Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, Vidas, Smith, Ross	
Date & Time: 8/7/09 0930 - 1035	County Name: Fort Bend
Stream Name: Jones Creek	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #1 Winner-Foster Rd @ Jones Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
   dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
   Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
   Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
   Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
   ✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
   Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
   Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 90.08 cfs

4. Water Quality Data (Field Parameters)
   Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
   Air Temp 30.61 °C Water Temp 31.16 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

____ Forest	____ Urban	____ Rip rap
____ Shrub dominated corridor	____ Pasture	____ Concrete
____ Herbaceous marsh	____ Row crops	____ Denuded/Eroded bank
L/R Mowed/maintained corridor		____ Other (specify):

6. Ease of bank access to the water body:
   ☐ Easy ☐ Moderately easy ☐ Moderately difficult ✓ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):
   No parking, steep banks: 3' drop off to the water, barbed wire fence upstream and downstream of bridge

8. Dominant Primary Substrate:
   Cobble Sand Silt ✓Mud/Clay Gravel Bedrock Rip rap Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8/7/09 Time: 0930

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
✓None ✓1-10 11-20 20-50 greater than 50 (bikers)

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
✓Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
Steep banks, muddy bottom, uneven bottom, murky water, can not see bottom.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
No parking, private property adj. to water, barbed-wire fence, cattle guard upstream of bridge

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8/7/09 Time: 0930

b. Check the number of individuals observed at the site.

None ✓1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

✓Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as 1°

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently ✓unknown

Please describe how often the activities occur?

✓Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as 1°

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as 1°

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

- No Recreation directly involving the water observed.
- No commercial traffic
- 7 bicyclists passed on Wimmer-Foster while we were @ the site

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8/7/09 Time: 0930

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters. 30m and 300m not able to access.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream✓ Downstream✓ Left Bank ✓Right Bank ✓ From bridge

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. Run Only No Pools

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
→ 150 meters	0.975
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: # 1

Date: 8/7/09 Time: 0930

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	9.39
Width at the widest point of the stream within 300 meter reach	13.10

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

2. Non-wadeable Streams N/A

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8/7/09 Time: 0930

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	✓ Bicycling
Wildlife watching	Standing	None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	None	✓Other (specify): Cattle Guard

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
✓Rural area	Beach	Docks or rafts
✓Residential	✓Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

✓Private Property	✓Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	✓Other: beer cans	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8/7/09 Time: 0930

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	✓rare	common	abundant	
Algae Cover:	✓absent	rare	common	abundant	
Odor:	none	rare	✓common	abundant	
Color:	clear	green	red	✓brown	black
Bottom Deposit:	sludge	solids	✓fine sediments	none	other
Water Surface:	✓clear	scum	foam	debris	oil

Other: Odor => Manure

8. Vertebrates Observed within 300 meter reach

Snakes:	✓None	slight presence	moderate presence	large presence
Water Dependent Birds:	✓None	slight presence	moderate presence	large presence
Alligators:	✓None	slight presence	moderate presence	large presence

Comments: turtles

9. Mammals Observed within 300 meter reach

Wild:	✓None	slight presence	moderate presence	large presence
Domesticated Pets:	✓None	slight presence	moderate presence	large presence
Livestock:	None	slight presence	moderate presence	✓large presence
Feral Hogs:	✓None	slight presence	moderate presence	large presence

Comments: ~ 40 cattle

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

✓Tracks ✓Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	✓None	Rare	Common	Abundant
Small garbage in the channel	None	✓Rare	Common	Abundant
Bank Garbage	None	Rare	✓Common	Abundant

Briefly describe the kinds of garbage observed:

beer cans, styrofoam

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream: Jones Creek Date: 7/2/09

Site: #1

Site Description: Winner - Foster Rd @ Jones Creek

Time Begin: 0945 Time End: 1030 Meter Type: SonTek Flow Tracker (ADV)

Observers: Vidas Stream Width*: 30.8 Section Width (W): 1.54

Observations:

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V) At Point (ft/s)(m/s)	Velocity (V) Average (ft/s)(m/s)	Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
0.77	1.2			0.54	0.99792
2.31	1.1			0.89	1.50766
3.85	1.8			0.93	2.57796
5.39	1.7			1.17	3.06306
6.93	2.2			1.10	3.7268
8.47	2.5			0.99	3.8115
10.01	2.8	1.4 5.6	0.95 1.15	1.05	4.5276
11.55	3.0	1.5 6.0	1.27 1.30	1.285	5.9367
13.09	3.1	1.55 6.2	1.18 1.51	1.345	6.42103
10 14.63	3.1	1.55 6.2	1.27 1.70	1.485	7.08939
16.17	3.1	1.55 6.2	1.18 1.62	1.40	6.6836
17.71	3.1	1.55 6.2	1.49 1.75	1.62	7.73388
19.25	3.2	1.6 6.4	1.31 1.57	1.51	7.44128
20.79	3.2	1.6 6.4	1.33 1.51	1.42	6.99776
22.33	3.2	1.6 6.4	1.09 1.52	1.305	6.43104
23.87	3.2	1.6 6.4	0.92 1.56	1.24	6.11072
25.41	3.1	1.55 6.2	0.73 1.36	1.045	4.98883
26.95	3.1	1.55 6.2	0.65 0.82	0.735	3.50889
28.49	2.4			0.26	0.96096
20 30.03	1.0			-0.06	-0.0924

Total cfs = 90.07922

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Gautnier, Smith	
Date & Time: 8/8/09	County Name: Fort Bend
Stream Name: Oyster Creek	1130 – 1230
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: # 10 Oyster Creek Park @ Oyster Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

☑ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

Stagnant (same as previous)

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 93.6 °~~C~~ F 34.2~~26~~ Water Temp 32.0 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☑ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): easy slope into water d/s of that bridge

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☐ Mud/Clay ☑ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Secchi: >1.2

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/8/09 Time: 1130

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 (20-50) greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
✓Individual is on shore near water within 8 meters (25ft) of water — walkers on bridge over water
✓Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). Signs => No swimming No wading, Alligator Habitat.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
Public Park

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/18/09 Time: 1130

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

✓ Body on shore near water within 8 meters (25ft) of water

✓ Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before.

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

lots of walkers, band practice, bikers.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/8/09 Time: 1200

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (150 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (300 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

width (ft)

Distance	Depth (~~meters~~) (ft)	
30 meters	3.8'	1.16m
60 meters	2.0	0.61m
90 meters	2.0	.61m
120 meters	2.11'	.64
150 meters	3.22'	.98m
180 meters	1.03'	.31m
210 meters	2.72'	.83m
240 meters	2.2'	.67m
270 meters	2.4'	.73m
300 meters	2.4'	.73m
Average	0.727	

15.09' 4.60m N
37.9' 11.55m Ave
45.5' 13.87m W
~~42.5' 12.95m~~

pictures taken in clockwize stating with upstream

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/8/09 Time: 1130

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	37.9 11.55m
Width at narrowest point of the stream within 300 meter reach	15.09 4.6m
Width at the widest point of the stream within 300 meter reach	45.5 13.87m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

from bridge using Range Finder

can see!

DS 140m

US 100 m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/18/09 Time: 1130

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☑ Jogging/running
- ☐ Wildlife watching
- ☑ Sitting
- ☐ Playing on shoreline
- ☑ Walking
- ☐ Hunting/Trapping
- ☑ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☑ Bicycling
- ☐ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☑ Yes ☐ No (If yes, please provide supporting documentation and photos.)

Comments: bridge w/ 3 pipes for flow (pic) could not kayak past have to get out & walk around

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☑ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☐ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☑ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☑ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☑ Bridge crossing
- ☐ Commercial boating
- ☑ Trails/paths (hiking/biking)
- ☑ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☑ Power Line Corridor
- ☑ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☑ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: (Alligator signs)

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☑ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints
- ☐ Other: _____

Comments: saw 1 bobber

— lots of sunfish in water

— saw 1 spotted gar

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/ /09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	(common)	abundant	
Algae Cover:	absent	rare	(common)	abundant	
Odor:	(none)	rare	common	abundant	
Color:	(clear)	green	red	brown	(black)
Bottom Deposit:	sludge	(solids)	(fine sediments)	none	other
Water Surface:	(clear)	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☐ None	☑ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: people walking dogs along trail

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☑ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/ /09

Site: #10

Site Description: Oyster Creek Park @ Oyster Creek

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	
		N/A			

Stagnant, same as previous site

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Gaulhier, Smith	
Date & Time: 8/8/09	County Name: Fort Bend
Stream Name: Oyster Creek	1245 – 1310
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #11 Cartwright @ Oyster Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ✓ low ☐ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

Stagnant

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 100.1 °F 37.83°C Water Temp 32.0 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
LR Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ✓ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): heavy vegitation, slick mud and very soft sed. in middle

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ✓ Silt ✓ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 11

Date: 8/ /09 Time: _____

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).

- heavy veg in and out of water.
- shallow water, soft mud.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).

Park (YMCA) w/ parking and paved sidewalk along water

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?

Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?

Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/ /09 Time: _____

b. ~~Check~~ the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

(Same as before)

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/ /09 Time:

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (150 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (300 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

No Pools

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (~~meters~~) ft
30 meters	0.97 .3m
60 meters	2.10 .64m
90 meters	1.20 .36m
120 meters	0.8 .24m
150 meters	0.59 .18m
180 meters	1.70 .59m
210 meters	1.42 .43m
240 meters	1.69 .51m
270 meters	0.8 .24m
300 meters	2.0 .61m
Average	1.3274 / 0.41m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/ 109 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	21.4 6.52m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

21.4

Very channelized. no major variation in width.

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

Yes ✓ No

COMMENTS:

_____

_____

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/ /09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☑ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☐ None
- ☐ Rip rap
- ☑ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☑ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☐ Trails/paths (hiking/biking)
- ☐ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☑ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☑ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 11

Date: 8/ 109 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other clay
Water Surface:	clear	scum	foam	debris	oil

Other: collecting on algae

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☐ slight presence	☑ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: Ducks, & heron

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☑ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☑ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/ /09

Site: #11

Site Description: Cartwright @ Oyster Creek

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: W Rast, Gaultney, Smith	
Date & Time: 8/8/09	County Name: Fort Bend
Stream Name: Oyster Creek	1320 - 1335
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: 1092 @ Oyster Creek (Mosley Park)	#12

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

Stagnant (no notable flow)

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 96.2 °C 35.67°C Water Temp 34 °C

Wind pushing water counter-current.

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	LR Urban Res.	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
LR Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☑ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

Slippery mud on banks.
* Private property sign (pic)

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☑ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Secchi 0.696m

E.W.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12
Date: 8/8/09 Time: 1330

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). Private property posted, so can't go downstream

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). Public park, pic nic benches, grill, paved walking trail along water.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 12

Date: 8/ /09 Time: _____

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 12

Date: 8/8/09 Time: 1330

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

(can see 300m each way down waterbody, no USEIS.

