



Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 2036 Big Creek

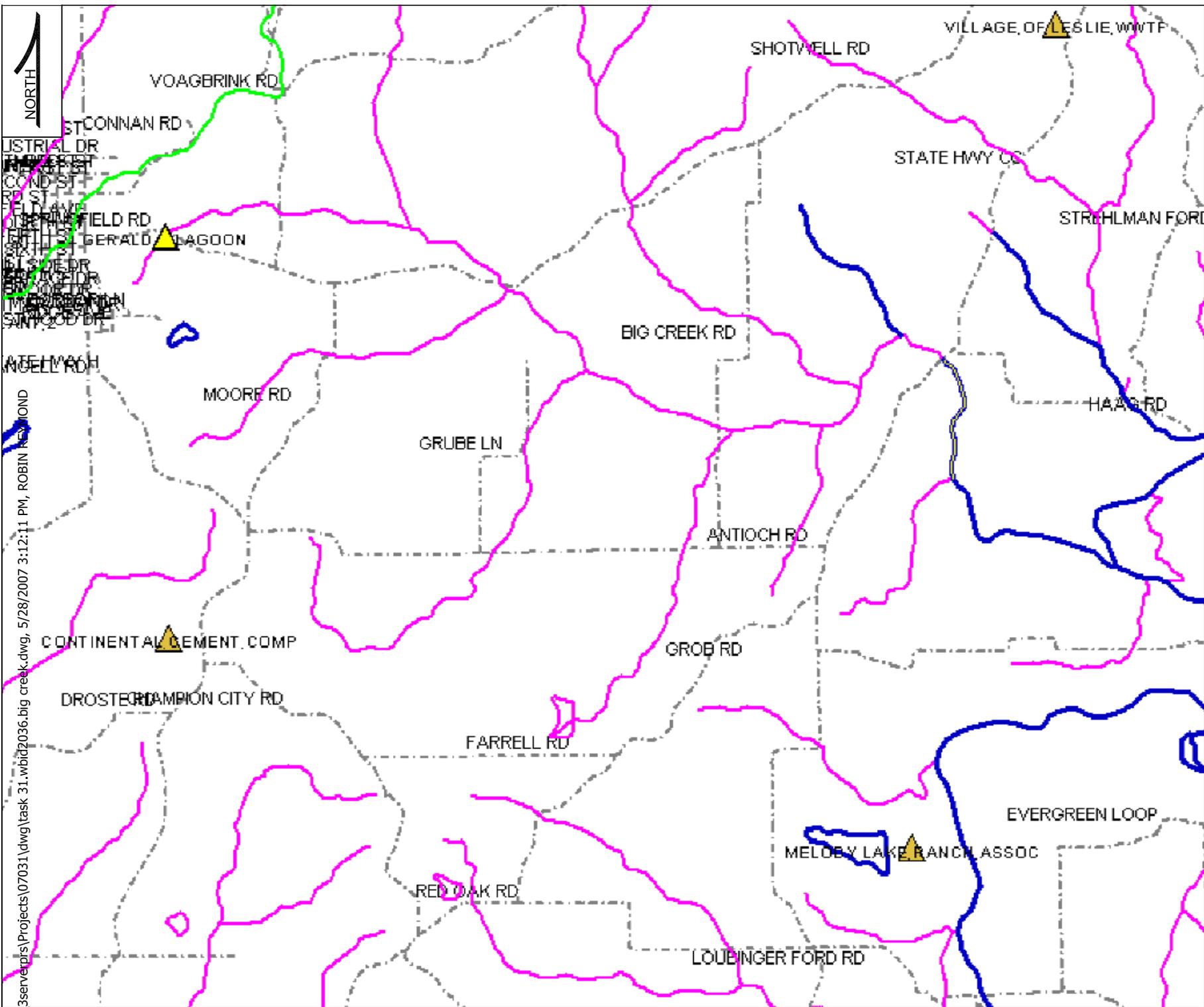
Submitted by

Pickett Ray and Silver

to

Missouri Department of Natural Resources
Water Protection Program

Date received: June 5, 2007



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WBID #: 2036
 Name: Big Creek
 County: Franklin
 GIS Map

