



Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 3359 Tributary to Red Oak Creek

Submitted by

Missouri Department of Natural Resources

to

Missouri Department of Natural Resources
Water Protection Program

Date received: October 31, 2007

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A – Water Body Identification

RECEIVED
OCT 31 2007
WATER PROTECTION PROGRAM

I. Water Body Information (For water body being surveyed)

Water Body Name (from USGS 7.5' quad):	Soap Creek (Fido to)
Missouri Water Body Identification (WBID) Number:	3359
8-digit HUC:	07140103090005
County:	Gasconade
Upstream Legal Description (from Table H):	11,42,5
Downstream Legal Description (from Table H):	19,42N, 04W
Number of sites evaluated:	4
List all sites numbers, listed consequently upstream to downstream:	1, 2, 3, 4

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):	Rosebud South Lagoon MO 0071375
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III. UAA Surveyor (please print legibly)

Name of Surveyor	Priscilla Stotts Mary Clark	Telephone Number:	573-526-3406 573-526-1002
Organization/Employer:	MONK		

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

Signed: Priscilla Stotts Date: 10-31-07



Mon Nov 05 13:04:02 CST 2007
This map provided by Missouri Department of Natural Resources.
This map was created by DNR Staff to show all sites at once JL 11/10/07

WBID # 3359

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: <u>10-31-07 10:30</u>	Site Location Description (e.g., road crossing): <u>Piezuck Road crossing</u>
Personnel (Data Collectors): <u>Clark Stotts</u>	Facility Name: <u>Rosebud S. Lagoon</u>
Current Weather Conditions: <u>clear</u>	Permit Number: <u>MO 0091375</u>
Weather Conditions for Past 10 days: <u>Rain in past 7</u>	
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input checked="" type="checkbox"/>	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X): <u>N 37,401.74</u>	Northing (UTM Y): <u>N 091,452.73</u>	Horizontal Accuracy: (EPE / FOM / PDOP) <u>22 feet</u> Meters
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>#647</u>	<u>Show ^{up stream} pool</u>		<u>pool show depth</u>	<u>#648</u>	<u>looking down stream</u>
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>#646</u>	<u>Show ^{up stream} depth</u>				
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 # 3359Site # 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 type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:

Comments: *Pasture > 7%
Farm land on
left Bank to the west*

*3-miles High-Line across
all trees cut down
land covered grass + weeds*

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

<input checked="" 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:
Pasture to West is fenced - separating cattle from stream.

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

<u>30</u> % Cobble	<u>30</u> % Gravel	<u>30</u> % Sand	% Silt	<u>10</u> % Mud/Clay	<u>0</u> % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Green with algae - supporting sticks & frogs

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:	
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:	
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:	
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<i>D. Silt</i>	<input type="checkbox"/> Foam	<input 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 # 3359Site # 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)
DS Pools	6 m	1.8	1.8	.001	0.1
stream not flowing					
up - 2 small pools					

Comments: (Please record any additional comments here.)

Stream looks better than it did 2006
 more water (no observation). Stream is very dry. Pool at bridge
 has been completely filled in by sediments. Rest of stream
 has water, though very shallow, and on isolated stretches,
 none.

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

Surveyor's Signature: Mary Clark Date of Survey: 10-31-07

Organization: MONK Position: ESTD

Priscilla Stotts

WBID # 3359
 Site # 2

*no sheet C -
 no measurements*

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization
 (must be completed for each site)

Date & Time: <u>10-31-07 11:30</u>	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): <u>Clark P. Stoltz</u>	<u>Hwy 20 Road 31-07</u>
Current Weather Conditions: <u>Clear</u>	Facility Name: <u>Rosebud S Lagoon</u>
Weather Conditions for Past 10 days: <u>rain 7 days</u>	Permit Number: <u>MO 0091375</u>
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input checked="" type="checkbox"/>	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) <u>14.1</u> Meters
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) Meters

N 38.38270 W. 091.43336 at rd. crossing

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>449</u>	<u>OS</u>				
<u>US0</u>	<u>US</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.)

Served to bridge for cattle movement under Hwy.