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

No Pools

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (~~meters~~) ft
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	1.8' .55m
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

1.8

very channelized.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 12

Date: 8/8/09 Time: 1330

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	17.6 5.36m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

Very channelized all similar

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name: Oyster Creek Site: # 12

Date: 8/8/09 Time: 1730

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth	☐ Playing on shoreline	☐ Bathing
☐ Picnicking	☐ Walking	☐ Motorcycle/ATV
☐ Jogging/running	☐ Hunting/Trapping	☐ Bicycling
☐ Wildlife watching	☐ Standing	☑ None
☐ Sitting	☐ Lying down/sleeping	☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☑ Yes ☐ No (If yes, please provide supporting documentation and photos.)

Comments: riprap small rapids.

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts	☐ Fences	☐ Log jams	☑ Rip rap
☑ Water control structure	☐ Barbed wire	☐ Dams	☐ Thick vegetation
☐ Low bridges	☐ Utility pipe	☐ None	☐ Other (specify): _____

Small weir (wooly structure (pic))

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds	☑ Stairs/walkway	☑ Roads (paved/unpaved)
☐ Playgrounds	☐ Boating access (ramps)	☑ Populated area
☐ Rural area	☐ Beach	☐ Docks or rafts
☑ Residential	☐ Bridge crossing	☐ Commercial outfitter
☐ National forests	☐ Commercial boating	☐ Nearby school
☑ Urban/suburban location	☐ Trails/paths (hiking/biking)	☐ Power Line Corridor
☐ Golf Course	☑ Paved parking lot	☑ Parks (national/city/county/state)
☐ Sports Field	☐ Unimproved parking lot	☐ Public Property
☐ Other: _____	☐ None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☑ Private Property	☐ Fence	☐ No trespass sign	☐ Barge/ship traffic
☐ Wildlife	☐ Industrial	☐ Steep slopes	☐ None of the Above
☐ No public access	☐ No roads	☐ Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

☐ Roads	☐ RV/ATV Tracks	☐ NPDES Discharge	☐ Organized event
☐ Rope swings	☐ Camping Sites	☐ Gates on corridor	☐ No Human Presence
☐ Dock/platform	☐ Fire pit/ring	☐ Children's toys	☑ Footpaths/prints
☐ Fishing Tackle	☐ Remnant's of Kid's play	☐ Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12

Date: 8/ /09 Time:

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other clay/mud
Water Surface:	clear	scum	foam	debris	oil

Other:

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☑ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: duck

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments:

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other:

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☑ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/ /09

Site: #12

Site Description: 1092 @ Oyster Creek (Mosley Park)

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, ~~Vidos~~, Smith, ~~Ross~~ Gunthier	
Date & Time: 8/3/09	County Name: Fort Bend
Stream Name: Oyster Creek	1345 – 1405
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #13 Glen Lakes @ Oyster Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs (No apparent flow)

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 92.7 °C 33.72°C Water Temp 31.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	0 NA Urban–Residential	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
NA R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☑ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): thick veg on bank, soft mud

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☑ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Very mushy & slick!

Secchi 0.163 m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13
Date: 8/8/09 Time: 1345

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
murky water, soft muddy bank, thick vegetation.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
No parking, jumped curb.
looks like trail along water on berm

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name: Oyster Creek Site: #13

Date: 8/8/09 Time: 1345

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

SAME

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

SAME

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 13

Date: 8/7/09 Time: _____

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13

Date: 8/7/09 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

_____

_____

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

pics from bridge can see 300 m either way

Approx width = 35' 10.67m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13

Date: 8/7/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth	☐ Playing on shoreline	☐ Bathing
☐ Picnicking	☐ Walking	☐ Motorcycle/ATV
☐ Jogging/running	☐ Hunting/Trapping	☐ Bicycling
☐ Wildlife watching	☐ Standing	☑ None
☐ Sitting	☐ Lying down/sleeping	☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts	☐ Fences	☐ Log jams	☐ Rip rap
☐ Water control structure	☐ Barbed wire	☐ Dams	☐ Thick vegetation
☐ Low bridges	☐ Utility pipe	☑ None	☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds	☐ Stairs/walkway	☑ Roads (paved/unpaved)
☐ Playgrounds	☐ Boating access (ramps)	☐ Populated area
☐ Rural area	☐ Beach	☐ Docks or rafts
☑ Residential	☑ Bridge crossing	☐ Commercial outfitter
☐ National forests	☐ Commercial boating	☐ Nearby school
☐ Urban/suburban location	☑ Trails/paths (hiking/biking)	☐ Power Line Corridor
☐ Golf Course	☐ Paved parking lot	☐ Parks (national/city/county/state)
☐ Sports Field	☐ Unimproved parking lot	☐ Public Property
☐ Other: _____	☐ None of the Above	

Comments: trail, vehicle tracks on w/ side of stream. (pic)

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☐ Private Property	☐ Fence	☐ No trespass sign	☐ Barge/ship traffic
☐ Wildlife	☐ Industrial	☑ Steep slopes	☐ None of the Above
☐ No public access	☐ No roads	☐ Other: _____	

Comments: very steep to jump curb and drive down

6. Check any indications of human use (Attach photos).

☐ Roads	☑ RV/ATV Tracks	☐ NPDES Discharge	☐ Organized event
☐ Rope swings	☐ Camping Sites	☐ Gates on corridor	☐ No Human Presence
☐ Dock/platform	☐ Fire pit/ring	☐ Children's toys	☐ Footpaths/prints
☑ Fishing Tackle	☐ Remnant's of Kid's play	☐ Other: _____	

Comments: fishing line

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13

Date: 8/7/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other mud/clay
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☐ slight presence	☑ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: 3-4 white egrets, ducks (pic)

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	☑ Common	☐ Abundant

Briefly describe the kinds of garbage observed: glass bottles, paper trash

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

· Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/ /09

Site: #13

Site Description: Glen lakes @ Oyster Creek

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, Vidas, Smith, Ross	
Date & Time: 8/7/09 1055-1117	County Name: Fort Bend
Stream Name: Jones Creek	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #2 723 @ Jones creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.

dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 35.22 °C Water Temp 32.78 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L/R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:

☐ Easy ☐ Moderately easy ✓ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

- Thick vegetation on left bank
- easy slope on Rt bank, very fine sediment, muddy

8. Dominant Primary Substrate:

☐ Cobble Sand ✓Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/7/09 Time: 1105

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
✓None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water.
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
No parking, silt, mushy sediment, veg heavy on left bank

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
No Parking, private property adjacent to water up and downstream.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/7/09 Time: 1105

b. Check the number of individuals observed at the site.

✓None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

✓ N/A

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as 1°

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

✓Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as 1°

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as 1°

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

electric fence along property on left bank.

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/7/09 Time: 1105

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams N/A

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from bridge

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. Run only No pools.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why. N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/7/09 Time: 1115

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	13.11
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

@ bridge

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/7/09 Time: 1115

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
✓Residential	✓Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	✓None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: # 2

Date: 8/7/09 Time: 1115

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	✓common	abundant	
Algae Cover:	✓absent	rare	common	abundant	
Odor:	✓none	rare	common	abundant	
Color:	clear	green	red	✓brown	black
Bottom Deposit:	sludge	solids	✓fine sediments	none	other
Water Surface:	✓clear	scum	foam	debris	oil

Other: Emergent veg along banks

8. Vertebrates Observed within 300 meter reach

Snakes:	✓None	slight presence	moderate presence	large presence
Water Dependent Birds:	✓None	slight presence	moderate presence	large presence
Alligators:	✓None	slight presence	moderate presence	large presence

Comments:

9. Mammals Observed within 300 meter reach

Wild:	None	✓slight presence	moderate presence	large presence
Domesticated Pets:	✓None	slight presence	moderate presence	large presence
Livestock:	None	✓slight presence	moderate presence	large presence (Horse)
Feral Hogs:	✓None	slight presence	moderate presence	large presence

Comments: dead skunk and racoon on side of the road

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other:

11. Garbage Observed

Large garbage in the channel	✓None	Rare	Common	Abundant
Small garbage in the channel	✓None	Rare	Common	Abundant
Bank Garbage	None	✓Rare	Common	Abundant

Briefly describe the kinds of garbage observed:

glass bottle on bridge

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	
		N/A			

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, Smith, Ross, Vidas	
Date & Time: 8/7/09 1130-1150	County Name: Fort Bend
Stream Name: Jones Creek	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site #3 Skinner Lane @ Jones Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
   dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
   Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
   Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
   Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
   ✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
   Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
   Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
   Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
   Air Temp 33.34 ° C Water Temp_____ ° C (No Access)

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
   ☐ Easy ☐ Moderately easy ☐ Moderately difficult ☑ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):
   No Trespassing sign, Fenced w/ barbed wire, No public access, but appears that people have moved the barbed wire and jumped the fence

8. Dominant Primary Substrate:
   ☐ Cobble ☐ Sand ☐ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete ✓Unknown

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/7/09 Time: 1130

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
✓None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water.
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
steep banks, heavy veg along banks, except for one clearing that appears to have a foot path leading to it.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
No trespassing, but barbed wire pushed down, looks like people have jumped the fence, Gravel spot along road to park at.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/7/09 Time: 1130

b. Check the number of individuals observed at the site.

✓None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as 1°

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

✓Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as 1°

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as 1°

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/7/09 Time: 1130

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RCAA Survey

Stream Name Jones Creek Site: # 3

Date: 8/7/09 Time: 1130

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	11.58
Width at the widest point of the stream within 300 meter reach	27.43

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/7/09 Time: 1130

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓None
Sitting	Lying down/sleeping	Other:

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

✓Yes No (If yes, please provide supporting documentation and photos.)

Comments: 5 pipes, 2 open (controled water structure)

3. Check any channel obstructions that apply (Attach photos).

Culverts	✓Fences	Log jams	Rip rap
✓Water control structure	✓Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	None	Other (specify):

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
✓Rural area	Beach	Docks or rafts
Residential	✓Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	✓Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other:	None of the Above	

Comments: well worn path to water

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	✓Fence	✓No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other:	

Comments:

6. Check any indications of human use (Attach photos).

✓Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	✓Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other:	

Comments:

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/7/09 Time: 1130

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	✓rare	common	abundant	
Algae Cover:	✓absent	rare	common	abundant	
Odor:	✓none	rare	common	abundant	
Color:	clear	green	red	✓brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other ✓unknown
Water Surface:	✓clear	scum	foam	debris	oil

Other: emergent vegetation along bank

8. Vertebrates Observed within 300 meter reach

Snakes:	✓None	slight presence	moderate presence	large presence
Water Dependent Birds:	None	slight presence	✓moderate presence	large presence
Alligators:	✓None	slight presence	moderate presence	large presence

Comments: herons, egrets seen upstream

9. Mammals Observed within 300 meter reach

Wild:	✓None	slight presence	moderate presence	large presence
Domesticated Pets:	✓None	slight presence	moderate presence	large presence
Livestock:	✓None	slight presence	moderate presence	large presence
Feral Hogs:	✓None	slight presence	moderate presence	large presence

Comments:

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other:

11. Garbage Observed

Large garbage in the channel	✓None	Rare	Common	Abundant
Small garbage in the channel	✓None	Rare	Common	Abundant
Bank Garbage	None	Rare	✓Common	Abundant

Briefly describe the kinds of garbage observed:

water bottles, plastic, cigarettes

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

(last visit, Recon, we saw man fishing on other side of fence.)

