

Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 2072 Spring Creek

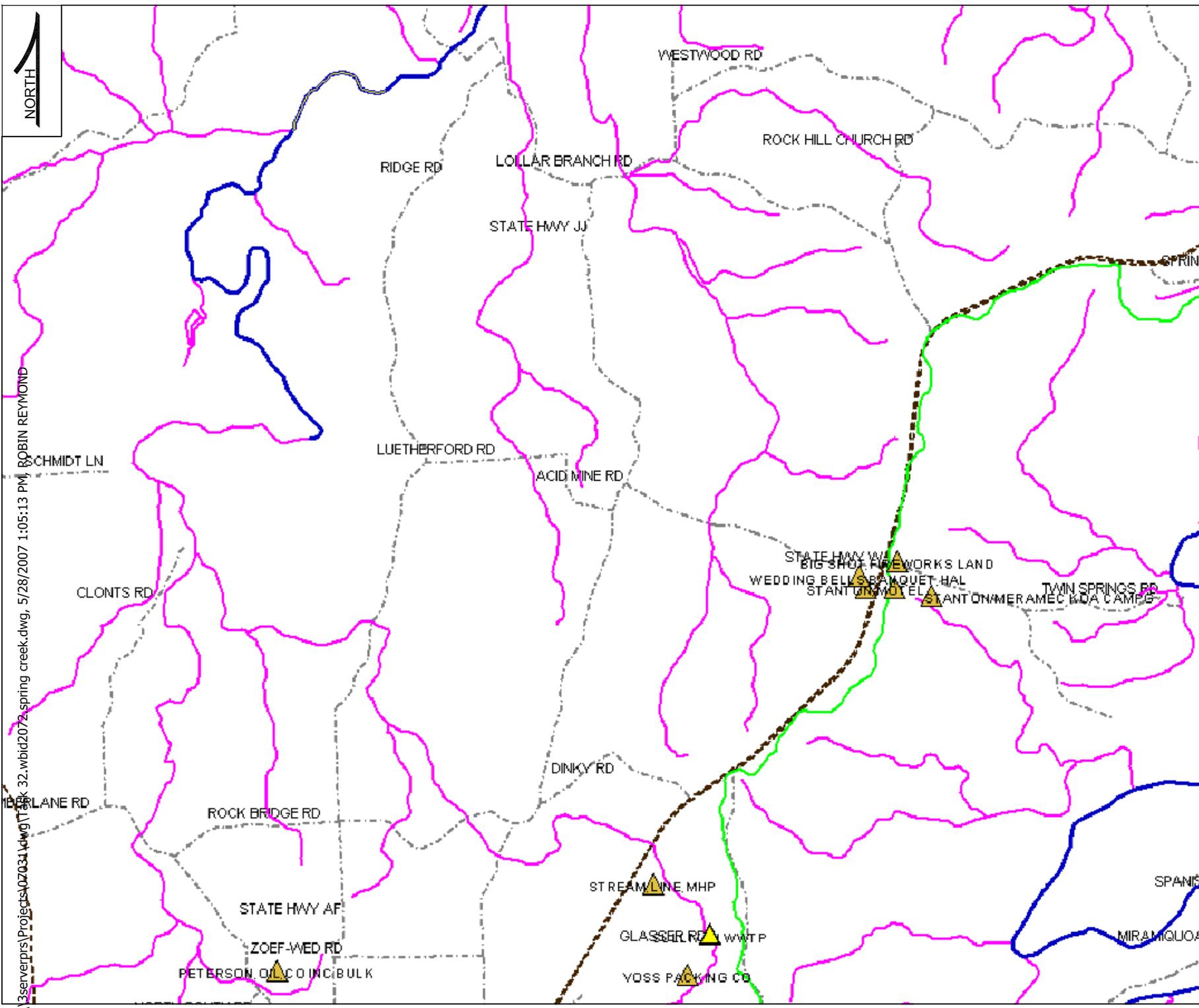
Submitted by

Pickett Ray and Silver

to

Missouri Department of Natural Resources
Water Protection Program

Date received: June 5, 2007



\\3server\pr\Projects\07031\dwg\TT\32.wbid\2072.spring creek.dwg, 5/28/2007 1:05:13 PM, ROBIN REYMOND



