



Missouri
Department of
Natural Resources

Use Attainability Analysis

for

WBID 2585 Myatt Creek

Submitted by
Olsson Associates

To
Missouri Department of Natural Resources
Water Protection Program

On
October 14, 2008

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): Myatt Cr.
Missouri Water Body Identification (WBID) Number: 2585
8-digit HUC: 11010010
County(ies), Listed Upstream to Downstream: Howell
Upstream Legal Description (from Table H): 5, 22N, 7W
Downstream Legal Description (from Table H): State Line
Number of sites evaluated: 7
List all site numbers, <u>consecutively upstream to downstream</u> : 1, 2, 3, 4, 5, 6, 7
Include a Site Location Map(s). The map must include all requirements detailed in the <i>Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol</i> (Section IV.D.8.a).

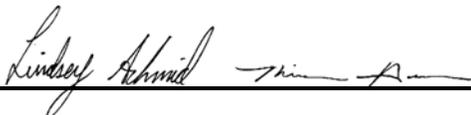
II. Facility Information (list all permitted discharges to this water body segment)

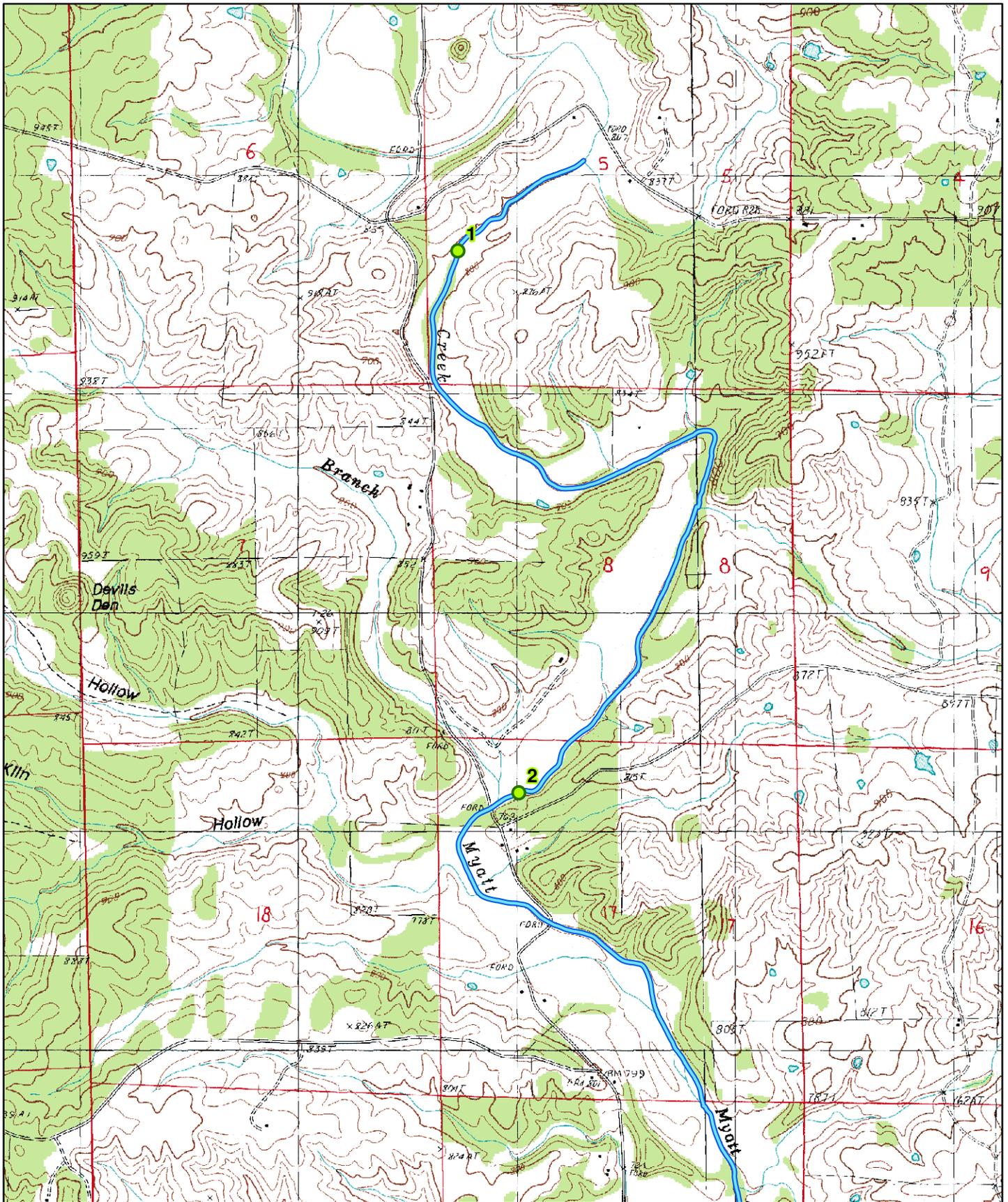
Facility Name(s) and Permit Number(s): Glenwood R-VIII School MO-0123412
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III. UAA Surveyor (please **PRINT** legibly)