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	
		N/A			

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, Smith, Vidas, Ross	
Date & Time: ~~7/8/09~~ 8/7/09	County Name: Fort Bend
Stream Name: Oyster Creek 12:20 – 1230	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: ~~Harlem Rd @ Oyster Creek~~ Cullinan Park @ Oyster Creek #4	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ✓ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

*observed flow ... aprox similar to first site.

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp_____ ° C Water Temp 33 ° C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

LR Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ✓ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): steep by bridge, thick veg on either bank

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ✓ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #41

Date: ~~7/8/09~~ 8/7/09 Time: 1220

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
✓None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). 1/3 mile walk to waterway steep bank, thick veg.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). Park ... hiking trails

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: ~~7/8/09~~ 8/7/09 Time: 1220

b. Check the number of individuals observed at the site. Ind observed @ park parking lot

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

✓ Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: ~~7/27/09~~ 8/7/09 Time: 1220

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: ~~7/8/09~~ 8/7/09 Time: 1220

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	20 @bridge
2	
3	
4	
5	
6	
7	
8	
9	
10	

~~@ site 20m using range finder~~

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: ~~7/8/09~~ 8/7/09 Time: 1220

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth	☐ Playing on shoreline	☐ Bathing
☐ Picnicking	☐ Walking	☐ Motorcycle/ATV
☐ Jogging/running	☐ Hunting/Trapping	☐ Bicycling
☐ Wildlife watching	☐ Standing	☑ None
☐ Sitting	☐ Lying down/sleeping	☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts	☐ Fences	☐ Log jams	☐ Rip rap
☐ Water control structure	☐ Barbed wire	☐ Dams	☐ Thick vegetation
☐ Low bridges	☐ Utility pipe	☑ None	☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds	☐ Stairs/walkway	☐ Roads (paved/unpaved)
☐ Playgrounds	☐ Boating access (ramps)	☐ Populated area
☐ Rural area	☐ Beach	☐ Docks or rafts
☐ Residential	☐ Bridge crossing	☐ Commercial outfitter
☐ National forests	☐ Commercial boating	☐ Nearby school
☐ Urban/suburban location	☑ Trails/paths (hiking/biking)	☐ Power Line Corridor
☐ Golf Course	☑ Paved parking lot	☑ Parks (national/city/county/state)
☐ Sports Field	☐ Unimproved parking lot	☐ Public Property
☐ Other: _____	☐ None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☐ Private Property	☐ Fence	☐ No trespass sign	☐ Barge/ship traffic
☐ Wildlife	☐ Industrial	☑ Steep slopes	☑ None of the Above
☐ No public access	☐ No roads	☐ Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

☐ Roads	☐ RV/ATV Tracks	☐ NPDES Discharge	☐ Organized event
☐ Rope swings	☐ Camping Sites	☐ Gates on corridor	☐ No Human Presence
☐ Dock/platform	☐ Fire pit/ring	☐ Children's toys	☑ Footpaths/prints
☐ Fishing Tackle	☐ Remnant's of Kid's play	☐ Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: ~~7/6/09~~ 8/7/09 Time: 1220

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	(common) emergent	abundant	
Algae Cover:	(absent)	rare	common	abundant	
Odor:	(none)	rare	common	abundant	
Color:	clear	green	red	(brown)	black
Bottom Deposit:	sludge	solids	(fine sediments)	none	other
Water Surface:	(clear)	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	☑ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

water bottles, plastic bags

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☐ No ?

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

- well worn path.
- pond on other side of park w/ boardwalk and observation tower.
- Smell of garbage along path.
- Gun range near by?

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: ~~7/8/09~~ 8/7/09

Site: #4

Site Description: Cullinan Park @ Oyster Creek

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	
		N/A			

48.6 ft br, 3
58 m dwn
174 m upstr

Field Data Sheets – Basic RUAA Survey
(should be completed for each site).

Data Collectors & Contact Information: Wrast, Guillen, Vidos, Smith, Ross	
Date & Time: ~~8/7/09~~ ~~7/8/09~~ 8/7/09	County Name: Fort Bend
Stream Name: Oyster Creek 1305 –	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #5 Imperial St @ Oyster Creek (Dam 1)	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 94.5 °~~C~~ F 34.72°C Water Temp 34 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

LR Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☑ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Small path (P.2)

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☑ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/7/09 ~~7/5/09~~ 8/7/09 Time: 1305

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:

(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).

Steep bank, quick flow on downstream of Dam

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).

gravel road

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?

Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?

Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: ~~8/7/09~~ ~~7/8/09~~ 8/7/09 Time: 1305

b. Check the number of individuals observed at the site.

(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☑ physical characteristics of the water body ☑ limited public access ☐ other

If other, list reasons: Steep banks, high flow

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Above add (vegetation)

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

As before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

* unsafe, due to fast moving water below dam.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: ~~8/7/09~~ ~~8/8/09~~ 8/7/09 Time: 1305

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: ~~8/7/09~~ ~~7/8/09~~ 8/7/09 Time: 1305

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

14.81m

@ Dam 48.6 ft

upstream 174 m

downstream 58 m

1.22m

4' deep

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: ~~8/4/09~~ ~~8/5/09~~ 8/7/09 Time: 1305

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☑ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☑ Yes ☐ No (If yes, please provide supporting documentation and photos.)

Comments: Dam, not functioning anymore

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☑ Dams
- ☐ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☐ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☐ Trails/paths (hiking/biking)
- ☐ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☑ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☐ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☑ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☑ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☑ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☑ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: ~~7/5/09~~ ~~7/8/09~~ 8/7/09 Time: 1305

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	(abundant)	
Algae Cover:	(absent)	rare	common	abundant	
Odor:	(none)	rare	common	abundant	
Color:	clear	green	red	(brown)	black
Bottom Deposit:	sludge	(solids) and	~~fine sediments~~	none	other
Water Surface:	(clear)	scum	foam	debris	oil

emergent overgrown w/ water hyacinths

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☐ slight presence	☑ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	☑ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

beer cans, chip bags, pringles cans, shotgun shells, fishing lines

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

- definitely fished regularly
- pole holders nailed onto bridge.

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

8/7/09

Stream: Oyster Creek Date: ~~8/7/09~~ ~~7/8/09~~

Site: #5

Site Description: Imperial St @ Oyster Creek (Dam 1)

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrost, Guillen, Vidas, Smith, Ross	
Date & Time: 8/7/09	County Name: Fort Bend
Stream Name: Oyster Creek 1335 - 1350	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Whimbrel @ Oyster Creek (DAM 2) #6	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 93.4 °C F 34.11°C Water Temp 33 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

____	Forest	L ✓	Urban residential	____	Rip rap
____	Shrub dominated corridor	____	Pasture	____	Concrete
____	Herbaceous marsh	____	Row crops	____	Denuded/Eroded bank
R	Mowed/maintained corridor			____	Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☐ Moderately difficult ☑ Difficult Small steep ped. trail to water

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): easy parking in back of neighborhood

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☑ Concrete

87 m
41.1 ft on 6.4 up
3.2' Concrete

EP

#6

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: Whimbrel @ Oyster CK.

Date: 8/7/09 Time: 1335

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
Fence upstream w barbed wire, posted no trespassing upstream. Downstream, fast dangerous moving water.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
yes parking.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/7/09 Time: 1335

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☑ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as below

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as below

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

unsafe water movement of water coming out of Dam.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/7/09 Time: 1335

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

3.2' concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/7/09 Time: 1335

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

41.4 ft 12.62m @ dam

87 m upstream of dam

depth 3.2' .98m concrete bottom downstream of dam

depth 6.4' 1.95m upstream

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6
Date: 8/7/09 Time: 1335

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth	☐ Playing on shoreline	☐ Bathing
☐ Picnicking	☐ Walking	☐ Motorcycle/ATV
☐ Jogging/running	☐ Hunting/Trapping	☐ Bicycling
☐ Wildlife watching	☐ Standing	☑ None
☐ Sitting	☐ Lying down/sleeping	☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☑ Yes ☐ No (If yes, please provide supporting documentation and photos.)

Comments: Dam

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts	☐ Fences	☐ Log jams	☐ Rip rap
☐ Water control structure	☐ Barbed wire	☑ Dams	☐ Thick vegetation
☐ Low bridges	☐ Utility pipe	☐ None	☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds	☐ Stairs/walkway	☑ Roads (paved/unpaved)
☐ Playgrounds	☐ Boating access (ramps)	☑ Populated area
☐ Rural area	☐ Beach	☑ Docks or rafts floating docks
☑ Residential	☐ Bridge crossing	☐ Commercial outfitter
☐ National forests	☐ Commercial boating	☐ Nearby school
☐ Urban/suburban location	☐ Trails/paths (hiking/biking)	☐ Power Line Corridor
☐ Golf Course	☐ Paved parking lot	☐ Parks (national/city/county/state)
☐ Sports Field	☑ Unimproved parking lot	☐ Public Property
☐ Other: _____	☐ None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☑ Private Property	☑ Fence	☐ No trespass sign	☐ Barge/ship traffic
☐ Wildlife	☐ Industrial	☐ Steep slopes	☐ None of the Above
☐ No public access	☐ No roads	☐ Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

☐ Roads	☐ RV/ATV Tracks	☐ NPDES Discharge	☐ Organized event
☐ Rope swings	☐ Camping Sites	☐ Gates on corridor	☐ No Human Presence
☑ Dock/platform	☐ Fire pit/ring	☐ Children's toys	☑ Footpaths/prints
☑ Fishing Tackle	☐ Remnant's of Kid's play	☐ Other: _____	

Comments: ✓ worm container ✓ small trail to water.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/7/09 Time: 1335

7. Check all water characteristics that apply (Attach photos). emergent

Aquatic Vegetation:	absent	rare	✓ common	abundant	
Algae Cover:	~~absent~~	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	~~solids~~	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	✓ slight presence	☐ moderate presence	☐ large presence
Alligators:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: Cattle egret

9. Mammals Observed within 300 meter reach

Wild:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	✓ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

- beer bottles
- tire

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

NO use

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/7/09

Site: #6

Site Description: Whimbrel @ Oyster Creek

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Guillen, Vidas, Smith, Ross	
Date & Time: 8/7/09	County Name: Fort Bend
Stream Name: Oyster Creek	1410 – 1430
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Houston Rowing Club Boat House #7	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.

☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 94.6 °C F 34.78°C Water Temp 98 °C F 36.67°C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L	Forest		Urban		Rip rap
R	Shrub dominated corridor		Pasture		Concrete
	Herbaceous marsh		Row crops		Denuded/Eroded bank
R	Mowed/maintained corridor				Other (specify):

6. Ease of bank access to the water body:

☑ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult Dock

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

dock, no ladder to get back up
heavy veg

34 dock
43

8. Dominant Primary Substrate:

☐ Cobble ☐ Sand ☑ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

273 d
414 up

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/7/09 Time: 1410

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
Limited public access, thick veg on bank

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
Park @ cancer center of Houston.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/7/09 Time: 1410

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☑ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before.

