans City of Sanitation Dept - Gentilly Landfill	electric, gas, and sanitary services	06/30/12	unnamed ditch along Almonaster Blvd to Intracoastal Waterway
1036	LA0122530	003	landfill wastewater	New Orleans City of Sanitation Dept - Gentilly Landfill	electric, gas, and sanitary services	06/30/12	unnamed ditch along Almonaster Blvd to Intracoastal Waterway
1140	LAG480244	001	cooling tower overflow and stormwater runoff	Folger Coffee Co - Gentilly Plant	food and kindred products	07/31/06	drainage ditch to Lake Michoud
2064	LAU004057			Air Liquide	general agency interest		
3192	LAR05M840		MSGP stormwater	US Gypsum Co	stone, clay, glass, and concrete products	04/30/11	Morrison Canal to Lake Pontchartrain
3520	LAR05N595		treated leachate, sewage and stormwater from municipal landfill	Recovery 1 Landfill	electric, gas, and sanitary services	04/30/11	Lagoon Maxent to Intracoastal Waterway to Lake Borgne
5163	LAU009199			Hamps Michoud Yard	electronic & electr. equip., exc. comp. equip		
6157	LAR05M563		MSGP stormwater	United Parcel Service Inc (UPS)	motor freight transportation and warehousing	04/30/11	LAKE PONTCHARTRAIN
7032	LAG110086	001	process wastewater from external washing of trucks and equipment, stormwater runoff from process area and product storage		stone, clay, glass, and concrete products	03/14/14	Intracoastal Waterway
7032	LAG110086	002	process wastewater from plant and equipment wash down, stormwater runoff from the process area and product storage area		stone, clay, glass, and concrete products	03/14/14	Intracoastal Waterway
7032	LAR05M010		stormwater	Hanson Pipe & Products Inc - Michoud Plant	stone, clay, glass, and concrete products	04/30/11	Intracoastal Waterway
9145	LA0052256	002	stormwater	NASA Michoud Assembly Facility	transportation equipment	12/31/15	New Orleans stormwater drain system
9145	LA0052256	003	stormwater	NASA Michoud Assembly Facility	transportation equipment	12/31/15	New Orleans stormwater drain system
9886	LAR05M298		stormwater	UPS Freight (NOR)	motor freight transportation and warehousing	04/30/11	Lake Pontchartrain
11010	LA0065307	001	process wastewater from equipment maintenance washdown, treated petroleum contaminated groundwater, and stormwater	CSX Transportation	railroad transportation	11/30/13	internal ditch to Almonaster Avenue roadside ditch to Inner Harbor Navigational Canal

AI	Permit #	Outfall	Outfall Type	Facility name	Facility type	Expir. Date	Receiving waterbody
11010	LA0065307	003	intermittent process wastewater from equipment maintenance and washdown, treated petroleum contaminated groundwater, and stormwater as overflow from the equalization basin	CSX Transportation	railroad transportation	11/30/13	internal ditch to Almonaster Avenue roadside ditch to Inner Harbor Navigational Canal
14470	LAR05M754		MSGP stormwater	Stolt Offshore Inc	general agency interest	04/30/11	Michoud Canal to Intracoastal Waterway
14533	LAR05N830		MSGP stormwater	Area Auto & Truck Parts	wholesale trade-durable goods		ditches along Old Gentilly and Almonaster Road
28069	LAR05N448		MSGP stormwater	Acme Auto Wreckers	automotive repair, services, and parking	05/28/11	
28107	LAR05P201		MSGP stormwater	9130 Almonaster Site - Hamp Enterprises LLC	nonclassifiable establishments	04/30/11	Intracoastal Waterway
29947	LA0091201	001	stormwater runoff	Delgado Community College Fire School	educational services	09/30/14	Effluent pipe-Old Gentilly Road ditch-Michoud Boulevard ditch-Bayou Michoud
31002	LAR05M767		stormwater runoff	Whitney's Industrial Auto Wreckers Inc	not classified	05/03/16	Lake Pontchartrain
33961	LAR05N220		stormwater	Almonaster Salvage Yard	business corporation	05/03/16	Industrial Canal
40560	LAR05M515		stormwater	American Freightways Inc	motor freight transportation and warehousing	04/30/11	intracoastal canal
47316	LAG679102		hydrostatic test wastewater	FCC Environmental LLC	business services	01/31/13	Intracoastal Waterway
47316	LAR05N249		stormwater	FCC Environmental LLC	business services	04/30/11	Intracoastal Waterway
51479	LAR05M802		MSGP stormwater	Coleman's Auto Salvage	wholesale trade-durable goods	04/30/11	
51480	LAR05N930		MSGP stormwater	Raisinman Towing & Gulf South Automotive	automotive repair, services, and parking	12/31/12	Intracoastal Waterway
69984	LA0098272	001	carwash	Texaco 44-398-0112	auto dealers and gasoline service stations	No permit	Morrison Canal
80784	LA0123528	001	landfill wastewater and non-contact stormwater	Chef Menteur C & D Landfill	closed construction demolition debris & woodwaste landfill	08/27/13	Maxent Lagoon to Intracoastal Waterway to Lake Borgne
82006	LAU003967			Temple Auto Wreckers	electric, gas, and sanitary services		
83388	LAG110208	001	process wastewater and process area storm water from cement and concrete facilities	Lafarge North America Inc - New Orleans East Plant	stone, clay, glass, and concrete products	05/14/14	LAKE PONTCHARTRAIN
84174	LAR05N943		MSGP stormwater	The Real Industrial Auto Wreckers Inc	wholesale trade-durable goods	04/30/11	Intracoastal Canal
100068	LAR10G001		construction stormwater	St Mary's Academy - JLG Structures	educational services	10/14/14	Duyer Canal

AI	Permit #	Outfall	Outfall Type	Facility name	Facility type	Expir. Date	Receiving waterbody
100484	LAR05N621		MSGP stormwater	City Auto Wreckers Inc	automotive repair, services, and parking	04/30/11	LAKE PONTCHARTRAIN
101180	LAU003791			BAC of New Orleans	nonclassifiable establishments		
101633	LAR05N925		MSGP stormwater	B Automotive	auto dealers and gasoline service stations	12/13/12	parish ditch into Intracoastal Waterway Mississippi
102691	LAR05N347		MSGP stormwater	Magee & Son	nonclassifiable establishments	04/30/11	canal to Mississippi River
114425	LAU004961			Coleman's Wrecker Service	automotive repair, services, and parking		
121663	LAG532008	001	treated sanitary wastewater	USFWS - Bayou Sauvage National Wildlife Refuge	federal agency	11/30/12	Maxent Canal - Intracoastal Waterway
147019	LAR10G052		construction stormwater	Gaslight Apartments - Walton Construction Co LLC Southern	nonclassifiable establishments	09/30/14	Benson Canal
147517	LAR05N908		stormwater	SCC1 - SC Crushing LLC	nonclassifiable establishments	04/30/11	New Orleans MS4
147920	LAG490062	002	process wastewater and process area stormwater discharges into waterbodies designated for primary contact recreation	Chapel Hill LLC - Little Pine Island Dirt Pit	min. & quarrying of nonmet. min., exc. fuels	03/13/15	Settlement pond-unnamed ditch-LaGoon Maxent-Lake Borgne
150049	LAG533150	001	treated sanitary wastewater	JWA Trucking LLC	nonclassifiable establishments	11/30/12	Local drainage-parish pumping station-Mississippi River Gulf Outlet
157717	LAR10H378		construction stormwater	Fannie C. Williams School	educational services	10/09/16	Storm sewer to Lake Pontchartrain
158530	LAR10F184		construction stormwater	IHNC Field Management Office/Vulcan Yard - Shaw Environmental & Infrastructure	nonclassifiable establishments	02/13/15	Michoud Canal - Gulf Intracoastal Waterway
159486	LAR10F258		construction stormwater	US Coast Guard Integrated Support Command Facility - NASA Michoud Assembly Facility	nonclassifiable establishments	09/30/14	Intercoastal Waterway
161169	LAR10F385		construction stormwater	Southeast LA Urban Flood Control Project - USArmy Corps of Engineers PM-RP	nonclassifiable establishments	09/30/14	Dwyer canal into the Inner Harbor Navigation Canal
161284	LAR10F416		construction stormwater	Xperts Gulf LLC - Earthen Channel Within Levee - Ray Alexis Miranda	nonclassifiable establishments	09/30/14	LAKE PONTCHARTRAIN
161371	LAR10F398		construction stormwater	SE LA Urban Flood Control Project Dwyer Rd Intake Canal - Hill Brothers Construction Co Inc	nonclassifiable establishments	02/13/15	Dwyer Canal - Inner Harbor Navigational Canal
161687	LAR10F426		construction stormwater	Inner Harbor Navigation Canal Hurrican Protection System - Shaw Environmental & Infrastructure	nonclassifiable establishments	09/30/14	Bayou Bienvenue to Gulf Intracoastal Waterway to Mississippi Gulf Outlet

AI	Permit #	Outfall	Outfall Type	Facility name	Facility type	Expir. Date	Receiving waterbody
166208	LAR05P173		stormwater	Lafarge North America - Hagan Plant	stone, clay, glass, and concrete products	04/30/11	Intracoastal Waterway
167124	LAG490106	002	process wastewater and process area storm water	Delta Mining Co LLC - East Over Lake	min. & quarrying of nonmet. min., exc. fuels	01/31/15	pipe to noname ditch to Connon Canal to Dwyer Canal/Inner Hagor to Lake Pontchartrain
167564	LAR10G024		construction stormwater	USACE - New Orleans District - Contract # W912P8-08-D-0037,000	nonclassifiable establishments	09/30/14	Michoud Canal/MRGO GIWW
169025	LAR05P239		MSGP stormwater	K M Construction Inc	wholesale trade-durable goods	04/30/11	Industrial Canal
170344	LAG119045	001	stormwater	Metro # 2 Con-E-Co - Metro Materials Inc	nonclassifiable establishments	03/14/14	
171246	LAR10G512		construction stormwater	Lakefront Airport T-Walls LVP 105.01 West NO East - RCG Enterprises Inc	nonclassifiable establishments	09/30/14	City drainage system-Lake Pontchartrain
171621	LAR10G568		construction stormwater	LPV-105.02 East Reach Lakefront Airport T-Walls - David Boland Inc	nonclassifiable establishments	09/30/14	Lake Pontchartrain
90429	LAS000301		MS4 Permit	New Orleans City of - MS4	MS4 Permit	12/04/12	041001, 041302, 041401
124806				Orleans Levee District - MS4			Lake Pontchartrain, Lake Pontchartrain Drainage Canals, Bayou St. John, Inner Harbor Navigational Canal, Mississippi River
124808				LADOTD District 02 - MS4			Lake Pontchartrain, Lake Pontchartrain Drainage Canals
124810				Sewerage & Water Board of New Orleans - MS4			Lake Pontchartrain, Lake Pontchartrain Drainage Canals, Bayou St. John, Inner Harbor Navigational Canal
108424	LAR043001		MS4 Permit	LADOTD - Statewide MS4 coverage	MS4 Permit	12/04/12	Including: Lake Pontchartrain, Lake Pontchartrain Drainage Canals, Bayou St. John, Inner Harbor Navigational Canal