WBID # _____

Site # _____

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 checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: Hay / pasture both sides of stream } Run road to road pasture across stream both sides }				

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

<input checked="" type="checkbox"/> Roads Hwy	<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: North of Farmstead Bridge serves as cattle crossing under Hwy				

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

30 % Cobble	30 % Gravel	30 % Sand	% Silt	10 % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Close growing ~ 200%

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 type="checkbox"/> None	<input type="checkbox"/> Other: <i>to be in away</i>
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

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WBID # 3359Site # 2Field 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)
Pool DS	NO ACCESS	10	11	20.3	20.3
Pool US	NO ACCESS	8.8	30	20.3	20.3
both bridges bypassed					
can see ~ 50 m and is deep upstream of pool listed above					

Comments: (Please record any additional comments here.)

bridge did not allow for measuring of bridge.
 Comment from interviewee said people do not swim at this location.

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

Surveyor's Signature: Mary J. CookDate of Survey: 10-31-07Organization: MONKPosition: ESTD

Priscilla Stotts

WBID # 3359
 Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: <u>10-31-07 12:30</u>	Site Location Description (e.g., road crossing): <u>low water Estes Road</u>
Personnel (Data Collectors): <u>M. Clark P. Stott</u>	Facility Name:
Current Weather Conditions: <u>Clear, Windy</u>	Permit Number:
Weather Conditions for Past 10 days: <u>rain 7 days ago</u>	
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input checked="" type="checkbox"/>	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) <u>22.6</u> Meters
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) <u>only 2 satellites</u> Meters

W. N. 38. 36819

Photos: W. 091. 41485

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>DS first</u>	<u>show morphology</u>	<u>651</u>			
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>US</u>	<u>show pool</u>	<u>652</u>			
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.)

trash dump - 55 gal drum, cooler, etc a stream pollution DS 75 m

WBID # _____

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 type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: <i>Woods, pasture with riparian woods Farming on west side</i>				

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

<input checked="" 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>Very easy access, side road 11 to stream gives access to partying seems. Lots of beer bottles etc</i>				

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

<i>20</i> % Cobble	<i>50</i> % Gravel	<i>10</i> % Sand	% Silt	<i>10</i> % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

<i>close ground 50%</i>

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

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

WBID # 3359

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.)

there are 11 exsacs at low water access and 2 separated by about 175 m from where we accessed at low water bridge and the DS site there. no where did we find a manure, even though 2 different individuals indicated that they had swam in the past & that it was not made deep there.

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

Surveyor's Signature: Mary J Clark Date of Survey: 10-31-07

Organization: M.D.N.R. Position: ESTIV

Priscilla Stottis

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3359 Site #: 3

Estimated Channel Incision: 3 1/2 (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: _____ UTM Y: _____ +/- (meters)

11 UTM X: _____ UTM Y: _____ +/- (meters)

Average Stream Width: 1.5 (meters) Length of Survey Segment: _____ (meters)
(To determine Length of Reach)

Field Staff: _____

Dissolved Oxygen

Date: _____ Time: _____

Dissolved Oxygen: _____ (mg/L)

Dissolved Oxygen: _____ (% sat)

Specific Cond: _____ (µS/cm)

Water Temperature: _____ (°C)