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Greater Houston Rowing Club Boat House

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7
Date: 8/7/09 Time: 1410

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____
Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____
Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/7/09 Time: 1410

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Range finder!
34 m
43 m
bth taken from deck

Using Range finder:
can see 273 downstream
to 414 upstream

5.9' 1.8m off dock
6.7' 2.04m off of dock
7.0' 2.13m off of dock

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7
Date: 8/7/09 Time: 1410

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☑ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☑ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☐ Residential
- ☐ National forests
- ☑ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☑ Trails/paths (hiking/biking)
- ☐ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☑ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☐ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☑ Other: _____
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: walk through field, unmarked.

6. Check any indications of human use (Attach photos).

- ☐ Roads
- ☐ Rope swings
- ☑ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☑ Organized event → Horseriding club.
- ☐ No Human Presence
- ☐ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/7/09 Time: _____

7. Check all water characteristics that apply (Attach photos). water hyacinth

Aquatic Vegetation:	absent	rare	✓ common	✓ abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	✓ slight presence	☐ moderate presence	☐ large presence
Alligators:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: Ibis

9. Mammals Observed within 300 meter reach

Wild:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	✓ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

going to visit site again tomorrow morning and attempt to see rowing club, meeting

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/7/09

Site: #7

Site Description: Houston Rowing Club Boat House

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information:	W Rust, Gautherey Smith
Date & Time: 8/8/09 0845	County Name: Fort Bend
Stream Name: Oyster Creek	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #7 Houston Rowing Club Boat House	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.

☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp_____° C Water Temp_____° C N/A

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

LR	Forest		Urban		Rip rap
	Shrub dominated corridor		Pasture		Concrete
	Herbaceous marsh		Row crops		Denuded/Eroded bank
LR	Mowed/maintained corridor				Other (specify):

6. Ease of bank access to the water body:

☑ Easy ☒ Moderately easy ☐ Moderately difficult ☐ Difficult → Dock

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

_____

_____

8. Dominant Primary Substrate:

☐ Cobble ☐ Sand ☐ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Fig

Field Data Sheets – Basic RUAA Survey

Stream Name_____ Site: _____

Date: _____ Time: _____

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children — Tubing
Wading-Adults — Surfing
Swimming — Whitewater-kayaking, canoeing, rafting
Water skiing — Other: _____
Diving — No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:

None 1-10 11-20 (20-50) greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
✓Individual is in a boat touching water rowing
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).

_____

_____

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).

_____

_____

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?

Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?

✓Yes No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing — Boating-commercial, recreational
✓Non-whitewater-kayaking, rafting, canoeing Rowing
No secondary contact recreation activities were observed
Other:_____

Field Data Sheets – Basic RUAA Survey

Stream Name_____ Site: _____

Date: _____ Time: _____

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

✓ In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

_____

_____

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

✓ frequently ☐ infrequently every Sat/Sun Morning 7:30-9:00AM

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly ✓Weekly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

_____

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

_____

_____

_____

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

_____

_____

_____

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

_____

_____

_____

_____

Field Data Sheets – Basic RUAA Survey

Stream Name_____Site: _____

Date: _____Time: _____

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	**Width (meters)**	**Depth (meters)**
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	**Depth (meters)**
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name_____Site: _____

Date: _____Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

Yes No

COMMENTS:

_____

_____

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name_____ Site: _____

Date: _____ Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☐ None
- ✓ Other: Rowing

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☒ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☒ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☐ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☐ Trails/paths (hiking/biking)
- ☑ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☐ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☑ Other: open unmarked field have to walk through to get to the boathouse
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☐ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☑ Organized event
- ☐ No Human Presence
- ☐ Footpaths/prints

Comments: Houston Rowing Club weekly practice

Field Data Sheets – Basic RUAA Survey

Stream Name_____ Site: _____

Date: _____ Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other:_____

_____

8. Vertebrates Observed within 300 meter reach

Snakes:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☐ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐Other: _____

11. Garbage Observed

Large garbage in the channel	☐ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☐ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☐ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

_____

_____

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wast, Cuillen, Vidos, Smith	
Date & Time: 8/7/09	County Name: Fort Bend
Stream Name: Oyster Creek	1445 - 15
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #8 Colonist Creek @ Oyster Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.

☐ dry ☐ no flow ☐ low ✓ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 90.5 °C 32.5°C Water Temp 34 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	R/L Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:

☐ Easy ✗ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): easy, slope, but some vegetation

8. Dominant Primary Substrate:

☐ Cobble ☐ Sand ☐ Silt ✓ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 8

Date: 8/7/09 Time: 1445

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:

N/A ~~None~~ ~~1-10~~ 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
N/A ✓Individual is in a boat touching water ? then sitting on bench taking a break → Drill Interview
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).

None / very on bank

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).

dead end road.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?

Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?

✓Yes No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
✓Non-whitewater-kayaking, rafting, canoeing
No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/7/09 Time: 1445

b. Check the number of individuals observed at the site.

None (1-10) 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

✓ In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

PICS

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently ?

Please describe how often the activities occur?

✓ Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Pics / Interview

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/7/09 Time: 1445

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/7/09 Time: 1445

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Range Finder
60 m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/7/09 Time: 1445

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☑ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☐ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☑ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☑ Sports Field Tennis
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☐ Trails/paths (hiking/biking)
- ☑ Paved parking lot → dead end
- ☐ Unimproved parking lot St.
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☑ Populated area
- ☑ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☐ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☑ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☑ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Organized event
- ☐ No Human Presence
- ☐ Footpaths/prints
- ☑ Other: benches

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/7/09 Time: 1445

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☑ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed: Cigarette butts by water (pic)

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Kayaker sitting at bench resting after rowing

Observed the kayaker putting his kayak back in the water. he waded into the water to get into the kayak.

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/7/09

Site: #8

Site Description: Colonist Creek @ Oyster Creek

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

NA

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Gauthier, Smith	
Date & Time: 8/8/09	County Name: Fort Bend
Stream Name: ~~#9~~ Oyster Creek	0950-1015
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Lost Creek Park @ Oyster Creek #9	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ✓ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 0.6405 cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 89.0 °F 31.67°C Water Temp 29 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	____ Urban	____ Rip rap
____ Shrub dominated corridor	____ Pasture	____ Concrete
____ Herbaceous marsh	____ Row crops	____ Denuded/Eroded bank
____ Mowed/maintained corridor		____ Other (specify):

6. Ease of bank access to the water body:
✓ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): easy slope to water, but bottom very uneven rocky, and thick detrital matter sink in.

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ✓ Silt ☐ Mud/Clay ☐ Gravel ✓ Bedrock ☐ Rip rap ☐ Concrete

EP

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9

Date: 8/8/09 Time: 09 1050

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
~~None~~ 1-10 11-20 20-50 ~~greater than 50~~ Greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
✓Individual is on shore near water within 8 meters (25ft) of water → Possibly on bridge over water
✓Individual is well away from water between 8 and 30 meters (100 ft) → walking on trails & playing in park
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).

Stagnant water, floating algae mats, shoreline vegetation, No swimming/wading signs, Alligator sightings

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).

public park.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 9

Date: 8/8/09 Time: 01055

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 (greater than 50)

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

✓ Body on shore near water within 8 meters (25ft) of water

✓ Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Signs (pics)

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 9

Date: 8/8/09 Time: 950

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable Non-wadeable

750 people observed

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

2 Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

1 Photos #s (150 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

3 Photos #s (300 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. — No Pools —

Sect 57.2

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (~~meters~~) ft	
30 meters	1.7'	.52m
60 meters	1.9'	.58m
90 meters	2.2'	.67m
120 meters	1.9'	.58m
150 meters	2.3'	.70m
180 meters	1.92	.58m
210 meters	1.90	.57m
240 meters	1.68	.51m
270 meters	2.1'	.64m
300 meters	2.23	.68m
Average		0.603

width

98-71.4 = 26.4 8.1m -

98-70 = 28 8.5m -

98-73.2' = 24.8 7.56m - narrow

6.5m

103-64.5 = 38.5 11.73m -

43.3' 13.2m - widest

25.3' 7.71m -

Ave = 9.456

* Pictures taken in clockwise order starting upstream

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9

Date: 8/ /09 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	28 8.53m
Width at narrowest point of the stream within 300 meter reach	8/8/09 ~~43.3~~
Width at the widest point of the stream within 300 meter reach	43.3 13.2m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓Yes No

COMMENTS:

_____

_____

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9
Date: 8/8/09 Time: 1055

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☑ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☑ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☑ Bicycling
- ☐ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: lot lots of debris in water, trees, branches etc.

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☐ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☑ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☑ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☑ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☑ Bridge crossing
- ☐ Commercial boating
- ☑ Trails/paths (hiking/biking)
- ☑ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☑ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☑ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9

Date: 8/26/09 Time: 1055

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown &	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum → algae	foam	debris	oil

Other: odor, when step down bubbles come up - decomposing smells.

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☑ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: 2 birds

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☐ None	☐ slight presence	☑ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: lots of dogs being walked, but have poop pickup stations

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☑ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

water bottle

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/8/09
Site: # 9
Site Description: Lost Creek Park @ Oyster Creek
Time Begin: 1010 Time End: Meter Type: SonTek Flowtracker
Observers: W rust Stream Width*: 28 Section Width (W): 1.4
Observations:

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V) At Point (ft/s)(m/s)	Velocity (V) Average (ft/s)(m/s)	Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
0.7	0.3			-0.00	
2.1	0.7			-0.00	
3.5	1.0			0.00	
4.9	1.2			0.00	
6.3	1.5			-0.00	
7.7	1.8			-0.00	
9.1	1.6			0.00	
10.5	1.8			-0.00	
11.9	2.3			-0.00	
10 13.3	1.6			0.01	
14.7	1.8			0.00	
16.1	1.8			0.00	
17.5	1.5			~~-0.00~~ -0.01	
18.9	2.0			-0.01	
20.3	1.6			-0.00	
21.7	1.3			0.00	
23.1	1.3			0.39	
24.5	~~0.45~~	1.45		-0.01	
25.9	0.6			-0.00	
20 27.3	0.5			-0.00	

Thick emergent vegetation

(For all sites lots of thick floaty algae.)

re-did 3x checked, correct

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Smith, Vidas	
Date & Time: 8-14-09	County Name: Ft. Bend
Stream Name: Jones Creek 0850 → 0915	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Winner - Foster Rd (#1)	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☑ low ☐ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
☑ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 32 ° C Water Temp_____ ° C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

____ Forest	____ Urban	____ Rip rap
____ Shrub dominated corridor	L Pasture	____ Concrete
____ Herbaceous marsh	____ Row crops	____ Denuded/Eroded bank
R Mowed/maintained corridor		____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☐ Moderately difficult ☑ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): very steep bank, muddy banks, no access.

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☑ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

E.P.

