

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

Data Collectors & Contact Information: <u>PS, CG, AM</u>
Date & Time: <u>23 May 2012 0915 CST</u> County Name: <u>Frio</u>
Stream Name:
Segment No. or nearest downstream Segment No.: <u>4u01-01</u> ↗
Description of Site:

**A. Stream Characteristics:**

- Check the following channel flow status that applies.  
 dry    no flow    low    normal    high    flooded
- 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 cfs  
0

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: 83°F °C      Water Temp: 26.2 °C

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

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

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):

private property, <sup>locked</sup> gate + fence

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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

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

no, private property

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?

### 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 secondary contact activities: \_\_\_\_\_

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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).

\_\_\_\_\_ *private property* \_\_\_\_\_

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).

\_\_\_\_\_ *Nearly wooded w/ large amounts of floating logs etc.* \_\_\_\_\_

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).

\_\_\_\_\_ *Private Property* \_\_\_\_\_

#### 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.

Average width = 9.4

	Length (meters)	Width (meters)	Depth (meters)
Pool 1	>300m	<del>10.2</del> <del>9.2</del> 12.2	.71
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	.54
60 meters	.53
90 meters	.58
120 meters	.58
150 meters	.55
180 meters	.54
210 meters	.59
240 meters	.56
270 meters	.46
300 meters	.59
Average	.571

3 pics - fishing bobber  
 1 pic log jam 3 pics  
 1 pic beer bottle  
 1 pic log obstruction  
 -heavy log obstruction from 270 → 300 m

NARROW 5.1  
 NARROW 1.1 @ BRIDGE 1 PIC

light surface scum, no odor, brown water

## 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	9.4
Width at narrowest point of the stream within 300 meter reach	1.1
Width at the widest point of the stream within 300 meter reach	12.2

- 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	

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Stream Name: \_\_\_\_\_ Site: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

### F. Additional RUAA Information

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

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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 water crossing w/ pipe

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

- |                                              |                                                 |                                              |                                      |                                                  |
|----------------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input checked="" type="checkbox"/> Culverts | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire         | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe        | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                                    |                                                  |                                            |
|--------------------------------------------|----------------------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks             | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites             | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring             | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints | <input checked="" type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____      |                                                    |                                                  |                                            |

Comments: 7 bobbers

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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

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, etc*

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).

*~ 100m from gate to lwc*



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>PS, CG, AM</u>	
Date & Time: <u>23 May 2012 1035 CST</u>	County Name: <u>Frio</u>
Stream Name: <u>Leona River</u>	
Segment No. or nearest downstream Segment No.: <u>AD 01-02</u>	
Description of Site:	

**A. Stream Characteristics:**

1.2 miles to site  
from gate

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.

>.1 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: 28.8 °C

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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	Other (specify): _____
	Mowed/maintained corridor	Denuded/Eroded bank	

lower  
upper

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):

Private Property

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## Field Data Sheets – Basic RUAA Survey

Stream Name: \_\_\_\_\_  
Date: \_\_\_\_\_

Site: \_\_\_\_\_  
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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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

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

none, private 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?

### 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 secondary contact activities: \_\_\_\_\_

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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).

private, heavily vegetated

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).

private, heavily vegetated

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).

see above

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.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1035

## 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			

103m wide  
 39 narrow  
 40 average

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)	
	0 meters	0.33	
	30 meters	0.48	rock obstruction pic (30)
pic obstruction (10)	60 meters	0.16	hog wallow pic (40)
pic of obstruction (11)	90 meters	0.16	pic obstruction (55)
	120 meters	0.07	
3 pics	150 meters	0.26	pic of tire + obstruction
	180 meters	0.41	
	210 meters	0.14	
	240 meters	0.09	
	270 meters	0.001	
3 pics	300 meters	0.46	
	Average		

frogs, snake

## 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	4.2
Width at narrowest point of the stream within 300 meter reach	.39
Width at the widest point of the stream within 300 meter reach	103 m

→ marsh

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: concrete bridge w/ culverts

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

- |                                                 |                                                 |                                              |                                      |                                                  |
|-------------------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input checked="" type="checkbox"/> Culverts    | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input checked="" type="checkbox"/> Barbed wire | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe           | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                            |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input checked="" type="checkbox"/> Roads  | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                            |

Comments: Pasture road, not public road

# 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

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, tire, cans*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>AU-01-03</u>	
Date & Time: <u>23 MAY 12 1155 CST</u>	County Name: <u>FREO</u>
Stream Name: <u>Leona River</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>distance to site 2.2 miles</u>	

### A. Stream Characteristics:

1. Check the following channel flow status that applies.
  - dry  no flow  low  normal  high  flooded
  - to low to measure*
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  
0

### 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 °C      Water Temp: 20.2 °C  
28.2

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

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

### 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):

private

### 8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 \_\_\_\_\_

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

\_\_\_\_\_ private \_\_\_\_\_

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

private property

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).

private

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).

private

### 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  2 photos  
2-10-obsol.

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		13.2	
Pool 2			
Pool 3			
Pool 4			
Pool 5			
Pool 6			
Pool 7			
Pool 8			
Pool 9			
Pool 10			

7.2 average  
 9.4 @ 10  
 13.2 @ 150  
~~13.2 @ 150~~

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	.74
60 meters	.70
90 meters	.72
120 meters	.73
150 meters	.71
180 meters	.63
210 meters	.61
240 meters	.59
270 meters	.68
300 meters	.54
Average	

7.2 @ 0

## 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	11.2
Width at narrowest point of the stream within 300 meter reach	9.4
Width at the widest point of the stream within 300 meter reach	13.2

- 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  Playing on shoreline
 Bathing  Picnicking
 Walking  Motorcycle/ATV
 Jogging/running  Hunting/Trapping
 Bicycling  Wildlife watching
 Standing  None
 Sitting  Other: \_\_\_\_\_
 Lying down/sleeping

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  None
 Utility pipe  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)  Other: \_\_\_\_\_
 Playgrounds  Boating access (ramps)  Populated area  None of the Above
 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

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
 Other: \_\_\_\_\_  No roads

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
 Foot paths/prints  Fishing Tackle  Remnant's of Kid's play
 Other: \_\_\_\_\_

Comments: \_\_\_\_\_

# 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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:	
Date & Time: <u>23 May 12</u> <u>1030</u>	County Name:
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>AU01-04</u>	

### 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 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 84°F Water Temp: 25.1 °C

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

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

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):

Private Property, Barb wire fence, steep slope

8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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, barb wire fence, thick vegetation and log jams in stream, steep slopes