GRAPHIC SCALE
 Not to Scale

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

WBID #: 2072
 Name: Spring Creek
 County: Franklin
 GIS Map

PICKETT RAY & SILVER
 Civil Engineers Land Surveyors Natural Resources

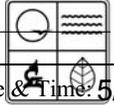
Address: Phone: (636) 397-1211
 333 Mid Rivers Mall Drive Fax: (636) 397-1104
 St. Peters, Missouri 63376 Website: www.prs3.com

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WBID# 2072

Field Data Sheets for Recreational Use Stream Surveys

Site# 1



**Missouri
Department of
Natural Resources**

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 4/5/2014	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	MDC Land - Long Ridge Conservation Area
Current Weather Conditions: sunny 70°F	Facility Name: Sullivan WWTP
Weather Conditions for Past 10 days: sun	Permit Number: MO 0104736
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: 658948.667m		Y: 4241875.835m	
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	5.3		

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 checked="" 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 checked="" 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: horse/hiking trail					

* Page Two – Data Sheet B for WBID # 2072-1 :

Stream Morphology:



Upstream View Department of Natural Resources: 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 35%					
RUN 35%	25% losing segment				
POOL 5%					

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

35 % Cobble	50 % Gravel	10 % Sand	% Silt	5 % Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

20% vegetated 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 checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

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

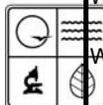
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/16/07

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

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2072 Site #: 1
 Missouri sunny 70°F
 Department of Natural Resources
 GPS Location: 658948.667m UTM X: 4241875.835m UTM Y:
 Horizontal Accuracy Estimate (GPS Data Quality): +/- N/A (feet) PDOP: 5.3
 Average Stream Width: 3.7 (meters) Length of Survey Segment: 150 (meters)
 Field Staff: PRS - RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>8.36</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>19.2</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)														
1	1.5	.10	1.0	.10	0	.01	.05	.10	.5	>1	0.6	.10	.6	.10	0	.00	0	.00	0.3	.00	0.35	.00
2	1.8	.11	1.3	.10	.25	.03	.08	.15	1.0	>1	0.8	.18	1.0	.13	.25	.01	.25	.00	0.6	.00	.7	.00
3	2.1	.11	1.6	.13	.50	.06	1.1	.18	1.5	>1	1.0	.30	1.4	.22	.50	.02	.50	.00	0.9	.00	1.05	.00
4	2.4	.14	1.9	.15	.75	.05	1.4	.28	2.0	>1	1.4	.39	1.8	.31	.75	.00	.75	.00	1.2	.00	1.4	.00
5	2.7	.15	2.2	.15	1.0	.04	1.7	.45	2.5	>1	1.8	.52	2.2	.35	1.0	.00	1.0	.00	1.5	.00	1.75	.00
6	3.0	.16	2.5	.19	1.25	.04	2.0	.34	3.0	>1	2.2	.55	2.6	.34	1.25	.03	1.25	.00	1.8	.00	2.1	.00
7	3.3	.16	2.8	.17	1.5	.01	2.3	.30	3.5	>1	2.6	.61	3.2	.31	1.5	.02	1.5	.00	2.1	.00	2.45	.00
8	3.6	.15	3.1	.17	1.75	.00	2.6	.28	4.0	>1	3.2	.60	3.6	.26	1.75	.01	1.75	.00	2.4	.00	2.8	.00
9	3.9	.20	3.4	.15	2.0	.02	2.9	.35	4.5	>1	3.6	.43	3.8	.20	2.0	.00	2.0	.00	2.7	.00	3.15	.00
10	4.2	.25	3.7	.11	2.5	.03	3.2	.40	5.5	>1	3.8	.35	3.9	.20	2.5	.00	2.5	.00	3.0	.00	3.5	.00
11	4.5	.20	4.0	.10			3.5	.45			4.0	.30	4.0	.18			0					
Width/Median Depth	4.5	.15	5.0	.15	2.5	.03	3.5	.34	5.5		4.0	.39	4.0	.22	2.5	.01	2.5	.00	3.0	.00	3.5	.00
Feature Type (riffle, run, or pool)	Run		Run		Riffle		Run		Pool		Run		Run		Riffle		losing segment(s)	losing segment(s)	losing segment(s)			

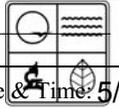
Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.
 GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Signed: Robin Reymond Date: 5/16/07

WBID# 2072

Field Data Sheets for Recreational Use Stream Surveys

Site# 2



**Missouri
Department of
Natural Resources**

Data Sheet B - Site Characterization

(must be completed for each site)