Name of Surveyor: Lindsey Schmid / Micah Hamer Telephone Number: (417)890-8802
Organization/Employer: Olsson Associates

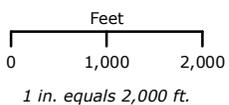
Please verify that you have completed all sections of all data sheets, checked all applicable boxes, provided a map (that includes all requirements listed in the *Missouri Recreational Use Attainability Analyses: Water Body Survey and Assessment Protocol*) and that this form is complete.

Signed:  **Date:** 8-07-08



Joins to: Myatt Cr. 2/3

**MISSOURI RECREATIONAL
USE ATTAINABILITY ANALYSIS**



Stream: Myatt Cr.
WBID: 2585

Map Sheet: 1/3
County: Howell



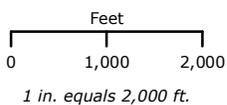
Project No. 008-1298

Joins to: Myatt Cr. 1/3



Joins to: Myatt Cr. 3/3

MISSOURI RECREATIONAL USE ATTAINABILITY ANALYSIS



Stream: Myatt Cr.
WBID:2585

Map Sheet:2/3
County: Howell

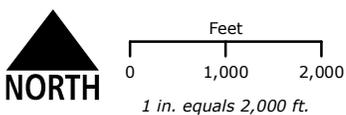


Project No. 008-1298

Joins to: Myatt Cr. 2/3



**MISSOURI RECREATIONAL
USE ATTAINABILITY ANALYSIS**



Stream: Myatt Cr.
WBID: 2585

Map Sheet: 3/3
County: Howell



Project No. 008-1298

WBID # 2585

Site # 1

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08 8:00 a.m.	Location Description (e.g., road crossing): Cow field off CR 9240
Stream Name: Myatt Cr.	
Current Weather Conditions: Light rain	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s): MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 610720	Northing (UTM Y): 4050857	Horizontal Accuracy: (EPE / FOM / PDOP) 31 ft. Meters
Site 11	Easting (UTM X): 610620	Northing (UTM Y): 4050613	Horizontal Accuracy: (EPE / FOM / PDOP) 53 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-1-A	Upstream looking down	2585-1-B	Downstream looking up	2585-1-C	Inner tube
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 the 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.)				

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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 type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

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
<input type="checkbox"/> None of the above	Comments / Other: Evidence of livestock (feces, footprints) in and around creek bed.			

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

% Cobble	80% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

None (creek dry)

Water Characteristics*: (Mark all that apply.)

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

*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 affect another use.

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses.)

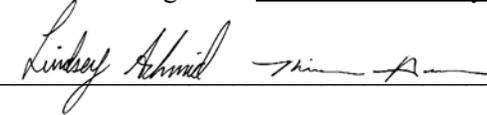
Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)

Comments: (Please record any additional comments here.)

Creek completely dry, although evidence of livestock and float tube suggest use during high water.

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>1</u> Estimated Channel Incision: <u>0.5</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>610720</u> UTM Y: <u>4050857</u> +/- <u>31</u> ft. (meters) 11 UTM X: <u>610620</u> UTM Y: <u>4050613</u> +/- <u>53</u> ft. (meters) Average Stream Width: <u>13</u> (meters) Length of Survey Segment: <u>260</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<h4 style="text-align: center; margin: 0;">Dissolved Oxygen</h4> Date: <u>8-07-08</u> Time: <u>8:00 a.m.</u> Dissolved Oxygen: <u>N/A</u> (mg/L) Dissolved Oxygen: <u>N/A</u> (% sat) Specific Cond: <u>N/A</u> (µS/cm) Water Temperature: <u>N/A</u> (°C)
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Transect Cross-Section