Transect Cross-Section

Station	1		2		3		4		5		6		7		8		9		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	
	1.0	0.01	4.5	0.08	0	0	0	0.05	0	0.01	0	0.11	0	0.01	0	0.1	0	0.02	0	0.12	0	0.1	
	2.5	0.01	5	0.08	5	0.15	2	0.15	0.1	0.01	2	0.45	2	0.2	2	0.2	2	0.2	2	0.2	1	0.2	
	3	0.03	5.5	0.07	10	0.19	4	0.11	0.3	0.01	3	2.5	4	0.3	4	0.16	2	0.3	4	0.16	2	0.19	
	4	0.03	6	0.02	15	0.21	6	0.18	0.5	0.01	5	2.4	6	0.31	6	0.2	3	0.31	6	0.2	3	0.12	
	5	0.05	6.5	0.01	20	0.23	8	0.2	0.7	0.01	7	0.3	8	0.31	8	0.35	4	0.31	8	0.2	4	0.2	
	6	0.06			25	0.23	10	0.2	1.0	0.01	9	0.2	10	0.3	10	0.5	5	0.3	10	0.5	5	0.2	
	7	0.05			30	0.29	12	0.2	1.2	0.01	11	0.18	12	0.35	12	0.5	6	0.35	12	0.5	6	0.1	
	8	0.03			35	0.4	14	0.3	1.5	0.01	13	0.4	14	0.4	14	0.5	7	0.4	14	0.5	7	0.11	
	9	0.6			40	0.45	16	0.3	1.7	0.01	15	0.2	16	0.4	16	0.7	8	0.4	16	0.7	8	0.04	
		0			45	0.65	18	0.3	2.0	0.01	18	0.2	18	0.63	18	0.75	9	0.63	18	0.75	9	0.501	
Right Bank					50	0.2	20	0.16	2.0	0.01	20	0.1	20	0.12	20	0.25	10	0.12	20	0.25	10	0.07	
Feature Type																							

Note: Transects will be measured beginning on left descending bank (to depth) and finishing on right descending bank (to depth). This width is the wetted width.
GPS locations correspond to Transect 01 and 11. Transect column is upstream to downstream order.
Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten).
Make dry depth measurements at 5; 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.

Area. Lee
Man. Lee

WBID # 3359

Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: <u>2:25 10-31-07</u>	Site Location Description (e.g., road crossing): <u>near Walden. low water bridge over trib to R. C</u>
Personnel (Data Collectors): <u>Stotts Clark</u>	
Current Weather Conditions: <u>cloudy</u>	Facility Name:
Weather Conditions for Past 10 days: <u>yes 10-27</u>	Permit Number:
Drought Conditions?: No drought <input type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input checked="" type="checkbox"/>	

Site Location:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site 01	<u>N. 38.30100</u> Easting (UTM X):	<u>W 091.4040</u> Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) <u>36</u> Meters
Site 11	Easting (UTM X):	Northing (UTM Y):	Horizontal Accuracy: (EPE / FOM / PDOP) Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
	<u>camera not working</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 # _____

Site # 4

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 type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other:
Comments: <i>rural farm land - some riparian cover.</i>				

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

<input checked="" 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:				

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

<i>30</i> % Cobble	<i>25</i> % Gravel	<i>10</i> % Sand	<i>-</i> % Silt	<i>5</i> % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

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Water Characteristics*: (Mark all that apply.)

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

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

WBID # 3359

Site # 4

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)
pool	5m from bridge	18m	40		>> 1m

Comments: (Please record any additional comments here.)

interviewee ^(p. bridge) indicated people swim at this site. Site is too deep in center of pool to measure. Over the chert wallow of priscilla if she had measured the deepest point.

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

Surveyor's Signature: Mary J. Clark Date of Survey: 10-31-07

Organization: MONK Position: ES III

Priscilla Stotts

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Waterbody ID: 3359 Site #: 4

Estimated Channel Incision: 3 (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: 38,36146 UTM Y: 4091,44461 +/- 36 (meters) 4
 11 UTM X: _____ UTM Y: _____ +/- _____ (meters)

Average Stream Width: 10 (meters) Length of Survey Segment: _____ (meters)
 (To determine Length of Reach) 54.2 at nearest street (20x average stream width)
pool measured via water log

Field Staff: Black Staffs

Dissolved Oxygen

Date: _____ Time: _____

Dissolved Oxygen: _____ (mg/L)

Dissolved Oxygen: _____ (% sat)

Specific Cond: _____ (µS/cm)

Water Temperature: _____ (°C)

Station	Transverse Cross-Section										
	01	02	03	04	05	06	07	08	09	10	11
Right Bank	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)	Distance (ft)
Left Bank	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)
1	0	0	0	0	0	0	0	0	0	0	0
2	3	0.9									
3	5	1.0									
4	6	51.0									
5											
6											
7											
8											
9											

Transverse will be measured beginning on left descending bank (0 depth) and ending on right ascending bank (0 depth). The width is the entire width of the channel measured to the nearest 0.01 meter.

