

Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 0952 Scott Branch

Submitted by

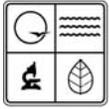
Pickett Ray and Silver

To

Missouri Department of Natural Resources

Water Protection Program

Date Received: October 31, 2007



Missouri
 Department of Natural Resources
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): Scott Branch	
Missouri Water Body Identification (WBID) Number: 0952	
8-digit HUC: 20090318	County: Moniteau
Upstream Legal Description (from Table H): 5, 44N, 15W	
Downstream Legal Description (from Table H): Mouth	
Number of sites evaluated: 3	
List all sites numbers, listed consequently upstream to downstream: 0952_01 Faith Rd, 0952_02 100m downstream of site 01, 0952_03 100m downstream of site 02	

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)

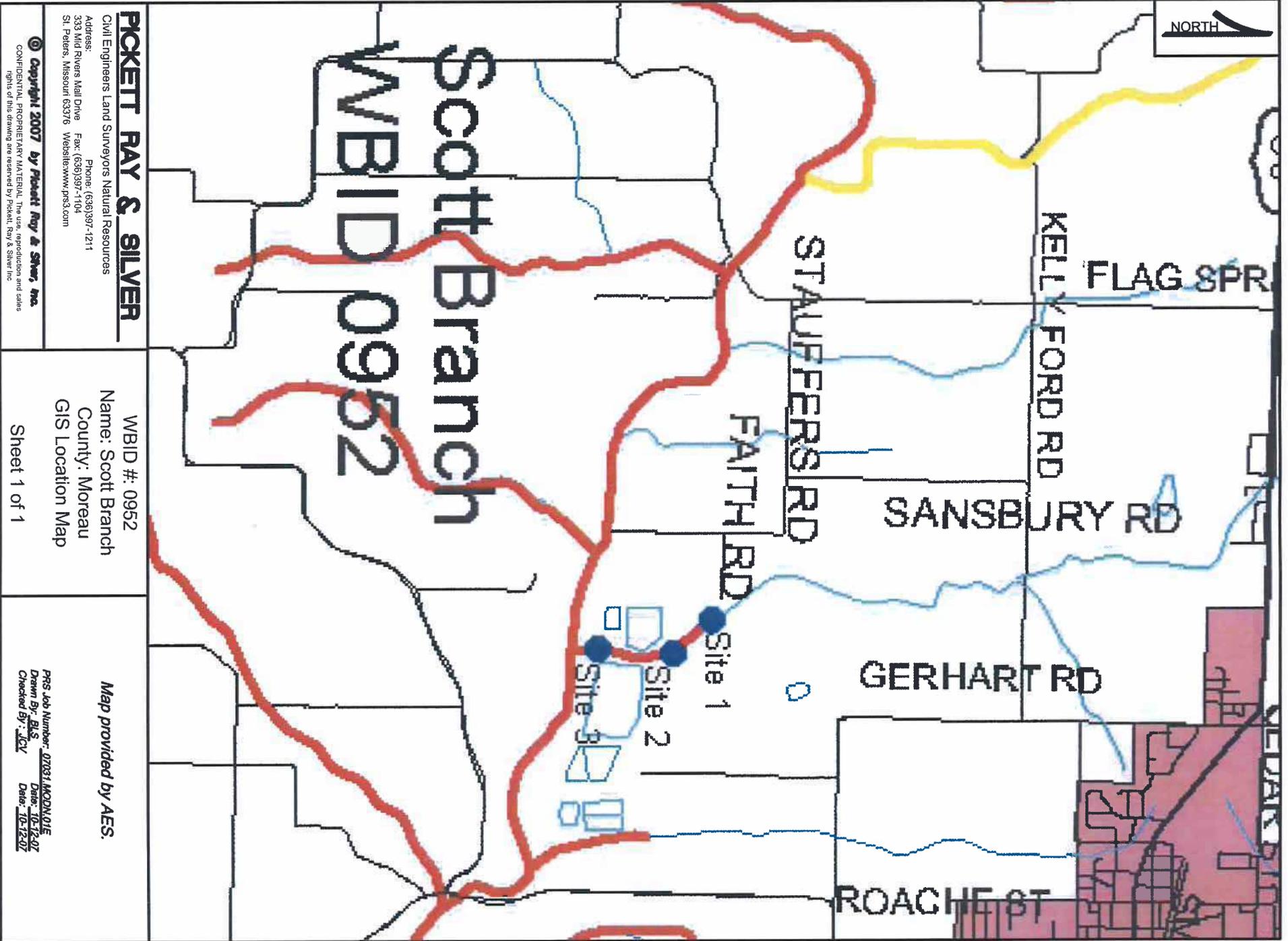
Facility Name(s) and Permit Number(s): Hickory Hills Water and Sewer – MO 0082121

