



Missouri  
Department of  
Natural Resources

Use Attainability Analysis

for

WBID 2252 Hog Creek

Submitted by

MEC Water Resources

To

Missouri Department of Natural Resources

Water Protection Program

On

December 1, 2007

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):	Hog Cr.		
Missouri Water Body Identification (WBID) Number:	2252		
8-digit HUC:	20081228	County:	Bollinger
Upstream Legal Description (from Table H):	14, 31N, 10E		
Downstream Legal Description (from Table H):	Mouth		
Number of sites evaluated	3		
List all sites numbers, listed consecutively upstream to downstream:			
Site 1:	Hwy B bridge	Site 3:	County Rd. 312
Site 2:	150 m downstream of site 1		

**II. Discharger Facility Information** (list all permitted dischargers on the stream)

Discharger Facility Name(s):	Diana's Boarding Home Sew.
Discharger Permit Number(s):	MO 0129593

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

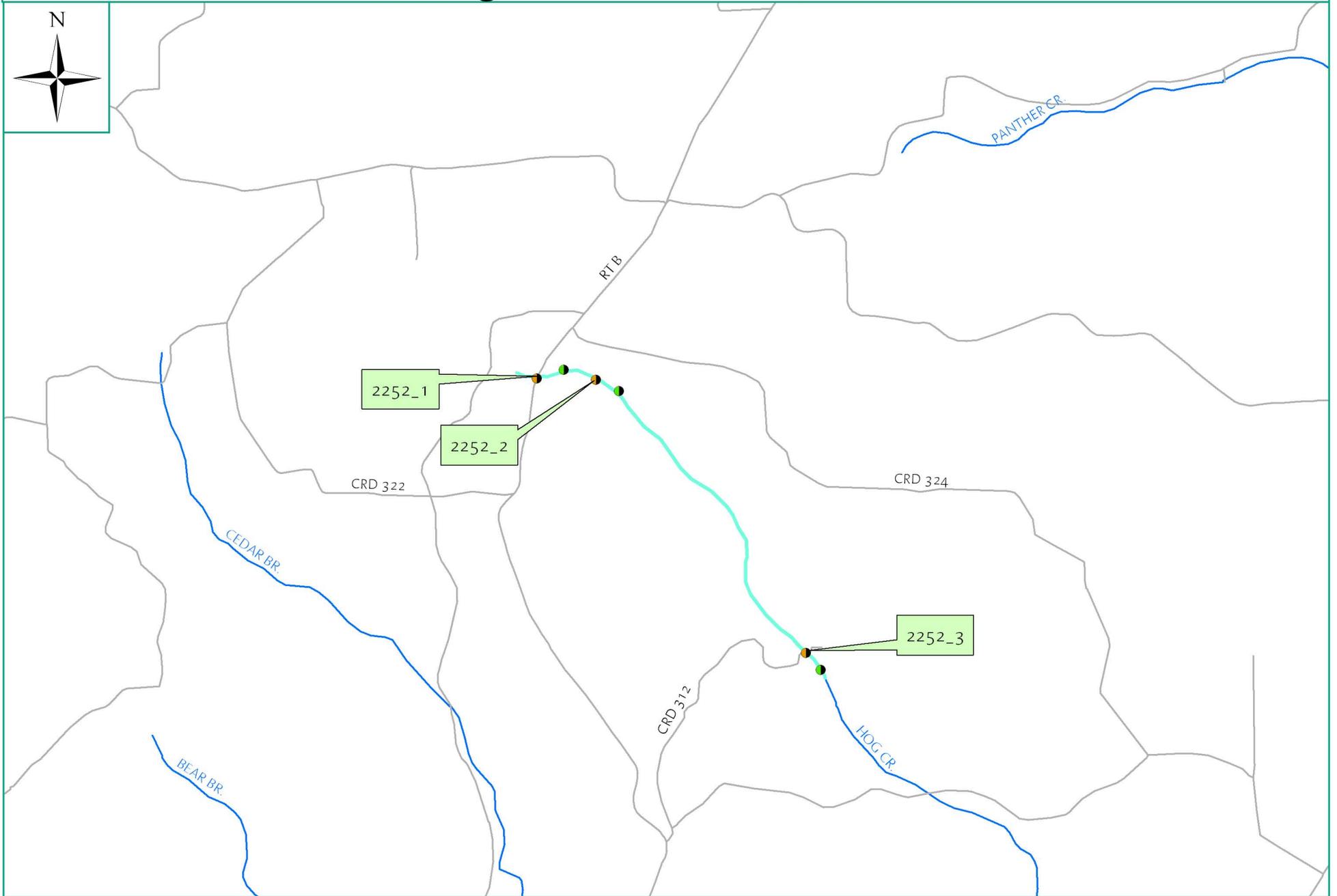
Name of Surveyor	Renee Martin	Telephone Number:	573-875-7844
Organization/Employer:	AE Solutions		
Position:	Env. Specialist		