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

Table A-2. Terminated point source discharge permits

AI	Permit #	Facility name	Facility type	Expiration date
2291	LAG470055	Banner Chevrolet Inc	Auto dealers and gasoline service stations	Terminated 1/29/2003
5351	LAR05M114	Former Louisiana Army National Guard - AASF #1	State agency	Terminated 03/09/2009
9886	LAR05M298	UPS Freight (NOR)	Motor Freight Transportation and Warehousing	Cancelled 2/6/07
24326	LA0108111	Triple E Transport Inc	General agency interest	Terminated
24545	LAR05M339	Chemical Express	General agency interest	Terminated 8/21/06
40519	LAR05M196	Air Reldan Inc	General agency interest	Terminated 1/4/06
40658	LAR05M115	Aviation Bus Jet Center	General agency interest	Terminated
40905	LAR05M311	Cal Hingle Auto & Truck Inc	Automotive Repair, Services, and Parking	Terminated 06/15/2006

AI	Permit #	Facility name	Facility type	Expiration date
41607	LAR05M117	General Aviation of No Inc	General agency interest	Terminated 12/12/07
42517	LAR05M118	Million Air New Orleans	General agency interest	Terminated 03/14/2008
42893	LAR05M334	Praxair Inc CO2 - Dry Ice	General agency interest	Terminated
43494	LAR05M197	Taylor Energy Co LLC	General agency interest	Terminated 09/11/2006
80784	LAR10D485	Chef Menteur C&D Disposal Facility	Electric, Gas, and Sanitary Services	Terminated 02/26/2010
86751	LAG480059	Global Lime Calciner of LA LLC	Stone, Clay, Glass, and Concrete Products	Terminated 9/18/2006
107401	LAR10C119	Crescent Crown Distribution Center	Nonclassifiable establishments	Terminated 02/17/2010
119266	LA0119652	Crescent City Power LLC - Crescent City Power	Electric, gas, and sanitary services	Request for termination 10/30/2006
151017	LAR10E243	Lowes of New Orleans East - Donahue Favret Contractors Inc -	Nonclassifiable establishments	Terminated
162692	LAR10F558	Maynard Borrow Pit - Hamps Construction LLC	Nonclassifiable establishments	Terminated
162746	LAR10F568	Lawrence Canal New Orleans LA - American Contractor & Technology Inc - Sediment Removal	Nonclassifiable establishments	Terminated 2/3/10

APPENDIX B:
Monitoring Data Tables and Plots

Tables

Figures

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

Site ID	Site name	Date	Time	Depth (m)	Temp. (°C)	DO (mg/L)	Specific conductivity (µmhos/cm)	pH (su)	Secchi depth (m)
LAWR-1	Lamb Canal at Lamb Rd. and I-10 ramps	7/10/09	19:11	0.38	31.3	1.9	619	7.6	
LAWR-2	Morrison Canal at Morrison Rd. and I-10 ramps	7/10/09	17:51	0.1	34.0	18.3	1934	9.0	
LAMB-1	Morrison Canal at Martin Dr.	7/10/09	11:00	0.46	29.1	1.6	1333	7.2	0.76
LAMB-1-D	Morrison Canal at Mayo Blvd.	7/10/09	11:15	0.46					
MORR-1	Morrison Canal on west side of Crowder Blvd.	7/10/09	9:54	0.38	29.0	2.0	1664	7.1	
MORR-2	Lawrence Canal on north side of Dwyer Rd.	7/10/09	14:05	0.1	34.0	15.8	2000	9.3	0.37
MORR-3	Lawrence Canal on south side of Morrison Rd.	7/10/09	16:20	0.46	35.3	18.0	1845	9.3	
MORR-4	St. Charles Canal on north side of Dwyer Rd.	7/10/09	17:45	0.37	33.6	19.1	1957	9.1	
STCH-2	St. Charles Canal on south side of Morrison Rd.	7/10/09	20:00	0.53	31.7	16.3	1884	8.8	
STCH-3	St. Charles Canal 0.09 mi upstream of pump station	7/10/09	15:20	1.0	30.9	10.3	1935	8.2	0.24

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

Site ID	Site name	Date	Time	TKN (mg/L)	NH3 (mg/L)	NO2+ NO3 (mg/L)	Total Phos. (mg/L)	Ortho Phos. (mg/L)	Chloro-phyll a (µg/L)	TSS (mg/L)	TOC (mg/L)
LAWR-1	Lamb Canal at Lamb Rd. and I-10 ramps	7/10/09	19:11	3.75	1.55	0.63	0.594	0.349	4	15	5.1
LAMB-1	Morrison Canal at Martin Dr.	7/10/09	11:00	1.87	0.93	0.409	0.358	0.225	4	8	4.3
LAMB-1-D	Morrison Canal at Mayo Blvd.	7/10/09	11:15	2.03	0.96	0.383	0.371	0.232	3	7	4.4
MORR-1	Morrison Canal on west side of Crowder Blvd.	7/10/09	9:54	2.02	1.03	0.379	0.327	0.186	5	7	3.6
MORR-3	Lawrence Canal on south side of Morrison Rd.	7/10/09	16:20	2.08	<0.10	<0.040	0.498	0.151	42	38	6.1
MORR-4	St. Charles Canal on north side of Dwyer Rd.	7/10/09	17:45	2.07	<0.10	<0.040	0.579	0.235		34	6.4
STCH-2	St. Charles Canal on south side of Morrison Rd.	7/10/09	20:00	3.36	<0.10	0.059	0.522	0.146	98	27	5.9
STCH-3	St. Charles Canal 0.09 mi upstream of pump station	7/10/09	15:20	3.91	<0.10	0.051	0.524	0.183		33	5.0

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

Site ID	Site name	Date	Time	CBOD Day 2 (mg/L)	CBOD Day 5 (mg/L)	CBOD Day 9 (mg/L)	CBOD Day 14 (mg/L)	CBOD Day 20 (mg/L)	CBOD Day 27 (mg/L)
LAWR-1	Lamb Canal at Lamb Rd. and I-10 ramps	7/10/09	19:11	5	7	8	11	16	28
LAWR-2	Morrison Canal at Morrison Rd. and I-10 ramps	7/10/09	17:51						
LAMB-1	Morrison Canal at Martin Dr.	7/10/09	11:00	<2	2	3	4	7	16
LAMB-1-D	Morrison Canal at Mayo Blvd.	7/10/09	11:15	<2	<2	2	3	7	12
MORR-1	Morrison Canal on west side of Crowder Blvd.	7/10/09	9:54	<2	2	3	3	4	15
MORR-2	Lawrence Canal on north side of Dwyer Rd.	7/10/09	14:05						
MORR-3	Lawrence Canal on south side of Morrison Rd.	7/10/09	16:20	8	16	21	32	35	42
MORR-4	St. Charles Canal on north side of Dwyer Rd.	7/10/09	17:45	7	15	21	37	46	53
STCH-2	St. Charles Canal on south side of Morrison Rd.	7/10/09	20:00	5	9	12	16	28	41
STCH-3	St. Charles Canal 0.09 mi upstream of pump station	7/10/09	15:20	6	13	17	21	30	40

Table B-4. Available data for station 1051 (St. Charles Canal at Morrison Rd., New Orleans, Louisiana)

Parameter	Period of record	No. of Obs.	Minimum	Maximum	Average
dissolved oxygen (mg/L)	3/6/01–9/24/07	23	1.08	9.08	5.55
nitrite+nitrate (mg/L)	3/6/01–9/24/07	23	0.14	1.07	0.46
total Kejldahl nitrogen (mg/L)	3/6/01–9/24/07	23	0.37	2.93	1.67
total phosphorus (mg/L)	3/6/01–9/24/07	23	0.17	0.61	0.34
water temperature (°C)	3/6/01–9/24/07	23	11.4	31.0	22.8

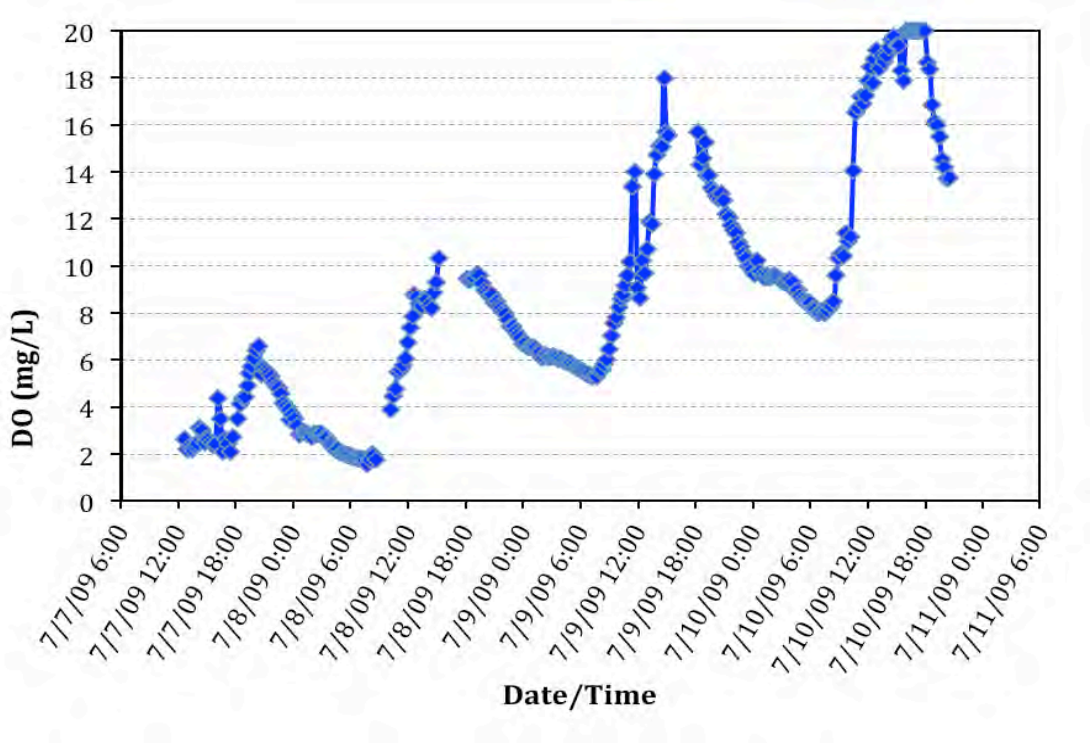


Figure B-1. Continuous dissolved oxygen data observed at STCH-2 (St. Charles Canal).

