

Recreational Use Attainability Analysis of Cedar Creek (Segment 1209G)

Appendix 2

Field Data Sheets

*** The Microsoft Access database with field survey data is available as an electronic supplement on the CD insert found in Appendix 5**

Field Data Sheets – Basic RUAA Survey

(should be completed for each site)

Data Collectors & Contact Information: <u>J. Whast, L. Ray, K. Condra, C. Greene</u>	
Date & Time: <u>5/29/10 0851-0916</u>	County Name: <u>Robertson</u>
Stream Name: <u>Cedar Creek</u>	
Segment No. or nearest downstream Segment No.: <u>1209 G</u>	
Description of Site: <u>#1 - FM 46 A</u>	

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

dry no flow low normal high flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 0.056 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

29 °C

Water Temp

24 °C Secchi? 0.72

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
<u>L</u> Herbaceous marsh <u>cons</u>	_____ Row crops	Other (specify): _____
_____ Mowed/maintained corridor	<u>around bridge</u> _____ 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):

The Roadway and down to the bridge is mowed and bank is gentle slope; stream is narrow & shallow only access downstream right bank side. Right Bank has Barn and pasture.

8. Dominant Primary Substrate

Cobble Sand Silt Mud/Clay Gravel Bedrock Rip rap Concrete

Upstream left Bank has a gas production well.

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: _____
Date: 5/29/10 Time: 0051-0916

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).

- | | | |
|--|---|---|
| <input type="checkbox"/> Wading-Children | <input type="checkbox"/> Tubing | <input checked="" type="checkbox"/> No primary contact activities that commonly occur were observed |
| <input type="checkbox"/> Wading-Adults | <input type="checkbox"/> Surfing | |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Whitewater-kayaking, canoeing, rafting | |
| <input type="checkbox"/> Water skiing | <input type="checkbox"/> Other: _____ | |
| <input type="checkbox"/> Diving | <input type="checkbox"/> frequent public swimming-created by publicly owned land or commercial operations | |

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

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

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

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

Very shallow and narrow, heavy vegetation (cane/Reed)
Pic.

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

Bridge crossing

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 Cedar Creek Site: 1
Date: 5/29/10 Time: 0851-0916

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. N/A

Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft)

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

Same

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

Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access other

If other, list reasons: N/A

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

Same

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

Same

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 1
 Date: 5/29/10 FDS Page 3 of 8 Time: 0951-0916

E. Stream Channel and Substantial Pool:

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 ___

at bridge, downstream fence across water

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	

0.5 ft @ bridge

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 1
 Date: 5/29/10 Time: 0851-0916

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	3.5ft 1.07m at bridge
Width at narrowest point of the stream within 300 meter reach	
Width at the widest point of the stream within 300 meter reach	

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

COMMENTS: Children wading

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 Cedar Creek Site: _____
 Date: 5/29/10 Time: 0951-0916

F. Additional RUAA Information

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

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

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses? Yes No (If yes, please provide supporting documentation and photos.)

Comments: _____

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

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

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

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

Comments: _____

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

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

Comments: _____

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

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

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 1
Date: 5/29/10 Time: 0851-0916

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 raccoon

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:

fire and I beam in creek
wrappers,

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
(should be completed for each site)

Data Collectors & Contact Information:	L. Ryan, K. Conner, J. Wurst, C. Greene
Date & Time: 5/29/10 0920-0954	County Name: Robertson
Stream Name:	Cedar Creek
Segment No. or nearest downstream Segment No.:	1209 G
Description of Site:	#2 - FM 46 B

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

- dry no flow low normal high flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 0.348 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 28 °C

Water Temp

24 °C Secchi: 0.360

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):

It's a bludge over the creek with no shoulder and no parking, bank is moderately sloped

8. Dominant Primary Substrate

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

Field Data Sheets – Basic RUAA Survey

Stream Name: Cedar Creek Site: 2
Date: 5/29/10 Time: 0920 - 0954

B. Primary Contact Water Recreation Evaluation:

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

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site?