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

there is none

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? 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 secondary contact activities: \_\_\_\_\_

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).

see previous

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: see previous

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).  
see previous

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).  
see previous

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. *0m*

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

*Obst. 190  
 Obst. 210  
 " 240*

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)
<i>@ 150m</i> Pool 1	<i>&gt; 300m</i>	<i>8.5</i>	<i>0.58 0.60</i>
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)
	<i>0.39</i>
30 meters	<i>0.36</i>
60 meters	<i>0.29</i>
90 meters	<i>0.31</i>
120 meters	<i>0.40</i>
150 meters	<i>0.58</i>
180 meters	<i>0.30</i>
210 meters	<i>0.50</i>
240 meters	<i>0.29</i>
270 meters	<i>0.34</i>
300 meters	<i>0.45</i>
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	6
Width at narrowest point of the stream within 300 meter reach	3, 5
Width at the widest point of the stream within 300 meter reach	9

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                                 |                                                 |                                                      |                                      |                                                  |
|-------------------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts               | <input checked="" type="checkbox"/> Fences      | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input checked="" type="checkbox"/> Barbed wire | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe           | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence    | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>23 May 12 0925</u>	County Name: <u>Frio</u>
Stream Name: <u>Long</u>	
Segment No. or nearest downstream Segment No.: <u>2109</u>	
Description of Site: <u>AU01_05</u>	

### 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 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 85F      Water Temp: NA °C

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

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

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):

Private property

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water; PR; barbed wire fence

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

None

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

No water ; see prev

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).

See previous

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).

Private Property

### 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.

9-12 Photos #s (30 meters)    Upstream     Downstream     Left Bank     Right Bank   
 5-8 Photos #s (150 meters)    Upstream     Downstream     Left Bank     Right Bank   
 5-8 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. *None*

	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)
✓ 0m	0
✓ 30 meters	0
✓ 60 meters	0
✓ 90 meters	0
✓ 120 meters	0
✓ 150 meters	0
✓ 180 meters	0
✓ 210 meters	0
✓ 240 meters	0
✓ 270 meters	0
300 meters	0
Average	0

*Pic 1 Obst (60m)  
 Pic 2 Obst (90m)  
 3-4 Obst (240m)*

## 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	0
Width at narrowest point of the stream within 300 meter reach	8
Width at the widest point of the stream within 300 meter reach	8

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                                   |                                                      |
|------------------------------------------------------|---------------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence         | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife                 | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above        | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads tail |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

## 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:              *None*  clear     green     red     brown     black  
 Bottom Deposit: *None*  sludge     solids     fine sediments     none     other  
 Water Surface: *None*  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    *deer, hog, coon*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>
Date & Time: <u>23 May 17 @ 1450 CST</u> County Name: _____
Stream Name: <u>Leon</u>
Segment No. or nearest downstream Segment No.: _____
Description of Site: <u>AU106</u>

### 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 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 99°F      Water Temp: NA °C

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

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

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):

Certain locations private property

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water; pp.

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

No

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? 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 secondary contact activities: \_\_\_\_\_

### 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).  
No water P.P.
  
- 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).  
No water P.P. steep banks
  
- 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).  
P.P.

#### 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.

5-8 Photos #s (30 meters) Upstream  Downstream  Left Bank  Right Bank   
 1-4 Photos #s (150 meters) Upstream  Downstream  Left Bank  Right Bank   
 14-17 Photos #s (300 meters) Upstream  Downstream  Left Bank  Right Bank

9-obsf.  
 10-hog hwy  
 11-obsf 210  
 12-obsf 200  
 13-obsf 245

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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 RUA Survey

Stream Name: \_\_\_\_\_ Site: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

### F. Additional RUA Information

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

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                                 |                                                 |                                              |                                      |                                                  |
|-------------------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts               | <input checked="" type="checkbox"/> Fences      | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input checked="" type="checkbox"/> Barbed wire | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe           | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence    | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Roads  | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: Private road, bridge, near on xsect hanging deer feeder

## Field Data Sheets – Basic RUA A 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: *NA*    clear    green    red    brown    black  
 Bottom Deposit: *NA*    sludge    solids    fine sediments    none    other  
 Water Surface: *NA*    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

*Coyote, hog, deer*

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

*Cans*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>23 May 12 01540</u>	County Name:
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>A401-07</u>	

**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 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 103 F      Water Temp: NA °C

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

- |                                 |                           |                        |
|---------------------------------|---------------------------|------------------------|
| <u>RL</u> Forest                | _____ Urban               | _____ Rip rap          |
| _____ Shrub dominated corridor  | _____ Pasture             | _____ Concrete         |
| _____ Herbaceous marsh          | _____ Row crops           | Other (specify): _____ |
| _____ Mowed/maintained corridor | _____ Denuded/Eroded bank |                        |

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):

P.P. Steep banks

8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

RP No water

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

No

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?

### 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 secondary contact activities: \_\_\_\_\_

### 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).

*No water PP*

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).

*No water*

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).

*Private Prop*

#### 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.

0m

Distance	Depth (meters)
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                                 |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap                | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input checked="" type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                                 |                                                  |

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

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

Comments: \_\_\_\_\_  
\_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence               | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_  
\_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
\_\_\_\_\_

### 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: *NA*     clear     green     red     brown     black  
 Bottom Deposit: *NA*     sludge     solids     fine sediments     none     other  
 Water Surface: *NA*     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

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

*tin cans + bottles (1970's)*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>PS, AM, CG</u>
Date & Time: <u>23 May 2012 1340 CDT</u> County Name: <u>Frio</u>
Stream Name:
Segment No. or nearest downstream Segment No.: <u>AM 01-08</u>
Description of Site:

**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 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: 37 °C      Water Temp: NA °C

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

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

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):

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8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water* \_\_\_\_\_

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

\_\_\_\_\_ *no 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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

no water/dry

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: no water

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).

no water

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).

no water private property

### 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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

102 large tree obstruction  
 110 ferret hog rut

← small obstruction w/ fish cork

fire, bottles, can

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                            |                                            |                                           |
|------------------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property                  | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic                | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes                      | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input checked="" type="checkbox"/> Other: <u>no water</u> | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

Field Data Sheets – Basic RUA 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

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, large 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).

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

Data Collectors & Contact Information:
Date & Time: <u>23 May 12 @ 13:50 CST</u> County Name:
Stream Name: <u>Liona</u>
Segment No. or nearest downstream Segment No.:
Description of Site: <u>AUL-09</u>

**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.

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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 99°F 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.)

