



Use Attainability Analysis

for

WBID 1572 Burton Branch

Submitted by  
MEC/ERC

To  
Missouri Department of Natural Resources  
Water Protection Program

On  
October 24, 2008

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet A – Water Body Identification**

**I. Water Body Information** (for water body being surveyed)

Water Body Name (from USGS 7.5' quad):	Burton Branch
Missouri Water Body Identification (WBID) Number:	1572
8-digit HUC:	10290202 Big Piney
County(ies), Listed Upstream to Downstream:	Texas
Upstream Legal Description (from Table H):	13, 31N, 10W
Downstream Legal Description (from Table H):	Mouth
Number of sites evaluated:	3
List all site numbers, <u>consecutively upstream to downstream</u> :	1) Upstream of site 2 @ end of Crane dr. 2) Upstream of site 3 @ end of Crane Dr. 3) End of Crane Dr.
<b>Include a Site Location Map(s).</b> The map must include all requirements detailed in the <i>Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol</i> (Section IV.D.8.a).	

**II. Facility Information** (list all permitted discharges to this water body segment)

Facility Name(s) and Permit Number(s):
None listed

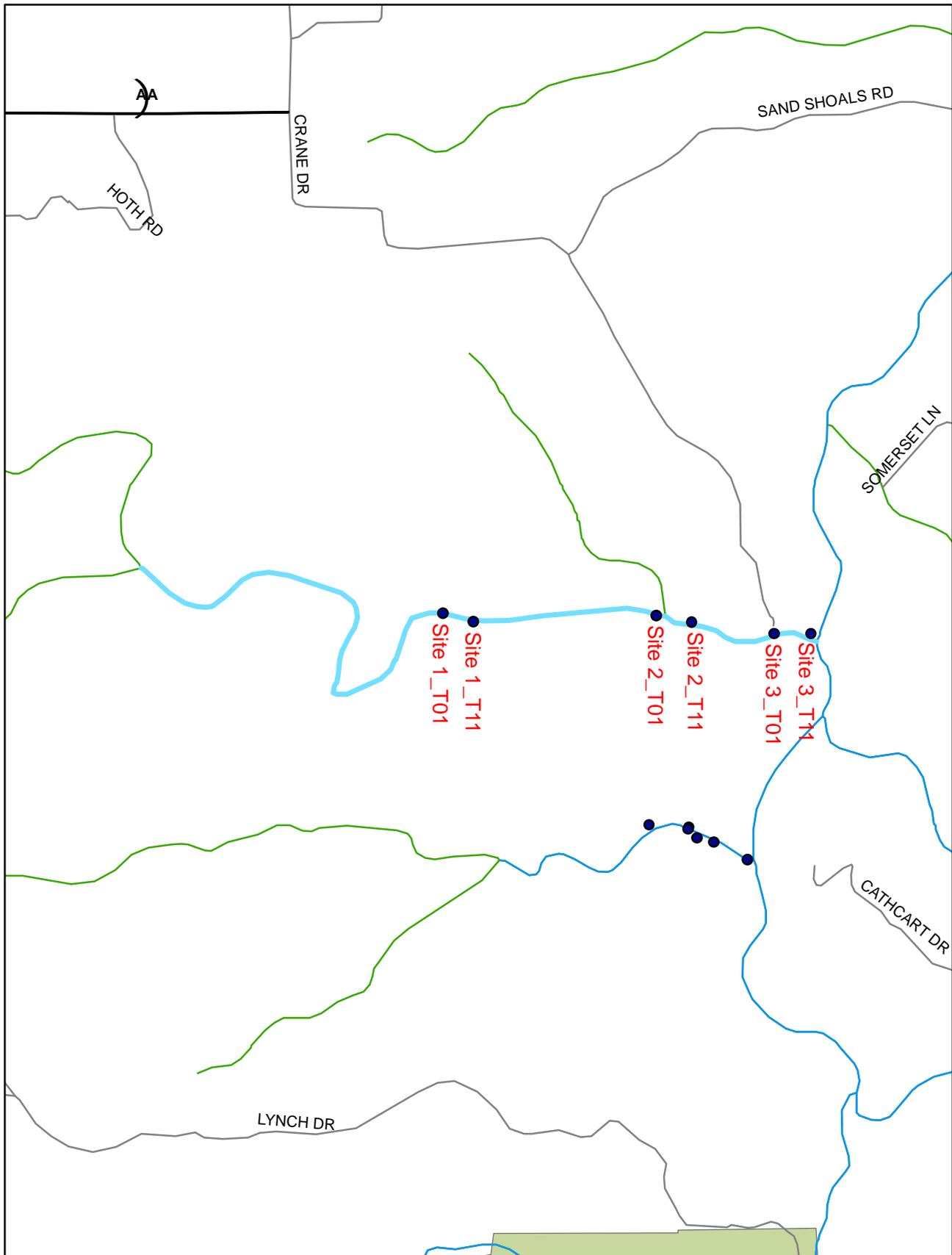
**III. UAA Surveyor** (please **PRINT** legibly)

