

Site 1

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

Data Collectors & Contact Information:	March, Sheppard, Barton, Kuothe
Date & Time:	5/21/11 1350-1414
County Name:	Warrant Wharton
Stream Name:	Sum Tree Branch
Segment No. or nearest downstream Segment No.:	1302 A
Description of Site:	Hunt Rd @ Gum Tree Branch

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. 29.454038
- 96.30663

A. Stream Characteristics:

1. Check the following channel flow status that applies.
 dry no flow low normal high flooded
2. Check the following stream type that applies on the day of the survey:

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

3. Streamflow

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

4. Water Quality Data (Field Parameters)

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

Air Temp 30 °C Water Temp 26 °C
 Secchi: N/A - could not access water directly

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

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

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

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

off of small road in middle of rice field, fenced upstream and irrigation can at downstream too deep to wade across

8. Dominant Primary Substrate

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

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 6/8/2011

Field Data Sheets – Basic RUAA Survey

Stream Name: Gum Tree Branch Site: 1
 Date: 5/21/11 Time: 1350 - 21414

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).

Dry.

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

accessible from road by but in middle of rice field; probably private, commercial property - though no signage or fences/gates on roads

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

no

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.

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

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

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

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

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 E-KP
 6/19/11

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 1
Date: 5/21/11 1350-1414 Time: →

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

c. Check the following that apply regarding the individuals proximity to the water body.
 Secondary touch: fishing, pets and related contact with water In a boat touching water
 Body on shore near water within 8 meters (25ft) of water Body well away from water between 8 and 30 meters (100 ft) 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).
dry, 1 shallow pool that's inaccessible

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 n/a

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

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

6. Describe why there is limited public access (e.g. lack of roads, river or stream banks overgrown, etc.) (Attach photos, maps, etc. for documentation)
In middle of rice field, difficult to find, river is dry, only 1 pool.

D. Noncontact Recreation Evaluation

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

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

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Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 1
 Date: 5/21/11 FDS Page 3 of 8 1380-1414

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 *GPS camera*
 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	5.5	2.1	0.54
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	

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Field Data Sheets – Basic RUA Survey

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

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

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

COMMENTS: children wading - if past fence

2. Non-wadeable Streams

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

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

Photos #s (30 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (150 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (300 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___

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

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Field Data Sheets – Basic RUAA Survey

Stream Name: Gum Tree Branch Site: 1
 Date: 5/21/11 Time: 1350-1414

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: Irrigation channel running parallel to channel, (culvert and road) perpendicular

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

- Culverts
- Barbed wire
- Utility pipe
- Fences
- Dams
- Other (specify): berm (creating irrigation canal that restricts water flow completely)
- 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 (gators) in canal
- 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: road not for recreational use but for agriculture work access

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Field Data Sheets – Basic RUA Survey

Stream Name Gum Tree Branch Site: 1
 Date: _____ Time: _____

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

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

8. Vertebrates Observed within 300 meter reach

- Snakes None slight presence moderate presence large presence
 Water Dependent Birds None slight presence moderate presence large presence
 Alligators None slight presence moderate presence large presence **4-5**
 Comments: _____

9. Mammals Observed within 300 meter reach

- Wild None slight presence moderate presence large presence
 Domesticated Pets None slight presence moderate presence large presence
 Livestock None slight presence moderate presence large presence
 Feral Hogs None slight presence moderate presence large presence
 Comments: _____

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

- Tracks Fecal droppings Bird nests

11. Garbage Observed

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

Briefly describe the kinds of garbage observed: _____

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

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

Able to see 356 m of stream. Conditions are uniform throughout segment. Dry and completely surrounded by rice fields

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 8/10/11*

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

Data Collectors & Contact Information:	D. Ramirez, R. Beckney, R. March, C. Lawrence
Date & Time:	5-15-11 0941-1040 County Name: Wharton
Stream Name:	Gum Tree Branch
Segment No. or nearest downstream Segment No.:	1302A
Description of Site:	2-CR271B @ Gum Tree Branch

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.

