



Missouri  
Department of  
Natural Resources

Use Attainability Analysis

for

WBID 1295 Panther Creek

Submitted by  
BWR

to

Missouri Department of Natural Resources  
Water Protection Program

Date received: June 29, 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):	Double Branch
Missouri Water Body Identification (WBID) Number:	1298
8-digit HUC:	102 90102
County:	Bates
Upstream Legal Description (from Table H):	Mouth
Downstream Legal Description (from Table H):	19, 39N, 30W
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 entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

**II. Subsegmentation** (fill this section out only in cases where subsegmentation is being proposed)

LOCATION COORDINATES/UNIVERSAL TRANSVERSE MERCATOR PROJECTION IN METERS			
Upstream Coordinates:		Downstream Coordinates:	
UTM X	Y	UTM X	Y
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other	
EPE	± _____ Feet or ± _____ Meters	_____	
PDOP		± _____ Feet or ± _____ Meters	

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

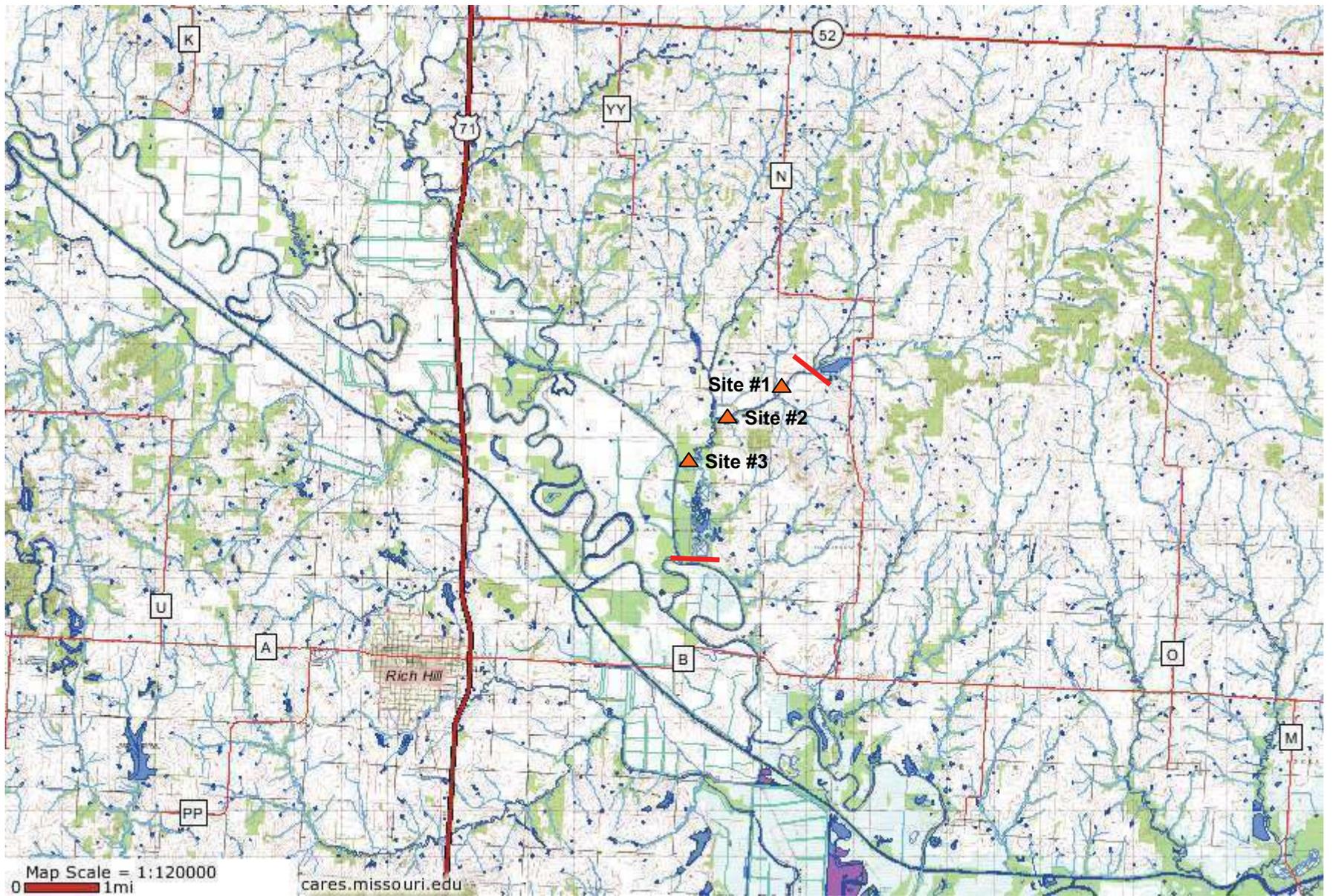
Discharger Facility Name(s):	Rockville WWTP
Discharger Permit Number(s):	MO 0103748

