



Missouri  
Department of  
Natural Resources

Use Attainability Analysis

for

WBID 2035 Bachelor Creek

Submitted by

Pickett Ray and Silver

To

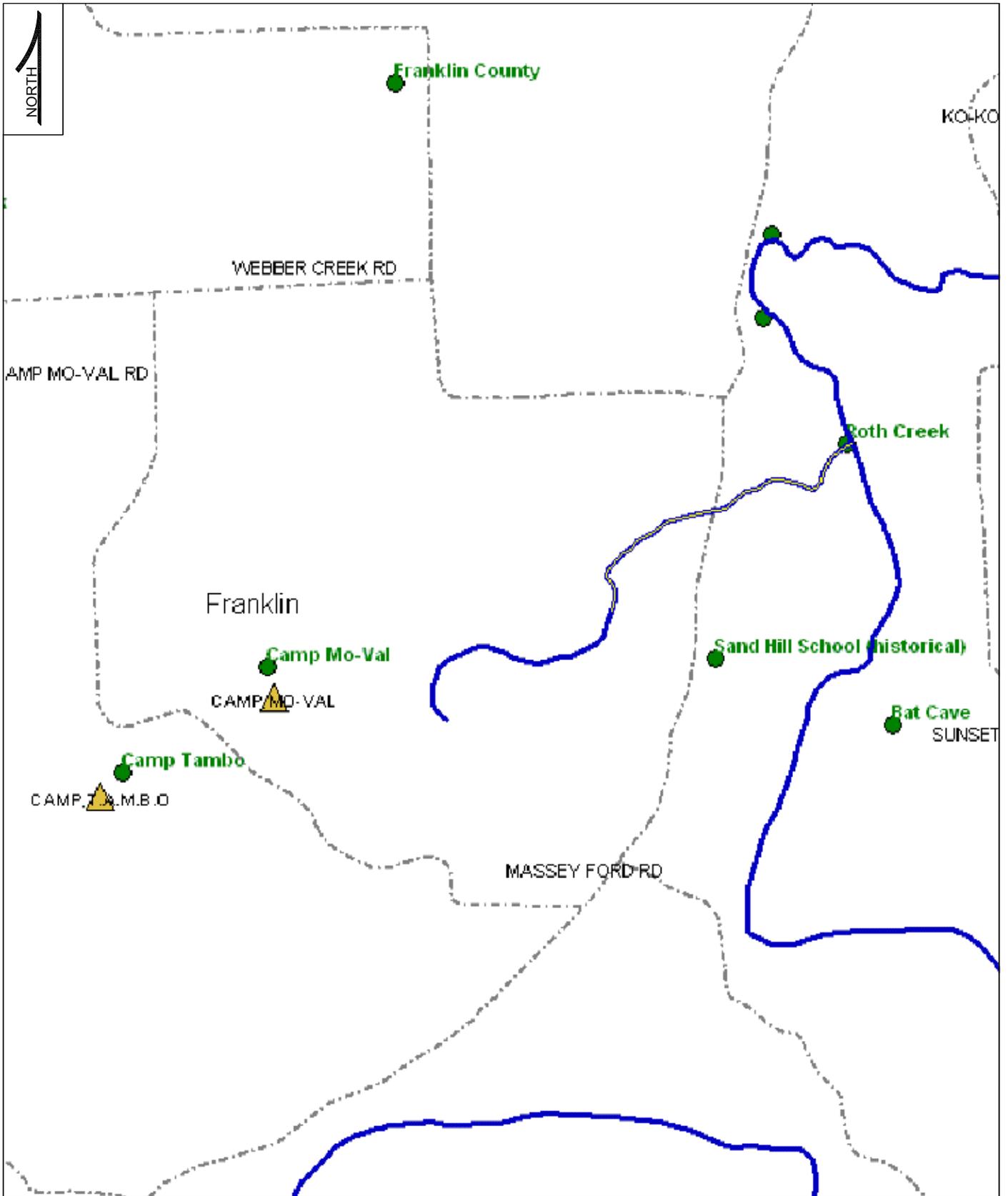
Missouri Department of Natural Resources

Water Protection Program

Date Received: June 5, 2007



\\3serverpr\Projects\07031\dwg\task 30 Bachelor creek 2035.dwg, 5/29/2007 4:20:01 PM, 1:2000, MATT COSBY