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96.27313

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. 11,465 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 23 °C Water Temp 20 °C

Secchi 0.15 m

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

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

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

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

Park on side of road, walk down to water; barbed wire fence just up & downstream of bridge

8. Dominant Primary Substrate

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

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Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 2
Date: 5-15-11 Time: 0941-1040

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 [] Tubing [X] 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: [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) [X] 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).

Debris in water, barbed wire fence

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? [X] Yes [] No

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.

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

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

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Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 2
Date: 5-15-11 Time: 0941-1040

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).

Debris in water & barbed wire fence

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: 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).

see above

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

Bridge crossing on pull off on side of road

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.

Debris in water, barbed wire fences

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6/18/11*

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 2
 Date: _____ FDS Page 3 of 8

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 ___

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	

RM
5/13/11

0940
1040

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 2
 Date: 15 MAY 11 FDS Page 3 of 8 0941-1040

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.

3
 1
 2
 Photos #s (30 meters) Upstream Downstream Left Bank Right Bank
 Photos #s (150 meters) Upstream Downstream Left Bank Right Bank
 Photos #s (300 meters) Upstream Downstream Left Bank Right Bank

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

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

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

Distance	Depth (meters)
30 meters	0.160
60 meters	0.30
90 meters	0.165
120 meters	0.175
150 meters	0.169
180 meters	0.165
210 meters	0.169
240 meters	0.169
270 meters	0.175
300 meters	0.170
Average	0.633

DOWNSTREAM
of FBRIDGE

PZC
 29.50413
 096.27419
 TV 29.50469
 096.27313
 29.50418
 096.27190

W-KP
6/18/11

QCJB
6/17/11

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 Date: 5/15/11 Time: 0941 - 1040

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	10.0 m
Width at narrowest point of the stream within 300 meter reach	4.4 m
Width at the widest point of the stream within 300 meter reach	18.0 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	

QC JB 6/17/11
 E-KP
 5/18/11

Field Data Sheets – Basic RUAA Survey

Stream Name Sumtree Branch Site: _____
 Date: 5/18/11 Time: 0941-1046

F. Additional RUAA Information

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

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

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

Comments: _____

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

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

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

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

Comments: _____

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

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

Comments: Barbed wire, large debris

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

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

Comments: only trash

*PC/BG/17/11
E-kep
6/8/11*

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 2
 Date: 5-15-11 Time: 0941 - 1040

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 (4)
 Water Dependent Birds None slight presence moderate presence large presence
 Alligators None slight presence moderate presence large presence
 Comments: 2 turtles

9. Mammals Observed within 300 meter reach

- Wild None slight presence moderate presence large presence
 Domesticated Pets None slight presence moderate presence large presence
 Livestock None slight presence moderate presence large presence
 Feral Hogs None slight presence moderate presence large presence
 Comments: _____

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

- Tracks Fecal droppings Bird nests swallow S

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, TV, plastic bags, 6 stuffed toy, cups, bucket, bottle, other lg debris under bridge - unidentifiable