Name of Surveyor:	Robert Bacon	Telephone Number:	(573) 634-7078
Organization/Employer:	ERC		

Please verify that you have completed all sections of all data sheets, checked all applicable boxes, provided a map (that includes all requirements listed in the *Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol*) and that this form is complete.

Signed: Robert A. Bacon Date: 10-4-08

# WBID # 1572 - Burton Branch Texas County



0 600 1,200 2,400 Meters

## Weather Conditions

Weather conditions ten days previous to stream assessment are listed in the tables below. The date(s) that the stream was assessed are shaded.

Data from the WeatherUnderground.com  
Montauk/Salem, MO

<b>Date</b>	<b>Precipitation (Inches)</b>	<b>Min. Temp (°F)</b>	<b>Max. Temp (°F)</b>	<b>Avg. Temp (°F)</b>
9/24/2008	0.00	58.0	83.0	69.0
9/25/2008	0.00	56.0	84.0	68.0
9/26/2008	0.00	50.0	81.0	64.0
9/27/2008	0.00	50.0	81.0	63.0
9/28/2008	0.00	52.0	84.0	66.0
9/29/2008	0.20	57.0	80.0	66.0
9/30/2008	0.00	50.0	67.0	59.0
10/1/2008	0.00	45.0	73.0	57.0
10/2/2008	0.00	41.0	66.0	52.0
10/3/2008	0.00	41.0	73.0	55.0
10/4/2008	0.00	46.0	74.0	59.0

WBID # 1572

Site # 1

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization** (Page 1 of 3)  
(must be completed for each site)

<b>Date &amp; Time:</b> <u>10-4-08 14:30</u>	<b>Location Description</b> (e.g., road crossing): <u>upstream of site 2 @ end of Crane br</u>
<b>Stream Name:</b> <u>Barton Branch</u>	
<b>Current Weather Conditions:</b> <u>Sunny, clear ~70°F</u>	<b>Facility Name(s):</b> <u>None listed</u>
<b>Weather Conditions for Past 10 days:</b> <u>see attached</u>	<b>Permit Number(s):</b> <u>None listed</u>
<b>Official Drought Conditions at time of this survey</b> (search DNR home page for “drought”): No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	<b>Easting (UTM X):</b> <u>1570589693</u>	<b>Northing (UTM Y):</b> <u>4138617</u>	<b>Horizontal Accuracy:</b> (EPE / FOM / PDOP) <u>7</u> Meters
Site 11	<b>Easting (UTM X):</b> <u>1570589826</u>	<b>Northing (UTM Y):</b> <u>4138579</u>	<b>Horizontal Accuracy:</b> (EPE / FOM / PDOP) <u>9</u> Meters

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>384</u>	<u>downstream view @ Transect 1</u>	<u>385</u>	<u>upstream view @ Transect 11</u>		
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at the time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

Stream Name & WBID # Barton Branch 1572

Date of Survey 10-4-08

Site # 1

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization (Page 2 of 3)**

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section.)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
<input checked="" type="checkbox"/> None of the above	Comments / Other:			

**Substrate\*:** (These values should add up to 100%.)

<u>80</u> % Cobble	<u>20</u> % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site.)

< 5% cover by aquatic macrophytes  
Slick periphyton cover on cobble and gravel

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID # Burton Branch 1572

Date of Survey 10-4-08

Site # 1

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization** (Page 3 of 3)

**Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
pool	5m below Transect 9	~3.0	~3.5	—	> 1.5m

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Printed Names of Personnel Collecting Data: Robert R. Bacon / Cindy Selby

Surveyor's Signature: Robert R. Bacon Date of Survey: 10-4-08

Organization: ERC Position: Field Manager

No 157 TI down stream  
158 TII up stream

## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet C - Field Survey Results