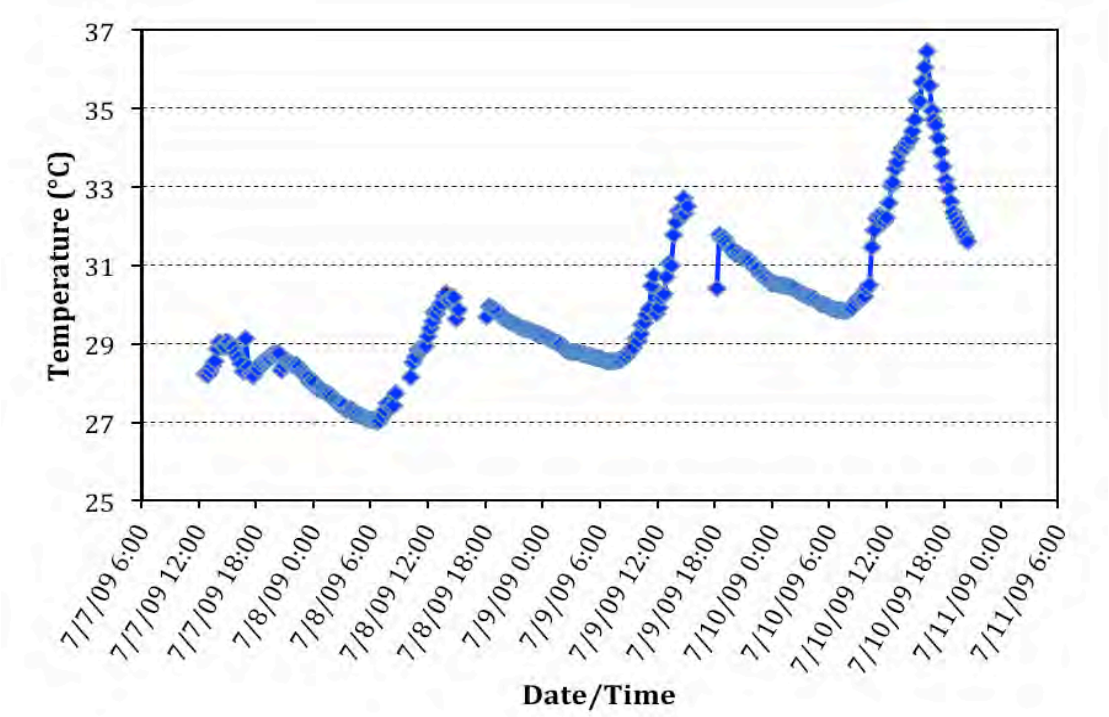


Figure B-2. Continuous temperature data observed at STCH-2 (St. Charles Canal).

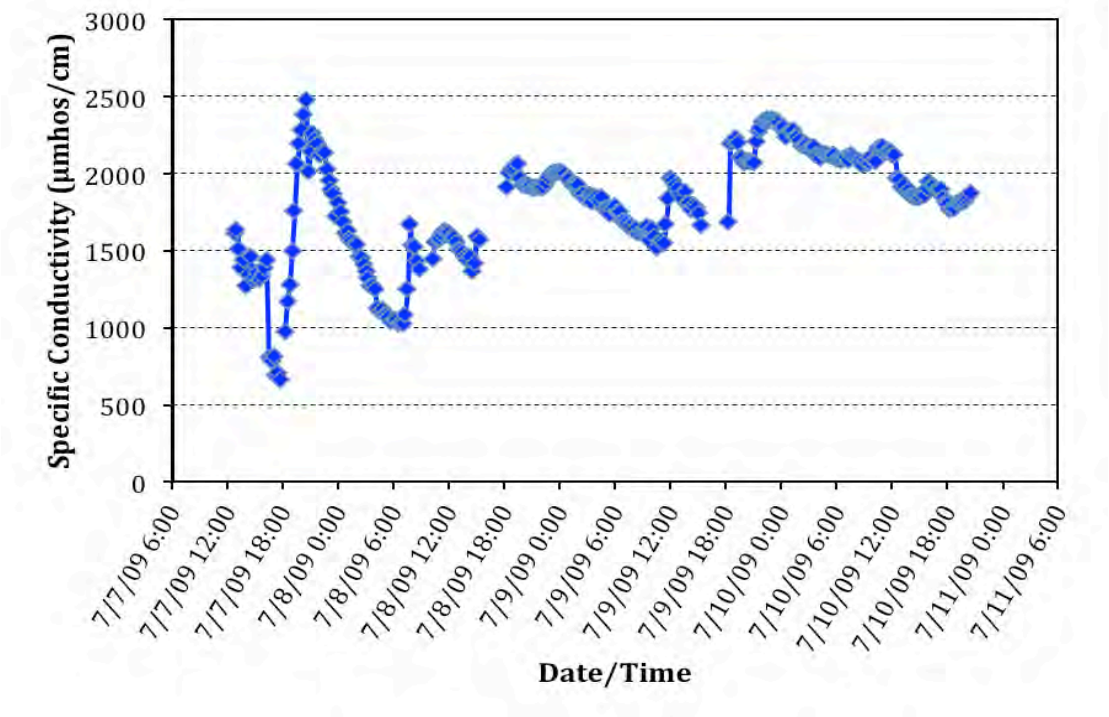


Figure B-3. Continuous specific conductivity data observed at STCH-2 (St. Charles Canal).

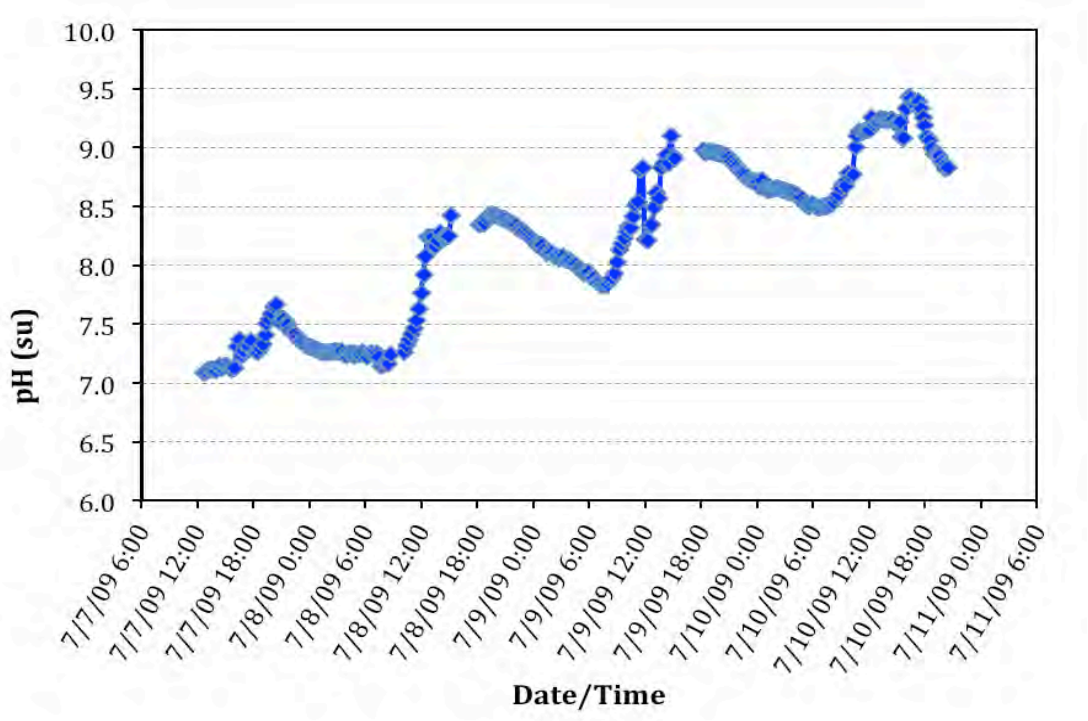


Figure B-4. Continuous pH data observed at STCH-2 (St. Charles Canal).

APPENDIX C:
Field Survey Notes

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page _____ of _____

Site ID: Lawr - 1 Date/time: 10 Jul 09 1911 Crew: BSG

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

GPS coordinates: N 30° 01' 23.81" W 089° 59' 45.21"

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

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

Sample collected? (Yes) No Number of sample bottles: 4

Sample depth (m): 1.25 Total depth (m): 2.5 Apparatus used: VD

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

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

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

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

In situ meter used: Trap-2 (Rental) Secchi depth (specify units):

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1.25	31.28	618.8	1.91	7.55

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

pic # 1086 1087

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 12Jul04 1911
Observer BSG
Project No. LR Study

Stream Lower - 1
Transect No.
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool Length, ft
Riffle/Run Length, ft
Tape Down (ft)
GPS

Transect Reading	Tape Reading from (LB)/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	10.6	0			0		
2	10.0	1.5			0		
3	12.0	2.7			0.02		
4	13.5	2.5			0		
5	15.0	2.5			0		
6	17.	2.3			0		
7	18.5	2.4			0.02		
8	20	2.4			0		
9	21.5	.5			0		
10	22.5	0			0		RB
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
Totals	**0**		**0**			**0.000**	**cfs**
						0	**gpm**

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page _____ of _____

Site ID: Lamb-1 Date/time: 11:00 10Jul09 Crew: [illegible]

Description of measurement location (position relative to landmarks and horizontal position): parallel to lamb st.

GPS coordinates: N 30° 01' 38.5" W090° 00'59.9"

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

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

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

Sample depth (m): 1.5' Total depth (m): 2.95' Apparatus used: VD

QA/QC sample collected? (Yes) No Type: (Dup) Blank ID: 07102009

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

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

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

In situ meter used: Trep-2 Rental Secchi depth (specify units): 2.5'

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
	29.06	1333	1.57	7.15

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

1071 1072

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 11:08 10Sa109
Observer BSc
Project No. LA study

Stream Lamb-1
Transect No.
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool Length, ft
Riffle/Run Length, ft
Tape Down (ft)
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	6.3	2.5			0		
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16	7	2.5			0		
17	8	2.85			0		
18	9	2.85			0.03		
19	10	2.85			0.02		
20	11	2.85			0		
21	12	2.85			0		
22	13	2.85			0.03		
23	14	2.85			0.05		
24	15	2.85			0.04		
25	16	2.9			0.05		
26	17.0	2.7			0.03		
27	18.0	2.5			0.06		
Totals	**0**		**0**			**0.000**	**cfs**
						0	**gpm**

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: Morr-1 Date/time: 0935 10.5.09 Crew: RSG

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

GPS coordinates: N 30° 01' 40.6" W 090° 01' 06.0"

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

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

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

Sample depth (m): 1.25' Total depth (m): 2.5' Apparatus used: VD

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

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

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

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

In situ meter used: Rental Trap 2 Secchi depth (specify units):

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1.25	28.97	1664	2.02	7.07

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

1073 1079

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 0935 10/5/09
Observer BSC
Project No. LA Study

Stream
Transect No. Mscr-1
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool Length, ft
Riffle/Run Length, ft
Tape Down (ft)
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	14.6	2.6			0.05		
2	14.0	2.7			0.25		
3	13.5	2.7			0.28		
4	13.0	2.7			0.31		
5	12.5	2.7			0.25		
6	12.0	2.7			0.24		
7	11.5	2.7			0.23		
8	11.0	2.6			0.22		
9	10.5	2.6			0.18		
10	10.0	2.6			0.16		
11	9.5	2.6			0.18		
12	9.0	2.55			0.16		
13	8.5	2.55			0.17		
14	8.0	2.55			0.13		
15	7.5	2.55			0.14		
16	7.0	2.55			0.16		
17	6.5	2.55			0.13		
18	6.0	2.55			0.11		
19	5.5	2.55			0.13		
20	5.0	2.6			0.16		
21	4.5	2.65			0.13		
22	4	2.75			0.12		
23	3.5	2.75			0.12		
24	3.0	2.75			0.12		
25							
26							
27	2.9	2.6			0.15		
Totals	0		0			0.000	cfs
						0	gpm

