Appendix G

Habitat Assessment Forms

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Choctaw Bayou **Parish:**

Station #: C-1

Lat: 30° 25' 14.52"

Long: 91° 20 38.58"

Habitat/Biological Assessment completed by: Sarah Roy, Brian Dawmann

Date/Time:

Reason for Survey:

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☐	☒
____ % cloud cover	☐	☐ ____
☒ clear/sunny	☐	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☐ no

Air Temperature _____ °C

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☐ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☒ Other I-10 Corridor
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☐ No evidence
☒ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☐ none ☒ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

* This reference site has very little available habitat. The banks are scoured down to only a hard clay bank - no habitat zone. It appears as if the riparian zone has either been cleared OR is a spoil bank from I.C.C. dredging. - SKK

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: _____

Instream Features

Estimated Reach Length 200 m
Estimated Stream Width 18 m
Sampling Reach area 3600 m2
Estimated Water Depth 3 m
Surface Velocity none m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded ☐ Shaded

Channelized: ☐ No ☐ Yes – possibly, appears to have been dredged or scoured
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 100 m^2

Aquatic Vegetation

☐ Submerged N/A
Species present/%of sample reach
% total SAV's in sample reach _____%

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☐ Emergent N/A
Species present/%of sample reach
% total emergent vegetation present_____%

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating N/A
Species present/%of sample reach
% total floating vegetation present_____%

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

data sonde not functioning

Temperature__________°C

Specific Conductance__________mS/cm

Dissolved Oxygen __________mg/L

pH__________

Secchi depth 0.3m

WQ Instrument Used In-Situ 9600

Salinity Profile:
taken every 0.10m from bottom to surface

bottom

Water odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other__________

Water Surface Oils

- ☒ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other__________

Turbidity

☐ Clear ☐ Slightly Turbid ☒ Turbid
☐ Opaque ☐ Stained ☐ Other__________

Substrate/ Sediment

Odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other__________

ORP at 5cm __________mV

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	5
Silt	0.004-0.06mm	35
Clay	<0.004mm	60
Other		

Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	10
Muck-Mud	black, very fine organic (FPOM)	20
Marl	grey, shell fragments	
Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Choctaw Bayou	LOCATION
STATION # C-1 RIVERMILE ____	STREAM CLASS
LAT ____ LONG ____	RIVER BASIN
STORET #	AGENCY
INVESTIGATORS	LOT NUMBER
FORM COMPLETED BY SKK	DATE ____ TIME ____ AM PM / REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble ____% ☒ Snags 90 % ☒ Vegetated Banks 10 % ❑ Sand ____% ❑ Submerged Macrophytes ____% ❑ Other ( ) ____%
SAMPLE COLLECTION	**Gear used** ☒ D-frame ❑ kick-net ☒ Other petite ponar **How were the samples collected?** ❑ wading ❑ from bank ☒ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble ____ ❑ Snags ____ ❑ Vegetated Banks ____ ❑ Sand ____ ❑ Submerged Macrophytes ____ ❑ Other ( ) ____
GENERAL COMMENTS	Petite Ponar - 3 Snags - 19 Veg - 1

QUALITATIVE LISTING OF AQUATIC BIOTA
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0 1 2 **(3)** 4	Slimes	0 **(1)** 2 3 4
Filamentous Algae	0 **(1)** 2 3 4	Macroinvertebrates	0 1 **(2)** 3 4
Macrophytes	0 **(1)** 2 3 4	Fish	**(0)** 1 2 3 4

FIELD OBSERVATIONS OF MACROBENTHOS
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	**(0)** 1 2 3 4	Anisoptera	0 **(1)** 2 3 4	Chironomidae	0 1 **(2)** 3 4
Hydrozoa	**(0)** 1 2 3 4	Zygoptera	0 **(1)** 2 3 4	Ephemeroptera	**(0)** 1 2 3 4
Platyhelminthes	**(0)** 1 2 3 4	Hemiptera	**(0)** 1 2 3 4	Trichoptera	0 **(1)** 2 3 4
Turbellaria	**(0)** 1 2 3 4	Coleoptera	**(0)** 1 2 3 4	Other	**(0)** 1 2 3 4
Hirudinea	**(0)** 1 2 3 4	Lepidoptera	**(0)** 1 2 3 4		
Oligochaeta	0 1 **(2)** 3 4	Sialidae	**(0)** 1 2 3 4		
Isopoda	**(0)** 1 2 3 4	Corydalidae	**(0)** 1 2 3 4		
Amphipoda	**(0)** 1 2 3 4	Tipulidae	**(0)** 1 2 3 4		
Decapoda	**(0)** 1 2 3 4	Empididae	**(0)** 1 2 3 4		
Gastropoda	**(0)** 1 2 3 4	Simuliidae	**(0)** 1 2 3 4		
Bivalvia	**(0)** 1 2 3 4	Tabinidae	**(0)** 1 2 3 4		
		Culcidae	**(0)** 1 2 3 4		

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Choctaw Bayou **Parish:** West Baton Rouge?

Station #: C-1

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Roy | Thomas Price

Date/Time: 8/27/05 1330

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☐
☒ 25 % cloud cover	☒ 50%
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 98 °F

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☒ Other I-10 corridor
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☐ No evidence
☒ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☐ none ☒ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present:_____

Instream Features

Estimated Reach Length 200 m
Estimated Stream Width 18 m
Sampling Reach area 3600 m2
Estimated Water Depth 3 m
Surface Velocity None m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 60 m^2

Aquatic Vegetation

~~☐ Submerged~~

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 5 %

Species present/%of sample reach

☒ Alligatorweed / 5 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

~~☐ Floating~~

% total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.08 °C

Specific Conductance 0.510 mS/cm

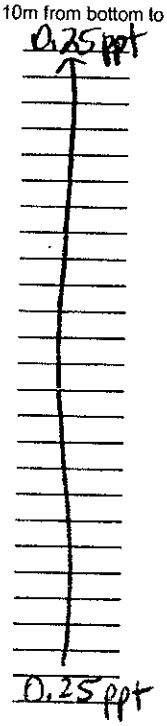
Dissolved Oxygen 2.90 mg/L 37.2%

pH 7.00 pHmV -12.7

Secchi depth 0.5m ORP: -188

WQ Instrument Used YSI 6000XLM

Salinity Profile:
taken every 0.10m from bottom to surface



Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Substrate/ Sediment

Odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

ORP at 5cm N/A mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	5
Silt	0.004-0.06mm	40
Clay	<0.004mm	55
Other		—

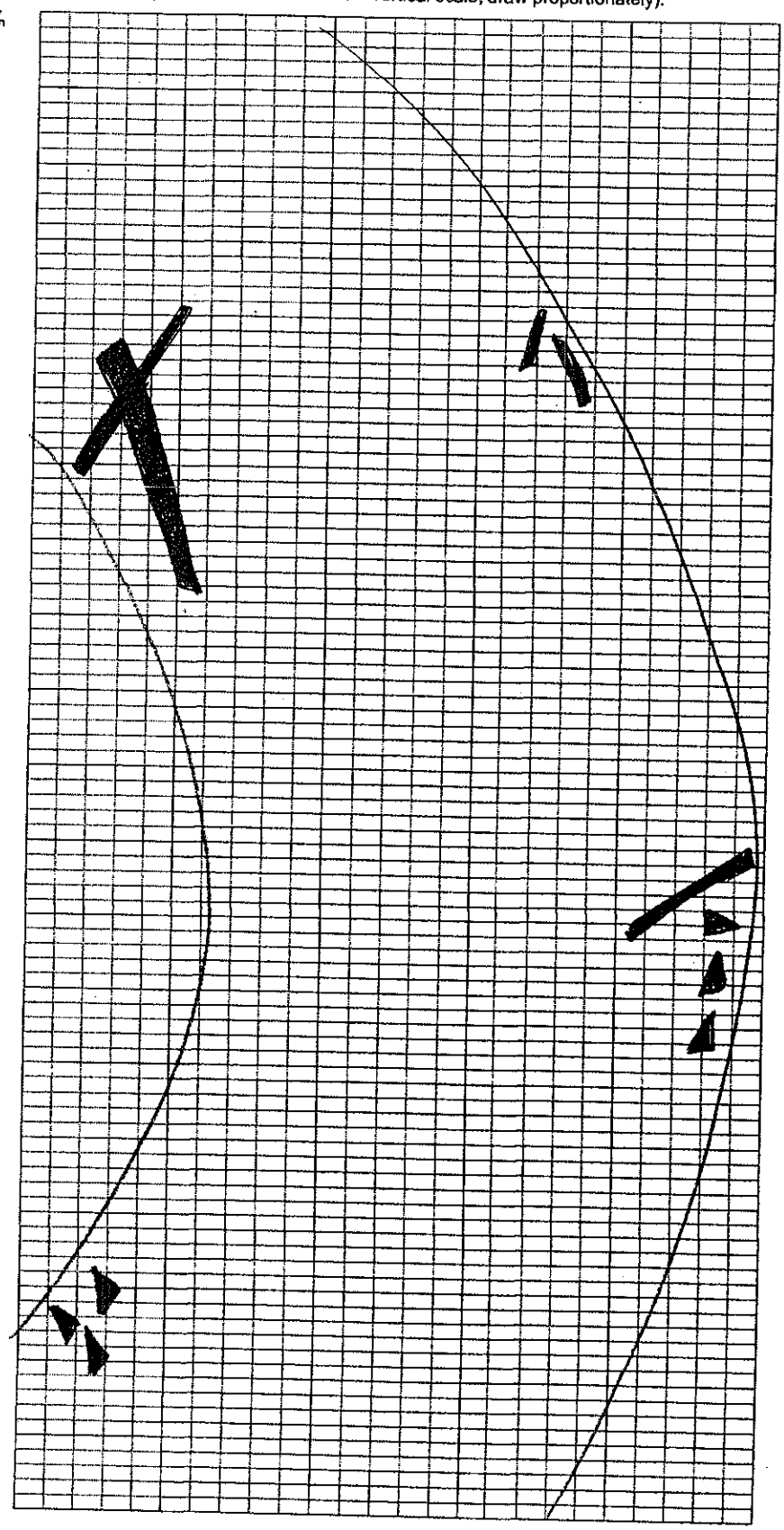
Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	10
Muck-Mud	black, very fine organic (FPOM)	20
Marl	grey, shell fragments	—
Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- [x] Snags
- [ ] Roots/undercut banks
- [ ] Leaf Packs (or mats)
- [ ] Macrophytes
- [x] Emergent Veg
- [ ] _____
- [ ] _____

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Benthos is hard clay
*only sampleable habitat is woody debris
? few emergent veg.

Revision Date: February 1, 2004

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Upper Grand River **Parish:**

Station #: C-2

Lat: 29° 13' 49.40

Long: 90° 24' 53.75

Habitat/Biological Assessment completed by: Sarah Ray, Brian Dupont

Date/Time: 8/1/06

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
10 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☐ no

Air Temperature 86 °F / °C

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☐ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☒ Other large disturbed area
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☐ No evidence
☒ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 6

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☑ Shrubs ☐ Grasses ☐ herbaceous

dominant species present:_____

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 30 m
Sampling Reach area 9000 m2
Estimated Water Depth 3 m
Surface Velocity n/a m/sec

Channelized: ☑ No ☐ Yes
If so, how recent?_____

Dam present? ☑ No ☐ Yes
Weir present? ☑ No ☐ Yes

Canopy Cover

☑ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☑ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☑ Yes If yes, approximately how much? 10 m^2

Aquatic Vegetation

☑ Submerged % total SAV's in sample reach 20 %

Species present/%of sample reach

☑ Elodea sp./ 10 %
☐ Watermilfoil / _____%
☑ Hydrilla sp. / 10 %
☐ Other _____ / _____%

☑ Emergent % total emergent vegetation present 15 %

Species present/%of sample reach

☐ Alligatorweed / 10 %
☐ Cattails (Typha sp.) / 5 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☑ Floating % total floating vegetation present 30 %

Species present/%of sample reach

☑ Water Hyacinth / 30 %
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.49 °C

Specific Conductance 273.6 mS/cm

Dissolved Oxygen ________ mg/L — meter not working

pH 7.29

Secchi depth 12"

WQ Instrument Used In-Situ 9000

Salinity Profile: taken every 0.10m from bottom to surface

bottom

Water odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other ________

Water Surface Oils

- ☒ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other ________

Turbidity

- ☐ Clear
- ☐ Slightly Turbid
- ☒ Turbid
- ☐ Opaque
- ☐ Stained
- ☐ Other ________

Substrate/ Sediment

Odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other ________

ORP at 5cm ________ mV

Oils

- ☒ Absent
- ☐ Slight
- ☐ Moderate
- ☐ Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	10
Silt	0.004-0.06mm	60
Clay	<0.004mm	30
Other		—

Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	80
Muck-Mud	black, very fine organic (FPOM)	20
Marl	grey, shell fragments	—
Other		—

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Upper Grande	LOCATION	
STATION # C-2 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ☐ Cobble____% ☒ Snags 10 % ☒ Vegetated Banks 50 % ☐ Sand____% ☒ Submerged Macrophytes 20 % ☒ Other (Organic Sediment) 20 %
SAMPLE COLLECTION	**Gear used** ☒ D-frame ☐ kick-net ☒ Other Petite Ponar **How were the samples collected?** ☐ wading ☐ from bank ☒ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ☐ Cobble____ ☐ Snags____ ☐ Vegetated Banks____ ☐ Sand____ ☐ Submerged Macrophytes____ ☐ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Snags - 5 SAV - 10 Floating - 5

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	0	(1)	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	(1)	2	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	1	2	3	4	Chironomidae	0	1	(2)	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	1	2	3	4	Ephemeroptera	0	(1)	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	0	1	2	3	4	Trichoptera	0	(1)	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	0	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	0	1	2	3	4						
Oligochaeta	0	1	(2)	3	4	Sialidae	0	1	2	3	4						
Isopoda	0	(1)	2	3	4	Corydalidae	0	1	2	3	4						
Amphipoda	0	(1)	2	3	4	Tipulidae	0	1	2	3	4						
Decapoda	(0)	1	2	3	4	Empididae	0	1	2	3	4						
Gastropoda	0	1	(2)	3	4	Simuliidae	0	1	2	3	4						
Bivalvia	0	(1)	2	3	4	Tabinidae	0	1	2	3	4						
						Culcidae	0	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Upper Grand River **Parish:**

Station #: C-2

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah K. Roy / Thomas Price

Date/Time: 8/26/05 1230

Reason for Survey: EPA Study

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☐	☐
20 % cloud cover	☒	☒ 20%
clear/sunny	☐	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 95 °F

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland
☐ Non-Forested Wetland
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial
☐ Industrial
☒ Other large area of disturbed land

Local Watershed NPS Pollution
☐ No evidence
☒ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 6

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present:_____

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 30 m
Sampling Reach area 9000 m2
Estimated Water Depth 3 m
Surface Velocity None m/sec

Canopy Cover shaded just along banks

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

possibly dredged in past

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes

Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 15 m^2

Aquatic Vegetation

☒ Submerged

% total SAV's in sample reach 20 %

Species present/%of sample reach

☒ Elodea sp./ 20 %
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 30 %

Species present/%of sample reach

☒ Alligatorweed / 20 %
☒ Cattails (Typha sp.) / 10 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating

% total floating vegetation present 40 %

Species present/%of sample reach

☒ Water Hyacinth / 30 %
☒ Duckweed / 2 %
☒ Salvinia sp. / 8 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.94 °C