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).
n/a

Handwritten notes:
 [Signature] 6/17/11
 E-KP
 6/18/11

0101

Discharge Measurement Summary

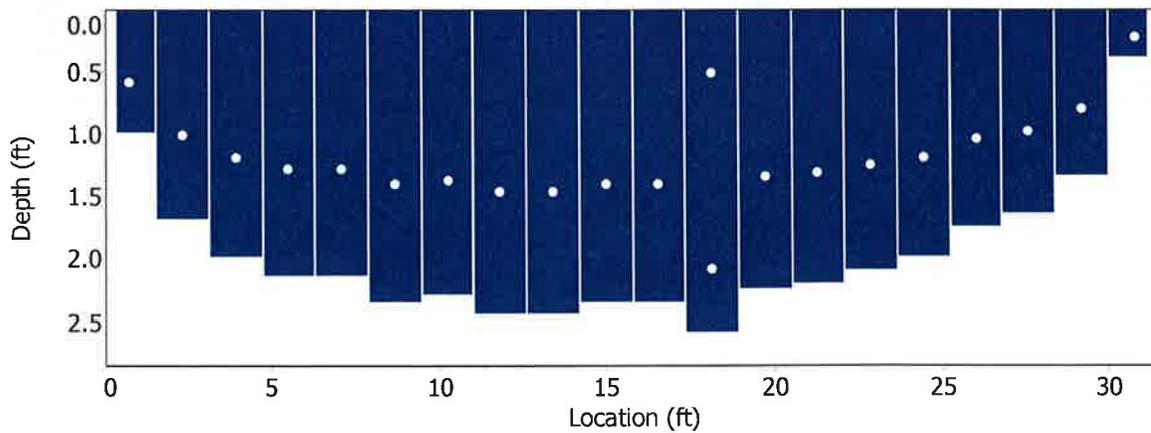
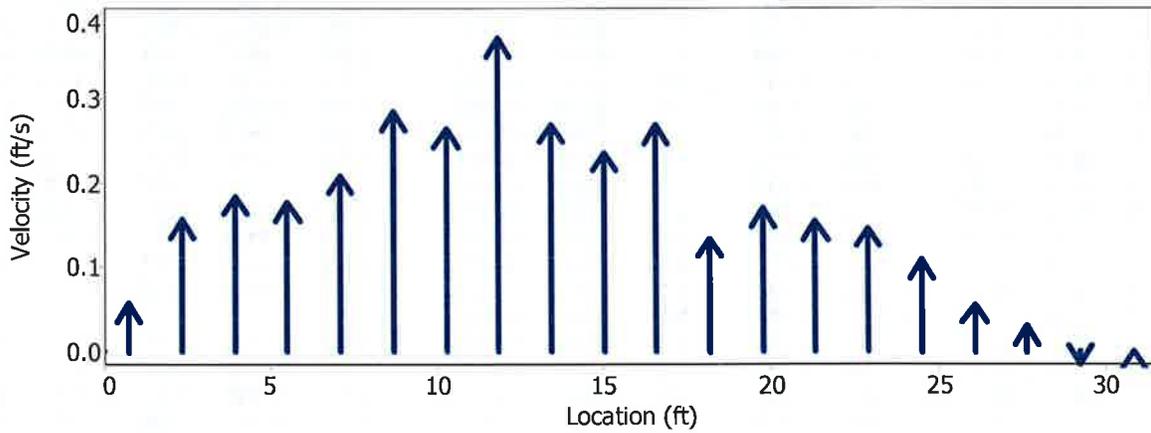
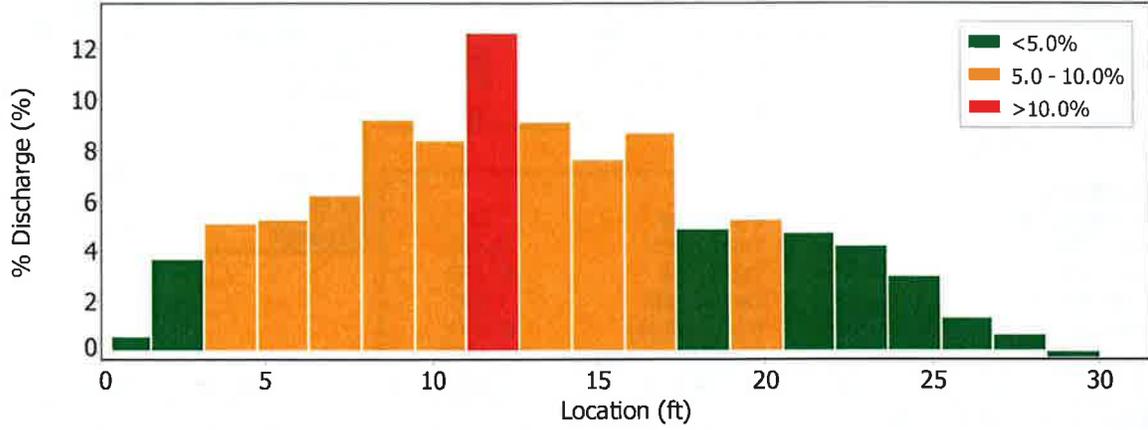
Date Generated: Sun May 15 2011