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

Name of Surveyor	Amy M. DeLauroski	Telephone Number:	816.363.2696
Organization/Employer:	BWR		
Position:	Environmental Sr.		

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

Signed: Amy M. DeLauroski Date: 5/26/07  
 February 5, 2007 Page 22



● Non-point source

Double Branch  
WBID #1298



WBID# 1298  
 Site# 1

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
 (must be completed for each site)

Date & Time: <u>5/26/07</u>	Site Location Description (e.g., road crossing): <u>at bridge crossing</u>
Personnel (Data Collectors): <u>AMD, JPS</u>	
Current Weather Conditions: <u>overcast</u>	Facility Name: <u>Rockville WASTP</u>
Weather Conditions for Past 10 days: <u>rain in last 48 hrs</u>	Permit Number: <u>MO0103748</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 Locations:**

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION IN METERS)	
Site GPS Coordinates: UTM X: <u>0945788</u> <u>942764</u> Y: <u>384594N</u> <u>3314810</u>	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data): Global Positioning System (GPS)	
Static Mode	Interpolation
Dynamic Mode (Kinematic)	Topographic Map or DRG
Precise Positioning Service	Aerial Photograph or DOQQ
Signal Averaging	Satellite Imagery
Real Time Differential Processing	Interpolation Other
HORIZONTAL ACCURACY ESTIMATE	
GPS Data Quality	Interpolation Data Quality
FOM ± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± _____ Meters
EPE ± _____ Feet or ± _____ Meters	
PDOP	

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>1 (60)</u>	<u>upstream</u>	<u>2 (6)</u>	<u>downstream</u>		

**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.)

**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"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:

\* Page Two - Data Sheet B for WBID # 1298 : SITE # 1  
 Stream Morphology:

Run - 80  
 RIFFLE - 10  
 Pool - 10

Upstream View's Physical Dimensions: Is there any water present at this view?  Yes  No

If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view?  Yes  No

If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

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

<u>16</u> % Cobble	<u>80</u> % Gravel	<u>10</u> % Sand	% Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

algal on rocks

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:

Comments: Please attach any additional comments () to this form.

\*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.

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

Surveyor's Signature: Amy M. Gualand Date of Survey: 5/26/07

Organization: BWR Position: ENV. SCI

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 1

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect A	wetted width	< 0.1m		1	Channel Feature:
	4.0 m	< 0.1m		2	RIPPLE
		< 0.1m		3	
	measurements	< 0.1m		4	Dissolved Oxygen
	0.4 m	< 0.1m		5	
	apart	0.1m		6	8.0 ppm
		0.1m		7	7.0
		0.1m		8	
		0.1m		9	19.1 temp
		0.1m		10	
Transect B	wetted width	0.1m		11	
	10.0 m	0.4m		12	Channel Feature:
		0.4m		13	700
	measurements	0.4m		14	
	10 m	0.5m		15	Dissolved Oxygen:
	apart	0.4m		16	
		0.2m		17	7.9 ppm
		0.2m		18	7.0
		0.1m		19	
		< 0.1m		20	
Transect C	wetted width	0.2m		22	
	11.0 m	0.3m		23	Channel Feature:
		0.5m		24	Rip
	measurements	0.6m		25	
	1.1 m	0.6m		26	Dissolved Oxygen
	apart	0.6m			
		0.7m			7.87 ppm
		0.7m			7.0
		0.4m		n	
		0.1m			

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. Dealmond Date: 5/26/07  
 Organization: BWR Position: ENV. SCI.