Specific Conductance 0.460 mS/cm

Dissolved Oxygen 3.11 mg/L 42.6%

pH 7.19

Secchi depth 0.25m

WQ Instrument Used YSI 600XLM

pH mV = 23.6

ORP = -130.8

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

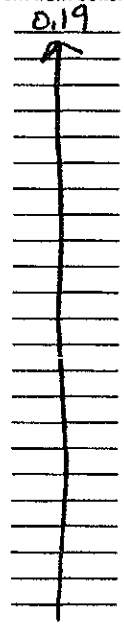
- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [x] Slightly Turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Salinity Profile:

taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

ORP at 5cm 156.7 mV

Oils

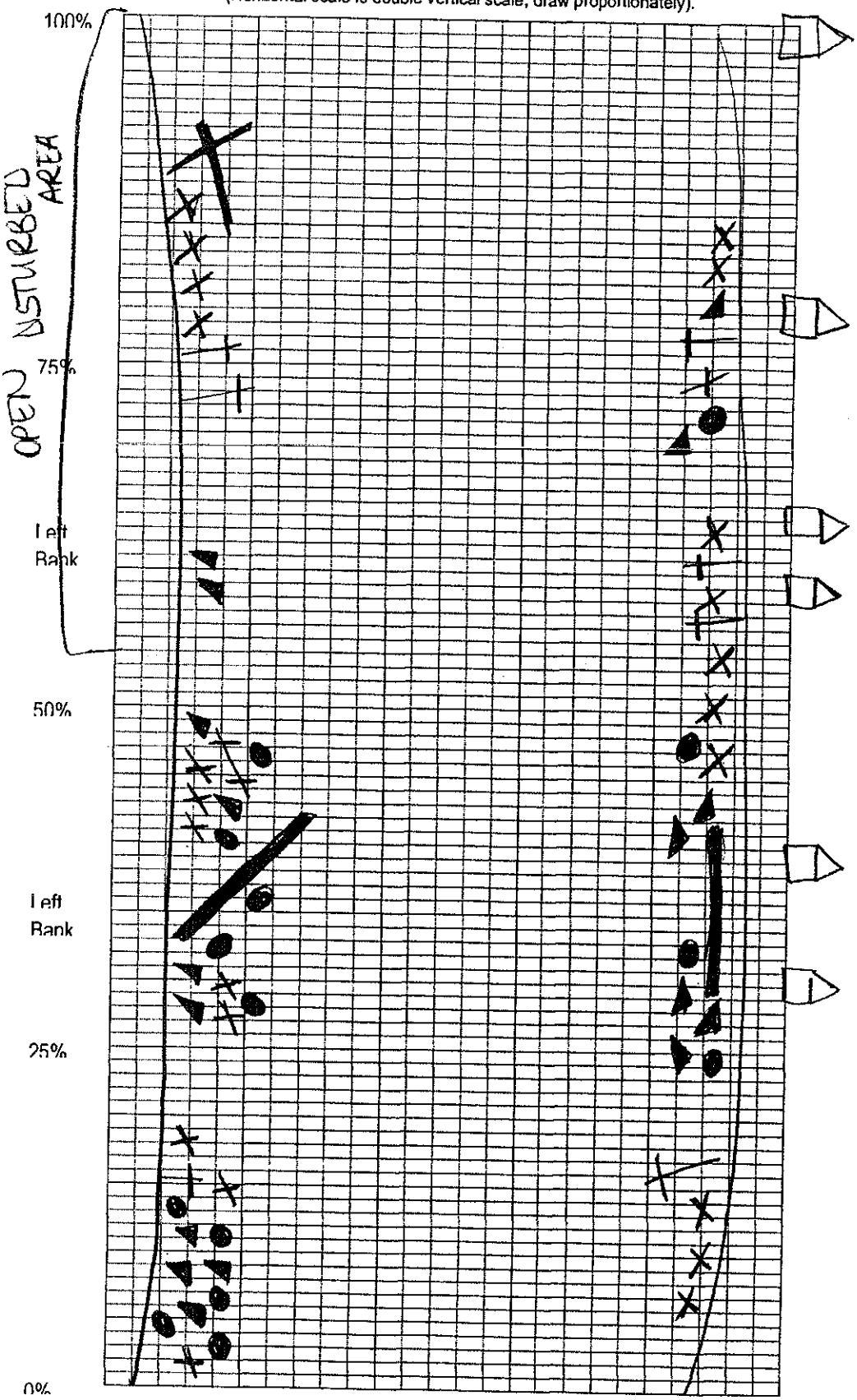
- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	15	Detritus	sticks, wood, coarse plant material (CPOM)	70
Silt	0.004-0.06mm	50	Muck-Mud	black, very fine organic (FPOM)	30
Clay	<0.004mm	35	Marl	grey, shell fragments	—
Other		—	Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- + Tree ~~Macrophytes~~
- ◭ Emergent
- X Submergent Veg
- ● Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Pat Bell **Parish:**

Station #: C-3

Lat: 29° 18' 20.39"

Long: 90° 22' 21.55"

Habitat/Biological Assessment completed by: SKR

Date/Time: 8/1/06

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
20 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days?

☐ yes ☒ no

Air Temperature 90 °F °C

Tidal Influence

☒ NONE, completely fresh water

☐ Intermediate

☐ Estuarine

High Tide_____ am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☐ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 32.59 °C

Specific Conductance 2598 mS/cm

Dissolved Oxygen ______ ~~mg/L~~ meter not working

pH 7.21

Secchi depth .5m

WQ Instrument Used In-Situ 9500

Salinity Profile: taken every 0.10m from bottom to surface

bottom

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other______

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other______

Turbidity

- [ ] Clear
- [x] Slightly Turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other______

Substrate/ Sediment

Odors

- [ ] ~~Normal/None~~
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [x] Other Anaerobic

ORP at 5cm ______mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	10	Detritus	sticks, wood, coarse plant material (CPOM)	20
Silt	0.004-0.06mm	70	Muck-Mud	black, very fine organic (FPOM)	80
Clay	<0.004mm	20	Marl	grey, shell fragments	—
Other		—	Other		—

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Pat Bay	LOCATION	
STATION # C-3 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~D-frame~~ ❑ kick-net ~~Other~~ Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ~~from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ~~Snags~~ 10 ~~Vegetated Banks~~ 40 ❑ Sand____ ~~Submerged Macrophytes~~ 50 ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 SAV - 12 Floating - 6 Sng - 2

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0 (1) 2 3 4	Slimes	0 (1) 2 3 4
Filamentous Algae	(0) 1 2 3 4	Macroinvertebrates	0 1 2 (3) 4
Macrophytes	0 1 2 3 (4)	Fish	0 1 (2) 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0) 1 2 3 4	Anisoptera	0 (1) 2 3 4	Chironomidae	0 1 (2) 3 4
Hydrozoa	(0) 1 2 3 4	Zygoptera	0 1 (2) 3 4	Ephemeroptera	0 (1) 2 3 4
Platyhelminthes	(0) 1 2 3 4	Hemiptera	0 (1) 2 3 4	Trichoptera	0 1 (2) 3 4
Turbellaria	(0) 1 2 3 4	Coleoptera	(0) 1 2 3 4	Other	(0) 1 2 3 4
Hirudinea	(0) 1 2 3 4	Lepidoptera	(0) 1 2 3 4		
Oligochaeta	0 1 (2) 3 4	Sialidae	(0) 1 2 3 4		
Isopoda	0 1 (2) 3 4	Corydalidae	(0) 1 2 3 4		
Amphipoda	0 1 (2) 3 4	Tipulidae	(0) 1 2 3 4		
Decapoda	0 1 (2) 3 4	Empididae	(0) 1 2 3 4		
Gastropoda	0 (1) 2 3 4	Simuliidae	(0) 1 2 3 4		
Bivalvia	(0) 1 2 3 4	Tabinidae	(0) 1 2 3 4		
		Culcidae	(0) 1 2 3 4		

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Pat Bay **Parish:** Terrebonne

Station #: C-3

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Roy | Thomas Price

Date/Time: 8/26/05 1530

Reason for Survey: EPA Study

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☐
100 ☒ % cloud cover	☒ 50%
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 95 °F

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width NA m
Sampling Reach area NA m2
Estimated Water Depth N/A m
Surface Velocity none m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☐ Intermediate Canal/Channel
☒ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes

Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 30 m²

Aquatic Vegetation

☒ Submerged

% total SAV's in sample reach 60 %

Species present/%of sample reach

☒ Elodea sp./ 40 %
☐ Watermilfoil / _____%
☒ Hydrilla sp. / 20 %
☐ Other _____ / _____%

☐ Emergent N/A

% total emergent vegetation present____%

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating

% total floating vegetation present 20 %

Species present/%of sample reach

☐ Water Hyacinth / ____%
☐ Duckweed / _____%
☒ Salvinia sp. / 20 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 32.8 °C

Specific Conductance 0.390 mS/cm

Dissolved Oxygen 5.61 mg/L 76.00%

pH 7.94 pHmV = -64.8

ORP = -14.5

Secchi depth 0.5m

WQ Instrument Used YSI XLM 6000

Water odors

- [x] Normal/None
- [ ] Chemical
- [ ] Petroleum
- [ ] Other_____
- [ ] Fishy
- [ ] Sewage

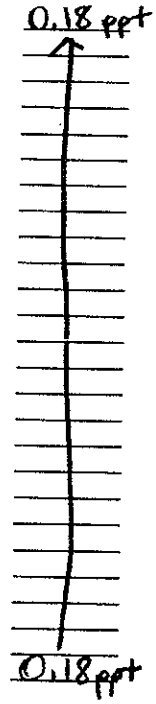
Water Surface Oils

- [x] None
- [ ] Flecks
- [ ] Slick
- [ ] Other_____
- [ ] Sheen
- [ ] Globs

Turbidity

- [ ] Clear
- [x] Slightly Turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Salinity Profile:
taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

- [ ] Normal/None
- [ ] Chemical
- [ ] Petroleum
- [x] Other Slightly Anaerobic
- [ ] Fishy
- [ ] Sewage

ORP at 5cm -168.8 ORP

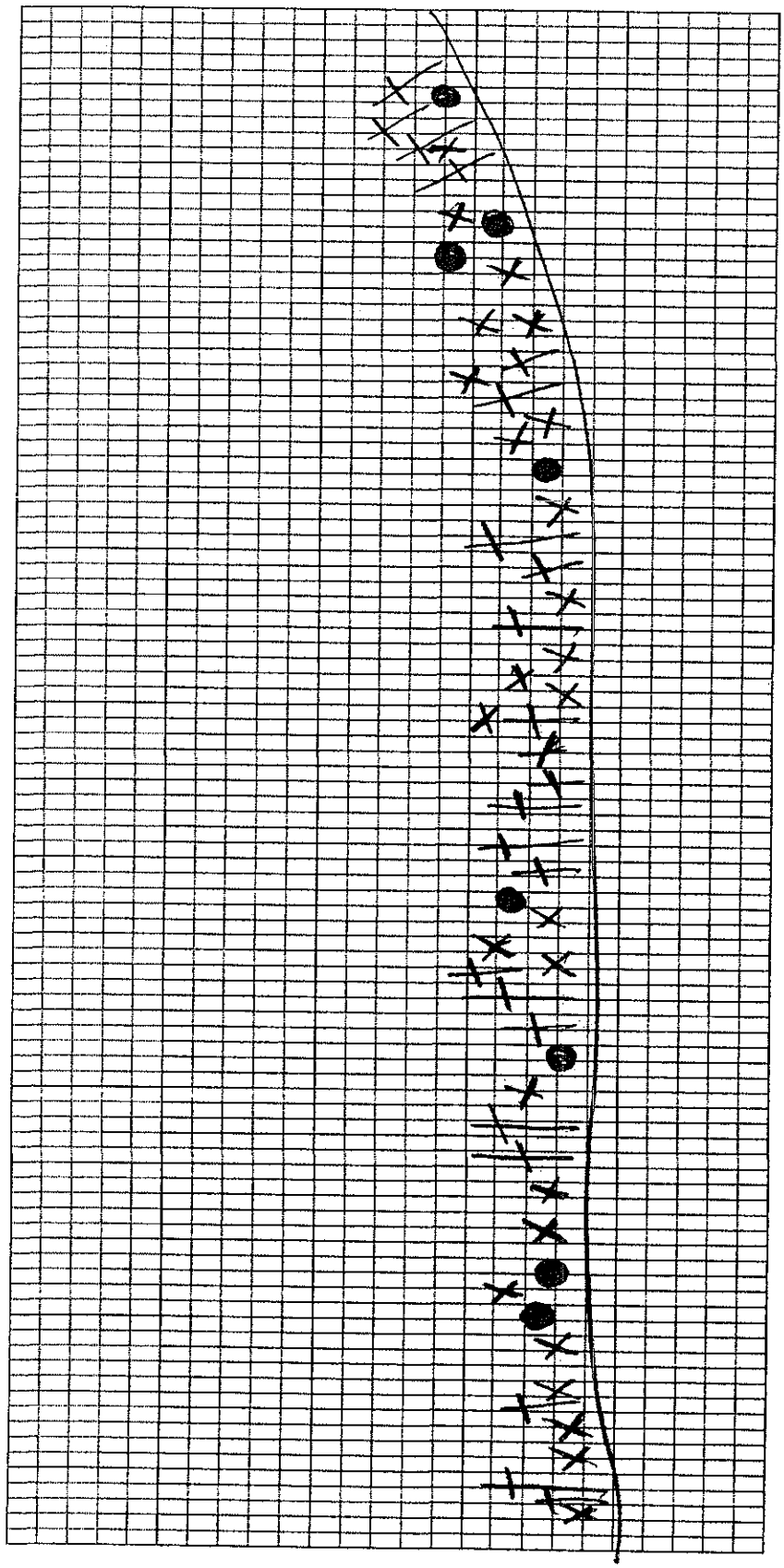
Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Reach
Sand	0.06-2mm	5	Detritus	sticks, wood, coarse plant material (CPOM)	40
Silt	0.004-0.06mm	60	Muck-Mud	black, very fine organic (FPOM)	60
Clay	<0.004mm	35	Marl	grey, shell fragments	—
Other		—	Other		—

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- Snags
- Roots/undercut banks
- Leaf Packs (or mats)
- Macrophytes
- Cypress Tree Base
- Submerged Veg.
- Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Lower Flat **Parish:**

Station #: C-4

Lat: 30° 13' 48.43"

Long: 91° 21' 26.06"

Habitat/Biological Assessment completed by: Sarah Ray, Brian Deaman

Date/Time: 8/1/06

Reason for Survey:

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☐	☒
10% cloud cover	☐	☐
clear/sunny	☐	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☐ no

Air Temperature 90 °F °C

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 3+

downstream of reach

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 20 m
Sampling Reach area 6000 m2
Estimated Water Depth 1.5 m
Surface Velocity n/a m/sec

Canopy Cover

☐ Open ☒ Partly Open ☐ Partly Shaded
☐ Shaded

Channelized: ☒ No ☐ Yes
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 20 m^2

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☐ Emergent

% total emergent vegetation present 10 %

Species present/%of sample reach

☐ Alligatorweed / _____%
☒ Cattails (Typha sp.) / 10 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus / _____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present 5 %

Species present/%of sample reach

☒ Water Hyacinth / 5 %
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.39 °C

Specific Conductance 392.2 mS/cm

Dissolved Oxygen ________ mg/L – D.O. meter not functioning

pH 7.28

Secchi depth .5 m

WQ Instrument Used In-Situ 9000

Water odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other________

Water Surface Oils

- ☒ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other________

Turbidity

- ☐ Clear
- ☒ Slightly Turbid
- ☐ Turbid
- ☐ Opaque
- ☐ Stained
- ☐ Other________

Salinity Profile:
taken every 0.10m from bottom to surface

bottom

Substrate/ Sediment

Odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other________

ORP at 5cm ________ mV

Oils

- ☒ Absent
- ☐ Slight
- ☐ Moderate
- ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm		Detritus	sticks, wood, coarse plant material (CPOM)	80
Silt	0.004-0.06mm	40	Muck-Mud	black, very fine organic (FPOM)	20
Clay	<0.004mm	60	Marl	grey, shell fragments	
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Lower Flat	LOCATION	
STATION # C-4 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ☑ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ~~❑ from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Emergent - 10 Snags - 5 Floating - 5

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	1	(2)	3	4	Chironomidae	0	1	(2)	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	1	(2)	3	4	Ephemeroptera	0	(1)	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	0	(1)	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	0	1	(2)	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	(0)	1	2	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	(0)	1	2	3	4	Tipulidae	(0)	1	2	3	4						
Decapoda	(0)	1	2	3	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	(1)	2	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	0	(1)	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Lower Flat **Parish:** Terrebonne