Yes No primary contact recreation activities were observed

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

- Wading-Children, Wading-Adults, Swimming, Water skiing, Diving, Tubing, Surfing, Whitewater-kayaking, canoeing, rafting, Other: frequent public swimming-created by publicly owned land or commercial operations

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

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

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

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

Bank is overgrown downstream of the bridge, stream is narrow and shallow.

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

Bridge crossing

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? N/A

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 Cedar Creek Site: 2
Date: 5/29/10 Time: 0920 - 0954

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. N/A
 Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft)

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

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion? frequently infrequently
Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access other
If other, list reasons: N/A

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

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

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 2
 Date: 5/29/10 FDS Page 3 of 8 0920-0954

E. Stream Channel and Substantial Pool

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.

130 Photos #s (30 meters) Upstream Downstream Left Bank Right Bank D.S. side of bridge.
 Photos #s (150 meters) Upstream Downstream Left Bank Right Bank
 Photos #s (300 meters) Upstream Downstream Left Bank Right Bank

*Shows Gate
Upstream*
↓

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	0.55 ft .17 m
60 meters	2.6 ft .79 m
90 meters	0.7 ft .21 m
120 meters	1.45 ft .44 m
150 meters	Fence and then LogJam
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	0.4025 m

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 2
 Date: 5/29/10 Time: 0920-0954

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	11.0 ft	3.35 m
Width at narrowest point of the stream within 300 meter reach	6.2	1.89 m
Width at the widest point of the stream within 300 meter reach	15.5	4.72 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 Cedar Creek Site: 2
 Date: 5/29/10 Time: 0920 - 0954

F. Additional RUAA Information

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

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

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses? Yes No (If yes, please provide supporting documentation and photos.)

Comments: Upstream LR 5/29/10
Downstream of Bridge, there is a gate
to a dam

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

- Culverts
 - Barbed wire
 - Utility pipe
 - Fences
 - Dams
 - Other (specify): _____
 - Log jams
 - Thick vegetation
 - Rip rap
 - Low bridges
 - None
 - Water control structure
- Log jam @ 130 m Fence @ 130 m

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

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

Comments: _____

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

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

Comments: _____

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

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

Comments: _____

Field Data Sheets – Basic RUA Survey

Stream Name: Cedar Creek Site: 2
 Date: 5/29/10 Time: 0920-0954

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: _____

*cattle
downstream Right
Bank
@ 130 m*

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, Beer CANS, plastic BAGS

12. Is the site located in a wildlife preserve with large wildlife (i.e waterfowl) population? Yes No

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

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

Data Collectors & Contact Information:	K. Condra, L. Ray, J. Wraast, C. Green	
Date & Time:	5/29/10 1002-1010	County Name: Robertson
Stream Name:	Cedar Creek	
Segment No. or nearest downstream Segment No.:	1209 G	
Description of Site:	#3 - CR 323	

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

- dry no flow low normal high flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs **No Flow measured similar to site #2**

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 **28.5 °C** Water Temp **24.5 °C** Secchi **0.84 cm**

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):

Bank vehicle in ditch by bridge, walk under bridge

8. Dominant Primary Substrate

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

RC
SD
E
AH

Field Data Sheets – Basic RUA Survey

Stream Name Cedar Creek Site: 3
Date: 5/29/10 Time: 1002-1010

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 [X] No primary contact recreation activities were observed

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

- Wading-Children, Wading-Adults, Swimming, Water skiing, Diving, Tubing, Surfing, Whitewater-kayaking, canoeing, rafting, Other, frequent public swimming-created by publicly owned land or commercial operations

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

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

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

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

Depth of water is shallow

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

Park vehicle in ditch by bridge: Only public access is under the bridge. Wood fence across water on either side of the 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? N/A

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 [X] 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 Cedar Creek Site: 3
Date: 5/29/10 Time: 1002-1010