**PICKETT RAY & SILVER**

Civil Engineers Land Surveyors Natural Resources

Address: 333 Mid Rivers Mall Drive  
 St. Peters, Missouri 63376  
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WBID #: 2035  
 Name: Bachelor Creek  
 County: Franklin  
 GIS Map



GRAPHIC SCALE

Not to Scale

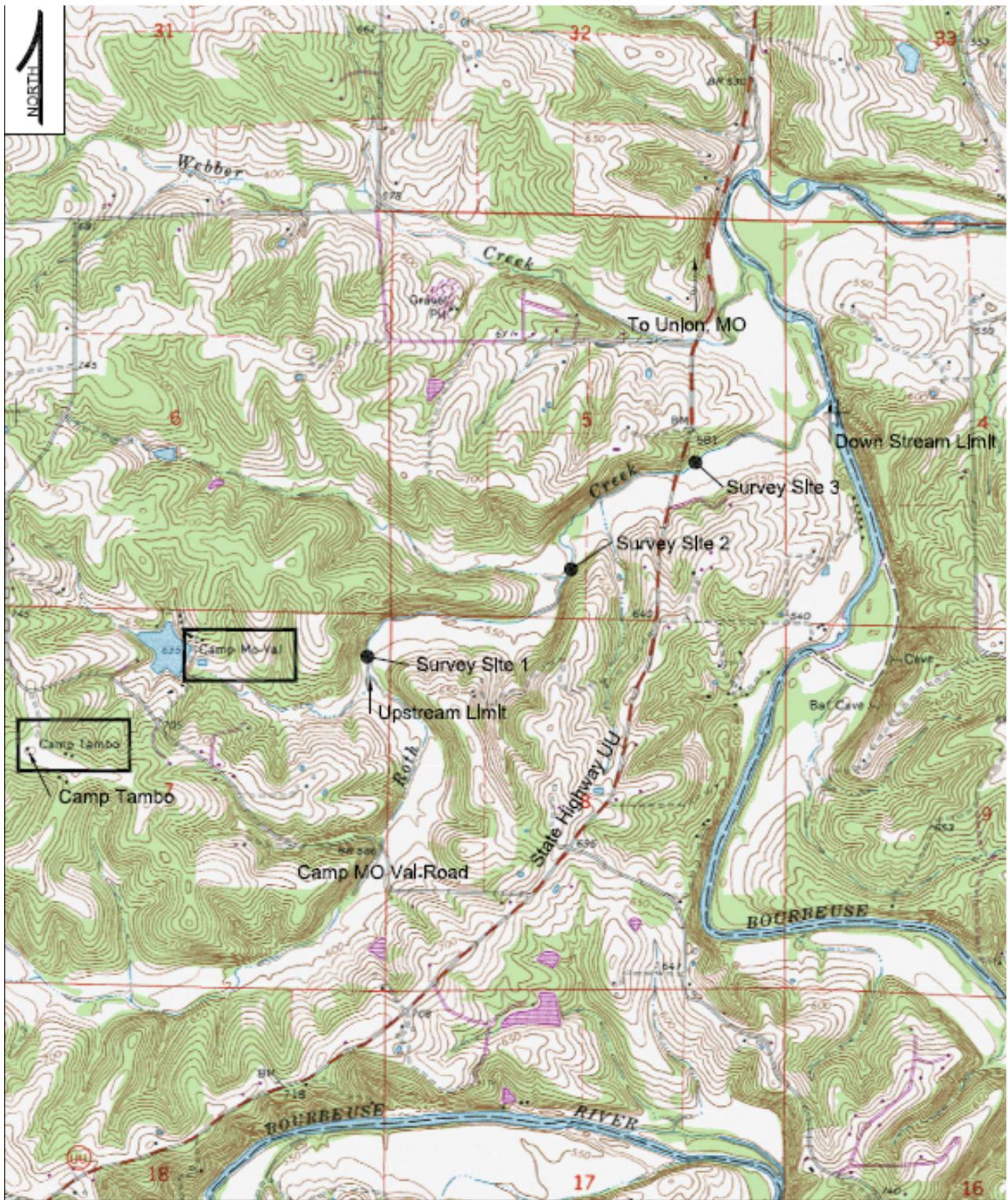
PRS Job Number: 07031.MODN.00E

Drawn By: MC

Date: 05-29-07

Checked By: JCV

Date: 05-29-07



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WBID #: 2035  
 Name: Bachelor Creek  
 County: Franklin  
 USGS Location Map



GRAPHIC SCALE  
 1 inch = 2000ft.