Station #: C-4

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah K. Berg / Thomas Price

Date/Time: 8/24/05 1030

Reason for Survey: EPA Study

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☐
20 ☒ % cloud cover	☒ 50%
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 91 °F

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☑ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☐ No evidence
☒ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 1

Comments: found several different sp. of Unionid shells - no live

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress / Gum

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 20 m
Sampling Reach area 6000 m2
Estimated Water Depth 1.5 m
Surface Velocity none m/sec

Channelized: ☒ No ☐ Yes
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover slightly shaded on banks
☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 30 m^2

Aquatic Vegetation

☐ Submerged N/A
% total SAV's in sample reach _____%
Species present/%of sample reach
☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☐ Emergent
% total emergent vegetation present 3%
Species present/%of sample reach
☐ Alligatorweed / _____%
☒ Cattails (Typha sp.) / 3 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus / _____%
☐ Other _____ / _____%

☐ Floating N/A
% total floating vegetation present _____%
Species present/%of sample reach
☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.27 °C

Specific Conductance 0.399 mS/cm

Dissolved Oxygen 5.75 mg/L 68.2%

pH 7.26 pHmV = -27.3

Secchi depth 0.25m ORP = 158.5

WQ Instrument Used YSI 600XLM

Water odors

☒ Normal/None ☐ Chemical

☐ Petroleum ☐ Other_____

☐ Fishy

☐ Sewage

Water Surface Oils

☒ None ☐ Flecks

☐ Slick ☐ Other_____

☐ Sheen

☐ Globs

Turbidity

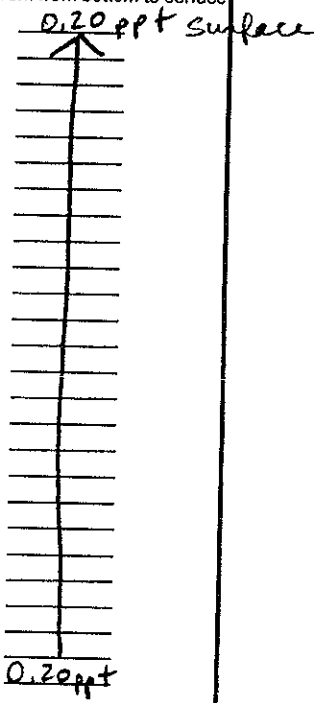
☐ Clear ☐ Slightly Turbid ☒ Turbid

☐ Opaque ☐ Stained ☐ Other_____

* Light Green Algae Layer

Salinity Profile:

taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

☒ Normal/None ☐ Chemical

☐ Petroleum ☐ Other_____

☐ Fishy

☐ Sewage

ORP at 5cm -20.4 pHmV

-136.0 = ORP

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	Ø
Silt	0.004-0.06mm	40%
Clay	<0.004mm	60%
Other		—

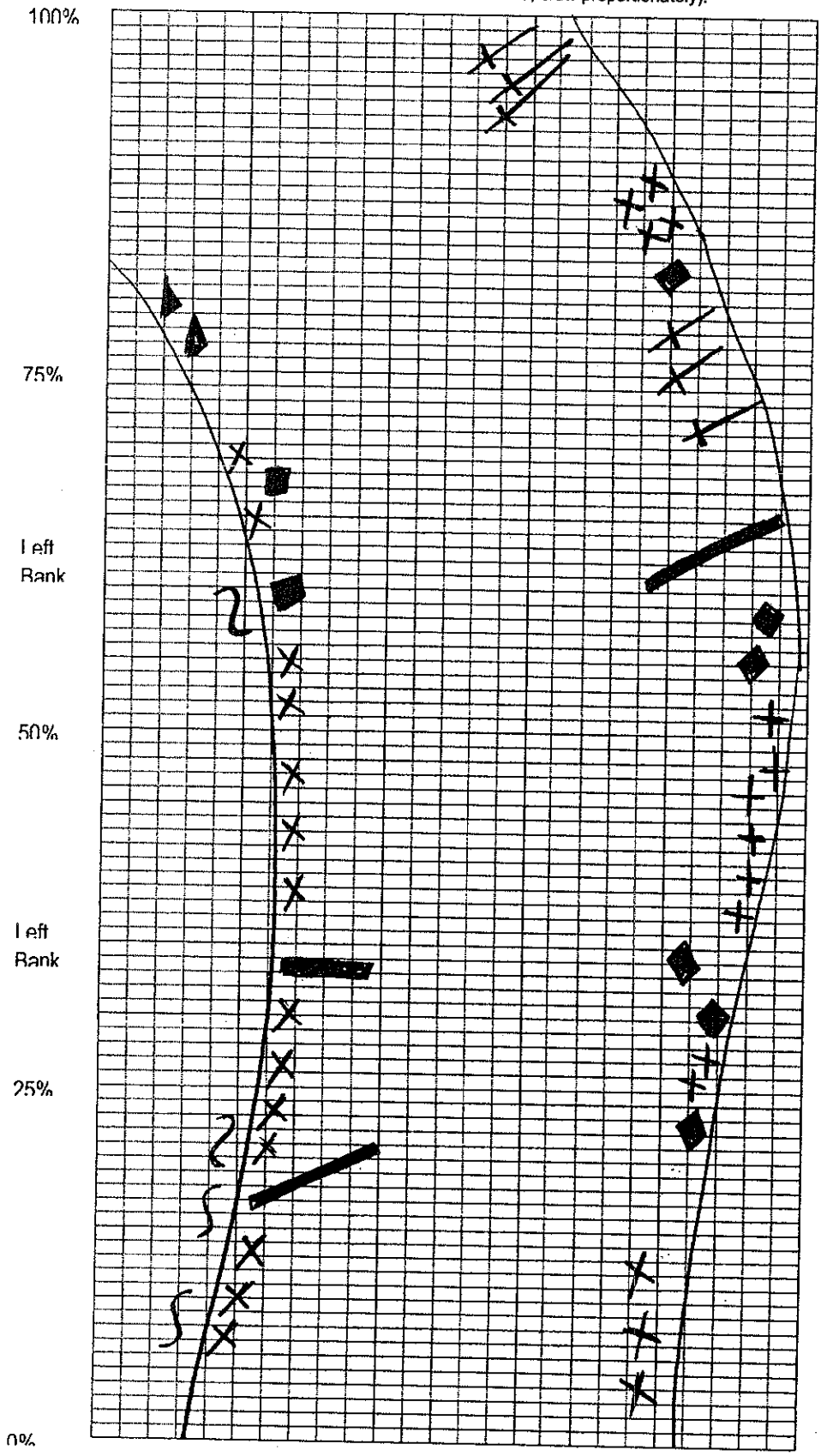
Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	80%
Muck-Mud	black, very fine organic (FPOM)	20%
Marl	grey, shell fragments	—
Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- Snags
- Roots/undercut banks
- Leaf Packs (or mats)
- Macrophytes
- Woody Debris
- live tree (cypress base
- _____

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Unionids

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bay Dularge **Parish:**

Station #: C-5

Lat: 30° 01' 47.89

Long: 91° 13' 13.69

Habitat/Biological Assessment completed by: Sarah Ray, Brian Dawson

Date/Time: 8/2/06 1000

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
20 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☐ no

Air Temperature 85 °C

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☐ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☑ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Black Willow, Maple

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width ~ m
Sampling Reach area 100m m2
Estimated Water Depth 3 m
Surface Velocity n/a m/sec

Canopy Cover

☑ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Channelized: ☑ No ☐ Yes
If so, how recent?_____

Dam present? ☑ No ☐ Yes
Weir present? ☑ No ☐ Yes

Waterbody Size Classification:

☑ Large Canal/Channel
☐ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☑ Yes If yes, approximately how much? 5 m^2

Aquatic Vegetation

☑ Submerged

% total SAV's in sample reach 40 %

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☑ Hydrilla sp. / 20 %
☑ Other Coontail sp / 20 %

☑ Emergent

% total emergent vegetation present 5 %

Species present/%of sample reach

☑ Alligatorweed / 5 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present 25 %

Species present/%of sample reach

☑ Water Hyacinth / 10 %
☑ Duckweed / 15 %
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 32.33 °C

Specific Conductance 419.5 mS/cm

Dissolved Oxygen _____ mg/L

pH 7.27

Secchi depth 12"

WQ Instrument Used In-Situ 9000

Salinity Profile:
taken every 0.10m from bottom to surface

fresh
N/A
bottom

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Substrate/ Sediment

Odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

ORP at 5cm _____ mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	30
Silt	0.004-0.06mm	60
Clay	<0.004mm	10
Other		

Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	75
Muck-Mud	black, very fine organic (FPOM)	25
Marl	grey, shell fragments	
Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bay Natchez	LOCATION	
STATION # C-5 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other (____)____%
SAMPLE COLLECTION	**Gear used** ~~❑~~ D-frame ❑ kick-net ~~❑~~ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ☒ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other (____)____
GENERAL COMMENTS	Petite Ponar - 3 SAV - 10 Floating - 6 Emergent - 2 Snags - 2

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0 (1) 2 3 4	Slimes	0 (1) 2 3 4
Filamentous Algae	(0) 1 2 3 4	Macroinvertebrates	0 1 (2) 3 4
Macrophytes	0 1 2 (3) 4	Fish	0 (1) 2 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0) 1 2 3 4	Anisoptera	0 1 (2) 3 4	Chironomidae	0 1 2 (3) 4
Hydrozoa	(0) 1 2 3 4	Zygoptera	0 1 (2) 3 4	Ephemeroptera	0 1 (2) 3 4
Platyhelminthes	(0) 1 2 3 4	Hemiptera	(0) 1 2 3 4	Trichoptera	0 1 (2) 3 4
Turbellaria	(0) 1 2 3 4	Coleoptera	(0) 1 2 3 4	Other	(0) 1 2 3 4
Hirudinea	(0) 1 2 3 4	Lepidoptera	(0) 1 2 3 4		
Oligochaeta	0 1 2 (3) 4	Sialidae	(0) 1 2 3 4		
Isopoda	0 1 (2) 3 4	Corydalidae	(0) 1 2 3 4		
Amphipoda	0 1 (2) 3 4	Tipulidae	(0) 1 2 3 4		
Decapoda	0 (1) 2 3 4	Empididae	(0) 1 2 3 4		
Gastropoda	0 (1) 2 3 4	Simuliidae	(0) 1 2 3 4		
Bivalvia	(0) 1 2 3 4	Tabinidae	(0) 1 2 3 4		
		Culcidae	(0) 1 2 3 4		

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bay Boh Lower Grand River North of Natalez Lake **Parish:** Terrebonne

Station #: C-5

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Roy / Thomas Price

Date/Time: 8/27/05 0900

Reason for Survey: EPA Survey

Weather Conditions

Now		Past 24 h	
☐	storm (heavy rain)	☐	
☐	rain (steady rain)	☐	
☐	intermittent showers	☐	
☐	% cloud cover	☒	50
☒	clear/sunny	☐	

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 90 °F

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Black Willow

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 40 m
Sampling Reach area 12000 m2
Estimated Water Depth 3 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover
☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☒ Large Canal/Channel
☐ Intermediate Canal/Channel
☒ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 20 m^2

Aquatic Vegetation

☒ Submerged

% total SAV's in sample reach 80 %

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☒ Hydrilla sp. / 80 %
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 50%

Species present/%of sample reach

☒ Alligatorweed / 20 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus / _____%
☒ Other grass? / 5 %

☒ Floating

% total floating vegetation present 100 %

Species present/%of sample reach

☐ Water Hyacinth / _____%
☒ Duckweed / 30 %
☒ Salvinia sp. / 70 %
☐ Other _____ / _____%

COMMENT: Site has strong chemical odor in air (chlorine?)
– entire area smells bad!

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

pH mV -34.0

ORP 156.8

Temperature 31.0 °C

Specific Conductance 0.417 mS/cm

Dissolved Oxygen 5.29 mg/L 68.1%

pH 7.35

Secchi depth 0.5

WQ Instrument Used YSI 600 XLM

Salinity Profile:
taken every 0.10m from bottom to surface

surface: 0.20 ppt

bottom: 0.20 ppt 5.0 ft

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other ______

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other ______

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other ______

Substrate/Sediment

ORP at 5cm -80.2 mV

Odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other ______

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	10
Silt	0.004-0.06mm	60
Clay	<0.004mm	30
Other		—

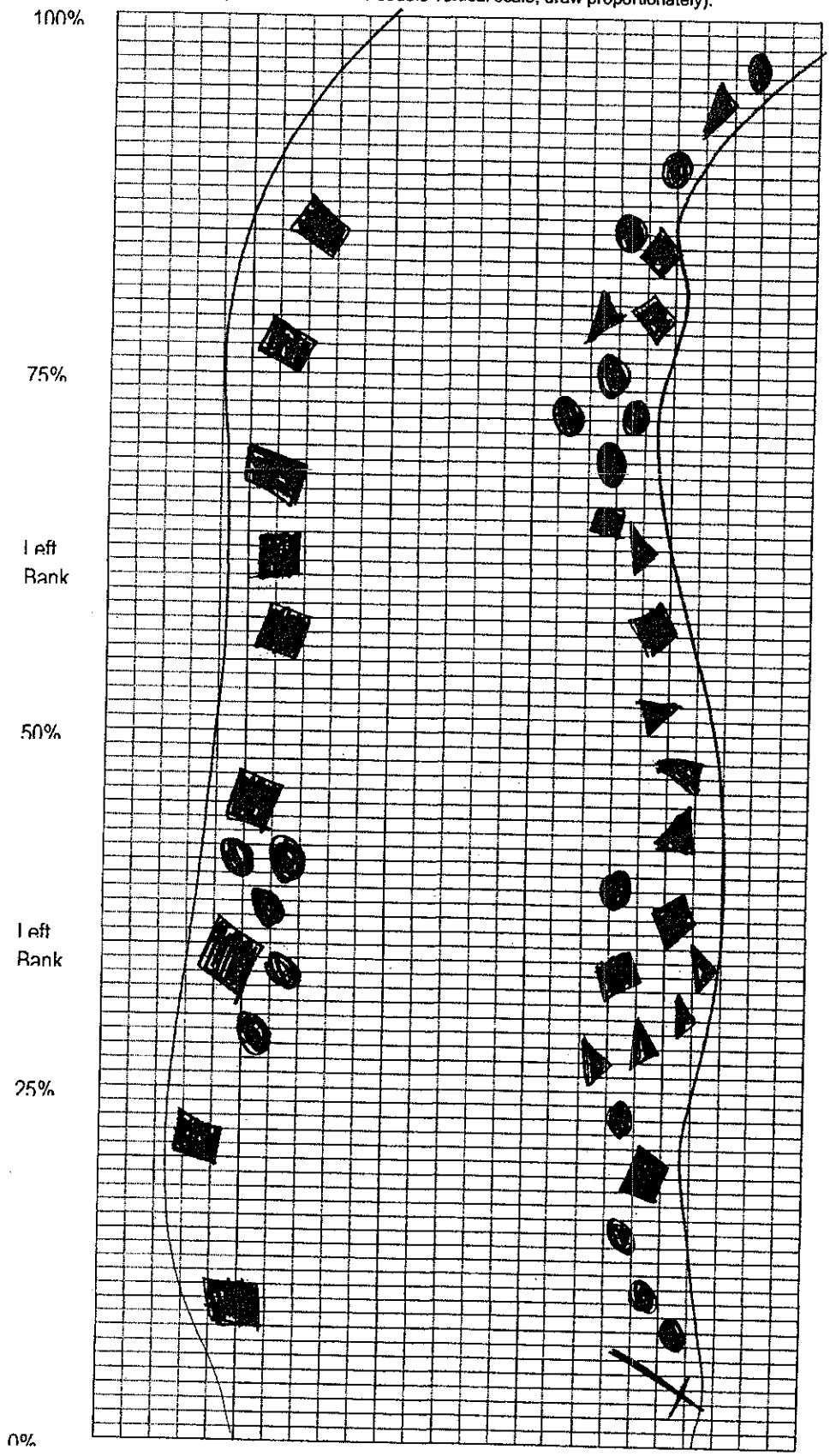
Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	20
Muck-Mud	black, very fine organic (FPOM)	80
Marl	grey, shell fragments	—
Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- Snags
- Roots/undercut banks
- Leaf Packs (or mats)
- TREE ~~Macrophytes~~
- Submerged
- Emergent
- Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: North Lake Mumford **Parish:**