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. N/A
 Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft)

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

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion? frequently infrequently N/A
Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access
 other
If other, list reasons: _____

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

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

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 3
 Date: 5/29/10 ~~FDS Page 3 of 8~~ Time: 1002-1010

E. Stream Channel and Substantial Pool

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 *at bridge*
 Photos #s (300 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___

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

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

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

Distance	Depth (meters)
30 meters	
60 meters	
90 meters	
120 meters	
150 meters	0.74ft = .23 m
180 meters	
210 meters	
240 meters	
270 meters	
300 meters	
Average	

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: 3
 Date: 5/29/10 Time: 1002-1010

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

Measurement Type	Width (meters)	
Typical Average Width of 300 meter reach		
Width at narrowest point of the stream within 300 meter reach	14.2 ft	4.33 m
Width at the widest point of the stream within 300 meter reach	30.0 ft	9.14 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 Cedar Creek Site: 3
 Date: 5/29/10 Time: 1002-1010

F. Additional RUAA Information

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

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

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses? Yes No (If yes, please provide supporting documentation and photos.)

Comments: _____

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

- Culverts
- 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 Cedar Creek Site: 3
Date: 5/29/10 Time: 1007-1010

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 raccoon

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: cooler, tire, beer 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).

4

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

Data Collectors & Contact Information:	L. Roy, K. C. Miller, J. W. Ast, C. Greene
Date & Time:	5/29/10 1034-1125 County Name: Robertson
Stream Name:	Cedar Creek
Segment No. or nearest downstream Segment No.:	1209 G
Description of Site:	# Cedar Creek Rd @ Cedar Creek

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

A. Stream Characteristics:

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

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

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

3. Streamflow
 Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 2.296 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 28.5 °C Water Temp 24.5 °C Secchi: 0.456

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):
Dirt road with no shoulder, no place to park; however, the slope to the creek is relatively easy to walk down.

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

E AH

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek
Date: 5/29/10

Site: #4
Time: 1034-1125

B. Primary Contact Water Recreation Evaluation:

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

1. Were water recreation activities that involve a significant risk of ingestion (full body immersion) observed at this site?

Yes No primary contact recreation activities were observed

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

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

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

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

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

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

Not much flow, very muddy, banks are overgrown up and down from the bridge, relatively narrow channel and shallow

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

Bridge crossing

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 Cedar Creek Site: #4
Date: 5/29/10 Time: 1034-1125

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

- X None [] 1-10 [] 11-20 [] 20-50 [] greater than 50

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

- [] Secondary touch: fishing, pets and related contact with water [] In a boat touching water
- [] Body on shore near water within 8 meters (25ft) of water [] Body well away from water between 8 and 30 meters (100 ft)

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

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion? [] frequently [] infrequently
Please describe how often the activities occur? X 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: N/A

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

Same

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

Same

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name: Cedar Creek Site: #4
 Date: 5/29/10 FDS Page 3 of 8 Time: 1034-1125

E. Stream Channel and Substantial Pool

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 *fence / log jam*
 Photos #s (150 meters) Upstream Downstream Left Bank Right Bank
 210 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.

1 more pic of fence / log jam @ 220

	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	0.95 ft	.29 m
60 meters	0.6 ft	.18 m
90 meters	1.25 ft	.38 m
120 meters	1.9 ft	.58 m
150 meters	2.4 ft	.73 m
180 meters	2.5 ft	.76 m
210 meters	2.4 ft	.73 m
240 meters		
270 meters		
300 meters		
Average		.521 m

Field Data Sheets – Basic RUA Survey

Stream Name Cedar Creek Site: #4
 Date: 5/29/10 Time: 1034-1125

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

Measurement Type	Width (meters)	
Typical Average Width of 300 meter reach	16.25 ft	4.95 m
Width at narrowest point of the stream within 300 meter reach	5.6 ft	1.71 m
Width at the widest point of the stream within 300 meter reach	18.5 ft	5.64 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 RUA Survey

Stream Name Cedar Creek Site: #4
 Date: 5/29/10 Time: 1034-1125

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 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): _____ | | | |
- Handwritten notes: 30 m @ 230 m, @ 230 m*

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 type="checkbox"/> None of the Above |
| <input checked="" 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 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 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: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #4
 Date: 5/29/10 Time: 1034 ~ 1125

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 **3 snakes**
 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 **cattle, RACOONS** **cattle tracks - Right Bank**

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, appliances, plastic bottles, styrofoam cup, beer cans, cans that have been shot.**

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).