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 1

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
D	wetted width	< 0.1m			
	9.0 m	0.2m		1	Channel Feature:
		0.3m		2	RUN / Pool
	measurements	0.4m		3	
	0.8 m	0.4m		4	Dissolved Oxygen
	apart	0.4m		5	
		0.4m		6	8.17 ppm
		0.4m		7	7
		0.3m		8	
		0.1m		9	
E	wetted width	0.1m		11	
	11.0 m	0.1m		12	Channel Feature:
		0.1m		13	RUN
	measurements	0.1m		14	
	1.1 m	< 0.1m		15	Dissolved Oxygen:
	apart	< 0.1m		16	
		< 0.1m		17	8.35 ppm
		0.1m		18	7
		0.1m		19	
		0.1m		20	
F	wetted width	< 0.1m		22	
	4 m	< 0.1m		23	Channel Feature:
		< 0.1m		24	RUN
	measurements	< 0.1m		25	
	— m	< 0.1m		26	Dissolved Oxygen
	apart	< 0.1m			
		0.1m			8.35 ppm
		0.2m			7
		0.2m		n	
		0.2m			

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAS datasheet is true and accurate.

Signed: Amy M. Bystron Date: 5/26/07  
 Organization: BWR Position: ENV. SCI

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 1

Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect G	1 wetted width	0.1m		
2	3.0 m	0.2m	1	Channel Feature:
3		0.2m	2	Run
4	measurements	0.2m	3	
5	1.3 m	0.3m	4	Dissolved Oxygen
6	apart	0.3m	5	
7		0.3m	6	8.2 ppm
8		0.2m	7	
9		0.1m	8	
10		<0.1m	9	
			10	
Transect H	1 wetted width	0.1m	11	
2	11.5 m	0.1m	12	Channel Feature:
3		<0.1m	13	Run
4	measurements	<0.1m	14	
5	1.1 m	<0.1m	15	Dissolved Oxygen:
6	apart	<0.1m	16	
7		<0.1m	17	8.3 ppm
8		<0.1m	18	
9		0.1m	19	
10		0.1m	20	
			21	
Transect I	1 wetted width	<0.1m	22	
2	8.0 m	<0.1m	23	Channel Feature:
3		0.2m	24	Run
4	measurements	0.2m	25	
5	0.8 m	0.3m	26	Dissolved Oxygen
6	apart	0.3m		
7		0.3m		8.3 ppm
8		0.2m		
9		0.2m	n	
10		0.1m		

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth is the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAS datasheet is true and accurate.

Signed: Amy M. Bryant Date: 5/26/07  
 Organization: BWR Position: ENR. SGT.

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 1

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth	
Transect 1	wetted width	0.4m				
	1.0 m	0.5m		1	Channel Feature:	
		0.5m		2	FDL	
	measurements	0.5m		3		
	1.0 m	0.5m		4	Dissolved Oxygen	
	apart	0.4m		5		
		0.3m		6	8.33	ppm
		0.4m		7		7
		0.5m		8		
		0.1m		9		
Transect 2	wetted width	0.1m		10		
	1.0 m	0.3m		11		
		0.3m		12	Channel Feature:	
	measurements	0.3m		13	RLW	
	1.0 m	0.3m		14		
	apart	0.2m		15	Dissolved Oxygen:	
		0.3m		16		
		0.4m		17	9.8	ppm
		0.4m		18		7
		0.1m		19		
Transect 3	wetted width			20		
	1.0 m			21		
				22	Channel Feature:	
	measurements			23		
	1.0 m			24		
	apart			25	Dissolved Oxygen	
				26		
						ppm
						7
				n		

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Ann M. Gualandri Date: 5/26/07  
 Organization: BWR Position: BWR SA