Station #: C-6

Lat: 29° 56' 51.30"

Long: 91° 10' 21.86"

Habitat/Biological Assessment completed by: Sarah Roy, Brian Denman

Date/Time: 7/2/10

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☑
40 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature _____ °C

Tidal Influence

☑ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☑ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Grasses

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 30 m
Sampling Reach area 9000 m2
Estimated Water Depth 1.0 m
Surface Velocity n/a m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☐ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☒ Submerged % total SAV's in sample reach 30 %

Species present/%of sample reach

☐ Elodea sp./ 15 %
☐ Watermilfoil / _____%
☐ Hydrilla sp. / 15 %
☐ Other _____ / _____%

☒ Emergent % total emergent vegetation present 10 %

Species present/%of sample reach

☒ Alligatorweed / 10 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating % total floating vegetation present 40%

Species present/%of sample reach

☐ Water Hyacinth / 30%
☐ Duckweed / _____%
☐ Salvinia sp. / 10 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 33.16 °C

Specific Conductance 364.6 mS/cm

Dissolved Oxygen _____ mg/L — meter not working

pH 6.92

Secchi depth 3m

WQ Instrument Used In-Situ 9000

Water odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other_____

Water Surface Oils

- ☒ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other_____

Turbidity

- ☐ Clear
- ☐ Slightly Turbid
- ☒ Turbid
- ☐ Opaque
- ☐ Stained
- ☐ Other_____

Salinity Profile:
taken every 0.10m from bottom to surface

bottom

Substrate/ Sediment

Odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☒ Other Anaerobic

ORP at 5cm _____ mV

Oils

- ☒ Absent
- ☐ Slight
- ☐ Moderate
- ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	10	Detritus	sticks, wood, coarse plant material (CPOM)	80
Silt	0.004-0.06mm	90	Muck-Mud	black, very fine organic (FPOM)	20
Clay	<0.004mm	—	Marl	grey, shell fragments	—
Other		—	Other		—

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME N. Lake Vonett	LOCATION	
STATION # C-6 RIVERMILE	STREAM CLASS	
LAT _____ LONG _____	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE _____ TIME _____ AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ~~❑ Other~~ Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ❑ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Submerged - 7 Emergent - 4 Floating - 9

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0) 1 2 3 4	Slimes	(0) 1 2 3 4
Filamentous Algae	(0) 1 2 3 4	Macroinvertebrates	0 1 2 (3) 4
Macrophytes	0 1 2 3 (4)	Fish	0 1 (2) 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera (0) 1 2 3 4	Anisoptera 0 (1) 2 3 4	Chironomidae 0 1 (2) 3 4
Hydrozoa (0) 1 2 3 4	Zygoptera 0 (1) 2 3 4	Ephemeroptera 0 1 (2) 3 4
Platyhelminthes (0) 1 2 3 4	Hemiptera (0) 1 2 3 4	Trichoptera 0 1 (2) 3 4
Turbellaria (0) 1 2 3 4	Coleoptera (0) 1 2 3 4	Other (0) 1 2 3 4
Hirudinea (0) 1 2 3 4	Lepidoptera (0) 1 2 3 4	
Oligochaeta 0 (1) 2 3 4	Sialidae (0) 1 2 3 4	
Isopoda 0 1 2 (3) 4	Corydalidae (0) 1 2 3 4	
Amphipoda 0 1 2 (3) 4	Tipulidae (0) 1 2 3 4	
Decapoda 0 (1) 2 3 4	Empididae (0) 1 2 3 4	
Gastropoda 0 1 (2) 3 4	Simuliidae (0) 1 2 3 4	
Bivalvia (0) 1 2 3 4	Tabinidae (0) 1 2 3 4	
	Culcidae (0) 1 2 3 4	

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Little Bayou Long **Parish:** Terrebonne

Station #: C-6

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Ray / Thomas Price

Date/Time: 8/27/05 1015

Reason for Survey: EPA Survey

Weather Conditions

Now		Past 24 h
☐ storm (heavy rain)		☐
☐ rain (steady rain)		☐
☐ intermittent showers		☐
20 ☒ % cloud cover		☒ 50
☐ clear/sunny		☐

Has there been any heavy rain in the last 7 days?

☐ yes ☒ no

Air Temperature 95 °F

Tidal Influence

☒ NONE, completely fresh water

☐ Intermediate

☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 30 m
Sampling Reach area 9000 m2
Estimated Water Depth 1.0 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover Shaded Edges
☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☒ Submerged

% total SAV's in sample reach 30 %

Species present/%of sample reach

☒ Elodea sp./ 15 %
☐ Watermilfoil / _____ %
☒ Hydrilla sp. / 15 %
☐ Other _____ / _____ %

☒ Emergent

% total emergent vegetation present 20 %

Species present/%of sample reach

☒ Alligatorweed / 20 %
☐ Cattails (Typha sp.) / _____ %
☐ Spartina patens / _____ %
☐ Spartina alterniflora / _____ %
☐ Juncus romerianus / _____ %
☐ American Lotus / _____ %
☐ Other _____ / _____ %

☒ Floating

% total floating vegetation present 50 %

Species present/%of sample reach

☒ Water Hyacinth / 20 %
☒ Duckweed / 10 %
☒ Salvinia sp. / 20 %
☐ Other _____ / _____ %

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.3 °C

Specific Conductance 0.317 mS/cm

Dissolved Oxygen 2.68 mg/L 35.7%

pH 7.00

pHmV -20.7

ORP -43.0

Secchi depth 0.5m

WQ Instrument Used YSI 600XLM

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

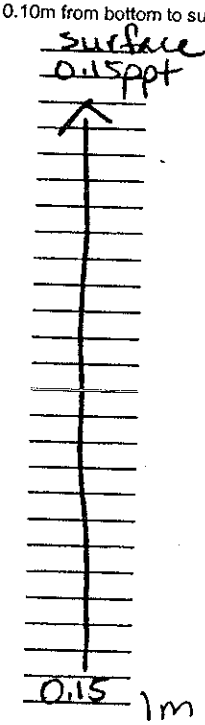
Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Salinity Profile:
taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [x] Other Anaerobic

ORP at 5cm -60.4 mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	5
Silt	0.004-0.06mm	95
Clay	<0.004mm	
Other		—

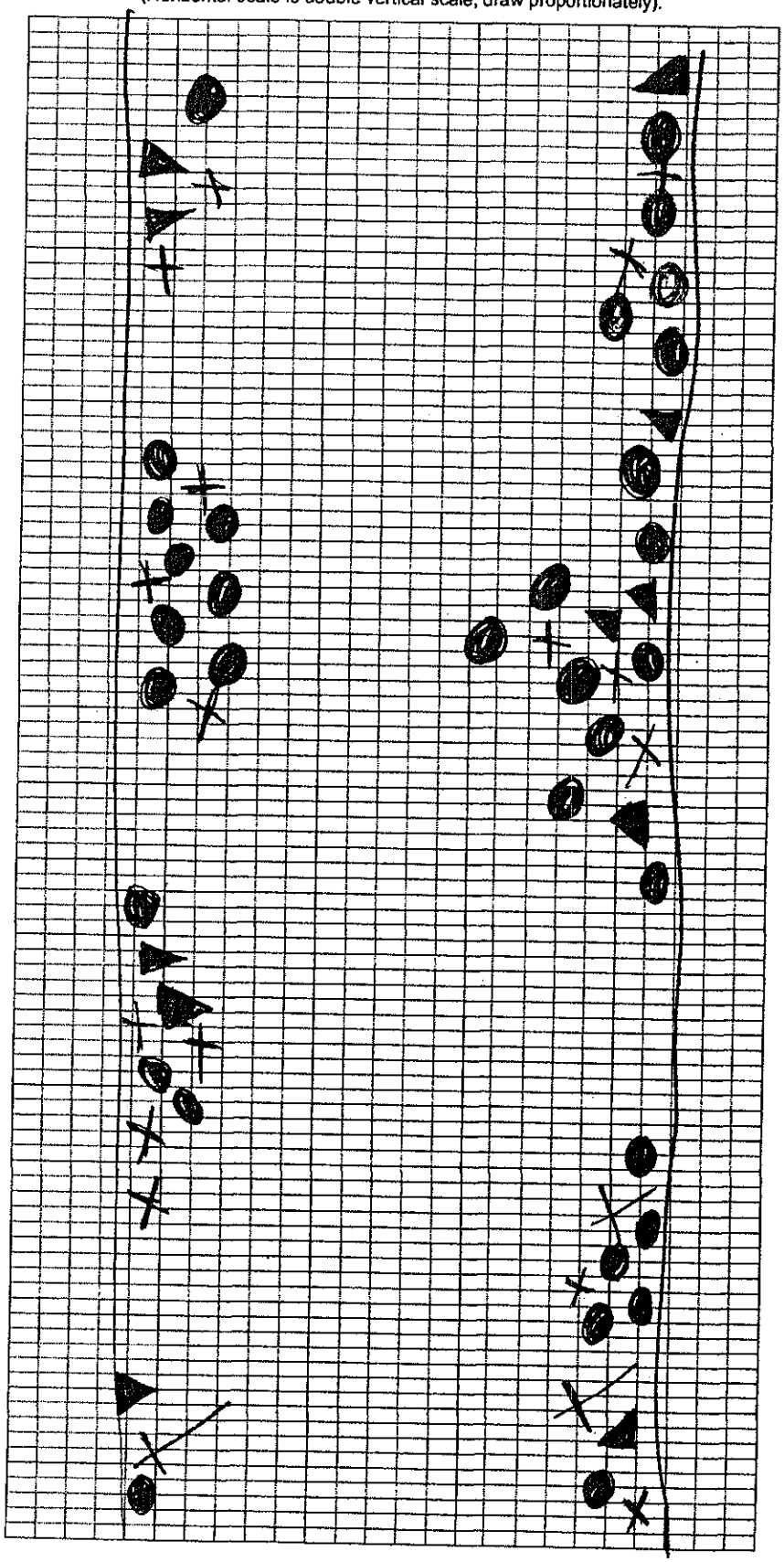
Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	60
Muck-Mud	black, very fine organic (FPOM)	40
Marl	grey, shell fragments	—
Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- T TREE ~~Macrophytes~~
- X Submerged
- ▲ Emergent
- ● Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Grassy Lake **Parish:** St. Martin

Station #: C-7

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Roy, Brian Newman

Date/Time: 7/31/06 1230

Reason for Survey: EPA/Arcadis D.O. study

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
40 ☒ cloud cover	☒ 60
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 95 °F

Tidal Influence

☐ NONE, completely fresh water

☒ Intermediate

☐ Estuarine

High Tide 4:18 am/pm Low Tide 2:55 am/pm

Tide is: ☐ Coming IN ☒ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☒ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Black Willow, Typha

Instream Features

Estimated Reach Length 200 m
Estimated Stream Width 20 m
Sampling Reach area 4000 m2
Estimated Water Depth 1.5 m
Surface Velocity no flow m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 5 m^2

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach ___%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☐ Emergent

% total emergent vegetation present 15 %

Species present/%of sample reach

☒ Alligatorweed / 10 %
☒ Cattails (Typha sp.) / 5 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present 35 %

Species present/%of sample reach

☒ Water Hyacinth / 10 %
☒ Duckweed / 5 %
☒ Salvinia sp. / 20 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

no data equipment failure

Temperature_____°C

Specific Conductance_____mS/cm

Dissolved Oxygen _____mg/L

pH_____

Secchi depth_____

WQ Instrument Used _____

Salinity Profile:
taken every 0.10m from bottom to surface

Water odors

☑ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

Water Surface Oils

☑ None ☐ Flecks
☐ Slick ☐ Other_____
☐ Sheen
☐ Globs

Turbidity

☐ Clear ☐ Slightly Turbid ☑ Turbid
☐ Opaque ☐ Stained ☐ Other_____

bottom

Substrate/ Sediment

Odors

☑ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

ORP at 5cm ____mV

Oils

☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm		Detritus	sticks, wood, coarse plant material (CPOM)	50
Silt	0.004-0.06mm	80	Muck-Mud	black, very fine organic (FPOM)	50
Clay	<0.004mm	20	Marl	grey, shell fragments	
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Grassy Lake	LOCATION	
STATION # C-7 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS Sarah Ray, Brian Diemer		LOT NUMBER
FORM COMPLETED BY Sarah Ray	DATE 7/31 TIME 1230 AM (PM)	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ❑ D-frame ❑ kick-net ❑ Other _____ **How were the samples collected?** ❑ wading ❑ from bank ❑ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	8 Emergent 4 Woody Debris 8 Floating 3 petit Ponar

QUALITATIVE LISTING OF AQUATIC BIOTA
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	0	(1)	2	3	4
Filamentous Algae	0	1	(2)	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms), 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	1	(2)	3	4	Chironomidae	0	1	2	(3)	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	1	(2)	3	4	Ephemeroptera	0	1	2	(3)	4
Platyhelminthes	0	(1)	2	3	4	Hemiptera	0	1	2	(3)	4	Trichoptera	0	1	(2)	3	4
Turbellaria	0	(1)	2	3	4	Coleoptera	0	1	(2)	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	0	1	(2)	3	4						
Oligochaeta	0	(1)	2	3	4	Sialidae	0	1	(2)	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	0	(1)	2	3	4						
Amphipoda	0	1	2	3	(4)	Tipulidae	0	(1)	2	3	4						
Decapoda	0	1	2	3	(4)	Empididae	0	(1)	2	3	4						
Gastropoda	0	1	2	(3)	4	Simuliidae	0	(1)	2	3	4						
Bivalvia	0	(1)	2	3	4	Tabinidae	0	1	(2)	3	4						
						Culcidae	0	1	(2)	3	4						

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Grassy Lake	LOCATION	
STATION # C-7 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~D~~-frame ❑ kick-net ☑ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ~~☑~~ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar-3 Snags-2 Emergent-5 Floating-15

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0	(1)	2	3	4	Slimes	0	(1)	2	3	4
Filamentous Algae	0	(1)	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	(3)	4	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	1	(2)	3	4	Chironomidae	0	1	(2)	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	1	(2)	3	4	Ephemeroptera	0	(1)	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	0	(1)	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	(0)	1	2	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	(2)	3	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	(2)	3	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	1	(2)	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: GRASSY LAKE **Parish:**

Station #: C-7

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Roy | Thomas Price

Date/Time: 8/25/05 1100

Reason for Survey: ~~EPA~~ Survey

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☐	☒
50 % cloud cover	☒	☒ 50
clear/sunny	☐	☐

Has there been any heavy rain in the last 7 days? ☒ yes ☐ no

Air Temperature 96 °F

Tidal Influence

☐ NONE, completely fresh water

☒ Intermediate

☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☐ calm
☒ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☒ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Black Willow | Typha

Instream Features

Estimated Reach Length 200 m
Estimated Stream Width 20 m
Sampling Reach area 4000 m2
Estimated Water Depth 1 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover
☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 10 m^2

Aquatic Vegetation

☐ Submerged N/A % total SAV's in sample reach _____%

Species present/%of sample reach
☒ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent % total emergent vegetation present 20 %

Species present/%of sample reach
☒ Alligatorweed / 10 %
☒ Cattails (Typha sp.) / 5 %
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus / _____%
☒ Other Unknown / 5 %

☒ Floating % total floating vegetation present 80 %

Species present/%of sample reach
☒ Water Hyacinth / 35 %
☒ Duckweed / 20 %
☒ Salvinia sp. / 25 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

pHmV -81.3
ORP 247.2

Temperature 31.7 °C

Specific Conductance 0.316 mS/cm

Dissolved Oxygen 7.85 mg/L 107.7%

pH 8.18

Secchi depth 0.5

WQ Instrument Used YSI 600XLM

Water odors

☒ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

Water Surface Oils

☒ None ☐ Flecks
☐ Slick ☐ Other_____
☐ Sheen
☐ Globs

Turbidity

☐ Clear ☑ Slightly Turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other_____

