



Use Attainability Analysis

for

WBID 1146 Sellers Hollow

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):	Sellers Hollow	
Missouri Water Body Identification (WBID) Number:	1146	
8-digit HUC:	10290109	County: Camden
Upstream Legal Description (from Table H):	7, 37N, 15W	
Downstream Legal Description (from Table H):	Mouth	
Number of sites evaluated:	3	
List all sites numbers, listed consequently upstream to downstream:	1, 2, +3	

Site Locations Map(s): Attach a map of the entire segment with assessment sites clearly labeled.
Mark any other items that may be of interest.

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

Facility Name(s) and Permit Number(s):
A + A Inc. MO0117731

III. UAA Surveyor (please print legibly)

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

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

Signed: Bob Bacon Date: 10-4-2007

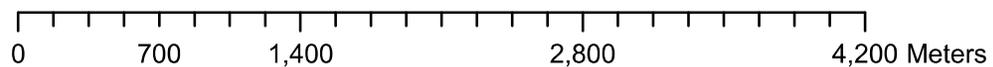
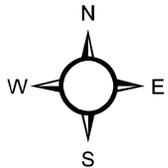
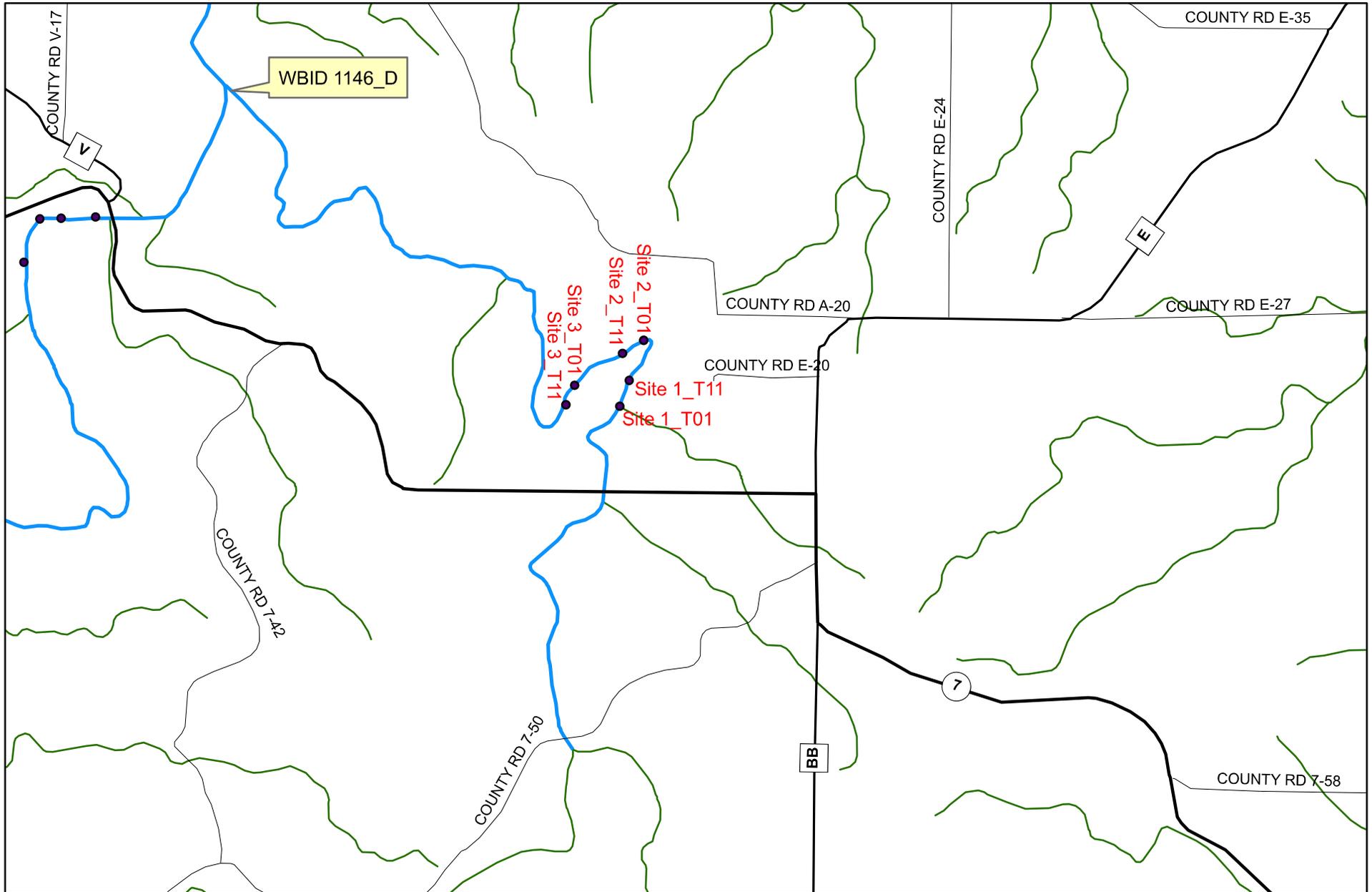
Weather Conditions