File Information

File Name GTB2CR271B.WAD
 Start Date and Time 2011/05/15 09:49:16

Site Details

Site Name
 Operator(s) RB



Discharge Measurement Summary

Date Generated: Sun May 15 2011

File Information

File Name GTB2CR271B.WAD
Start Date and Time 2011/05/15 09:49:16

Site Details

Site Name
Operator(s) RB

Quality Control

St	Loc	%Dep	Message
17	26.07	0.6	High angle: -26
20	30.81	0.6	Boundary QC is Good; possible boundary interference

Discharge Measurement Summary

Date Generated: Sun May 15 2011

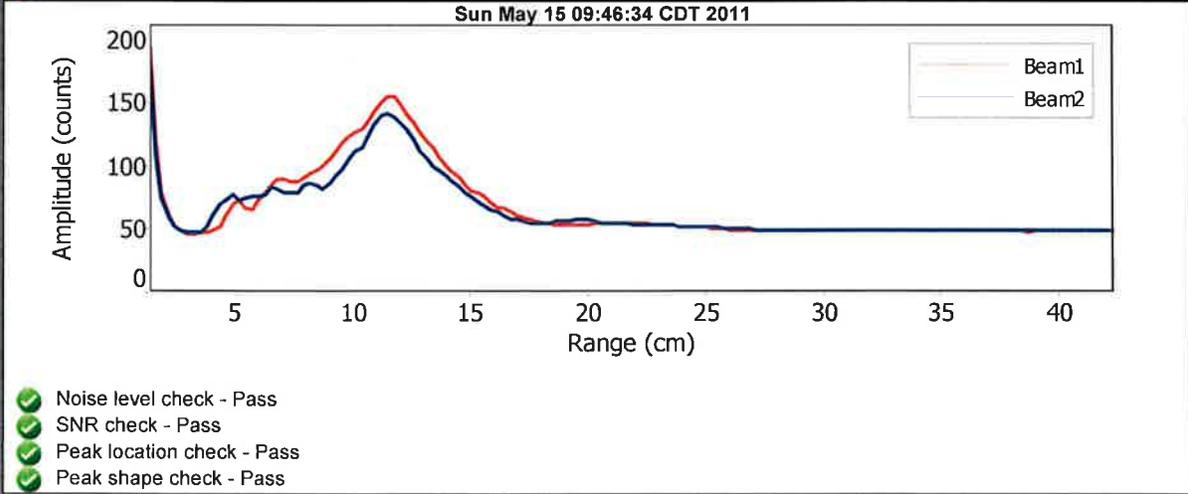
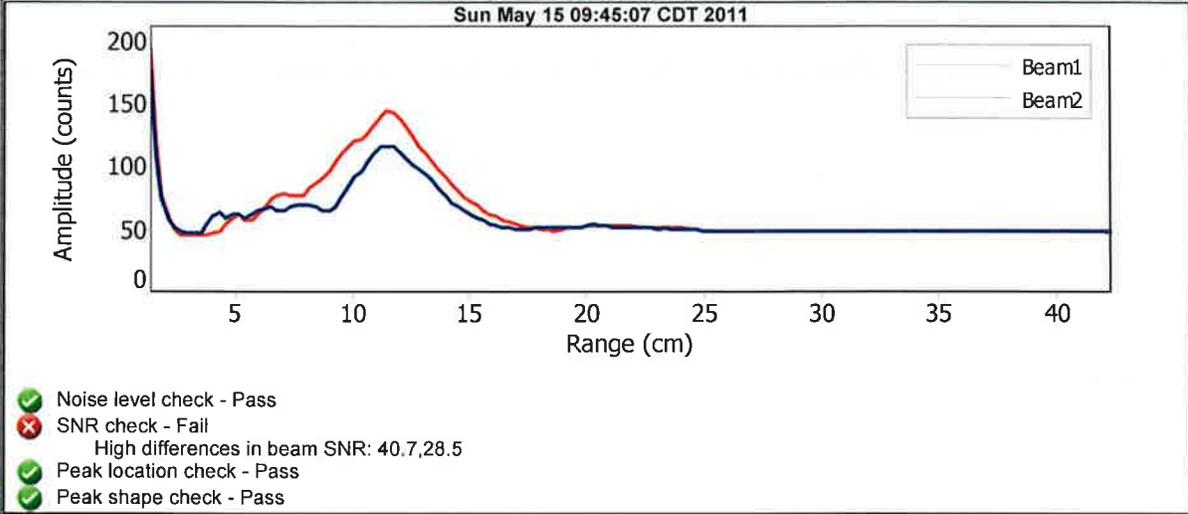
File Information