5

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

Data Collectors & Contact Information:	K. Condra, L. Ray, C. Green, J. Wract
Date & Time:	5/29/10 1136-1158 County Name: Robertson / Brazos
Stream Name:	Cedar Creek
Segment No. or nearest downstream Segment No.:	1209 G
Description of Site:	#25 Old Spanish Rd e Cedar Creek

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

dry no flow low normal high flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. _____ cfs No Flow measured similar to site #4

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 28.5 °C Water Temp 24.5 °C Secchi .475m

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):

Park vehicle in ditch along road by bridge, walk under bridge

8. Dominant Primary Substrate

Cobble Sand Silt Mud/Clay Gravel Bedrock Rip rap Concrete

05/30
E
AH

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #25
Date: 5/29/10 Time: 1136-1158

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).

- | | | |
|--|---|---|
| <input type="checkbox"/> Wading-Children | <input type="checkbox"/> Tubing | <input checked="" type="checkbox"/> No primary contact activities that commonly occur were observed |
| <input type="checkbox"/> Wading-Adults | <input type="checkbox"/> Surfing | |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Whitewater-kayaking, canoeing, rafting | |
| <input type="checkbox"/> Water skiing | <input type="checkbox"/> Other: _____ | |
| <input type="checkbox"/> Diving | <input type="checkbox"/> frequent public swimming-created by publicly owned land or commercial operations | |

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

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

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

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

Log jam downstream near bridge

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

Walk under the bridge from the 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? N/A

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 Cedar Creek
Date: 5/29/10

Site: # 25
Time: 1136 - 1158

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

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

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

- Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft) N/A

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

same

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 N/A

Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access other

If other, list reasons: _____

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

same

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

same

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: # 25
 Date: 5/29/10 FDS Page 3 of 8 Time: 1136-1158

E. Stream Channel and Substantial Pool

Please check the following which best describes the river or stream: Wadeable Non-wadeable

1. Wadeable Streams

only between 130-170 m

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.

@ 130 Photos #s (30 meters) Upstream Downstream Left Bank Right Bank
 Photos #s (150 meters) Upstream Downstream Left Bank Right Bank
@ 170 Photos #s (300 meters) Upstream Downstream Left Bank Right Bank

*plus
pic of fishing
line.*

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	
120 130 meters	2.4 <i>2.4</i>
150 meters	2.4 <i>2.4</i>
180 170 meters	2.4 <i>2.4</i>
210 meters	
240 meters	
270 meters	
300 meters	
Average	1.097 m

*> 1.34 m
.61 m
> 1.34 m*

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #25
 Date: 5/29/10 Time: 1136 - 1158

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	14.75 ft	5.71 m
Width at narrowest point of the stream within 300 meter reach	11 ft	3.35 m
Width at the widest point of the stream within 300 meter reach	26.5 ft	8.08 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 Cedar Creek Site: # 25
 Date: 5/29/10 Time: 1136-158

F. Additional RUAA Information

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

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

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses? Yes No (If yes, please provide supporting documentation and photos.)

Comments: _____

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

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

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

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

Comments: _____

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

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

Comments: _____

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

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

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #25
 Date: 5/29/10 Time: 1136-1158

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 raccoon

11. Garbage Observed

- Large garbage in the channel None Rare Common Abundant
 Small garbage in the channel None Rare Common Abundant
 Bank Garbage None Rare Common Abundant
 Briefly describe the kinds of garbage observed: Beer cans

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).