Stream Name: <u>Burton Branch</u>	Waterbody ID: <u>1572</u>	Site #: <u>1</u>
Estimated Channel Incision: <u>.15</u> (m) (height between low bank width and water)		
GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE) / PDOP / FOM <span style="float: right;">wpt</span>		
01 UTM X: <u>155 0589693</u>	UTM Y: <u>4138617</u>	+/- <u>7</u> (meters) <u>21</u>
11 UTM X: <u>155 0589826</u>	UTM Y: <u>4139579</u>	+/- <u>9</u> (meters) <u>22</u>
Average Stream Width: <u>5.0</u> (meters)	Length of Survey Segment: <u>150</u> (meters)	
(To determine Length of Reach) (20x average stream width)		
Field Staff: <u>BB - 2 CTS</u>		

Dissolved Oxygen	
Date: <u>10-4-08</u>	Time: <u>14:03</u>
Dissolved Oxygen: <u>6.59</u> (mg/L)	
Dissolved Oxygen: <u>69.3</u> (% sat)	
Specific Cond: <u>304</u> (µS/cm)	
Water Temperature: <u>17.78</u> (°C)	

#### Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
<b>Left Bank</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	.47	.14	.77	.02	.2	.01	.62	.06	.14	.04	.15	.01	.15	.01	.13	.02	1.1	.16	.70	.04	.60	.09
2	0.94	.10	1.54	.07	.4	.01	.4	.08	0.26	.03	0.3	.01	0.3	.02	0.26	.06	2.2	.34	1.4	.10	1.2	.02
3	1.41	.10	2.31	.06	.6	.0	6.14	0.42	.04	0.45	.04	0.45	.01	0.39	.11	3.3	.50	2.1	.08	1.8	.0	
4	1.88	.10	3.08	.01	.8	.03	8	.17	0.56	.03	0.6	.04	0.6	.01	0.52	.14	4.4	.55	2.8	.08	2.4	.0
5	2.35	.08	3.85	.0	1.0	.0	1.0	.15	0.7	.02	0.75	.03	0.75	.01	0.65	.17	5.5	.67	3.5	.13	3	.15
6	2.82	.10	4.62	.0	1.2	.0	1.2	.11	0.84	.02	0.9	.0	0.9	.05	0.78	.20	6.6	.71	4.2	.16	3.6	.04
7	3.29	.11	5.39	.04	1.4	.01	1.4	.10	0.98	.02	1.05	.08	1.05	.04	0.91	.21	7.7	.59	4.9	.06	4.2	.0
8	3.76	.10	6.16	.15	1.6	.01	1.6	.08	1.12	.01	1.2	.02	1.2	.02	1.04	.25	8.8	.56	5.6	.24	4.8	.01
9	4.23	.07	6.93	.09	1.8	.03	1.8	.06	1.26	.01	1.35	.03	1.35	.01	1.17	.26	9.9	.37	6.3	.27	5.4	.05
<b>Right Bank</b>	4.7	0	7.7	0	2.0	0	2.0	0	1.4	0	1.5	0	1.5	0	1.3	0	11	0	7.0	0	6.0	0
<b>Feature Type</b> (riffle, run, or pool)	Run		Run		Riffle		Run		Run		Riffle		Riffle		Run		Pool		Run		Run	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width  
GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.  
Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)  
Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)  
All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: Robert R. Baum Date: 10-4-08

WBID # 1572

Site # 2

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization** (Page 1 of 3)  
(must be completed for each site)

Date & Time: <u>10-4-08 13:10</u>	Location Description (e.g., road crossing): <u>Upstream of site 2 @ end of Cane Dr</u>
Stream Name: <u>Burton Branch</u>	
Current Weather Conditions: <u>Sunny, clear ~70°F</u>	Facility Name(s): <u>None listed</u>
Weather Conditions for Past 10 days: <u>see attached</u>	Permit Number(s): <u>None listed</u>
Official Drought Conditions at time of this survey (search DNR home page for “drought”): No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): <u>158 0590620</u>	Northing (UTM Y): <u>4138607</u>	Horizontal Accuracy: (EPE) / FOM / PDOP <u>9</u> Meters
Site 11	Easting (UTM X): <u>158 0590774</u>	Northing (UTM Y): <u>4138577</u>	Horizontal Accuracy: (EPE) / FOM / PDOP <u>10</u> Meters

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>382</u>	<u>upstream view @ Transect 11</u>	<u>383</u>	<u>downstream view @ Transect 1</u>		
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at the time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

Stream Name & WBID # Burton Branch 1572

Date of Survey 10-4-08

Site # 2

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization (Page 2 of 3)**

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: <u>Woods</u>				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section.)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
<input checked="" type="checkbox"/> None of the above	Comments / Other:			

**Substrate\*:** (These values should add up to 100%.)

<u>50</u> % Cobble	<u>45</u> % Gravel	<u>5</u> % Sand	% Silt	% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site.)