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

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 @ location @ landowner camp  
Steep banks, private property

8. Dominant Primary Substrate

- Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## Field Data Sheets – Basic RUAA Survey

Stream Name: \_\_\_\_\_  
Date: \_\_\_\_\_

Site: \_\_\_\_\_  
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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

PP; no water, steep banks

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

No

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

See prev.  
\_\_\_\_\_  
\_\_\_\_\_

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).

See prev.  
\_\_\_\_\_  
\_\_\_\_\_

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).

Private property  
\_\_\_\_\_  
\_\_\_\_\_

### 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.

1-4 → 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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                           |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: Frame for a dock

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence               | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                                                    |                                                  |                                            |
|--------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks                             | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings       | <input checked="" type="checkbox"/> Camping Sites <u>landowner</u> | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring                             | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle                            | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____      |                                                                    |                                                  |                                            |

Comments: \_\_\_\_\_

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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <i>A. Martinez, P. Sudman, C. Goffinet</i>	
Date & Time: <i>24 MAY 12 1040 CST</i>	County Name: <i>Zavala</i>
Stream Name: <i>Leona River</i>	
Segment No. or nearest downstream Segment No.: <i>Au-02-11</i>	
Description of Site: <i>low water crossing → 150 meter mark</i>	

### 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 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 *89°F*      Water Temp: *NA* °C

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

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

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):

private property

8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

L dominant  
L crust over rock

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

private property

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).  
no water
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).  
no water, heavily vegetated
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).  
private property

### 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 water
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## 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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

0 METERS  
 -pic of log obstruction  
 -pic- log obstruction  
 -fence-barbwire tributary on left

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                                       |                                                 |                                                      |                                      |                                                  |
|-------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts                     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input checked="" type="checkbox"/> Barbed wire fence | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe                 | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                             |                                            |                                                      |
|---------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

# 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

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:  
can, 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 Sheets – Basic RUAA Survey

(to be completed for each site)

BIP

Data Collectors & Contact Information: <u>PS, AM, CG</u>
Date & Time: <u>23 May 2012 1440 CST</u> County Name: <u>Frio</u>
Stream Name:
Segment No. or nearest downstream Segment No.: <u>AU02-01</u>
Description of Site:

**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 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: 37 °C      Water Temp: 28.5 °C

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

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

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):

P.P.

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

private

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).  
no water
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: no water, private
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).  
no water
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).  
private

### 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.

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---

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---

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## 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	14.5	9.2	> 1.5 meters
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)
0 m	0
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	<del>0</del> 0
Average	

← pic - backpack in river bed  
 ← pic - large log obstruction  
 pool

## 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	8
Width at narrowest point of the stream within 300 meter reach	8
Width at the widest point of the stream within 300 meter reach	9.2

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                             |                                            |                                                      |
|---------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Private Property   | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                                              |                                         |                                                  |                                                       |
|--------------------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads                               | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings                         | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform                       | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints                   | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input checked="" type="checkbox"/> Other: <u>back packs</u> |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

## 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

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:

back packs, cans, bottles, tires

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).

backpacks



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

Data Collectors & Contact Information:	PS, AM, CG
Date & Time:	23 May 2012 1510 CST County Name: Zavala
Stream Name:	
Segment No. or nearest downstream Segment No.:	A702-02
Description of Site:	

**A. Stream Characteristics:**

- Check the following channel flow status that applies.  
 dry    no flow    low    normal    high    flooded
- 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 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: 37 °C      Water Temp: 28.2 °C  
99°F

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

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

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: \_\_\_\_\_ 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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

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

private property

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?

### 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 secondary contact activities: \_\_\_\_\_

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).

private property

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).

private property, shallow

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).

private property

**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: \_\_\_\_\_

- 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	2.4
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	12.0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: concrete and rock "dam"

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

- |                                       |                                                 |                                           |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input checked="" type="checkbox"/> Dams        | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                           |
|------------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_

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

- |                                                 |                                         |                                                  |                                            |
|-------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads                  | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input checked="" type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform          | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints      | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____           |                                         |                                                  |                                            |

Comments: \_\_\_\_\_

## 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

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:

*cars, bottles, etc.*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:	A. Martinez, P. Sudman, C. Goffinet
Date & Time:	23 MAY 12 0730 County Name: Zavala
Stream Name:	Leona River
Segment No. or nearest downstream Segment No.:	
Description of Site:	AN 02-03

### 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 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: 22.6 °C

74 °F

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

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

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):

Private Property (0.8 miles to road)

8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 - very little water

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

NO

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?  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 secondary contact activities: \_\_\_\_\_

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).

\_\_\_\_\_ See Above \_\_\_\_\_

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).

\_\_\_\_\_ See Above \_\_\_\_\_

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).

\_\_\_\_\_ Private Property \_\_\_\_\_

**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

830 start  
 ↓  
 0730 central

#### 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.

10-13  
 14-17  
 18-21

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.

between 246-270

	Length (meters)	Width (meters)	Depth (meters)
Pool 1	31.5	3.10	0.29
Pool 2	21.0	3.55	0.36
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.

4 pics

1 pic

4 pics

Distance	Depth (meters)
30 meters	0.06
60 meters	0.07
90 meters	0.11
120 meters	0
150 meters	0.04
180 meters	0
210 meters	0.06
240 meters	0
270 meters	0.15
300 meters	0
Average	

log jam 210-240 pic

pool one

raccoon tracks, hog, deer, frog

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	3.55

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence    | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

## 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

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:

*old bottles*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>J.S., J.M., JJ</u>	
Date & Time: <u>23 May 12 0710 CST</u>	County Name: <u>Zavala</u>
Stream Name: <u>Long</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>AU02-09</u>	

### 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 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: 73F °C      Water Temp: 22.8 °C

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

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

### 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: \_\_\_\_\_ 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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; no water

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

None

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?

### 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 secondary contact activities: \_\_\_\_\_

### 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).  
No water; Private Property
  
- 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).  
Puddles of water only
  
- 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).  
Private Property

#### 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	40m	4.6m	0.42
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	0.06
60 meters	0.11
90 meters	0.0
120 meters	0.0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0.04
300 meters	0.04
Average	

Joseph's Phone  
 Obs. a 0m DS  
 Obs. a 200m Pic  
 50m → 90m

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	4.6

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

## 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 *In puddles*  
 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  
*deer, hogs, coon, coyote*

11. Garbage Observed

- Large garbage in the channel  None  Rare  Common  Abundant  
 Small garbage in the channel  None  Rare  Common  Abundant *bottles cans*  
 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).