PICKETT 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
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PRJ Job Number: 07031.MODN.00E
 Drawn By: RLR Date: 05-28-07
 Checked By: JCV Date: 05-28-07



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GRAPHIC SCALE
Not to Scale

PRS Job Number: 07031.MODN.00E Date: 05-28-07
 Drawn By: RLR Date: 05-28-07
 Checked By: JCV Date: 05-28-07

WBID #: 2036
 Name: Big Creek
 County: Franklin
 USGS Location Map

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WBID# 2036

Site# 1



Missouri
Department of
Natural Resources

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 4/5/2013	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Just downstream Highway CC Bridge
Current Weather Conditions: sunny 70°F	Facility Name: Gerald East Lagoon
Weather Conditions for Past 10 days: sun	Permit Number: MO 0045390

Drought Conditions?: No drought ; Phase I ; Phase II ; Phase III ; Phase IV ; Unknown

Site Locations:

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Site GPS Coordinates: UTM X: 653061.279m		Y: 4250454.818m	
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 Correction with	X
Real Time Differential Processing		Post Processing	
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	3.1		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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 type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

Indications of Human Use*: (attach photos)

<input checked="" 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 # 2036-1 :

Stream Morphology:



Missouri Department of Natural Resources

Upstream View: 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

Approximate percentage of channel features for entire segment site 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 10%					
RUN 90%					
POOL					

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

15 % Cobble	20 % Gravel	% Sand	% Silt	% Mud/Clay	65 % Bedrock
-------------	-------------	--------	--------	------------	--------------

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

Moderate moss and algae growth on Rock substrate - 30% woody vegetation on gravel bars.

Water Characteristics*: (Mark all that apply.)

Odor:	<input checked="" type="checkbox"/> Sewage slight	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear mostly	<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:

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: Robin Reymond Date of Survey: 5/16/07

Organization: Pickett, Ray & Silver, Inc. Position: _____

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2036 Site #: 1
 Missouri Department of Natural Resources
 Weather: sunny 70°F
 GPS Location: UTM X: 653061.279m UTM Y: 4250454.818m
 Horizontal Accuracy Estimate (GPS Data Quality): +/- N/A (feet) PDOP: 3.1
 Average Stream Width: 16.7 (meters) Length of Survey Segment: 335 (meters)
 Field Staff: PRS - RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>12.64</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>23.6</u> (°C)

Transect Cross-Section

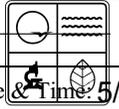
	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
1	2.5	.11	0	.34	0	.20	0.3	.10	0.3	.15	1.0	0.10	0	.10	1.0	.10	1.0	.10	0	.30	0	.20
2	3.15	.10	1.4	.25	1.5	.45	2.3	.10	1.9	.14	3.2	.39	2.3	.13	2.2	.10	2.1	.14	2.0	.26	.35	.20
3	3.8	.27	2.8	.38	3.0	.40	4.3	.26	3.8	.20	5.4	.30	4.6	.07	3.5	.10	3.2	.10	4.0	.30	.70	.19
4	4.45	.26	4.2	.40	4.5	.45	6.3	.21	5.7	.32	7.6	.05	6.9	.14	4.7	.19	4.3	.11	6.0	.32	1.05	.15
5	5.1	.24	5.6	.35	6.0	.40	8.3	.22	7.6	.31	9.8	.10	9.2	.05	5.9	.20	5.4	.21	8.0	.20	1.4	.13
6	5.75	.20	7.0	.33	7.5	.40	10.3	.20	9.5	.33	12.0	.34	11.5	.00	7.1	.17	6.5	.19	10.0	.19	1.75	.10
7	6.4	.23	8.4	.26	9.0	.35	12.3	.15	11.4	.30	14.2	.30	13.8	.05	8.3	.15	7.6	.20	12.0	.17	2.1	.10
8	7.05	.23	9.8	.25	10.5	.33	14.3	.17	13.3	.31	16.4	.29	16.1	.16	9.5	.20	8.7	.22	14.0	.14	2.45	.11
9	7.7	.13	11.2	.21	12.0	.34	16.3	.16	15.2	.24	18.6	.24	18.4	.16	10.7	.18	9.8	.18	16.0	.13	2.8	.11
10	8.35	.11	12.6	.20	13.5	.20	18.9	.19	17.5	.19	20.8	.26	20.7	.00	11.9	.20	10.9	.10	18.0	.18	3.15	.10
11	9.0	.10	14.0	.11	15	.10	22	.23	19.3	.10	23	.24	23	.22	12.6	.20	12.0	.10	20.0	.15	3.5	.10
Width/Median Depth	13	.23	14.0	.26	17	.35	23	.17	20	.24	23	.26	23	.10	13.0	.18	13.0	.14	20.0	.19	4.5	.11
Feature Type (riffle, run, or pool)	Run		Riffle																			