III. UAA Surveyor (please print legibly)

Name of Surveyor: Renee Martin	Telephone Number: 573-875-7844
Organization/Employer: Applied Environmental Solutions	

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

Signed: _____ **Date:** _____



POCKETT RAY & SILVER

Civil Engineers Land Surveyors Natural Resources

Address: 333 Mid Rivers Mall Drive
St. Peters, Missouri 63376

Phone: (636)397-1211
Fax: (636)397-1104
Website: www.prs3.com

© Copyright 2007 by Pockett Ray & Silver, Inc.
CONFIDENTIAL, PROPRIETARY MATERIAL. The use, reproduction, and sales
rights of this drawing are reserved by Pockett, Ray & Silver, Inc.

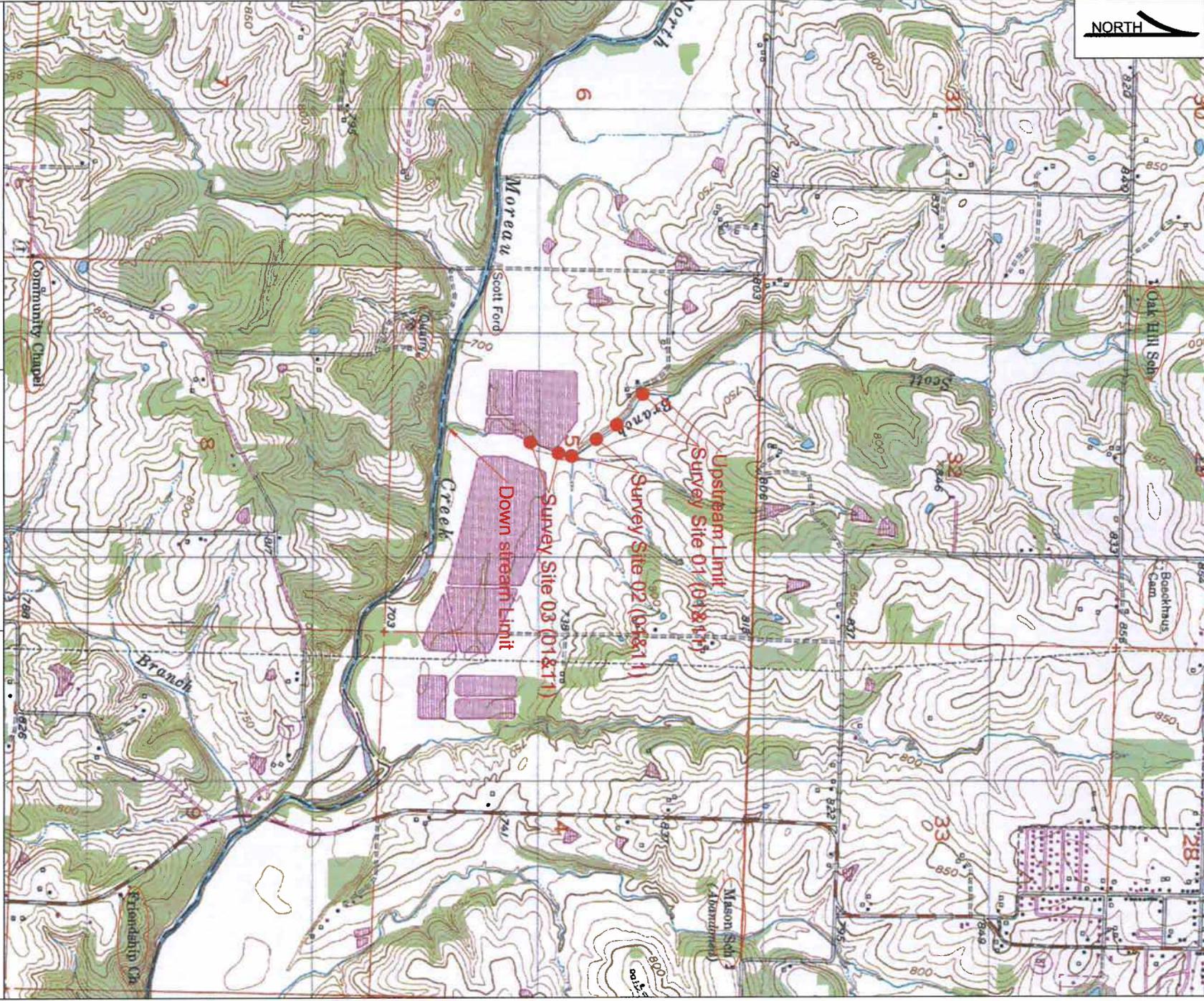
WBID #: 0952

Name: Scott Branch
County: Moreau
GIS Location Map

Sheet 1 of 1

Map provided by AES.