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

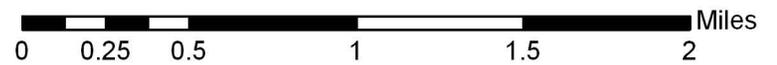
Signed: Renee Martin Date: 10/30/07

Rue 11-2-07

# Hog Creek ( WBID 2252 )



- Upstream Boundary
- Downstream Boundary



WBID # 2252

Site # 1

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

**Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10/29/07 1430</u>	Site Location Description (e.g., road crossing): <u>Hwy B Bridge</u>
Personnel (Data Collectors): <u>pm/jth</u>	Facility Name: <u>Diana's Boarding Home Sew</u>
Current Weather Conditions: <u>clear</u>	Permit Number: <u>MO @ 129593</u>
Weather Conditions for Past 10 days: <u>clear/rain</u>	
Drought Conditions?: 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>4141975</u>	Northing (UTM Y): <u>240350</u>	Horizontal Accuracy: <u>39</u> Meters <u>ft</u> (EPE / FOM / PDOP)
Site 11	Easting (UTM X): <u>4142024</u>	Northing (UTM Y): <u>240546</u>	Horizontal Accuracy: <u>28</u> Meters <u>ft</u> (EPE / FOM / PDOP)

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>2252-1-876</u>	<u>DN stream Site 1</u>	<u>2252-1-877</u>	<u>UP stream Site 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 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 Data Sheet D- Recreational Use Interview when conducting interviews.)

WBID # 2252  
 Site # 1

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

**Data Sheet B – Site Characterization (continued)**

**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 checked="" 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 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
Comments / Other: <i>None</i>				

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

% Cobble	<i>5</i>	% Gravel	<i>15</i>	% Sand		% Silt		% Mud/Clay	<i>80</i>	% Bedrock
----------	----------	----------	-----------	--------	--	--------	--	------------	-----------	-----------

**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

*Benthic Algae - lots on bedrock. No aquatic vegetation in stream.*

**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 checked="" type="checkbox"/> Other: <i>Leaf debris</i>
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 effect another use.

WBID # 2252  
Site # 1

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

**Data Sheet B – Site Characterization (continued)**

**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.**

Surveyor's Signature: *Renee Hart* Date of Survey: 10/29/07  
Organization: *AE Solutions* Position: *Env. Specialist*