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
 GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Signed: Robin Reymond Date: 5/16/07

WBID# 2036

Site# 2



Missouri
Department of
Natural Resources

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 4/5/2011	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	between Highway CC Bridge and Burbeuse confluence
Current Weather Conditions: sunny 70°F	Facility Name: Gerald East Lagoon
Weather Conditions for Past 10 days: sun	Permit Number: MO 0045390
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: 653193.277m		Y: 4250233.614m	
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 Correction with	X
Real Time Differential Processing		Post Processing	
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	3.7		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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 type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Comments:				

Indications of Human Use*: (attach photos)

<input checked="" 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 # 2036-2 :

Stream Morphology:



Missouri Department of Natural Resources

Upstream View: 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

Approximate percentage of channel features for entire segment site 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 20%					
RUN 60%					
POOL 20%					

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

10 % Cobble	15 % Gravel	% Sand	% Silt	% Mud/Clay	75 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

30% woody vegetation on gravel bars; moderate moss and algae growth; 25% Emergent vegetation along banks

Water Characteristics*: (Mark all that apply.)

Odor:	<input checked="" type="checkbox"/> Sewage slight	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear mostly	<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:

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

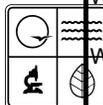
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions 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: Robin Reymond Date of Survey: 5/16/07

Organization: Pickett, Ray & Silver, Inc. Position: _____

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2036 Site #: 2
 Missouri Department of Natural Resources
 Weather: sunny 70°F
 GPS Location: UTM X: 653193.277m UTM Y: 4250233.614m
 Horizontal Accuracy Estimate (GPS Data Quality): +/- N/A (feet) PDOP: 3.7
 Average Stream Width: 11.4 (meters) Length of Survey Segment: 230 (meters)
 Field Staff: PRS/RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>4.47</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>25.5</u> (°C)