< 5 emergent macrophytes  
~ 10% coverage of filamentous algae  
some periphyton coverage on cobble

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID # Barton Branch 1572

Date of Survey 10-4-08

Site # 2

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization (Page 3 of 3)**

**Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
pool	@ Transect 8	~2.0m	~5.0m	—	>1.5m

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Printed Names of Personnel Collecting Data: Robert R. Bacon / Candy Schilling

Surveyor's Signature: Robert R. Bacon Date of Survey: 10-4-08

Organization: ERC Position: Field Manager

Picture T11 155  
UPstream  
T1 downstem 156

### Field Data Sheets for Recreational Use Stream Surveys

#### Data Sheet C - Field Survey Results

Stream Name: Burton Branch Waterbody ID: 1572 Site #: 2

Estimated Channel Incision: ~.20 (m) (height between low bank width and water)

GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE) / PDOP / FOM wpt

01 UTM X: 158 059 0620 UTM Y: 4138 607 +/- 9 (meters) 20

11 UTM X: 158 059 0774 UTM Y: 4138 577 +/- 10 (meters) 19

Average Stream Width: 7.0 (meters) Length of Survey Segment: 150 (meters)  
(To determine Length of Reach) (20x average stream width)

Field Staff: CTG and JB

Dissolved Oxygen	
Date: <u>10-4-08</u>	Time: <u>13:35</u>
Dissolved Oxygen: <u>4.44</u> (mg/L)	
Dissolved Oxygen: <u>46.0</u> (% sat)	
Specific Cond: <u>295</u> (µS/cm)	
Water Temperature: <u>16.77</u> (°C)	
@ Transect 4	

#### Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1							.37	.15			.35	.10	.66	.13			1.55	.06	.75	.23	.60	.18
2							.64	.22			0.7	.12	1.32	.18			3.1	.10	1.5	.25	.12	.37
3							0.96	.36			1.05	.12	1.98	.23	>1.5		4.65	.21	2.25	.36	1.80	.46
4							1.28	.47			1.4	.12	2.44	.33		1	6.2	.37	3.0	.32	2.46	.48
5							1.6	.66			1.75	.12	3.3	.27		1	7.75	.44	3.75	.24	3.00	.42
6							1.92	.69			2.1	.12	3.96	.24	5.0 x 2.0		9.3	.51	4.5	.22	3.60	.25
7							2.24	.67			2.45	.08	4.62	.10	✓		10.85	.59	5.25	.19	4.20	.67
8							2.56	.59			2.8	.04	5.28	.0			12.4	.64	6.0	.13	4.80	.01
9							2.88	.50			3.15	.03	5.94	.01			13.95	.66	6.75	.05	5.80	.03
Right Bank	0	0	0	0	0	0	3.2	0	0	0	3.5	0	6.6	0	~13.0	0	15.5	0	7.5	0	6.0	0
Feature Type (riffle, run, or pool)	DRY		DRY		DRY		Pool		DRY		Run		Pool		Pool		Pool		Run		Run	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width  
GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.  
Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)  
Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)  
All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: Paul R. Bacon Date: 10-4-08

WBID # 1572

Site # 3

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization** (Page 1 of 3)  
(must be completed for each site)

<b>Date &amp; Time:</b> <u>10-4-08</u> <u>11:34</u>	<b>Location Description</b> (e.g., road crossing): <u>end of Crane Dr.</u>
<b>Stream Name:</b> <u>Barton Branch</u>	
<b>Current Weather Conditions:</b> <u>Sunny, clear, ~70°F</u>	<b>Facility Name(s):</b> <u>None listed</u>
<b>Weather Conditions for Past 10 days:</b> <u>see attached</u>	<b>Permit Number(s):</b> <u>None listed</u>
<b>Official Drought Conditions at time of this survey</b> (search DNR home page for “drought”): No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Location:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	<b>Easting (UTM X):</b> <u>155 0591133</u>	<b>Northing (UTM Y):</b> <u>4138527</u>	<b>Horizontal Accuracy:</b> (EPE / FOM / PDOP) <u>8</u> Meters		
Site 11	<b>Easting (UTM X):</b> <u>155 0591292</u>	<b>Northing (UTM Y):</b> <u>4138527</u>	<b>Horizontal Accuracy:</b> (EPE / FOM / PDOP) <u>13</u> Meters		

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>380</u>	<u>upstream view @ Transect 11</u>	<u>381</u>	<u>downstream view @ Transect 1</u>		
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