Station		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)																				
Left Bank		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1.20	0.00	1.25	0.00	1.32	0.00	1.02	0.00	1.16	0.00	1.36	0.00	1.37	0.00	1.38	0.00	1.41	0.00	1.56	0.00	1.39	0.00
	2	2.40	0.00	2.50	0.00	2.64	0.00	2.04	0.00	2.32	0.00	2.72	0.00	2.74	0.00	2.76	0.00	2.82	0.00	3.12	0.00	2.78	0.00
	3	3.60	0.00	3.75	0.00	3.96	0.00	3.06	0.00	3.48	0.00	4.08	0.00	4.11	0.00	4.14	0.00	4.23	0.00	4.68	0.00	4.17	0.00
	4	4.80	0.00	5.00	0.00	5.28	0.00	4.08	0.00	4.64	0.00	5.44	0.00	5.48	0.00	5.52	0.00	5.64	0.00	6.24	0.00	5.56	0.00
	5	6.00	0.00	6.25	0.00	6.60	0.00	5.10	0.00	5.80	0.00	6.80	0.00	6.85	0.00	6.90	0.00	7.05	0.00	7.80	0.00	6.95	0.00
	6	7.20	0.00	7.50	0.00	7.92	0.00	6.12	0.00	6.96	0.00	8.16	0.00	8.22	0.00	8.28	0.00	8.46	0.00	9.36	0.00	8.34	0.00
	7	8.40	0.00	8.75	0.00	9.24	0.00	7.14	0.00	8.12	0.00	9.52	0.00	9.59	0.00	9.66	0.00	9.87	0.00	10.92	0.00	9.73	0.00
	8	9.60	0.00	10.00	0.00	10.56	0.00	8.16	0.00	9.28	0.00	10.88	0.00	10.96	0.00	11.04	0.00	11.28	0.00	12.48	0.00	11.12	0.00
	9	10.80	0.00	11.25	0.00	11.88	0.00	9.18	0.00	10.44	0.00	12.24	0.00	12.33	0.00	12.42	0.00	12.69	0.00	14.04	0.00	12.51	0.00
Right Bank		12.00	0.00	12.50	0.00	13.20	0.00	10.20	0.00	11.60	0.00	13.60	0.00	13.70	0.00	13.80	0.00	14.10	0.00	15.60	0.00	13.90	0.00
Feature Type <small>(riffle, run, or pool)</small>		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		Dry		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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 0.00
 MEDIAN 0.00

Surveyor's Signature:

Date: 8-07-08

WBID # 2585

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08 9:00 a.m.	Location Description (e.g., road crossing): Cow field off County Rd 9460 @ low water bridge
Stream Name: Myatt Cr.	
Current Weather Conditions: Light rain	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s): MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 610992	Northing (UTM Y): 4048376	Horizontal Accuracy: (EPE / FOM / PDOP) 40 ft. Meters
Site 11	Easting (UTM X): 610726	Northing (UTM Y): 4048188	Horizontal Accuracy: (EPE / FOM / PDOP) 110 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-2-A	Upstream looking down	2585-2-B	Downstream looking up	2585-2-C	Bridge
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 the 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.)				

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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 checked="" type="checkbox"/> Livestock Watering
<input type="checkbox"/> None of the above	Comments / Other: Livestock feces present in creek bed.			

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

% Cobble	80% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

NONE (dry)

Water Characteristics*: (Mark all that apply.)

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

*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 affect another use.

Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

DRY CREEK

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:   Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys
Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>2</u> Estimated Channel Incision: <u>0.5</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>610992</u> UTM Y: <u>4048376</u> +/- <u>40</u> ft. (meters) 11 UTM X: <u>610726</u> UTM Y: <u>4048188</u> +/- <u>110</u> ft. (meters) Average Stream Width: <u>15</u> (meters) Length of Survey Segment: <u>300</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<p align="center">Dissolved Oxygen</p> Date: <u>8-07-08</u> Time: <u>9:00 a.m.</u> Dissolved Oxygen: <u>N/A</u> (mg/L) Dissolved Oxygen: <u>N/A</u> (% sat) Specific Cond: <u>N/A</u> (µS/cm) Water Temperature: <u>N/A</u> (°C)
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Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2.18	0.00	2.01	0.00	1.43	0.00	1.25	0.00	1.96	0.00	1.37	0.00	1.56	0.00	1.06	0.00	1.03	0.00	1.29	0.00	1.12	0.00
2	4.36	0.00	4.02	0.00	2.86	0.00	2.50	0.00	3.92	0.00	2.74	0.00	3.12	0.00	2.12	0.00	2.06	0.00	2.58	0.00	2.24	0.00
3	6.54	0.00	6.03	0.00	4.29	0.00	3.75	0.00	5.88	0.00	4.11	0.00	4.68	0.00	3.18	0.00	3.09	0.00	3.87	0.00	3.36	0.00
4	8.72	0.00	8.04	0.00	5.72	0.00	5.00	0.00	7.84	0.00	5.48	0.00	6.24	0.00	4.24	0.00	4.12	0.00	5.16	0.00	4.48	0.00
5	10.90	0.00	10.05	0.00	7.15	0.00	6.25	0.00	9.80	0.00	6.85	0.00	7.80	0.00	5.30	0.00	5.15	0.00	6.45	0.00	5.60	0.00
6	13.08	0.00	12.06	0.00	8.58	0.00	7.50	0.00	11.76	0.00	8.22	0.00	9.36	0.00	6.36	0.00	6.18	0.00	7.74	0.00	6.72	0.00
7	15.26	0.00	14.07	0.00	10.01	0.00	8.75	0.00	13.72	0.00	9.59	0.00	10.92	0.00	7.42	0.00	7.21	0.00	9.03	0.00	7.84	0.00
8	17.44	0.00	16.08	0.00	11.44	0.00	10.00	0.00	15.68	0.00	10.96	0.00	12.48	0.00	8.48	0.00	8.24	0.00	10.32	0.00	8.26	0.00
9	19.62	0.00	18.09	0.00	12.87	0.00	11.25	0.00	17.64	0.00	12.33	0.00	14.04	0.00	9.54	0.00	9.27	0.00	11.61	0.00	10.08	0.00
Right Bank	21.80	0.00	20.10	0.00	14.30	0.00	12.50	0.00	19.60	0.00	13.70	0.00	15.60	0.00	10.60	0.00	10.30	0.00	12.90	0.00	11.20	0.00
Feature Type <small>(riffle, run, or pool)</small>	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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 0.00
 MEDIAN 0.00