Depth measurements taken at 10 equally spaced locations along transect (distances to determine the dividing vertical width by six)

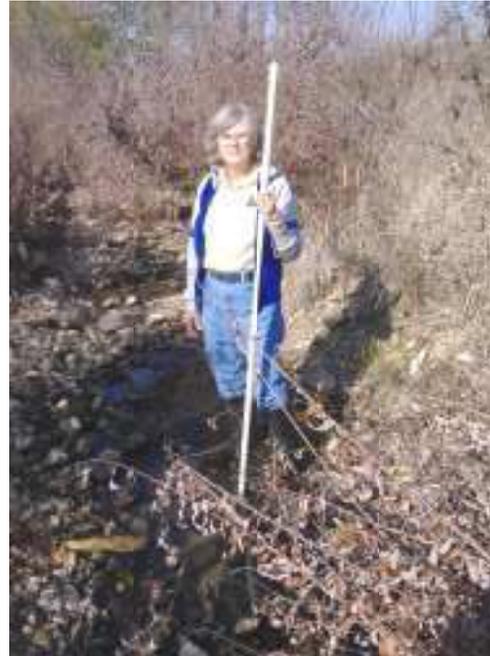
Match dry depth measurements at 0.0 record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

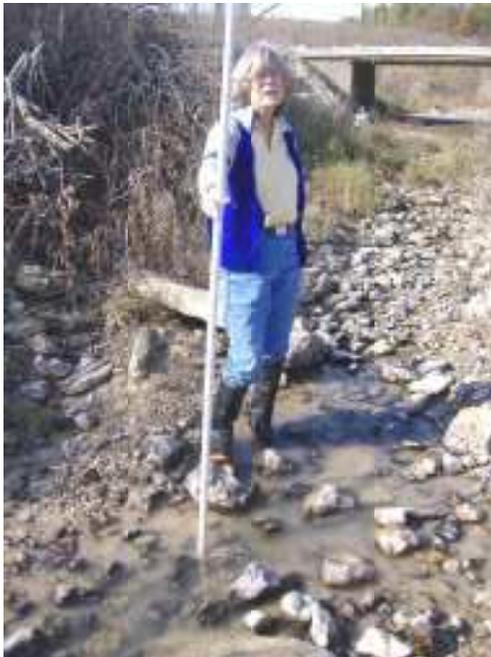
WBID# 3359



Site# 1 Photo ID# 646, Upstream



Site# 1 Photo ID# 647, Upstream



Site# 1 Photo ID# 648, Downstream



Site# 2 Photo ID# 649, Downstream

WBID# 3359



Site# 2 Photo ID# 650, Upstream



Site#3 Photo ID# 651, Downstream



Site# 3 Photo ID# 652, Upstream

WBID # 3359

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet D – Recreational Use Interview

(must be completed for each interview)

I. Introduction

Date & Time (include AM or PM): 11:15 10-31-07

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.) _____

walking along picking up rocks

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: Carl Ancell
Current mailing address: 7192 Ancell Road, Bland
Daytime phone number: (no phone)
E-mail address (optional):

2.a.) Do you live in this area? Yes No would be area 1957
If yes, how many years? 75 years (parents) 39 years

2.b.) If you don't live in this area, 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. _____

WBID # 3359

Site # 2

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

3.) How do you use the stream? swam, fished in the past - wade

Whole Body Contact Recreation (WBCR)			
<input checked="" type="checkbox"/> Swimming	<input type="checkbox"/> Tubing	<input type="checkbox"/> Snorkeling/Skin Diving	<input type="checkbox"/> 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)? Summer
but some catch use it all year wade wade - wade.
We haven't swam now.

4.b.) Where, exactly? Describe specific location and mark on the map (See map requirements in the protocol). Down stream at Esler rd low water bridge +
at Newell rd.