Salinity Profile:
taken every 0.10m from bottom to surface

surface 0.15 ppt
0.15 0.5m
bottom 0.15 1m

Substrate/ Sediment

Odors

ORP at 5cm -6 mV

☒ Normal/None ☐ Chemical
☐ Petroleum ☒ Other slightly anaerobic
☐ Fishy
☐ Sewage

Oils

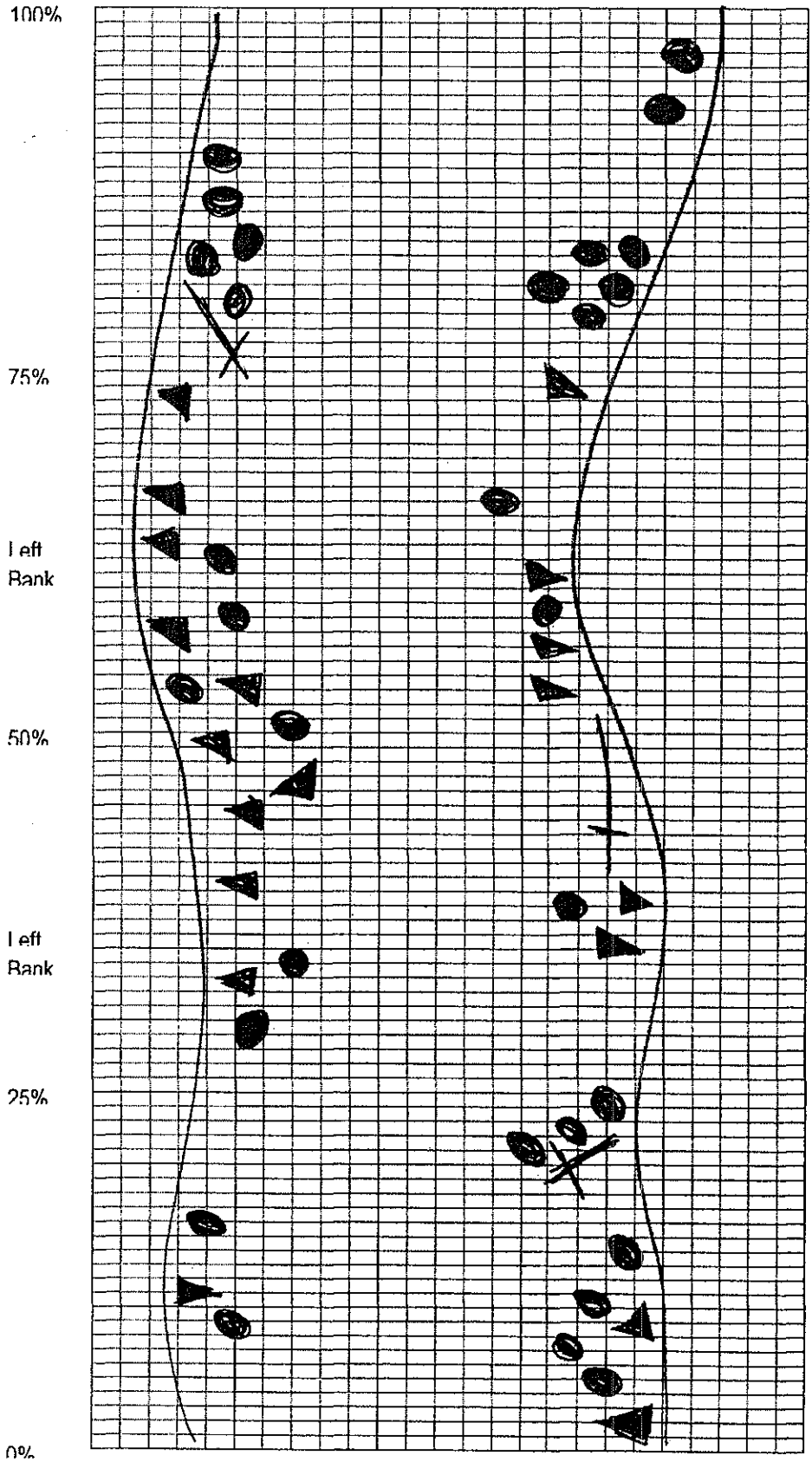
☐ Absent ☒ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	—	Detritus	sticks, wood, coarse plant material (CPOM)	35
Silt	0.004-0.06mm	80	Muck-Mud	black, very fine organic (FPOM)	65
Clay	<0.004mm	20	Marl	grey, shell fragments	—
Other		—	Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- ☐ TREES ~~Macrophytes~~
- ☐ Emergent
- ☐ Floating
- ☐ _____

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: South Lake Verret **Parish:**

Station #: C-8

Lat: 29°51'14.26"

Long: 91°05'31.49"

Habitat/Biological Assessment completed by: Sarah Roy, Brian Dewman

Date/Time: 8/2/06 1320

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
☒ 20 % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☐ no

Air Temperature 90 °F °C

Tidal Influence

☒ NONE, completely fresh water
☐ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 6+

downstream of site

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Acer rubrum, Taxodium distichum

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width 5 m
Sampling Reach area 500 m2
Estimated Water Depth 1.5 m
Surface Velocity n/a m/sec

Canopy Cover

☐ Open ☐ Partly Open ☒ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 10 m^2

Aquatic Vegetation

☒ Submerged

% total SAV's in sample reach 45 %

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☒ Hydrilla sp. / 15 %
☒ Other Ceratophyllum sp. / 30 %

☒ Emergent

% total emergent vegetation present 15 %

Species present/%of sample reach

☒ Alligatorweed / 15 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating

% total floating vegetation present 20 %

Species present/%of sample reach

☐ Water Hyacinth / _____%
☒ Duckweed / 20 %
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 26.37 °C

Specific Conductance 34.3 mS/cm

Dissolved Oxygen ~~8~~ mg/L - D.O. meter not working

pH 8.87

Secchi depth 12"

WQ Instrument Used In-Situ 5000

Salinity Profile:
taken every 0.10m from bottom to surface

_____

Water odors

☒ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

Water Surface Oils

☒ None ☐ Flecks
☐ Slick ☐ Other_____
☐ Sheen
☐ Globs

Turbidity

☐ Clear ☐ Slightly Turbid ☒ Turbid bottom
☐ Opaque ☐ Stained ☐ Other_____

Substrate/ Sediment

Odors

ORP at 5cm _____ mV

☐ Normal/None ☐ Chemical
☐ Petroleum ☒ Other Anaerobic
☐ Fishy
☐ Sewage

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	5
Silt	0.004-0.06mm	60
Clay	<0.004mm	35
Other		

Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	40
Muck-Mud	black, very fine organic (FPOM)	60
Marl	grey, shell fragments	
Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME S. Lake Vermet		LOCATION	
STATION # C-8	RIVERMILE	STREAM CLASS	
LAT	LONG	RIVER BASIN	
STORET #		AGENCY	
INVESTIGATORS			LOT NUMBER
FORM COMPLETED BY		DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( ) ____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ~~❑ Other~~ _____ **How were the samples collected?** ❑ wading ❑ from bank ~~❑ from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( ) ____
GENERAL COMMENTS	Petiole Borer - 3 Snags - 4 Floating - 4 Submerged - 9 Emergent - 3

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0 1 **(2)** 3 4	Slimes	**(0)** 1 2 3 4
Filamentous Algae	0 **(1)** 2 3 4	Macroinvertebrates	0 1 2 **(3)** 4
Macrophytes	0 1 2 **(3)** 4	Fish	0 1 **(2)** 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	**(0)** 1 2 3 4	Anisoptera	0 1 **(2)** 3 4	Chironomidae	0 1 2 **(3)** 4
Hydrozoa	**(0)** 1 2 3 4	Zygoptera	0 1 **(2)** 3 4	Ephemeroptera	0 1 **(2)** 3 4
Platyhelminthes	**(0)** 1 2 3 4	Hemiptera	**(0)** 1 2 3 4	Trichoptera	0 1 **(2)** 3 4
Turbellaria	**(0)** 1 2 3 4	Coleoptera	**(0)** 1 2 3 4	Other	**(0)** 1 2 3 4
Hirudinea	**(0)** 1 2 3 4	Lepidoptera	**(0)** 1 2 3 4		
Oligochaeta	0 1 **(2)** 3 4	Sialidae	**(0)** 1 2 3 4		
Isopoda	0 1 **(2)** 3 4	Corydalidae	**(0)** 1 2 3 4		
Amphipoda	0 1 **(2)** 3 4	Tipulidae	**(0)** 1 2 3 4		
Decapoda	0 1 **(2)** 3 4	Empididae	**(0)** 1 2 3 4		
Gastropoda	0 **(1)** 2 3 4	Simuliidae	**(0)** 1 2 3 4		
Bivalvia	**(0)** 1 2 3 4	Tabinidae	**(0)** 1 2 3 4		
		Culcidae	**(0)** 1 2 3 4		

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: South Lake Verrett **Parish:** Terrebonne

Station #: C-8

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Pray / Thomas Price

Date/Time: 8/25/05 1800

Reason for Survey: EPA Survey

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☐
☐ % cloud cover	☒ 50%
☒ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☒ yes ☐ no

Air Temperature 91 °F

Tidal Influence

☐ NONE, completely fresh water

☒ Intermediate

☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Red Maple / Tupelo

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width 20 m
Sampling Reach area 6000 m2
Estimated Water Depth 2 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover

☐ Open ☒ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☐ Intermediate Canal/Channel
☒ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 25 m^2

Aquatic Vegetation

☒ Submerged % total SAV's in sample reach 30 %

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☒ Hydrilla sp. / 30 %
☐ Other _____ / _____%

☒ Emergent % total emergent vegetation present 45 %

Species present/%of sample reach

☒ Alligatorweed / 40 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☒ Other unknown / 5 %

☒ Floating % total floating vegetation present 25 %

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☒ Salvinia sp. / 25 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.29 °C

Specific Conductance 0.242 mS/cm

Dissolved Oxygen 6.09 mg/L 83.5%

pH 7.62

Secchi depth 0.5m

WQ Instrument Used YSI 600XLM

Water odors

☒ Normal/None ☐ Chemical

☐ Petroleum ☐ Other_____

☐ Fishy

☐ Sewage

Water Surface Oils

☒ None ☐ Flecks

☐ Slick ☐ Other_____

☐ Sheen

☐ Globs

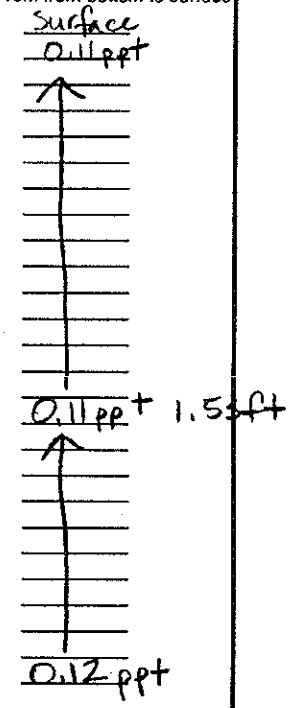
Turbidity

☐ Clear ☒ Slightly Turbid ☐ Turbid

☐ Opaque ☐ Stained ☐ Other_____

Salinity Profile:

taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

☐ Normal/None ☐ Chemical

☐ Petroleum ☒ Other Anaerobic

☐ Fishy

☐ Sewage

ORP at 5cm N/A mV

Oils

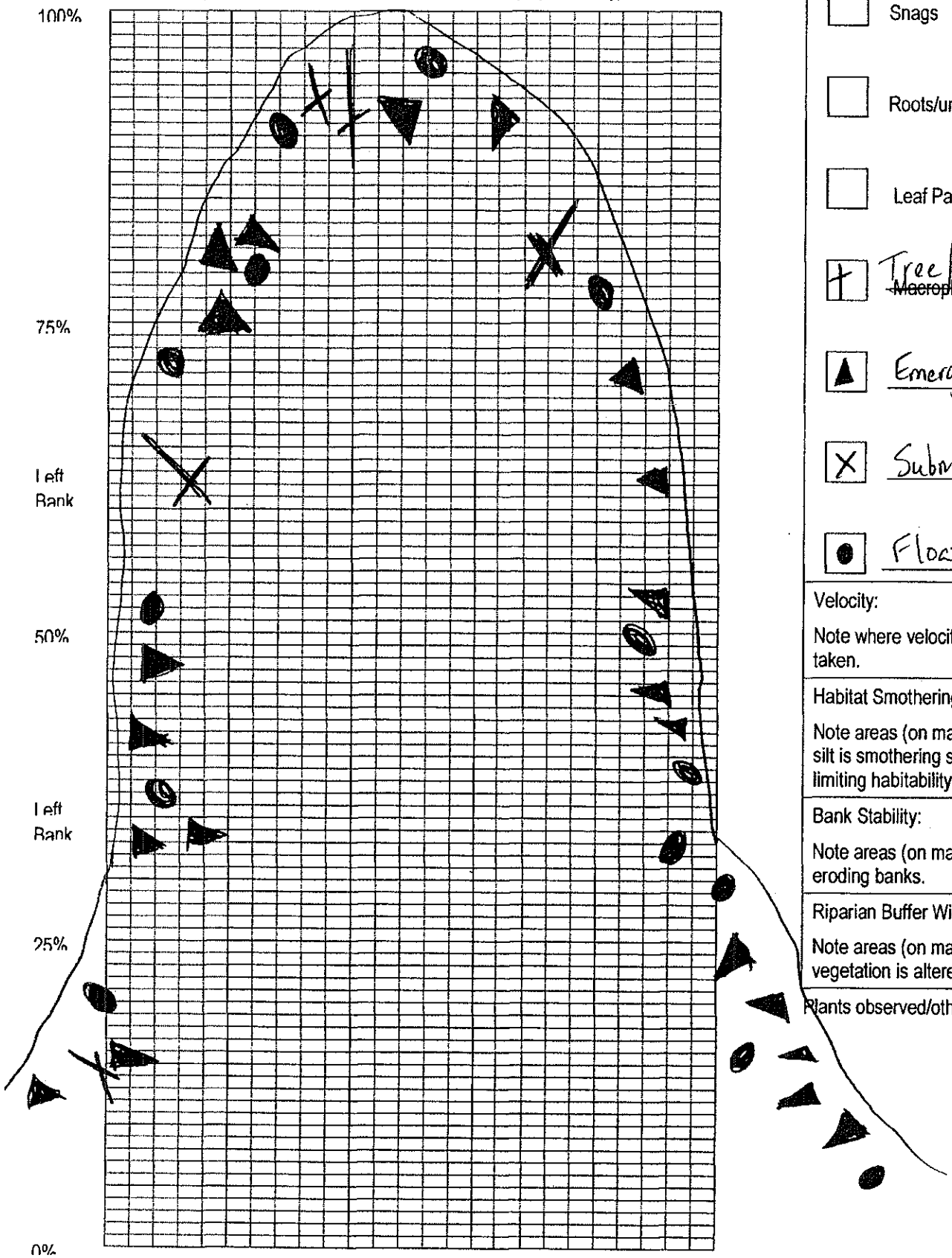
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition In Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition In Sampling Reach**
Sand	0.06-2mm	—	Detritus	sticks, wood, coarse plant material (CPOM)	40
Silt	0.004-0.06mm	70	Muck-Mud	black, very fine organic (FPOM)	60
Clay	<0.004mm	30	Marl	grey, shell fragments	—
Other		—	Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- ☐ Tree/DeadWood ~~Macrophytes~~
- ▲ Emergent
- X Submerged
- ● Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Lake Palourde **Parish:** St. Martin

Station #: C-9

Lat: 29° 44' 55.07

Long: 91° 09' 12.89

Habitat/Biological Assessment completed by: Sarah Roy, Brian Denzman

Date/Time: 7/31/06 1400

Reason for Survey: EPA/Arcadis D.O. study

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
☒ 60 % cloud cover	☒ 60
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days?