Date & Time: 4/5/14	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	MDC Land - Long Ridge Conservation Area
Current Weather Conditions: sunny 70°F	Facility Name: Sullivan WWTP
Weather Conditions for Past 10 days: sun	Permit Number: MO 0104736
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: 659113.639m		Y: 4242009.316m	
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	6.0		

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 checked="" 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 checked="" 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 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 checked="" 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: horse trail					

* Page Two – Data Sheet B for WBID # 2072-2 :

Stream Morphology:



Upstream View Department of Natural Resources: 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 50%	10% losing segment				
POOL 20%					

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

30 % Cobble	40 % Gravel	10 % Sand	% Silt	10 % Mud/Clay	10 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Moderate moss/algae growth on rock substrate - 20% woody 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 checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

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

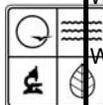
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/16/07

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

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2072 Site #: 2
 Missouri sunny 70°F
 Department of Natural Resources
 GPS Location: 659113.639m UTM X: 4242009.316m UTM Y:
 Horizontal Accuracy Estimate (GPS Data Quality): +/- (feet) PDOP:
 Average Stream Width: 6.6 (meters) Length of Survey Segment: 150 (meters)
 Field Staff: PRS - RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>7.46</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>19.6</u> (°C)

Transect Cross-Section

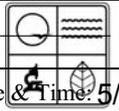
	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)												
1	0	>1	0.3	.10	0	.10	0.2	.10	1	.01	1.2	.22	0	.10	0.5	.00	0.5	.00	0.3	.20	0.3	.11
2	0.5	>1	.45	.19	.3	.25	1.3	.33	2	.05	2.4	.17	.2	.10	1.0	.00	1.0	.00	.6	.24	.6	.23
3	1.0	>1	.60	.25	.6	.36	2.9	.44	3	.11	3.6	.01	.4	.13	1.5	.00	1.5	.00	.9	.30	.9	.25
4	1.5	>1	.75	.25	.9	.50	3.5	.49	4	.11	4.8	.04	.6	.13	2.0	.00	2.0	.00	1.2	.46	1.2	.30
5	2.0	>1	.9	.25	1.2	.59	4.6	.52	5	.06	6.0	.05	.8	.14	2.5	.00	2.5	.00	1.5	.50	1.5	.32
6	2.5	>1	1.05	.24	1.5	.60	5.7	.50	6	.09	7.2	.05	1.0	.11	3.0	.00	3.0	.00	1.8	.55	1.8	.29
7	3.0	>1	1.2	.20	1.8	.50	6.8	.44	7	.10	8.4	.07	1.2	.14	3.5	.00	3.5	.00	2.1	.48	2.1	.25
8	3.5	>1	1.35	.16	2.1	.45	7.9	.34	8	.04	9.6	.10	1.4	.12	4.0	.00	4.0	.00	2.4	.40	2.4	.21
9	4.0	>1	1.5	.10	2.4	.42	9.0	.25	9	.03	10.8	.03	1.6	.11	4.5	.00	4.5	.00	2.7	.30	2.7	.15
10	4.5	>1	1.65	.10	2.7	.30	10.1	.20	10.0	.04	12.0	.06	1.8	.11	5.0	.00	5.0	.00	3.0	.18	3.0	.13
11			1.8	.10	3.0	.25	11.2	.10			12.0	.10	2.0	.10					3.3	.10	3.3	.10
Width/Median Depth	4.5		2.0	.19	3.0	.45	12.0	.34	10.0	.06	12.0	.06	12.0	.11	5.0	.00	5.0	.00	3.5	.30	4.0	.25
Feature Type (riffle, run, or pool)	Pool		Run		Run		Run		Run		Riffle		Riffle		Losing segment		Losing segment		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: 5/16/07

WBID# 2072

Site# 3



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: 4/5/14	Site Location Description (e.g., road crossing):
Personnel (Data Collectors): PRS - RR/MC	just upstream of confluence with Little Spring Creek
Current Weather Conditions: sunny 65°F	Facility Name: Sullivan WWTP
Weather Conditions for Past 10 days: sun/rain	Permit Number: MO 0104736
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: 659198.001m		Y: 4242219.174m	
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	5.1		

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 checked="" 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 checked="" 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 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 checked="" type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input checked="" 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: horse trail/hiking trail					

* Page Two – Data Sheet B for WBID # 2072-3 :