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
Kaiser, MO

Date	Precipitation (Inches)	Min. Temp (°F)	Max. Temp (°F)	Avg. Temp (°F)
9/24/2007	0.00	69	86	78
9/25/2007	0.75	69	84	76
9/26/2007	0.00	59	64	62
9/27/2007	0.00	60	75	68
9/28/2007	0.00	53	82	68
9/29/2007	0.00	57	80	68
9/30/2007	0.31	55	84	70
10/1/2007	0.00	57	77	67
10/2/2007	0.10	57	84	70
10/3/2007	0.01	53	75	64
10/4/2007	0.00	60	84	72

WBID 1146 Sellers Hollow - Camden County



WBID 1146: Sellers Hollow

Notes:

Due to limited road crossings within the classified reach a central location was selected to conduct our assessment. During our assessment we examined over one mile of the five mile classified reach and selected what we believe are representative sections to conduct our assessments.

WBID # 1146Site # 01**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10-4-07 10:32</u>	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): <u>Bob Boren & Matt Nelson</u>	<u>N of Hwy 7</u>
Current Weather Conditions: <u>Sunny & clear 80°F</u>	Facility Name: <u>A + A Inc.</u>
Weather Conditions for Past 10 days:	Permit Number: <u>MO117731</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>15 8 0534423</u>	Northing (UTM Y): <u>4203241</u>	Horizontal Accuracy: (EPE / FOM / PDOP)	<u>8</u>	Meters
Site 11	Easting (UTM X): <u>15 8 4203223</u>	Northing (UTM Y): <u>4203223</u>	Horizontal Accuracy: (EPE / FOM / PDOP)	<u>6</u>	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>T01-I59</u>	<u>Downstream View</u>	<u>T11-I60</u>	<u>Upstream View</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 # 1146

Site # 01

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 checked="" type="checkbox"/> Livestock Watering

Comments / Other:

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

10 % Cobble	80 % Gravel	% Sand	% Silt	% Mud/Clay	10 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

None

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 type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: Turbid
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 effect another use.

WBID # 1146

Site # 01

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: *Robert M. Brown* Date of Survey: 10-4-2007

Organization: ERC Position: Field Manager

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet C - Field Survey Results

T01 - IS9 downstream
 T11 - I60 up stream

Waterbody ID: 1146 Site #: 01

Estimated Channel Incision: — (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: 155052427 UTM Y: 4203644 +/- 8 (meters) 021

11 UTM X: 1554203223 UTM Y: 4203223 +/- 6 (meters) 022

Average Stream Width: 4.0 (meters) Length of Survey Segment: 150 (meters)
 (To determine Length of Reach) (20x average stream width)

Field Staff: Bob Bacon + Matt Nelson

Dissolved Oxygen

Date: 10-4-07 Time: 10:12

Dissolved Oxygen: 2.62 (mg/L)

Dissolved Oxygen: 29.2 (% sat)

Specific Cond: 269 (µS/cm)

Water Temperature: 20.69 (°C)

@ T09

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	0
1																0.4	0.07						
2																0.8	.16						
3																1.2	.21						
4																1.6	.23						
5		rip		dry		2.0	.25																
6		rip		dry		2.4	.16																
7																2.8	.12						
8																3.2	.07						
9																3.6	.02						
Right Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.0	0	0	0	0	0	0	0
Feature Type																		pool		dry		dry	

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 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 initial 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: Bob Bacon Date: 10-4-07