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



BP

### Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:	PS, AM, CG
Date & Time:	24 May 2012 0750 CST
County Name:	Zavala
Stream Name:	Leona River
Segment No. or nearest downstream Segment No.:	A402-05
Description of Site:	

#### 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 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: 77 °C      Water Temp: NA °C

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

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

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 water / private property

8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

1/2 1/2

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

private property

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?

### 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 secondary contact activities: \_\_\_\_\_

### 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).

no water

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: no water, private property

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).

no water

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).

private property

#### 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 water

## 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  *no gps*  
 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)
0 meters	0
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

*← excessive poison ivy vines  
 ← pic - excessive vine blockage*

*deer*

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams                    | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                                             |                                         |                                                  |                                                       |
|-------------------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads                              | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings                        | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform                      | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints                  | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input checked="" type="checkbox"/> Other: <u>backpacks</u> |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

## 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

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, tires, backpacks

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).

backpacks



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:	JS JM JJ
Date & Time:	24 May 12 0740 CST County Name:
Stream Name:	Leon
Segment No. or nearest downstream Segment No.:	
Description of Site:	A002_06

### 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 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 73°F      Water Temp: NA °C

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

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

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):

Found 1 location  
Steep bank; tall banks, P.P.

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## Field Data Sheets – Basic RUA 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

No

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?

### 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 secondary contact activities: \_\_\_\_\_

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).  
No water, steep banks PP.

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).  
No water

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).  
No roads

**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.

*9 photos @ 125m  
10-13  
5-8  
1-4*

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                            |                                            |                                                      |
|------------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property       | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic                | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes           | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input checked="" type="checkbox"/> Other: <u>No water</u> | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                                   |                                         |                                                  |                                            |
|---------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads                    | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings              | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input checked="" type="checkbox"/> Dock/platform | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints        | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____             |                                         |                                                  |                                            |

Comments: Only pillars left. Very old.

## 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

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).

*Dozer track in streambed*



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>24 May 12</u> <u>0830</u>	County Name:
Stream Name: <u>Leong</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>AU02_07</u>	

### 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 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 77°F      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.)

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

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):

*Can't get to stream.*  
Steep banks, chain link fence.

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

City park but chain link fence

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?

### 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 secondary contact activities: \_\_\_\_\_

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).

*No water*

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).

*No water*

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).

*Chain link fence; steep banks*

**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.

7-9  
4-6  
1-3

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams                    | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: *still chain link fence between park + stream*

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

- |                                                  |                                            |                                           |
|--------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property        | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic      | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____            | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

### Field Data Sheets – Basic RUA A 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   *None*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>AM, CG, PS</u>	
Date & Time: <u>24 May 2012 0830 CST</u>	County Name: <u>Zavala</u>
Stream Name: <u>Leona River</u>	
Segment No. or nearest downstream Segment No.:	<u>AM 02-08</u>
Description of Site:	

### 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 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 77 °F      Water Temp: NA °C

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

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

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):

private

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

private property

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

no water

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: no water, private property

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).

no water

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).

private property

### 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 water

## 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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                                       |
|-----------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline         |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking                   |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV               |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping             |
| <input type="checkbox"/> Bicycling                  | <input checked="" type="checkbox"/> Wildlife watching |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None              |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____                 |
| <input type="checkbox"/> Lying down/sleeping        |                                                       |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams                    | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                             |                                            |                                                      |
|---------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

# 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

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).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



BP

### Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:		
Date & Time: 24 MAY 12	0940 CST	County Name: Zavala
Stream Name: Leon River		
Segment No. or nearest downstream Segment No.: Au-02-09		
Description of Site:		

#### 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 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

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      Other (specify): \_\_\_\_\_  
 \_\_\_\_\_ Mowed/maintained corridor      \_\_\_\_\_ Denuded/Eroded bank

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):

private property, steep bank

8. Dominant Primary Substrate

- Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

only intermittently in few spots  
 1 of 8

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water, steep sides

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

private property

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).  
no water
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).  
no water, steep sides
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).  
private property

### 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 water 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	54.5	3.25	.38
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.

0 meters	Distance	Depth (meters)
	30 meters	0
	60 meters	0
	90 meters	.38
	120 meters	.12
	150 meters	.38
	180 meters	.20
	210 meters	0
	240 meters	0
	270 meters	0
	300 meters	0
	Average	

- pic - log obstruction  
 - pic - log obstruction

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	3.25

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                             |                                            |                                                      |
|---------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

# 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

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, tires, backpacks

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).

backpacks



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>24 May 12 @ 0910057</u>	County Name:
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>A402-10</u>	

### 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 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 81.0°F      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.)

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

### 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)

Primarily 1 location to enter stream

### 8. Dominant Primary Substrate

Cobble     Sand     Silt     Mud/Clay     Gravel     Bedrock     Rip rap     Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water* \_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_ *Gravel parking lot* \_\_\_\_\_  
\_\_\_\_\_

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

\_\_\_\_\_ *No water* \_\_\_\_\_  
\_\_\_\_\_

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).

\_\_\_\_\_ *No water steep slopes* \_\_\_\_\_  
\_\_\_\_\_

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

Pic 9  
Trash  
10-13  
5-8  
14

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input checked="" type="checkbox"/> Dams        | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                  |                                            |                                           |
|--------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property        | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic      | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____            | <input type="checkbox"/> No roads          |                                           |

Comments: *No water*

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

- |                                            |                                         |                                                  |                                            |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                            |

Comments: *About 10 backpacks found underneath brush  
 Part of fishing pole + bobber*

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

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:

*ties truck/tractor*

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>24 May 12</u> <u>1040 CST</u>	County Name:
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>A402-A1</u> <u>A40301</u>	

### 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.

0.0 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: 31.7 °C 89 °F      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.)

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

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):

pp. Steep slopes; not many places to traverse

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water, PP, steep slope

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

No; P.P.

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

\_\_\_\_\_ *Scrapiron* \_\_\_\_\_  
\_\_\_\_\_

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).

\_\_\_\_\_ *No water* \_\_\_\_\_  
\_\_\_\_\_

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).