File Name GTB2CR271B.WAD
Start Date and Time 2011/05/15 09:49:16

Site Details

Site Name
Operator(s) RB

Automatic Quality Control Test (BeamCheck)



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

Data Collectors & Contact Information:	Ramirez, March, Lawrence, Blackney
Date & Time:	5/15/11 1218-1305 County Name: Wharton
Stream Name:	Gum Tree Branch
Segment No. or nearest downstream Segment No.:	1302A
Description of Site:	CR 252 @ Gum Tree Branch Site 3

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

29.52301
-96.17620

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. 24.174 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 22.5 °C Water Temp 20 °C

Secchi 0.11 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):

Park on side of road & walk to water

8. Dominant Primary Substrate

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

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E-KP
6/8/11

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
Date: 5-15-11 Time: 1218-1305

B. Primary Contact Water Recreation Evaluation:

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

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

Yes No primary contact recreation activities were observed

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

- | | | |
|--|---|---|
| <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).

none

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

Park on side of road @ bridge crossing, walk into 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? no

C. Secondary Contact Water Recreation Evaluation:

- Secondary contact recreation 1: Water recreation activities, such as fishing, commercial and recreational boating, and limited body contact incidental to shoreline activity, not involving a significant risk of water ingestion and that commonly occur.

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

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

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

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

*2007 B 6/17/11
E-KP
5/18/11*

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
Date: 5-15-11 Time: 1218-1305

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

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

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

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

none

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: 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).

none

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).

Park on sible of road, stream banks high and overgrown

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.

There is nothing to prevent recreating

*QC/B 6/17/11
E-KP
6/18/11*

Field Data Sheets – Basic RUAA Survey

Stream Name _____ Site: _____
 Date: _____ FDS Page 3 of 8

E. Stream Channel and Substantial Pool

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

I. Wadeable Streams

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

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

Photos #s (30 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (150 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (300 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___

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

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

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

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

*RM
5/3/11*

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
 Date: 5/15/11 FDS Page 3 of 8 1218 - 1305

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

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

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

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

Distance	Depth (meters)
30 meters	0.53
60 meters	0.97
90 meters	0.422
120 meters	0.31
150 meters	0.61
180 meters	0.65
210 meters	0.37
240 meters	0.71
270 meters	0.35
300 meters	0.6
Average	0.5022

29.52219, -96.17699
 29.52301, -96.17620
 29.52401, -96.17525

QC/B 6/17/11
E-KP
6/8/11

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
 Date: 5-15-11 Time: 1218-1305

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

Measurement Type	Width (meters)
Typical Average Width of 300 meter reach	5.5m 7m
Width at narrowest point of the stream within 300 meter reach	5.5m
Width at the widest point of the stream within 300 meter reach	12m

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

2. Non-wadeable Streams n/a
 If accessible, take 10 width measurements which represent typical widths of the 300 meter reach. If the water is too deep and not accessible record the estimated average width of the water body.

Also, take photos facing upstream, downstream, left bank, and right bank at .
 Photos #s (30 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (150 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___
 Photos #s (300 meters) Upstream ___ Downstream ___ Left Bank ___ Right Bank ___

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

QC JB 6/17/11
 E-KP 6/18/11

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
 Date: 5-15-11 Time: 1218 - 1305

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): debris jam (old couch)
- 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: Footpath along water
- 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: _____

*PCB 6/17/11
 E-KB
 6/18/11*

Field Data Sheets – Basic RUAA Survey

Stream Name Gum Tree Branch Site: 3
 Date: 5-15-11 Time: 1218 - 1305

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

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

8. Vertebrates Observed within 300 meter reach

- Snakes ⁵⁻¹¹ None slight presence moderate presence large presence (2)
 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: can hear cattle downstream; dead cow e ~ 45m in channel