**Uses Observed\*:** (Uses actually observed at the time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				

Stream Name & WBID # Burton Branch 1572

Date of Survey 10-4-08

Site # 3

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization (Page 2 of 3)**

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: <u>field / woods</u>				

**Evidence of Human Use\*:** (Attach photos and reference in "Photos" section.)

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input type="checkbox"/> RV / ATV Tracks	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Livestock Watering
<input checked="" type="checkbox"/> None of the above	Comments / Other:			

**Substrate\*:** (These values should add up to 100%.)

<u>45</u> % Cobble	<u>50</u> % Gravel	% Sand	<u>5</u> % Silt	% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site.)

none - likely due to recent high water event

**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that affect another use.

Stream Name & WBID # Barton Branch 1572

Date of Survey 10-4-08

Site # 3

**Field Data Sheets for Recreational Use Stream Surveys**

**Data Sheet B – Site Characterization** (Page 3 of 3)

**Additional Stream Morphology:** (Record isolated pools or other features identified during the survey that may support recreational uses.)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

**Comments:** (Please record any additional comments here.)

**Please verify that you have completed all sections, checked all applicable boxes, and that the form is complete.**

Printed Names of Personnel Collecting Data: Candy Shilling + Robert Bacon

Surveyor's Signature: Robert R Bacon Date of Survey: 10-4-08

Organization: ERC Position: Field Manager

downstream T1 152 bed  
 upstream T11 153  
 downstream T1 154 good

## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet C - Field Survey Results

Stream Name: Burton Branch Waterbody ID: 1572 Site #: 3

Estimated Channel Incision: .25 (m) (height between low bank width and water)

GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE) PDOP / FOM

01 UTM X: 15 S 0591133 UTM Y: 4138527 +/- 8 (meters) <sup>wpt 15</sup>

11 UTM X: 15 S 0591293 UTM Y: 4138527 +/- 13 (meters) <sup>18</sup>

Average Stream Width: 7.0 (meters) Length of Survey Segment: 150 (meters)  
 (To determine Length of Reach) (20x average stream width)

Field Staff: Candy Shilling & Robert Bacon

Dissolved Oxygen	
Date:	<u>10-4-08</u> Time: <u>11:34</u>
Dissolved Oxygen:	<u>4.73</u> (mg/L)
Dissolved Oxygen:	<u>48.2</u> (% sat)
Specific Cond:	<u>304</u> (µS/cm)
Water Temperature:	<u>15.98</u> (°C)

#### Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	.66	.11	.95	.25	.6	.42	0.85	.22	.96	.16	.66	.16	.50	.42	.66	.26	.62	.60	.60	.20	1.5	.55
2	1.32	.10	1.90	.21	1.20	.48	1.70	.14	1.92	.67	1.32	.21	1.00	.48	1.32	.29	1.24	.72	1.20	.57	3.	.57
3	1.98	.08	2.85	.28	1.80	.52	2.55	.20	2.88	.02	1.98	.23	1.50	.48	1.98	.26	1.86	.68	1.80	.85	4.5	.48
4	2.64	.08	3.80	.30	2.40	.48	3.40	.20	3.84	.03	2.64	.21	2.00	.46	2.64	.25	2.48	.56	2.40	.72	6.	.48
5	3.30	.12	4.75	.39	3.00	.44	4.25	.28	4.8	.01	3.3	.26	2.50	.43	3.30	.21	3.1	.44	3.00	.52	7.5	.46
6	3.96	.25	5.70	.38	3.60	.39	5.10	.28	5.76	.01	3.96	.25	3.00	.42	3.96	.18	3.72	.40	3.60	.30	9.	.52
7	4.62	.29	6.65	.34	4.20	.29	5.95	.38	6.72	.01	4.62	.22	3.50	.24	4.62	.11	4.34	.31	4.20	.26	10.5	.51
8	5.28	.23	7.60	.31	4.80	.23	6.80	.46	7.68	.01	5.28	.20	4.00	.10	5.28	.09	4.96	.20	4.50	.17	12.	.32
9	5.94	.24	8.55	.52	5.40	.16	7.65	.45	8.64	.11	5.94	.09	4.50	.05	5.94	.08	5.58	.08	5.40	.14	13.5	.25
Right Bank	6.6	0	9.5	0	6.0	0	8.5	0	9.6	0	6.6	0	5.0	0	6.6	0	6.2	0	6.0	0	15	0
Feature Type (riffle, run, or pool)	Run		Run		Run		Run		Riffle		Run		Run									

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width  
 GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.  
 Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)  
 Mark dry depth measurements as 0; record actual measurements to 0.1 meter unless depth is too deep to measure (then record as > 1)  
 All measurements to be taken to the nearest 0.01 meter.

Surveyor's Signature: Robert Bacon Date: 10-4-08