☐ yes ☒ no

Air Temperature 96 °F

Tidal Influence

☐ NONE, completely fresh water

☒ Intermediate

☐ Estuarine

High Tide 4:18 am/pm Low Tide 7:55 am/pm

Tide is: ☐ Coming IN ☒ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☒ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☐ calm
☒ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width open m
Sampling Reach area 300 m²
Estimated Water Depth 1 m
Surface Velocity no flow m/sec

Canopy Cover

☐ Open ☐ Partly Open ☒ Partly Shaded ☐ Shaded

Channelized: ☒ No ☐ Yes
If so, how recent? _____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Waterbody Size Classification:

☐ Large Canal/Channel
☐ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☒ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 30 m²

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach _____ %

Species present/%of sample reach

☐ Elodea sp./ _____ %
☐ Watermilfoil / _____ %
☐ Hydrilla sp. / _____ %
☐ Other _____ / _____ %

☒ Emergent

% total emergent vegetation present 5 %

Species present/%of sample reach

☐ Alligatorweed / 5 %
☐ Cattails (Typha sp.) / _____ %
☐ Spartina patens / _____ %
☐ Spartina alterniflora / _____ %
☐ Juncus romerianus / _____ %
☐ American Lotus / _____ %
☐ Other _____ / _____ %

☒ Floating

% total floating vegetation present 15 %

Species present/%of sample reach

☐ Water Hyacinth / 5 %
☐ Duckweed / _____ %
☐ Salvinia sp. / 10 %
☐ Other _____ / _____ %

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Instrument failure

Temperature_____°C

Specific Conductance_____mS/cm

Dissolved Oxygen _____mg/L

pH_____

Secchi depth_____

WQ Instrument Used _____

Salinity Profile: N/A
taken every 0.10m from bottom to surface

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
bottom _____

Water odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other_____

Water Surface Oils

- ☒ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other_____

Turbidity

- ☐ Clear
- ☐ Slightly Turbid
- ☒ Turbid
- ☐ Opaque
- ☐ Stained
- ☐ Other_____

Substrate/ Sediment

Odors

- ☒ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other_____

ORP at 5cm _____mV

Oils

- ☒ Absent
- ☐ Slight
- ☐ Moderate
- ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	/	Detritus	sticks, wood, coarse plant material (CPOM)	20
Silt	0.004-0.06mm	30	Muck-Mud	black, very fine organic (FPOM)	80
Clay	<0.004mm	70	Marl	grey, shell fragments	
Other		/	Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Lake Palourde	LOCATION	
STATION # C-9 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~D~~-frame ❑ kick-net ~~D~~ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ~~D~~ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Snags - 8 Emergent - 6 Floating - 6

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0 (1) 2 3 4	Slimes	0 (1) 2 3 4
Filamentous Algae	(0) 1 2 3 4	Macroinvertebrates	0 1 2 (3) 4
Macrophytes	0 1 2 (3) 4	Fish	0 1 (2) 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera (0) 1 2 3 4	Anisoptera 0 1 (2) 3 4	Chironomidae 0 1 2 (3) 4
Hydrozoa (0) 1 2 3 4	Zygoptera 0 1 (2) 3 4	Ephemeroptera 0 (1) 2 3 4
Platyhelminthes (0) 1 2 3 4	Hemiptera (0) 1 2 3 4	Trichoptera 0 (1) 2 3 4
Turbellaria (0) 1 2 3 4	Coleoptera (0) 1 2 3 4	Other (0) 1 2 3 4
Hirudinea (0) 1 2 3 4	Lepidoptera (0) 1 2 3 4	
Oligochaeta 0 1 (2) 3 4	Sialidae (0) 1 2 3 4	
Isopoda 0 1 (2) 3 4	Corydalidae (0) 1 2 3 4	
Amphipoda 0 1 (2) 3 4	Tipulidae (0) 1 2 3 4	
Decapoda 0 (1) 2 3 4	Empididae (0) 1 2 3 4	
Gastropoda 0 1 (2) 3 4	Simuliidae (0) 1 2 3 4	
Bivalvia (0) 1 2 3 4	Tabinidae (0) 1 2 3 4	
	Culcidae (0) 1 2 3 4	

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Lake Palourde **Parish:**

Station #: C-9

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Ray | Thomas Price

Date/Time: 8/25/05 0730 am

Reason for Survey: EPA Survey

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☐	☒
____ % cloud cover	☐	☐ ____
clear/sunny	☒	☐

Has there been any heavy rain in the last 7 days? ☒ yes ☐ no

Air Temperature 89 °F

Tidal Influence

☐ NONE, completely fresh water
☒ Intermediate
☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:
☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:
☒ calm
☐ light chop
☐ chop
☐ rough

Historical Search

Watershed Features

Predominant Surrounding Land Use
☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution
☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion
☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 300 m
Estimated Stream Width open m
Sampling Reach area 300 m²
Estimated Water Depth 1 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover
☐ Open ☐ Partly Open ☒ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☐ Large Canal/Channel
☐ Intermediate Canal/Channel
☒ Open Water

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 25 m²

Aquatic Vegetation

☐ Submerged N/A

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 10 %

Species present/%of sample reach

☒ Alligatorweed / 10 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating

% total floating vegetation present 20 %

Species present/%of sample reach

☒ Water Hyacinth / 5 %
☒ Duckweed / 5 %
☒ Salvinia sp. / 10 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 30.6 °C

Specific Conductance 0.336 mS/cm

Dissolved Oxygen 4.51 mg/L 59.5%

pH 8.9

Secchi depth 0.3m

WQ Instrument Used YSI XLM

Water odors

☒ Normal/None ☐ Chemical

☐ Petroleum ☐ Other_____

☐ Fishy

☐ Sewage

Water Surface Oils

☒ None ☐ Flecks

☐ Slick ☐ Other_____

☐ Sheen

☐ Globs

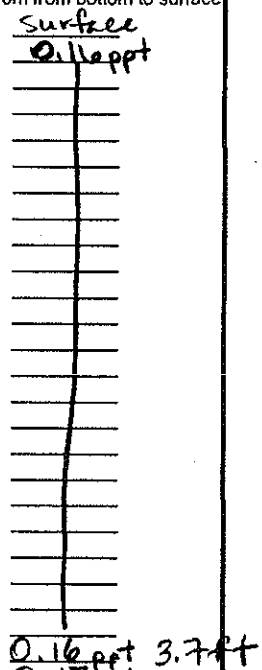
Turbidity

☐ Clear ☐ Slightly Turbid ☒ Turbid

☐ Opaque ☐ Stained ☐ Other_____

Salinity Profile:

taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

☒ Normal/None ☐ Chemical

☐ Petroleum ☒ Other Slightly Anaerobic

☐ Fishy

☐ Sewage

ORP at 5cm 45.5 mV

-53.6 ORP

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	—	Detritus	sticks, wood, coarse plant material (CPOM)	2
Silt	0.004-0.06mm	30	Muck-Mud	black, very fine organic (FPOM)	30
Clay	<0.004mm	70	Marl	grey, shell fragments	—
Other		—	Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

100m

100%

75%

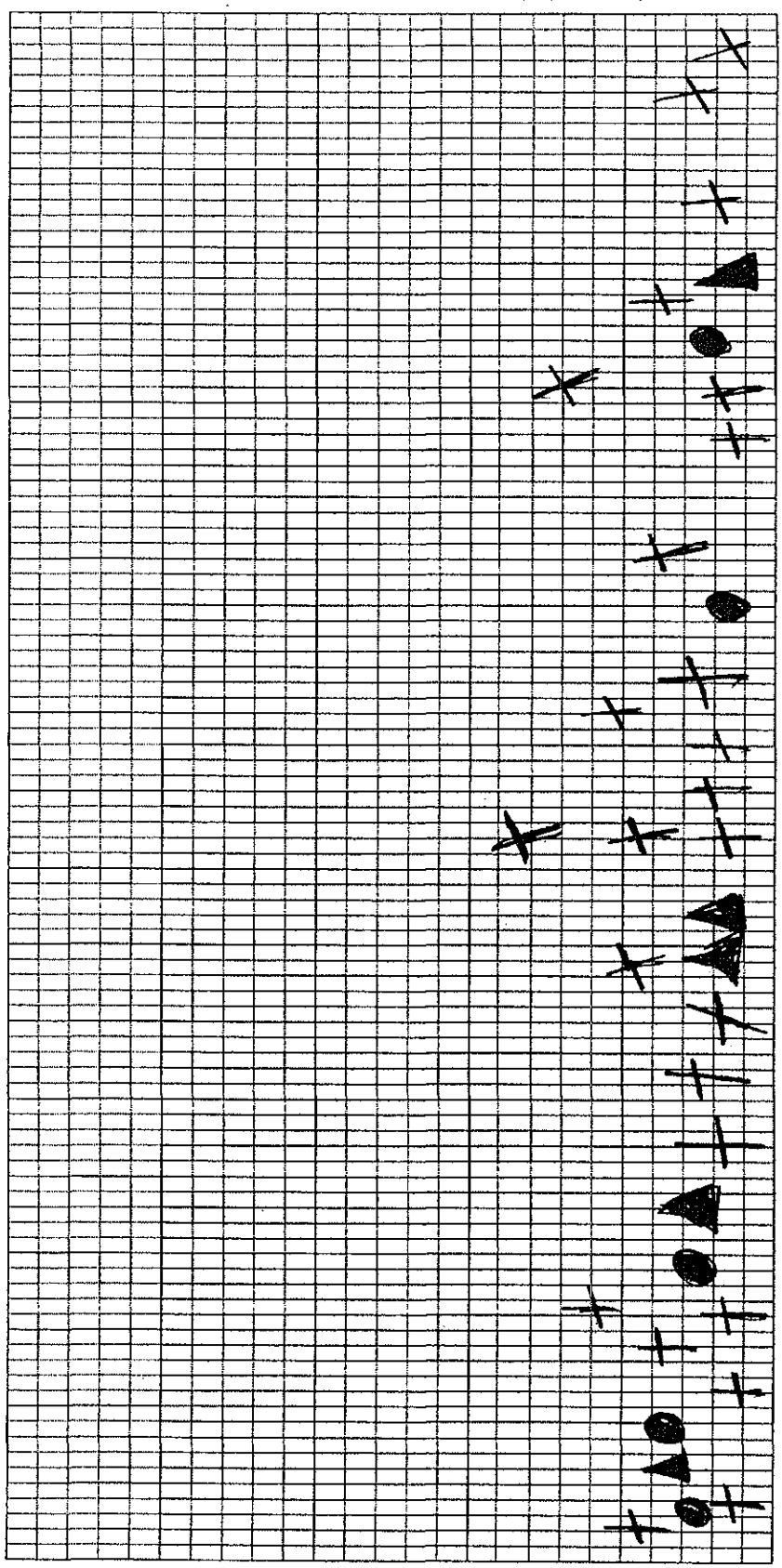
Left Bank

50%

Left Bank

25%

0%



Downstream

Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- † TREE ~~Macrophytes~~
- ▲ Emergent
- ● Floating
- ☐ _____

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

2 Small Alligators

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bay Dallace **Parish:** Terrebonne

Station #: C-10

Lat:

Long:

Habitat/Biological Assessment completed by: Sarah Kay, Brian Newman CK Assoc.

Date/Time: 7/31/06 0905

Reason for Survey: RBP, Perm. D.O. Study

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☑
☐ 20% cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 88 °F °C

Tidal Influence

☐ NONE, completely fresh water

☑ Intermediate

☐ Estuarine

Wine Island, Terrebonne Bay

High Tide 4:18 am/pm Low Tide 2:55 am/pm

Tide is: ☐ Coming IN ☑ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☑ mid
☐ near high
☐ high

Water Surface Condition is:

☑ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☑ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☑ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☑ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☑ no ☐ yes How many?_____

Note: 2 boats spraying pesticide/herbicide in sampling area.

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☑ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 260 m
Estimated Stream Width 20 m
Sampling Reach area 485 m2
Estimated Water Depth 2.0 m
Surface Velocity no flow m/sec

Canopy Cover

☐ Open ☑ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☑ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☑ No ☐ Yes
If so, how recent?_____

Dam present? ☑ No ☐ Yes
Weir present? ☑ No ☐ Yes

Large Woody Debris

Present? ☐ No ☒ Yes If yes, approximately how much? 4 m^2

Aquatic Vegetation

☑ Submerged

% total SAV's in sample reach 10 %

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☑ Other Ceratophyllum (Coontail) / 10 %

☑ Emergent

% total emergent vegetation present 10 %

Species present/%of sample reach

☑ Alligatorweed / 10 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☑ Floating

% total floating vegetation present 35 %

Species present/%of sample reach

☑ Water Hyacinth / 15 %
☐ Duckweed / _____%
☑ Salvinia sp. / 20 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Unable to collect - Sonde not working properly

Temperature____________ °C

Specific Conductance____________mS/cm

Dissolved Oxygen ____________mg/L

pH__________

Secchi depth_________

WQ Instrument Used __________

Water odors

- ☑ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other________________

Water Surface Oils

- ☑ None
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ Other____________

Turbidity

- ☐ Clear ☐ Slightly Turbid ☑ Turbid
- ☐ Opaque ☐ Stained ☐ Other______________

Salinity Profile:
taken every 0.10m from bottom to surface

__________ (26 blank lines)

bottom __________

Substrate/ Sediment

Odors

- ☑ Normal/None
- ☐ Petroleum
- ☐ Fishy
- ☐ Sewage
- ☐ Chemical
- ☐ Other________________

ORP at 5cm __/__ **mV**

Oils

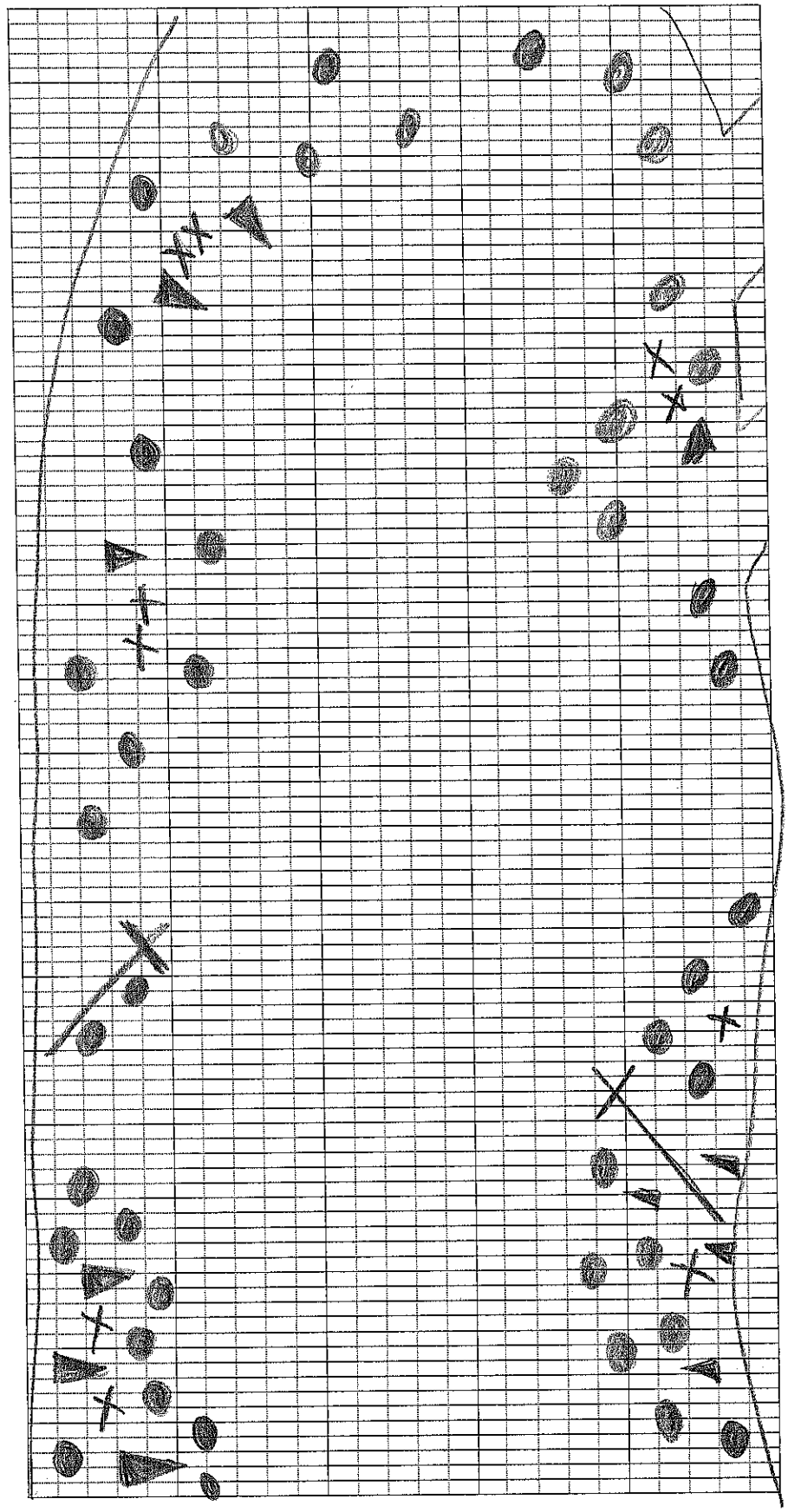
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm		Detritus	sticks, wood, coarse plant material (CPOM)	40
Silt	0.004-0.06mm	60	Muck-Mud	black, very fine organic (FPOM)	60
Clay	<0.004mm	40	Marl	grey, shell fragments	
Other			Other		

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Substrates: Code key, draw proportionate habitat abundance.