Surveyor's Signature:



Date: 8-07-08

WBID # 2585

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08 10:20 a.m.	Location Description (e.g., road crossing): Low water bridge, County Road 9230
Stream Name: Myatt Cr.	
Current Weather Conditions: Cloudy	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s): MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 611502	Northing (UTM Y): 4046363	Horizontal Accuracy: (EPE / FOM / PDOP) 48 ft. Meters
Site 11	Easting (UTM X): 611287	Northing (UTM Y): 4046257	Horizontal Accuracy: (EPE / FOM / PDOP) 63 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-3-A	Upstream looking down/Bridge	2585-3-B	Trail Right Bank	2585-3-C	Trail Left Bank
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-3-D	Downstream looking up				
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

Uses Observed*: (Uses actually observed at the 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.)				

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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 type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments: Fence crosses creek on both sides of bridge.				

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

<input type="checkbox"/> Roads	<input checked="" 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
<input type="checkbox"/> None of the above	Comments / Other: Human/livestock trail. Livestock prints and feces.			

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

% Cobble	60% Gravel	20% Sand	% Silt	% Mud/Clay	20% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

NONE - dry

Water Characteristics*: (Mark all that apply.)

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

*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 affect another use.

Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

* Dry creek

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>3</u> Estimated Channel Incision: <u>0.6</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>611502</u> UTM Y: <u>4046363</u> +/- <u>48</u> ft. (meters) 11 UTM X: <u>611287</u> UTM Y: <u>4046257</u> +/- <u>63</u> ft. (meters) Average Stream Width: <u>15</u> (meters) Length of Survey Segment: <u>300</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<h4 style="text-align: center; margin: 0;">Dissolved Oxygen</h4> Date: <u>8-07-08</u> Time: <u>10:20 a.m.</u> Dissolved Oxygen: <u>N/A</u> (mg/L) Dissolved Oxygen: <u>N/A</u> (% sat) Specific Cond: <u>N/A</u> (µS/cm) Water Temperature: <u>N/A</u> (°C)
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Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.51	0.00	1.42	0.00	1.58	0.00	1.12	0.00	1.58	0.00	0.95	0.00	0.89	0.00	1.23	0.00	1.82	0.00	2.40	0.00	1.84	0.00
2	3.02	0.00	2.84	0.00	3.16	0.00	2.24	0.00	3.16	0.00	1.90	0.00	1.78	0.00	2.46	0.00	3.64	0.00	4.80	0.00	3.68	0.00
3	4.53	0.00	4.26	0.00	4.74	0.00	3.36	0.00	4.74	0.00	2.85	0.00	2.67	0.00	3.69	0.00	5.46	0.00	7.20	0.00	5.52	0.00
4	6.04	0.00	5.68	0.00	6.32	0.00	4.48	0.00	6.32	0.00	3.80	0.00	3.56	0.00	4.92	0.00	7.28	0.00	9.60	0.00	7.36	0.00
5	7.55	0.00	7.10	0.00	7.90	0.00	5.60	0.00	7.90	0.00	4.75	0.00	4.45	0.00	6.15	0.00	9.10	0.00	12.00	0.00	9.20	0.00
6	9.06	0.00	8.52	0.00	9.48	0.00	6.72	0.00	9.48	0.00	5.70	0.00	5.34	0.00	7.38	0.00	10.92	0.00	14.40	0.00	11.04	0.00
7	10.57	0.00	9.94	0.00	11.06	0.00	7.84	0.00	11.06	0.00	6.65	0.00	6.23	0.00	8.61	0.00	12.74	0.00	16.80	0.00	12.88	0.00
8	12.08	0.00	11.36	0.00	12.64	0.00	8.96	0.00	12.64	0.00	7.60	0.00	7.12	0.00	9.84	0.00	14.56	0.00	19.20	0.00	14.72	0.00
9	13.59	0.00	12.78	0.00	14.22	0.00	10.08	0.00	14.22	0.00	8.55	0.00	8.01	0.00	11.07	0.00	16.38	0.00	21.60	0.00	16.56	0.00
Right Bank	15.10	0.00	14.20	0.00	15.80	0.00	11.20	0.00	15.80	0.00	9.50	0.00	8.90	0.00	12.30	0.00	18.20	0.00	24.00	0.00	18.40	0.00
Feature Type <small>(riffle, run, or pool)</small>	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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 0.00