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: Mole-2 Date/time: 1405 10Jul09 Crew: BSG

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

GPS coordinates: N 36° 01' 47.1" W 090° 00' 45.2"

Wind speed (mph) and direction wind is coming from: 3 mph South

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

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

Sample depth (m): 3 Total depth (m): 3.9 Apparatus used: —

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

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

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

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

In situ meter used: Troll-2 Rugby Secchi depth (specify units): 1 or 2'

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
	34.04	20000	15.79	9.31

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

I put it back in calibration cup w/ bottled H2O and went back to ~7.5 mg/L I believe this to be correct

PICS 1075 1076

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 10-Jul-2009
Observer BBe
Project No. LA Study

Stream MORR-2
Transect No.
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool ____ Length, ft ____
Riffle/Run ____ Length, ft ____
Tape Down (ft)
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	43	.4					18.7
2	41	.95					7.0
3	38.7	1.9					
4	37.3	2.0					Channel Between
5	35.3	2.3					18.7 + 7.0
6	34.3	2.8					
7	32.0	3.0					
8	29.7	3.25					
9	27.30	3.25					
10	25.8	3.2					
11	23	3.25					
12	20.8	3.08					
13	19.2	2.34					
14	17	1.7					
15	15	1.2					
16	13.2	.6					
17 (LB)	12.2	0					
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
Totals	0		0			0.000	cfs
						0	gpm

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: MORR-4 Date/time: 1745 10 Jun 09 Crew: [illegible]

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

GPS coordinates: N 30° 02' 07.7" W 089° 59' 49.2"

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

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

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

Sample depth (m): 1.2 Total depth (m): 2.4 Apparatus used: UD

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

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

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

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

In situ meter used: 1.2 Secchi depth (specify units):

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1.2	33.63	1957	19.10	9.10

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

Pic 1084 1083

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 17:15 10 June 09
Observer [illegible]
Project No. LA study

Stream
Transect No. MORR-4
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool ____ Length, ft ____
Riffle/Run ____ Length, ft ____
Tape Down (ft)
GPS

Transect Reading	Tape Reading from (LB)/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	5.2	2.5			0		
2	6.0	2.5			0		
3	7.5	2.5			0.04		
4	9	2.6			0.04		
5	10.5	2.6			0.07		
6	12	2.6			0.07		
7	13.5	2.6			0.08		
8	15	2.25			0.12		
9	16.5	2.25			0.02		
10	18	2.3			0.04		
11	19.5	2.5			0.05		
12	21	2.4			0.03		
13	22.5	2.4			0.02		
14	23.2	2.4			0.02		
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27	23.2						
Totals	0		0			0.000	cfs
						0	gpm

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: STCH-3 Date/time: 1520 Crew:

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

GPS coordinates: N 30° 02' 04.6" * W090° 00' 38.1" *

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

General appearance of water (including vegetation, if any): Turbid / Tannin / lots of Algae

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

Sample depth (m): 1m Total depth (m): ~2m Apparatus used: VO

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

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

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

Conductivity B/C

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

Equipment failure (Bluetooth)

In situ meter used: Troll 2 (reading) Secchi depth (specify units): .81

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1m	30.91	1935	10.25	8.15

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

* GPS point was taken @ bank from sample area sample was collected via a kayak ~ 20m in channel from this position

Pic # 1078

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: MORR-3 Date/time: 1620 Crew: BSG

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

GPS coordinates: N 30° 01' 56.4" W 090° 00' 18.4"

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

General appearance of water (including vegetation, if any): Turbid, trashy, grass clippings

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

Sample depth (m): 1.5' Total depth (m): 3.3 Apparatus used: VH

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

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

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

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

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

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1.5'	35.30	1845	17.95	9.27

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

1079 1080

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time _____
Observer _____
Project No. _____

Stream _____
Transect No. MOHR-3
Picture No. _____

II. In-Situ Data

Dissolved Oxygen, mg/L _____
Temperature, C _____
Conductivity, uhmos _____
pH, su _____
ORP, mv _____

III. Physical Characterization

Stream Width, ft _____
Channel Width, ft _____
Pool _____ Length, ft _____
Riffle/Run _____ Length, ft _____
Tape Down (ft) _____
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	20.7	2.68					North Side
2	18.9	3.65					
3	17.5	3.68					
4	16.3	3.08					
5	15.6	3.72					
6	13.5	3.62					
7	12.0	3.55					
8	10.0	3.40					
9	9.3	3.30					
10	7.3	3.45					
11	6.7	3.12					
12	6.3	2.78					South Side
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
Totals	0		0			0.000	cfs
						0	gpm

* Flow hard to determine due to low flow + wind action (Correction)

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page 1 of 1

Site ID: LaW-2 Date/time: 10/5/09 Crew: BSA

Description of measurement location (position relative to landmarks and horizontal position): south of Morrison at bridge

GPS coordinates: N 30°01' 58.2" W 090° 001 41.8"

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

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

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

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

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

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

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

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

In situ meter used: Troll - 2 (Rat) Secchi depth (specify units):

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1m	34.61	1934	18.30	8.95

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

Top 2 ft

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 10 Sul y09 1710
Observer BSG
Project No. LA Study

Stream
Transect No. LA12W2
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool Length, ft
Riffle/Run Length, ft
Tape Down (ft)
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
West Bank							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11	13.8	0					Edge of Water
12	15.5	.85					
13	17.3	1.32					
14	19.8	1.58					
15	24	2.4					
16	30	2.35					
17	36.5	3.45					
18	41	3.45					
19	45	3.42					
20	50	3.3					
21	54	2.96					
22	59	2.88					
23	63	2.95					
24	66.0	3.0					
25	70.6	2.4					
26	73	1.5					
27	75.5	0					East Bank
Totals	0		0			0.000	cfs
						0	gpm

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page _____ of _____

Site ID: STCH-2 Date/time: 2000 Crew: BSG

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

GPS coordinates: N 30° 01' 50.9" W 090° 00' 32.5"

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

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

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

Sample depth (m): 1.75 Total depth (m): 3.6 Apparatus used: Van Dorn

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

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

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

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

In situ meter used: Trap-2 (Rental) Secchi depth (specify units): —

Depth (m)	Temperature (C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	pH (su)
1.75'	31.70	16664	16.33	8.82

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

Pulled Hydrolab @ 20:00

pics in notebook

FTN Associates, LTD.
Physical Characterization - Worksheet

I. General

Date/Time 20:00
Observer BSA
Project No. LA Study

Stream
Transect No. STCH-2
Picture No.

II. In-Situ Data

Dissolved Oxygen, mg/L
Temperature, C
Conductivity, uhmos
pH, su
ORP, mv

III. Physical Characterization

Stream Width, ft
Channel Width, ft
Pool Length, ft
Riffle/Run Length, ft
Tape Down (ft)
GPS

Transect Reading	Tape Reading from LB/RB	Depth (ft)	Section Length (ft)	Area (ft2)	Velocity (fs)	Area Flow (cfs)	Comments
1	5.4	0					West side
2	6.	.3					
3	8	1.1					
4	10	2.2					
5	11.1	2.7					
6	14.7	3.62					
7	17.5	3.62					
8	20.9	3.6					
9	23.5	3.62					
10	29.0	3.6					
11	31.0	3.6					
12	35.5	2.6					
13	40.1	3.6					
14	45.2	3.55					
15	48	2.5					
16	49.7	1.7					
17	52.6	.4					
18	53.3	0					East Edge of Water
19							
20							
21							
22							
23							
24							
25							
26							
27							
Totals	0		0			0.000	cfs
						0	gpm

FIELD SHEET FOR LAKE PONTCHARTRAIN BASIN DO TMDLs Page _____ of _____

Site ID: 07112009 Date/time: 0645 11 Jul 09 Crew: KSG

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

GPS coordinates:

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

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

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

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

QA/QC sample collected? (Yes) No Type: Dup (Blank) ID: 07112009

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

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

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

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

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

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

This is a blank performed on 11 Jul 09 outside the hotel / 07112009X is o-phos without being run through a syringe

APPENDIX D:
Original Public Comment Letters

BOBBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

January 11, 2012

Ms. Diane Smith (6WQ)
Water Quality Protection Division
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Comments on Federal Register: December 23, 2011 (Volume 76, Number 247) [FRC-9505-4] Clean Water Act Section 303(d): TMDL for Dissolved Oxygen for New Orleans Leveed Waterbodies in the Lake Pontchartrain Basin

Dear Ms. Smith:

The Louisiana Department of Environmental Quality hereby submits comments on the TMDLs prepared for EPA Region 6 for the TMDL for dissolved oxygen in Subsegment 041401 in the Lake Pontchartrain Basin, Louisiana.

LDEQ appreciates the opportunity that EPA provided for review of this draft TMDL.

If you have any questions or comments, please contact me at 225-219-3366.

Sincerely,

William C. Berger, Jr.

William C. Berger, Jr., P.E.
TMDL/Water Quality Manager
Attachment

Ec with attachment:
Melvin Mitchell, LDEQ
Yvonne Baker, LDEQ
Claudia Hosch, EPA (6WQ)
Richard Wooster, EPA (6SF)
Brian Mueller, EPA (6WQ)

LDEQ Comments Concerning the following TMDL submitted to EPA by Tetra Tech:

TMDL for Dissolved Oxygen for New Orleans East Leveed Waterbodies (Subsegment 041401) in the Lake Pontchartrain Basin, Louisiana

By – Tetra Tech, Inc., December 12, 2011

General Comments

The 2010 303(d) list is now final. The report should be adjusted accordingly.

LDEQ will be responsible for the implementation of this TMDL and future updates to this TMDL. Therefore, LDEQ requests that complete documentation, including all appendices be provided to LDEQ upon approval of the TMDL.

This waterbody has been man-made altered by concrete lining of sections and by restricting flow to only during stormwater events. Therefore, a TMDL based on DO criteria of 4 mg/L may not be appropriate for this waterbody.

This TMDL included the modeling of nutrients and algae. LDEQ believes that is not appropriate to conduct nutrient modeling at this time.

LDEQ has begun the practice of placing final public comments and responses to the appendices of the final TMDL report. LDEQ suggests that EPA do the same.

Table A-1 in Appendix 1 is confusing because it lists all dischargers. LDEQ requests that the discharger table clearly state those that are allocated to in this TMDL and those that are not.

Specific Comments

- Executive Summary should include percent reduction for projections and reductions to point sources should be stated.
- Section 2.5.1 Point Sources, page 2-4, paragraph 1: The paragraphs states that 54 permitted point source dischargers were located within subsegment 041401. However, Table 5-2 indicates that only four facilities were provided with a WLA. This can be confusing. LDEQ requests that Section 2.5.1 clearly indicate that 54 permitted dischargers were located within the subsegment, but only four facilities were provided with a WLA. The reasons for providing an allocation or not should be indicated in the report or in the facility list in the appendices. The report should also state whether or not the TMDL will change any permit limits and indicate which facilities will be affected by any changes in permit limits.
- Section 4.1, page 4-1, paragraph 1 states that QUAL2E kinetics were used for the TMDL calculation approach. This is not considered standard practice for this type of waterbody.