266 m up
180 m dn

Jones **Field Data Sheets – Basic RUAA Survey**

Stream Name ~~Oyster~~ Creek Site: Winner-foster Rd. #1

Date: 8-14-09 Time: 0850

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). very steep banks and soft mud a lot of debris in water (pic)

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). No Public access no parking (pic), barbed-wire on either side of water and bridge.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: Winner-Foster Rd #1

Date: 8-14-09 Time: 0850

b. Check the number of individuals observed at the site.

None (1-10) 11-20 20-50 greater than 50 3 bikers rode by

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

✓ Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same as before

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same as before

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

No recreation activities seen.

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: Winner-Foster Rd. #1

Date: 8-14-09 Time: 0850

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable Depth is wadable but due to steep banks and mud unable to access the water to wade it.

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from bridge

Photos #s (150 meters)Upstream____ Downstream____ Left Bank____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: Winner-foster Rd #1

Date: 8-14-09 Time: 0850

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	21.5 ft @ bridge
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

6.55m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

Yes ✓No

COMMENTS: looks like it gets very shallow both upstream and downstream of bridge.

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: Winner foster Rd #1

Date: 8·14·09 Time: 0850

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth	☐ Playing on shoreline	☐ Bathing
☐ Picnicking	☐ Walking	☐ Motorcycle/ATV
☐ Jogging/running	☐ Hunting/Trapping	☑ Bicycling
☐ Wildlife watching	☐ Standing	☒ None
☐ Sitting	☐ Lying down/sleeping	☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts	☐ Fences	☐ Log jams	☐ Rip rap
☐ Water control structure	☐ Barbed wire	☐ Dams	☐ Thick vegetation
☐ Low bridges	☐ Utility pipe	☑ None	☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds	☐ Stairs/walkway	☑ Roads (paved/unpaved)
☐ Playgrounds	☐ Boating access (ramps)	☐ Populated area
☑ Rural area	☐ Beach	☐ Docks or rafts
☐ Residential	☑ Bridge crossing	☐ Commercial outfitter
☐ National forests	☐ Commercial boating	☐ Nearby school
☐ Urban/suburban location	☐ Trails/paths (hiking/biking)	☐ Power Line Corridor
☐ Golf Course	☐ Paved parking lot	☐ Parks (national/city/county/state)
☐ Sports Field	☐ Unimproved parking lot	☐ Public Property
☐ Other: _____	☑ None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☑ Private Property	☑ Fence	☑ No trespass sign	☐ Barge/ship traffic
☐ Wildlife	☐ Industrial	☐ Steep slopes	☐ None of the Above
☑ No public access	☐ No roads	☑ Other: Barbed wire	

Comments: _____

6. Check any indications of human use (Attach photos).

☑ Roads	☐ RV/ATV Tracks	☐ NPDES Discharge	☐ Organized event
☐ Rope swings	☐ Camping Sites	☐ Gates on corridor	☐ No Human Presence
☐ Dock/platform	☐ Fire pit/ring	☐ Children's toys	☐ Footpaths/prints
☐ Fishing Tackle	☐ Remnant's of Kid's play	☐ Other: _____	

Comments: None

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #1

Date: 8-14-09 Time: 0850

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	— Skunk smell
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other:

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: turtles, softshell and Red ear Sliders.

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☐ None	☐ slight presence	☐ moderate presence	☑ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: baby cow out of fence when we arrived.

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☑ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other:

11. Garbage Observed

Large garbage in the channel	☐ None	☐ Rare	☑ Common	☐ Abundant
Small garbage in the channel	☐ None	☐ Rare	☑ Common	☐ Abundant
Bank Garbage	☐ None	☐ Rare	☑ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

rebar, cinder blocks, barrel, bucket, steel beams in water: bank cans, paper trash

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☐ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

water is much lower than last visit, one week ago. flow is evident, but slow.

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream: Jones Creek Date: 8/14/09

Site: #1

Site Description: Winner-Foster Rd.

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

unable to take flow measurement due to steep bank, muddy and dangerous conditions.

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Smith, Urdas	
Date & Time:	County Name: Fort Bend
Stream Name: Oyster Creek 1315 – 1750	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #10 Oyster Creek Park (Downstream)	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
   dry no flow low ✓ normal high flooded

2. Check the following stream type that applies on the day of the survey:
   Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
   Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
   Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
   ✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
   Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
   Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. Stagnant cfs

4. Water Quality Data (Field Parameters)
   Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
   Air Temp 3 °C Water Temp 31.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

LR Forest	____ Urban	____ Rip rap
____ Shrub dominated corridor	____ Pasture	____ Concrete
____ Herbaceous marsh	____ Row crops	____ Denuded/Eroded bank
LR Mowed/maintained corridor		____ Other (specify):

6. Ease of bank access to the water body:
   ✓ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

8. Dominant Primary Substrate
   ✓ Cobble Sand Silt ✓ Mud/Clay Gravel Bedrock Rip rap Concrete

Field Data Sheets – Basic RUAA Survey Ad

Stream Name Oyster Creek Site: #10 ~~Cartwright~~

Date: 8/14/09 Time: 1215

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

170m ds

96 m us

2.1

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None (1-10) 11-20 20-50 greater than 50 biking

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
✓Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). Stagnant water, murky water, overgrown veg on banks.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). public park w/ trails, and easy bank access @ bridge

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Secchi 92.6 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 10

Date: 8/14/09 Time: 1315

b. Check the number of individuals observed at the site.

None (1-10) 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

✓ Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Alligator Habitat signs

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/14/09 Time: 1315

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ bridge

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/14/09 Time: 1315

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~)
Typical Average Width of 300 meter reach	32.3 ft @ bridge 9.85m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

Yes ✓ No

COMMENTS: ~ 2' .61m

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/14/09 Time: 1315

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
✓ Jogging/running	Hunting/Trapping	✓ Bicycling
Wildlife watching	Standing	None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

✓ Yes No (If yes, please provide supporting documentation and photos.)

Comments: low bridge w/ 3 tubes

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
✓ Low bridges	Utility pipe	None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	Roads (paved/unpaved)
✓ Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	✓ Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments:

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
✓ Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: Alligator Signs

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	✓ Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments:

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #10

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	slight presence	moderate presence	large presence
Water Dependent Birds:	☑ None	slight presence	moderate presence	large presence
Alligators:	☑ None	slight presence	moderate presence	large presence

Comments: turtles and sunfish

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☑ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Interview Park Employee

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/14/09

Site: #10 Oyster Creek Park (Downstream)

Site Description: Oyster Creek Park (Downstream)

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

NA

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Smith, Vidas	
Date & Time: 8/14/09	County Name: Fort Bend
Stream Name: Oyster Creek	1400 – 1410
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #11 Cartwright & Oyster Creek	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

354m ds
394m US

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 35.5 °C Water Temp 31.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L/R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
✓☐ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):

_____

_____

8. Dominant Primary Substrate:
✓Cobble Sand Silt ✓Mud/Clay Gravel Bedrock Rip rap Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/14/09 Time: 1400

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

45.6 ft. 13.90 m

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None (1-10) 11-20 20-50 greater than 50 runner 1 kid on 4wheeler

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
Shallow water, easy access, heavy vegetation banks.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
public park, trails & roads.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Secchi 98.4 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 11

Date: 8/14/09 Time: _____

b. Check the number of individuals observed at the site.

None (1-10) 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

✓ Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: # 11

Date: 8/14/09 Time: _____

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from bridge

Photos #s (150 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg – Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/14/09 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	45.6 ft @ bridge 13.9m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

Yes ✓ No

COMMENTS: ~1'

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/14/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	✓ Motorcycle/ATV
✓ Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓ None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
✓ Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	✓ Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	✓ Parks (national/city/county/state)
✓ Sports Field base ball	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	✓ Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #11

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos). Hydrilla

Aquatic Vegetation:	absent	rare	(common)	abundant	
Algae Cover:	absent	(rare)	common	abundant	
Odor:	(none)	rare	common	abundant	
Color:	clear	green	red	(brown)	black
Bottom Deposit:	(sludge)	solids	fine sediments	none	other
Water Surface:	(clear)	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	None	slight presence	✓ moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: ducks

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence
Domesticated Pets:	✓ None	slight presence	moderate presence	large presence
Livestock:	✓ None	slight presence	moderate presence	large presence
Feral Hogs:	✓ None	slight presence	moderate presence	large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	None	✓ Rare	Common	Abundant
Bank Garbage	None	✓ Rare	Common	Abundant

Briefly describe the kinds of garbage observed:

bags, Styrofoam cups.

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/14/09

Site: Cartwright & Oyster Creek

Site Description: #11

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Smith, Wrast, Vidas	
Date & Time: 8/14/09	County Name: Fort Bend
Stream Name: Oyster Creek 1415 →	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: #12 1092 @ Oyster Creek (Mosley Park)	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

338 mus
214 mds

1. Check the following channel flow status that applies.
☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 35 °C Water Temp 32.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
LR Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☑ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Overgrown bank, 2-3' drop off.

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☑ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Secchi: 30.8 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 1092@ Oyster Creek
Date: 8/14/09 Time: 4 PM

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). heavy veg along bank / Mud shin deep.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). public park, benches, bbq pit.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 Oyster Creek

Date: 8/14/09 Time: 1415

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

private property downstream

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 Oyster Creek
Date: 8/14/09 Time: 1415

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:
✓ Wadeable ✓ Non-wadeable Some parts are and some are not

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ @ 30 m
Photos #s (150 meters) Upstream____ Downstream____ Left Bank____ Right Bank____
Photos #s (300 meters) Upstream____ Downstream____ Left Bank____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

Distance	Depth (~~meters~~) ft	
30 meters	2.8	.85m
60 meters	2.51	.77m
90 meters	2.9	.88m
120 meters	2.5	.76m
150 meters	~~18.9~~ 2.3	.70m
180 meters		
210 meters		
240 meters		
270 meters		
300 meters		
Average	0.792m	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 1092 @ Oyster Creek

Date: 8/14/09 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft	
Typical Average Width of 300 meter reach	~~18.9~~ 23.4	7.13m
Width at narrowest point of the stream within 300 meter reach	18.9	5.76m
Width at the widest point of the stream within 300 meter reach	~~23.4~~ 24.7	7.53m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

_____

_____

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 Oyster Creek

Date: 8/14/09 Time: 1415

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☐ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☐ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☑ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☑ Yes ☐ No (If yes, please provide supporting documentation and photos.)

Comments: (pics) ~~[illegible]~~ Wier type of structure.