MEDIAN 0.00

Surveyor's Signature:

Date: 8-07-08

WBID # 2585

Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08. 11:00 a.m.	Location Description (e.g., road crossing):
Stream Name: Myatt, Cr.	Cow field and bridge, County Road 9330
Current Weather Conditions: Cloudy	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s):MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 611847	Northing (UTM Y): 4043777	Horizontal Accuracy: (EPE / FOM / PDOP) 67 ft. Meters
Site 11	Easting (UTM X): 612047	Northing (UTM Y): 4043615	Horizontal Accuracy: (EPE / FOM / PDOP) 240 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-4-A	Upstream looking down	2585-4-B	Fire Pit	2585-4-C	ATV Trail
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-4-D	Downstream looking up	2585-4-E	Pool	2585-4-F	Bridge
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose

Uses Observed*: (Uses actually observed at the 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.)				

Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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 type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

Evidence of Human Use*: (Attach photos and reference in “Photos” section.)

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Rope swings
<input checked="" type="checkbox"/> RV / ATV Tracks	<input checked="" type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input checked="" type="checkbox"/> Livestock Watering
<input type="checkbox"/> None of the above	Comments / Other: Used toilet paper by tree on shore.			

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

% Cobble	80% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

Some algae, plant growth where ground is dry.

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 checked="" type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

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

Site # 4

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>4</u> Estimated Channel Incision: <u>0.4</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>611847</u> UTM Y: <u>4043777</u> +/- <u>67 ft.</u> (meters) 11 UTM X: <u>612047</u> UTM Y: <u>4043615</u> +/- <u>240 ft.</u> (meters) Average Stream Width: <u>15</u> (meters) Length of Survey Segment: <u>300</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<h4 style="text-align: center; margin: 0;">Dissolved Oxygen</h4> Date: <u>8-07-08</u> Time: <u>11:00 a.m.</u> Dissolved Oxygen: <u>3.78</u> (mg/L) Dissolved Oxygen: <u>47.8</u> (% sat) Specific Cond: <u>473</u> (µS/cm) Water Temperature: <u>26.2</u> (°C)
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Transect Cross-Section

Station		01		02		03		04		05		06		07		08		09		10		11	
		Distance (m)	Depth (m)																				
Left Bank		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1	1.70	0.79	1.47	0.05	0.90	0.05	1.31	0.00	1.85	0.05	2.34	0.00	2.57	0.00	1.93	0.00	1.43	0.00	1.65	0.56	1.75	0.05
	2	3.40	0.88	2.94	0.12	1.80	0.05	2.62	0.00	3.70	0.05	4.68	0.00	5.14	0.00	3.86	0.00	2.86	0.00	3.30	0.75	3.50	0.05
	3	5.10	0.87	4.41	0.17	2.70	0.05	3.93	0.00	5.55	0.14	7.02	0.00	7.71	0.00	5.79	0.00	4.29	0.00	4.95	0.73	5.25	0.05
	4	6.80	0.72	5.88	0.07	3.60	0.05	5.24	0.00	7.40	0.38	9.36	0.00	10.28	0.00	7.72	0.00	5.72	0.00	6.60	0.72	7.00	0.05
	5	8.50	0.65	7.35	0.06	4.50	0.05	6.55	0.00	9.25	0.46	11.70	0.00	12.85	0.00	9.65	0.00	7.15	0.00	8.25	0.82	8.75	0.11
	6	10.20	0.52	8.82	0.05	5.40	0.06	7.86	0.00	11.10	0.55	14.04	0.00	15.42	0.00	11.58	0.00	8.58	0.00	9.90	0.91	10.50	0.37
	7	11.90	0.45	10.29	0.05	6.30	0.23	9.17	0.00	12.95	0.29	16.38	0.00	17.99	0.00	13.51	0.00	10.01	0.00	11.55	0.95	12.25	0.40
	8	13.60	0.40	11.76	0.05	7.20	0.21	10.48	0.00	14.80	0.21	18.72	0.00	20.56	0.00	15.44	0.00	11.44	0.00	13.20	1.00	14.00	0.44
9	15.30	0.31	13.23	0.05	8.10	0.26	11.79	0.00	16.65	0.10	21.06	0.00	23.13	0.00	17.37	0.00	12.87	0.00	14.85	1.00	15.75	0.46	
Right Bank		17.00	0.00	14.70	0.00	9.00	0.00	13.10	0.00	18.50	0.00	23.40	0.00	25.70	0.00	19.30	0.00	14.30	0.00	16.50	0.00	17.50	0.00
Feature Type <small>(riffle, run, or pool)</small>		Pool		Pool		Run		Dry		Pool		Dry		Dry		Dry		Dry		Pool		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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 1.00