- Table A-1 omitted the following dischargers: AI# 703, 2062, 5205, 25943, 30439, 31002, 32494, 33961, 40956, 42731, 157717, and 171621.
- Table A-2 lists AI#9886 and 80784 as terminated but still have valid permits with LDEQ.

LAKE PONTCHARTRAIN BASIN FOUNDATION
SAVE OUR COAST SAVE OUR LAKE

February 1, 2012

Diane Smith
Environmental Protection Specialist
Water Quality Protection Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Ave., Dallas, TX 75202-2733

RE: DRAFT TMDLs for Dissolved Oxygen for New Orleans East Leveed Waterbodies (Subsegment 041401) in the Pontchartrain Basin, Louisiana

Dear Ms Smith,

The Lake Pontchartrain Basin Foundation (LPBF) has reviewed the above referenced document and would like to submit the following comments into the public record.

This TMDL is supposed to assess the dissolved oxygen conditions in New Orleans East Leveed Waterbodies. However, the intensive, continuous monitoring on which the TMDL is based was performed during an algae bloom and does not represent appropriate conditions for TMDL modeling. ***The continuous monitoring portion of this TMDL was not done in the appropriate manner. As the TMDL is based on this sampling, it is not valid. The intensive monitoring and the TMDL need to be done again to reflect normal summer D.O.***

1) Oxygen is supersaturated, representing an algae bloom
There is a well-established relationship between water temperature and dissolved oxygen saturation- the warmer the water, the less oxygen it will hold (Meck figure below). However, in this TMDL, the continuous water quality monitoring performed in July 2009 indicates that the water is super-saturated with oxygen (with some oxygen values at nearly 200% saturation (Figure B-1 from TMDL below). This does not represent a normal water condition. Given the temperatures in Figure B-2 of the TMDL, 100% oxygen solubility will range from 8.26 mg/l at 25°C to 6.95 mg/l at 35°C for fresh water at 0 ft. elevation. Levels given in this document (10.3 – 19.1 mg/l in Table B-1 and in Figure B-1 below) indicate major super-saturation.

From the article "Algae Blooms" (http://portal.ncdenr.org/web/wq/ess/eco/blooms):
Algal blooms produce large amounts of oxygen during photosynthesis that may lead to supersaturated levels of DO in the water column. Conversely, during respiration, algal blooms remove the DO from the water column which may lead to little or no oxygen in the water column. These conditions can also be created when a large quantity of algae die and decompose. ***Supersaturation of DO (> 110% saturation) can also be an indicator of photosynthesis by large quantities of algae, particularly during mid-to-late afternoon.***

Three Lakeway • Suite 2070 • 3838 North Causeway Blvd. • P.O. Box 6965 • Metairie, Louisiana 70009-6965
(504) 836-2215 • Fax: (504) 836-7070
www.saveourlake.org

These abnormally high D.O. values also skewed the baseline data in Table 4-2. The table and associated text show a baseline range of 2 – 16 mg/l D.O. and an average baseline D.O. value of 6.76 mg/l. This average baseline later became the target (TMDL) value in Table 4-4. The data are not representative of "normal" conditions. Therefore, the baseline value (and later target value) of 6.76 mg/l is not a normal summer condition and is not appropriate as the TMDL. Finally, this baseline (and target) value is, in fact, greater than the winter target value of 5.57 mg/l. Given the discussion of oxygen saturation above and table below- this is not correct.

Relationship Between Oxygen Saturation, Temperature, and Conditions for Fish (Meck 1996)

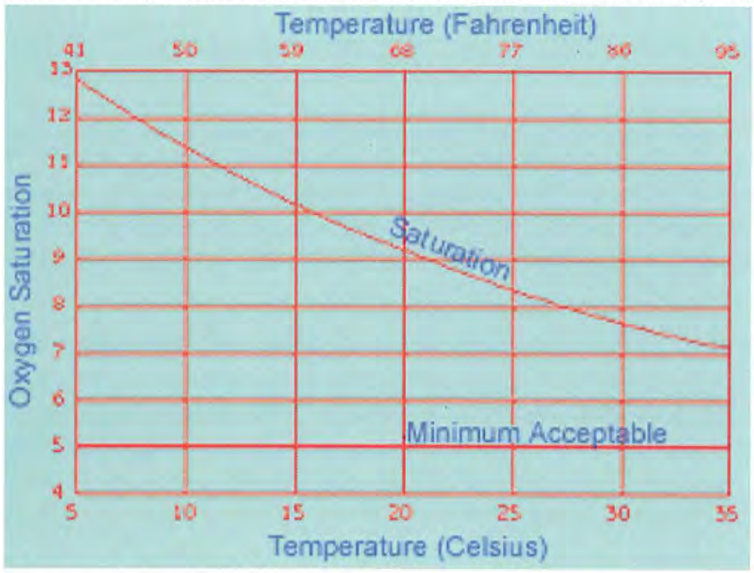
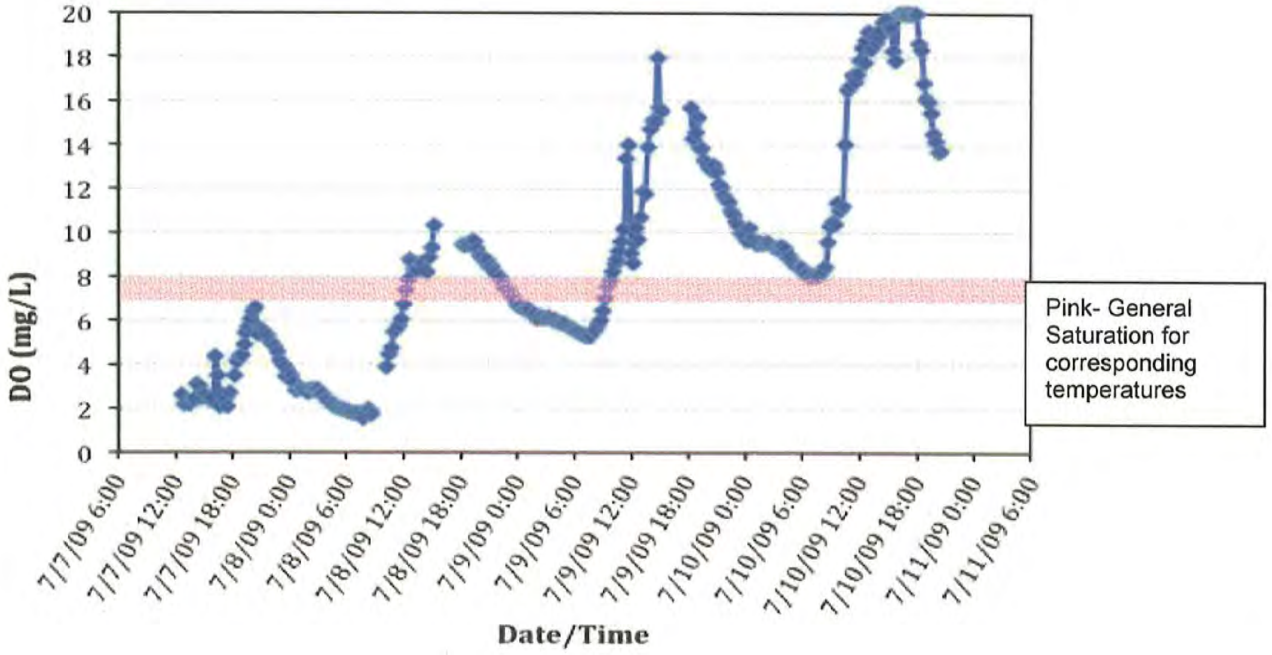


Figure B-1. Continuous dissolved oxygen data observed at STCH-2 (St. Charles Canal).

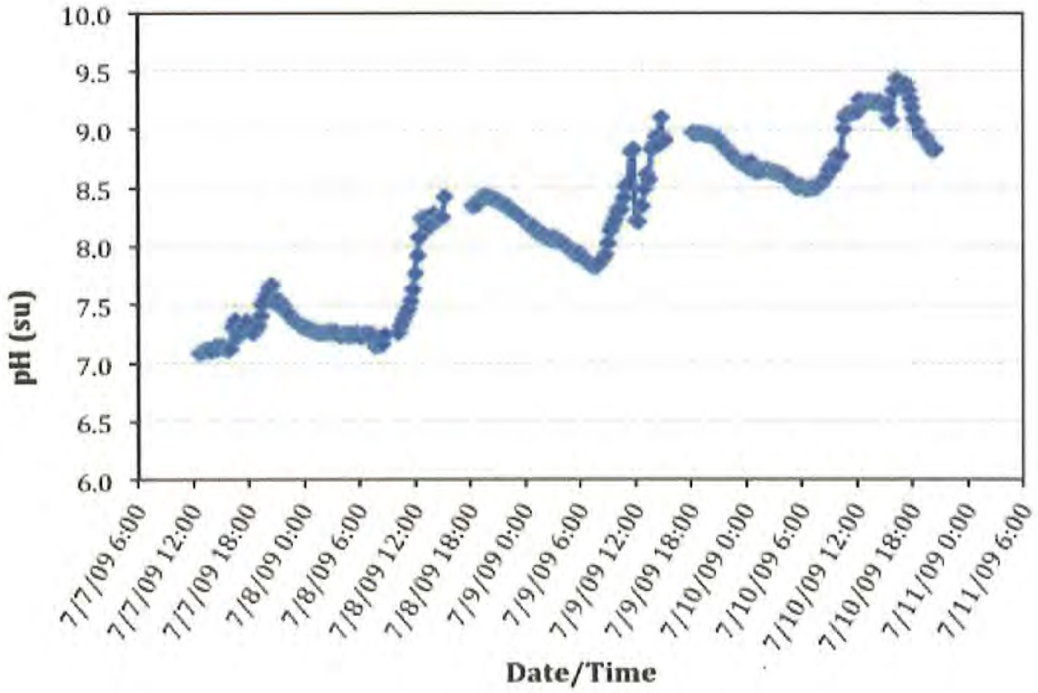


In addition, the DEQ Ambient Water Quality Data presented in Figures 3-2 and 3-3 also show how unusual the July 09 data is. The ambient sampling shows dissolved oxygen levels ranging from 1 – 9 mg/l throughout the year; this can be considered normal range. Furthermore, when reviewing these tables, at least 68% of the samples are above the 4 mg/l threshold. What percentage of samples must be below the threshold for the waterbody to be considered impaired?

2) pH is abnormally high, representing an algae bloom
The pH collected during the same time period as the D.O. is seen to be rising to high levels (Figure B-4 from the TMDL, below). This too is an indication of an algae bloom.