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

- Tracks Fecal droppings Bird nests N/A

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: concrete debris near bridge, old couch cushions, bags, lg metal debris,

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).

at top 5-15-11 Deer Blind next to water @ downstream end of reach (300m)
small bullet casings at top of bridge

*QC B 6/17/11
 E-KP
 6/18/11*

Discharge Measurement Summary

Date Generated: Sun May 15 2011

File Information File Name: CR252.WAD Start Date and Time: 2011/05/15 12:19:02		Site Details Site Name: Operator(s): RB																									
System Information Sensor Type: FlowTracker Serial #: P1880 CPU Firmware Version: 3.7 Software Ver: 2.30 Mounting Correction: 0.0%		Units (English Units) Distance: ft Velocity: ft/s Area: ft ² Discharge: cfs																									
Summary Averaging Int.: 20 # Stations: 22 Start Edge: LEW Total Width: 20.300 Mean SNR: 35.3 dB Total Area: 19.730 Mean Temp: 69.51 °F Mean Depth: 0.972 Disch. Equation: Mid-Section Mean Velocity: 1.0732 Total Discharge: 21.1738		Discharge Uncertainty <table border="1"> <thead> <tr> <th>Category</th> <th>ISO</th> <th>Stats</th> </tr> </thead> <tbody> <tr> <td>Accuracy</td> <td>1.0%</td> <td>1.0%</td> </tr> <tr> <td>Depth</td> <td>0.2%</td> <td>0.8%</td> </tr> <tr> <td>Velocity</td> <td>0.6%</td> <td>2.3%</td> </tr> <tr> <td>Width</td> <td>0.1%</td> <td>0.1%</td> </tr> <tr> <td>Method</td> <td>1.8%</td> <td>-</td> </tr> <tr> <td># Stations</td> <td>2.3%</td> <td>-</td> </tr> <tr> <td>Overall</td> <td>3.1%</td> <td>2.6%</td> </tr> </tbody> </table>		Category	ISO	Stats	Accuracy	1.0%	1.0%	Depth	0.2%	0.8%	Velocity	0.6%	2.3%	Width	0.1%	0.1%	Method	1.8%	-	# Stations	2.3%	-	Overall	3.1%	2.6%
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Measurement Results												
St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	12:19	1.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	12:19	1.51	0.6	0.900	0.6	0.360	0.3934	1.00	0.3934	0.685	0.2695	1.3
2	12:20	2.52	0.6	0.800	0.6	0.320	0.8202	1.00	0.8202	0.812	0.6660	3.1
3	12:21	3.54	0.6	0.750	0.6	0.300	0.9442	1.00	0.9442	0.761	0.7189	3.4
4	12:22	4.55	0.6	0.700	0.6	0.280	0.8297	1.00	0.8297	0.711	0.5897	2.8
5	12:23	5.57	0.6	0.700	0.6	0.280	1.3461	1.00	1.3461	0.711	0.9567	4.5
6	12:24	6.58	0.6	0.650	0.6	0.260	1.3428	1.00	1.3428	0.660	0.8859	4.2
7	12:25	7.60	0.6	0.700	0.6	0.280	1.2717	1.00	1.2717	0.711	0.9038	4.3
8	12:25	8.61	0.6	0.700	0.6	0.280	1.2556	1.00	1.2556	0.711	0.8923	4.2
9	12:26	9.63	0.6	0.800	0.6	0.320	1.1079	1.00	1.1079	0.812	0.8996	4.2
10	12:27	10.64	0.6	0.900	0.6	0.360	0.9508	1.00	0.9508	0.914	0.8686	4.1
11	12:28	11.66	0.6	1.000	0.6	0.400	1.0213	1.00	1.0213	1.015	1.0367	4.9
12	12:29	12.67	0.6	1.100	0.6	0.440	1.2064	1.00	1.2064	1.117	1.3471	6.4
13	12:30	13.69	0.6	1.150	0.6	0.460	1.2323	1.00	1.2323	1.167	1.4384	6.8
14	12:31	14.70	0.6	1.300	0.6	0.520	1.1086	1.00	1.1086	1.319	1.4628	6.9
15	12:32	15.72	0.6	1.350	0.6	0.540	1.2041	1.00	1.2041	1.370	1.6501	7.8
16	12:33	16.73	0.6	1.400	0.6	0.560	1.2119	1.00	1.2119	1.421	1.7222	8.1
17	12:33	17.75	0.6	1.450	0.6	0.580	1.1627	1.00	1.1627	1.472	1.7116	8.1
18	12:34	18.76	0.6	1.350	0.6	0.540	1.0774	1.00	1.0774	1.370	1.4766	7.0
19	12:35	19.78	0.6	1.250	0.6	0.500	1.0190	1.00	1.0190	1.269	1.2930	6.1
20	12:37	20.79	0.6	0.950	0.6	0.380	0.5322	1.00	0.5322	0.722	0.3844	1.8
21	12:37	21.30	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