- ☐ Snags
- ☐ Roots/undercut banks
- ☐ Leaf Packs (or mats)
- ☐ Tree ~~Macrophytes~~
- ☐ Emergent Veg.
- ☐ SAV
- ☐ Floating Veg

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bay Village	LOCATION Tenebonne Basin	
STATION # C-10 RIVERMILE	STREAM CLASS	
LAT _____ LONG _____	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS SKR BLD		LOT NUMBER
FORM COMPLETED BY SKR, BLD	DATE 7/31 TIME 0930 AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ☐ Cobble_____% ☐ Snags_____% ☐ Vegetated Banks_____% ☐ Sand_____% ☐ Submerged Macrophytes_____% ☐ Other ( )_____%
SAMPLE COLLECTION	**Gear used** ~~☐~~ frame ☐ kick-net ☒ Other Petite Ponar **How were the samples collected?** ☐ wading ☐ from bank ~~☐~~ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ☐ Cobble_____ ☐ Snags_____ ☐ Vegetated Banks_____ ☐ Sand_____ ☐ Submerged Macrophytes_____ ☐ Other ( )_____
GENERAL COMMENTS	4 Floating/Emergent Mix 6 Emergent 4 Wood 6 Floating 3 Petite Ponar Grabs

QUALITATIVE LISTING OF AQUATIC BIOTA
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	0	(1)	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	1	2	(3)	4

FIELD OBSERVATIONS OF MACROBENTHOS
Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms), 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	1	(2)	3	4	Chironomidae	0	(1)	2	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	1	(2)	3	4	Ephemeroptera	0	(1)	2	3	4
Platyhelminthes	0	(1)	2	3	4	Hemiptera	0	1	2	3	(4)	Trichoptera	(0)	1	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	0	1	(2)	3	4	Other	0	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	0	(1)	2	3	4						
Oligochaeta	0	1	2	(3)	4	Sialidae	0	(1)	2	3	4						
Isopoda	0	(1)	2	3	4	Corydalidae	0	(1)	2	3	4						
Amphipoda	0	1	2	3	(4)	Tipulidae	(0)	1	2	3	4						
Decapoda	0	(1)	2	3	4	Empididae	0	1	(2)	3	4						
Gastropoda	0	1	(2)	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	0	(1)	2	3	4						

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bay Wallace	LOCATION	
STATION # C-10 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ❑ D-frame ❑ kick-net ❑ Other _____ **How were the samples collected?** ❑ wading ❑ from bank ❑ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petule Pond - 3 Snags - 2 SAV - 5 Emergent - 5 Floating - 8

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	0	(1)	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	0	(1)	2	3	4	Chironomidae	0	1	2	(3)	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	0	(1)	2	3	4	Ephemeroptera	0	1	(2)	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	0	1	(2)	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	0	1	2	(3)	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	(2)	3	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	(2)	3	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	1	(2)	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bay Wallace **Parish:** Terrebonne

Station #: C-10

Lat: 29° 38 ' 04.3

Long: 90° 59 ' 56.9

Habitat/Biological Assessment completed by: Sarah K. Roy / Thomas Price

Date/Time: 8/24/05 / 0900

Reason for Survey: EPA study

Weather Conditions

	Now	Past 24 h
storm (heavy rain)	☐	☐
rain (steady rain)	☐	☐
intermittent showers	☒	☒
____ % cloud cover	☐	☐ ____
clear/sunny	☒	☐

Has there been any heavy rain in the last 7 days? ☒ yes ☐ no

Air Temperature 88 °F

Tidal Influence

☐ NONE, completely fresh water

☒ Intermediate

☐ Estuarine

High Tide_____am/pm Low Tide_____ am/pm

Tide is: ☐ Coming IN ☒ Going OUT ☐ NEAP

Historical Search

Tide Stage is:

☐ low
☐ near low
☐ mid
☐ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☒ Forested Wetland ☐ Industrial
☐ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☒ Trees ☐ Shrubs ☐ Grasses ☐ herbaceous

dominant species present: Cypress

Instream Features

Estimated Reach Length 200 m
Estimated Stream Width 20 m
Sampling Reach area 400 m2
Estimated Water Depth 2.5 m
Surface Velocity no flow m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover
☐ Open ☒ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:
☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☒ Submerged — % total SAV's in sample reach 4 %

Species present/%of sample reach
☒ Elodea sp./ 2 %
☒ Watermilfoil / 2 %
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent — % total emergent vegetation present 12 %

Species present/%of sample reach
☒ Alligatorweed / 12 %
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / _____%
☐ Juncus romerianus / _____%
☐ American Lotus /_____%
☐ Other _____ / _____%

☒ Floating — % total floating vegetation present 84 %

Species present/%of sample reach
☒ Water Hyacinth / 9 %
☒ Duckweed / 50 % > combined
☒ Salvinia sp. / 25 %
☐ Other _____ / _____%

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 30.9 °C

Specific Conductance 0.318 mS/cm

Dissolved Oxygen 3.43 mg/L 46.3%

pH 7.08

Secchi depth 0.5m

WQ Instrument Used YSI 600XLM

ORP - 99.5 mV

Water odors

☐ Normal/None ☐ Chemical

☐ Petroleum ☐ Other_____

☒ Fishy - slight

☐ Sewage

Water Surface Oils

☒ None ☐ Flecks

☐ Slick ☐ Other_____

☐ Sheen

☐ Globs

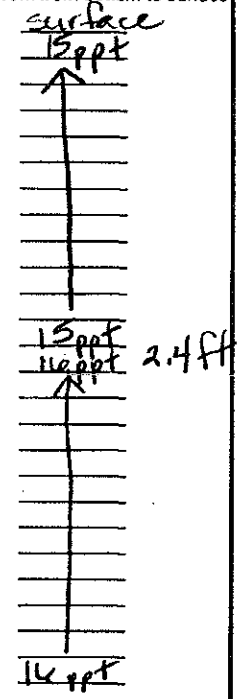
Turbidity

☐ Clear ☐ Slightly Turbid ☐ Turbid

☐ Opaque ☒ Stained ☐ Other_____

Salinity Profile:

taken every 0.10m from bottom to surface



Substrate/ Sediment

Odors

ORP at 5cm 70.8 mV

☐ Normal/None ☐ Chemical

☐ Petroleum ☒ Other Slightly Anaerobic

☐ Fishy

☐ Sewage

Oils

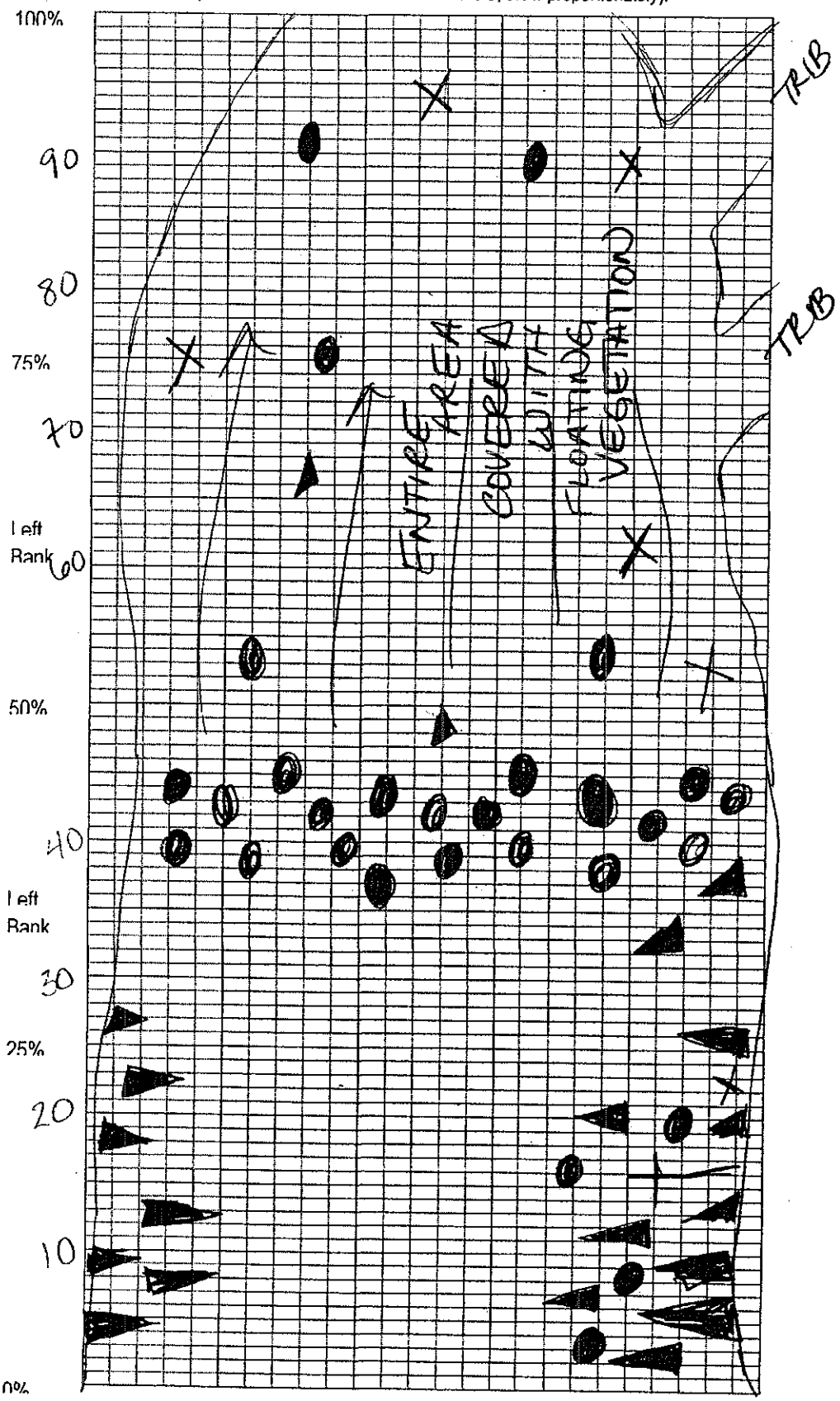
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	0	Detritus	sticks, wood, coarse plant material (CPOM)	85
Silt	0.004-0.06mm	60	Muck-Mud	black, very fine organic (FPOM)	10
Clay	<0.004mm	40	Marl	grey, shell fragments	—
Other		—	Other		—

DEP-SOP-001/01: Form FD 9000-6

Stream/River Habitat Sketch Sheet

Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).



Downstream

Bay Wallace

Substrates: Code key, draw proportionate habitat abundance.

- Snags
- Roots/undercut banks
- Leaf Packs (or mats)
- + Tree ~~Macrophytes~~
- ▲ Emergent Veg.
- X Submergent Veg
- ● Floating

Velocity:

Note where velocity measures were taken.

Habitat Smothering:

Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed/other notes:

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bayou Tambours **Parish:** Terrebonne

Station #: C-11

Lat: 29° 21' 36.94

Long: 90° 31' 33.03

Habitat/Biological Assessment completed by: SKR

Date/Time: 8/7/06

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
100 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days?

☐ yes ☒ no

Air Temperature 90 °C

Tidal Influence

☐ NONE, completely fresh water

☐ Intermediate

☒ Estuarine

High Tide 0945 am/pm Low Tide 2057 am/pm

Tide is: ☐ Coming IN ☒ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☒ mid
☐ near high
☐ high

Water Surface Condition is:

☐ calm
☒ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☐ Forested Wetland ☐ Industrial
☒ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 4

Within view of site

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☐ Shrubs ☒ Grasses ☐ herbaceous

dominant species present: Juncus romerianus

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width 10 m
Sampling Reach area 1000 m2
Estimated Water Depth 1.5 m
Surface Velocity N/A m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded ☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes

Weir present? ☐ No ☒ Yes at entry to side (old)

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 100 %

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☒ Spartina alterniflora / 20 %
☒ Juncus romerianus / 80 %
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

C-11

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.3 °C

Specific Conductance 35.67 mS/cm 20.1

Dissolved Oxygen 7.05 mg/L

pH 8.1

Secchi depth 12"

WQ Instrument Used YSI 550A

Water odors

☒ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

Water Surface Oils

☒ None ☐ Flecks
☐ Slick ☐ Other_____
☐ Sheen
☐ Globs

Turbidity

☐ Clear ☒ Slightly Turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other_____

Salinity Profile:
taken every 0.10m from bottom to surface

20.1

bottom 20.1

Substrate/ Sediment

Odors

☐ Normal/None ☐ Chemical
☐ Petroleum ☒ Other Anaerobic
☐ Fishy
☐ Sewage

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

ORP at 5cm _____mV

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	20	Detritus	sticks, wood, coarse plant material (CPOM)	10
Silt	0.004-0.06mm	60	Muck-Mud	black, very fine organic (FPOM)	30
Clay	<0.004mm	20	Marl	grey, shell fragments	60
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bayan Tambaan	LOCATION	
STATION # C-11 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ~~❑ Other~~ Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ~~❑ from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar -3 Emergent -20

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0) 1 2 3 4	Slimes	(0) 1 2 3 4
Filamentous Algae	(0) 1 2 3 4	Macroinvertebrates	0 (1) 2 3 4
Macrophytes	0 1 2 3 (4)	Fish	0 1 (2) 3 4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0) 1 2 3 4	Anisoptera	(0) 1 2 3 4	Chironomidae	(0) 1 2 3 4
Hydrozoa	(0) 1 2 3 4	Zygoptera	(0) 1 2 3 4	Ephemeroptera	(0) 1 2 3 4
Platyhelminthes	(0) 1 2 3 4	Hemiptera	(0) 1 2 3 4	Trichoptera	(0) 1 2 3 4
Turbellaria	(0) 1 2 3 4	Coleoptera	(0) 1 2 3 4	Other	(0) 1 2 3 4
Hirudinea	(0) 1 2 3 4	Lepidoptera	(0) 1 2 3 4		
Oligochaeta	(0) 1 2 3 4	Sialidae	(0) 1 2 3 4		
Isopoda	0 (1) 2 3 4	Corydalidae	(0) 1 2 3 4		
Amphipoda	0 (1) 2 3 4	Tipulidae	(0) 1 2 3 4		
Decapoda	0 1 (2) 3 4	Empididae	(0) 1 2 3 4		
Gastropoda	0 1 (2) 3 4	Simuliidae	(0) 1 2 3 4		
Bivalvia	(0) 1 2 3 4	Tabinidae	(0) 1 2 3 4		
		Culcidae	(0) 1 2 3 4		

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Jude's Cut **Parish:** Terrebonne

Station #: C-12

Lat: 29 19 29.119

Long: 90 23 37.183

Habitat/Biological Assessment completed by: SKR

Date/Time: 8/7/06

Reason for Survey:

Weather Conditions	**Now** / **Past 24 h** ☐ storm (heavy rain) ☐ ☐ rain (steady rain) ☐ ☐ intermittent showers ☒ 10 ☒ % cloud cover ☐ ____ ☐ clear/sunny ☐	**Has there been any heavy rain in the last 7 days?** ☐ yes ☒ no **Air Temperature** 89 °C
Tidal Influence	☐ NONE, completely fresh water ☐ Intermediate ☒ Estuarine High Tide 0945 (am)/pm Low Tide 2057 am/(pm) **Tide is:** ☐ Coming IN ☒ Going OUT ☐ NEAP **Tide Stage is:** ☐ low ☐ near low ☐ mid ☒ near high ☐ high	**Water Surface Condition is:** ☐ calm ☒ light chop ☐ chop ☐ rough
Watershed Features	**Predominant Surrounding Land Use** ☐ Forested Wetland ☐ Industrial ☒ Non-Forested Wetland ☐ Other____ ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial **Hunting/Fishing Camps Present in area?** ☐ no ☒ yes How many? 2	**Local Watershed NPS Pollution** ☒ No evidence ☐ Potential Sources ☐ Obvious Sources **Local Watershed Erosion** ☒ none ☐ moderate ☐ heavy

[illegible] distance

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☐ Shrubs ☑ Grasses ☐ herbaceous

dominant species present: Spartina, Juncus sp.