WBID# 1298  
 Site# 2

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
 (must be completed for each site)

Date & Time: <u>05/26/07</u>	Site Location Description (e.g., road crossing): <u>downstream from bridge at CR</u>
Personnel (Data Collectors): <u>AMD JPS</u>	
Current Weather Conditions: <u>cloudy</u>	Facility Name: <u>Rockville WWTP</u>
Weather Conditions for Past 10 days:	Permit Number: <u>MO0103748</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 Locations:**

**LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION IN METERS)**

Site GPS Coordinates: UTM X: 094.21563 Y: 33.14804 N

**HORIZONTAL COLLECTION METHOD** (Indicate the method used to determine the locational data.)

Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			

**HORIZONTAL ACCURACY ESTIMATE**

GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____	
EPE	± _____ Feet or ± _____ Meters	± _____ Feet or ± _____ Meters	
PDOP			

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>62</u>	<u>UP</u>	<u>63</u>	<u>DS</u>		

**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.)

**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"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input checked="" type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments: car in stream

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:

910 CHANNEL FEATURES

\* Page Two - Data Sheet B for WBID # 1298 : SITE # 2

Run - 70%  
Riffle - 25%  
Pool - 5%

Stream Morphology:  
Upstream View's Physical Dimensions: Is there any water present at this view?  Yes  No  
If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view?  Yes  No  
If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

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

% Cobble	70	% Gravel		% Sand		% Silt	30	% Mud/Clay		% Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

*periphyton*

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 checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach any additional comments () to this form.

\*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.

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

Surveyor's Signature: *Amy M. Dzialowski* Date of Survey: *5/26/07*

Organization: *BWR* Position: *ENV. SCI.*

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 2

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect A	wetted width	0.1m		1	Channel Feature:
	10 m	0.5m		2	Pool
		0.8m		3	
	measurements	0.9m		4	Dissolved Oxygen:
	1.2 m	0.9m		5	
	apart	0.8m		6	8.30 ppm
		0.7m		7	
		0.5m		8	
		0.3m		9	
		0.2m		10	
Transect B	wetted width	0.2m		11	
	8.0 m	0.3m		12	Channel Feature:
		0.4m		13	Run
	measurements	0.6m		14	
	0.8 m	0.5m		15	Dissolved Oxygen:
	apart	0.3m		16	
		0.3m		17	8.4 ppm
		0.2m		18	
		0.1m		19	
		<0.1m		20	
Transect C	wetted width	0.5m		22	
	7.0 m	0.7m		23	Channel Feature:
		0.8m		24	Pool
	measurements	0.5m		25	
	0.7 m	0.6m		26	Dissolved Oxygen:
	apart	0.5m			
		0.5m			8.44 ppm
		0.2m			
		0.1m		n	
		0.1m			

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. Ryan Date: 5/26/07  
 Organization: BWR Position: Env. Sci

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 2

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect D	wetted width	0.1m		1	Channel Feature:
	3.5 m	0.2m		2	RUN
		0.2m		3	
	measurements	0.2m		4	Dissolved Oxygen:
	0.3 m	0.3m		5	
	apart	0.2m		6	8.1 ppm
		0.6m		7	
		0.1m		8	
		<0.1m		9	
		<0.1m		10	
Transect E	wetted width	0.1m		11	
	8.5 m	0.1m		12	Channel Feature:
		<0.1m		13	RIPPLE
	measurements	<0.1m		14	
	0.8 m	<0.1m		15	Dissolved Oxygen:
	apart	<0.1m		16	
		<0.1m		17	8.98 ppm
		0.1m		18	
		0.2m		19	
		0.2m		20	
Transect F	wetted width	<0.1m		21	
	8.5 m	0.3m		22	
		0.3m		23	Channel Feature:
	measurements	0.4m		24	RUN
	0.8 m	0.3m		25	
	apart	0.3m		26	Dissolved Oxygen:
		0.3m			
		0.3m			8.52 ppm
		0.3m			
		0.1m		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. Dyball Date: 5/26/07  
 Organization: BWR Position: EM. SCI