From the article "Algae Blooms" (http://portal.ncdenr.org/web/wq/ess/eco/blooms):
… When algae remove carbon dioxide during photosynthesis they raise the pH by increasing the level of hydroxide. The opposite reaction occurs during respiration when carbon dioxide is produced lowering hydroxide and lowering the pH. ***Therefore, high pH (> 8.0) can be an indicator of photosynthesis by large quantities of algae.***

Figure B-4. Continuous pH data observed at STCH-2 (St. Charles Canal).



3) This segment represents two distinct watersheds with differing land uses
In segment 041401, all canals north of Chef Menteur Highway discharge into Lake Pontchartrain. Land use in this area is predominantly residential with some commercial. All canals south of the highway drain into the Intracoastal Waterway. Land use in this area is dominated by larger, industrial facilities. LPBF would like to see this TMDL broken down by the two distinct watersheds with each TMDL focusing on the inputs related specifically to each watershed.

4) TMDL states that flow data is not available
The waterways in question are stormwater drainage canals. While they only flow intermittently (when the city is pumped during a rain event) flow data would be available from the pumping.

5) Waterways are man-made canals used for stormwater conveyance
Since these waterways are mostly man-made stormwater drainage canals (and, by their nature, flow intermittently) and are in a wetland environment, there is a question of whether dissolved oxygen TMDLs are appropriate. Are the designated uses accurate and appropriate for these waterways?

6) Future growth allocation in Katrina area
The area in question was devastated in Hurricane Katrina in 2005. It has not yet built back up to pre-hurricane population. We feel that the Waste Load Allocations, Load Allocations, and particularly Future Growth should be sensitive to this fact. Was future growth assessed on pre-Katrina or current conditions?

It is clear from the continuous monitoring data that the St. Charles Canal was experiencing an algae bloom when the data was collected. This does not represent an appropriate condition from which TMDLs can be produced. ***This TMDL is not usable and must be redone.***

The Lake Pontchartrain Basin Foundation is strongly in favor of the TMDL program as a means to clean our waterways. However, the TMDLs must be based on good science and a statistically viable data set actually collected from the streams and sources in question. The TMDLs must also be written to directly address the sources of the impairment. As the watershed environmental group of the Pontchartrain Basin, we would support a dissolved oxygen TMDL that adequately does all of the above. We ask that EPA and Tetra Tech perform more data collection for this TMDL and produce a TMDL document to directly address the sources.

The LPBF thanks EPA for the opportunity to comment on this draft TMDL and look forward to our continued cooperation in cleaning the Pontchartrain Basin's waterways.

Sincerely,

Andrea Bourgeois-Calvin

Andrea Bourgeois-Calvin, PhD

"RE-BUILDING THE CITY'S WATER SYSTEMS FOR THE 21ST CENTURY"

Sewerage & Water Board OF NEW ORLEANS

MITCHELL J. LANDRIEU, President
TOMMIE A. VASSEL, President Pro-Tem

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February 6, 2012

Ms. Diane Smith
Environmental Protection Specialist
Water Quality Protection Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: DRAFT TMDLs for Dissolved Oxygen (D.O.) for Subsegment 041401 (New Orleans East Leveed Waterbodies) in the Pontchartrain Basin, Louisiana

Dear Ms Smith:

The Sewerage and Water Board of New Orleans would like to make the following comments concerning the proposed TMDLs for dissolved oxygen in New Orleans East leveed waterbodies.. We are asking that the proposed 4.0 mg/litre TMDL for dissolved oxygen be reassessed for the following reasons:

(1) Segment 041401 contains two distinct watersheds with differing land uses

In this segment, all canals north of Chef Menteur Highway (Hwy 90) discharge into Lake Pontchartrain. Land use in this area is predominantly residential with some commercial and industrial uses along the Industrial Canal.. Storm water from these uses drains into several canals which in turn discharge into Lake Pontchartrain All canals south of Chef Menteur Highway drain into the Intracoastal Waterway. Predominant land use in this is industrial; many of these industrial facilities have NPDES permits regulating discharge into the storm drain system, as indicated in Figure 2.3 and in Appendix 1 of the draft report. Since the report emphasizes point source discharges as a key source of dissolved oxygen levels in this segment, we would like to see this TMDL broken down by the two distinct watersheds with each TMDL focusing on the uses related specifically to each watershed.

(2) Waterways are not used for primary or secondary contact; they are used primarily for stormwater conveyance

As the Sewerage and Water Board argued in the case of TMDLs for fecal coliform, waterways in Segment 04101 are man-made stormwater drainage canals that flow only intermittently. Since they are not appropriate for, intended for, or accessible for primary or secondary contact recreation, we question whether TMDLs for any parameters are applicable for these waterways.

The following comments are from a comment letter by Andrea Bourgeois-Calvin, PhD, Water Quality Program Director for the Lake Pontchartrain Basin Foundation, and reflect the views of the Sewerage and Water Board on this issue. They are included here with her permission.

(3) Algae Bloom not factored into TMDL calculations. This TMDL is supposed to assess the dissolved oxygen conditions in New Orleans East Leveed Water bodies. However, the intensive continuous monitoring on which the TMDL is based was performed during an algae bloom and does not represent appropriate conditions for TMDL modeling. We believe that the continuous monitoring portion of this TMDL was not done in the appropriate manner. As the TMDL is based on this sampling, we feel it is not valid. We request that intensive monitoring and the TMDL be performed again to reflect normal summer dissolved oxygen.

(a) Oxygen is supersaturated, representing an algae bloom

There is a well-established relationship between water temperature and dissolved oxygen saturation- the warmer the water, the less oxygen it will hold (Meck figure below). However, in this TMDL, the continuous water quality monitoring performed in July 2009 indicates that the water is super-saturated with oxygen (with some oxygen values at nearly 200% saturation (Figure B-1 from TMDL below). This does not represent a normal water condition. Given the temperatures in Figure B-2 of the TMDL, 100% oxygen solubility will range from 8.26 mg/l at 25°C to 6.95 mg/l at 35°C for fresh water at 0 ft. elevation. Levels given in this document (10.3 – 19.1 mg/l in Table B-1 and in Figure B-1 below) indicate major super-saturation.

From the article "Algae Blooms" (http://portal.ncdenr.org/web/wq/ess/eco/blooms): Algal blooms produce large amounts of oxygen during photosynthesis that may lead to supersaturated levels of DO in the water column. Conversely, during respiration, algal blooms remove the DO from the water column which may lead to little or no oxygen in the water column. These conditions can also be created when a large quantity of algae die and decompose. ***Supersaturation of DO (> 110% saturation) can also be an indicator of photosynthesis by large quantities of algae, particularly during mid-to-late afternoon.*** These abnormally high D.O. values also skewed the baseline data in Table 4-2. The table and associated text show a baseline range of 2 – 16 mg/l D.O. and an average baseline D.O. value of 6.76 mg/l. This average baseline later became the target (TMDL) value in Table 4-4. The data are not representative of "normal" conditions. Therefore, the baseline value (and later target value) of 6.76 mg/l is not a normal summer condition and is not appropriate as the TMDL. Finally, this baseline (and target) value is, in fact, greater than the winter target value of 5.57 mg/l. Given the discussion of oxygen saturation above and table below- we believe this is not correct.

Relationship Between Oxygen Saturation, Temperature, and Conditions for Fish (Meck 1996)

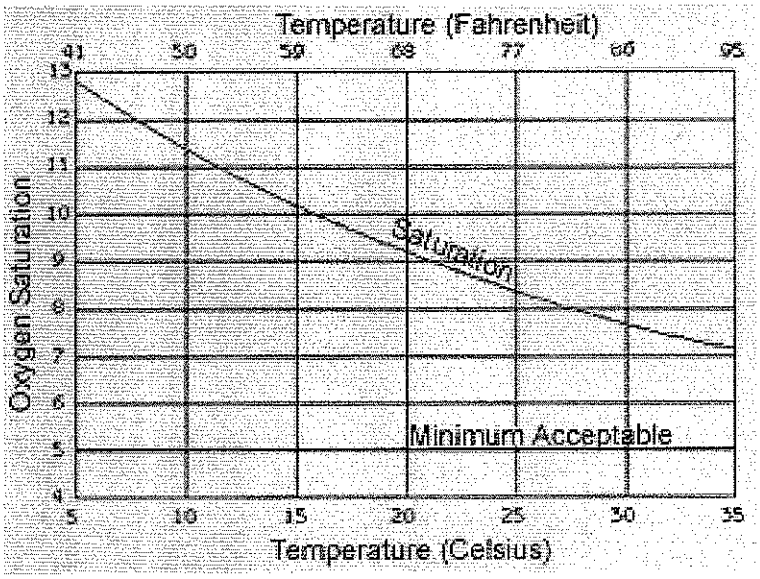
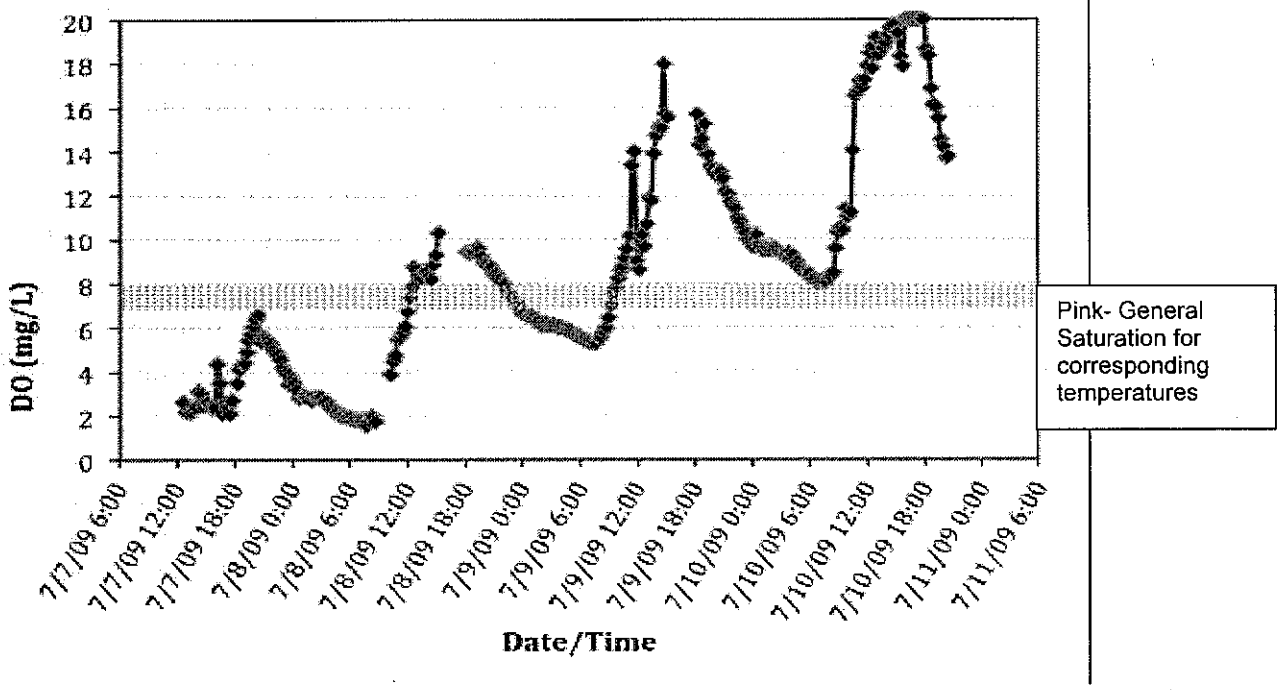


Figure B-1. Continuous dissolved oxygen data observed at STCH-2 (St. Charles Canal).