*RNC 11-2-07*

## Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>2252</u> Site #: <u>2252-1</u> (WBID, Site#) Estimated Channel Incision: <u>&lt;1</u> (m) (height between low bank width and water) GPS Location (taken at transect 1): UTM X: <u>4141975</u> UTM Y: <u>240350</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/- 39</u> (feet)  GPS Location (taken at transect 11): UTM X: <u>4142024</u> UTM Y: <u>240546</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/- 28</u> (feet)  Average Stream Width: <u>4.5</u> (meters)      Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach)      (20x average stream width)  Field Staff: <u>RM/JH</u>	<h3 style="text-align: center; margin: 0;">Dissolved Oxygen</h3> Date: <u>10/29/07</u> Time: <u>1430</u>  Dissolved Oxygen: <u>9.24</u> (mg/L)  Dissolved Oxygen: <u>87.3</u> (% sat)  Specific Cond: <u>287</u> (µS/cm)  Water Temp.: <u>12.6</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		0.37	0.10	0.34	0.05	0.15	0.07	0.40	0.04	0.70	0.20	0.84	0.07	0.37	0.01	0.39	0.01	0.50	0.01	0.35	0.03	0.30	0.02
2		0.74	0.14	0.68	0.07	0.30	0.10	0.80	0.20	1.40	0.25	1.08	0.07	0.74	0.01	0.78	0.01	1.00	0.08	0.70	0.03	0.60	0.01
3		1.11	0.11	1.02	0.09	0.45	0.10	1.70	0.08	2.10	0.35	2.52	0.06	1.11	0.01	1.17	0.00	1.50	0.15	1.05	0.04	0.90	0.01
4		1.48	0.09	1.36	0.03	0.60	0.12	1.60	0.07	2.80	0.42	3.36	0.08	1.48	0.03	1.50	0.00	2.00	0.18	1.40	0.01	1.20	0.11
5		1.85	0.10	1.70	0.08	0.75	0.12	2.00	0.02	3.50	0.41	4.20	0.08	1.85	0.01	1.95	0.00	2.50	0.18	1.75	0.01	1.50	0.09
6		2.22	0.09	2.04	0.07	0.90	0.10	2.40	0.04	4.70	0.15	5.04	0.06	2.22	0.02	2.34	0.01	3.00	0.15	2.10	0.02	1.80	0.07
7		2.59	0.12	2.38	0.06	1.05	0.08	2.80	0.15	4.90	0.11	5.78	0.06	2.59	0.01	2.73	0.00	3.50	0.15	2.45	0.01	2.10	0.04
8		2.96	0.09	2.72	0.03	1.20	0.04	3.20	0.04	5.60	0.06	6.72	0.13	2.96	0.01	3.12	0.00	4.00	0.13	2.80	0.04	2.40	0.04
9		3.33	0.10	3.06	0.04	1.35	0.02	3.60	0.05	6.30	0.05	7.50	0.15	3.33	0.01	3.51	0.04	4.50	0.06	3.15	0.05	2.70	0.03
Right Bank		3.70	0	3.40	0	1.70	0	4.00	0	7.0	0	8.40	0	3.75	0	3.90	0	5.05	0	3.50	0	3.04	0
Feature Type (riffle, run, or pool)		Pool		Run		Run		Pool		Run		Run		Riffle		Riffle		Pool		Riffle		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 location corresponds to Transect 01 and Transect 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 0.01 meter unless depth is too deep to measure (then record as > 1).  
 All measurements to be taken to the nearest 0.01 meter.

Signed: \_\_\_\_\_

Date: 10/29/07

RM/JH - 11-2-07

WBID # 2252

Site # 2

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

**Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10/29/07 1500</u>	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): <u>RM/JH</u>	<u>150 m from Transect # 11, Site 1</u>
Current Weather Conditions: <u>Clear</u>	Facility Name: <u>Diana's Boarding Home Sew.</u>
Weather Conditions for Past 10 days: <u>Rain/clear</u>	Permit Number: <u>MO 0129593</u>
Drought Conditions?: 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>4141938</u>	Northing (UTM Y): <u>240768</u>	Horizontal Accuracy: (EPE / FOM / PDOP) <u>27</u> Meters <sup>ft</sup>
Site 11	Easting (UTM X): <u>4141850</u>	Northing (UTM Y): <u>240925</u>	Horizontal Accuracy: (EPE / FOM / PDOP) <u>27</u> Meters <sup>ft</sup>

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>2252-2-878</u>	<u>Upstream Site 2</u>	<u>2252-2-879</u>	<u>DN Stream Site 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 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 Data Sheet D- Recreational Use Interview when conducting interviews.)				

WBID # 2252

Site # 2

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

**Data Sheet B – Site Characterization (continued)**

**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 type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:

Comments:  
*Powerline Easment @ T3, Site 2*

**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

Comments / Other:  
*None*

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

<i>20</i> % Cobble	<i>15</i> % Gravel	<i>15</i> % Sand	<i>—</i> % Silt	% Mud/Clay	<i>50</i> % Bedrock
--------------------	--------------------	------------------	-----------------	------------	---------------------

**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

*Most of bottom bedrock is covered w/ benthic Algae*

**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 checked="" type="checkbox"/> Other: <i>leaty debris</i>
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 effect another use.