6

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

Data Collectors & Contact Information:	K. Condra, L. Ray, J. Wroast, M. Step ^{C. Green}
Date & Time:	5/29/10 1209 - 1225 County Name: Brazos
Stream Name:	Cedar Creek 1325
Segment No. or nearest downstream Segment No.:	1209 G
Description of Site:	#10 FM 974 @ Cedar Creek

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

dry no flow low normal high flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 2.245 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 27.0 °C Water Temp 25.5 °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>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):

Park vehicle along road near bridge, fencing on either side of bridge but not across water

8. Dominant Primary Substrate

Cobble Sand Silt Mud/Clay Gravel Bedrock Rip rap Concrete

E
AH

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: # 86
 Date: 5/29/10 Time: 1209-1225 KC
1325

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).

- | | | |
|--|---|---|
| <input type="checkbox"/> Wading-Children | <input type="checkbox"/> Tubing | <input checked="" type="checkbox"/> No primary contact activities that commonly occur were observed |
| <input type="checkbox"/> Wading-Adults | <input type="checkbox"/> Surfing | |
| <input type="checkbox"/> Swimming | <input type="checkbox"/> Whitewater-kayaking, canoeing, rafting | |
| <input type="checkbox"/> Water skiing | <input type="checkbox"/> Other: _____ | |
| <input type="checkbox"/> Diving | <input type="checkbox"/> frequent public swimming-created by publicly owned land or commercial operations | |

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

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

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

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

by banks
Steep slopes, sediment soft & sink in mud, water depth deep in places

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

Under the bridge you can access 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? N/A

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 Cedar Creek
Date: 5/29/10

Site: # 36
Time: 1209-1225/325 KC

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

c. Check the following that apply regarding the individuals proximity to the water body.
 Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft) N/A

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

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 N/A
Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access
 other
If other, list reasons:

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

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation).
No parking

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.
N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #36
 Date: 5/29/10 FDS Page 3 of 8 Time: 1209-1325 KC

E. Stream Channel and Substantial Pool

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.

50m Photos #s (30 meters) Upstream Downstream Left Bank Right Bank *too deep to wade past, deep pool w/ slanted sides*
 240 Photos #s (150 meters) Upstream Downstream Left Bank Right Bank
 Photos #s (300 meters) Upstream Downstream Left Bank Right Bank *Soft mud... unable to wade, sink past knee.*

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	3.44 ft	1.34 m
60 meters	3.35 ft	1.02 m
90 meters	1.5 ft	.46 m
120 meters	3.0 ft	.91 m
150 meters	4.0 ft	1.219 m
180 meters	3.65 ft	1.11 m
210 meters	1.7 ft	.52 m
240 meters	2.05 ft	.62 m
270 meters		
300 meters		
Average		0.899 m

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #36
 Date: 3/29/10 Time: 1209-1225 1325KL

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	24 ft	7.31 m
Width at narrowest point of the stream within 300 meter reach	12 ft	3.66 m
Width at the widest point of the stream within 300 meter reach	27 ft	8.23 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 Cedar Creek Site: #36
 Date: 5/29/10 Time: 1209-1225 1325 KC

F. Additional RUAA Information

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

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

2. Are there permanent or long-term hydrologic modifications that are constructed and operated in a way that affects the recreational uses? Yes No (If yes, please provide supporting documentation and photos.)

Comments: _____

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

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

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

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

Comments: _____

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

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

Comments: _____

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

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

Comments: _____

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: # 76
 Date: 5/29/10 Time: 1209-1228 1325 KC

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

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

Odor was from sediment were disturbing in 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: hear cows mooing in distance

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

- Tracks Fecal droppings Bird nests raccoon, 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

Briefly describe the kinds of garbage observed: tires, beer cans, bottles, plastic containers

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).