Discharge Measurement Summary

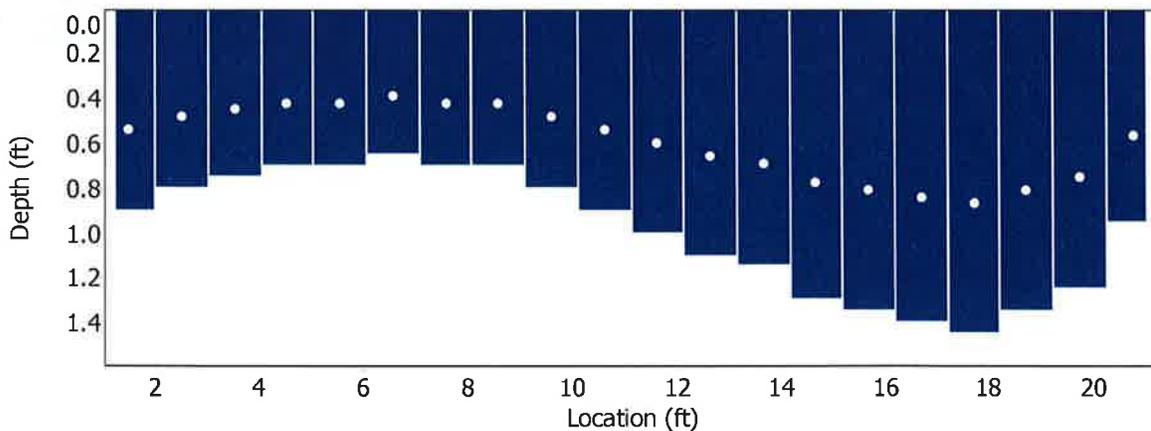
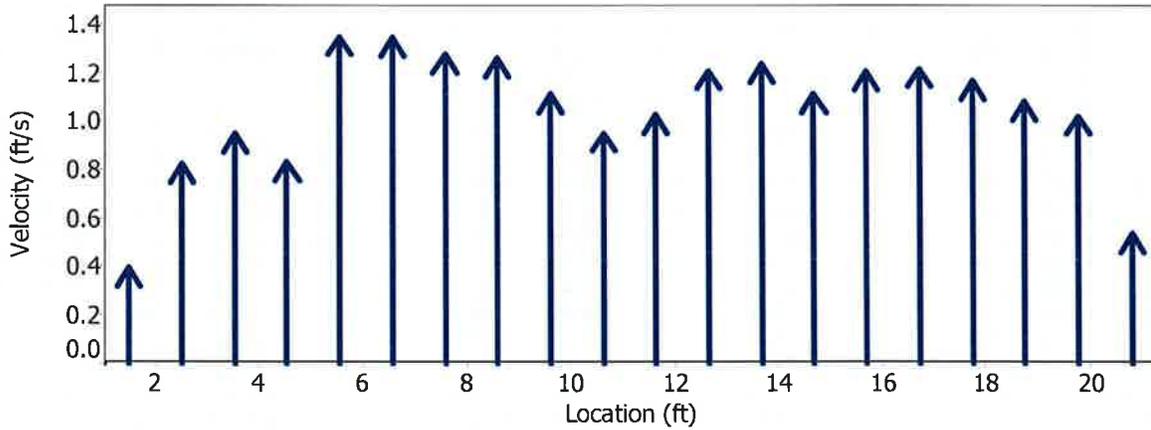
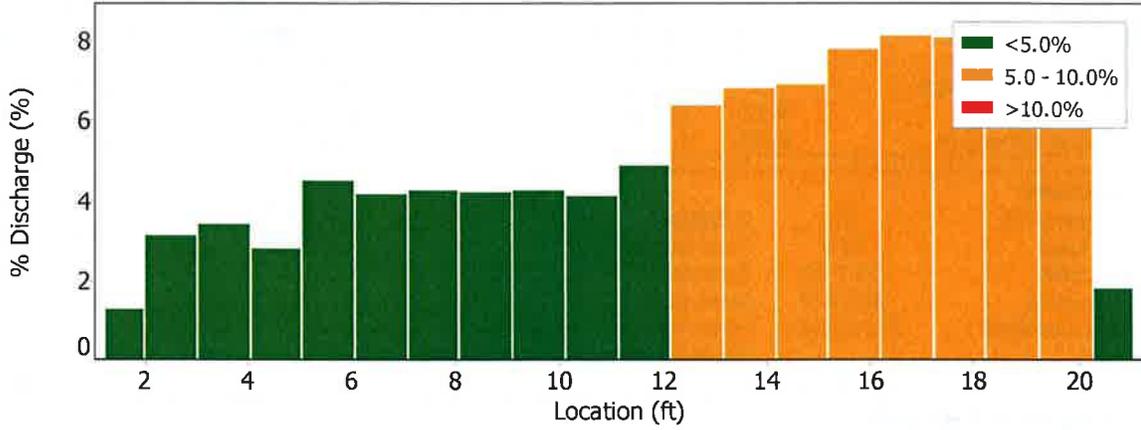
Date Generated: Sun May 15 2011