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 2

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect G	wetted width	0.1m			
	1.0 m	0.2m		1	Channel Feature:
		0.2m		2	RUN
		0.2m		3	
	measurements	0.2m		4	Dissolved Oxygen
	0.4 m	0.3m		5	
	apart	0.5m		6	8.5 ppm
		0.4m		7	
		0.4m		8	
		0.5m		9	
Transect H	wetted width	0.1m		10	
	1.0 m	0.4m		11	
		0.5m		12	Channel Feature:
		0.5m		13	RUN
	measurements	0.4m		14	
	1.0 m	0.5m		15	Dissolved Oxygen:
	apart	0.5m		16	
		0.6m		17	8.5 ppm
		0.6m		18	
		0.5m		19	
Transect I	wetted width	0.2m		20	
	1m - m	0.4m		21	
		0.6m		22	
		0.7m		23	Channel Feature:
	measurements	0.7m		24	RUN
	0.7 m	0.7m		25	
	apart	0.8m		26	Dissolved Oxygen
		0.8m			8.5 ppm
		0.7m			
		0.9m		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth is the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAS datasheet is true and accurate.

Signed: Amy M. [Signature] Date: 5/26/07  
 Organization: BWIC Position: ENV. SCI

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 2

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
1	wetted width	0.1m			
	9.0 m	0.3m		1	Channel Feature:
		0.5m		2	RUN
	measurements	0.5m		3	
	0.9 m	0.5m		4	Dissolved Oxygen
	apart	0.5m		5	
		0.4m		6	8.4
		0.4m		7	ppm
		0.3m		8	19°C
		0.1m		9	
2	wetted width	0.1m		10	
	1m	0.5m		11	
		0.5m		12	Channel Feature:
	measurements	0.5m		13	RUN
	0.9 m	0.5m		14	
	apart	0.5m		15	Dissolved Oxygen:
		0.6m		16	8.34
		0.5m		17	ppm
		0.5m		18	
		0.3m		19	
3	wetted width			20	
	— m			21	
				22	Channel Feature:
	measurements			23	
	— m			24	
	apart			25	Dissolved Oxygen
				26	
				.	ppm
				.	
				n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. Dunsford Date: 5/16/07  
 Organization: BWR Position: ENV. SCI

February 5, 2007

WBID# 1298  
 Site# 3

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
 (must be completed for each site)

Date & Time: <u>5/26/07</u>	Site Location Description (e.g., road crossing): <u>downstream from #2</u>
Personnel (Data Collectors): <u>AMJ JPS</u>	
Current Weather Conditions: <u>light rain</u>	Facility Name: <u>Rockville WWTP</u>
Weather Conditions for Past 10 days: <u>light rain</u>	Permit Number: <u>MO 0103748</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 Locations:**

LOCATION COORDINATES: UNIVERSAL TRANSVERSE MERCATOR PROJECTION IN METERS	
Site GPS Coordinates: UTM X: <u>091.29820 W</u> Y: <u>33.13153 N</u>	
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)	
Global Positioning System (GPS)	
Static Mode	Interpolation
Dynamic Mode (Kinematic)	Topographic Map or DRG
Precise Positioning Service	Aerial Photograph or DOQQ
Signal Averaging	Satellite Imagery
Real Time Differential Processing	Interpolation Other
HORIZONTAL ACCURACY ESTIMATE	
GPS Data Quality	
FOM ± _____ Meters	Interpolation Data Quality
EPE ± _____ Feet or ± _____ Meters	
PDOP	
Source Map Scale: 1:24,000 1:100,000 Other _____	
± _____ Feet or ± _____ Meters	

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>64</u>	<u>UP</u>	<u>65</u>	<u>DS</u>	<u>66</u>	<u>OT</u>

**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.)

**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"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:

91 CHANNEL FEATURES

\* Page Two - Data Sheet B for WBID # 1298 : SITE # 3

Run - 100%  
Riffle -  
Pool -

Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view?  Yes  No

If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view?  Yes  No

If so, is there an obvious current?  Yes  No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

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

% Cobble	30	% Gravel		% Sand		% Silt	70	% Mud/Clay		% Bedrock
----------	----	----------	--	--------	--	--------	----	------------	--	-----------

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

*Maerphytes  
algae*

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

Odor:	<input type="checkbox"/> Sewage	<input 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 type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input 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 type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach any additional comments () to this form.