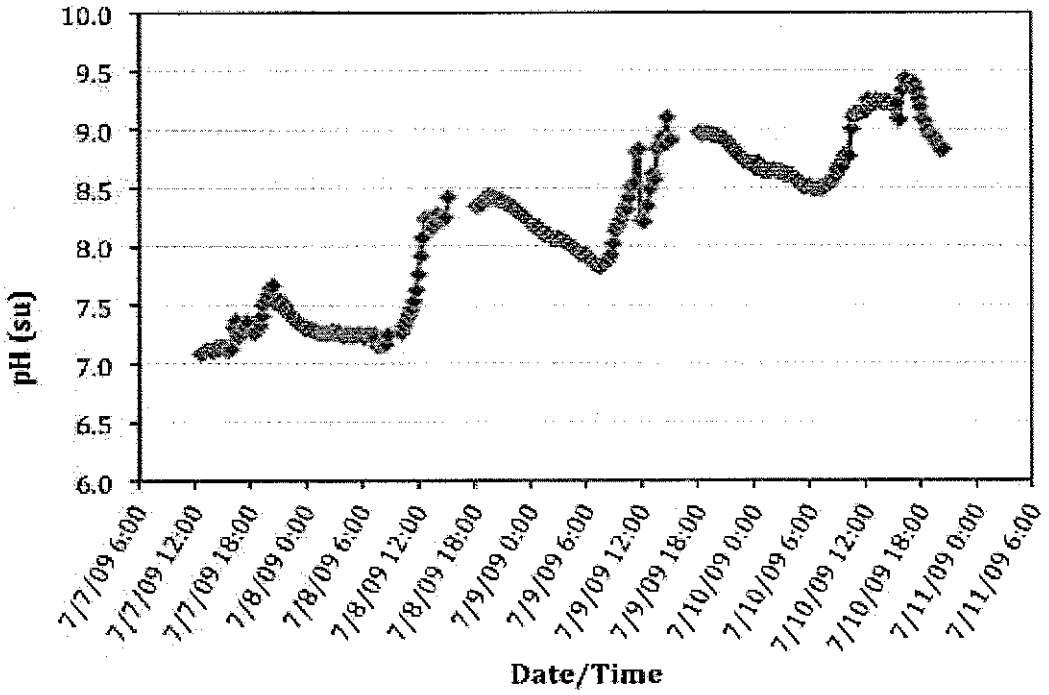
In addition, the DEQ Ambient Water Quality Data presented in Figures 3-2 and 3-3 also show how unusual the July 09 data is. The ambient sampling shows dissolved oxygen levels ranging from 1 – 9 mg/l throughout the year; this can be considered normal range. Furthermore, when reviewing these tables, at least 68% of the samples are above the 4 mg/l threshold. What percentage of samples must be below the threshold for the waterbody to be considered impaired?

(b) pH is abnormally high, representing an algae bloom

The pH collected during the same time period as the D.O. is seen to be rising to high levels (Figure B-4 from the TMDL, below). This too is an indication of an algae bloom.

From the article "Algae Blooms" (http://portal.ncdenr.org/web/wq/ess/eco/blooms):
... When algae remove carbon dioxide during photosynthesis they raise the pH by increasing the level of hydroxide. The opposite reaction occurs during respiration when carbon dioxide is produced lowering hydroxide and lowering the pH. ***Therefore, high pH (> 8.0) can be an indicator of photosynthesis by large quantities of algae.***

Figure B-4. Continuous pH data observed at STCH-2 (St. Charles Canal).



It is clear from the continuous monitoring data that the St. Charles Canal was experiencing an algae bloom when the data was collected. This does not represent an appropriate condition from which TMDLs can be produced. We feel that this TMDL is not usable and should be redone.

(4) TMDL states that flow data is not available

The waterways in question are stormwater drainage canals. While they only flow intermittently (when the city is pumped during a rain event) flow data would be available from the pumping.

As we mentioned in our comment letter on proposed TMDLs for fecal coliform in Segment 041401, the Sewerage and Water Board is strongly in favor of the TMDL program that is based on good science and a statistically accurate data set actually collected from the subject waterways. The TMDLs must also be written to directly address the sources of the impairment. The Sewerage and Water Board of New Orleans supports a dissolved oxygen TMDL that fufills these criteria. We ask that EPA and Tetra Tech perform more data collection for this TMDL and produce a TMDL document to directly address the sources.

We thank EPA for the opportunity to comment on this draft TMDL and look forward to our continued cooperation in cleaning Orleans Parish waterways.

Sincerely,

Scott Finney for

Marcia St. Martin
Executive Director

Cc Robert Miller, Deputy Director

APPENDIX E:
EPA Responses to Public Comments

NOTE: Full public comment letters are included in Appendix D.

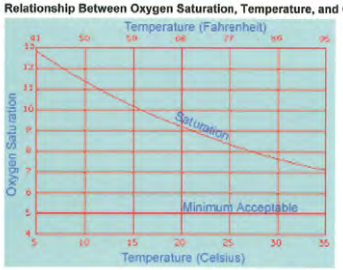
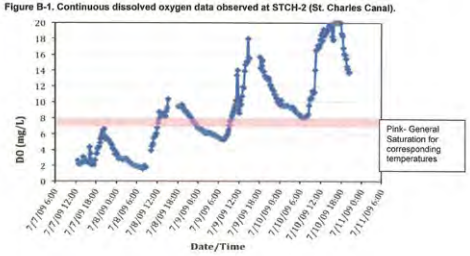
Table E-1. EPA responses to public comments received from Louisiana Department of Environmental Quality

#	Comment	EPA response
General comments		
1	The 2010 303(d) list is now final. The report should be adjusted accordingly.	The report will be updated accordingly.
2	LDEQ will be responsible for the implementation of this TMDL and future updates to this TMDL. Therefore, LDEQ requests that complete documentation, including all appendices, be provided to LDEQ upon approval of the TMDL	EPA will provide LDEQ with the documentation once the TMDL has been finalized and approved.
3	This TMDL included the modeling of nutrients and algae. LDEQ believes that it is not appropriate to conduct nutrient modeling at this time.	Observed water quality data, especially the continuous DO data, reveal that the violation of DO criteria is caused by excessive level of algae. The supersaturation level of DO is solid evidence of an excessive level of algae. Without modeling nutrients and algae, the minimum DO will not be captured.
4	LDEQ has begun the practice of placing final public comments and responses in the appendices of the final TMDL report. LDEQ suggests that EPA do the same.	As stated in section 8 of the draft TMDL report, "All comments and EPA responses will be included in an appendix to the final TMDL document."
5	Table A-1 in Appendix 1 is confusing because it lists all dischargers. LDEQ requests that the discharger table clearly state those that receive an allocation in this TMDL and those that do not.	Permitees that receive a WLA will be identified in Appendix A.
Specific comments		
1	The Executive Summary should include the percent reduction for projections, and reductions to point sources should be stated.	Table ES-2 in the draft TMDL report included the percent reduction. A statement will be added regarding point source reductions .
2	Section 2.5.1, Point Sources, page 2-4, paragraph 1: The paragraphs states that 54 permitted point source dischargers were located within subsegment 041401. However, Table 5-2 indicates that only four facilities were provided with a WLA. This can be confusing. LDEQ requests that section 2.5.1 clearly indicate that 54 permitted dischargers were located within the subsegment, but only four facilities were provided with a WLA. The reasons for providing an allocation (or not providing one) should be indicated in the report or in the facility list in the appendices. The report should also state whether the TMDL will change any permit limits and should indicate which facilities will be affected by any changes in permit limits.	Section 2 identifies background information such as land use, hydrology, and criteria. Section 2.5.1 specifically identifies only point sources in the subsegments and does not discuss the WLAs. WLAs are covered in section 5.1.1, which includes text explaining why permits did not receive a WLA.
3	Section 4.1, page 4-1, paragraph 1, states that QUAL2E kinetics were used for the TMDL calculation approach. This is not considered standard practice for this type of water body.	The system is enclosed. It is stagnant during dry weather conditions. LA-QUAL fails to run when no inflow and outflow are specified. Therefore, the spreadsheet model was developed based on QUAL2E. Even though there are differences between QUAL2E and LA-QUAL, the fundamental governing equations behind the models share the same theory of DO, nutrient, and algae dynamics. When no inflow and outflow exist, the simplified governing equations of QUAL2E are the same as those of LA-QUAL, but LA-QUAL cannot run without an inflow and outflow.
4	Table A-1 omitted the following dischargers: AI# 703, 2062, 5205, 25943, 30439, 31002, 32494, 33961, 40956, 42731, 157717, and 171621.	See Table E-2 for individual responses.
5	Table A-2 lists AI#9886 and 80784 as terminated, but they still have valid permits with LDEQ.	See Table E-2 for individual responses.

Table E-2. EPA responses to LDEQ Specific Comments 4 and 5

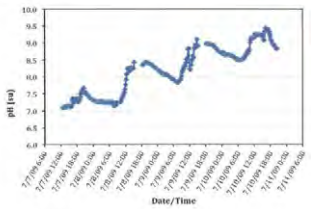
AI #	Facility name	Permit #	EPA response
703	Entergy New Orleans, Inc.	LA0004316	Information from LDEQ's EDMS system (Doc ID 8090507) suggests the facility discharges to subsegment 041501.
2062	Air Products & Chemicals, Inc.	LA0003280	Information from LDEQ's EDMS system (Doc ID 8142847) suggests the facility discharges to subsegment 041601.
5205	Palace Truck Stop	LAG541084	Information from LDEQ's EDMS system (Doc ID 1452502) suggests the facility discharges to subsegment 041601.
25943	Red's Tire Shop		AI# is identified as Tire Shop. Site inspection reports it as a vacant lot as of 10/11/04. No water discharge permit.
30439	AMID Landfill	LA105007	Information from LDEQ's EDMS system (Doc ID 6645982) suggests the facility discharges to subsegment 041601.
31002	Whitney's Industrial Auto Wreckers Inc	LAR05M767	Facility was included in previous LDEQ comments and had already been added to Appendix A. Based on information in LDEQ's EDMS system, receiving water is Lake Pontchartrain, but no subsegment is listed. Facility's lat/long coordinates are within subsegment 041401. General stormwater permit does not provide enough information to calculate WLA.
32494	Entergy New Orleans, Inc. Michoud Generating Plant	LA0004324	Information from LDEQ's EDMS system (Doc ID 6408339) suggests the facility discharges to subsegment 041601.
33961	Almonaster Salvage Yard Inc.	LAR05N220	Facility is in Appendix A. Based on information in LDEQ's EDMS system, receiving water is Industrial Canal, but no subsegment is listed. Facility's lat/long coordinates are within subsegment 041401. General stormwater permit does not provide enough information to calculate WLA.
40956	Carlo Ditta Inc.	LAG110104	Information from LDEQ's EDMS system (Doc ID 4516386) suggests the facility discharges to subsegment 041501.
42731	Non-Flood Protection Asset Management Authority	LAG480316	Information from LDEQ's EDMS system (Doc ID 8088973) suggests that all outfalls for the facility discharge to subsegment 041001.
157717	Fannie C. Williams School	LAR10H378	Facility is in Appendix A. Based on information in LDEQ's EDMS system, receiving water is Lake Pontchartrain, but no subsegment is listed. Facility's lat/long coordinates are within subsegment 041401. Stormwater construction general permit does not provide enough information to calculate WLA.
171621	East Reach Lakefront Airport	LAR10G568	Facility was included in original report, Appendix A. Based on information in LDEQ's EDMS system, receiving water is Lake Pontchartrain, but no subsegment is listed. Stormwater construction general permit does not provide enough information to calculate WLA.
9886	UPS Ground Freight, Inc	LAR05M298	Facility is in Appendix A. Based on information in LDEQ's EDMS system, receiving water is Lake Pontchartrain, but no subsegment is listed. Stormwater general permit does not provide enough information to calculate WLA.
80784	Chef Menteur C&D Disposal Facility	LA0123528	Facility was included in previous LDEQ comments and had already been added to Appendix A and loading calculations.