Instream Features

Estimated Reach Length 1000 m
Estimated Stream Width 20 m
Sampling Reach area 20000 m2
Estimated Water Depth 1.0 m
Surface Velocity None m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded ☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☐ Submerged % total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent % total emergent vegetation present 100%

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☐ Spartina alterniflora / 25 %
☐ Juncus romerianus / 75 %
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating % total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

C-12

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 30.1 °C

Specific Conductance 41.50 mS/cm 23.9 ppt

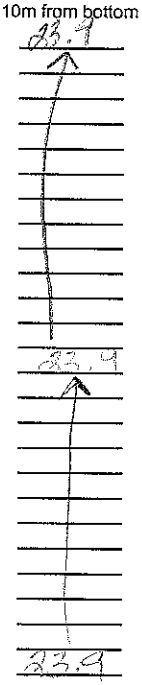
Dissolved Oxygen 4.74 mg/L

pH 7.93

Secchi depth 12"

WQ Instrument Used YSI 30, 55A

Salinity Profile:
taken every 0.10m from bottom to surface



Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [x] Slightly Turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Substrate/ Sediment

Odors

- [ ] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [x] Other Anaerobic

ORP at 5cm _____ **mV**

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	10	Detritus	sticks, wood, coarse plant material (CPOM)	15
Silt	0.004-0.06mm	40	Muck-Mud	black, very fine organic (FPOM)	25
Clay	<0.004mm	50	Marl	grey, shell fragments	60
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bayou Platt	LOCATION	
STATION # C-12 RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE TIME AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ~~❑ Other~~ _____ **How were the samples collected?** ❑ wading ❑ from bank ~~❑ from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Emergent - 20

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	(2)	3	4
Macrophytes	0	1	2	(3)	4	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	(0)	1	2	3	4	Chironomidae	(0)	1	2	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	(0)	1	2	3	4	Ephemeroptera	(0)	1	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	(0)	1	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	(0)	1	2	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	2	(3)	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	2	(3)	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	2	3	(4)	Empididae	(0)	1	2	3	4						
Gastropoda	0	1	2	(3)	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Bayou Platt **Parish:** Terrebonne

Station #: C-13

Lat: 29° 14' 46.93"

Long: 90° 46' 38.87"

Habitat/Biological Assessment completed by: SKR

Date/Time: 8/9/06 0930

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☑
40 % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 90 °C

Tidal Influence

☐ NONE, completely fresh water

☐ Intermediate

☒ Estuarine

High Tide 1141 am/pm Low Tide 2228 am/pm

Tide is: ☒ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☒ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☐ Forested Wetland ☐ Industrial
☒ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 1

1 in view

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☐ Shrubs ☒ Grasses ☐ herbaceous

dominant species present: Spartina sp. Juncus sp.

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width 20 m
Sampling Reach area 2000 m2
Estimated Water Depth 1.5 m
Surface Velocity _____ m/sec

Channelized: ☐ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 100%

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☒ Spartina patens / 20 %
☒ Spartina alterniflora / 20 %
☒ Juncus romerianus / 60 %
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

C-13

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 31.0 °C

Specific Conductance 24.69 mS/cm

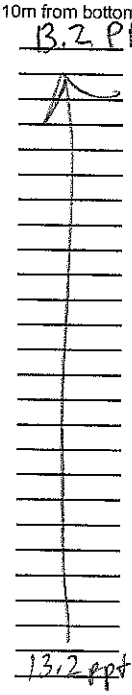
Dissolved Oxygen 5.27 mg/L

pH 8.01

Secchi depth 14"

WQ Instrument Used YSI 30, 55A

Salinity Profile:
taken every 0.10m from bottom to surface



Water odors

☒ Normal/None ☐ Chemical
☐ Petroleum ☐ Other_____
☐ Fishy
☐ Sewage

Water Surface Oils

☒ None ☐ Flecks
☐ Slick ☐ Other_____
☐ Sheen
☐ Globs

Turbidity

☐ Clear ☒ Slightly Turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other_____

Substrate/ Sediment

Odors

☐ Normal/None ☐ Chemical
☐ Petroleum ☒ Other Anaerobic
☐ Fishy
☐ Sewage

ORP at 5cm _____ **mV**

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

Inorganic Substrate Components

Substrate Type	Diameter	% Composition in Sampling Reach
Sand	0.06-2mm	/
Silt	0.004-0.06mm	70
Clay	<0.004mm	30
Other		

Organic Substrate Components

Substrate Type	Characteristic	% Composition in Sampling Reach
Detritus	sticks, wood, coarse plant material (CPOM)	10
Muck-Mud	black, very fine organic (FPOM)	40
Marl	grey, shell fragments	50
Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Bayou Platt	LOCATION	
STATION # C-13 RIVERMILE	STREAM CLASS	
LAT _____ LONG _____	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE _____ TIME _____ AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ❑ D-frame ❑ kick-net ❑ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ❑ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Emergent - 20

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	(2)	3	4
Macrophytes	0	1	2	(3)	4	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	(0)	1	2	3	4	Chironomidae	(0)	1	2	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	(0)	1	2	3	4	Ephemeroptera	(0)	1	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	(0)	1	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	(0)	1	2	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	2	(3)	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	2	(3)	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	1	2	3	(4)	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Four Bayous (Bayou Dularge) **Parish:** Terrebonne

Station #: C-14

Lat: 29° 18' 32.04"

Long: 90° 54' 34.98"

Habitat/Biological Assessment completed by: SLR

Date/Time: 8/8/06 1330

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
50 ☒ % cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days? ☐ yes ☒ no

Air Temperature 95 °C

Tidal Influence

☐ NONE, completely fresh water

☐ Intermediate

☒ Estuarine

High Tide 1015 am/pm Low Tide 2131 am/pm

Tide is: ☐ Coming IN ☒ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☒ mid
☐ near high
☐ high

Water Surface Condition is:

☒ calm
☐ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☐ Forested Wetland ☐ Industrial
☒ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☒ no ☐ yes How many?_____

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☐ Shrubs ☒ Grasses ☒ Herbaceous

dominant species present: Juncus sp. Spartina sp.

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width 10 m
Sampling Reach area 1000 m2
Estimated Water Depth 1.5 m
Surface Velocity none m/sec

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded ☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☐ No ☒ Yes In area (old)

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☐ Submerged % total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent % total emergent vegetation present 100 %

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☐ Spartina patens / _____%
☒ Spartina alterniflora / 30 %
☒ Juncus romerianus / 70 %
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating % total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

C-14

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 32.4 °C

Specific Conductance 19.58 mS/cm 10 ppt

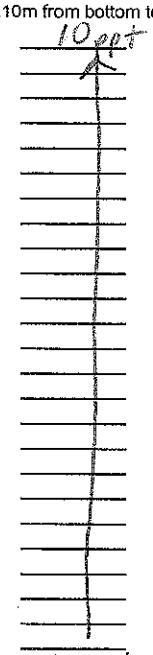
Dissolved Oxygen 6.77 mg/L

pH 7.97

Secchi depth 16"

WQ Instrument Used YSI 30, YSI 650

Salinity Profile:
taken every 0.10m from bottom to surface



Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Substrate/ Sediment

Odors

- [ ] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [x] Other Anaerobic

ORP at 5cm _____mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	10	Detritus	sticks, wood, coarse plant material (CPOM)	20
Silt	0.004-0.06mm	50	Muck-Mud	black, very fine organic (FPOM)	40
Clay	<0.004mm	40	Marl	grey, shell fragments	40
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Fred Bayou	LOCATION	
STATION # C-14 RIVERMILE	STREAM CLASS	
LAT _____ LONG _____	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE _____ TIME _____ AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ~~❑ D-frame~~ ❑ kick-net ~~❑ Other~~ _____ **How were the samples collected?** ❑ wading ❑ from bank ~~❑ from boat~~ **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petule Ponar - 3 Emergent - 20

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	(3)	4	Fish	0	(1)	2	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	(0)	1	2	3	4	Chironomidae	(0)	1	2	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	(0)	1	2	3	4	Ephemeroptera	(0)	1	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	(0)	1	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	(0)	1	2	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	(2)	3	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	(2)	3	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	(1)	2	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Stream/ Bayou/ Waterbody Name: Off Bayou Dularge **Parish:** Terrebonne

Station #: C-15

Lat: 29° 16' 57.12"

Long: 90° 52' 54.36"

Habitat/Biological Assessment completed by: SKR

Date/Time: 8/8/06 0900

Reason for Survey:

Weather Conditions

Now	Past 24 h
☐ storm (heavy rain)	☐
☐ rain (steady rain)	☐
☐ intermittent showers	☒
☒ 20% cloud cover	☐ ____
☐ clear/sunny	☐

Has there been any heavy rain in the last 7 days?

☐ yes ☒ no

Air Temperature 83 °C

Tidal Influence

☐ NONE, completely fresh water

☐ Intermediate

☒ Estuarine

High Tide 1015 am/pm Low Tide 2131 am/pm

Tide is: ☒ Coming IN ☐ Going OUT ☐ NEAP

Tide Stage is:

☐ low
☐ near low
☐ mid
☒ near high
☐ high

Water Surface Condition is:

☐ calm
☒ light chop
☐ chop
☐ rough

Watershed Features

Predominant Surrounding Land Use

☐ Forested Wetland ☐ Industrial
☒ Non-Forested Wetland ☐ Other_____
☐ Field/Pasture
☐ Agricultural
☐ Residential
☐ Commercial

Local Watershed NPS Pollution

☒ No evidence
☐ Potential Sources
☐ Obvious Sources

Local Watershed Erosion

☒ none ☐ moderate ☐ heavy

Hunting/Fishing Camps Present in area? ☐ no ☒ yes How many? 2

in far distance

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Riparian Vegetation

Indicate the dominant type and record the dominant species present

☐ Trees ☐ Shrubs ☒ Grasses ☐ herbaceous

dominant species present: Spartina sp. Juncus sp.

Instream Features

Estimated Reach Length 100 m
Estimated Stream Width 20 m
Sampling Reach area 2000 m2
Estimated Water Depth 1 m
Surface Velocity none m/sec

Channelized: ☒ No ☐ Yes
If so, how recent?_____

Dam present? ☒ No ☐ Yes
Weir present? ☒ No ☐ Yes

Canopy Cover

☒ Open ☐ Partly Open ☐ Partly Shaded
☐ Shaded

Waterbody Size Classification:

☐ Large Canal/Channel
☒ Intermediate Canal/Channel
☐ Wadeable Canal/Channel
☐ Open Water

Large Woody Debris

Present? ☒ No ☐ Yes If yes, approximately how much?_____ m^2

Aquatic Vegetation

☐ Submerged

% total SAV's in sample reach _____%

Species present/%of sample reach

☐ Elodea sp./ _____%
☐ Watermilfoil / _____%
☐ Hydrilla sp. / _____%
☐ Other _____ / _____%

☒ Emergent

% total emergent vegetation present 100%

Species present/%of sample reach

☐ Alligatorweed / _____%
☐ Cattails (Typha sp.) / _____%
☒ Spartina patens / 5 %
☒ Spartina alterniflora / 90 %
☒ Juncus romerianus / 75 %
☐ American Lotus /_____%
☐ Other _____ / _____%

☐ Floating

% total floating vegetation present_____%

Species present/%of sample reach

☐ Water Hyacinth / _____%
☐ Duckweed / _____%
☐ Salvinia sp. / _____%
☐ Other _____ / _____%

C-15

Terrebonne Basin D.O. Assessment

Physical Characterization / Water Quality Field Data Sheet

Water Quality

Temperature 30.0 °C

Specific Conductance 30.63 mS/cm 17.1 ppt

Dissolved Oxygen 4.9 mg/L

pH 7.9

Secchi depth 16"

WQ Instrument Used YSI 30, YSI 550

Salinity Profile:
taken every 0.10m from bottom to surface

17.1

bottom 17.1

Water odors

- [x] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [ ] Other_____

Water Surface Oils

- [x] None
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [ ] Other_____

Turbidity

- [ ] Clear
- [ ] Slightly Turbid
- [x] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other_____

Substrate/ Sediment

Odors

- [ ] Normal/None
- [ ] Petroleum
- [ ] Fishy
- [ ] Sewage
- [ ] Chemical
- [x] Other Anaerobic

ORP at 5cm _____mV

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Reach**
Sand	0.06-2mm	10	Detritus	sticks, wood, coarse plant material (CPOM)	30
Silt	0.004-0.06mm	40	Muck-Mud	black, very fine organic (FPOM)	40
Clay	<0.004mm	50	Marl	grey, shell fragments	30
Other			Other		

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME Off Bayou Dulac	LOCATION	
STATION # C-15 RIVERMILE	STREAM CLASS	
LAT _____ LONG _____	RIVER BASIN	
STORET #	AGENCY	
INVESTIGATORS		LOT NUMBER
FORM COMPLETED BY	DATE _____ TIME _____ AM PM	REASON FOR SURVEY

HABITAT TYPES	**Indicate the percentage of each habitat type present** ❑ Cobble____% ❑ Snags____% ❑ Vegetated Banks____% ❑ Sand____% ❑ Submerged Macrophytes____% ❑ Other ( )____%
SAMPLE COLLECTION	**Gear used** ❑ D-frame ❑ kick-net ☑ Other Petite Ponar **How were the samples collected?** ❑ wading ❑ from bank ❑ from boat **Indicate the number of jabs/kicks taken in each habitat type.** ❑ Cobble____ ❑ Snags____ ❑ Vegetated Banks____ ❑ Sand____ ❑ Submerged Macrophytes____ ❑ Other ( )____
GENERAL COMMENTS	Petite Ponar - 3 Emergent - 20

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	(0)	1	2	3	4	Slimes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	(3)	4
Macrophytes	0	1	2	3	(4)	Fish	0	1	(2)	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3= Abundant (>10 organisms) 4 = Dominant (>50 organisms)

Porifera	(0)	1	2	3	4	Anisoptera	(0)	1	2	3	4	Chironomidae	(0)	1	2	3	4
Hydrozoa	(0)	1	2	3	4	Zygoptera	(0)	1	2	3	4	Ephemeroptera	(0)	1	2	3	4
Platyhelminthes	(0)	1	2	3	4	Hemiptera	(0)	1	2	3	4	Trichoptera	(0)	1	2	3	4
Turbellaria	(0)	1	2	3	4	Coleoptera	(0)	1	2	3	4	Other	(0)	1	2	3	4
Hirudinea	(0)	1	2	3	4	Lepidoptera	(0)	1	2	3	4						
Oligochaeta	(0)	1	2	3	4	Sialidae	(0)	1	2	3	4						
Isopoda	0	1	(2)	3	4	Corydalidae	(0)	1	2	3	4						
Amphipoda	0	1	2	(3)	4	Tipulidae	(0)	1	2	3	4						
Decapoda	0	1	(2)	3	4	Empididae	(0)	1	2	3	4						
Gastropoda	0	1	(2)	3	4	Simuliidae	(0)	1	2	3	4						
Bivalvia	(0)	1	2	3	4	Tabinidae	(0)	1	2	3	4						
						Culcidae	(0)	1	2	3	4						