Transect Cross-Section

	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
1	0	.18	.3	.10	0.3	.10	2.0	.10	0	.30	0	.75	0	.10	0	.20	0	.10	1.0	.10	0	.10
2	0.7	.20	1.7	.13	2.3	.30	4.3	.33	.4	.20	.5	.91	0.5	.15	.5	.32	1.0	.20	1.5	.11	1.1	.10
3	1.4	.20	3.1	.14	4.3	.34	6.6	.50	.8	.11	1.0	.91	1.0	.24	1.0	.40	2.0	.20	2.0	.11	2.2	.17
4	2.1	.20	4.5	.17	6.3	.32	8.9	.20	1.2	.10	1.5	.80	1.5	.30	2.0	.50	3.0	.23	3.0	.15	3.3	.10
5	2.8	.20	5.9	.20	8.3	.36	11.2	.10	1.6	.10	2.0	.45	2.0	.30	3.0	.60	4.0	.36	4.0	.15	4.4	.13
6	3.5	.20	7.3	.25	10.3	.34	13.5	.15	2.0	.10	2.5	.40	2.5	.30	4.0	.60	5.0	.35	5.0	.15	5.5	.14
7	4.2	.20	8.7	.33	12.3	.34	15.8	.20	2.4	.10	3.0	.30	3.0	.25	5.0	.64	6.0	.32	6.0	.15	6.6	.05
8	4.9	.15	10.1	.21	14.3	.30	10.1	.30	2.8	.10	3.5	.20	3.5	.24	6.0	.62	7.0	.45	7.0	.15	7.7	.04
9	5.6	.10	11.5	.15	16.3	.30	20.4	.40	3.2	.10	4.0	.30	4.0	.17	7.0	.40	8.0	.35	8.0	.16	8.8	.35
10	6.3	.11	12.9	.20	18.3	.29	22.7	.40	3.6	.10	4.3	.30	4.5	.13	8.0	.13	9.0	.20	9.0	.15	9.9	.15
11	7.0	.10	14.7	.10	20.0	.10	25	.20	4.0	.10	4.7	.10	5.0	.10	9.0	.10	10.0	.10	10.0	.10	11.0	.10
Width/Median Depth	10.0	.20	15.0	.17	21	.32	25	.20	4.5	.10	5.0	.40	5.0	.24	9.0	.40	10.0	.23	10.0	.15	11.0	.10
Feature Type (riffle, run, or pool)	Run		Run		Run		Run		Riffle		Pool		Run		Pool		Run		Run		Riffle	

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
 GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Signed: Robin Reymond Date: 5/16/07

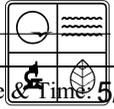
WBID# 2036

Site# 3

Field Data Sheets for Recreational Use Stream Surveys

Missouri Data Sheet B - Site Characterization

Department of Natural Resources (must be completed for each site)



Date & Time: 4/5/10	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	between confluence with Bourbeuse River and Highway CC Bridge
Current Weather Conditions: sunny 70°F	Facility Name: Gerald East Lagoon
Weather Conditions for Past 10 days: sun	Permit Number: MO 0045390
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: 653209.576m		Y: 4250038.787m	
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 Correction with	X
Real Time Differential Processing		Post Processing	
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	2.4		

Photos:

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
See Attached Photos					

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.)				

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 type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Comments:				

Indications of Human Use*: (attach photos)

<input checked="" 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 checked="" type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	
Comments:					

* Page Two – Data Sheet B for WBID # 2036-3 :

Stream Morphology:



Missouri Department of Natural Resources

Upstream View: 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

Approximate percentage of channel features for entire segment site 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 40%					
RUN 60%					
POOL					

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

20 % Cobble	20 % Gravel	5 % Sand	5 % Silt	% Mud/Clay	50 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Moderate algae and moss growth on rock substrate gravel bars - 35% woody vegetation. 25% emergent vegetation along banks

Water Characteristics*: (Mark all that apply.)

Odor:	<input checked="" type="checkbox"/> Sewage slight	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear mostly	<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 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: Robin Reymond Date of Survey: 5/16/07