\_\_\_\_\_ *P.P. Steep banks* \_\_\_\_\_  
\_\_\_\_\_

### 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.

9-12  
 1-4  
 5-8

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

### 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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 RUA Survey

Stream Name: \_\_\_\_\_ Site: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

### F. Additional RUA Information

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

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                                          |                                                      |                                      |                                                  |
|---------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                                          | <input type="checkbox"/> Log jams                    | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                                            | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input checked="" type="checkbox"/> Other (specify): <u>Fallen trees</u> |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence               | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

# 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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>
Date & Time: <u>29 May 12 @ 1245 CST</u> County Name: _____
Stream Name: <u>Lrona</u>
Segment No. or nearest downstream Segment No.: _____
Description of Site: <u>A403_02</u>

**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 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: 34.4 °C 94      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.)

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

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):

P.P. Steep banks

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

## 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  No primary contact activities that commonly occur were observed
      - Wading-Adults  Surfing  Swimming  Whitewater-kayaking, canoeing, rafting
      - Water skiing  Diving  Other: \_\_\_\_\_
      - 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  >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 water
  3. Describe if there is public access (e.g., parks, roads, etc.) (Attach photos, maps, etc. for documentation).

No P.P.
  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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

No water

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).

No water

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).

P.P. fences steep banks

### 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.

*Pic 9  
Hog Trv.  
10-13  
1-4  
5-8*

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
<b>Average</b>	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                              |                                                      |
|------------------------------------------------------|----------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence    | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife            | <input type="checkbox"/> Industrial                  |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above   | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input checked="" type="checkbox"/> No roads |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

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

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 Sheets – Basic RUAA Survey**  
(to be completed for each site)

Data Collectors & Contact Information:	A. Martinez, P. Sudman, C. Goffinet	
Date & Time:	24 MAY 12 1234 CST	County Name: Zavala
Stream Name:	Leona River	
Segment No. or nearest downstream Segment No.:	AU 03 03	
Description of Site:	3.3 miles in, through 3 gates	

**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 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 °C      Water Temp: N/A °C

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

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

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, karst limestone w/ numerous holes

8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

private

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

no water

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).

no water, karst holes throughout area

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).

private property

### 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 water

## 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)
0 meters	0
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	

- pic of mussel shells  
 - kids pool  
 - dam concrete  
 - pic canoe flat bottom boat  
 Bobcat

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: concrete dam

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

- |                                       |                                                 |                                           |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                             |                                            |                                                      |
|---------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input checked="" type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

# 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: Bobcat

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

- Tracks  Fecal droppings  Bird nests

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:  
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).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: JS JM JJ		
Date & Time: 24 May 12	134505	County Name:
Stream Name: Leona		
Segment No. or nearest downstream Segment No.:		
Description of Site: A403_05		

### 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 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 95 F      Water Temp: NA °C

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

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

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):

P.D.

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## Field Data Sheets – Basic RUAA Survey

Stream Name: \_\_\_\_\_  
Date: \_\_\_\_\_

Site: \_\_\_\_\_  
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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

No P.P.

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?

### 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 secondary contact activities: \_\_\_\_\_

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).  
No water

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).  
No water P.P.

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).  
P.P.

**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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
<b>Average</b>	0

*Obsta 10m*  
*2-5*  
*6-9*  
*10-13*  
*14 stairs @ 300m*

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                                      |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                                  |                                         |                                                  |                                                       |
|--------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads                   | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings             | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform           | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints       | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input checked="" type="checkbox"/> Other: _____ |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_ *Walkways to stream*

# 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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>CG, AM, AS</u>
Date & Time: <u>25 May 2017 6:15 LST</u> County Name: <u>Uvalde</u>
Stream Name: <u>Leona River</u>
Segment No. or nearest downstream Segment No.: <u>AM03-06</u>
Description of Site:

**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 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: 76 °C      Water Temp: N/A °C

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

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

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: \_\_\_\_\_ 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

park w/ public access via dirt/gravel 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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).  
no water
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).  
no water
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)
0 meters	0
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	

— large concrete dam

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: concrete dam at 270 meters

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

- |                                       |                                                            |                                           |                                      |                                                  |
|---------------------------------------|------------------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                            | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input checked="" type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input checked="" type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                             |                                            |                                           |
|---------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes       | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_

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

- |                                                 |                                         |                                                  |                                            |
|-------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input checked="" type="checkbox"/> Roads       | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input checked="" type="checkbox"/> Rope swings | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform          | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints      | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____           |                                         |                                                  |                                            |

Comments: \_\_\_\_\_

# 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

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:

tire, bottles, can

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>JS JM JJ</u>	
Date & Time: <u>25 May 12</u> <u>0715 PST</u>	County Name: <u>Uvalde</u>
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>Au03_07</u>	

**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 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 76 °F      Water Temp: 26.2 °C

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

- |                                                              |                                              |                                   |
|--------------------------------------------------------------|----------------------------------------------|-----------------------------------|
| <input type="checkbox"/> Forest                              | <input type="checkbox"/> Urban               | <input type="checkbox"/> Rip rap  |
| <input checked="" type="checkbox"/> Shrub dominated corridor | <input type="checkbox"/> Pasture             | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Herbaceous marsh                    | <input type="checkbox"/> Row crops           | Other (specify): _____            |
| <input type="checkbox"/> Mowed/maintained corridor           | <input type="checkbox"/> Denuded/Eroded bank |                                   |

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):

bank access @ boat ramp + few other locations left bank. Right bank steep

8. Dominant Primary Substrate

- Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

*P.P. Not very deep*

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

*Only open periodically*

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?

### 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 secondary contact activities: \_\_\_\_\_

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).

See p 10.

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).

See primary contact page

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).

See primary contact page

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	> 300m	15.5	0.78
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.

On

Distance	Depth (meters)
30 meters	0.48
60 meters	0.45
90 meters	0.40
120 meters	0.44
150 meters	0.59
180 meters	0.64
210 meters	0.74
240 meters	0.78
270 meters	0.45
300 meters	0.35
Average	0

1 - bubble  
 2 - can  
 7 - fire  
 12 - fallen tree  
 13 - tires  
 18 + 14 x  
 14 + 14 x

13.5  
 14.0  
 15.5

Coon  
 deer

## 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	14 m
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	15.5 m

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: Hoags dam far downstream

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

- |                                       |                                                 |                                              |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input checked="" type="checkbox"/> Log jams | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation    | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                              |                                      |                                                  |

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

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

Comments: Fl. Ings Park picnic tables

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

- |                                                      |                                            |                                                                                |
|------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign                                      |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                                            |
| <input checked="" type="checkbox"/> Steep slopes     | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access <u>only certain times</u> |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                                                |

Comments: \_\_\_\_\_

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

- |                                            |                                                    |                                                  |                                            |
|--------------------------------------------|----------------------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks             | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites             | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring             | <input type="checkbox"/> Children's toys         |                                            |
| <input type="checkbox"/> Foot paths/prints | <input checked="" type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____      |                                                    |                                                  |                                            |

Comments: Beer cans; broken fishing pole

## 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

*coon, deer, hog*      *coon*

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

*tires  
bottles, caps*

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).