MEDIAN 0.00

Surveyor's Signature: _____

Date: 8/7/2008

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08 12:10 p.m.	Location Description (e.g., road crossing):
Stream Name: Myatt Cr.	Road nearby, bridge
Current Weather Conditions: Partial cloudy	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s):MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 612874	Northing (UTM Y): 4041852	Horizontal Accuracy: (EPE / FOM / PDOP)	33 ft. Meters
Site 11	Easting (UTM X): 613039	Northing (UTM Y): 4041705	Horizontal Accuracy: (EPE / FOM / PDOP)	66 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-5-A	Upstream looking down	2585-5-B	Downstream looking up		
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 the 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.)				

Site # 5

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input checked="" type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

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

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

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

% Cobble	80% Gravel	20% Sand	% Silt	% Mud/Clay	% Bedrock
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Aquatic Vegetation*: (Note amount of vegetation or algal growth at the assessment site.)

20% brown algae, grassy vegetation in shallow areas

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 checked="" type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

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

Site # 5

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>5</u> Estimated Channel Incision: <u>0.5</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>612874</u> UTM Y: <u>4041852</u> +/- <u>33 ft.</u> (meters) 11 UTM X: <u>613039</u> UTM Y: <u>4041705</u> +/- <u>66 ft.</u> (meters) Average Stream Width: <u>16</u> (meters) Length of Survey Segment: <u>320</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<h4 style="text-align: center; margin: 0;">Dissolved Oxygen</h4> Date: <u>8-07-08</u> Time: <u>12:10 p.m.</u> Dissolved Oxygen: <u>6.28</u> (mg/L) Dissolved Oxygen: <u>78.8</u> (% sat) Specific Cond: <u>462</u> (µS/cm) Water Temperature: <u>27.3</u> (°C)
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Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.88	0.18	1.46	0.05	0.88	0.05	0.98	0.21	1.91	0.05	1.03	0.05	1.02	0.05	2.73	0.05	2.08	0.29	2.16	0.39	1.79	0.21
2	3.76	0.14	2.92	0.12	1.76	0.05	1.96	0.21	3.82	0.05	2.06	0.05	2.04	0.05	5.46	0.06	4.16	0.28	4.32	0.31	3.58	0.25
3	5.64	0.14	4.38	0.23	2.64	0.10	2.94	0.21	5.73	0.05	3.09	0.14	3.06	0.08	8.19	0.05	6.24	0.31	6.48	0.23	5.37	0.23
4	7.52	0.13	5.84	0.25	3.52	0.09	3.92	0.20	7.64	0.06	4.12	0.21	4.08	0.23	10.92	0.05	8.32	0.34	8.64	0.27	7.16	0.23
5	9.40	0.26	7.30	0.37	4.40	0.05	4.90	0.16	9.55	0.09	5.15	0.36	5.10	0.47	13.65	0.10	10.40	0.33	10.80	0.23	8.95	0.17
6	11.28	0.22	8.76	0.40	5.28	0.09	5.88	0.21	11.46	0.71	6.18	0.64	6.12	0.59	16.38	0.13	12.48	0.38	12.96	0.11	10.74	0.08
7	13.16	0.16	10.22	0.42	6.16	0.13	6.86	0.20	13.37	0.74	7.21	0.91	7.14	0.67	19.11	0.22	14.56	0.50	15.12	0.15	12.53	0.16
8	15.04	0.11	11.68	0.22	7.04	0.14	7.84	0.06	15.28	0.61	8.24	0.75	8.16	0.77	21.84	0.33	16.64	0.57	17.28	0.18	14.32	0.05
9	16.92	0.05	13.14	0.10	7.92	0.05	8.82	0.05	17.19	0.42	9.27	0.24	9.18	0.67	24.57	0.46	18.72	0.55	19.44	0.40	16.11	0.05
Right Bank	18.80	0.00	14.60	0.00	8.80	0.00	9.80	0.00	19.10	0.00	10.30	0.00	10.20	0.00	27.30	0.00	20.80	0.00	21.60	0.00	17.90	0.00
Feature Type <small>(riffle, run, or pool)</small>	Run		Pool		Riffle		Run		Pool		Run		Pool/run		Run		Run		Run		Run	

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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 0.91

MEDIAN 0.19

Surveyor's Signature:

Date: 8-07-08

WBID # 2585

Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08 2:20 p.m.	Location Description (e.g., road crossing):
Stream Name: Myatt Cr.	Private road, farm road access
Current Weather Conditions: Clear	Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48" @ West Plains	Permit Number(s):MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for "drought"): 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): 613830	Northing (UTM Y): 4040511	Horizontal Accuracy: (EPE / FOM / PDOP)	85 ft. Meters
Site 11	Easting (UTM X): 613973	Northing (UTM Y): 4040292	Horizontal Accuracy: (EPE / FOM / PDOP)	77 ft. Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-6-A	Upstream looking down	2585-6-B	Downstream looking up		
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 the 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.)				

Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

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 type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

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

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

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

% Cobble	70% 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.)

Brown algae on rocks. Some scattered green algae on surface. Bright green algae plants underwater at beginning of segment.

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 checked="" type="checkbox"/> Other: Brown/murky
Bottom Deposit:	<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

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

Site # 6

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>6</u> Estimated Channel Incision: <u>0.5</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>613830</u> UTM Y: <u>4040511</u> +/- <u>85</u> ft. (meters) 11 UTM X: <u>613973</u> UTM Y: <u>4040292</u> +/- <u>77</u> ft. (meters) Average Stream Width: <u>17</u> (meters) Length of Survey Segment: <u>340</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	<h4 style="text-align: center; margin: 0;">Dissolved Oxygen</h4> Date: <u>8-07-08</u> Time: <u>2:20 p.m.</u> Dissolved Oxygen: <u>6.85</u> (mg/L) Dissolved Oxygen: <u>87.4</u> (% sat) Specific Cond: <u>4.08</u> (µS/cm) Water Temperature: <u>27.5</u> (°C)
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Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.71	0.34	1.99	0.05	0.98	0.05	1.43	0.05	2.58	0.05	2.20	0.05	2.35	0.05	1.28	0.05	1.48	0.21	1.29	0.05	1.63	0.05
2	3.42	0.63	3.98	0.05	1.96	0.05	2.89	0.05	5.16	0.08	4.40	0.07	4.70	0.05	2.56	0.05	2.96	0.76	2.58	0.12	3.26	0.11
3	5.13	0.74	5.97	0.09	2.94	0.05	4.29	0.05	7.74	0.05	6.60	0.08	7.05	0.05	3.84	0.05	4.44	0.81	3.87	0.43	4.89	0.00
4	6.84	0.73	7.96	0.09	3.92	0.14	5.72	0.09	10.32	0.05	8.80	0.08	9.40	0.08	5.12	0.05	5.92	0.67	5.16	0.44	6.52	0.00
5	8.55	0.77	9.95	0.10	4.90	0.18	7.15	0.09	12.90	0.06	11.00	0.05	11.75	0.05	6.40	0.05	7.40	0.59	6.45	0.41	8.15	0.00
6	10.26	0.68	11.94	0.21	5.88	0.33	8.58	0.15	15.48	0.05	13.20	0.11	14.10	0.05	7.68	0.13	8.88	0.79	7.74	0.34	9.78	0.05
7	11.97	0.64	13.93	0.35	6.86	0.48	10.01	0.23	18.06	0.16	15.90	0.05	16.45	0.05	8.96	0.20	10.36	0.83	9.03	0.22	11.41	0.14
8	13.68	0.62	15.92	0.45	7.84	0.47	11.44	0.25	20.64	0.08	17.60	0.05	18.80	0.05	10.24	0.29	11.84	0.75	10.32	0.23	13.04	0.25
9	15.39	0.58	17.91	0.30	8.82	0.41	12.87	0.11	23.22	0.05	19.80	0.05	21.15	0.23	11.52	0.28	13.32	0.22	11.61	0.21	14.67	0.31
Right Bank	17.10	0.00	19.90	0.00	9.80	0.00	14.30	0.00	25.80	0.00	22.00	0.00	23.50	0.00	12.80	0.00	14.80	0.00	12.90	0.00	16.30	0.00
Feature Type <small>(riffle, run, or pool)</small>	Run		Run/Pool		Run		Run		Riffle		Riffle		Riffle		Run		Pool		Pool		Riffle	

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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 0.83

MEDIAN 0.11

Surveyor's Signature:

Date: 8-07-08

WBID # 2585

Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 1 of 3)

(must be completed for each site)

Date & Time: 8-07-08	4:00 p.m.	Location Description (e.g., road crossing):
Stream Name: Myatt Cr.		Farm/field
Current Weather Conditions: Clear		Facility Name(s): Glenwood R-VIII School
Weather Conditions for Past 10 days: .48” at West Plains		Permit Number(s): MO-0123412
Official Drought Conditions at time of this survey (search DNR home page for “drought”): 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): 615956	Northing (UTM Y): 4040188	Horizontal Accuracy: (EPE / FOM / PDOP)	33 ft.	Meters
Site 11	Easting (UTM X): 616060	Northing (UTM Y): 4040089	Horizontal Accuracy: (EPE / FOM / PDOP)	51 ft.	Meters

Photos:

Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
2585-7-A	Upstream looking down	2585-7-B	Downstream looking up		
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 the 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.)				

Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 2 of 3)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input checked="" type="checkbox"/> Rural Residential
<input type="checkbox"/> Campgrounds	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> Fence	<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:
Comments:				

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
<input type="checkbox"/> None of the above	Comments / Other: Livestock feces in river			

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

% Cobble	20% Gravel	80% Sand	% Silt	% Mud/Clay	10% 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 checked="" type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: Brown/murky
Bottom Deposit:	<input checked="" type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: Sand
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam (little)	<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 affect another use.

Site # 7

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B – Site Characterization (Page 3 of 3)

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.)

Creek got too big and too deep, sides were steep, barb wire fence across water, over 1 meter deep half-way down, couldn't go on, got deeper the further down.

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

Printed Names of Personnel Collecting Data: Lindsey Schmid / Micah Hamer

Surveyor's Signature:  Date of Survey: 8-07-08

Organization: Olsson Associates Position: Field Service

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet C - Field Survey Results

Stream Name: <u>Myatt Cr.</u> Waterbody ID: <u>2585</u> Site #: <u>7</u> Estimated Channel Incision: <u>0.9</u> (m) (height between low bank width and water) GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM) 01 UTM X: <u>615956</u> UTM Y: <u>4040188</u> +/- <u>33</u> ft. (meters) 11 UTM X: <u>616060</u> UTM Y: <u>4040089</u> +/- <u>51</u> ft. (meters) Average Stream Width: <u>18</u> (meters) Length of Survey Segment: <u>350</u> (meters) (To determine Length of Reach) (20x average stream width) Field Staff: <u>Lindsey Schmid / Micah Hamer</u>	Dissolved Oxygen Date: <u>8-07-08</u> Time: <u>4:00 p.m.</u> Dissolved Oxygen: <u>6.1</u> (mg/L) Dissolved Oxygen: <u>80.3</u> (% sat) Specific Cond: <u>412</u> (µS/cm) Water Temperature: <u>29.6</u> (°C)
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Transect Cross-Section

Station	01		02		03		04		05		06		07		08		09		10		11	
	Distance (m)	Depth (m)																				
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2.12	0.46	1.66	0.66	1.59	0.68	1.83	0.66	1.89	0.53	1.82	1.00	1.78	1.00	1.75	1.00	1.80	1.00	1.79	1.00	1.82	1.00
2	4.24	0.19	3.32	0.58	3.18	0.65	3.66	0.70	3.78	0.61	3.64	1.00	3.56	1.00	3.56	1.00	3.60	1.00	3.58	1.00	3.64	1.00
3	6.36	0.07	4.98	0.55	4.77	0.61	5.49	0.78	5.67	0.74	5.46	1.00	5.34	1.00	5.34	1.00	5.40	1.00	5.37	1.00	5.46	1.00
4	8.48	0.00	6.64	0.54	6.36	0.65	7.32	0.79	7.56	0.84	7.28	1.00	7.12	1.00	7.12	1.00	7.20	1.00	7.16	1.00	7.28	1.00
5	10.60	0.09	8.30	0.61	7.95	0.62	9.15	0.81	9.45	0.91	9.10	1.00	8.90	1.00	8.90	1.00	9.00	1.00	8.95	1.00	9.10	1.00
6	12.72	0.34	9.96	0.72	9.54	0.54	10.98	0.83	11.34	0.96	10.92	1.00	10.68	1.00	10.68	1.00	10.80	1.00	10.74	1.00	10.92	1.00
7	14.84	0.44	11.62	0.71	11.13	0.48	12.81	0.81	13.23	0.95	12.74	1.00	12.46	1.00	12.46	1.00	12.60	1.00	12.53	1.00	12.74	1.00
8	16.96	0.51	13.28	0.76	12.71	0.48	14.64	0.85	15.12	0.85	14.56	1.00	14.24	1.00	14.24	1.00	14.40	1.00	14.32	1.00	14.56	1.00
9	19.08	0.22	14.94	0.64	14.31	0.35	16.47	0.93	17.01	0.70	16.38	1.00	16.02	1.00	16.02	1.00	16.20	1.00	16.11	1.00	16.38	1.00
Right Bank	21.20	0.00	16.60	0.00	15.90	0.00	18.30	0.00	18.90	0.00	18.20	0.00	17.80	0.00	17.80	0.00	18.00	0.00	17.90	0.00	18.20	0.00
Feature Type <small>(riffle, run, or pool)</small>	Run/Pool		Run																			

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 0.1 meter unless depth is too deep to measure (then record as > 1)
 All measurements to be taken to the nearest 0.01 meter.

MAXIMUM 1.00
 MEDIAN 0.94

Surveyor's Signature:

Date: 8-07-08