Organization: Pickett, Ray & Silver, Inc. Position: _____

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2036 Site #: 3
 Missouri sunny 72°F
 Department of Natural Resources
 GPS Location: 653209.576m UTM X: 4250038.787m UTM Y:
 Horizontal Accuracy Estimate (GPS Data Quality): +/- N/A (feet) PDOP: 2.4
 Average Stream Width: 14.5 (meters) Length of Survey Segment: 290 (meters)
 Field Staff: PRS/RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>12.33</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>25.1</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)
1	0	.10	0.5	.10	1.0	.14	0	.20	0	.10	1.0	.10	0	.13	0	.14	0	.10	3.0	.10	0	.10
2	.4	.10	2.0	.15	1.5	.35	.75	.29	.7	.10	1.5	.17	1.3	.12	1.8	.13	2.3	.00	5.0	.15	2.2	.02
3	.8	.10	3.5	.23	3.0	.45	1.5	.44	1.4	.09	2.0	.10	2.6	.14	3.6	.25	4.6	.00	7.0	.14	4.4	.05
4	1.2	.10	5.0	.25	4.5	.53	2.25	.50	2.1	.03	3.0	.11	3.9	.15	5.4	.20	6.9	.00	9.0	.11	6.6	.02
5	1.6	.11	6.5	.27	6.0	.53	3.0	.55	2.8	.10	4.0	.15	5.2	.20	7.2	.15	9.2	.00	11.0	.10	8.8	.00
6	2.0	.12	8.0	.30	7.5	.50	3.75	.57	3.5	.10	5.0	.13	6.5	.20	9	.15	11.5	.10	13.0	.20	11.0	.03
7	2.4	.15	9.5	.31	9.0	.52	4.5	.64	4.2	.10	6.0	.10	7.8	.30	10.8	.10	13.8	.10	15.0	.20	13.2	.05
8	2.8	.10	11.0	.30	10.5	.50	5.25	.65	4.9	.08	7.0	.10	9.1	.24	12.6	.14	16.1	.13	17.0	.25	15.4	.10
9	3.2	.12	12.5	.25	12.0	.45	6.0	.50	5.6	.10	8.0	.10	10.4	.20	14.4	.10	18.4	.10	19.0	.20	17.6	.09
10	3.6	.11	14.0	.20	13.5	.46	6.75	.30	6.3	.10	9.0	.10	11.7	.20	16.2	.15	20.7	.10	21.0	.19	22.0	.11
11	4.0	.12	15	.25	15	.40	7.5	.20	7.0	.10	10.0	.11	13.0	.20	17.5	.15	23.0	.10	23.0	.15		
Width/Median Depth	4.0	.11	15	.25	15	.46	7.5	.50	7.0	.10	10.0	.10	13.0	.20	18	.15	25	.10	23.1	.19	22	.05
Feature Type (riffle, run, or pool)	Riffle		Run		Run		Run		Riffle		Run		Run		Run		Riffle		Run		Riffle	

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
 GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Signed: Robin Reymond Date: 5/16/07

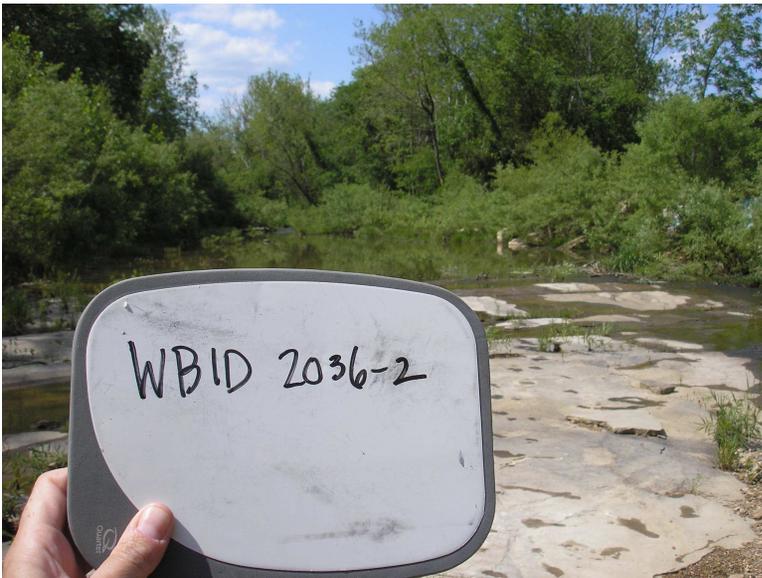
WBID# 2036



WBID 2036 – Site 1 – Transect 1 – facing upstream



WBID 2036 – Site 1 – Transect 1 – facing downstream



WBID 2036 – Site 2 – Transect 1 – facing upstream



WBID 2036 – Site 2 – Transect 1 – facing downstream

WBID# 2036



WBID 2036 – road into stream between Site 2 and Site 3



WBID 2036 – Site 3 – Transect 1 – facing upstream



WBID 2036 – Site 3 – Transect 1 – facing downstream