\*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.

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

Surveyor's Signature: *Amy M. Gustafson* Date of Survey: 5/20/07

Organization: BWR Position: ENV. SC

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 3

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect A	1 wetted width	0.1m			
	2 7.5 m	0.1m		1	Channel Feature:
	3	0.1m		2	1.0
	4 measurements	0.1m		3	
	5 0.4 m	0.1		4	Dissolved Oxygen
	6 apart			5	
	7			6	7.8 ppm
	8			7	7.0
	9			8	
	10			9	
Transect B	1 wetted width	0.1m		11	
	2 1.2 m	0.4		12	Channel Feature:
	3	0.4		13	1.0
	4 measurements	0.4		14	
	5 1.2 m	0.4		15	Dissolved Oxygen:
	6 apart	0.5		16	
	7	0.5		17	7.8 ppm
	8	0.6		18	7.0
	9	0.5		19	
	10	0.2		20	
Transect C	1 wetted width	0.1m		22	
	2 1.1 m	0.5m		23	Channel Feature:
	3	0.5m		24	1.0
	4 measurements	0.5m		25	
	5 1.1 m	0.5m		26	Dissolved Oxygen
	6 apart	0.6m			
	7	0.6m			7.8 ppm
	8	0.5m			7.0
	9	0.3m		n	
	10	0.1m			

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. Gustafson Date: 5/26/07  
 Organization: BWR Position: ENV. SCI.

February 5, 2007

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Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 3

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
D	1 wetted width	0.1			
	2 1.0 m	0.3		1 Channel Feature:	
	3	0.4		2 RWA	
	4 measurements	0.4		3	
	5 1.0 m	0.4		4 Dissolved Oxygen	
	6 apart	0.5		5	
	7	0.6		6 7.8 ppm	
	8	0.5		7	
	9	0.4		8	
	10	0.1		9	
E	1 wetted width	0.1m		10	
	2 0.5 m	0.4		11	
	3	0.4		12 Channel Feature:	
	4 measurements	0.4		13 RWA	
	5 0.9 m	0.9		14	
	6 apart	0.9		15 Dissolved Oxygen:	
	7	0.9		16	
	8	0.9		17 7.9 ppm	
	9	0.5		18	
	10	0.2		19	
F	1 wetted width	0.1m		20	
	2 0.7m	0.7m		21	
	3	0.9m		22	
	4 measurements	0.9m		23 Channel Feature:	
	5 0.5 m	0.9m		24 Fur	
	6 apart	0.9m		25	
	7	0.8m		26 Dissolved Oxygen	
	8	0.7m		27	
	9	0.4m		28	
	10	0.1m		29	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this U.S. datasheet is true and accurate.

Signed: Amy M. Gustafson

Date: 5/26/07

Organization: BWR

Position: ENV. SCI.

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 3

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect G	wetted width	0.1m		1	Channel Feature:
	1m	0.3m		2	
		0.6m		3	Dissolved Oxygen:
	measurements	0.9m		4	
	0.7 m	>1.0 m		5	7.7 ppm
	apart	>1.0		6	
		>1.0		7	7%
		>1.0		8	
		0.7		9	
		0.5m		10	
Transect H	wetted width	0.1m		11	Channel Feature:
	0.2 m	0.4m		12	
		0.6		13	Dissolved Oxygen:
	measurements	1.0		14	
	0.6 m	.7		15	8.1 ppm
	apart	.8		16	
		.9		17	7%
		.9		18	
		.2		19	
		.1		20	
Transect I	wetted width	.2m		21	Channel Feature:
	0.4 m	0.5m		22	
		.6m		23	Dissolved Oxygen:
	measurements	.5m		24	
	0.1 m	.5m		25	7.9 ppm
	apart	.6m		26	
		.4m			7%
		.7m			
		.7m			
		.1m			

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this U.A. datasheet is true and accurate.