WBID # 2252  
Site # 2

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

**Data Sheet B – Site Characterization (continued)**

**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.**

Surveyor's Signature: *Dave Mart* Date of Survey: 10/29/07  
Organization: AE Solutions Position: Env. Specialist

*PMC 11-2-07*

# Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 2252 Site #: 2252-2  
 (WBID\_Site#)  
 Estimated Channel Incision: 21 (m) (height between low bank width and water)  
 GPS Location (taken at transect 1):  
 UTM X: 4141938 UTM Y: 240768  
 Horizontal Accuracy Estimate (GPS Data Quality): +/- 27 (feet)  
 GPS Location (taken at transect 11):  
 UTM X: 4141850 UTM Y: 240925  
 Horizontal Accuracy Estimate (GPS Data Quality): +/- 27 (feet)  
 Average Stream Width: 4.0 (meters) Length of Survey Segment: 150 (meters)  
 (To determine Length of Reach) (20x average stream width)  
 Field Staff: RMLJH

**Dissolved Oxygen**

Date: 10/29/07 Time: 1500  
 Dissolved Oxygen: 9.25 (mg/L)  
 Dissolved Oxygen: 85.4 (% sat)  
 Specific Cond: 288 (µS/cm)  
 Water Temp.: 9.60 (°C)

		Transect Cross-Section																					
		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Station		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Left Bank		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	0.19	0.01	0.30	0.09	0.50	0.20	0.33	2.01	0.52	0.01	0.61	0.11	0.52	0.22	0.17	2.01	0.20	2.01	0.35	0.73	0.57	0.01
	2	0.38	0.00	0.60	0.12	1.00	0.28	0.66	2.01	1.04	0.00	1.22	0.27	1.04	0.40	0.34	0.00	0.40	0.05	0.70	0.75	1.14	0.02
	3	0.57	0.05	0.90	0.14	1.50	0.25	0.94	0.05	1.56	0.05	1.33	0.38	1.56	0.45	0.51	0.01	0.60	0.07	1.05	0.67	1.71	0.12
	4	0.76	0.07	1.20	0.15	2.00	0.24	1.32	0.09	2.08	2.01	2.44	0.40	2.08	0.43	0.68	0.04	0.80	0.10	1.40	0.60	2.28	0.20
	5	0.95	0.09	1.50	0.15	2.50	0.26	1.65	0.13	2.60	0.05	3.05	0.40	2.60	0.40	0.85	0.08	1.00	0.06	1.75	0.55	2.85	0.24
	6	1.14	0.09	1.80	0.14	3.00	0.25	1.98	0.19	3.12	0.01	3.66	0.30	3.12	0.47	1.02	0.07	1.20	0.10	2.10	0.45	3.42	0.30
	7	1.33	0.11	2.10	0.15	3.50	0.20	2.31	0.17	3.64	0.01	4.27	0.21	3.64	0.45	1.19	0.10	1.40	0.09	2.45	0.30	3.99	0.24
	8	1.52	0.08	2.40	0.13	4.00	0.12	2.64	0.09	4.16	2.01	4.88	0.25	4.88	0.52	1.10	0.37	1.36	0.06	1.60	0.05	2.80	0.20
	9	1.71	0.08	2.70	0.06	4.50	0.03	2.97	0.09	4.68	0.01	5.49	0.19	4.68	0.16	1.53	0.04	1.80	0.01	3.15	0.10	5.13	0.11
Right Bank		1.90	0	3.00	0	5.04	0	3.30	0	5.20	0	6.10	0	5.20	0	1.75	0	2.05	0	3.50	0	5.75	0
Feature Type (riffle, run, or pool)		Pool		Run		Pool		Run		Riffle		Pool		Pool		Riffle		Riffle		Pool		Pool	

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 location corresponds to Transect 01 and Transect 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 0.01 meter unless depth is too deep to measure (then record as > 1)  
 All measurements to be taken to the nearest 0.01 meter.

Signed: Rene Hart Date: 10/29/07

WBID # 2252

Site # 3

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

**Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10/29/07 1600</u>	Site Location Description (e.g., road crossing): <u>County Rd 312</u>
Personnel (Data Collectors): <u>Rmj/JH</u>	
Current Weather Conditions: <u>clear</u>	Facility Name: <u>Diana's Boarding Home SW</u>
Weather Conditions for Past 10 days: <u>rain/clear</u>	Permit Number: <u>MO 0129593</u>
Drought Conditions?: 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>4139970</u>	Northing (UTM Y): <u>0242125</u>	Horizontal Accuracy: (EPE / FOM / PDOP) <u>30</u> <sup>ft</sup> <u>Meters</u>
Site 11	Easting (UTM X): <u>4139793</u>	Northing (UTM Y): <u>0242220</u>	Horizontal Accuracy: (EPE / FOM / PDOP) <u>30</u> <sup>ft</sup> <u>Meters</u>

**Photos:**

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<del>2252-3</del> <u>880</u>	<u>DN Stream - fence across creek</u>	<del>2252-3</del> <u>881</u>	<u>Upstream</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 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 Data Sheet D- Recreational Use Interview when conducting interviews.)