WBID # 1146Site # 02**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10-4-07 11:09</u>	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): <u>Bob Brown & Matt Nelson</u>	<u>N of Hwy 7, downstream of site 01</u>
Current Weather Conditions: <u>Sunny & clear</u>	Facility Name: <u>A+A Inc.</u>
Weather Conditions for Past 10 days:	Permit Number: <u>M00117731</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>152 0534593</u>	Northing (UTM Y): <u>4203502</u>	Horizontal Accuracy: (EPE) FOM / PDOP <u>9</u> Meters
Site 11	Easting (UTM X): <u>152 0534446</u>	Northing (UTM Y): <u>4203411</u>	Horizontal Accuracy: (EPE) FOM / PDOP <u>8</u> Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>T01-I61</u>	<u>Downstream View</u>	<u>T11-I62</u>	<u>Upstream View</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 # 1146

Site # 02

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 checked="" type="checkbox"/> Livestock Watering

Comments / Other:

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

5 % Cobble	80 % Gravel	% Sand	% Silt	% Mud/Clay	15 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Less than 5% covered

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 type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: turbid
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:

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WBID # 1146

Site # 02

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: *Robert A. Quinn* Date of Survey: 10-4-2007

Organization: *ERC* Position: *Field Manager*

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet C - Field Survey Results

T01 - I61 downstream
 T11 - I62 upstream

Waterbody ID: <u>1146</u> Site #: <u>02</u> Estimated Channel Incision: <u>.10</u> (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: <u>1550524593</u> UTM Y: <u>4202502</u> +/- <u>9</u> (meters) <u>0.2</u> 11 UTM X: <u>1550524446</u> UTM Y: <u>4202411</u> +/- <u>8</u> (meters) Average Stream Width: <u>3.5</u> (meters) Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Bob Bacon & Matt Nelson</u>	Dissolved Oxygen Date: <u>10-4-2007</u> Time: <u>11:09</u> Dissolved Oxygen: <u>4.28</u> (mg/L) Dissolved Oxygen: <u>48.4</u> (% sat) Specific Cond: <u>377</u> (µS/cm) Water Temperature: <u>21.49</u> (°C)
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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	.22	.08	.21	.03	.07	.01	.12	.01			.28	.17	.34	.02					.42	.11		
2	.44	.13	.42	.06	.14	.02	.26	.06			.71	.29	.68	.02					.84	.23		
3	.66	.16	.62	.09	.21	.04	.39	.09			1.14	.39	1.02	.06					1.26	.26		
4	.88	.24	.84	.12	.78	.05	.52	.09			1.52	.47	1.36	.07					1.68	.28		
5	1.10	.17	1.05	.16	.35	.06	.65	.08			1.90	.42	1.70	.08					2.10	.32		
6	1.32	.23	1.26	.16	.42	.06	.78	.13			2.28	.46	2.04	.06					2.52	.33		
7	1.54	.20	1.47	.17	.49	.08	.91	.06			2.66	.40	2.38	.01					2.94	.27		
8	1.76	.31	1.68	.11	.56	.09	1.04	.07			3.04	.18	2.72	.02					3.36	.19		
9	1.98	.05	1.89	.02	.63	.04	1.17	.06			3.42	.12	3.06	.01					3.78	.13		
Right Bank	2.2	0	2.1	0	.77	0	1.30	0	0	0	3.80	0	3.40	0	0	0	0	0	4.20	0	0	0
Feature Type	pool		pool		riffle		run		dry		pool		run		dry		dry		pool		dry	

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 11. Transects ordered in upstream to downstream order.
 Depth measurements taken at 10 equally spaced locations along transect (determined by dividing wetted width by 10).
 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: Bob Bacon Date: 10-4-07

WBID # 1146Site # 03**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B – Site Characterization**

(must be completed for each site)

Date & Time: <u>10-4-2007 11:52</u>	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): <u>Bob Bacon & Matt Nelson</u>	<u>N of Hwy 7, downstream of site 02</u>
Current Weather Conditions: <u>Sunny & clear</u>	Facility Name: <u>ADA Inc.</u>
Weather Conditions for Past 10 days:	Permit Number: <u>MO0117731</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>1520534112</u>	Northing (UTM Y): <u>4205189</u>	Horizontal Accuracy: (EPE / FOM / PDOP)	<u>6</u>	Meters
Site 11	Easting (UTM X): <u>1520534053</u>	Northing (UTM Y): <u>4205054</u>	Horizontal Accuracy: (EPE / FOM / PDOP)	<u>5</u>	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>T01-I63</u>	<u>Downstream View</u>	<u>T11-I64</u>	<u>Upstream View</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 # 1146