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☑ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☐ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☐ Bridge crossing
- ☐ Commercial boating
- ☑ Trails/paths (hiking/biking)
- ☑ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☑ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☑ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☑ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☐ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #12 Oyster Creek

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☑ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: ducks

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☑ None	☐ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

mud, shin deep

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/14/09

Site: #12

Site Description: 1092 @ Oyster Creek (Mosley Park)

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wraet, Smith, Vidas	
Date & Time: 8/14/09	County Name: Fort Bend
Stream Name: Oyster Creek 1500 → 1515	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Glen Lakes @ Oyster Creek #13	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

324 mds
406 mus

1. Check the following channel flow status that applies.
dry no flow low ✓ normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 35.5 °C Water Temp 31.0 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L/R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ✓ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): have to park down the street, or hop the curb... (pic)

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ✓ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Secchi 74.6 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13 Glen Lakes
Date: 8/14/09 Time: 1500

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? ✓ Yes ✓ No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓ No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
✓ Individual is on shore near water within 8 meters (25ft) of water
✓ Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). heavily veg. banks, muddy substrate, murky water.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). no pub access, park... jump curb.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓ No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
✓ Yes ✓ No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓ No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #19 Glen Lakes

Date: 8/14/09 Time:

b. Check the ~~number~~ of individuals observed at the site.

None (1-10) 11-20 20-50 greater than 50 One guy mowing @ house adj. to waterway

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

✓ Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft) 1 kid eating lunch by the water...

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

1 kid w/ dog sitting by water.

2 people w/ mule. Up stream pulling something out of the water.

– Man smoking a pipe (crack) under bridge.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13 Glen Lakes

Date: 8/14/09 Time: _____

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ bridge

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why. N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

6' at bridge 1.83m

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13 Glen Lakes

Date: 8/14/09 Time: _____

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	42.1 ft estimated 12.83m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13 Glen Lakes
Date: 8/14/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

- ☐ Drinking or water in mouth
- ☑ Picnicking
- ☐ Jogging/running
- ☐ Wildlife watching
- ☐ Sitting
- ☑ Playing on shoreline
- ☐ Walking
- ☐ Hunting/Trapping
- ☐ Standing
- ☐ Lying down/sleeping
- ☐ Bathing
- ☐ Motorcycle/ATV
- ☐ Bicycling
- ☐ None
- ☐ Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

- ☐ Culverts
- ☐ Water control structure
- ☐ Low bridges
- ☐ Fences
- ☐ Barbed wire
- ☐ Utility pipe
- ☐ Log jams
- ☐ Dams
- ☑ None
- ☐ Rip rap
- ☐ Thick vegetation
- ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Campgrounds
- ☐ Playgrounds
- ☐ Rural area
- ☑ Residential
- ☐ National forests
- ☐ Urban/suburban location
- ☐ Golf Course
- ☐ Sports Field
- ☐ Other: _____
- ☐ Stairs/walkway
- ☐ Boating access (ramps)
- ☐ Beach
- ☑ Bridge crossing
- ☐ Commercial boating
- ☐ Trails/paths (hiking/biking)
- ☐ Paved parking lot
- ☐ Unimproved parking lot
- ☐ None of the Above
- ☐ Roads (paved/unpaved)
- ☐ Populated area
- ☐ Docks or rafts
- ☐ Commercial outfitter
- ☐ Nearby school
- ☐ Power Line Corridor
- ☐ Parks (national/city/county/state)
- ☐ Public Property

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

- ☐ Private Property
- ☐ Wildlife
- ☐ No public access
- ☐ Fence
- ☐ Industrial
- ☐ No roads
- ☐ No trespass sign
- ☐ Steep slopes
- ☐ Other: _____
- ☐ Barge/ship traffic
- ☑ None of the Above

Comments: _____

6. Check any indications of human use (Attach photos).

- ☑ Roads
- ☐ Rope swings
- ☐ Dock/platform
- ☐ Fishing Tackle
- ☐ RV/ATV Tracks
- ☐ Camping Sites
- ☐ Fire pit/ring
- ☐ Remnant's of Kid's play
- ☐ NPDES Discharge
- ☐ Gates on corridor
- ☐ Children's toys
- ☐ Other: _____
- ☐ Organized event
- ☐ No Human Presence
- ☑ Footpaths/prints

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #13 Glen Lakes

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☐ None	☐ slight presence	☑ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: duck w/ babies (pic)

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☑ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed: bottles, cans, paper.

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream: Oyster Creek Date: 8/11/09

Site: #13 ~~Gter~~

Site Description: Glen Lakes

Time Begin: _____ Time End: _____ Meter Type: _____

Observers: _____ Stream Width*: _____ Section Width (W): _____

Observations: _____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Smith, Vidas	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Jones Creek 0925 → 0945	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: 723 @ Jones Creek #2	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow ✓ low ✗ normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 34 °C Water Temp _____ °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
LR Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☐ Moderately difficult ☑ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):
Very muddy! stuck in mud (pic)

8. Dominant Primary Substrate:
☐ Cobble Sand Silt ✓ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8-14-09 Time: 09:25

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None (1-10) 11-20 20-50 greater than 50 → two guys moving (pic)

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
✓Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). thick vegetation, very muddy (pics)

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). No parking, busy road.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: 2

Date: 8/14/09 Time: 0925

b. Check the number of individuals observed at the site.
None (1-10) 11-20 20-50 greater than 50

289 m up
232 m dn

c. Check the following that apply regarding the individuals proximity to the water body.
Secondary touch: fishing, pets and related contact with water
In a boat touching water
✓ Body on shore near water within 8 meters (25ft) of water – 2 guys mowing
Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same as before

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?
☐ frequently ✓ infrequently guys mowing lawns adjacent to waterbody.

Please describe how often the activities occur?
✓ Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?
✓ physical characteristics of the water body ✓ limited public access ☐ other
If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

No recreation activities

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/14/09 Time: 0925

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ bridge

Photos #s (150 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why. N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/14/09 Time: 0925

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	34.9 ft @ bridge
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

10.64m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/14/09 Time: 0925

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	✓ Other: mowing

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓ None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
✓ Residential	✓ Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

✓ Private Property	Fence	✓ No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
✓ No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #2

Date: 8/14/09 Time: 0925

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	(common)	abundant	
Algae Cover:	absent	(rare)	common	abundant	
Odor:	none	(rare)	common	abundant	Smell of fecal matter under bridge.
Color:	clear	green	red	(brown)	black
Bottom Deposit:	(sludge)	solids	fine sediments	none	other
Water Surface:	(clear)	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	✓ None	slight presence	moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: Tables though

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence	
Domesticated Pets:	None	✓ slight presence	moderate presence	large presence	1 dog
Livestock:	✗ None	✓ slight presence	moderate presence	large presence	horses (pic)
Feral Hogs:	✓ None	slight presence	moderate presence	large presence	

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	✓ None	Rare	Common	Abundant
Bank Garbage	None	✓ Rare	Common	Abundant

Briefly describe the kinds of garbage observed: banana peel, and small trash on bridge

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

Not able to do flow ,,, too deep.
>4.5'

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Vidas, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Jones Creek	1005 → 1015
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Skinner Ln @ Jones Creek #3	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 34 ° C Water Temp_____ ° C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☐ Moderately difficult ✓☐ Difficult : Dangerous

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Fence... No trespassing... No public access but evidence of people jumping the fence.

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete ✓?

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: 1005

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). fence, no trespassing signs, barbed-wire

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). gravel spot where you can pull off the road.. (pic)

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: 1005

103 m ds
92 m us

b. Check the number of individuals observed at the site.
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Secondary touch: fishing, pets and related contact with water
In a boat touching water
Body on shore near water within 8 meters (25ft) of water
Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?
☐ frequently ☐ infrequently

Please describe how often the activities occur?
Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?
☐ physical characteristics of the water body ☐ limited public access ☐ other
If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

One of the 5 pipes open for flow (pic)
(last time 2 were open)

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: 1005

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream X Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: 1005

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	36.3 ft @ bridge 11.06m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS: but flow is dangerous below the bridge...

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

✓ Yes No (If yes, please provide supporting documentation and photos.)

Comments: One open 1/5

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
✓ Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓ Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	✓ Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	✓ Fence	✓ No trespass sign	Barge/ship traffic
Wildlife	Industrial	✓ Steep slopes	None of the Above
No public access	No roads	✓ Other: barbed wire	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
✓ Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: fishing line (pic)

Field Data Sheets – Basic RUAA Survey

Stream Name Jones Creek Site: #3

Date: 8/14/09 Time: 1005

7. Check all water characteristics that apply (Attach photos). Some water hyacynth

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit: ?	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	✓ None	slight presence	moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence
Domesticated Pets:	✓ None	slight presence	moderate presence	large presence
Livestock:	✓ None	slight presence	moderate presence	large presence
Feral Hogs:	✓ None	slight presence	moderate presence	large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	✓ None	Rare	Common	Abundant
Bank Garbage	None	Rare	Common	✓ Abundant

Briefly describe the kinds of garbage observed:

Plastic bags, glass bottles, cigarette packs, etc (pic)

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Vidas, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek 1045 → 1105	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Cullinan Park @ Oyster Creek #4	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow low ✓ normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 32 °C Water Temp 30 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☑ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Steep bank, pilings on side

8. Dominant Primary Substrate:
☐ Cobble ☐ Sand ☐ Silt ☑ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

E.W.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes / No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓ No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓ Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). 1/3 mile hike back to the water, steep bank, bridge pilings (pic)

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). public park, but 1/3 mile hike back to creek. (pic)

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?

Yes ✓ No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Seeondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?

Yes ✓ No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓ No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Very hot and stagnant air back in the woods, NO Breeze

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

136 m ds

85 m us

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from bridge

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4	✓		
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	20 m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓ None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓ Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	✓ Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	✓ Paved parking lot	✓ Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	✓ Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	✓ Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #4

Date: 8/14/09 Time: 1045

7. Check all water characteristics that apply (Attach photos) — water hyacinth

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other ?✓
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	✓ None	slight presence	moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	✓ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ✓ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

✓ on trail

Large garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	✓ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	✓ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed: bags, cans along walkway

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Vidas, Wrast, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek 1125 – 1135	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Imperial St. @ Oyster Creek (Dam 1)	

#5

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.

dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp 33.5 °C Water Temp 30.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:

☐ Easy ☐ Moderately easy ✓Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Steep an overgrown w/ vegetation.

8. Dominant Primary Substrate:

☐ Cobble Sand ✓Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ✓ Concrete ? ✓

EP

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: 1125

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

260 m US
445 m DS

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
Steep banks, heavy vegetation, high flow on ds side of dam, dangerous.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
road runs up to old Dam, gravel road.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓ No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: 1125

b. Check the number of individuals observed at the site.

(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

unsafe cond. in water downstream of bridge due to flow. lots of signs of fishing and crabbing from bridge (fishing line, pole holders)

Shot gun casings/shells

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: 1125

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ off of dam

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: 1125

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	39.7 ft @ bridge
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

12.10m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

✓ Yes No (If yes, please provide supporting documentation and photos.)

Comments: dam, but not "functioning" any more

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	✓ Dams	Thick vegetation
Low bridges	Utility pipe	None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓ Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	Docks or rafts
Residential	✓ Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	✓ Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	✓ Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	✓ Fire pit/ring	Children's toys	Footpaths/prints
✓ Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #5

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other ?
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	None	slight presence	moderate presence	✓ large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: ducks, white egrets, gar, turtles.