PRS Job Number: 07031_MODN_01E
Drawn By: BLS Date: 10-12-07
Checked By: JCV Date: 10-12-07



PICKETT RAY & SILVER

Civil Engineers Land Surveyors Natural Resources
Address: 333 Mid Rivers Mall Drive Phone: (636)397-1211
St. Peters, Missouri 63376 Fax: (636)397-1104
Website: www.prs3.com

© Copyright 2007 by Pickett Ray & Silver, Inc.
CONFIDENTIAL PROPRIETARY MATERIAL. The use, reproduction and sales
rights of this drawing are reserved by Pickett, Ray & Silver Inc.

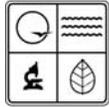
WBID #: 0952
Name: Scott Branch
County: Moniteau
USGS Location Map

Sheet 1 of 1



GRAPHIC SCALE
1 inch = 2000ft.

PRS Job Number: 07031.MODN.01E
Drawn By: BLS Date: 10-12-07
Checked By: JCV Date: 10-12-07



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/9/07 8:30	Site Location Description (e.g., road crossing): Faith Rd
Personnel (Data Collectors): Tiffanie Hamilton, Justyn Foth	
Current Weather Conditions: sunny	Facility Name: Hickory Hills Water and Sewer
Weather Conditions for Past 10 days: clear/rain	Permit Number: MO 0082121
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:

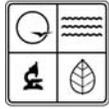
LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 4272665	Northing (UTM Y): 0535255	Horizontal Accuracy: (EPE / FOM / PDOP) 36 feet		
Site 11	Easting (UTM X): 4272566	Northing (UTM Y): 0535394	Horizontal Accuracy: (EPE / FOM / PDOP) 25 feet		

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100_0058	Upstream transect 1	100_0059	Downstream transect 1	100_0060	Livestock watering/pasture at Transect 1
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 <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
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 checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: Cow grazing pastures				

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%.)

100% Cobble	% Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
-------------	----------	--------	--------	------------	-----------

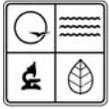
Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

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 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 checked="" type="checkbox"/> Scum	<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.



Missouri **Field Data Sheets for Recreational Use Stream Surveys**
Department of
Natural Resources
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.)

No flow

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

Surveyor's Signature: _____ Date of Survey: _____

Organization: _____ Position: _____

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

	Missouri Department of Natural Resources	Site #: <u>1</u>	Dissolved Oxygen																			
	Estimated Channel Incision: <u>1.0</u> (m) (height between low bank width and water)	Date: <u>9/9/2007</u> Time: <u>8:30</u>	Dissolved Oxygen: <u>1.10</u> (mg/L)	Dissolved Oxygen: <u>12.7</u> (% sat)																		
GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)	Average Stream Width: <u>2.0</u> (meters) Length of Survey Segment: <u>150</u> (meters) (To determine Length of Reach) (20x average stream width)	01 UTM X: <u>4272665</u> UTM Y: <u>0535255</u> +/- <u>36</u> (feet)	Specific Cond: <u>442.0</u> (µS/cm)																			
11 UTM X: <u>4272566</u> UTM Y: <u>0535394</u> +/- <u>25</u> (feet)	Field Staff: <u>Tiffanie Hamilton and Justyn Foth</u>	Water Temperature: <u>21.1</u> (°C)																				
Transect Cross-Section																						
01		02		03		04		05		06		07		08		09		10		11		
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.37	0.07	0.18	0.04	0.39	0.01	0.30	0.00	0.40	0.00	0.11	0.01	0.10	0.00	0.08	0.00	0.13	0.08	0.30	0.00	0.09	0.00
2	0.74	0.11	0.36	0.07	0.78	0.16	0.60	0.00	0.80	0.00	0.22	0.01	0.20	0.00	0.16	0.00	0.26	0.14	0.60	0.00	0.18	0.00
3	1.11	0.16	0.54	0.10	1.17	0.20	0.90	0.00	1.20	0.00	0.33	0.01	0.30	0.00	0.24	0.00	0.39	0.13	0.90	0.00	0.27	0.00
4	1.48	0.15	0.72	0.11	1.56	0.23	1.20	0.00	1.60	0.00	0.44	0.04	0.40	0.00	0.32	0.00	0.52	0.09	1.20	0.00	0.36	0.00
5	1.85	0.24	0.90	0.14	1.95	0.29	1.50	0.00	2.00	0.00	0.55	0.04	0.50	0.00	0.40	0.00	0.65	0.01	1.50	0.00	0.45	0.00
6	2.22	0.23	1.08	0.13	2.34	0.21	1.80	0.00	2.40	0.00	0.66	0.03	0.60	0.00	0.48	0.00	0.78	0.12	1.80	0.00	0.54	0.00
7	2.59	0.28	1.26	0.10	2.73	0.19	2.10	0.00	2.80	0.00	0.77	0.03	0.70	0.00	0.56	0.00	0.91	0.10	2.10	0.00	0.63	0.00
8	2.96	0.19	1.44	0.10	3.12	0.15	2.40	0.00	3.20	0.00	0.88	0.01	0.80	0.00	0.64	0.00	1.04	0.10	2.40	0.00	0.72	0.00
9	3.33	0.04	1.62	0.06	3.51	0.10	2.70	0.00	3.60	0.00	0.99	0.02	0.90	0.00	0.72	0.00	1.17	0.08	2.70	0.00	0.81	0.00
Right Bank	3.75	0.00	1.87	0.00	3.97	0.00	3.00	0.00	4.01	0.00	1.17	0.00	1.00	0.00	0.80	0.00	1.32	0.00	3.00	0.00	0.90	0.00
Feature Type (riffle, run, or pool)	Pool	Pool		Pool		Dry		Dry		Pool		Dry		Dry		Pool		Dry		Dry		