WBID # 2252

Site # 3

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

**Data Sheet B – Site Characterization (continued)**

**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 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
Comments / Other: <u>none</u>				

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

<u>20</u> % Cobble	<u>10</u> % Gravel	<u>10</u> % Sand	<u>—</u> % Silt	<u>—</u> % Mud/Clay	<u>60</u> % Bedrock
--------------------	--------------------	------------------	-----------------	---------------------	---------------------

**Aquatic Vegetation\*:** (Note amount of vegetation or algal growth at the assessment site)

<u>none</u>
-------------

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

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

\*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 effect another use.

WBID # 2252

Site # 3

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

**Data Sheet B – Site Characterization (continued)**

**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.)

Entire site dry

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

Surveyor's Signature: [Signature] Date of Survey: 10/29/07

Organization: RESOLUTIONS Position: Env. Specialist

RNC 11-2-07

# Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: 2252 Site #: 2252\_3  
 (WBID\_Site#)  
 Estimated Channel Incision: <1 (m) (height between low bank width and water)  
 GPS Location (taken at transect 1):  
 UTM X: 4134920 UTM Y: 0242125  
 Horizontal Accuracy Estimate (GPS Data Quality): +/- 30 (feet)  
 GPS Location (taken at transect 11):  
 UTM X: 4134993 UTM Y: 0242220  
 Horizontal Accuracy Estimate (GPS Data Quality): +/- 30 (feet)  
 Average Stream Width: 4.0 (meters) Length of Survey Segment: 150 (meters)  
 (To determine Length of Reach) (20x average stream width)  
 Field Staff: RMJ/JH

**Dissolved Oxygen**

Date: 10/29/07 Time: 1600

Dissolved Oxygen: \_\_\_\_\_ (mg/L)

Dissolved Oxygen: \_\_\_\_\_ (% sat)

Specific Cond: \_\_\_\_\_ (µS/cm)

Water Temp.: \_\_\_\_\_ (°C)

DRY

Station		Transect Cross Section																					
		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	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	0.50	0.00	0.41	0.00	0.35	0.00	0.40	0.00	0.48	0.00	0.50	0.00	0.60	0.00	0.15	0.00	0.12	0.00	0.33	0.00	0.45	0.00
	2	1.00		0.82		0.70		0.80		0.96		1.00		1.20		0.30		0.24		0.76		0.90	
	3	1.50		1.23		1.05		1.20		1.44		1.50		1.80		0.45		0.36		1.14		1.35	
	4	2.00		1.64		1.40		1.60		1.92		2.00		2.40		0.60		0.48		1.52		1.80	
	5	2.50		2.05		1.75		2.00		2.40		2.50		3.00		0.75		0.60		1.90		2.25	
	6	3.00		2.46		2.10		2.40		2.88		3.00		3.60		0.90		0.72		2.28		2.70	
	7	3.50		2.87		2.45		2.80		3.36		3.50		4.20		1.05		0.84		2.66		3.15	
	8	4.00		3.28		2.80		3.20		3.84		4.00		4.80		1.20		0.96		3.04		3.60	
	9	4.50		3.69		3.15		3.60		4.32		4.50		5.40		1.35		1.08		3.42		4.05	
Right Bank		5.00	0	4.10	0	3.50	0	4.00	0	4.80	0	5.00	0	6.00	0	1.50	0	1.20	0	3.80	0	4.50	0
Feature Type (riffle, run, or pool)																							

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 location corresponds to Transect 01 and Transect 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 0.01 meter unless depth is too deep to measure (then record as > 1)  
 All measurements to be taken to the nearest 0.01 meter.

dnc 11-2-07

Signed: Jennifer Habib Date: 10/29/07