Table E-3. EPA responses to public comments received from the Lake Pontchartrain Basin Foundation

#	Comment	EPA response
1	**Oxygen is supersaturated, representing an algae bloom:** There is a well-established relationship between water temperature and DO saturation—the warmer the water, the less oxygen it will hold. (See Meck figure.) For this TMDL, the continuous water quality monitoring performed in July 2009 indicates that the water is supersaturated with oxygen (with some oxygen values at nearly 200 percent saturation (Figure B-1 from TMDL below). This does not represent a normal water condition. Given the temperatures in Figure B-2 of the TMDL, 100 percent oxygen solubility will range from 8.26 mg/L at 25 °C to 6.95 mg/L at 35 °C for freshwater at 0 ft elevation. Levels given in this document (10.3–19.1 mg/L in Table B-1 and in Figure B-1 below) indicate major supersaturation. **Relationship Between Oxygen Saturation, Temperature, and Conditions for Fish (Meck 1996)**  **Figure B-1. Continuous dissolved oxygen data observed at STCH-2 (St. Charles Canal).**  From the article *Algae Blooms* (http://portal.ncdenr.org/web/wq/ess/eco/blooms)[1]: Algal blooms produce large amounts of oxygen during photosynthesis that may lead to supersaturated levels of DO in the water column. Conversely, during respiration, algal blooms remove the DO from the water column which may lead to little or no oxygen in the water column. These conditions can also be created when a large quantity of algae die and decompose. Supersaturation of DO (>110% saturation) can also be an indicator of photosynthesis by large quantities of algae, particularly during mid-to-late afternoon. These abnormally high DO values also skewed the baseline data in Table 4-2. The table and associated text show a baseline range of 2–16 mg/L DO and an average baseline DO value of	Both the continuous monitoring data and grab samples (DO from 1 mg/L to 9 mg/L) show high levels of algae. Although the supersaturation is clear evidence of an algae bloom, the DO grab sample results also indicate an algae bloom problem. Without a high level of algae, DO will not change dramatically from 1 mg/L to 9 mg/L in the same season. The actual range will be determined by reaeration and DO generation and consumption by algae. In addition, grab samples might miss the full range of DO concentrations. Therefore, the data support that a high level of algae represents a normal water condition. In addition, a model can be developed only when data (including algae, nutrients, and DO) are available. DO will swing significantly with algae blooms. Low DO readings are caused by excessive levels of algae. Therefore, during the summer, when the water temperature is high, algae levels can be higher than in the winter, resulting in a higher average DO (6.76 mg/L) in the summer. Although the average DO in the summer is higher than that in the winter, the minimum DO is lower in the summer. The water quality target is the minimum DO, not the average DO. According to Louisiana's 2012 Integrated Report and 303(d) List Methods and Rationale,[2] to be fully supporting of the designated use, 90 percent of samples must meet the criterion. Between 75 and 90 percent of samples need to meet the criterion to be partially supporting of the designated use.

[1] Accessed February 6, 2012.

[2] http://www.deq.louisiana.gov/portal/Portals/0/planning/305b/2012/2012%20IR%20Methods%20and%20Rationale%20FINAL%201-17-12.pdf. Accessed February 6, 2012

#	Comment	EPA response
	6.76 mg/L. This average baseline later became the target (TMDL) value in Table 4-4. The data are not representative of normal conditions. Therefore, the baseline value (and later target value) of 6.76 mg/L is not a normal summer condition and is not appropriate as the TMDL. Finally, this baseline (and target) value is, in fact, greater than the winter target value of 5.57 mg/L. Given this discussion of oxygen saturation and the Meck figure, this is not correct. In addition, the LDEQ Ambient Water Quality Data presented in Figures 3-2 and 3-3 show how unusual the July 2009 data are. The ambient sampling shows dissolved oxygen levels ranging from 1 to 9 mg/L throughout the year, which can be considered a normal range. Furthermore, when reviewing these tables, at least 68 percent of the samples are above the 4-mg/L threshold. What percentage of samples must be below the threshold for the water body to be considered impaired?	
2	pH is abnormally high, representing an algae bloom: The pH collected during the same time period as the DO is seen to be rising to high levels (Figure B-4 from the TMDL). This, too, is an indication of an algae bloom. From the article *Algae Blooms* (http://portal.ncdenr.org/web/wq/ess/eco/blooms): When algae remove carbon dioxide during photosynthesis they raise the pH by increasing the level of hydroxide. The opposite reaction occurs during respiration when carbon dioxide is produced lowering hydroxide and lowering the pH. Therefore, high pH (> 8.0) can be an indicator of photosynthesis by large quantities of algae. Figure B-4. Continuous pH data observed at STCH-2 (St. Charles Canal).  	See Response 1 in Table E-3.
3	This segment represents two distinct watersheds with differing land uses: In segment 041401, all canals north of Chef Menteur Highway discharge into Lake Pontchartrain. Land use in this area is predominantly residential with some commercial. All canals south of the highway drain into the Intracoastal Waterway. Land use in this area is dominated by large industrial facilities. LPBF would like to see this TMDL broken down by the two distinct watersheds, with each TMDL focusing on the inputs related specifically to each watershed.	There are no data available for the area south of Chef Menteur Highway. Whether the data from canals north of the highway would be representative of those to the south is not known. EPA will clarify that the TMDL covers only the canals that are north of Chef Menteur Highway and that drain to Lake Pontchartrain.
4	The TMDL states that flow data are not available: The waterways in question are stormwater drainage canals. Although they flow only intermittently (when the city is pumped during a rain event), flow data would be available from the pumping.	This TMDL was written for the critical conditions, which are during summer low flow, or no flow in this water body. Flow occurs in the canals only during storm events and when pumps are used to drain excess water after storm events. Neither condition is considered the critical condition for this water body, so using these flows would not produce a TMDL that satisfies the requirements of a critical condition. In addition, the pumping flow represents a net loss of water for the canal, meaning that if pumping of the water continues, the canal will dry out during extended dry periods. Therefore, pumping flow cannot be used in modeling the canal.

#	Comment	EPA response
5	Waterways are man-made canals used for stormwater conveyance: Since these waterways are mostly man-made stormwater drainage canals that flow intermittently and in a wetland environment, there is a question of whether these DO TMDLs are appropriate. Are the designated uses accurate and appropriate for these waterways?	States and tribes are responsible for ensuring that state waters are assigned designated uses in accordance with the goals of CWA section 101(a), including the goal to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The state is responsible for evaluating and determining appropriate designated uses applicable to a water body. A state can modify a designated use goal only after a thorough evaluation of the attainability of that use in accordance with the provisions of 40 CFR 131.10(g) and state water quality standards. An existing use may not be removed unless a use requiring more stringent criteria is added.
6	Future growth allocation in Katrina area: The area in question was devastated in Hurricane Katrina in 2005. It has not yet built back up to the pre-hurricane population. We feel that the waste load allocations, load allocations, and particularly future growth should be sensitive to this fact. Was future growth assessed on pre-Katrina or current conditions?	The TMDL represents the data collected post-Katrina in 2009. The entire TMDL area is within MS4 areas, and therefore the TMDL does not contain a load allocation. Future growth was taken to be 10 percent of the TMDL. If we take additional allocations from the TMDL and put in future growth, it will lower the WLA for MS4s and they will have to do more in the near future to implement the TMDL rather than encouraging smart growth through BMPs and LID techniques as the area builds back to pre-Katrina conditions.

Table E-4. EPA responses to public comments received from the Sewerage and Water Board of New Orleans

#	Comment	EPA Response
1	Segment 041401 contains two distinct watersheds with differing land uses In this segment, all canals north of Chef Menteur Highway (Hwy 90) discharge into Lake Pontchartrain. Land use in this area is predominantly residential with some commercial and industrial uses along the Industrial Canal. Stormwater from these uses drains into several canals, which in turn discharge into Lake Pontchartrain. All canals south of Chef Menteur Highway drain into the Intracoastal Waterway. The predominant land use in this area is industrial; many of these industrial facilities have NPDES permits regulating discharge into the storm drain system, as indicated in figure 2.3 and in appendix 1 of the draft report. Since the report emphasizes point source discharges as a key source of dissolved oxygen levels in this segment, we would like to see this TMDL broken down by the two distinct watersheds, with each TMDL focusing on the uses related specifically to each watershed.	See Response 3 in Table E-3.
2	Waterways are not used for primary or secondary contact; they are used primarily for stormwater conveyance As the Sewerage and Water Board argued in the case of TMDLs for fecal coliform, waterways in Segment 04101 are man-made stormwater drainage canals that flow only intermittently. Since they are not appropriate for, intended for, or accessible for primary or secondary contact recreation, we question whether TMDLs for any parameters are applicable for these waterways.	See Response 5 in Table E-3.
3a	Algae bloom not factored into TMDL calculations. This TMDL is supposed to assess the dissolved oxygen conditions in New Orleans East Leveed Water Bodies. However, the intensive continuous monitoring on which the TMDL is based was performed during an algae bloom and does not represent appropriate conditions for TMDL modeling. We believe that the continuous monitoring portion of this TMDL was not done in the appropriate manner. Because the TMDL is based on this sampling, we feel it is not valid. We request that intensive monitoring and the TMDL be performed again to reflect normal summer dissolved oxygen.	See Response 1 in Table E-3.
1	See Comment 1 in Table E-3.	See Response 1 in Table E-3.
3c	See Comment 1 in Table E-3.	See Response 1 in Table E-3.
4a	See Comment 2 in Table E-3.	See Response 2 in Table E-3.
4b	It is clear from the continuous monitoring data that the St. Charles Canal was experiencing an algae bloom when the data were collected. This does not represent an appropriate condition from which TMDLs can be produced. We feel that this TMDL is not usable and should be redone.	See Response 1 in Table E-3.
5	See Comment 4 in Table E-3.	See Response 4 in Table E-3.