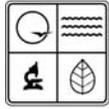
Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/9/07 9:01	Site Location Description (e.g., road crossing): 100m downstream of site 1, transect 11
Personnel (Data Collectors): Tiffanie Hamilton, Justyn Foth	
Current Weather Conditions: sunny	Facility Name: Hickory Hills Water and Sewer
Weather Conditions for Past 10 days: clear/rain	Permit Number: MO 0082121
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:

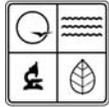
LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 4272481	Northing (UTM Y): 0535443	Horizontal Accuracy: (EPE / FOM / PDOP) 47 feet		
Site 11	Easting (UTM X): 4272355	Northing (UTM Y): 0535522	Horizontal Accuracy: (EPE / FOM / PDOP) 17 feet		

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100_0061	Downstream transect 1	100_0062	upstream transect 1	100_0063	Downstream of Transect 8 irrigation pipe
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100_0064	Upstream of Transect 11 low-water crossing				
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 <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
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 checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other:
Comments: Irrigation pipe Low-water crossing				

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%.)

90% Cobble	5% Gravel	% Sand	% Silt	% Mud/Clay	5% Bedrock
------------	-----------	--------	--------	------------	------------

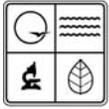
Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Water primrose downstream of transect 9

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 checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<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.



Missouri **Field Data Sheets for Recreational Use Stream Surveys**
Department of
Natural Resources
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)

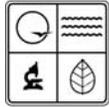
Comments: (Please record any additional comments here.)

Not flowing

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

Surveyor's Signature: _____ Date of Survey: _____

Organization: _____ Position: _____



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
Data Sheet B – Site Characterization

(must be completed for each site)

Date & Time: 9/9/07 9:51	Site Location Description (e.g., road crossing): 100m downstream of site 2, transect 11
Personnel (Data Collectors): Tiffanie Hamilton, Justyn Foth	
Current Weather Conditions: sunny	Facility Name: Hickory Hills Water and Sewer
Weather Conditions for Past 10 days: clear/rain	Permit Number: MO 0082121
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:

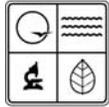
LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)					
Site 01	Easting (UTM X): 4272302	Northing (UTM Y): 0535533	Horizontal Accuracy: (EPE / FOM / PDOP)		22 feet
Site 11	Easting (UTM X): 4272168	Northing (UTM Y): 0535507	Horizontal Accuracy: (EPE / FOM / PDOP)		17 feet

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
100_0065	Downstream transect 1	100_0066	upstream transect 1		
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 <i>Data Sheet D- Recreational Use Interview</i> when conducting interviews.)				



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
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: none				

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

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

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

50% Cobble	30% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
------------	------------	----------	--------	------------	-----------

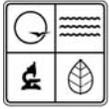
Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Filamentous and benthic algae at transect 9 Water primrose at transect 10
--

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 checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<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.