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence
Domesticated Pets:	✓ None	slight presence	moderate presence	large presence
Livestock:	✓ None	slight presence	moderate presence	large presence
Feral Hogs:	✓ None	slight presence	moderate presence	large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	✓ None	Rare	Common	Abundant
Bank Garbage	None	Rare	Common	✓ Abundant (pic)

Briefly describe the kinds of garbage observed:

Styrofoam cups, cigarette butts, beer bottles, foil, filament, bags, chip bags.

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

NA

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Vidas, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek	1145 – 1155
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Whimbrel @ Oyster Creek (Dam 2)	#6

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 33 °C Water Temp 30.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L/R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
☐ Easy ☐ Moderately easy ☑ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): Steep and heavy vegetation... but on otherside there is floating docks.

8. Dominant Primary Substrate:
☐ Cobble Sand ✓Silt ☐ Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☑ Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/14/09 Time: 1145

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

324m ds
377m us

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). Steep bank, heavy vegetation (pic2), fast moving water (pic4)

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). parking area at end of neighborhood rd. New construction of houston rowing club boat house across the stream.

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/14/09 Time: 1145

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/14/09 Time: 1145

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from dam

Photos #s (150 meters) Upstream____ Downstream____ Left Bank____ Right Bank____

Photos #s (300 meters) Upstream____ Downstream____ Left Bank____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/14/09 Time: 1145

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	41.9 ft @ dam
Width at narrowest point of the stream within 300 meter reach	much wider up and Down stream
Width at the widest point of the stream within 300 meter reach	

12.77m

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 8/14/09 Time: 1145

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

✓ Yes No (If yes, please provide supporting documentation and photos.)

Comments: DAM

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	✓ Dams	Thick vegetation
Low bridges	Utility pipe	None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	✓ Docks or rafts → floating docks
✓ Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
✓ Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	✓ Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	✓ Fence	✓ No trespass sign	Barge/ship traffic
Wildlife	Industrial	✓ Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

✓ Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #6

Date: 2/14/09 Time: 1145

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	(common)	abundant	
Algae Cover:	(absent)	rare	common	abundant	
Odor:	(none)	rare	common	abundant	
Color:	clear	green	red	(brown)	black
Bottom Deposit:	sludge	solids	fine sediments	none	other ?
Water Surface:	(clear)	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	None	slight presence	✓ moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence
Domesticated Pets:	✓ None	slight presence	moderate presence	large presence
Livestock:	✓ None	slight presence	moderate presence	large presence
Feral Hogs:	✓ None	slight presence	moderate presence	large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	✓ None	Rare	Common	Abundant
Bank Garbage	None	✓ Rare	Common	Abundant

Briefly describe the kinds of garbage observed:

bottles (4)

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Active construction on boat house.

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

NA

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Smith, Vidas	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek 1200-1215	#7
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Houston Rowing Club Boathouse @ Oyster Cr.	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
dry no flow low ✓ normal high flooded

2. Check the following stream type that applies on the day of the survey:
Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
Air Temp 33.5 °C Water Temp 31.0 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

R/L Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
_____ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
✓ Easy ☐ Moderately easy ✓ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): get in off of dock, but no ladder to get back up.

8. Dominant Primary Substrate:
Cobble Sand ✓ Silt ✓ Mud/Clay Gravel Bedrock Rip rap Concrete

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/14/09 Time: 1200

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

284 mds
407 mus
52*

b. Check the number of individuals observed at the site:
(None) 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
floating dock, heavy vegetation.
deep at dock site

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
Park @ Hoster Cancer center, walk through unmarked field, then on trail along building (boat house)

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓ No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/14/09 Time: 1200

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

SAME

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

SAME

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/14/09 Time: 1200

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ____ Right Bank ✓ from deck

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why. N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/14/09 Time: 1200

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	52m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #7

Date: 8/14/09 Time: _____

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓ None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	✓ Docks or rafts
Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	✓ Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
Sports Field	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

✓ Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
✓ Dock/platform	Fire pit/ring	Children's toys	✓ Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	Other: _____	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name: Aster Creek Site: #7

Date: 8/14/09 Time: 1200

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	None	slight presence	moderate presence	large presence
Water Dependent Birds:	None	slight presence	moderate presence	large presence
Alligators:	None	slight presence	moderate presence	large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	None	slight presence	moderate presence	large presence
Domesticated Pets:	None	slight presence	moderate presence	large presence
Livestock:	None	slight presence	moderate presence	large presence
Feral Hogs:	None	slight presence	moderate presence	large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other: _____

11. Garbage Observed

Large garbage in the channel	None	Rare	Common	Abundant
Small garbage in the channel	None	Rare	Common	Abundant
Bank Garbage	None	Rare	Common	Abundant

Briefly describe the kinds of garbage observed:

_____

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

Field Data Sheets – Basic RUAA Survey
(should be completed for each site)

Data Collectors & Contact Information: Wrast, Vidas, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek 1230 → 1238	
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Colonist Creek @ Oyster Creek #8	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

1. Check the following channel flow status that applies.
   dry no flow low ✓normal high flooded

2. Check the following stream type that applies on the day of the survey:
   Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.
   Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.
   Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.
   ✓Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.
   Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow
   Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

4. Water Quality Data (Field Parameters)
   Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.
   Air Temp 33 °C Water Temp 31.5 °C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

_____ Forest	LR Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
~~LR~~ Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:
   ☐ Easy ✓Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation):
   gentle slope into water, but high vegetation except for one place

8. Dominant Primary Substrate:
   ☐ Cobble Sand Silt ✓Mud/Clay ☐ Gravel ☐ Bedrock ☐ Rip rap ☐ Concrete

Secchi 15.2 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time: 1230

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓ No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

384 m ds
365 m us

Wading-Children Tubing
Wading-Adults Surfing
Swimming Whitewater-kayaking, canoeing, rafting
Water skiing Other: _____
Diving ✓ No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
Individual is well away from water between 8 and 30 meters (100 ft)
✓ Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation).
heavy vegetation on bank (gentle slope into water)

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation).
dead end road tennis courts, benches by water

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes ✓ No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓ No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).
Fishing Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓ No secondary contact recreation activities were observed
Other: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time: 1230

b. Check the number of individuals observed at the site.

None 1-10 11-20 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

Same

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

Same

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Boats, paddle boats @ docks behind houses across the creek,

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time: 1230

E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

Wadeable ✓ Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why.

N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why.

N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time: 1230

c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach: (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	59 m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes No

COMMENTS:

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time: 1230

F. Additional RUAA Information

1. Check the following activities observed over the site reach.

Drinking or water in mouth	Playing on shoreline	Bathing
Picnicking	Walking	Motorcycle/ATV
Jogging/running	Hunting/Trapping	Bicycling
Wildlife watching	Standing	✓ None
Sitting	Lying down/sleeping	Other: _____

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

Yes ✓ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

Culverts	Fences	Log jams	Rip rap
Water control structure	Barbed wire	Dams	Thick vegetation
Low bridges	Utility pipe	✓ None	Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

Campgrounds	Stairs/walkway	✓ Roads (paved/unpaved)
Playgrounds	Boating access (ramps)	Populated area
Rural area	Beach	✓ Docks or rafts
✓ Residential	Bridge crossing	Commercial outfitter
National forests	Commercial boating	Nearby school
Urban/suburban location	Trails/paths (hiking/biking)	Power Line Corridor
Golf Course	Paved parking lot	Parks (national/city/county/state)
✓ Sports Field Tennis courts	Unimproved parking lot	Public Property
Other: _____	None of the Above	

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

Private Property	Fence	No trespass sign	Barge/ship traffic
Wildlife	Industrial	Steep slopes	None of the Above
No public access	No roads	Other: _____	

Comments: _____

6. Check any indications of human use (Attach photos).

Roads	RV/ATV Tracks	NPDES Discharge	Organized event
Rope swings	Camping Sites	Gates on corridor	No Human Presence
Dock/platform	Fire pit/ring	Children's toys	Footpaths/prints
Fishing Tackle	Remnant's of Kid's play	✓ Other: benches	

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #8

Date: 8/14/09 Time:

7. Check all water characteristics that apply (Attach photos)

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

?✓

Other:

8. Vertebrates Observed within 300 meter reach

Snakes:	✓ None	slight presence	moderate presence	large presence
Water Dependent Birds:	✗ None	✓ slight presence	moderate presence	large presence
Alligators:	✓ None	slight presence	moderate presence	large presence

Comments: 1 duck

9. Mammals Observed within 300 meter reach

Wild:	✓ None	slight presence	moderate presence	large presence
Domesticated Pets:	✓ None	slight presence	moderate presence	large presence
Livestock:	✓ None	slight presence	moderate presence	large presence
Feral Hogs:	✓ None	slight presence	moderate presence	large presence

Comments:

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

Tracks Fecal droppings Bird nests Other:

11. Garbage Observed

Large garbage in the channel	✓ None	Rare	Common	Abundant
Small garbage in the channel	None	✓ Rare	Common	Abundant
Bank Garbage	✗ None	✓ Rare	Common	Abundant

Briefly describe the kinds of garbage observed:

2 pieces of wrappers floating in water
cigarette butts in grass

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

Yes ✓ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

Field Data Sheet - Basic RUAA Survey
Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A

#9

Field Data Sheets – Basic RUAA Survey

(should be completed for each site)

Data Collectors & Contact Information: Wrast, Vidas, Smith	
Date & Time: 8/14/09	County Name: Ft. Bend
Stream Name: Oyster Creek	1245 → 1300
Segment No. or nearest downstream Segment No.: 1245	
Description of Site: Lost Creek Park @ Oyster Creek (upstream)	

At any point during the Basic RUAA Survey it becomes apparent that primary contact recreation is clearly the use for the water body the investigator should stop conducting the UAA.

A. Stream Characteristics:

165 m ds
92 m us

1. Check the following channel flow status that applies.

☐ dry ☐ no flow ☐ low ☑ normal ☐ high ☐ flooded

2. Check the following stream type that applies on the day of the survey:

Ephemeral: A stream which flows only during or immediately after a rainfall event, and contains no refuge pools capable of sustaining a viable community of aquatic organisms.

Intermittent: A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 flow of less than 0.1 cubic feet per second is considered intermittent.

Intermittent w/ perennial pools: An intermittent stream which maintains persistent pools even when flow in the stream is less than 0.1 cubic feet per second.

✓ Perennial: A stream which flows continuously throughout the year. Perennial streams have a 7Q2 equal to or greater than 0.1 cubic feet per second.

Designated or unclassified tidal stream: A stream that is tidally influenced. If you checked this box, you will need to contact the Water Quality Standards Group and evaluate whether or not a bathing beach is located along the tidal stream and whether or not a bathing beach is located along the estuary, bay or Gulf water that the tidal stream flows into.

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs

appears stagnant

4. Water Quality Data (Field Parameters)

Field parameters should be collected in accordance with the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1.

Air Temp_____ ° C Water Temp 30.0 ° C

5. Riparian Zone (Mark dominant categories with L (Left Bank) and R (Right Bank). Bank orientation is determined by the investigator facing downstream.