File Information

File Name CR252.WAD
 Start Date and Time 2011/05/15 12:19:02

Site Details

Site Name
 Operator(s) RB



Discharge Measurement Summary

Date Generated: Sun May 15 2011

File Information

File Name CR252.WAD
Start Date and Time 2011/05/15 12:19:02

Site Details

Site Name
Operator(s) RB

Quality Control

No Quality Control warnings

Discharge Measurement Summary

Date Generated: Sun May 15 2011

File Information

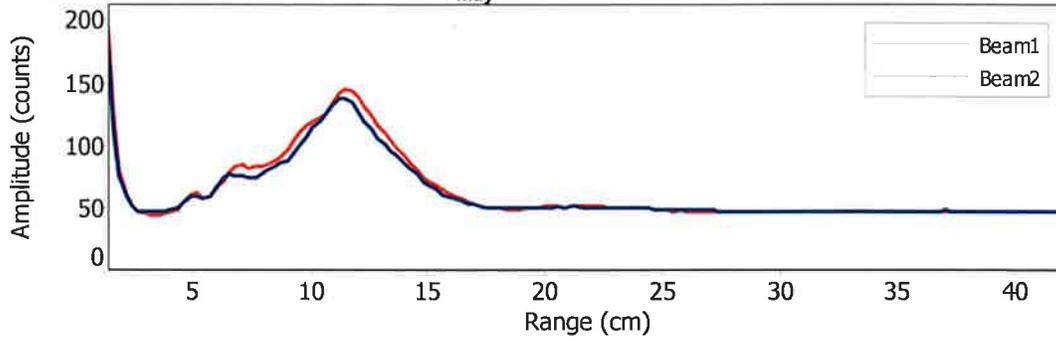
File Name CR252.WAD
Start Date and Time 2011/05/15 12:19:02

Site Details

Site Name
Operator(s) RB

Automatic Quality Control Test (BeamCheck)

Sun May 15 12:16:05 CDT 2011



- ✔ Noise level check - Pass
- ✔ SNR check - Pass
- ✔ Peak location check - Pass
- ✔ Peak shape check - Pass