Signed: Am. M. Groat Date: 5/26/07  
 Organization: BWR Position: ENV. SCI

Data Sheet C - Cross-Sectional Depth Measurements (for estimation of median depth)

WBID # 1298

Site # 3

Transect	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
Transect 1	wetted width	<0.1m			
	0.0 m	0.1m		1	Channel Feature:
		0.4		2	Rib
				3	
	measurements	0.6		4	Dissolved Oxygen
	0.8 m	0.9		5	
	apart	0.9		6	0.0 ppm
		0.6		7	
		0.3		8	
		0.2		9	
Transect 2	wetted width	0.2m		11	
	0.0 m	0.4m		12	Channel Feature:
		0.8m		13	Rib
				14	
	measurements	0.6m		15	Dissolved Oxygen:
	0.8 m	0.5m		16	
	apart	0.7m		17	0.3 ppm
		0.2m		18	
		0.1m		19	
		<0.1m		20	
Transect 3	wetted width			22	
	_____ m			23	Channel Feature:
				24	
				25	
	measurements			26	Dissolved Oxygen
	_____ m			.	
	apart			.	_____ ppm
				.	
				n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth the middle rank is the median depth.  
 If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UA datasheet is true and accurate.

Signed: Amy M. DeSantis Date: 5/26/07  
 Organization: BWR Position: ENV. SC



Upstream (Site 1) of Double Branch



Downstream (Site 1) of Double Branch



Upstream (Site 2) of Double Branch



Downstream (Site 2) of Double Branch



Upstream (Site 3) of Double Branch



Downstream (Site 3) of Double Branch

Field Data Sheet for Recreational Use Stream Survey

Data Sheet D—Recreational Use Interview

Stream Name DOUBLE BRANCH (WBID # \_\_\_\_\_)

**I. Introduction**

Date & Time (include AM or PM): 4:30 5-12-07

Interviewed:  In person  By phone  By mail

(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

Interviewee selected because (e.g., house next to stream; standing by stream, etc.) Property Owner

Interviewer introduction to Interviewee: "My name is \_\_\_\_\_, I work for \_\_\_\_\_ (name of your employer), and I am collecting information on how people use \_\_\_\_\_ (name of the stream)."

**ASK:**

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)

Yes  No If yes, list contact information for the interviewee below:

Legal name: CYDE DEEMS

Current mailing address: RR 5, Box 404, Butler, MO

Daytime phone number: (660) 679-4410

E-mail address (optional): \_\_\_\_\_

2.a.) Do you live in this area?  Yes  No

If yes, how many years? 78 YEAR

2.b.) If you don't live nearby, are you still familiar with this stream?  Yes  No

If yes, how many years?

If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines)  Yes  No

If yes, proceed to "II. Personal Use?".

If no, proceed to Section V.

**II. Personal Use?**

1.) Have you or your family personally used the stream for recreation since November 28, 1975?

Yes  No

If yes, proceed to #3.

If no, proceed to #2.

2.a.) List reasons stream not used.

Arrowhead hunting

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

<i>Whole Body Contact Recreation</i>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:**

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

---



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4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

---



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<i>Secondary Contact Recreation</i>				
Fishing <input type="checkbox"/>	Wading <input type="checkbox"/>	Boating <input type="checkbox"/>	Trapping <input type="checkbox"/>	Other: <input type="checkbox"/> List: _____

**If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:**

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

---



---



---

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

---



---



---

**III. Witnessed Use?**

1.) Have you observed others using this stream for recreation since Nov. 28, 1975?  Yes  No

If yes, proceed to #2.  
If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

<i>Whole Body Contact Recreation</i>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

---



---

**Secondary Contact Recreation**

Fishing  Wading  Boating  Trapping  Other:  List:

**If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:**

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol). \_\_\_\_\_

**V. Others to Contact?**

Can you recommend someone else we could contact that knows the stream?  Yes  No  
If yes, that person's contact info (name, address, phone, directions?) \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

**VI. Additional Comments**

1.) From the Interviewee: Mr. DEEM WOULD LIKE TO  
KNOW ABOUT THE KIND OF TEST AND RESULTS

2.) From the Interviewer: \_\_\_\_\_

**VII. Information on Interviewer**

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?