L/R Forest	_____ Urban	_____ Rip rap
_____ Shrub dominated corridor	_____ Pasture	_____ Concrete
_____ Herbaceous marsh	_____ Row crops	_____ Denuded/Eroded bank
L/R Mowed/maintained corridor		_____ Other (specify):

6. Ease of bank access to the water body:

☑ Easy ☐ Moderately easy ☐ Moderately difficult ☐ Difficult

7. Please describe access opportunities or explain why the site is not easily accessible (Attach photos for documentation): easy access, but signs saying Alligator habitat no swimming/wading

8. Dominant Primary Substrate:

☐ Cobble ☐ Sand ☑ Silt ☐ Mud/Clay ☐ Gravel ☑ Bedrock ☐ Rip rap ☐ Concrete

Secchi 95.4 cm

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9

Date: 8/14/09 Time: 1245

B. Primary Contact Water Recreation Evaluation:

- Primary contact recreation draft definition: Water recreation activities, such as wading by children, swimming, water skiing, diving, tubing, surfing, and whitewater kayaking, canoeing, and rafting, involving a significant risk of ingestion of water.

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site? Yes ✓No primary contact recreation activities were observed

a. Check the following boxes of primary contact recreation activities observed at the time of the sampling event at the site (Attach photos of the activities or lack of activities).

Wading-Children
Wading-Adults
Swimming
Water skiing
Diving
Tubing
Surfing
Whitewater-kayaking, canoeing, rafting
Other: _____
✓No primary contact activities that commonly occur were observed
frequent public swimming-created by publicly owned land or commercial operations

b. Check the number of individuals observed at the site:
None ~~1-10~~ 11-20 20-50 greater than 50 - walkers and mowing crew.

c. Check the following that apply regarding the individuals proximity to the water body.
Water in mouth or nose of the individual
Primary touch: Individual's body (or portion) immersed in water
Secondary touch: fishing, pets and related contact with water
Individual is in a boat touching water
Individual is on shore near water within 8 meters (25ft) of water
✓Individual is well away from water between 8 and 30 meters (100 ft)
Not applicable

2. If primary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of primary contact (depth, etc.) (Attach photos, etc. for documentation). depth 2', water stagnant, easy bank access.

3. Describe if there is public access (e.g. parks, roads, etc.) (Attach photos, maps, etc. for documentation). public park, w/ walking trail to water

4. Is an area with primary contact recreation activities or a bathing beach (e.g. state/local parks with swimming, etc.) located near (e.g. within 5 miles upstream and downstream) this site?
Yes No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.
- Secondary contact recreation 2: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion but that occur less frequently than for secondary contact recreation 1 due to (1) physical characteristics of the water body and/or (2) limited public access.

1. Were water recreation activities observed at the site, but the nature of the recreation does not involve a significant risk of ingestion (e.g. secondary contact recreation activities)?
Yes ✓No secondary contact recreation activities were observed

a. Check the following boxes of secondary contact recreation activities that were observed at the time of the sampling event at the site (Attach photos of activities or lack of activities).

Fishing
Boating-commercial, recreational
Non-whitewater-kayaking, rafting, canoeing
✓No secondary contact recreation activities were observed
Other: _____

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b. Check the number of individuals observed at the site.

None 1-10 (11-20) 20-50 greater than 50

c. Check the following that apply regarding the individuals proximity to the water body.

Secondary touch: fishing, pets and related contact with water

In a boat touching water

Body on shore near water within 8 meters (25ft) of water

Body well away from water between 8 and 30 meters (100 ft)

2. If secondary contact recreation activities are not observed, describe the physical characteristics of the water body that may hinder the frequency of secondary contact (Attach photos, etc. for documentation).

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion?

☐ frequently ☐ infrequently

Please describe how often the activities occur?

Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason?

☐ physical characteristics of the water body ☐ limited public access ☐ other

If other, list reasons:

5. Describe the physical characteristics of the water body that hinders the frequency of secondary contact recreation (depth, etc.) (Attach photos or depth measurements, etc. for documentation).

SAME

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).

SAME

D. Noncontact Recreation Evaluation

Noncontact recreation applies to water bodies where recreation activities do not involve a significant risk of water ingestion, and where primary and secondary contact recreation uses do not occur because of unsafe conditions, such as barge traffic.

1. Provide site-specific information and documentation (including photographs) regarding unsafe conditions, recreation activities, and presence or absence of water recreation activities.

Alligator Habitat signs

Field Data Sheets – Basic RUAA Survey

Stream Name Oyster Creek Site: #9

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E. Stream Channel and Substantial Pools Measurements

Please check the following which best describes the river or stream:

✓ Wadeable Non-wadeable

1. Wadeable Streams

Determine whether or not the average depth at the thalweg is greater than 0.5 meters and if there are substantial pools with a depth of 1 meter or greater. Walk an approximately 300 meter reach (total) at the site and take the following measurements within the 300 meter reach. Measurements should be taken during base flow conditions (sustained or typical dry, warm-weather flows between rainfall events, excluding unusual antecedent conditions of drought or wet weather

Also, take photos facing upstream, downstream, left bank, and right bank at the 30 meters, 150 meters, and 300 meters.

Photos #s (30 meters) Upstream ✓ Downstream ✓ Left Bank ✓ Right Bank ✓ from bridge

Photos #s (150 meters) Upstream ____ Downstream ____ Left Bank ____ Right Bank ____

Photos #s (300 meters) Upstream ____ Downstream ____ Left Bank ____ Right Bank ____

a) Substantial pools - Measure the length of each pool (if > 10 pools only measure 10 pools), the width (at the widest point), and the deepest depth. A substantial pool is considered a pool greater than 10 meters in length for the purposes of a Basic RUAA Survey. If depth and/or width measurements were not attainable, explain why. N/A

	Length (meters)	Width (meters)	Depth (meters)
Pool 1			
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

b) Average depth at the thalweg –Take depth measurements approximately every 30 meters to calculate an average depth at the thalweg (at least 10 measurements needed). If depth and/or width measurements were not attainable, explain why. N/A

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

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c) Stream width - Measure (1) the width at one point which represents the typical average width of the 300 meter reach; (2) the width at the narrowest point of the stream within the 300 meter reach; and (3) the width at the widest point of the stream within the 300 meter reach.

Measurement Type	Width (~~meters~~) ft
Typical Average Width of 300 meter reach	31 ft @ bridge 9.45m
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?

✓ Yes ~~No~~

COMMENTS: ~2' 0.61m

2. Non-wadeable Streams

If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .

Photos #s (30 meters) Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (150 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

Photos #s (300 meters)Upstream____ Downstream____ Left Bank ____ Right Bank____

# Measurements	Width (meters)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

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F. Additional RUAA Information

1. Check the following activities observed over the site reach.

☐ Drinking or water in mouth ☐ Playing on shoreline ☐ Bathing
☐ Picnicking ☐ Walking ☐ Motorcycle/ATV
☑ Jogging/running ☐ Hunting/Trapping ☑ Bicycling
☐ Wildlife watching ☐ Standing ☐ None
☐ Sitting ☐ Lying down/sleeping ☑ Other: playing soccer

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses?

☐ Yes ☑ No (If yes, please provide supporting documentation and photos.)

Comments: _____

3. Check any channel obstructions that apply (Attach photos).

☐ Culverts ☐ Fences ☐ Log jams ☐ Rip rap
☐ Water control structure ☐ Barbed wire ☐ Dams ☐ Thick vegetation
☐ Low bridges ☐ Utility pipe ☑ None ☐ Other (specify): _____

4. Check all surrounding conditions that promote recreational activities (Attach photos of evidence or unusual items of interest).

☐ Campgrounds ☐ Stairs/walkway ☐ Roads (paved/unpaved)
☑ Playgrounds ☐ Boating access (ramps) ☐ Populated area
☐ Rural area ☐ Beach ☐ Docks or rafts
☑ Residential ☐ Bridge crossing ☐ Commercial outfitter
☐ National forests ☐ Commercial boating ☐ Nearby school
☐ Urban/suburban location ☑ Trails/paths (hiking/biking) ☐ Power Line Corridor
☐ Golf Course ☐ Paved parking lot ☑ Parks (national/city/county/state)
☑ Sports Field Soccer ☐ Unimproved parking lot ☐ Public Property
☐ Other: _____ ☐ None of the Above

Comments: _____

5. Check all surrounding conditions that impede recreational activities (Attach photos of evidence or unusual items of interest).

☐ Private Property ☐ Fence ☐ No trespass sign ☐ Barge/ship traffic
☐ Wildlife ☐ Industrial ☐ Steep slopes ☑ None of the Above
☐ No public access ☐ No roads ☐ Other: _____

Comments: _____

6. Check any indications of human use (Attach photos).

☐ Roads ☐ RV/ATV Tracks ☐ NPDES Discharge ☐ Organized event
☐ Rope swings ☐ Camping Sites ☐ Gates on corridor ☐ No Human Presence
☐ Dock/platform ☐ Fire pit/ring ☐ Children's toys ☑ Footpaths/prints
☐ Fishing Tackle ☐ Remnant's of Kid's play ☐ Other: _____

Comments: _____

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Stream Name Oyster Creek Site: #9

Date: 8/14/09 Time: _____

7. Check all water characteristics that apply (Attach photos).

Aquatic Vegetation:	absent	rare	common	abundant	
Algae Cover:	absent	rare	common	abundant	
Odor:	none	rare	common	abundant	
Color:	clear	green	red	brown	black
Bottom Deposit:	sludge	solids	fine sediments	none	other
Water Surface:	clear	scum	foam	debris	oil

potamogeton choked up

Other: _____

8. Vertebrates Observed within 300 meter reach

Snakes:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Water Dependent Birds:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Alligators:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

9. Mammals Observed within 300 meter reach

Wild:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Domesticated Pets:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Livestock:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence
Feral Hogs:	☑ None	☐ slight presence	☐ moderate presence	☐ large presence

Comments: _____

10. Evidence of wild animals or evidence of birds, cattle, hogs, etc.

☐ Tracks ☐ Fecal droppings ☐ Bird nests ☐ Other: _____

11. Garbage Observed

Large garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Small garbage in the channel	☑ None	☐ Rare	☐ Common	☐ Abundant
Bank Garbage	☐ None	☑ Rare	☐ Common	☐ Abundant

Briefly describe the kinds of garbage observed: drink packeging

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population?

☐ Yes ☑ No

13. Please document any other relevant information regarding recreational activities and the water body in general (for example, area outside of the stream reach evaluated).

_____

Field Data Sheet - Basic RUAA Survey

Stream Flow (Discharge) Measurement

Stream:_____ Date:_____

Site:_____

Site Description:_____

Time Begin:_____ Time End:_____ Meter Type:_____

Observers:_____ Stream Width*:_____ Section Width (W):_____

Observations:_____

Section Midpoint (ft) (m)	Section Depth (ft) (m) (cm) (D)	Observational Depth** (ft)(m)	Velocity (V)		Flow (Q) (m^3/s) (ft^3/s) Q = (W)(D)(V)
			At Point (ft/s)(m/s)	Average (ft/s)(m/s)	

N/A