The sediment is like quick sand near the edge of water on the right bank. Were sinking up to knees in places

Couple Stopped on Rd... They own ~ 3 mile of property along the creek... Never seen recreation .. too muddy. Have seen 2 mountain Lions and 1,000 Hogs on property. Asked about proposed Reservoir on Gibbons.

7

Field Data Sheets – Basic RUAA Survey

(should be completed for each site)

Data Collectors & Contact Information:	L. Ray, K. Condra, J. Wrast, C. Greene
Date & Time:	5/29/10 1344-1427 County Name: Brazos
Stream Name:	Cedar creek
Segment No. or nearest downstream Segment No.:	1209 G
Description of Site:	#17 SH 21 @ Cedar Creek

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

A. Stream Characteristics:

1. Check the following channel flow status that applies.

- dry
 no flow
 low
 normal
 high
 flooded

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

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

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

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

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

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

3. Streamflow

Use USGS gage data (if a gage is located at a site or within a quarter mile of a site) or use the Stream Flow (Discharge) Measurement Form and follow the procedures outlined in the most recent TCEQ Surface Water Quality Monitoring Procedures, Volume 1, RG-415. If USGS gage data is used for a site, include that information as an attachment and list the streamflow on the sampling date below. If the stream flow taken at one site is representative of the flow at another site(s), then that flow can be used as the observed flow and should be documented below. If the stream flow measured at one site is different from another site, then stream flow should be taken at both sites. 2.194 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 _____ Water Temp 25.5 °C

Secchi tube 0.472 m

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):

No shoulder but a grassy area to park in on side of the road - the slope down to the creek is easy to access

8. Dominant Primary Substrate

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

E AH 20/5

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek
Date: 5/29/10

Site: #17
Time: 1344 - 1427

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 Other: _____
- Diving frequent public swimming-created by publicly owned land or commercial operations

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

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

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

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

Water is not very clear and there is debris and rocks

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

Bridge Crossing

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 Cedar Creek
Date: 5/29/10 ~~1344~~

Site: #47
Time: 1344-1427

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

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

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

- Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft)

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

Same

3. If secondary contact recreation activities are observed, how often do water recreational activities occur that do not involve a significant risk of water ingestion? frequently infrequently
Please describe how often the activities occur? Unknown Never Daily Monthly Yearly

4. If infrequently, what is the reason? physical characteristics of the water body limited public access
 other

If other, list reasons: unknown

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

Same

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

Same

D. Noncontact Recreation Evaluation

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

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

N/A

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #47
 Date: 5/29/10 FDS Page 3 of 8 Time: 1344-1427

E. Stream Channel and Substantial Pool

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.

at bridge 185m
 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 ___
 Photos taken with K. Condra's camera
 150m, 185m, people fishing, Lynne interview

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	> 4ft	> 1.22 m
150 meters	0.166ft	.20 m
180 meters	3.7ft	.98 m
210 meters	> 4ft	> 1.22 m
240 meters		
270 meters		
300 meters		
Average		.905 m

too deep to continue upstream -

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: #47
 Date: 5/29/10 Time: 1344-1427

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

Measurement Type	Width (meters)	
Typical Average Width of 300 meter reach	17 ft	5.18 m
Width at narrowest point of the stream within 300 meter reach		
Width at the widest point of the stream within 300 meter reach		

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

2. Non-wadeable Streams

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

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

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

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

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

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

Field Data Sheets – Basic RUAA Survey

Stream Name Cedar Creek Site: # 47
 Date: 5/29/10-1344 Time: 1344-1427

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 checked="" type="checkbox"/> Standing | <input type="checkbox"/> None |
| <input checked="" 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 type="checkbox"/> None of the Above |
| <input checked="" 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: Brazos River Authority water level gauge station located @ the site

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 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: _____

Field Data Sheets -- Basic RUAA Survey

Stream Name Cedar Creek Site: #A 7
 Date: ~~5/29/10~~ 1344 Time: 1344 - 1427

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 also numerous Rocks around the edge.
- 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: Trash bag

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).