PRS Job Number: 07031.MODN.00E  
 Drawn By: RLR Date: 05-24-07  
 Checked By: JCV Date: 05-24-07

WBID# 2035

Site# 1

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B - Site Characterization**

(must be completed for each site)

Date & Time: 5/9/07 - 8:45 a.m.	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Just downstream of confluence of effluent point of discharge and Roth Creek - downstream of bridge - camp Mo-Val Rd.
Current Weather Conditions: sunny 70°F	Facility Name: Camp Tambo
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0127035
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: 0668922.461m		Y: 4252666.771m	
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	3.6		

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<b>See Attached Photos</b>					

**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 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:					

**Stream Morphology:**

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

Select one of the following channel features:

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

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

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 45%					
RUN 45%					
POOL 10%					

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

35 % Cobble	35 % Gravel	15 % Sand	% Silt	% Mud/Clay	15 % Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

Approximately 5% vegetation on gravel bars

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

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

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

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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/9/07

Organization: Pickett, Ray & Silver, Inc. Position: \_\_\_\_\_

### Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>2035</u> Site #: <u>1</u> Weather Conditions: <u>sunny 70°F</u> GPS Location: UTM X: <u>668922.461m</u> UTM Y: <u>4252666.771m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/-</u> (feet)      PDOP: <u>3.6</u> Average Stream Width: <u>7.3</u> (meters)      Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	<b style="text-align: center;">Dissolved Oxygen</b> Dissolved Oxygen: <u>8.87</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>19.1</u> (°C)
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#### Transect Cross-Section

		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)																				
1		0	.10	0	.24	0	.11	0	.10	10	.12	0	.10	0	.10	0	.10	2.5	.10	.65	.10	0	.10
2		.7	.10	1	.37	.5	.11	1	.14	10.3	.11	.3	.50	.5	.10	1	.11	2.6	.10	1.3	.10	.5	.15
3		1.4	.30	2	.33	1.0	.10	2	.16	10.6	.11	.6	.45	1.0	.11	2	.02	2.7	.10	1.95	.10	1.0	.20
4		2.1	.45	3	.23	1.5	.17	3	.11	10.9	.13	.9	.42	1.5	.13	3	.03	2.8	.12	2.6	.11	1.5	.20
5		2.8	.47	4	.10	2.0	.24	4	.10	11.2	.15	1.2	.45	2.0	.33	4	.05	2.9	.12	3.25	.14	2.0	.25
6		3.5	.47	5	00	2.5	.41	5	.00	11.5	.15	1.5	.50	2.5	.40	5	.07	3.0	.10	3.9	.14	2.5	.22
7		4.2	.43	6	.05	3.0	.30	6	.00	11.8	.17	1.8	.50	3.0	.43	6	.04	3.25	.10	4.55	.11	3.0	.14
8		4.9	.39	7	.10	3.5	.24	7	.02	12.1	.17	2.1	.40	3.5	.43	7	.01	3.40	.10	5.2	.00	3.5	.10
9		5.6	.41	8	.10	4.0	.20	8	.07	12.4	.17	2.4	.32	4.0	.30	8	.11	3.50	.12	5.85	.12	4.0	.10
10		6.3	.31	9	.13	4.5	.19	9	.10	12.7	.20	2.7	.23	4.25	.30	9	.12	3.60	.12	6.5	.15	4.5	.12
11		7	.13	10	.11	5	.10	10	.10	13	.21	3	.10	4.5	.20	10	.10	3.75	.11	6.7	.13	5	.10
	<b>Width/Median Depth</b>	7	0.39	10	0.11	5	0.19	10	0.10	13	0.15	3	0.42	5	0.30	10	0.07	4	0.10	6.7	0.11	7	0.14
	<b>Feature Type (riffle, run, or pool)</b>	Run		Run		Run		Riffle		Riffle		Pool		Run		Riffle		Riffle		Riffle		Run	

**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 Raymond      Date: 5/9/07

WBID# 2035

Site# 2

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B - Site Characterization**

(must be completed for each site)