Missouri Field Data Sheets for Recreational Use Stream Surveys
Department of Natural Resources
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.)

Not flowing

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

Surveyor's Signature: _____ Date of Survey: _____

Organization: _____ Position: _____

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

	Missouri Department of Natural Resources Site #: <u>3</u>	Dissolved Oxygen																					
	Estimated Channel Incision: <u>0.5</u> (m) (height between low bank width and water)	Date: <u>9/9/2007</u> Time: <u>9:51</u>	Dissolved Oxygen: <u>1.20</u> (mg/L)	Dissolved Oxygen: <u>12.0</u> (% sat)																			
GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)	01 UTM X: <u>4272302</u> UTM Y: <u>0535533</u> +/- <u>22</u> (feet)	Specific Cond: <u>388.4</u> (µS/cm)	Water Temperature: <u>21.7</u> (°C)																				
11 UTM X: <u>4272168</u> UTM Y: <u>0535507</u> +/- <u>17</u> (feet)	Average Stream Width: <u>3.0</u> (meters) Length of Survey Segment: <u>150</u> (meters)	(To determine Length of Reach) (20x average stream width)																					
Field Staff: <u>Tiffanie Hamilton and Justyn Foth</u>																							
Transect Cross-Section																							
	01		02		03		04		05		06		07		08		09		10		11		
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	0	0	0	0	0	0	0	
1	0.37	0.11	0.49	0.08	0.24	0.04	0.52	0.28	0.40	0.00	0.07	0.00	0.30	0.12	0.60	0.42	0.54	0.12	0.13	0.01	0.12	0.04	
2	0.74	0.20	0.98	0.15	0.48	0.09	1.04	0.35	0.80	0.00	0.14	0.00	0.60	0.21	1.20	0.55	1.08	0.10	0.26	0.03	0.24	0.03	
3	1.11	0.25	1.47	0.18	0.72	0.13	1.56	0.45	1.20	0.00	0.21	0.00	0.90	0.25	1.80	0.62	1.62	0.11	0.39	0.06	0.36	0.02	
4	1.48	0.21	1.96	0.16	0.96	0.19	2.08	0.65	1.60	0.00	0.28	0.00	1.20	0.25	2.40	0.63	2.16	0.09	0.52	0.11	0.48	0.02	
5	1.85	0.10	2.45	0.17	1.20	0.18	2.60	0.56	2.00	0.00	0.35	0.00	1.50	0.21	3.00	0.54	2.70	0.06	0.65	0.09	0.60	0.06	
6	2.22	0.09	2.94	0.14	1.44	0.15	3.12	0.48	2.40	0.00	0.42	0.00	1.80	0.20	3.60	0.45	3.24	0.16	0.78	0.07	0.72	0.09	
7	2.59	0.15	3.43	0.12	1.68	0.09	3.64	0.23	2.80	0.00	0.49	0.00	2.10	0.16	4.20	0.29	3.78	0.21	0.91	0.02	0.84	0.03	
8	2.96	0.20	3.92	0.12	1.92	0.06	4.16	0.11	3.20	0.00	0.56	0.00	2.40	0.11	4.80	0.19	4.32	0.14	1.04	0.05	0.96	0.02	
9	3.33	0.22	4.41	0.04	2.16	0.02	4.68	0.06	3.60	0.00	0.63	0.00	2.70	0.08	5.40	0.08	4.86	0.08	1.17	0.01	1.08	0.01	
Right Bank	3.78	0.14	4.96	0.00	2.41	0.00	5.20	0.00	4.30	0.00	0.70	0.00	3.04	0.00	6.06	0.00	5.48	0.00	1.35	0.00	1.24	0.00	
Feature Type (riffle, run, or pool)	Pool		Pool		Pool		Pool		Dry		Dry		Pool										

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

WBID# 0952 Scott Branch



Site# 1 Photo ID# 59, Downstream T1



Site# 1 Photo ID# 58, Upstream, T1



Site# 1 Photo ID# 60, T1, Livestock watering



Site# 2 Photo ID# 62, Upstream, T1

WBID# 0952 Scott Branch



Site# 2 Photo ID# 61, Downstream T1



Site# 2 Photo ID# 63, T8, Irrigation pipe



Site# 2 Photo ID# 64, T11, Low water crossing



Site# 3 Photo ID# 66, Upstream, T1

WBID# 0952 Scott Branch



Site# 3 Photo ID# 65, Downstream T1