*Water is probably backing up from dam due to  
inflow from Cook's Slough*



## Field Data Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>CG, AM, PS</u>
Date & Time: <u>24 May 2012 1345 EDT</u> County Name: <u>Uvalde</u>
Stream Name: <u>Leona River</u>
Segment No. or nearest downstream Segment No.: <u>AN 03-08</u>
Description of Site:

**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 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: NA °C

97

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

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

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 slope, heavy vegetation

8. Dominant Primary Substrate

- Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

- from 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?

### 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 secondary contact activities: \_\_\_\_\_

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).  
no water
  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: no water
  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).  
no water
  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).  
- access from bridge only

**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 water

## 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.

0 meters

Distance	Depth (meters)
30 meters	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

Banana Tric

- Concrete dam

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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: concrete dam

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

- |                                       |                                                 |                                                      |                                             |                                                  |
|---------------------------------------|-------------------------------------------------|------------------------------------------------------|---------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams                    | <input checked="" type="checkbox"/> Rip rap | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input checked="" type="checkbox"/> Dams        | <input checked="" type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges        | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                                      |                                             |                                                  |

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

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

Comments: stairs are private

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

- |                                                  |                                            |                                           |
|--------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property        | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic      | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input checked="" type="checkbox"/> Steep slopes | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____            | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

## 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

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:

bottle, can, styrofoam cup

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information:	
Date & Time: <u>24 May 12 @ 1445 CST</u>	County Name:
Stream Name: <u>Leone</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>AWS09</u>	

### 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 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 97°F 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	Other (specify): _____
<u>RL</u> Mowed/maintained corridor	_____ Denuded/Eroded bank	

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):

City Park very accessible

8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

\_\_\_\_\_ Against city ordinance; looks nasty  
\_\_\_\_\_

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

\_\_\_\_\_ Yes, roads, 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?

### 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 secondary contact activities: \_\_\_\_\_

## 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  
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).  
Looks nasty + city ordinance  
\_\_\_\_\_  
\_\_\_\_\_
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).  
Not  
\_\_\_\_\_  
\_\_\_\_\_

### 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	7.8 13.0
Width at narrowest point of the stream within 300 meter reach	7.8
Width at the widest point of the stream within 300 meter reach	23.0

- d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?  Yes  No  
 Comments: Against city of duane

### 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 .  
 2x Photos #s (30 meters) Upstream 1 Downstream 1 Left Bank 1 Right Bank 1  
 1st Photos #s (150 meters) Upstream 1 Downstream 1 Left Bank 1 Right Bank 1  
 2nd Photos #s (300 meters) Upstream 1 Downstream 1 Left Bank 1 Right Bank 1

	# Measurements	Width (meters)	
0	1	2.8	concrete channel
30	2	2.8	
60	3	22.0	concrete channel
90	4	23.5	
120	5	15.5	
150	6	13	
180	7	15	
210	8	22	
240	9	9	
270	10	23	
300	11	16.5	max depth 0.41m

154 is bridge depths are

0.60 0.88      1.12m 1.20 1.18 1.17      0.88 0.73

## 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.

- |                                                     |                                                                                      |
|-----------------------------------------------------|--------------------------------------------------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline                                        |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking                                                  |
| <input checked="" type="checkbox"/> Walking         | <input type="checkbox"/> Motorcycle/ATV                                              |
| <input checked="" type="checkbox"/> Jogging/running | <input type="checkbox"/> Hunting/Trapping                                            |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching                                           |
| <input checked="" type="checkbox"/> Standing        | <input type="checkbox"/> None                                                        |
| <input checked="" type="checkbox"/> Sitting         | <input checked="" type="checkbox"/> Other: <u>walking dog, playing on playground</u> |
| <input type="checkbox"/> Lying down/sleeping        |                                                                                      |

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: City treatment pumps in water to impoundment

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

- |                                       |                                                 |                                           |                                      |                                                             |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input checked="" type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                               |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                             |

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

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

Comments: \_\_\_\_\_

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

- |                                             |                                                       |                                           |
|---------------------------------------------|-------------------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence                        | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife                     | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes       | <input checked="" type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads                     |                                           |

Comments: \_\_\_\_\_

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

- |                                                       |                                         |                                                  |                                            |
|-------------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads                        | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings                  | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform                | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input checked="" type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____                 |                                         |                                                  |                                            |

Comments: Saw people utilizing park

# 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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>A. Martinez, P. Sudman, C. Goffinet</u>	
Date & Time: <u>24 MAY 12 1440 CST</u>	County Name: <u>Dvalde</u>
Stream Name: <u>Leona River</u>	
Segment No. or nearest downstream Segment No.: <u>Au_03_10</u>	
Description of Site:	

### 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 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: 99 °C      Water Temp: NA °C

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

<input type="checkbox"/> Forest	<input checked="" type="checkbox"/> <u>L,R</u> Urban <u>upper banks</u>	<input type="checkbox"/> Rip rap
<input type="checkbox"/> Shrub dominated corridor	<input type="checkbox"/> Pasture	<input type="checkbox"/> Concrete
<input type="checkbox"/> Herbaceous marsh	<input type="checkbox"/> Row crops	Other (specify): _____
<input checked="" type="checkbox"/> <u>L,R</u> Mowed/maintained corridor <u>lower banks</u>	<input type="checkbox"/> Denuded/Eroded bank	

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):

accessible from road

8. Dominant Primary Substrate

Cobble    Sand    Silt    Mud/Clay    Gravel    Bedrock    Rip rap    Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water

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

access from city street

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?