Stream Morphology:



Upstream View Department of Natural Resources: 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 34%					
RUN 33%	10% losing segment				
POOL 33%					

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

30 % Cobble	50 % Gravel	10 % Sand	% Silt	5 % Mud/Clay	5 % Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site)

Some algae and moss on rock substrate. 20% 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 checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

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

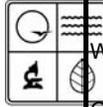
*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions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

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

Surveyor's Signature: Robin Reymond Date of Survey: 5/16/07

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

Recreational Use Attainability Analysis Field Survey Sheet



Waterbody ID: 2072 Site #: 3
 Missouri sunny 68°F
 Department of Natural Resources
 GPS Location: 659198.001m UTM X: 4242219.174 UTM Y:
 Horizontal Accuracy Estimate (GPS Data Quality): +/- N/A (feet) PDOP: 5.1
 Average Stream Width: 3.5 (meters) Length of Survey Segment: 150 (meters)
 Field Staff: PRS - RR/MC

Dissolved Oxygen	
Dissolved Oxygen:	<u>5.06</u> (mg/L)
Dissolved Oxygen:	_____ (% sat)
Specific Cond:	_____ (µS/cm)
Water Temperature:	<u>19.5</u> (°C)

Transect Cross-Section

	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
1	0.7	>1	0.7	>1	0.1	.05	0.5	.10	0.3	.10	.45	>1	0.3	.01	0.1	.01	0.3	.10	0.1	.01	0	.20
2	1.4	>1	1.4	>1	0.2	.09	0.75	.21	.67	.15	.9	>1	0.6	.05	0.2	.01	.4	.10	0.2	.01	.35	.31
3	2.1	>1	2.1	>1	0.3	.10	1.0	.23	1.04	.22	1.35	>1	0.9	.03	0.3	.03	0.5	.11	0.3	.03	.7	.40
4	2.8	>1	2.8	>1	0.4	.00	1.5	.32	1.41	.35	1.8	>1	1.2	.01	0.4	.04	.65	.10	0.4	.05	1.05	.54
5	3.5	>1	3.5	>1	0.5	.01	2.0	.30	1.78	.44	2.25	>1	1.5	.06	0.5	.01	.8	.10	0.5	.05	1.4	.80
6	4.2	>1	4.2	>1	0.6	.03	2.5	.33	2.15	.44	2.7	>1	1.8	.07	0.6	.01	.95	.10	0.6	.05	1.75	.75
7	4.9	>1	4.9	>1	0.7	.05	3.0	.34	2.52	.51	3.15	>1	2.1	.05	0.7	.02	1.1	.11	0.7	.04	2.1	.72
8	5.6	>1	5.6	>1	0.8	.03	3.5	.35	2.89	.50	3.6	>1	2.4	.03	0.8	.005	1.25	.09	0.8	.03	2.45	.61
9	6.3	>1	6.3	>1	0.9	.01	4.0	.35	3.26	.40	4.05	>1	2.7	.02	0.9	.03	1.4	.10	0.9	.04	2.8	.45
10	7.0	>1	7.0	>1	1.0	.01	4.5	.31	3.7	.30	4.5	>1	3.0	.01	1.0	.01	1.55	.10	1.0	.04	3.15	.34
11							5.0	.25	4.0	.10							1.7	.10			3.5	.20
Width/Median Depth	7.0		7.0		1.0	.03	5.0	.32	4.0	.35	4.5		3.0	0.03	1.0	.01	2.0	.10	1.0	.04	3.5	.45
Feature Type (riffle, run, or pool)	Pool		Pool		Riffle		Run		Run		Run		Riffle		Riffle		Run		Riffle		Pool	

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# 2072



WBID 2072 – Site 1 – Transect 1 – facing upstream.



WBID 2072 – Site 1 – Transect 1 – facing downstream.



WBID 2072 – Site 2 – Transect 1 – facing upstream.



WBID 2072 – Site 2 – Transect 1 – facing downstream

WBID# 2072



WBID 2072 – Site 2 – Transects 8 and 9 (losing segment, facing upstream).



WBID 2072 – Site 3 – Transect 9-11 (losing segment) - facing upstream.



WBID 2072 – Site 3 – Transect 1 – facing upstream.



WBID 2072 – Site 3 – Transect 1 – facing downstream.

WBID# 2072



View of walking trail through MDC Long Ridge Conservation Area, adjacent to WBID 2072.