Yes  No If yes, how (check all that apply):

Workshop? (if so, enter date): \_\_\_\_\_

On-line training seminar? \_\_\_\_\_

Followed Interview Instruction Sheets? \_\_\_\_\_

Other \_\_\_\_\_

**Interviewer Information:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Employer (where applicable): \_\_\_\_\_

Interviewer's phone #: \_\_\_\_\_ E-mail: \_\_\_\_\_

Field Data Sheet for Recreational Use Stream Survey

Data Sheet D—Recreational Use Interview

Stream Name DOUBLE BRANCH (WBID # 1298)

I. Introduction

Date & Time (include AM or PM): 3:30pm 5/12/07

Interviewed:  In person  By phone  By mail

(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

Interviewee selected because (e.g., house next to stream; standing by stream, etc.) Property OWNER

Interviewer introduction to Interviewee: "My name is \_\_\_\_\_, I work for \_\_\_\_\_ (name of your employer), and I am collecting information on how people use \_\_\_\_\_ (name of the stream)."

ASK:

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)

Yes  No If yes, list contact information for the interviewee below:

Legal name: Robert Parks  
Current mailing address: R.R. 5, Box 417, Butler Mo  
Daytime phone number: (660) 598-6572  
E-mail address (optional):

*Spoke with father (senior)*

2.a.) Do you live in this area?  Yes  No

If yes, how many years? 30+

2.b.) If you don't live nearby, are you still familiar with this stream?  Yes  No

If yes, how many years?

If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines)  Yes  No

If yes, proceed to "II. Personal Use?".

If no, proceed to Section V.

II. Personal Use?

1.) Have you or your family personally used the stream for recreation since November 28, 1975?

Yes  No

If yes, proceed to #3.

If no, proceed to #2.

2.a.) List reasons stream not used

usually too low

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

**Whole Body Contact Recreation**

Swimming  Tubing  Snorkeling/Skin Diving  Water Skiing

**If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:**

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Secondary Contact Recreation**

Fishing  Wading  Boating  Trapping  Other:  List: \_\_\_\_\_

**If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:**

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**III. Witnessed Use?**

1.) Have you observed others using this stream for recreation since Nov. 28, 1975?  Yes  No

No

If yes, proceed to #2.

If no, proceed to, "IV. Anecdotal Use?"

2.) What kinds of uses have you witnessed?

**Whole Body Contact Recreation**

Swimming  Tubing  Snorkeling/Skin Diving  Water Skiing

**If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

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**Secondary Contact Recreation**

Fishing  Wading  Boating  Trapping  Other:  List:

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

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**IV. Anecdotal Use?**

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it?  Yes  No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

**Whole Body Contact Recreation**

Swimming  Tubing  Snorkeling/Skin Diving  Water Skiing

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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**Secondary Contact Recreation**

Fishing  | Wading  | Boating  | Trapping  | Other:  List:

**If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:**

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol). \_\_\_\_\_

**V. Others to Contact?**

Can you recommend someone else we could contact that knows the stream?  Yes  No  
If yes, that person's contact info (name, address, phone, directions?) \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

**VI. Additional Comments**

1.) From the Interviewee: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.) From the Interviewer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VII. Information on Interviewer**

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?

Yes  No If yes, how (check all that apply):

Workshop? (if so, enter date): \_\_\_\_\_

On-line training seminar? \_\_\_\_\_

Followed Interview Instruction Sheets? \_\_\_\_\_

Other \_\_\_\_\_

**Interviewer Information:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Employer (where applicable): \_\_\_\_\_

Interviewer's phone #: \_\_\_\_\_ E-mail: \_\_\_\_\_