Secondary Contact Recreation (SCR)				
<input checked="" type="checkbox"/> Fishing	<input checked="" type="checkbox"/> Wading	<input type="checkbox"/> Boating	<input type="checkbox"/> Trapping	<input type="checkbox"/> Other:

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)? often

4.d.) Where, exactly? Describe specific location and mark on the map (See map requirements in the protocol). Same as above

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? see kids wading & playing in stream

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

WBID # 3359

Site # 2

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)? _____

people will let you swim
I have been swimming for ~50 years
on Hwy 7

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

pump station 4174 - Swimming
Hwy 7 about 2.5 miles either Co. Road (Eden +
turn left on Red oak Steward)

Secondary Contact Recreation (SCR)

Fishing | Wading | Boating | Trapping | Other: look for arrowheads

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)? _____

on Hwy 7 Co. Road - on Burdwan road
where the Red oak come into Burdwan

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

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 (WBCR)

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)? _____

WBID # 3359

Site # 2

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

Secondary Contact Recreation (SCR)

Fishing Wading Boating Trapping Other:

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 map* (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

From the Interviewee: _____

From the Interviewer: _____

WBID # _____

Site # _____

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 _____

Signature: Mary Clark / Priscilla Stotts

Printed Name: Mary Clark

Employer (where applicable): M.D.N.R.

Interviewer's phone #: 6-1002 E-mail: priscilla.stotts@dnr.mo.gov

WBID # 3359

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet D – Recreational Use Interview

(must be completed for each interview)

I. Introduction

Date & Time (include AM or PM): 10-31-07 12:30pm

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.) Drove over bridge while we were in stream

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: Deborah Strackglauer
Current mailing address: 2196 Estes Rd. Rosebud MO
Daytime phone number: (____) _____
E-mail address (optional): _____

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

If yes, how many years? 25 yrs.

2.b.) If you don't live in this area, 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. _____

WBID # _____

Site # _____

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

3.) How do you use the stream? *her children use to swim & play in stream use to walk dog until there got to be too many brake bottles & trash.*

Whole Body Contact Recreation (WBCR)			
<input checked="" type="checkbox"/> Swimming	<input type="checkbox"/> Tubing	<input type="checkbox"/> Snorkeling/Skin Diving	<input type="checkbox"/> 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)? *nice weather - warm*

4.b.) Where, exactly? Describe specific location and mark on the map (See map requirements in the protocol). *1/4 mi DS of this low water bridge - where there is a big tree in the water & deep pool near the bank. Also played where I put up a concrete dam & armored the bank to eliminate erosion. Water was 1m deep there yrs ago.* *had sand for concrete dam.*

Secondary Contact Recreation (SCR)				
<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> Wading	<input type="checkbox"/> Boating	<input type="checkbox"/> Trapping	<input type="checkbox"/> Other:

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)? *nice weather*

4.d.) Where, exactly? Describe specific location and mark on the map (See map requirements in the protocol). *Some on shore and at bridge*

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? *playing - wading now - less water.*

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

WBID # _____

Site # _____

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* (See map requirements in the protocol). _____

Secondary Contact Recreation (SCR)

Fishing Wading Boating Trapping Other:

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)? once
weather

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

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 (WBCR)

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)? _____

WBID # _____

Site # _____

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

Secondary Contact Recreation (SCR)

Fishing Wading Boating Trapping Other:

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 map* (See map requirements in the protocol). _____

V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? Yes No ^{1st right west}
If yes, that person's contact info (name, address, phone, directions?) Land owner 1st, just w. of bridge.
at top of the road, is very nice & knowledgeable about the stream.

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

VI. Additional Comments

From the Interviewee: Stream is not great to play in at spot away from bridge.
Seems pretty clean & throw some kibble - for much broken glass -
out for dogs. Occasional sporadic rain make low water bridge
impossible. 2 1/2" rain last week. Much less water, don't
decrease people are building for many years & redevelop drainage to creek.
From the Interviewer: No more fish in creek. MDC put in a
concrete pillow dam & armored the bank down stream 20 years ago,
to reduce erosion. Kibble still play at low water bridge

WBID # _____

Site # _____

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 _____

Signature: Mary S. Clark Priscilla Statto

Printed Name: Mary Clark

Employer (where applicable): MONK

Interviewer's phone #: not given E-mail: not given