Site # 03

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 checked="" type="checkbox"/> Livestock Watering
Comments / Other:				

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

<u>5</u> % Cobble	<u>90</u> % Gravel	% Sand	% Silt	% Mud/Clay	<u>5</u> % Bedrock
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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 checked="" type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>Turbid</u>
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:

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WBID # 1146

Site # 03

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: Robert A. Dean Date of Survey: 10-4-2007

Organization: ERC Position: Field Manager

Field Data Sheets for Recreational Use Stream Surveys

T01 - I 63 downstream

T11 - I 64 upstream

Data Sheet C - Field Survey Results

Waterbody ID: <u>1146</u> Site #: <u>03</u> Estimated Channel Incision: <u>.04</u> (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: <u>155 0534112</u> UTM Y: <u>4202189</u> +/- <u>6</u> (meters) 025 11 UTM X: <u>155 0524053</u> UTM Y: <u>4202054</u> +/- <u>5</u> (meters) 026 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>Bob Bacon - & Matt Nelson</u>	Dissolved Oxygen Date: <u>10-04-07</u> Time: <u>11:52</u> Dissolved Oxygen: <u>2.88</u> (mg/L) Dissolved Oxygen: <u>31.6</u> (% sat) Specific Cond: <u>398</u> (µS/cm) Water Temperature: <u>22.26</u> (°C)
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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	.57	.14	.41	.16	.20	.07	.22	.04	.17	.01	.36	.18	.22	.06	.30	.10	.30	.21	.43	.12	.81	.01
	2	1.14	.20	.82	.27	.40	.03	.44	.05	.34	.01	.72	.21	.44	.10	.60	.28	.60	.29	.86	.13	1.62	0
	3	1.71	.22	1.23	.26	.60	.06	.66	.11	.51	.02	1.08	.28	.66	.12	.90	.36	.90	.30	1.29	.10	2.43	0
	4	2.28	.24	1.64	.21	.80	.06	.88	.14	.68	.01	1.44	.34	.88	.14	1.20	.41	1.20	.27	1.72	.10	2.24	0
	5	2.85	.28	2.05	.14	1.00	.06	1.10	.17	.85	.01	1.80	.28	1.10	.12	1.50	.38	1.50	.26	2.15	.01	4.05	0
	6	3.42	.38	2.46	.11	1.20	.06	1.32	.15	1.02	.01	2.16	.29	1.32	.13	1.80	.36	1.80	.20	2.58	.01	4.86	0
	7	3.99	.28	2.87	.10	1.40	.05	1.54	.20	1.19	.01	2.52	.23	1.54	.10	2.10	.35	2.10	.15	3.01	.01	5.67	0
	8	4.56	.41	3.28	.12	1.60	.02	1.76	.12	1.36	.01	2.88	.19	1.76	.10	2.40	.27	2.40	.12	3.44	.03	6.48	0
	9	5.13	.32	3.69	.13	1.80	.03	1.98	.05	1.53	.01	3.24	.08	1.98	.03	2.70	.18	2.70	.07	3.87	.03	7.29	0
Right Bank		5.70	0	4.10	0	2.00	0	2.20	0	1.70	0	3.60	0	2.20	0	3.00	0	3.00	0	4.30	0	8.10	0
Feature Type		pool		pool		run		run		riffle		pool		run		pool		pool		pool		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 11. Transects ordered is 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: Bob Bacon

Date: 10-4-07

WBID# 1146 Sellers Hollow



Site# 1 Photo ID# T01-I-59 Downstream



Site# 1 Photo ID# T11-I-60 Upstream



Site# 2 Photo ID# T-01-I-61 Downstream



Site# 2 Photo ID# T11-I-62 Upstream

WBID# 1146 Sellers Hollow



Site# 3 Photo ID# T01-I-63 Downstream



Site# 3 Photo ID# T11-I-64 Upstream