### 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 secondary contact activities: \_\_\_\_\_

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).

no water  
\_\_\_\_\_  
\_\_\_\_\_

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).

no water  
\_\_\_\_\_  
\_\_\_\_\_

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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
<b>Average</b>	0

## Field Data Sheets – Basic RUA 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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  Playing on shoreline
 Bathing  Picnicking
 Walking  Motorcycle/ATV
 Jogging/running  Hunting/Trapping
 Bicycling  Wildlife watching
 Standing  None
 Sitting  Other: \_\_\_\_\_
 Lying down/sleeping

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  None
 Utility pipe  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)  Other: \_\_\_\_\_
 Playgrounds  Boating access (ramps)  Populated area  None of the Above
 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

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
 Other: \_\_\_\_\_  No roads

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
 Foot paths/prints  Fishing Tackle  Remnant's of Kid's play
 Other: \_\_\_\_\_

Comments: \_\_\_\_\_

# 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

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

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 Sheets – Basic RUAA Survey**  
(to be completed for each site)

Data Collectors & Contact Information:	A M, PS, CG
Date & Time:	22 May 2012 1540 CST County Name: Uvalde
Stream Name:	
Segment No. or nearest downstream Segment No.:	
Description of Site:	AU 0311

NAME OF PCS 2012 05 22 - AUG - 11 - 0 UHDR  
150 UHDR  
300 UHDR

**A. Stream Characteristics:**

- Check the following channel flow status that applies.  
 dry  no flow  low  normal  high  flooded
- 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 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: 36 °C      Water Temp: 32.7 °C  
97 °F

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

<input type="checkbox"/> Forest	<input checked="" type="checkbox"/> Urban	<input type="checkbox"/> Rip rap
<input type="checkbox"/> Shrub dominated corridor	<input type="checkbox"/> Pasture	<input type="checkbox"/> Concrete
<input type="checkbox"/> Herbaceous marsh	<input type="checkbox"/> Row crops	Other (specify): _____
<u>L, R</u> <input type="checkbox"/> Mowed/maintained corridor	<input type="checkbox"/> Denuded/Eroded bank	

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):

Schools on both sides

8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## Field Data Sheets – Basic RUAA Survey

Stream Name: \_\_\_\_\_  
Date: \_\_\_\_\_

Site: \_\_\_\_\_  
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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

shallow, soft ground water

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

Schools

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?

### 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 secondary contact activities: \_\_\_\_\_

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).

\_\_\_\_\_ *see above* \_\_\_\_\_

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).

\_\_\_\_\_ *see above* \_\_\_\_\_

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).

\_\_\_\_\_ *N/A* \_\_\_\_\_

**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	745 m	15.5	0.42
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	0.3
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	<del>0.3</del> 0
<b>Average</b>	<b>0.129</b>

0.427

15.5M WIDE 45.5M LONG  
 32.7 WATER TEMP  
 402

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	15.5

- d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?  Yes  No

Comments: Single Pool

### 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                           |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
\_\_\_\_\_

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

- |                                             |                                                       |                                           |
|---------------------------------------------|-------------------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property   | <input type="checkbox"/> Fence                        | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic | <input type="checkbox"/> Wildlife                     | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes       | <input checked="" type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____       | <input type="checkbox"/> No roads                     |                                           |

Comments: \_\_\_\_\_  
\_\_\_\_\_

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

- |                                                       |                                         |                                                  |                                            |
|-------------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Roads                        | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event   |
| <input type="checkbox"/> Rope swings                  | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform                | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                            |
| <input checked="" type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                            |
| <input type="checkbox"/> Other: _____                 |                                         |                                                  |                                            |

Comments: \_\_\_\_\_  
\_\_\_\_\_

## 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

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:

*plastics, candy wrapper*

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 Sheets – Basic RUAA Survey**  
(to be completed for each site)

Data Collectors & Contact Information:	J. Stroebel, J. Millican, J. Jackson
Date & Time:	22 May 12 1540 CST County Name:
Stream Name:	Leona
Segment No. or nearest downstream Segment No.:	
Description of Site:	AU03.12

**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 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: 99 °C      Water Temp: — °C

38 °C

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

- |                                                              |                                              |                                   |
|--------------------------------------------------------------|----------------------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> Forest                   | <input type="checkbox"/> Urban               | <input type="checkbox"/> Rip rap  |
| <input checked="" type="checkbox"/> Shrub dominated corridor | <input type="checkbox"/> Pasture             | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Herbaceous marsh                    | <input type="checkbox"/> Row crops           | Other (specify): _____            |
| <input type="checkbox"/> Mowed/maintained corridor           | <input type="checkbox"/> Denuded/Eroded bank |                                   |

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: \_\_\_\_\_ 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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 water; all shrubs, grass, mesquite trees

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

End of street

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?

### 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 secondary contact activities: \_\_\_\_\_

## 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  
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).  
No water  
\_\_\_\_\_  
\_\_\_\_\_
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.

*0m*

Distance	Depth (meters)
30 meters	<i>0</i>
60 meters	<i>0</i>
90 meters	<i>0</i>
120 meters	<i>0</i>
150 meters	<i>0</i>
180 meters	<i>0</i>
210 meters	<i>0</i>
240 meters	<i>0</i>
270 meters	<i>0</i>
300 meters	<i>0</i>
Average	<i>0</i>

*— behind projects apartments*

*c 120m. drainage culvert R.B.*

*2- Dozer work  
Trash pits*

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                 |                                           |                                      |                                                  |
|---------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input checked="" type="checkbox"/> None         |
| <input type="checkbox"/> Utility pipe | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                            |                                            |                                           |
|------------------------------------------------------------|--------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Private Property                  | <input type="checkbox"/> Fence             | <input type="checkbox"/> No trespass sign |
| <input type="checkbox"/> Barge/ship traffic                | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial       |
| <input type="checkbox"/> Steep slopes                      | <input type="checkbox"/> None of the Above | <input type="checkbox"/> No public access |
| <input checked="" type="checkbox"/> Other: <u>No water</u> | <input type="checkbox"/> No roads          |                                           |

Comments: \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

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

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: Tires

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>Sfroebel et al.</u>	
Date & Time: <u>1440 CST 22 May 2012</u>	County Name: <u>Uvalde</u>
Stream Name:	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>A110313</u>	

### 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 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: 36 °C

Water Temp: 24.5 °C

76°F

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

L,R Shrub dominated corridor

     Pasture

     Concrete

     Herbaceous marsh

     Row crops

Other (specify):     

     Mowed/maintained corridor

     Denuded/Eroded bank

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):

~~From road~~ Fences/PP

8. Dominant Primary Substrate

Cobble  Sand  Silt  Mud/Clay  Gravel  Bedrock  Rip rap  Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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).

PP, lack of H<sub>2</sub>O

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

Road/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?

### 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 secondary contact activities: \_\_\_\_\_

## 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).

\_\_\_\_\_  
*See above*  
\_\_\_\_\_

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).

\_\_\_\_\_  
*See above*  
\_\_\_\_\_

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).