Date & Time: 5/9/07 - 10:45 a.m.	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Downstream of bridge on Highway UU
Current Weather Conditions: sunny 71°F	Facility Name: Camp Tambo
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0127035
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: 670353.790m		Y: 4253651.275m	
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	5.8		

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<b>See Attached Photos</b>					

**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 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:					

**Stream Morphology:**

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

Select one of the following channel features:

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

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

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 30%					
RUN 70%					
POOL					

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

35 % Cobble	35 % Gravel	15 % Sand	% Silt	% Mud/Clay	15 % Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

Open channel near Highway UU was observed to be approximately 15% vegetated with willows

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

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

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

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

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

Surveyor's Signature: Robin Reymond \_\_\_\_\_ Date of Survey: 5/9/07 \_\_\_\_\_

Organization: Pickett, Ray & Silver, Inc. \_\_\_\_\_ Position: \_\_\_\_\_

### Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>2035</u> Site #: <u>2</u> Weather Conditions: <u>sunny 71°F</u> GPS Location: UTM X: <u>670353.790m</u> UTM Y: <u>4253651.275m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/-</u> (feet)      PDOP: <u>5.8</u> Average Stream Width: <u>5.4</u> (meters)      Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	<b>Dissolved Oxygen</b> Dissolved Oxygen: <u>10.15</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>19.7</u> (°C)
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#### Transect Cross-Section

		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)																				
1		0	.10	0	.10	.5	.10	0	.10	0	.40	3	.10	3	.11	1.0	.10	0	.10	0	.20	0	.20
2		.4	.11	.4	.10	1.1	.11	.3	.10	.4	.38	3.1	.10	3.2	.10	1.5	.10	.4	.11	.65	.28	.8	.30
3		.8	.13	.8	.10	1.7	.12	.6	.09	.8	.34	3.2	.10	3.4	.10	2.0	.10	.8	.18	1.3	.24	1.6	.30
4		1.2	.20	1.2	.10	2.3	.13	.9	.50	1.2	.24	3.3	.10	3.6	.11	2.5	.10	1.2	.28	1.95	.14	2.4	.24
5		1.6	.25	1.6	.11	2.9	.17	1.2	.54	1.6	.20	3.4	.10	3.8	.10	3.0	.10	1.6	.29	2.6	.13	3.2	.21
6		2.0	.20	2.0	.11	3.5	.15	1.5	.34	2.0	.19	3.5	.10	4.0	.10	3.5	.12	2.0	.32	3.25	.22	4.0	.21
7		2.4	.17	2.4	.13	4.1	.15	1.8	.21	2.4	.18	3.6	.10	4.2	.10	4.0	.12	2.4	.30	3.9	.13	4.8	.15
8		2.8	.13	2.8	.19	4.7	.14	2.1	.17	2.8	.10	3.7	.10	4.4	.10	4.5	.14	2.8	.28	4.55	.11	5.6	.04
9		3.2	.13	3.2	.17	5.3	.14	2.4	.17	3.2	.11	3.8	.10	4.6	.10	5.0	.12	3.2	.28	5.2	.20	6.4	.06
10		3.6	.10	3.6	.18	5.9	.10	2.7	.10	3.6	.10	3.9	.10	4.8	.10	5.25	.13	3.6	.18	5.85	.53	7.2	.10
11		4	.10	4	.15	6.5	.11	3.0	.10	4	.10	4	.10	5	.10	5.5	.10	4	.10	6.5	.40	8	.10
	<b>Width/Median Depth</b>	4	0.13	4.5	0.11	6.7	0.13	3.5	0.17	5	0.19	5	0.10	6	0.10	6	0.10	4	0.28	6.5	0.20	8	.20
	<b>Feature Type</b> (riffle, run, or pool)	Run		Riffle		Riffle		Riffle		Run		Run		Run									

**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: 5/9/07

WBID# 2035

Site# 3

**Field Data Sheets for Recreational Use Stream Surveys****Data Sheet B - Site Characterization**

(must be completed for each site)

Date & Time: 5/9/07 - 11:45 a.m.	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	Upstream of confluence with Bourbeuse River
Current Weather Conditions: sunny 71°F	Facility Name: Camp Tambo
Weather Conditions for Past 10 days: rain/sun	Permit Number: MO 0127035
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: 670770.125m		Y: 4253704.960m	
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	2.5		

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<b>See Attached Photos</b>					

**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 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:					

**Stream Morphology:**

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

If so, is there an obvious current?  Yes  No

Select one of the following channel features:

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

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

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 80%					
POOL 10%					

Bourbeuse River

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

15 % Cobble	45 % Gravel	15 % Sand	% Silt	5 % Mud/Clay	20 % Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

None

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

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

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

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

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

Surveyor's Signature: Robin Reymond \_\_\_\_\_ Date of Survey: 5/9/07 \_\_\_\_\_

Organization: Pickett, Ray & Silver, Inc. \_\_\_\_\_ Position: \_\_\_\_\_

### Recreational Use Attainability Analysis Field Survey Sheet

Waterbody ID: <u>2035</u> Site #: <u>3</u> Weather Conditions: <u>sunny 71°F</u> GPS Location: _____ UTM X: <u>670770125m</u> UTM Y: <u>4253704.960m</u> Horizontal Accuracy Estimate (GPS Data Quality): <u>+/-</u> _____ (feet)      PDOP: <u>2.5</u> Average Stream Width: <u>7.6</u> (meters)      Length of Survey Segment: <u>150</u> (meters) Field Staff: <u>PRS - RR/MC</u>	<b>Dissolved Oxygen</b> Dissolved Oxygen: <u>10.85</u> (mg/L) Dissolved Oxygen: _____ (% sat) Specific Cond: _____ (µS/cm) Water Temperature: <u>20.4</u> (°C)
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#### 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)		
1		0	.10		>1	0	.10	0	.20	0	.10	0	.10	0	.10	0	.30	0	.30	0	.20	0	.10
2		.75	.14		>1	0.5	.12	.43	.20	0.5	.12	.25	.20	.35	.22	.95	.28	1.2	.28	1.4	.20	1.6	.23
3		1.5	.12		>1	1.0	.20	.86	.52	1.0	.21	.50	.39	.70	.27	2.0	.38	2.4	.09	2.8	.50	3.2	.40
4		2.25	.10		>1	1.5	.23	1.29	.55	1.5	.22	.75	.40	1.05	.32	3.0	.36	3.6	.10	4.2	.55	4.8	.42
5		3.0	.14		>1	2.0	.25	1.72	.50	2.0	.20	1.0	.38	1.40	.27	4.0	.42	4.8	.02	5.6	.61	6.4	.43
6		3.75	.14		>1	2.5	.50	2.15	.48	2.5	.22	1.25	.35	1.75	.26	5.0	.43	6.0	.06	7.0	.60	8.0	.40
7		4.25	.14		>1	3.0	.54	2.58	.45	3.0	.20	1.50	.26	2.1	.20	6.0	.43	7.2	.04	8.4	.60	9.6	.40
8		5.0	.13		>1	3.5	.60	3.01	.40	3.5	.13	1.75	.20	2.45	.20	7.0	.38	8.4	.13	9.8	.30	11.2	.42
9		5.75	.10		>1	4.0	.55	3.44	.30	4.0	.13	2.0	.20	2.8	.20	8.0	.38	9.6	.12	11.2	.35	12.8	.40
10		6.50	.10		>1	4.5	.45	3.87	.19	4.5	.10	2.25	.10	3.15	.18	9.0	.36	10.8	.12	12.6	.40	14.4	.35
11		7.5	.10			5.0	.32	4.3	.10	5.0	.10	2.5	.10	3.5	.17	9.5	.20	12	.10	14	.40	16	.25
<b>Width/Median Depth</b>		7.5	0.12	4.5	-	5.0	0.32	4.3	0.40	5.0	0.13	2.5	0.20	3.5	0.20	9.5	0.38	12	0.10	14	0.50	16	0.40
<b>Feature Type (riffle, run, or pool)</b>		Bedrocky Riffle		Pool		Run		Riffle		Pool		Run											

**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: 5/9/07

**WBID# 2035**



**Site# 1 Photo ID# Effluent point of discharge**



**Site# 1 Photo ID# Transect 1, Upstream**



**Site# 1 Photo ID# Transect 1, Downstream**



**Site# 2 Photo ID# Transect 1, Upstream**

**WBID# 2035**



**Site# 2 Photo ID# Transect 9, Downstream**



**Site#3 Photo ID# Transect 1, Upstream**



**Site# 3 Photo ID# Transect 1, Downstream**



**Site# 3 Photo ID# Transect 11, Confluence w/ Bour-  
beuse River**