\_\_\_\_\_  
*See above*  
\_\_\_\_\_

### 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

1 → 150 deer tracks  
 2 Rocks at 90

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	23	6.6	0.63
Pool 2	23	6.75	0.67
Pool 3	65	44.5	> 1
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	> 1
60 meters	0
90 meters	0
120 meters	0
150 meters	0.17
180 meters	0.03
210 meters	0
240 meters	0
270 meters	0
300 meters	0
<b>Average</b>	

deer tracks  
 Raccoon tracks  
 deer tracks

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	44.5

- d) Is there sufficient water within a 300 meter stream reach during base flow conditions to support primary contact recreation?  Yes  No  
 Comments: Bottom Pool

### 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                       |                                                                            |                                           |                                      |                                                  |
|---------------------------------------|----------------------------------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts     | <input checked="" type="checkbox"/> Fences                                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input type="checkbox"/> Barbed wire  | <input checked="" type="checkbox"/> Dams                                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe | <input checked="" type="checkbox"/> Other (specify): <u>large boulders</u> |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

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

- |                                            |                                         |                                                  |                                                       |
|--------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Roads             | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings       | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform     | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____      |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_  
 \_\_\_\_\_

# Field Data Sheets – Basic RUA 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

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

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 Sheets – Basic RUAA Survey

(to be completed for each site)

Data Collectors & Contact Information: <u>22 May 12</u> <u>J. Strobel + J. Jackson</u>	
Date & Time: <u>22 May 12</u> <u>0840 CST</u>	County Name:
Stream Name: <u>Leona</u>	
Segment No. or nearest downstream Segment No.:	
Description of Site: <u>A403-14</u>	

**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.

0.0 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: 77 °C    25 °F    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.)

<input type="checkbox"/> Forest	<input type="checkbox"/> Urban	<input type="checkbox"/> Rip rap
<u>RL</u> <input type="checkbox"/> Shrub dominated corridor	<input type="checkbox"/> Pasture	<input type="checkbox"/> Concrete
<input type="checkbox"/> Herbaceous marsh	<input type="checkbox"/> Row crops	Other (specify): _____
<input type="checkbox"/> Mowed/maintained corridor	<input type="checkbox"/> Denuded/Eroded bank	

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):

Private property with fence; Dense vegetation

8. Dominant Primary Substrate

Cobble     Sand     Silt     Mud/Clay     Gravel     Bedrock     Rip rap     Concrete

## 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     No primary contact activities that commonly occur were observed  
 Wading-Adults     Surfing     Swimming     Whitewater-kayaking, canoeing, rafting  
 Water skiing     Diving     Other: \_\_\_\_\_  
 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     >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; no water; dense veg.

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

None

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? 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 secondary contact activities: \_\_\_\_\_

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).

See previous

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: See previous

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).

No water

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).

No water; private property

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. *No pools; no water*

	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	0
60 meters	0
90 meters	0
120 meters	0
150 meters	0
180 meters	0
210 meters	0
240 meters	0
270 meters	0
300 meters	0
Average	0

## 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	0
Width at narrowest point of the stream within 300 meter reach	0
Width at the widest point of the stream within 300 meter reach	0

- 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.

- |                                                     |                                               |
|-----------------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Drinking or water in mouth | <input type="checkbox"/> Playing on shoreline |
| <input type="checkbox"/> Bathing                    | <input type="checkbox"/> Picnicking           |
| <input type="checkbox"/> Walking                    | <input type="checkbox"/> Motorcycle/ATV       |
| <input type="checkbox"/> Jogging/running            | <input type="checkbox"/> Hunting/Trapping     |
| <input type="checkbox"/> Bicycling                  | <input type="checkbox"/> Wildlife watching    |
| <input type="checkbox"/> Standing                   | <input checked="" type="checkbox"/> None      |
| <input type="checkbox"/> Sitting                    | <input type="checkbox"/> Other: _____         |
| <input type="checkbox"/> Lying down/sleeping        |                                               |

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).

- |                                                 |                                                 |                                           |                                      |                                                  |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------|--------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Culverts               | <input type="checkbox"/> Fences                 | <input type="checkbox"/> Log jams         | <input type="checkbox"/> Rip rap     | <input type="checkbox"/> Water control structure |
| <input checked="" type="checkbox"/> Barbed wire | <input type="checkbox"/> Dams                   | <input type="checkbox"/> Thick vegetation | <input type="checkbox"/> Low bridges | <input type="checkbox"/> None                    |
| <input type="checkbox"/> Utility pipe           | <input type="checkbox"/> Other (specify): _____ |                                           |                                      |                                                  |

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

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

Comments: \_\_\_\_\_

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

- |                                                      |                                            |                                                      |
|------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| <input checked="" type="checkbox"/> Private Property | <input checked="" type="checkbox"/> Fence  | <input type="checkbox"/> No trespass sign            |
| <input type="checkbox"/> Barge/ship traffic          | <input type="checkbox"/> Wildlife          | <input type="checkbox"/> Industrial                  |
| <input type="checkbox"/> Steep slopes                | <input type="checkbox"/> None of the Above | <input checked="" type="checkbox"/> No public access |
| <input type="checkbox"/> Other: _____                | <input type="checkbox"/> No roads          |                                                      |

Comments: \_\_\_\_\_

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

- |                                                          |                                         |                                                  |                                                       |
|----------------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| <input checked="" type="checkbox"/> Roads <i>pasture</i> | <input type="checkbox"/> RV/ATV Tracks  | <input type="checkbox"/> NPDES Discharge         | <input type="checkbox"/> Organized event              |
| <input type="checkbox"/> Rope swings                     | <input type="checkbox"/> Camping Sites  | <input type="checkbox"/> Gates on corridor       | <input checked="" type="checkbox"/> No Human Presence |
| <input type="checkbox"/> Dock/platform                   | <input type="checkbox"/> Fire pit/ring  | <input type="checkbox"/> Children's toys         |                                                       |
| <input type="checkbox"/> Foot paths/prints               | <input type="checkbox"/> Fishing Tackle | <input type="checkbox"/> Remnant's of Kid's play |                                                       |
| <input type="checkbox"/> Other: _____                    |                                         |                                                  |                                                       |

Comments: \_\_\_\_\_

## 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   *None*  
 Bottom Deposit:  sludge    solids    fine sediments    none    other  
 Water Surface:  clear    scum    foam    debris    oil   *None*  
 Other: *No water*

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  
*Deer, hog*

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: *tires, cups, cans, bottles*

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).

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

